

NEWCASTLE UNIVERSITY

Thesis submitted towards PhD in History

**An examination of the decline of shipbuilding
on the North-East Coast of England and the
West of Scotland during the interwar period,
1920–1939**

W. Paxton

October 2017

| CONTENTS | Page |
|--|-------------|
| Copyright, declaration, and dedication | v |
| Abstract | vi |
| Acknowledgements | vii |
| List of Diagrams | viii |
| List of Tables | x |
| List of Maps | xiii |
| List of Photographs | xiii |
| List of Illustrations | xiv |
| Appendices | xv |
| Abbreviations | xix |
| INTRODUCTION | 1 |
| Understanding British industrial decline, understanding interwar shipbuilding | 4 |
| Interwar shipbuilding: stagnation without decline? | 18 |
| The situation of interwar British shipbuilding: regions in comparison | 29 |
| CHAPTER ONE: REGIONS IN COMPARISON: INTERWAR SHIPBUILDING ON THE NORTH-EAST COAST OF ENGLAND AND THE WEST OF SCOTLAND | |
| Introduction | 37 |
| Categorizing British shipbuilding | 42 |
| Passenger vessels | 43 |
| Cargo vessels | 49 |
| Coasters | 54 |
| Tanker | 56 |
| Tanker construction during the interwar period | 59 |

| | |
|---|-----|
| The largest tanker shipbuilders and their customer base | 71 |
| The growing level of overseas competition | 75 |
| Interwar shipbuilding output on the North-East coast of England and the West of Scotland | 79 |
| British shipbuilding output | 79 |
| Foreign tonnage output..... | 90 |
| Corporate and technical innovation | 95 |
| New technologies in assembly | 110 |
| Corporate structure..... | 112 |
| Financial structure..... | 128 |
| Shipbuilding regions in comparison | 132 |
| Conclusions..... | 143 |

CHAPTER TWO: NAVAL SPENDING, LIMITATION TREATIES AND NAVAL SHIPBUILDING IN THE REGIONS OF THE NORTH-EAST COAST OF ENGLAND AND CLYDESIDE

| | |
|---|-----|
| Introduction | 145 |
| Government retrenchment and warship construction: from Colwyn to Geddes | 148 |
| Limitation Treaties: striving for peace or a fiscal policy | 156 |
| Competing for Admiralty contracts | 172 |
| Naval shipbuilding and rationalisation | 182 |
| Naval shipbuilding and its effect upon the shipbuilding regions | 185 |
| Conclusions | 194 |

CHAPTER THREE: THE SHIPBUILDING INDUSTRY AND THE TRADE FACILITIES ACTS

| | |
|-------------------|-----|
| Introduction..... | 198 |
|-------------------|-----|

| | |
|---|-----|
| British shipbuilding after war's end..... | 200 |
| The effects of recession within the British shipbuilding industry | 205 |
| 1. Unemployment and labour issues | 205 |
| 2. Foreign competition | 209 |
| 3. Laid-up tonnage | 212 |
| 4. The motorship | 214 |
| 5. The effects of international trade | 220 |
| Government assistance..... | 221 |
| 1. The loan guarantee schemes | 221 |
| 2. Postal subventions..... | 230 |
| Conclusions | 231 |

CHAPTER FOUR: RATIONALISING THE SHIPBUILDING INDUSTRY

| | |
|--|-----|
| Introduction..... | 238 |
| A precedent of rationalisation led by the Bank of England – Armstrong Whitworth..... | 240 |
| First phase of cooperation: Shipbuilding Conference | 248 |
| The need for rationalisation | 253 |
| National Shipbuilders Security Limited | 257 |
| Palmers Shipbuilding & Iron Company Limited..... | 273 |
| Conclusions | 282 |

CHAPTER FIVE: JOHN BROWN, CUNARD, AND THE ROYAL MAIL STEAM PACKET COMPANY

| | |
|---|-----|
| Introduction | 287 |
| The background to the problem | 289 |
| The difficulties experienced by the RMSPC | 289 |

| | |
|--|---------|
| The problems confronted at John Brown | 291 |
| The post-war experience | 292 |
| Government assistance and the Royal Mail Group | 293 |
| Difficulties ahead | 297 |
| Britain's stake in the North Atlantic shipping | 304 |
| Governmental rescue strategy..... | 306 |
| The merger of Cunard and White Star Line | 311 |
| Conclusions | 328 |
| CHAPTER SIX: THE TRAMP-SHIPPING INDUSTRY DURING THE 1930S | |
| Introduction | 332 |
| The dilemma facing government | 341 |
| The impact of government strategy | 347 |
| The impact upon the shipbuilding industry | 361 |
| Conclusions | 362 |
| CONCLUSIONS | 365 |
| BIBLIOGRAPHY | 378 |

Copyright

The copyright of this thesis remains with the author. No quotations from it should be published without his prior written authority, and any information derived from this document should be acknowledged.

Declaration

No material in this thesis has been submitted for a degree at Newcastle University, or any other University.

Dedication

I would like to dedicate this work to my wife Lesley, who has tirelessly supported me without complaint, and encouraged the effort invested in this project.

Abstract

British shipbuilding, once an iconic industry, faced a period of precarious trading in the years 1918 to 1939 as its decline intensified. This dissertation compares the decline in shipbuilding on the North-East Coast of England and the West of Scotland during the interwar years. Using the records of the British Shipbuilding Database maintained by the School of Marine Science and Technology at Newcastle University and Lloyd's Register of Shipping, the research has undertaken a firm-by-firm appraisal, an analysis of specialisation and regional comparisons, and differentiation of merchant and naval shipbuilding. This study examines how the shipbuilding industry came to terms with the dilemmas of naval treaties, inflationary pressures, foreign competition, technical changes and industrial action during the interwar period, where little became available by way of government intervention. A detailed appraisal of the shipbuilding tonnage built during the period provides an explanation as to how the industry struggled with overcapacity and a need for major reorganisation. The study conforms to the idea that the decline had already begun prior to the First World War, although during the interwar years this decline merely intensified, as with the other staple industries. Following an evaluation of the industry's output of both merchant and naval tonnage, the thesis highlights the assistance, or the lack of it, that government provided to support the industry during this parlous period of trading. In seeking to evaluate the government's response, the Trade Facilities legislation during the 1920s, followed by the British Shipping Assistance Act 1935, receives detailed appraisal. Whilst the shipbuilding industry received little by means of government financial assistance, its own attempt at rationalisation, resulting in the formation of National Shipbuilders Security Limited, was a remedy introduced too late to prevent large-scale losses.

Acknowledgments

I owe immense gratitude to many people who have assisted me and encouraged my progress both directly and indirectly in the formulation of this study. I would like to thank all of my staff and partners who have afforded me the opportunity to undertake this research and have provided the necessary support to ensure that my studies did not interfere with my working environment.

I must acknowledge the exceptional support I have received from Dr Matt Perry, for his guidance as my Supervisor, in directing me to achieve a standard that is required to be a good historian; and the immeasurable assistance received from both Professor Ian Buxton and Dr Brian Newman with whose assistance has facilitated the submission of this thesis.

I also express my gratitude to John Becker, Simon Blakey and Len Gatoff for their efforts in reading early drafts of chapters and providing advice and encouragement. Finally, I wish to acknowledge my wife, Lesley, without whose encouragement and support this thesis would have remained unwritten.

List of Diagrams

| | | |
|-------------|--|----|
| 1.0 | Total passenger tonnage built on the North-East Coast of England and the West of Scotland, 1920-1939..... | 44 |
| 1.1 | Appraisal of cargo vessels built on the North-East Coast of England, 1920-1939..... | 50 |
| 1.2 | Appraisal of cargo vessels built in the West of Scotland, 1920-1939 | 51 |
| 1.3 | Coaster tonnage built on the North-East Coast of England and the West of Scotland, 1920-1939..... | 55 |
| 1.4 | Grt of tanker tonnage built on the North-East Coast of England and the West of Scotland, 1920-1939..... | 58 |
| 1.5 | Analysis of tanker tonnage constructed on the North-East Coast of England during the interwar period, 1920-1939..... | 64 |
| 1.6 | Analysis of tanker tonnage constructed in the West of Scotland during the interwar period, 1920-1939..... | 65 |
| 1.7 | Tanker tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 69 |
| 1.8 | Average size of tankers built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 70 |
| 1.9 | Tanker tonnage built on the North-East Coast of England, 1920-1939..... | 72 |
| 1.10 | Tanker tonnage built in the West of Scotland, 1920-1939..... | 75 |
| 1.11 | Foreign tanker tonnage built on the North-East Coast of England, 1920-1939..... | 77 |
| 1.12 | Foreign tanker tonnage built in the West of Scotland, 1920-1939..... | 78 |
| 1.13 | Merchant shipping tonnage launched during the interwar period..... | 79 |
| 1.14 | Merchant shipbuilding on the North-East Coast of England, 1920-1939..... | 80 |

| | | |
|-------------|---|-----|
| 1.15 | Merchant tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 90 |
| 1.16 | Foreign tonnage built on the North-East Coast of England and in the West of Scotland during the interwar period, 1920-1939..... | 93 |
| 1.17 | A comparison of steamships built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 99 |
| 1.18 | A comparison of ships built using turbines on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 101 |
| 1.19 | A comparison of diesel tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 107 |
| 1.20 | Analysis of the relationship between merchant shipbuilding on the North-East Coast of England and the West of Scotland during the interwar years, 1920-1939..... | 141 |
| 1.21 | Analysis of the relationship between foreign merchant tonnage built on the North-East Coast of England and the West of Scotland during the interwar years, 1920-1939..... | 143 |
| 2.0 | Navy Estimates 1913-14 | 155 |
| 2.1 | Naval Estimates 1922-23 | 156 |
| 2.2 | Tonnage completed on behalf of the Admiralty by the North-East coast of England shipyards during the interwar years, 1920-1939..... | 189 |
| 2.3 | Tonnage completed on behalf of the Admiralty by shipyards based on the West of Scotland during the interwar years, 1920-1939..... | 190 |
| 7.0 | Naval tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 371 |

List of Tables

| | | |
|-------------|--|-----|
| 0.1 | Size of the merchant fleet in the immediate post-war period..... | 9 |
| 0.2 | Summary of merchant shipbuilding launched 1913..... | 31 |
| 0.3 | Summary of merchant shipbuilding launched for ten years to 1922..... | 32 |
| 1.0 | Tonnage output by Britain and leading foreign powers during 1918, 1919 and 1920 .. | 39 |
| 1.1 | Analysis of completed tonnage on the North-East Coast of England and the West of Scotland, 1920-1939..... | 43 |
| 1.2 | Deep sea and small passenger vessels built on the North-East Coast of England, 1920- 1939..... | 45 |
| 1.3 | Top ten shipbuilders constructing passenger vessels on the North-East Coast of England, 1920-1939..... | 45 |
| 1.4 | Deep sea and small passenger vessels built in the West of Scotland, 1920-1939..... | 47 |
| 1.5 | Top ten shipbuilders constructing passenger vessels in the West of Scotland, 1920- 1939..... | 48 |
| 1.6 | Cargo vessels built on the North-East Coast of England and the West of Scotland, 1920- 1939..... | 52 |
| 1.7 | Coasting vessels built on the North-East Coast of England and the West of Scotland, 1920-1939..... | 54 |
| 1.8 | Estimated total tonnage built on the North-East Coast of England and the West of Scotland, 1920-1939..... | 133 |
| 1.9 | Schedule of ships built for Cunard during the interwar period on the West of Scotland and the North-East Coast of England..... | 137 |
| 1.10 | Schedule of ships built for the Federal Steam Navigation Company during the interwar period on the West of Scotland and the North-East Coast of England | 137 |

| | | |
|-------------|---|-----|
| 1.11 | Schedule of ships built for Commonwealth & Dominion Line during the interwar period on the West of Scotland and the North-East Coast of England | 138 |
| 1.12 | Schedule of ships built for Shaw Savill & Albion Line during the interwar period on the West of Scotland and the North-East Coast of England..... | 139 |
| 1.13 | Analysis of the relationship between merchant shipbuilding on the North-East Coast of England and the West of Scotland during the interwar years | 140 |
| 1.14 | Analysis of the relationship between foreign merchant tonnage built on the North-East Coast of England and the West of Scotland during the interwar years | 142 |
| 2.0 | Comparison of proposed savings identified in respect of the 1921-22 and 1922-23 naval estimates | 153 |
| 2.1 | Main fleets' numbers of submarines in 1925 | 159 |
| 2.2 | Original programmes of naval construction 1924–1929 | 160 |
| 2.3 | Revised programmes of naval construction 1925–1932 | 161 |
| 2.4 | Analysis of cruisers with 8-inch guns | 164 |
| 2.5 | Order of priority of ships in the new programme 1929–30..... | 166 |
| 2.6 | Regional analyses of Admiralty orders built 1 January 1922 to 31 December 1931 ... | 167 |
| 2.7 | Comparison of construction programmes 1930–33 | 168 |
| 2.8 | Comparison of amendments to 1933 cruiser programme..... | 169 |
| 2.9 | Admiralty shipbuilding programme at the Armistice..... | 173 |
| 2.10 | Admiralty ships built on the North-East Coast of England in the post-war period, 1920 to 1925 | 175 |
| 2.11 | Admiralty ships built in the West of Scotland in the post-war period, 1920 to 1925 ... | 177 |
| 2.12 | Estimated costs of completing unfinished ships in the Royal Dockyards..... | 178 |
| 2.13 | Armstrong Whitworth and Vickers: tonnage completed 1920–27 | 183 |

| | | |
|-------------|---|-----|
| 2.14 | Analysis of the main naval forces in November 1918 | 187 |
| 2.15 | Summary of naval contracts completed in private shipyards | 195 |
| 3.0 | British shipyard unemployment: insured workers 1923–27..... | 206 |
| 3.1 | Percentage of average unemployment among adult male insured population on 19 November 1924 | 207 |
| 3.2 | Freight rate values (base year 1920 = 100) and laid-up tonnage..... | 213 |
| 3.3 | Merchant vessels launched during 1920..... | 216 |
| 3.4 | Percentage of motorship tonnage to total tonnage launched | 217 |
| 3.5 | Merchant vessels launched during 1926..... | 219 |
| 3.6 | Values of UK Exports 1920 to 1927 | 220 |
| 3.7 | Bank base rate..... | 228 |
| 3.8 | Mercantile tonnage built 1920-30 by the top twenty shipyards | 235 |
| 3.9 | Movement in tonnage of overseas trade 1913 to 1928..... | 237 |
| 4.0 | British unemployment in the basic industries in 1929 and 1932 | 238 |
| 4.1 | Key financial data for Armstrong Whitworth | 242 |
| 4.2 | Merchant ship tonnage built by Armstrong Whitworth | 243 |
| 4.3 | Merchant ship tonnage built by Vickers..... | 246 |
| 4.4 | British and world merchant tonnage launched | 250 |
| 4.5 | Merchant tonnage output completed by region 1929–33 | 253 |
| 4.6 | National Shipbuilders Security Ltd: operations to 31 December 1937..... | 259 |
| 4.7 | Initial list of NSS directors and companies represented..... | 263 |
| 4.8 | Merchant tonnage completed by shipyards purchased by NSS in 1931 | 265 |
| 4.9 | Merchant tonnage completed by shipyards purchased by NSS in 1932 | 266 |
| 4.10 | Tonnage built by Palmers Shipbuilding 1928 to 1932 | 274 |
| 4.11 | Number of shipbuilders in top 50 British companies..... | 283 |

| | | |
|-------------|--|-----|
| 4.12 | British shipbuilding berths and capacity | 284 |
| 6.0 | Estimated numbers of insured persons in the shipbuilding and ship-repairing and marine engineering industries..... | 342 |
| 6.1 | Working of the proposed strategy of amount of subsidy payable | 345 |
| 6.2 | Vessels laid up during 1933, 1935 and 1936..... | 351 |
| 7.0 | Summary of the various types of merchant shipping built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939..... | 368 |

List of Maps

| | | |
|-------------|--|-----|
| 1.0: | Shipbuilders based on the River Tyne..... | 115 |
| 1.1: | SH&WR – Site plan following the launch of <i>Mauretania</i> | 116 |
| 1.2: | Shipbuilders based on the River Wear | 119 |
| 1.3: | Plan of part of Glasgow Harbour showing a number of shipbuilding yards | 126 |

List of Photographs

| | | |
|------------|---|-----|
| 1.0 | <i>SS Gluckhauf</i> – the ancestor of the modern tanker..... | 57 |
| 1.1 | <i>SS Ascania</i> , built by Armstrong Whitworth for Cunard | 82 |
| 1.2 | <i>SS Monarch of Bermuda</i> | 84 |
| 1.3 | William Doxford's motor tramp <i>MV Hannington Court</i> built for Court Line..... | 85 |
| 1.4 | <i>SS City of Singapore</i> | 86 |
| 1.5 | <i>MV Southern Prince</i> , built for Prince Line Limited by Lithgows Limited | 88 |
| 1.6 | <i>MV Jutlandia</i> , built by Barclay Curle & Company Limited | 89 |
| 1.7 | <i>SS Giulio Cesare</i> , built by SH&WR..... | 91 |
| 1.8 | <i>SS Turbinia</i> | 100 |

| | | |
|-------------|---|-----|
| 1.9 | <i>MV Eurybates</i> | 106 |
| 1.10 | <i>MV Port Wyndham</i> , built by John Brown | 134 |
| 1.11 | <i>SS Dallington Court</i> , built by Northumberland Shipbuilding Co. (1927)..... | 135 |
| 1.12 | <i>SS River Humber</i> , built by Hepples (1919) | 136 |
| 2.0 | <i>HMS Hood</i> under construction at John Brown..... | 151 |
| 3.0 | <i>RMS Ausonia</i> , built for Cunard by Armstrong Whitworth..... | 201 |
| 3.1 | <i>SS Linerton</i> , built by William Doxford | 210 |
| 3.2 | <i>SS Conte Verde</i> of the Lloyd Triestino line in the 1930s | 226 |
| 4.0 | <i>SS Daldorch</i> , launched on 27 August 1930 by William Beardmore..... | 264 |
| 4.1 | <i>SS Redsea</i> , built by Northumberland Shipbuilding (1927) Limited..... | 267 |
| 4.2 | <i>HMS York</i> , built at Palmers Shipbuilding of Jarrow and launched on 17 July 1928 | 276 |
| 4.3 | Palmers Shipbuilding's shipyard in Jarrow, dismantled by Thomas W Ward Ltd. of Sheffield | 280 |
| 5.0 | The <i>MV Georgic</i> during fitting out at Harland & Wolff | 312 |

List of Illustrations

| | | |
|------------|---|-----|
| 5.0 | 'And I hear there's another one coming' | 326 |
|------------|---|-----|

Appendices – See Separate Volume of Appendices

- 1.0 The British Shipbuilding Database
- 2.0 Shipbuilders on the North-East Coast of England and the West of Scotland
- 3.0 Schedules of merchant vessels built:
 - North-East Coast of England
 - West of Scotland
- 4.0 Schedules of naval vessels built:
 - North-East Coast of England
 - West of Scotland
- 5.0 Glossary of Shipbuilding Tonnage
- 6.0 Merchant tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 7.0 National passenger tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 8.0 Shipbuilders on the North-East Coast of England building cargo vessels for British customers, 1920-1939
- 9.0 Shipbuilders on the North-East Coast of England building cargo vessels for overseas customers, 1920-1939
- 10.0 Shipbuilders in the West of Scotland building cargo vessels for British customers, 1920-1939
- 11.0 Shipbuilders in the West of Scotland building cargo vessels for overseas customers, 1920-1939

- 12.0 Cargo tonnage built on the North-East Coast of England and the West of Scotland for foreign customers, 1920-1939
- 13.0 Coasters built on the North-East Coast of England during the interwar period, 1920-1939
- 14.0 Coasters built on the West of Scotland during the interwar period, 1920-1939
- 15.0 Coasters built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 16.0 Tankers built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 17.0 Shipbuilders building tankers on the North-East Coast of England during the interwar period, 1920-1939
- 18.0 Shipbuilders building tankers on the West of Scotland during the interwar period, 1920-1939
- 19.0 Different types of tankers built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 20.0 Nationalistic tanker tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 21.0 Merchant shipbuilding on the Rivers Tyne, Blyth and at Amble during the interwar period, 1920-1939
- 22.0 Merchant shipbuilding on the River Wear during the interwar period, 1920-1939
- 23.0 Merchant shipbuilding on the River Tees and at Hartlepool during the interwar period, 1920-1939

- 24.0 Merchant shipbuilding on the West of Scotland during the interwar period, 1920-1939
- 25.0 Schedule of foreign tonnage completed during the interwar period on the North-East Coast of England and the West of Scotland, 1920-1939
- 26.0 A comparison of foreign merchant tonnage built on the North-East Coast of England and the West of Scotland, 1920-1939
- 27.0 A comparison of steam tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 28.0 A comparison of turbine tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 29.0 A comparison of diesel tonnage built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939
- 30.0 Vessels built with no-propulsion during the interwar years, 1920-1939
- 31.0 Shipbuilders financial statements:
- Fairfield Shipbuilding & Engineering Company Ltd
 - Swan Hunter & Wigham Richardson Limited
 - Sir W G Armstrong Whitworth & Company Ltd
 - R & W Hawthorn Leslie & Company Limited
 - William Doxford & Sons Ltd
 - Sir James Laing & Sons Limited
 - Barclay Curle & Company Limited
 - A & J Inglis Limited

32.0 Analysis of the relationship between merchant and naval shipbuilding

Abbreviations

| | |
|------------------------------|---|
| AGM | Annual General Meeting |
| Alexander Stephen | Alexander Stephen & Sons Limited |
| Armstrong Whitworth | Sir W G Armstrong Whitworth & Company Ltd |
| Barclay Curle | Barclay Curle & Company Limited |
| BIDC..... | Bankers' Industrial Development Corporation |
| BISF | British Iron and Steel Federation |
| BSAA..... | British Shipping (Assistance) Act 1935 |
| Cammell Laird | Cammell Laird & Company Limited |
| Chas Rennoldson | Charles Rennoldson & Company |
| Cunard..... | Cunard Steamship Company Limited |
| Colvilles | David Colville & Sons Limited |
| Dorman Long | Dorman Long & Company Limited |
| Dunlop Bremner | Dunlop Bremner & Company Limited |
| Edward Hain | Edward Hain & Sons |
| Elder Dempster | Elder Dempster Shipping Limited |
| Fairfield Shipbuilding | Fairfield Shipbuilding & Engineering Co Ltd |
| Furness | Furness Shipbuilding Company Limited |
| Furness Withy | Furness Withy & Company Limited |
| grt | Gross registered tonnage |
| Hawthorn Leslie | R & W Hawthorn Leslie & Company Limited |
| H&W..... | Harland & Wolff |
| HOCD | House of Commons debates |
| HOLD | House of Lords debates |
| IMM | International Mercantile Marine |

| | |
|----------------------------|---|
| Irvine's | Irvine Currie & Company |
| John Brown | John Brown & Company Limited |
| Sir James Laing | Sir James Laing & Sons Limited |
| Lamport & Holt..... | Lamport & Holt Limited |
| Lithgows | Lithgows Limited |
| LNT..... | London Naval Treaties |
| MP | Member of Parliament |
| NA..... | National Archives |
| NECIES..... | North-East Coast Institution of Engineers and Shipbuilders |
| NSS | National Shipbuilders Security Limited |
| Oceanic | Oceanic Steam Navigation Company |
| Palmers Shipbuilding | Palmers Shipbuilding & Iron Company Limited |
| P&O | Peninsular & Oriental Steam Navigation Company Limited |
| Readhead's | John Readhead & Sons Limited |
| RMSPC | Royal Mail Steam Packet Company |
| SMT | Securities Management Trust |
| SEF..... | Shipbuilding Employers Federation |
| SH&WR | Swan Hunter & Wigham Richardson Limited |
| SRC..... | Ship Replacement Committee |
| Smith Docks | Smith's Dock Company Limited |
| sdt..... | Standard displacement tonnage |
| TFA | Trade Facilities Act |
| TFAC | Trade Facilities Advisory Committee |

| | |
|-------------------------|---|
| TSAC | Tramp Shipping Administration Committee |
| TWAS | Tyne and Wear Archives Service |
| UK..... | United Kingdom |
| Union-Castle | Union-Castle Mail Steamship Company Limited |
| US | United States of America |
| Vickers | Vickers Limited |
| Vickers-Armstrong | Vickers-Armstrong Limited |
| Wallsend Slipway | Wallsend Slipway and Engineering Company |
| Walter Runciman | Walter Runciman & Company |
| William Beardmore | William Beardmore & Company Limited |
| William Doxford | William Doxford & Sons Ltd |
| William Gray | William Gray & Company Limited |
| William Hamilton | William Hamilton & Company Limited |
| WNC | Washington Naval Conference |
| WNT | Washington Naval Treaty |
| Workman Clark..... | Workman Clark & Company Limited |
| Yarrows | Yarrow & Company Limited |

INTRODUCTION

This research examines the deterioration of shipbuilding capacity on the North-East Coast of England and in the West of Scotland during the interwar period (1920–1939).¹ The North-East Coast of England comprises shipbuilding facilities located principally on the Rivers Tyne, Wear and Tees, with capabilities located at Hartlepool, and on the River Blyth and to a lesser extent on the River Coquet. ‘By the 1870s the Clyde, the Tyne, the Wear and the Tees accounted for nearly all the ordinary tonnage built in Britain.’² British shipbuilders had since 1870 constructed up to 75 percent of the world’s shipping: however, by the turn of the 20th century, Britain was constructing only 60 percent, despite the fact that in 1913 Britain’s shipbuilding industry remained the dominant force.³ In 1913, the Clyde’s merchant shipbuilders built 756,976 grt, which was more than a third of British merchant tonnage built that year.⁴ Britain produced approximately sixty percent of the world’s maritime requirements, although it was already apparent that it was facing an increasing level of foreign competition, particularly from continental European countries, the US and Japan.⁵

¹ The West of Scotland comprises: ‘the western half of the Scottish Lowlands, a great triangle can be drawn between Arrochar at the head of Loch Long, Dolphinton on the eastern rim of Lanarkshire, and Ballantrae on the south Ayrshire coast. Within it lies the West of Scotland, nesting between the rugged masses of the Highlands and the Southern Uplands.’ Anthony Slaven, *The Development of the West of Scotland 1750-1960*, (London: Routledge and Kegan Paul, 1975), p. 1. The area of the West of Scotland includes, Greenock, Port Glasgow, Paisley, where the River Cart meets the Clyde, Dumbarton, Old Kilpatrick, Bowling, Dalmeir, Clydebank, Yoker, Scotstoun, Whiteinch, Govan, Maryhill, Rutherglen and the Forth and Clyde canal, including Kirkintilloch, and the Ayrshire towns of Ardrossan, Irvine, Troon and Ayr.

² Sidney Pollard and Paul L Robertson, *The British Shipbuilding Industry 1870-1914* (Cambridge: Massachusetts and London: Harvard University Press, 1979), p. 49.

³ Sidney Pollard, ‘Shipping and the British economy since 1870: A retrospective view’, in *Exploiting the sea, aspects of Britain’s maritime economy since 1870*, ed. David John Starkey and Alan G Jamieson (Exeter: University of Exeter Press, 1998), pp. 94 and 95; Ronald Hope, *A new history of British shipping* (London: John Murray, 1990), pp. 306-46; Julian Greaves, *Industrial Reorganization and Government Policy in Interwar Britain* (Aldershot: Ashgate, 2005), p. 213.

⁴ Hugh Murphy, ‘The British Shipbuilding Industry during the Great War: A Contextual Overview Incorporating Standardization and the National Shipyards’, *International Journal of Maritime History*, Vol. 22, No. 2, December 2012, p. 24.

⁵ Edward H Lorenz, *Economic decline in Britain, The shipbuilding industry, 1890-1970* (Oxford: Clarendon Press, 1991), p. 8; Pollard and Robertson, *British Shipbuilding*, pp. 227-228; Slaven, *West of Scotland*, p. 187; Anthony Slaven, *British shipbuilding: a history, 1500-2010* (Lancaster: Crucible Books, 2013), p. 85.

Both the North-East Coast of England and the West of Scotland are given detailed appraisal, to attain an accurate comparison of the shipbuilding output in both regions. The shipbuilding output has been analysed with the assistance of Professor Ian Buxton and Doctor Brian Newman who maintain the British Shipbuilding Database at the School of Marine Science and Technology at Newcastle University.⁶ When considering the data, within this Thesis some methodological observations are necessary about the comparability of different vessel types.⁷ Merchant ship tonnage is measured as gross registered tonnage (grt), whereas Naval vessels will normally be measured in terms of a standard displacement tonnage (sdt). It was necessary to separate these two distinct forms of shipbuilding to ensure that an accurate measurement is given to the work undertaken in both regions (Appendix 5.0).

The academic literature on shipbuilding on the North-East Coast of England is more limited than its Scottish equivalent. Although there are a number of secondary sources, ranging from studies of specific shipyards to more general literature relating to naval shipbuilding as differentiated from merchant shipbuilding, they are still very much weighted in favour of shipbuilding undertaken on the Clyde. As Sidney Pollard and Paul Robertson demonstrate, in the period leading up to the First World War, the Clyde led the way in British shipbuilding.⁸ A number of academics versed in naval and merchant shipbuilding history have undertaken extensive studies of shipbuilding on the Clyde, and such authors include Neil K Buxton, Roy H Campbell, Anthony Slaven, Lewis Johnman and Hugh Murphy.⁹ A considerable disparity

⁶ The databases included as Appendices 1.0 and 2.0 identify the shipbuilder, types of ships and the year of completion.

⁷ See Appendices 1.0 and 2.0.

⁸ Pollard and Robertson, *British Shipbuilding*, pp. 49-69.

⁹ Neil K Buxton, 'The Scottish shipbuilding industry between the wars: A comparative study', *Business History*, vol. 10, no. 2 (1968). Roy H Campbell, *The rise and fall of Scottish industry 1707-1939*, (Edinburgh: John Donald, 1980); Campbell, 'Scottish shipbuilding; its rise and progress', *Scottish Geographical Magazine*, vol. 80, no. 2 (2008); Slaven, *West of Scotland*; Anthony Slaven, 'A Shipyard in Depression: John Browns of Clydebank 1919-1938', *Business History*, vol. 19, no. 2 (1977); Slaven, 'Self-liquidation: The National Shipbuilders Security Limited and British shipbuilding in the 1930s', in *Chartered and Unchartered Waters*, ed. S Palmer and G Williams (Greenwich: Trustees of the National Maritime Museum, 1981); Slaven, 'Management Policy and the Eclipse of British Shipbuilding', in *European Shipbuilding, One Hundred Years of*

exists in both the quantity and quality of records appraising shipbuilding in the two regions. The secondary sources for the North-East Coast of England's shipyards are very limited, mainly including works by Joseph F Clarke, Derek Dougan and Norman L Middlemiss.¹⁰

Research on shipbuilding for this dissertation was conducted at Tyne & Wear Archive Services (TWAS) and the Glasgow archives, including appraisal of company records, reports, minute books and accounting records. Local and national newspapers provided further support to the activities undertaken. The records maintained by TWAS form a large part of this research.¹¹

In comparison, the archives at the University of Glasgow and the Mitchell Library in Glasgow provided extensive information on the activities undertaken on the West of Scotland. In

Change, ed. F M Walker and A Slaven (London: Marine Publications International, 1983); Slaven, *British Shipbuilding*; Lewis Johnman and Hugh Murphy, *British Shipbuilding and the State since 1918*, (Exeter: University of Exeter Press, 2002); Johnman and Murphy, 'Subsidy and Treasury: The Trade Facilities Act and the UK shipbuilding industry in the 1920s', *Contemporary British History*, vol. 22, no. 1 (2007); Johnman and Murphy, 'A very British institution! A study in under-capitalisation: the role of the Ship Mortgage Finance Company in post-delivery credit financing within shipbuilding, 1951–67', *Financial History Review*, vol. 6, no. 2 (1999); Johnman and Murphy, 'The Norwegian Market for British Shipbuilding, 1945-1967', *Scandinavian Economic History Review*, vol. XLVI, no. 2, 1998; Johnman and Murphy, 'An Overview of the Economic and Social Effects of the Interwar Depression on Clydeside Shipbuilding Communities', *International Journal of Maritime History*, Vol. XVIII, No.1 (June 2006); Johnman and Murphy, 'Maritime and Business History in Britain: Past, Present and Future?' *International Journal of Maritime History*, Vol. XIX, No.1 (June 2007), p. 239-270; Johnman and Murphy, 'The Rationalisation of Slow Speed Marine Diesel Engine Building in the UK, 1912-1990' in David John Starkey and Hugh Murphy (eds.), *Beyond shipping and shipbuilding: Britain's ancillary maritime interests in the twentieth century* (Hull: Maritime Historical Studies Centre, 2007); Johnman and Murphy, 'The Development of the British Ship Repair Industry, 1945-1985: An Overview' in Starkey and Murphy (eds.), *Beyond shipping and shipbuilding*.

Hugh Murphy, 'Déjà vu all over again! The reluctant rise and protracted demise of Scott Lithgow Limited', Unpublished PhD Thesis, University of Westminster (2001); Murphy, 'The Health of Electric Arc Welders and the Adoption of Arc Welding in the British Shipbuilding Industry, 1930-1951', *International Journal of Maritime History*, Vol. XVII, No.1 (June 2005); Murphy, 'The British Shipbuilding Industry'; Murphy, "'No Longer Competitive with Continental Shipbuilders: British Shipbuilding and International Competition, 1930-1960', *International Journal of Maritime History*, Vol. XXV, No. 2 (December 2013); Murphy, 'Shipbuilding and the International Journal of Maritime History', *International Journal of Maritime History*, Vol. 26, No. 1, (2014).

¹⁰ Joseph Finbar Clarke, *Power on land and sea, 160 years of industrial enterprise on Tyneside, A history of R & W Hawthorn Leslie & Company Limited, engineers and shipbuilders* (Newcastle upon Tyne: Clarke Hawthorn, 1979); Clarke, *A century of service to engineering and shipbuilding* (Newcastle upon Tyne: NECIES, 1984); Clarke, *Building ships on the North East coast (Part 2, c1914–c1980)*, A labour of love, risk and pain (Whitley Bay: Bewick Press, 1997). David J Dougan, *The History of North East Shipbuilding* (London: George Allen & Unwin, 1968); Dougan, *The shipwrights, the history of the ship constructors' and shipwrights' Association 1882–1963* (Newcastle upon Tyne: Frank Graham, 1975). Norman L Middlemiss, *British shipbuilding yards, vol. 1: North-East Coast* (Newcastle upon Tyne: Shield Press, 1993).

¹¹ Shipbuilders records available at the Tyne & Wear archives and reviewed for the purpose of preparing this Thesis comprise: Armstrong Whitworth, S P Austin, Bartram, John Crown, William Doxford, Sir James Laing, Palmers Shipbuilding, William Pickersgill, Readhead's, Short Brothers, SH&WR, J L Thompson and, Hawthorn Leslie.

addition, the records maintained by the National Archives and Hansard provide a wealth of background in relation to government policies and debates. An appraisal of Hansard's records provides clarity to the study undertaken, and highlights the difficulties inherent between the Treasury and Admiralty throughout the interwar period. The section relating to the rationalisation of shipyards by National Shipbuilders Security Limited (NSS) necessitated work at the Bank of England's archives.

This introduction will explore the debate about British industrial decline including the historiography of British shipbuilding. Second, it will appraise whether interwar shipbuilding experienced stagnation without decline. Finally, this introduction will outline the situation of British shipbuilding in this period and plot the overall structure and approach of the dissertation.

Understanding British industrial decline, understanding interwar shipbuilding

The staple industries of coal, steel and shipbuilding and the processing and manufacturing of cotton contributed massively to regional development in the period up to 1914, though the decline of Britain's staple industries has stimulated vibrant historical debate.¹² British industry had built up a network of staple trades, comprising numerous firms with a small market share.¹³ Kirby has argued, however, that by the final quarter of the nineteenth century, British entrepreneurs were beginning to suffer a 'third generation decline', whereby the squandering of inheritances in a spendthrift manner became a regular occurrence. Kirby believes that this generalisation was questionable, because as many businesses succeeded as failed.¹⁴ Whilst Kirby feels that the 'blanket hypothesis of entrepreneurial failure' would not apply to shipbuilding, or other heavy industries in the period 1900–14, it must be appreciated that

¹² David Coates, *The question of UK decline, state, society and economy* (Hemel Hempstead: Harvester Wheatsheaf, 1994), p. 10; Michael Dintenfass, *The decline of industrial Britain: 1870-1980* (London: Routledge, 1992), p. 5.

¹³ Bernard Elbaum and William Lazonick, 'The decline of the British economy: An Institutional Perspective', *Journal of Economic History*, vol. 44, no. 2 (1984), p. 569.

¹⁴ Maurice W Kirby, *The decline of British economic power since 1870* (London: George Allen & Unwin, 1981), p. 9.

shipbuilding, for example, was operating at 15 percent less than the level achieved during 1870–1900.¹⁵ Crafts also rejects the idea of failure in the ‘pre-1914 British economy’, although the statistical evidence with regard to shipbuilding contradicts his position, since Britain increased tonnage in the years up until 1914, however, other nations expanded larger volumes more rapidly, thereby reducing Britain’s share of shipbuilding output (Appendix 3.0).¹⁶

From the start of the twentieth century, the steel companies in the US controlled the shipbuilding firms, whilst certain shipbuilders in Britain took steps to manage their supplies from the steel industries by acquiring steel companies, John Brown was a Sheffield steel company which purchased J & G Thomson at Clydebank, which then became John Brown and Company, Clydebank.¹⁷ The company was one of the largest shipbuilders and was responsible for building some of the largest merchant and naval vessels: *RMS Lusitania*, *RMS Aquitania*, *RMS Queen Mary* and *RMS Queen Elizabeth* as well as *HMS Hood*.¹⁸ The move toward shipbuilders acquiring the share capitals of steel companies occurred in Scotland post-1918, and by 1922 shipbuilders owned nearly all steel-making capacity in Scotland. In Germany, the establishment of family-controlled holding companies enabled the rationalisation and modernisation that took place during the interwar years. German owners and managers acquired shipbuilding facilities to work alongside their steel operations, a strategy that developed from the complications that arose after the First World War.¹⁹ The difficulties confronted by British shipbuilding during the 1920s, created a ‘threat of financial disaster’, necessitating ‘intervention and reorganisation.’²⁰ In the immediate post-war years, the large shipbuilders attempted to diversify to ensure profitability. The manufacturing of automobiles,

¹⁵ Ibid.

¹⁶ Nicholas Crafts, ‘British relative economic decline revisited: The role of competition’, *Explorations in Economic History*, vol. 49 no. 1 (2012), p. 19.

¹⁷ Murphy, ‘The British Shipbuilding Industry’, p. 22.

¹⁸ Ibid., p. 38.

¹⁹ Alfred Dupont Chandler, *Scale and scope: The dynamics of industrial capitalism* (Cambridge, Massachusetts: Harvard University Press, 1990), pp. 559-60.

²⁰ Ibid., p. 338.

airplanes, locomotives and diesel engines were areas of diversification that appeared to create a degree of synergy with shipbuilders' existing operations. However, some attempts at diversification proved disastrous, and in the case of Armstrong Whitworth, which had diversified into an overseas pulp paper operation in Newfoundland, eventually resulted in the company's demise.²¹

During the final quarter of the nineteenth century, Britain's staple industries declined.²² Whilst the British economy remained constrained with its industrial base founded during the industrial revolution, those successor nations that followed next adopted Chandler's structure of corporate capitalism and pursued mass production as their ultimate goal.²³ From the start of the twentieth century, American and European steel production benefitted from major technical advances, while British firms were willing to satisfy their requirements from what Warren called 'incremental returns.'²⁴

Shipbuilding in Britain developed based upon its industrial supremacy in skills undertaken by mechanical engineers, which had been established following the first industrial revolution. From the late 1870s, it became common to find steel replacing iron in shipbuilding, though this was not fully the case until 1890, when ships constructed from steel totalled 913,000 tons, compared to iron at 46,000 tons.²⁵ There was also innovation in maritime technology, switching from compound, triple and quadruple expansion engines to geared turbines for propulsion.²⁶ Practical men, who had learnt their skill not from formal education, nor theoretical or applied training, but by a proven commitment to work under close supervision with their master, had

²¹ Ibid., pp. 343-44.

²² Coates, *The question*, p. 10; Dintenfass, *The Decline*, p. 5.

²³ Elbaum and Lazonick, 'Decline', p. 571.

²⁴ Kenneth Warren, *Consett Iron 1840 to 1980: A study in industrial location* (Oxford: Clarendon Press, 1990), p. 67.

²⁵ David S Landes, *The unbound Prometheus: Technological change and industrial development in Western Europe from 1750 to the present* (Cambridge: Cambridge University Press, 1972), p. 260.

²⁶ Ibid., pp. 277-78.

established the industry. There were those who believed that ‘shipbuilding was an art not a science.’²⁷ Britain’s supremacy in the shipbuilding industry arose from being the first into the market without any fierce competition. Whilst Britain was unchallenged in the development of its shipbuilding industry, those nations who subsequently followed recognised new economies that developed during the second industrial revolution.

The international competition that followed from the US, Germany, Japan and the Scandinavian countries adopted elaborately equipped modern shipbuilding facilities, which were costly, though managed at levels not available within British shipyards. Britain continued its pre-industrial reliance on numerous craft skills, which entailed profound long-term difficulties arising from demarcation, whereby trade unions became resistant to new processes.²⁸ By the early years of the twentieth century, shipbuilders in Britain recognised that overseas, research, technical education and technical development were creating gaps that were proving difficult to overcome.²⁹ Even having recognised the benefits of technical training education, British management were unable to agree on what form technical education should take.³⁰ Training within management was an exceptionally rare occurrence and the recruitment process appeared casual, with most boardrooms operating in a ‘club’ like mentality, which led to a poor managerial response to strategic and organisational requirements.³¹ At the beginning of the First World War, Britain had begun to fall behind overseas rivals, particularly Germany, and as a result, the government launched the Department of Scientific and Industrial Research (DSIR)

²⁷ TWAS, AS.ES/4/1/13, Transactions of the North-East Coast Institution of Engineers & Shipbuilders, Vol. XXXVIII, Session 1921-1922, Some notes on shipbuilding methods, by John McGovern, p. 349.

²⁸ Correlli Barnett, *The audit of war: The illusion and reality of Britain as a great nation* (London: MacMillan, 1986), p. 109, citing Pollard and Robertson, *British Shipbuilding*, pp. 109 and 128-9.

²⁹ Barnett, *The audit*, pp. 109-110.

³⁰ *Ibid.*, p. 110.

³¹ S N Broadberry and N F R Crafts, ‘Britain’s productivity gap in the 1930s: some neglected factors’, *Journal of Economic History*, vol. 52, no. 3 (1992), p. 533.

in 1916. The government had eventually given in to immense pressure to form the DSIR and end the piecemeal support of Britain's scientific development.³²

The restrictions imposed upon the maritime industries by the British government during the First World War forced foreign customers to buy from other countries, mainly Japan, the Netherlands and the Scandinavian countries, as well as the US.³³ This in itself did not cause any major difficulties during the war, as British shipyards were working for the Admiralty and the government.

Since 1917, encouraged by the Shipping Controller, Sir Joseph Maclay, a non-political minister with Cabinet status and a Glaswegian shipowner, Britain started to expand its own shipbuilding facilities, with direct government assistance being available for approved schemes.³⁴ By late 1918, 32 new shipbuilding slips were complete and a further 48 were under construction.³⁵ After 1918, Britain attempted to reaffirm its position as the world's leading shipbuilder. Unfortunately, sound investment in 1919–20 was by 1921 quickly proving to be a burden.³⁶

When the First World War commenced, Britain's merchant fleet amounted to 39.4 percent of world tonnage, comprising 19.3 million tons, however, by June 1919, Britain's share had fallen to 32.5 percent, or 16.6 million tons (Table 0.1).³⁷

³² Richard Sidney Sayers, 'The springs of technical progress in Britain, 1919-39', *Economic Journal*, vol. 60, no. 238 (1950), p. 279.

³³ Sidney Pollard, *The development of the British Economy 1914-1980*, 3rd edition (London: Edward Arnold, 1983), p. 27.

³⁴ Murphy, 'The British Shipbuilding Industry', pp. 34 and 35; Reid, *James Lithgow*, pp. 57-58.

³⁵ Jones, *Shipbuilding*, p. 122.

³⁶ Slaven, 'A shipyard', p. 209.

³⁷ S G Sturmeay, *British shipping and World competition* (London: University of London, Athlone Press, 1962), p. 36.

Table 0.1: Size of the merchant fleet in the immediate post-war period³⁸

| | World output | World fleet | British output | British fleet |
|-------------|----------------------|--------------------|-----------------------|----------------------|
| Year | mgrt launched | Mgrt | mgrt launched | Mgrt |
| 1914 | 1.2 | 48.9 | 1.7 | 19.3 |
| 1919 | 4.3 | 50.9 | 1.6 | 16.6 |
| 1920 | 5.8 | 57.3 | 2.1 | 18.3 |
| 1921 | 6.0 | 62.0 | 1.5 | 19.6 |

British shipowners struggled during the First World War to replace lost tonnage. By the time the war ended and shipowners began to place orders on their own account, the shipping costs had increased, and a differential emerged between replacement costs and the insurance proceeds associated with the lost wartime tonnage. From war risk insurance, shipowners received an estimated £146 million, though replacement expenditure relating to lost tonnage totalled an estimated £280 million.³⁹ The shipowners funded this shortfall from their own financial reserves.⁴⁰

Throughout the war, the government engaged British shipping at predetermined freight rates, referred to as Blue Book rates.⁴¹ However, as the war progressed, the rates were soon outdated. The government then reached an agreement with shipowners to increase the Blue Book rates during 1917.⁴² These revised rates continued after the Armistice as government continued to control shipping to facilitate repatriating the war machine.⁴³ The freight rates paid to neutral

³⁸ Table 0.1 is a composite table. The information in respect of fleet sizes was extracted from Table 10 of Lloyd's Register of Shipping and the information on tonnage launched has been obtained from data included in tables of merchant ships launched contained in *The Shipbuilder*, ed. A G Hood.

³⁹ Jones, *Shipbuilding*, p. 48.

⁴⁰ Sturmev, *British Shipping*, p. 48.

⁴¹ The rates referred to as Blue Book rates arose from the shipowners' own suggestions.

⁴² Sturmev, *British Shipping*, p. 49.

⁴³ 'Merchant shipbuilding: effects of Admiralty control.' *Manchester Guardian*, 2 May 1918, p. 4.

shipping operators throughout the war exceeded the Blue Book rates. The French and American governments paid higher rates than the British government. The differential between the Blue Book rates and the available commercial rates continued widening during 1919 and 1920. In addition, British shipping operators were subject to Excess Profit Tax, which continued up until the fall in freight rates in 1920. This taxation restricted British shipping's ability to make good, poor trading results that stemmed from lower wartime controlled freight rates.⁴⁴

The cyclical problems of the 1920s exacerbated the decline in Victorian exports, staple trades and a 'globalisation backlash'.⁴⁵ Despite the difficulties experienced in the early 1930s, Pollard viewed the 1930s 'quite favourably' particularly in what he referred to as the 'growth orientated sectors'.⁴⁶ However, Chandler recognised that during the 1930s, shipbuilders and railroad equipment manufacturers in the US were struggling.⁴⁷ Broadberry and Crafts, as well as Elbaum and Lazonick, recognised the fact that Britain's industrial relations, industrial organisation and enterprise management all necessitated changes.⁴⁸ Activity in Britain expanded with wartime demand during the First World War, from a capacity facility of 3.0 mgt to 4.0 mgt, although from 1921 until 1939 only 1.7 mgt was required.⁴⁹ Britain's shipbuilding capacity was severely under-utilised from 1921, partly as a consequence of the Washington Naval Treaty (WNT) of December 1921, which forbade the construction of capital ships such as battleships and aircraft carriers, but not cruisers of under 10,000 sdt, a state of affairs that suited Britain's straightened financial circumstances. This complication continued until the beginning of rearmament in 1935–36. The disarmament process resulted in a dereliction of Britain's shipbuilding capacity, which compounded the difficulties of firms such as Palmers

⁴⁴ Jones, *Shipbuilding*, p. 49.

⁴⁵ Crafts, 'British relative economic decline', p. 21.

⁴⁶ *Ibid.*, p. 20.

⁴⁷ Chandler, *Scale*, p. 205.

⁴⁸ Broadberry and Crafts, 'Britain's productivity', pp. 533 and 555.

⁴⁹ B W Hogwood, *Government and shipbuilding: The politics of industrial change* (Farnborough: Saxon House, 1979), p. 35.

Shipbuilding of Jarrow, and William Beardmore whose profitability was largely predicated on large warship construction on the Clyde. The difficulties encountered during the 1920s heavily influenced the craft skills unions within the shipbuilding industry, of which there were many. By 1910, there were 18 general shipbuilding unions, excluding those involved in plumbing and joinery trades. Shipbuilders in Britain suffered the effects of a Victorian time lag, which continued to provide an individualistic fragmentation, preventing the ideology of specialisation. In the interwar years, two major recessions retarded British progress.⁵⁰ The large-scale redundancies of the 1920s left the shipbuilding industry in a quandary during the rearmament process, and Britain was unable to compete with its potential enemy, as her workforce comprised ‘low spirited and chap fallen geriatrics with dusty minds stuffed with Victorian managerial and technical processes’, who had suffered by 1935 the after-effect of the pre-war slump.⁵¹ Like the shipbuilders, shipping companies suffered the dramatic downturn of the early 1920s. By 1921, downward freights, increasing costs and an underlying level of competition made the economic outlook less than appealing.⁵² However, Broadberry and Crafts, like Pollard, do not necessarily accept that the 1930s were a period of unrelieved gloom, believing that there was a genuine improvement in the industrial output and the quality of investment, particularly in the growth-orientated sectors.⁵³ The difficulties encountered within shipbuilding did not arise purely in new construction since the industry’s resources would share repair work, where damage had arisen from enemy action, and the requirements for new construction. Whilst Britain continued to rely upon its historical ineptness, there were yards that took steps to compete with overseas shipbuilders and adopted up-to-date techniques.⁵⁴ However, even by 1943, British management in the shipbuilding industry stubbornly resisted new methods of

⁵⁰ J W Grove, *Government and industry in Britain* (London: Longmans, 1962), p. 32.

⁵¹ Barnett, *The audit*, p. 116.

⁵² Malcolm Falkus, *The Blue Funnel Legend: A history of the Ocean Steam Ship Company, 1865-1973* (London: MacMillan, 1990), p. 171.

⁵³ Broadberry and Crafts, ‘Britain’s productivity’, p. 532.

⁵⁴ Barnett, *The audit*, p. 117.

construction such as prefabrication or the flow production of standard ships, even when liberty vessels loaned to the British government by the US provided vital assistance with the war effort during the Second World War.⁵⁵ Despite ending the Second World War victorious, and with an encouraging period of trade keeping Britain at the forefront of shipbuilding, it was all too easy for Britain to allow its competitors in Germany, Japan, the Netherlands and Sweden to make ground and overtake Britain's shipbuilding production capacity.⁵⁶

Britain's industrial decline led historians to consider the changes in the economy and in entrepreneurial values, which reflected a technologically developing environment.⁵⁷ Taking a neoclassical perspective, McCloskey defends the Victorian British entrepreneur, suggesting that Britain was not stagnating 'but growing as rapidly as it could.' Further, the measure of productivity suggests Britain did not experience any great failure, though McCloskey does acknowledge that productivity dipped in the 1900s, but was too abrupt to call 'climacteric.'⁵⁸ Lazonick recognises that markets could retain 'the feasibility of technical change', but were susceptible to entrepreneurial action.⁵⁹ British managers faced up to prevailing conditions and made the best of the situation. Using Chandler's typology of managerial structure, Elbaum and Lazonick pinpoint the transition from the 'competitive capitalist firm' to the 'corporate capitalist firm' as the cause of British industry's failure.⁶⁰ The US, Germany and Japan developed their corporate capitalism founded on oligopolies, managerial hierarchies, vertical integration of production, direct managerial control of the labour process, and the integration

⁵⁵ Ibid., p. 120.

⁵⁶ Sidney Pollard, *The wasting of the British economy: British economic policy 1945 to the present* (London: Croom Helm, 1982), p. 80; Daniel Todd, *The world shipbuilding industry* (New York: St Martin's Press, 1985), p. 1.

⁵⁷ S N Broadberry, *The British economy between the wars: A macroeconomic survey* (Oxford: Blackwell, 1986), p. 5.

⁵⁸ Donald N McCloskey, 'Did Victorian Britain fail?' *Economic History Review*, vol. 23, no. 3 (1970), p. 459; Barry Supple, 'Fear of failing: economic history and the decline of Britain', *Economic History Review*, vol. 47, no. 3 (1994), p. 443.

⁵⁹ Maurice W Kirby, 'Institutional rigidities and economical decline: reflections on the British experience', *Economic History Review*, vol. 45, no. 4 (1992), p. 639.

⁶⁰ Ibid., p. 638; Dintenfass, *The Decline*, p. 8.

of financial and industrial capital.⁶¹ Britain was unable to succeed in ‘mass production and corporate organisation’ in the twentieth century because of its inflexible nineteenth-century institutions.⁶²

Acknowledging his debt to Chandler, Lazonick probes the relationship between technology and the ‘organisation of production.’ Despite Britain’s institutional inflexibility, McCloskey acknowledges that Britain’s economic growth was limited by the resources available, depending upon the allocation of capital and labour.⁶³

Britain’s economic performance from the late nineteenth century on prompted Elbaum and Lazonick to argue that ‘decline’ was inevitable and British managers ‘did the best they could.’⁶⁴ According to Orsagh, between 1886 and 1913, British management suffered from a ‘lack of enterprise’ that entailed reliance upon small-scale, inefficient, independent works, unlike German or American business managers.⁶⁵ Aldcroft argues that from 1870 to 1913, whilst British economic prosperity was growing in ‘absolute terms’, its standing vis-à-vis the other major world economies was declining.⁶⁶ This deteriorating output resulted from Britain’s poor response to ‘industrial and commercial performance’ in both the US and Germany.⁶⁷ However, whilst this decline continued until 1939 and beyond, the causes of such decline was not entirely the responsibility of Germany and the US.⁶⁸ Tomlinson states that ‘declinism has not taken a constant form, but rather has been reinvented periodically.’⁶⁹ Throughout the 1920s and 1930s,

⁶¹ Elbaum and Lazonick, ‘Decline’, p. 571; Kirby, ‘Institutional’, p. 638.

⁶² Elbaum and Lazonick, ‘Decline’, p. 572; Kirby, ‘Institutional’, p. 638.

⁶³ McCloskey, ‘Did Victorian’ p. 451.

⁶⁴ Elbaum and Lazonick, ‘Decline’, p. 568.

⁶⁵ Thomas J Orsagh, ‘Progress in iron and steel, 1870–1913’, *Comparative studies in society and history*, vol. 3 no. 2 (1961), p. 219.

⁶⁶ Derek Howard Aldcroft, ‘The entrepreneur and the British economy, 1870-1914’, *Economic History Review*, vol. 17, no. 1 (1964), p. 113.

⁶⁷ *Ibid.*

⁶⁸ Edward H Lorenz, ‘An evolutionary explanation for competitive decline: the British shipbuilding industry, 1890-1970’, *Journal of Economic History*, vol. 51, no. 4 (1991), p. 916.

⁶⁹ Jim Tomlinson, ‘Inventing decline: the falling behind of the British economy in the post-war years’, *Economic History Review*, vol. no. 4 (1996), p. 731.

the staple industries declined consistently, though not in unison.⁷⁰ There were times when shipbuilding recovered, particularly in the latter years of the 1920s, despite the long-term decline. Tomlinson sees the developments of decline not as a continuous problem, but episodic.⁷¹ According to Barry Supple, the idea of decline became an issue only from the 1950s and 1960s, when the British economy appeared to be in ‘serious decline’, lagging behind the living standards achieved in the US and several Western European countries.⁷² By the middle of 1956, Britain had 2,028,000 grt of shipping under construction, whereas Japan had 1,116,000 grt. Within twelve months, Britain launched 1,417,000 grt whilst Japan launched 1,993,000 grt. This was the result of Japanese shipbuilders taking only nine months to build a ship whereas British shipbuilders would take eighteen months.⁷³

Although the trade cycle was not new, after an initial post-war boom, an exceptional recession during the 1920s affected the ‘major basic industries.’⁷⁴ Whilst the economy recovered during the latter part of the 1920s to peak in 1929, it then collapsed into the most destructive of all recessions, and recovered during a period leading up to rearmament, which at least assisted the shipbuilding industry, in part.⁷⁵

As Jim Tomlinson has observed, commentators have episodically re-invented notions of British decline (declinism) since the 1880s with diagnoses and policy prescriptions. For Newton and Porter, *laissez-faire* was in tatters even by the beginning of the twentieth century, as liberal traditions faced imperial decline.⁷⁶ During the interwar period, it was the organisation and

⁷⁰ Ibid., p. 732.

⁷¹ Jim Tomlinson, ‘Thrice denied: “Declinism” as a recurrent theme in British history in the long twentieth century’, *Twentieth Century British History*, vol. 20, no. 2 (2009), p. 249.

⁷² Barry Supple, ‘Fear’, p. 441.

⁷³ Andrew Shonfield, *British economic policy since the war* (Harmondsworth: Penguin, 1958), p. 43.

⁷⁴ Elbaum and Lazonick, ‘Decline’, p. 574

⁷⁵ Sidney Pollard, *Peaceful conquest: The Industrialization of Europe 1760-1970* (London: Oxford University Press, 1981), p. 278.

⁷⁶ Scott Newton and Dilwyn Porter, *Modernization frustrated: The politics of industrial decline in Britain since 1900* (London: Unwin Hyman, 1988), p. 2.

efficiency of the staple industries upon which the debate focussed.⁷⁷ Despite contemporary anxieties and evidence from competitors, British industry failed to modernise their methods of production or re-equip their operating plants.

Aldcroft, Elbaum, Lazonick, and Lorenz have analysed declinism, suggesting it to be a retrospective obsession not always matched during the past.⁷⁸ Lorenz sought to periodize decline relative to the position of the US and Germany, but believes that ‘dramatic decline’ occurred during the third quarter of the twentieth century.⁷⁹ Whether the deterioration of shipbuilding in Britain during the interwar years was relative decline or failure, firms faced forces beyond their control during the stagnation of the interwar years. Elbaum, Lazonick and Lorenz argue that failure to transform shipbuilding dating from the nineteenth century was a key factor in explaining the industry’s deterioration, although it continued to command a ‘competitive position’ until after the Second World War.⁸⁰

Since late 1970s, some historians of economic decline have pointed to the role of government and its detrimental effect upon British industry. In the work of several historians, notably Sidney Pollard, Robert Bacon, Walter Eltis, Correlli Barnett, and Maurice Kirby who identified Britain’s ‘contempt for industrial production on the part of a Treasury-dominated civil service elite, obsessed with macroeconomics.’⁸¹ The long-running battle between Treasury and Admiralty in the interwar period over naval contract procurement seems to fit this description. However, government provided valuable assistance for the shipbuilding and shipping industries, most notably in the form of the Trade Facilities Acts (TFAs), the British Shipping

⁷⁷ Tomlinson, ‘Inventing decline’, p. 227.

⁷⁸ Elbaum and Lazonick, ‘Decline’, pp. 567-568.

⁷⁹ Lorenz, ‘An evolutionary explanation’, p. 911.

⁸⁰ British shipbuilding’s decline in world market share was later than for cotton or iron and steel. Lorenz, ‘An evolutionary explanation’, pp. 912-913; Elbaum and Lazonick, ‘Decline’, p. 574; Edward H Lorenz and Frank Wilkinson, ‘The shipbuilding industry 1880-1965’, in *The decline of the British economy*, ed. Bernard Elbaum and William Lazonick (Oxford: Clarendon, 1986), p. 123; Kirby, ‘Institutional’, p. 640.

⁸¹ Kirby, ‘Institutional’, p. 637; Robert William Bacon and Walter Eltis, *Britain’s economic problem: too few producers* (London: MacMillan, 1976), pp. 26-28; Pollard, *The wasting*, pp. 51-52; Barnett, *The audit*, p. 265.

(Assistance) Act (BSAA), and funding for the *RMS Queen Mary*.⁸² Even during the years beyond the 1930s, British shipyards had periods of exceptional trade, especially at Harland & Wolff (H&W) and Swan Hunter & Wigham Richardson Limited (SH&WR).⁸³ The actions of government created uncertainty for management, who thus relied upon tried and tested methods rather than invest in new technology. This demonstrates that the shipbuilding industry was not operating within a *laissez-faire* environment.⁸⁴

Scholarly studies have identified three approaches to Britain's industrial decline: first, neoclassical historians who looked beyond the concept of relative decline, believing that no competitive failure was evident and British shipbuilders simply did the best they could during the difficulties they confronted.⁸⁵ Second, the entrepreneurial failure thesis supported the ideology that British shipbuilders overlooked up-to-date technologies and work structures, preferring to work in line with historical methods of output.⁸⁶ Third, an institutional interpretation emerged: institutions that brought Britain's success during the nineteenth century then calcified during the 1950s.⁸⁷ None of these explanations in isolation wholly validates the arguments of decline, whilst together they provide limited answers to most of the declinism debate; they are not mutually exclusive in the context of the conclusion. This thesis will attempt to provide explanation of the decline, not from a narrow field of vision explained by an overriding economic formula, but rationalising the subject matter with reference to as many individual circumstances as necessary.⁸⁸

⁸² Johnman and Murphy, 'Subsidy', p. 92.

⁸³ Kirby, 'Institutional', p. 642.

⁸⁴ Sidney Pollard, 'Laissez-faire and shipbuilding', *Economic History Review*, vol. 5, no. 1 (1952), pp. 98-115.

⁸⁵ Kirby, 'Institutional', p. 637; Nicholas Crafts, 'Victorian Britain did fail', *Economic History Review*, vol. 32, no. 4 (1979), p. 533.

⁸⁶ Landes, *The unbound Prometheus*, p. 336.

⁸⁷ The Chandlerian version of the institutional approach appears in Lorenz and Wilkinson for shipbuilding and Elbaum and Lazonick more broadly. Lorenz and Wilkinson, 'The shipbuilding industry', p. 119; Kirby, 'Institutional', p. 637.

⁸⁸ Richard R Nelson and Sidney G Winter, *An Evolutionary Theory of Economic Change* (Harvard: Belknap Press of Harvard University Press, 1982), pp. 51-52.

Elbaum and Lazonick recognise that institutional rigidities within management helped to explain declining competitiveness.⁸⁹ During the interwar period, the intensity of the depression rendered traditional managerial decision-making habits inadequate. Lorenz argues, however, that the explanation provided by Elbaum and Lazonick is somewhat deficient, due to their failure to explain why management should be so unprepared for change.⁹⁰ The neoclassical interpretation, accepts that ‘relative economic’ decline did take place, but that the culprit was ‘inherited socioeconomic constraints at levels of enterprise, industry and society’ rather than any ineptitude in the decision-making process on the part of British entrepreneurs.⁹¹

The entrepreneurial failure theory, however, has two aspects. First, cultural norms push actors to act in ways counter to their own interests because of the low status associated with industry.⁹² To simplify this, Landes proposes a three-generation model with the grandfather as pioneer, the father as the ambitious successor seeking to maximise wealth potential, and the well-educated grandson of the British elite with his ideas of ‘country gentleman’ behaviour and a disdain for industrial pursuits.⁹³ Second, the entrepreneurial failure thesis also seeks to explain that culturally specific beliefs affect the way actors perceive their opportunities. The beliefs of the business community distorted rational decision-making, resulting in lost profitable opportunities. This is particularly relevant to how management reacted to the changing government policies during the interwar years, as well as their inability to adopt mechanisation as foreign shipyards were doing. Aldcroft argues that the most damning example of managerial cultural conservatism was failure to invest in research and scientific and technical training during the period 1918–39.⁹⁴ Chandler’s *Scale and scope* indicates that the capital intensity in

⁸⁹ Elbaum and Lazonick, ‘Decline’, p. 574.

⁹⁰ Lorenz, ‘An evolutionary explanation’, p. 913.

⁹¹ Elbaum and Lazonick, ‘Decline’, p. 568.

⁹² Lorenz, ‘An evolutionary explanation’, p. 912.

⁹³ Landes, *The unbound Prometheus*, p. 336.

⁹⁴ Derek Howard Aldcroft and Harry Ward Richardson, *The British Economy 1870-1939* (London: MacMillan, 1969), p. 118.

the US and German shipbuilding was significantly greater than that in Britain. Throughout the interwar period Britain continued to rely upon manual dexterity to ensure the construction of ships, whereas overseas shipbuilders were highly capitalistic in the formation of their shipyards.⁹⁵

Interwar shipbuilding: stagnation without decline?

Sidney Pollard and Paul Robertson provided the pioneering and authoritative study of the ascendancy of the British shipbuilding industry up to 1914.⁹⁶ Pollard notes that British shipbuilding achieved success without assistance from subsidies or protective legislation.⁹⁷ Ships built in British yards were simply of a higher quality than those built overseas.⁹⁸ Nevertheless, Britain witnessed declining output from as early as the 1890s because leading industrial nations recognised the benefits derived from establishing naval and merchant shipping.⁹⁹ Britain continued to build up to 60 percent of the world's merchant tonnage in the years leading up to the First World War, and whilst Germany appeared a major competitor due to its efficient steel industry and technical education, it failed to change the attitude of British management, who refused to recognise the value of technical education.¹⁰⁰ Britain remained committed towards 'on-the-job training.'¹⁰¹ German costs held back its industry, preventing it from securing a significant number of foreign contracts.¹⁰² In the period 1903–14, German

⁹⁵ Chandler, *Scale*, pp. 631-732.

⁹⁶ Pollard and Robertson, *British Shipbuilding*.

⁹⁷ Sidney Pollard, 'British and world shipbuilding, 1890-1914: A study of comparative costs', *Journal of Economic History*, vol. 17, no. 3 (1957), p. 426.

⁹⁸ Anthony J Arnold, *Iron shipbuilding on the Thames 1832-1915: an economic and business history* (Aldershot: Ashgate, 2000), p. 123.

⁹⁹ Murphy, 'The British Shipbuilding Industry', p. 23.

¹⁰⁰ Paul L Robertson, 'Technical education in the British shipbuilding and the marine engineering industries, 1863–1914', *Economic History Review*, vol. 27, no. 2 (1974), pp. 222-235.

¹⁰¹ Ibid, 222; Bernard Elbaum, 'Why apprenticeship persisted in Britain but not in the United States', *Journal of Economic History*, vol. 49, no. 2 (1989), pp. 337-349; Landes, *The unbound Prometheus*, pp. 150-51 and 339-48.

¹⁰² Pollard, 'British', p. 429.

output fell to one sixth of British output, whilst the US entered the First World War in 1917 and undertook its emergency shipbuilding programme.¹⁰³ Other international forces began focussing attention upon sea transport. France, Italy and Japan all began investing in seaborne transport, although the vessels, mostly comprised naval vessels built with the support of government finance.¹⁰⁴

British shipbuilding survived into the twentieth century because of the skill of its artisans, boilermakers, and shipwrights. In view of the lack of trained labour, foreign shipyards installed expensive capital equipment, which was viable only when yards were properly utilised. Despite the reliance upon a capital-intensive industry, overseas shipbuilders still found the necessity to employ British managers and workers to ensure their ships were completed.¹⁰⁵ British shipbuilding attained early maturity, though at times lacked the specialisation achieved in certain overseas shipyards.¹⁰⁶ Pollard recognises that the degree of shipyard specialisation at local and regional levels did not fit this generalisation.¹⁰⁷ Although Britain appeared to be at shipbuilding's technological frontier, it relied upon labour-intensive methods.¹⁰⁸ SH&WR, H&W and Clydebank were equipped as any shipyard in mainland Europe.¹⁰⁹ Overseas shipbuilders opted for a capital-intensive model with greater reliance on new technology and mechanical equipment to build their ships. However, during recessionary periods their capital cost lay idle, whereas British shipbuilders would lay off their workforce. British suppliers met most of the demand from British shipbuilders and at a price 15–20 percent cheaper than was

¹⁰³ British shipyards experienced little trouble from activities that arose in the US, which failed to gain a strong industrial hold.

¹⁰⁴ Pollard, 'British', p. 431.

¹⁰⁵ *Ibid.*, p. 437.

¹⁰⁶ The tonnage schedules in Appendices 1.0 and 2.0 show that Clydeside and Tyneside built large liners; Clydeside and Tyneside, built for the Admiralty; North-East Coast of England principally built cargo vessels.

¹⁰⁷ Pollard, 'British', p. 434.

¹⁰⁸ The relationship between shipbuilder and shipping company demonstrates the extent to which close personal relationships existed. This ensured repeat business for the shipbuilder and likewise this relationship stretched backwards between shipbuilder and marine engineering firms.

¹⁰⁹ Pollard, 'British', p. 437.

available in Germany.¹¹⁰ British shipbuilding benefitted from the proximity of shipbuilding to the coal and iron deposits.¹¹¹ The geographical advantage transferred shipbuilding capacity from the River Thames and South Coast of England to the North-East Coast of England and the West of Scotland during the nineteenth century.¹¹² Although, only Yarrow's of Poplar on the Thames transferred to Scotstoun near Glasgow in 1908.¹¹³ From the standpoint of free market economics, British shipbuilding and shipping lines operated close to a 'perfectly competitive' environment in the period up until 1914 without state influence.¹¹⁴ Shipbuilders in the era leading up to the First World War defended the principles of economic freedom.¹¹⁵ According to Pollard, shipbuilding in Britain developed during the nineteenth century from a trade based upon guesswork into a science, making use of iron, steam, screw propulsion, and steel.¹¹⁶ By the end of the nineteenth century shipbuilders no longer relied upon 'rule of thumb' to build ships.¹¹⁷ Pollard believes that Britain's superiority continued in shipbuilding until 1914 because it established access to a large market; specialisation within its shipbuilding base; the cheapness of raw materials and components; and the skill of its workforce.¹¹⁸

British shipbuilders did not receive the level of support available to shipping in France, Denmark, Japan, Netherlands, Norway, Sweden, Germany and the US, although the British government did have various ways of providing financial support for the maritime industries.¹¹⁹

Other than statutory measures that British government introduced in the form of the TFAs and

¹¹⁰ It took until 1910 for German shipbuilders to receive plates and angle irons at prices compatible with Britain.

¹¹¹ Chandler, *Scale*, p. 322.

¹¹² Pollard, 'British', p. 441; Arnold, *Iron shipbuilding*.

¹¹³ Pollard and Robertson, *British Shipbuilding*, p. 114. However, Michael S Moss & John R Hume, *Workshop of the British Empire, Engineering and Shipbuilding in the West of Scotland* (London: Heinemann, 1977), p. 97 states that Yarrow's moved to Scotstoun in 1906.

¹¹⁴ Britain was able to find customers because its vessels were of a better quality than foreign-built ships, and were generally cheaper. Pollard, 'Laissez-faire', p. 98.

¹¹⁵ Whilst the shipbuilders were apparently content to have no state involvement in their industry, they were nevertheless prepared to accept the 'constant encouragement, assistance and guidance' provided by the British government.

¹¹⁶ Pollard, 'Laissez-faire', p. 99.

¹⁰¹ Ibid., 105-106; Barnett, *The audit*, p. 109.

¹¹⁸ Pollard, 'British', p. 444.

¹¹⁹ Hope, *A new history*, p. 335.

the BSAA, other measures to aid the shipbuilding industry comprised: naval contracts in the build-up to the Second World War; assistance with the Cunard Insurance Act 1902, which enabled construction of the passenger liners *Aquitania* at John Brown on the Clyde and the *Mauretania* at SH&WR on Tyneside; as well as assistance to Cunard and White Star Line, which enabled construction of the *RMS Queens Mary & Elizabeth*.¹²⁰ Of course, pure *laissez-faire* was a fiction when British shipbuilders operated within tonnage legislation, safety regulations, load lines, and many other aspects of maritime trade set down in legislation.¹²¹ The strength of the shipbuilding boom after the end of the First World War was unparalleled in terms of its intensity. The boom was unusual because the world already had sufficient tonnage.¹²² It was also short-lived, beginning during 1919 and lasting until March–April 1920. Whilst the period of surge was short, it stimulated immense activity amongst ‘shipbuilders, ship-owners and speculators.’¹²³ Shipbuilders reacted, utilising cash reserves and interest-bearing liabilities, to respond to post-war difficulties.¹²⁴ Aldcroft believes these factors created difficulties on an international basis: there was a desire to replace war losses; the need for emergency shipbuilding programmes in various countries in the post-war period; and the need for most nations to be self-sufficient in shipping. Britain’s position was somewhat different, benefitting from the release of shipping from wartime control, expectations of a worldwide boom, reduction in excess profit duties, desire to restore Britain to its world leader status: all of these stimulated shipbuilding growth. Aldcroft maintains that port congestion resulted in confusion for shipping operators at major ports whilst ‘smaller ports remained relatively idle.’ British trade indicated that ports were effectively responsible for handling 75 percent of their

¹²⁰ Chandler, *Scale*, p. 327 and Hope, *A new history*, p. 372.

¹²¹ Pollard, ‘Laissez-faire’, p. 115.

¹²² Derek Howard Aldcroft, ‘Port congestion and the shipping boom of 1919-20’, *Business History*, vol. 3, no. 2 (1961), p. 97.

¹²³ *Fairplay* estimated that, between 1914 and March 1920, the price of a standard cargo steamer of 7,500 tons had risen from £60,000 to £259,000; however, by the end of the 1920 it had fallen to £105,000.

¹²⁴ Aldcroft, ‘Port’, p.99.

pre-war imports. With regard to Britain's level of exports, Aldcroft believes that this was likely to be no more than 50 percent of its pre-war level.¹²⁵ A number of factors gave rise to port congestion: the standard working week in shipbuilding had been reduced from 52 to 44 hours per week; sheds did not clear quickly to enable transportation of goods; and strikes of dockyard workers, railway men and coal miners compounded the position. Port congestion was, in part, a factor in, but not a cause of the collapse of the post-war boom of 1919-1920. Aldcroft notes that port congestion diminished as the boom ended, though he felt it remained until as late as August 1920. By early 1921, there was over 10 million tons more shipping in existence than before the war. Of this tonnage, over 5 million tons was laid up and 2 million tons related to British shipping.¹²⁶

The difficulties confronted in 1920–21 fuelled by a speculative post-war boom left government no alternative in dealing with the 'deleterious effects of rising unemployment'; it introduced the TFAs and shipbuilders, much to the disgust of shipping companies, accepted gratefully.¹²⁷ The TFAs arose following a conference held at Gairloch to consider the 'fundamental causes of unemployment.'¹²⁸ Winston Churchill was against the idea and believed it was fateful to the economic future of industry.¹²⁹ The introduction of the TFA in 1921 provided £25 million to guarantee principal or interest on funds made available for capital loans.¹³⁰ Over the duration of the scheme, the level increased several times to reach £75 million.¹³¹

Within seven months, the scheme had almost reached its limit and Otto Niemeyer, controller of finance and supply at the Treasury, hoped that the Act would lapse. Niemeyer believed that

¹²⁵ Ibid., p. 101.

¹²⁶ Ibid., p. 106.

¹²⁷ Johnman and Murphy, 'Subsidy', p. 90.

¹²⁸ Bentley B Gilbert, *British social policy 1914-1939* (London: Batsford, 1970), p. 47; 'The Prime Minister seeks advice', *Manchester Guardian*, 28 September 1921, p. 6.

¹²⁹ Johnman and Murphy, 'Subsidy', p. 91.

¹³⁰ 'The Trade Facilities Bill: Treasury memorandum.' *Manchester Guardian*, 20 October 1921, p. 7.

¹³¹ The TFAs were an early attempt at subsidy, which was available not only to shipbuilding, but to a host of other industries, although shipbuilding received strong support.

there was ample money available for investment and there was no need for the government to continue providing funding. Considerable resentment arose from the shipping industry, as there was already a surplus in world tonnage.¹³² Whilst the TFAs continued throughout 1924 under a Labour government, the provisions did not become available to shipbuilding.¹³³ However, by 1 January 1925, Conservative Prime Minister Stanley Baldwin announced that the TFAs would be again available to shipbuilding.

By May 1927, TFAs had distributed £74,251,780, and the shipbuilding industry received £21,640,585, representing 29.1 percent of the fund.¹³⁴ Whilst a large part of funding became available in the areas of greatest need, there was debate as to whether British shipbuilding really required assistance.¹³⁵ There is no doubt that the problems encountered by Lord Kylsant and the Royal Mail Steam Packet Company (RMSPC) were made worse by the ease with which they manipulated the Group's funding through the TFAs.¹³⁶

Throughout the 1920s, Britain's shipbuilding capacity of between 3.0 and 4.0 mgt was severely under-utilised. At best, less than 50 percent was utilised, and at worst as low as 18 percent.¹³⁷ John Brown of Clydebank with a potential tonnage output of between 90,000 and 100,000 tons per annum was one of the largest British shipbuilders.¹³⁸ The yard was involved in all types of shipbuilding with an emphasis on large passenger liners and contracts for the Royal Navy.¹³⁹ After the WNT, one of the super-*Hood* contracts allotted to John Brown was abruptly withdrawn. During the years 1919–30, John Brown tendered for 62 naval vessels, yet the

¹³² Johnman and Murphy, 'Subsidy', p. 97.

¹³³ Gilbert, *British*, p. 90.

¹³⁴ Peter Neville Davies, *The trade makers, Elder Dempster in West Africa 1852-1971* (London: George Allen & Unwin, 1973), p. 256.

¹³⁵ Johnman and Murphy, 'Subsidy', p. 102.

¹³⁶ Peter Neville Davies, 'Business success and the role of chance: The Extraordinary Philipps Brothers', *Business History*, vol. 23, no. 2 (1981), pp. 208-32.

¹³⁷ Sidney Pollard, *The Development of the British Economy 1914-1990*, 4th edition (London: Arnold, 1992), p. 54. Pollard believes that output fluctuated between 640,000 tons and 1,540,000 tons during the 1920s.

¹³⁸ Arnold, *Iron shipbuilding*, p. 124

¹³⁹ Slaven, 'A shipyard', p. 192.

company only secured 7 contracts. In the same period, the company submitted tenders for 241 merchant contracts, but these translated into only 28 orders.¹⁴⁰ Following the collapse of the markets during the 1920s, as Slaven states, submission of tenders for shipbuilding contracts was an extremely ‘risky business.’ Between 1922 and 1928, John Brown made losses on 8 of the 23 contracts undertaken.¹⁴¹ John Brown, which secured the contract to build *RMS Queen Mary* in 1930, experienced the fate of the contract being suspended on 12 December 1931 and not recommencing until 3 April 1934.¹⁴² Slaven believes that the interwar period saw an end to the phrase ‘builders’ friend’, as shipping companies turned to placing orders with the cheapest shipbuilders in a buyer’s market.¹⁴³ Whilst larger shipyards all faced similar problems with foreign competition, there is no doubt that certain British shipyards were as well equipped as shipyards in mainland Europe.¹⁴⁴

The volume of shipping built in Britain began to decline from as early as 1890, but until the Second World War Britain nevertheless continued to have the largest output of ships worldwide.¹⁴⁵ Lorenz attributes competitive decline to the industry during the decades following the Second World War.¹⁴⁶ During the 1890s, British shipbuilders launched 75 percent of the world’s output, though this decreased to 60 percent from 1900 and continued at that level until 1914.¹⁴⁷ This 15 percent deterioration in British shipbuilding output matched the increased capacity materialising in the US and mainland Europe. During the First World War, British shipbuilding shrank when the worldwide market became unavailable to British shipbuilders. British shipbuilding re-established itself after 1918, producing 45 percent of the

¹⁴⁰ Ibid., p. 198.

¹⁴¹ J Rankin, ‘Hardship and courage on the Clydeside’, *The Listener*, 2 May 1934, p. 743.

¹⁴² Slaven, ‘A shipyard’, p. 201.

¹⁴³ Ibid., p. 195.

¹⁴⁴ Ibid., p. 215.

¹⁴⁵ Broadberry, *The British economy*, p.10.

¹⁴⁶ Lorenz, *Economic*, p. 21.

¹⁴⁷ Lorenz, ‘An evolutionary explanation’, p. 914.

world's output during the 1920s. There were further losses during the 1930s, by which time Britain was producing only approximately 35 percent of the world's requirements.¹⁴⁸ The deterioration in Britain's share of the world market for ships arose in part from policies of economic nationalism abroad. Whilst Britain had been formally involved in postal subventions to the large shipping liner companies from as early as 1840, legislation was formalised in the Cunard Insurance Act 1903 enabling SH&WR to build *Mauretania* and John Brown to build *Aquitania*.¹⁴⁹ Following the revival in trade from 1935, Germany, Sweden and the Netherlands made major inroads into third-country markets previously controlled by Britain. By 1936–38, Britain's share of world shipbuilding deteriorated to 21 percent. In addition, ships built abroad for British owners increased from 2.8 percent in 1930–35 to 12.6 percent in 1936–38.¹⁵⁰

Lorenz believes decline during the 1930s was attributable to foreign protectionism and subsidies to overseas shipping companies who were then required to order ships from domestic shipyards.¹⁵¹ The output of shipbuilders was severely affected by the volatility of the economy. This volatility arose from changes of 'mechanisation, labour force organisation, industrial organisation' and other factors that impacted upon the shipbuilding industry. By controlling the extent of overhead expenditure ensured that British shipbuilders maintained the ability to maximise output whilst building 'large and complex' vessels.¹⁵² British shipbuilders adapted to a system whereby the factors of production could easily be dispensed with as trade diminished during recessionary periods.¹⁵³ Unfortunately, shipbuilders in the US and Germany embarked upon a structure to shipbuilding that was uncompetitive in comparison to British shipbuilders. Despite the technology available to German shipbuilders, they were still unable

¹⁴⁸ Ibid., p. 915.

¹⁴⁹ Johnman and Murphy, 'Subsidy' p. 89.

¹⁵⁰ Ibid., p. 916.

¹⁵¹ Ibid., p. 915.

¹⁵² Elbaum and Lazonick, 'Decline', p. 574.

¹⁵³ Pollard and Robertson, *The British Shipbuilding Industry*, p. 29.

to compete at the productivity levels achieved by British shipbuilders. Shipbuilders in the US experienced daunting overheads and were only able to achieve profitability in optimum trading conditions.¹⁵⁴

Within Britain, wage rates increased as trade improved, though could decline during a downturn in trade, otherwise labour would be dismissed and re-employed as warranted by the outlook of trade. This therefore gave rise to immense difficulties when contracts were signed for building vessels, as wage rates could change several times before the vessel was handed over to its owners, otherwise industrial unrest could delay the completion.¹⁵⁵ Whilst British shipyard workers achieved higher levels of productivity than achieved by workers in the US and Germany they were nevertheless adverse to operating beyond their normal working hours.¹⁵⁶ The ability to control labour during cyclical downturns in the economy proved problematic, since shipbuilders recognised that as the economy recovered it became difficult to find skills necessary for shipbuilding. Britain had sufficient 'skill craft labour' in comparison to the US, which reduced the importance for manufacturers in Britain to adopt automation and mass-production¹⁵⁷ Therefore, shipbuilders became reluctant to dismiss staff due to difficulties of recruitment when the economy recovered. Whilst German shipbuilders placed great emphasis on theoretical education, shipbuilders in Britain emphasised manual training, which assisted reducing labour costs.¹⁵⁸ The organisation structures within British shipbuilding improved with vertical integration backwards into the steel and armour manufacturers and forwards into shipping lines.¹⁵⁹

¹⁵⁴ Chandler, *Scale*, p. 205.

¹⁵⁵ Pollard and Robertson, *The British Shipbuilding Industry*, p. 29.

¹⁵⁶ *Ibid.*, p160-161.

¹⁵⁷ Aldcroft, 'The Entrepreneur', p. 130.

¹⁵⁸ Pollard, 'Laissez-faire', p. 101 and Robertson, 'Technical', p. 231.

¹⁵⁹ Along with Beardmores, SH&WR acquired 50 percent of the Glasgow Iron & Steel Company, Harland & Wolff acquired David Colville & Company, Northumberland Shipbuilding acquired Lanarkshire Steel Company and Alexander Stephen and associates acquired the Steel Company of Scotland.

However, whilst accepting that investment in British shipyards was an issue, Lorenz does not believe that it had such an impact upon minimising cost, but rather the adoption of scientific management within the production process that resulted in foreign yards meeting early delivery dates.¹⁶⁰ Moreover, Lorenz feels that investment in mechanisation did not result in labour cost savings, as it only removed low-cost labour from production processes.

Kirby notes that British shipbuilding's 'comparative advantage' lay in specialised vessels requiring highly skilled flexible labour.¹⁶¹ However, this labour force was less well adapted to highly mechanised production geared to standardised vessels. British shipyards operated in older yards with practices that had evolved slowly since the advent of iron and steel. By 1927–30, the British shipbuilding industry was still finding the transition difficult from steamship construction to the motorship; Britain was still building 65 percent of the world's steamships, but only 41 percent of the world's motor vessels.¹⁶² Despite differences between entrepreneurial failure and neoclassical schools, a consensus exists that British shipbuilding suffered due to inadequate mechanisation.¹⁶³

Explanation of British shipbuilding industry's decline requires caution. For example, within the context of any industrial decline, there must be industrial failure, as businesses close. Historians have used an industry-wide lens rather than dealing with individual company failure.¹⁶⁴ Whilst Britain fought the First World War as a major power, as the interwar period ended Britain appears to have lost its pre-eminence. Supple notes that Britain experienced

¹⁶⁰ Ibid., p. 921.

¹⁶¹ Kirby, 'Institutional', p. 640.

¹⁶² Pollard S, *The Development of the British Economy 1914–1980*, 3rd edition (London: Edward Arnold, 1983), p. 53.

¹⁶³ Elbaum and Lazonick, 'Decline', p. 574.

¹⁶⁴ John Stevenson and Chris Cook, *The slump, society and politics during the depression* (London: Jonathan Cape, 1977), p. 55.

geopolitical decline throughout the Second World War, even though it did not face an ‘immediate and obvious’ indication of national decay.¹⁶⁵

Ships grew in size, sophistication, and specialisation. Moreover, with engine development, both speed of transport and fuel efficiency became issues. Historians have noted that the North-East Coast of England remained linked to the tramp steamer, which required little new technology, practices or capital refitting.¹⁶⁶ Of course, shipyards built specialised ships, liners, warships and tankers, but only the minority of innovative yards constructed these vessels, and it was these yards that grasped mechanisation and upgraded facilities. This underlines Habakkuk’s view that the rate of slowdown in both output and export activity was more to do with the low rate of structural change at home rather than the growth of industrialisation abroad.¹⁶⁷

Two peculiarities of the debate about decline obscure interwar industrial performance. First, the debate on British decline has tended to focus on late Victorian or post-1945 ‘failure.’ Second, another concern has been with long-run comparative performance in growth and productivity.¹⁶⁸ Britain’s difficulty, however, was that from 1920 it was no longer possible to ensure full employment or pay for overseas products.¹⁶⁹ Where shipbuilding is concerned, the interwar period underplays accounts of decline because of the restoration of its pre-eminent role for a decade after 1945.¹⁷⁰

¹⁶⁵ Supple, ‘Fear’, p. 445.

¹⁶⁶ Murphy, ‘The British Shipbuilding Industry’, p. 24.

¹⁶⁷ Aldcroft and Richardson, *The British Economy*, p. 116; John Habakkuk, ‘Family structure and economic change in 19th century Europe’, *The Journal of Economic History*, vol. 15, no. 1 (1955), pp. 1-12.

¹⁶⁸ Supple, ‘Fear’, pp. 441–44; Kirby, ‘Institutional’, p. 638; McCloskey, ‘Did Victorian’, pp. 446-459. Britain’s share of manufacturing output in the world’s economy was about 40 percent in 1870; however, over the course of the 100 years this fell to 9 percent.

¹⁶⁹ William Arthur Lewis, *The theory of economic growth* (London: George Allen & Unwin, 1955), p. 345.

¹⁷⁰ As Pollard (who locates British industrial decline from 1950) notes, Britain’s shipbuilding order book reached an estimated 7.0 mgrt, being the largest ever experienced. Pollard, *The wasting*, p. 79.

The situation of interwar British shipbuilding: regions in comparison

The pattern of orders from shipping firms (the demand side) is highly dependent on freight rates. Being a supply side industry the British shipbuilder had always been subject to the vagaries of the trade cycle.¹⁷¹ During the years 1870 to 1914, British shipbuilding built four times as much tonnage as the rest of the world combined. It was not merely the quantity of ships built that emphasised Britain's superiority: Britain's quality was seen as supreme.¹⁷² Prior to 1880, private shipyards undertook naval shipbuilding only where the Royal Dockyards were working to full capacity. However, from that point, private shipyards began securing increasing numbers of Admiralty contracts.¹⁷³ Consequent upon the Naval Defence Act 1889, Britain's private shipyards increasingly secured a major share of naval contracts, and up to 1914 undertook at least 50 per cent of Admiralty contracts.¹⁷⁴ In 1919–20, Britain's shipbuilders worked to full capacity, but soon faced falling orders and foreign competition.¹⁷⁵ Soon enough, signs of British shipbuilding industry's decline became apparent.¹⁷⁶ New competitors displaced British shipbuilders during wartime and certain international routes were no longer the privilege of British shipping: Japan exercised commercial powers in the Pacific; the US became a maritime force; and the world depended less upon Britain to meet its maritime requirements.¹⁷⁷ When freight rates collapsed during 1920, shipbuilding experienced large-scale cancellation of

¹⁷¹ Freight rates improved with upward trends, eventually equilibrium developed, surplus tonnage materialised, resulting in diminishing freight rates. Pollard and Robertson, *British Shipbuilding*, p. 27; Jones, *Shipbuilding*, p. 32.

¹⁷² Pollard, 'Laissez-faire', p. 98; Lorenz, 'An evolutionary explanation', 911; Aldcroft, 'Port', p. 97.

¹⁷³ Chandler, *Scale*, p. 341.

¹⁷⁴ Hugh B Peebles, *Warshipbuilding on the Clyde. Naval Orders and the Prosperity of the Clyde Shipbuilding Industry, 1889-1939*, (Edinburgh, John Donald Publishers Limited, 1987), pp. 2-3; Jones, *Shipbuilding*, pp. 125 and 126; Ian Johnston, *Ships for a nation: John Brown & Company, Clydebank, 1847-1971* (Glasgow: West Dunbartonshire Libraries & Museums, 2000), p. 119; Alastair Borthwick, *Yarrow and Company Limited, The first hundred years* (Glasgow: The University Press, 1965), p. 28; John Lees Carvel, *Stephen of Linthouse: A record of two hundred years of shipbuilding, 1750-1950* (Glasgow: University Press, 1950), p. 109.

¹⁷⁵ Lorenz and Wilkinson, 'The shipbuilding industry', p. 110; 'Threat to British shipbuilding – Sir W Noble on foreign competition.' *The Times*, 15 October 1921, p. 7; 'British shipbuilding after the war' in *The Shipbuilder, The Journal of Shipbuilding, Marine Engineering and Allied Industries*, ed. A G Hood (Newcastle upon Tyne: Shipbuilding Press, 1917), p. 3.

¹⁷⁶ Johnman and Murphy, *British Shipbuilding*, p. 12.

¹⁷⁷ Jones, *Shipbuilding*, p. 60.

orders.¹⁷⁸ On 9 November 1920, Sir George Hunter, chairman of SH&WR, lamented, 'For every new order placed shipowners were trying to cancel two orders.'¹⁷⁹ Throughout 1921, the depressed state of shipbuilding deepened.¹⁸⁰ Certain yards were working on their final orders, and some yards had no orders and closure was likely.¹⁸¹ Slaven notes that 'in the peak year of 1913, the Clyde built and launched almost three-quarters of a million tons of shipping, some 756,973 tons, a feat never to be equalled.¹⁸² This represented not only one-third of British tonnage, but almost 18 per cent of world output, and was more than the production of the entire shipbuilding industry of either Germany or America. The Clyde was supreme in 1870, and was still on the pinnacle in 1913.'¹⁸³

¹⁷⁸ Dougan, *The History*, p. 139.

¹⁷⁹ 'The shipbuilding centres, North East coast', in *The Shipbuilder*, ed. A G Hood (1917), p. 312.

¹⁸⁰ HOCD, 9 November 1921, vol. 148, cc415-6W.

¹⁸¹ Jones, *Shipbuilding*, pp. 187-88.

¹⁸² Slaven, *West of Scotland*, pp. 178-179.

¹⁸³ *Ibid.*

Table 0.2: Summary of merchant shipbuilding launched 1913¹⁸⁴

| | No. | Grt | % |
|--------------------------------------|--------------|------------------|---------------|
| Britain | 688 | 1,932,153 | 57.97 |
| Other British Commonwealth countries | <u>91</u> | <u>48,339</u> | <u>1.45</u> |
| | 779 | 1,980,492 | 59.42 |
| Germany | 162 | 465,226 | 13.96 |
| US | 205 | 276,448 | 8.29 |
| France | 89 | 176,095 | 5.28 |
| Netherlands | 95 | 104,296 | 3.13 |
| Japan | 152 | 64,664 | 1.95 |
| Other foreign countries | <u>268</u> | <u>265,661</u> | <u>7.97</u> |
| Total world | <u>1,750</u> | <u>3,332,882</u> | <u>100.00</u> |

By the advent of the First World War, Britain produced some sixty percent of the world's maritime requirements, although it was already apparent that it was facing an increasing level of foreign competition, particularly from continental Europe, the US and Japan.

¹⁸⁴ The data shown in Table 0.2 and Table 0.3 are taken from statistics maintained in the Lloyd's Registers and relate only to merchant vessels of 100 grt and over.

Table 0.3: Summary of merchant shipbuilding launched for ten years to 1922

| | No. | Grt | % |
|--------------------------------------|---------------|-------------------|---------------|
| Britain | 4,455 | 13,631,075 | 36.55 |
| Other British Commonwealth countries | <u>1,012</u> | <u>1,278,645</u> | <u>3.43</u> |
| | 5,467 | 14,909,720 | 39.98 |
| Germany ¹⁸⁵ | 680 | 1,887,311 | 5.06 |
| US | 3,642 | 12,876,019 | 34.53 |
| France | 357 | 912,103 | 2.45 |
| Netherlands | 1,123 | 1,454,295 | 3.90 |
| Japan | 932 | 2,654,991 | 7.12 |
| Other foreign countries | <u>2,026</u> | <u>2,596,286</u> | <u>6.96</u> |
| Total world | <u>14,227</u> | <u>37,290,725</u> | <u>100.00</u> |

Chapter One analyses merchant tonnage built during the interwar period from the perspective of a regional comparison of the North-East Coast of England and the West of Scotland. These were the two most significant shipbuilding regions in Britain. Such an examination allows the differential impact of the industrial malaise of the interwar years to be considered, as well as the complexities of performance with regard to specialisation and technology.

Chapter Two identifies the difficulties confronting shipbuilders in Britain when undertaking work for the Admiralty. Whilst the main international powers sought control that was equitable following the ending of the First World War, this nevertheless intensified diplomacy as 1939 approached. Owing to the capital cost of building naval ships, a decision was taken during 1921 by Britain, the US, Japan, France and Italy to comply with the terms of the WNT 1921 in limiting the size in construction of naval vessels in order to overcome the financial

¹⁸⁵ The merchant tonnage for Germany does not reflect any tonnage launched for the years 1915 to 1920, as no shipbuilding returns were available to Lloyd's Registrars.

consequences that war-shipbuilding would bring about.¹⁸⁶ Naval shipbuilding offered no haven for the industry: during the interwar years, the WNT and then the London Naval Treaties (LNT) (1930 and 1936) restricted construction.¹⁸⁷ However, when the LNT expired in 1936 there was a surge in naval construction as a result.¹⁸⁸ The industry did nonetheless recover, in part due to rearmament.

By March 1937, Britain was building over 1.0 mgt of merchant shipping and 400,000 displacement tons of naval shipping.¹⁸⁹ Lorenz observes that during the interwar period, protectionist policies and subsidies abroad contributed to a significant loss in Britain's market share of the shipbuilding industry.¹⁹⁰ The development of overseas shipbuilding interests had begun in the opening years of the twentieth century when the Japanese government provided vital support for its shipbuilding companies in the build-up to the Russo-Japanese war.¹⁹¹ The US maritime policy emerged with the increase in tonnage during the First World War. Whilst Denmark, Netherlands, Norway and Sweden suffered severe losses during the First World War, all four earned substantial profits from carrying cargoes for the belligerent countries.¹⁹²

¹⁸⁶ Paul M Kennedy, *The rise and fall of British naval mastery*, 3rd edition (London: Fontana Press, 1991), p. 324; Geoffrey Till, 'Retrenchment, rethinking, revival, 1919-1939', in *The Oxford illustrated history of the Royal Navy*, ed. John Richard Hill (Oxford: Oxford University Press, 1995), p. 326.

¹⁸⁷ Christopher M Bell, *The Royal Navy, seapower and strategy between the wars* (Basingstoke: MacMillan, 2000), p. 2.

¹⁸⁸ Observing that naval orders allowed recovery but that waves of closures and industry-wide rationalisation (in the shape of the National Shipbuilders Security Limited (NSS)) did not result in a secular improvement in British shipbuilding's competitiveness; see Johnman and Murphy, *British Shipbuilding*, p. 59. Some yards required for wartime construction closed during rationalisation under the auspices of NSS: see Jones, *Shipbuilding*, p. 58.

¹⁸⁹ Jones, *Shipbuilding*, p. 58.

¹⁹⁰ Lorenz, *Economic*, p. 8.

¹⁹¹ Kozo Yamamura, 'Success ill gotten? The role of Meiji Militarism in Japan's technological progress', *Journal of Economic History*, vol. 37, no. 1 (1977), p. 128; Tomohei Chida and Peter Neville Davies, *The Japanese shipping and shipbuilding industries* (London: Athlone Press, 1990), p. 12.

¹⁹² Hope, *A new history*, pp. 334-37; Pollard and Robertson, *British Shipbuilding*, pp. 37-38; Gelina Harlaftis and John Theotokas, 'Maritime Business during the 20th Century: continuity and change', in *The Handbook of Maritime Economics and Business*, ed. Costas Th. Grammenos (London: Informa Professional, 2002), pp. 18-29.

If the naval treaties and foreign competition transformed the context for British shipbuilding in the interwar years, so too did the faltering move away from *laissez-faire*.¹⁹³ The introduction of the Trade Facilities Act (TFA) in 1921 assisted the increasing levels of unemployment.¹⁹⁴ The TFA provided a mechanism to guarantee the payment of interest and principal on loans, for undertaking capital work or for the acquisition of goods.¹⁹⁵ From its inception during 1921 until the scheme's expiry in 1927, shipbuilding obtained 30 percent of the TFA facilities.¹⁹⁶ This legislation provided assistance to an industry that lagged behind other industrial sectors. Chapter Three delves into the impact and shortcomings of the TFAs.

Faced with nearly a decade of malaise, the shipbuilding industry, like others, turned to rationalisation and self-regulation to restrict output (sterilisation) and raise prices.¹⁹⁷ On the initiative of Sir James Lithgow, the National Shipbuilders Security Limited (NSS) came into existence in 1930 with funding from the Bankers' Industrial Development Corporation (BIDC) and a levy amongst members of the Shipbuilding Conference against new tonnage built to correct overcapacity.¹⁹⁸ The timing of such efforts at self-regulation was not fortuitous: if the shipbuilding industry thought the economic conditions in the 1920s were arduous, then the early years of the 1930s were catastrophic.¹⁹⁹ Given the environment in which British shipbuilding found itself during these years, the question remains of this period's significance in the long-term fortunes of the industry. Chapter Four will consider how the process of rationalisation affected both regions under consideration and how it was received by the industry locally. Whilst the latter years of the 1920s provided hope that Britain had overcome the difficulties

¹⁹³ Alan Booth, 'Britain in the 1930s: a managed economy?' *Economic History Review*, vol. 40, no. 4 (1987), p. 519.

¹⁹⁴ Grove, *Government*, p. 46.

¹⁹⁵ Johnman and Murphy, *British Shipbuilding*, p. 21.

¹⁹⁶ *Ibid.*, p. 28.

¹⁹⁷ Daniel Todd, 'Strategies of growth, diversification and rationalisation in the evolution of concentration in British shipbuilding', *Regional studies*, vol. 18, no. 1 (1984), pp. 63 and 64; J M Reid, *James Lithgow, master of work* (London: Hutchinson, 1964), pp. 131-34.

¹⁹⁸ Johnman and Murphy, *British Shipbuilding*, p. 35.

¹⁹⁹ Slaven, 'Self-liquidation', in *Chartered and Unchartered Waters*, ed. Palmer and Williams, p. 129.

that evolved from 1920 onwards, this was not the reality. The activities of NSS were the shipbuilding industry's own attempt at rationalisation, but in reality, the scheme devised to purchase redundant and obsolete shipyards came too late.²⁰⁰ The problems of surplus capacity were apparent throughout the 1920s, though the industry could not accept the reality of the situation. This chapter will show that despite the closure of 28 shipyards the steps taken by NSS did not go far enough to relieve overcapacity.²⁰¹

For a number of years, the superliners of Britain, France and Germany competed for trade on the North Atlantic. Prestige was associated with such vessels, although the level of capital required for their construction was exceptional. During the early 1930s, the government made available substantial assistance to ensure the completion of the *RMS Queen Mary* at the shipyard of John Brown on the Clyde.²⁰² Chapter Five considers the complexities arising from the relationship between John Brown, Cunard and the RMSPC. In 1930, John Brown received instructions to build vessel no. 534 for Cunard. This vessel became *RMS Queen Mary*. Whilst laying the keel in 1930, she had to wait until 1934 before being ready for launching. In the process, Cunard agreed to a merger with White Star Line, which had run into difficulties following the collapse of RMSPC.

Chapter Six considers the traumatic experiences of the British tramp shipping industry as it recovered from the depression of 1931–33, which saw a third of deep-sea tramps laid up. The British government was reluctant to give financial aid and for a long time the tramp-shipowners were disinclined to accept assistance. However, when the assistance became available it proved to be too little, too late.²⁰³ Government assistance to the shipbuilding industry was meagre

²⁰⁰ 'Closing of ship-yards: North-East's protest, big deputation to Mr Runciman', *Manchester Guardian*, 15 March 1934, p. 14.

²⁰¹ Stephen Constantine, *Unemployment in Britain between the wars* (London: Longman, 1980), p. 14.

²⁰² Johnman and Murphy, *British Shipbuilding*, pp. 42-43.

²⁰³ Chris Ware, 'In search of subsidy: shipowners, government and the British tramp shipping crisis, 1930-1938', in David John Starkey and Hugh Murphy (eds.), *Beyond shipping and shipbuilding: Britain's ancillary maritime interests in the twentieth century* (Hull: Maritime Historical Studies Centre, 2007), p. 169.

during the interwar period, centring on the TFAs and the BSAA.²⁰⁴ The North-East Coast of England had to wait until the introduction of the BSAA before government funding became available.²⁰⁵ Part One of that Act provided direct assistance to the tramp-shipping sector based on the elimination of freight rate cutting. Whilst the shipbuilding industry derived some benefits from the first part of the Act, it was more the second part of the legislation – a ‘scrap-and-build’ scheme – that gave stimulus to the shipbuilding industry on the North-East Coast of England. Government intervention eventually brought respite in the form of subsidies, and Admiralty contracts. By the time the BSAA became law, it was felt that several good years of trading were required before the tramp-shipping industry would be capable of survival.²⁰⁶

Overall, this research will weigh the significance of the interwar period in the decline of shipbuilding, through regional comparison of the North-East Coast of England and the West of Scotland, encompassing the major challenges that the industry faced with the naval treaties, rationalisation, and the tentative move away from free trade. It will explore whether the period should appear simply in terms of the standard narrative of stagnation, or instead one of failure and as a catalyst of the industry’s post-1945 failure.

²⁰⁴ Johnman and Murphy, ‘A very British institution’, p. 205.

²⁰⁵ Ian Buxton, ‘Ship design and construction’, in *The golden age of shipping, The classic merchant ship 1900-1960*, ed. Robert Gardiner (London: Conway Maritime Press, 1994), p. 148.

²⁰⁶ Jones, *Shipbuilding*, p. 155.

CHAPTER ONE: REGIONS IN COMPARISON: INTERWAR SHIPBUILDING ON THE NORTH-EAST COAST OF ENGLAND AND THE WEST OF SCOTLAND

Introduction

This chapter compares merchant shipbuilding on the North-East Coast of England and the West of Scotland during the interwar period (1920-1939) and offers insight into the decline and regional complexity of British shipbuilding.¹ Neil Buxton, Lewis Johnman and Hugh Murphy and Anthony Slaven have produced an extensive literature on the West of Scotland.² Buxton has appraised Britain's industrial decline, paying particular attention to the deteriorating core industries during the interwar period.³ Focussing on the Clyde, Slaven considers the collapse in naval orders following the WNT, and the dynamics of building the largest liners during the 1930s. The emphasis upon the Clyde is apparent in the works of Edward Lorenz, James McGoldrick, Neil Buxton, Lewis Johnman and Hugh Murphy. Before the First World War, shipbuilding in the West of Scotland provided immense wealth to its economy, and the world was dominated by British shipbuilding.⁴ Whilst shipbuilding suffered during the interwar period, Buxton states that the West of Scotland reorganised and became stronger as the Second World War approached.⁵ In addition to the academic literature of Sidney Pollard, Leslie Jones, David Starkey and Alan Jamieson, and others concerned with the national picture, there is regional literature relating to the North-East Coast of England. In his appraisal of tramp

¹ Neil K Buxton, 'The Scottish shipbuilding industry between the wars: A comparative study', *Business History*, vol. 10, no. 2 (1968), p. 101; Ian P Roberts, 'A Question of Construction: capital and labour in Wearside Shipbuilding since the 1930's', Durham theses, Durham University, (1988), p. 73.

² Lewis Johnman, Hugh Murphy, Anthony Slaven, Neil K Buxton, John Richard Parkinson, Roy Hutcheson Campbell, Alastair Borthwick and Hugh B Peebles have attempted to demonstrate that the West of Scotland was the largest shipbuilding region within Britain. Johnman and Murphy, *British Shipbuilding*; Johnman and Murphy, 'Subsidy'; Slaven, 'A shipyard'; Slaven, *British Shipbuilding*.

³ Buxton, 'Scottish shipbuilding', pp. 101-20; Neil K Buxton, 'Economic growth in Scotland between the wars: The role of production structure and rationalisation', *Economic History Review*, vol. 33, no. 4 (1980), pp. 538-55; Neil K Buxton, 'Entrepreneurial efficiency in the British coal industry between the wars', *Economic History Review*, vol. 23 no. 3 (1970), pp. 476-97; Neil K Buxton, 'Efficiency and organisation in Scotland's iron and steel industry during the interwar period', *Economic History Review*, vol. 29, no. 1 (1976), pp. 107-24.

⁴ Johnman and Murphy, 'An Overview', p. 228.

⁵ Buxton, 'Scottish shipbuilding', p. 117.

shipbuilding on the North-East Coast of England, Ian Roberts highlights the structure and agency of the industry, and whether shipbuilding on the Wear compared with activities undertaken on the Clyde and the Tyne.⁶ Other local historians have attempted to fill the gap in academic literature, but have inadequately researched the North-East Coast of England within the wider parameters of economic history.⁷

During the interwar years, British shipbuilding became heavily concentrated, with limited opportunities for expansion.⁸ The database attached as Appendix 3.0 highlights the manner by which the shipbuilding industry's output declined from 1920.⁹ Prior to 1914, foreign companies generally had their ships built in Britain; however, during the war they began ordering from shipyards located in non-belligerent Spain, Sweden, Norway and Denmark.¹⁰ After 1914, British shipbuilding output continued to fall and increasing levels of overseas competition evolved.¹¹ Following the end of the First World War, British shipping companies began placing orders overseas.¹² In the immediate post-war years, British shipbuilders built merchant shipping totalling 1,620,442 grt during 1919 and 2,055,624 grt in 1920 whilst its leading maritime competitors were establishing their own shipbuilding facilities.¹³

⁶ Roberts, 'A Question', p. xvi.

⁷ Dougan, *The History*; Clarke, *Building ships*; Middlemiss, *British shipbuilding yards*; Todd, 'Strategies', pp. 57-59.

⁸ Shipbuilding within Britain was concentrated on the West of Scotland, the North-East Coast of England, the East Coast of Scotland, Yorkshire, the South Coast of England, Merseyside and Barrow, and Northern Ireland.

⁹ Chandler, *Scale*, p. 341; Kenneth Warren, *Armstrongs of Elswick: Growth in Engineering and Armaments to the Merger with Vickers* (London, MacMillan, 1989), pp. 205-209.

¹⁰ Jones, *Shipbuilding*, p. 61.

¹¹ Pollard, 'Laissez-faire', p. 98.

¹² Jones, *Shipbuilding*, p. 87.

¹³ Table 12, Lloyd's Register of Shipping Statistical Tables, 1962.

Table 1.0: Tonnage output by Britain and leading foreign powers during 1918, 1919 and 1920¹⁴

| Country | 1918 | 1919 | 1920 |
|----------------------|-------------|-------------|-------------|
| | Grt | Grt | Grt |
| Britain | 1,348,120 | 1,620,442 | 2,055,624 |
| Denmark | 26,100 | 37,800 | 60,700 |
| Netherlands | 74,000 | 137,100 | 183,100 |
| Italy | 60,800 | 82,700 | 133,200 |
| Japan | 490,000 | 612,000 | 456,600 |
| Sweden | 39,600 | 50,000 | 63,800 |
| United States | 3,033,030 | 4,075,385 | 2,476,253 |

Britain's shipbuilders experienced rapid decline during the 1920s, affecting all regions, when output fell by 25 percent in 1921 and then a further 33 percent during 1922.¹⁵ The conventional wisdom is that the West of Scotland built liners, whereas the North-East Coast of England specialised in cargo ships of a 'bread and butter' nature.¹⁶ Clearly, the transition in shipping and shipbuilding from the immediate post-war high demand to surplus tonnage was difficult to comprehend in a period of less than eighteen months.¹⁷ As illusions dwindled, British shipbuilding regions suffered.¹⁸ When the boom peaked in March 1920, shipowners were

¹⁴ The data set out at Table 1.0 have been taken from Jones, *Shipbuilding*, p. 63 and Table 12, Lloyd's Register of Shipping Statistical Tables 1962. By 1920, Japan was building over 8 percent of world tonnage, whereas the Netherlands were building 3 percent, Italy 3 percent, Denmark and Sweden were each building 1 percent: see Jones, *Shipbuilding*, p. 63.

¹⁵ See Appendix 3.0 and Daniel Todd, 'Industrial inertia versus relocation: a shipbuilding illustration', *Professional Geographer*, vol. 35, no. 3 (1983), p. 289.

¹⁶ Hogwood, *Government*, p. 16; John Richard Parkinson, 'Shipbuilding' in *British industry between the wars, Instability and industrial development 1919–1939*, ed. Neil K Buxton and Derek Howard Aldcroft (London: Scolar Press, 1979), p. 82.

¹⁷ Jones, *Shipbuilding*, p. 91.

¹⁸ Todd, 'Strategies', p. 56; Hope, *A new history*, p. 357.

prepared to pay 30 percent above construction costs to purchase ships for immediate delivery.¹⁹ By 1923, world mercantile tonnage totalled 65.0 mgt, which represented an increase of 14.0 mgt from that available in 1914.²⁰ Given this increased tonnage, domestic and international competition intensified.²¹ In Slaven's view, weak demand and fierce competition led to 'sectorial decline' in Britain's share of shipyard construction.²² A conscious strategy on the part of shipowners and shipbuilders attempted to bring the proportion of the world's fleet owned in Britain back to its 1913 level.²³ However, the tonnage required in 1919 disguised existing difficulties.²⁴ Whilst British shipping companies attained profitability in 1919, foreign shipping operators achieved higher profitability. By the time of the release of government wartime control, an increased volume of shipping now chased shrinking volumes of trade.²⁵ The downturn that began in 1920 did not relent and by 1925, 6.6 mgt of merchant shipping was laid up.²⁶ Johnman and Murphy observe that shipbuilding's overcapacity was exacerbated during the early 1920s.²⁷ The profits available did not warrant the high staffing levels and heavy capital investment.²⁸ Most shipbuilders replicated the initial post-war euphoria of the shipowners, but cancellations proliferated.²⁹ Both regions experienced great difficulties, with exceptions.³⁰ All shipyards faced depressed levels of demand from 1921 until 1938.³¹ Roberts observed that the North-East Coast of England suffered more than other regions during the

¹⁹ Frank Geary, 'The emergence of mass unemployment: wages and employment in shipbuilding between the wars', *Cambridge Journal of Economics*, vol. 21, no. 3 (1997), p. 313.

²⁰ Slaven, 'A shipyard', pp. 183 & 193; W R Garside, *British unemployment, 1919-1939* (Cambridge: Cambridge University Press, 1990), p. 233.

²¹ Austen Albu, 'Causes of the decline in British merchant ship-building and marine engineering', *International Journal of Management Science*, vol. 4, no. 5 (1976), p. 514.

²² Slaven, 'A shipyard', p. 193.

²³ Johnman and Murphy, *British Shipbuilding*, p. 9.

²⁴ Derek Howard Aldcroft, *The interwar economy: Britain, 1919-1939* (London: Batsford, 1970), p. 92.

²⁵ Sturmey, *British shipping*, p. 56.

²⁶ Jones, *Shipbuilding*, p. 31.

²⁷ Johnman and Murphy, *British Shipbuilding*, p. 15.

²⁸ Slaven, 'A shipyard', p. 194.

²⁹ *Ibid.*, p. 196.

³⁰ Carvel, *Stephen*, p. 117.

³¹ Grove, *Government*, p. 46.

early years of the 1920s owing to its dependence on tramp-shipping.³² As the British shipbuilding industry contracted during the 1920s, it responded with business mergers.³³ Reactions on the West of Scotland were similar to those on Tyneside.³⁴ Between 1914 and 1937, Britain's merchant tonnage fell from 19.0 mgrt to 17.5 mgrt, whilst world tonnage increased from 49.0 mgrt to 66.0 mgrt.³⁵ As Ellen Wilkinson points out, by 1938, British shipbuilders were 'building only 31.6 percent of the world's tonnage.'³⁶

In an attempt to compare the two leading shipbuilding regions satisfactorily, this chapter will proceed in five stages. First, it will use the BSD to categorize the different types of vessels built on the North-East Coast of England and the West of Scotland, dealing specifically with passenger vessels, cargo vessels, coasters and tankers. It will then use the BSD to quantify the shipbuilding output of the two regions. This major database of output, prepared on both a regional and company basis, allows a more precise comparison and stronger conclusions. The updated register reveals the volume of tonnage completed by each shipbuilder annually. This chapter will then compare specialisms of trade developed during the interwar period. Next, it will assess the corporate structures that existed, and compare the relationships that developed during economic uncertainty with finance and government. Finally, it will consider whether a material divergence occurred between the tonnage built on the North-East Coast of England and the West of Scotland.

³² Roberts, 'A Question', p. 87.

³³ Todd, 'Strategies', p. 58.

³⁴ Slaven, 'A shipyard', p. 214.

³⁵ Buxton, 'Scottish shipbuilding', p. 102; Garside, *British unemployment*, p. 233.

³⁶ Ellen Wilkinson, *The town that was murdered, The Life-Story of Jarrow* (London: Victor Gollancz, 1939), p. 120.

Categorizing British shipbuilding

At the beginning of the First World War, British shipbuilders, naval architects and marine engineers believed that they had an unassailable lead in world shipbuilding, pioneered by a trade that had developed from a craft industry into a trade that was transformed by major technical advances using iron, steel and steam.³⁷ Nevertheless, whilst trade increased prior to the First World War, it did so through a cycle of peaks and troughs.³⁸ To cope with this pattern of trade British shipbuilders recognised that their capital structure had to be maintained in a way that minimised fixed costs in relation to the shipyard's working capital.³⁹ As the difficulties of the interwar years progressed the British shipbuilder began to realise that their fate was linked inextricably to the fortunes of British shipping lines.⁴⁰ This section will appraise the five largest areas of shipbuilding in both regions, which were: deep-sea passenger vessels, small passenger vessels, cargo vessels, coasters and tankers. On the North-East Coast of England these vessels represent 94.08 percent of merchant vessels completed during the years 1920-39, whilst in the West of Scotland, they represented 95.81 percent (Table 1.1).

³⁷ Slaven, 'Management Policy', Walker & Slaven (eds), *European Shipbuilding*, p. 79.

³⁸ Murphy, 'British Shipbuilding Industry', p. 24; Jones, *Shipbuilding*, pp. 30-31; Slaven, *British Shipbuilding*, p. 64; Johnman & Murphy, *British Shipbuilding*, p. 3.

³⁹ Slaven, 'Management Policy', Walker & Slaven (eds), *European Shipbuilding*, p. 79

⁴⁰ *Ibid.*, p.80.

Table 1.1 Analysis of Completed Tonnage on the North-East Coast of England and the West of Scotland, 1920-1939⁴¹

| | North-East Coast of England | | West of Scotland | |
|-----------------|-----------------------------|-----------|------------------|-----------|
| | % | Grt | % | Grt |
| Passenger: | | | | |
| deep-sea | 7.17 | 575,587 | 23.70 | 1,640,078 |
| Small passenger | 0.70 | 56,069 | 4.12 | 284,784 |
| Cargo | 61.60 | 4,940,041 | 50.06 | 3,463,430 |
| Coasters | 2.77 | 221,852 | 2.86 | 198,253 |
| Tankers | 21.84 | 1,751,691 | 15.07 | 1,042,600 |
| Other | 5.92 | 474,542 | 4.19 | 289,760 |
| Total | 100.00 | 8,019,782 | 100.00 | 6,918,905 |

Source: British Shipbuilding Database

Passenger vessels

Passenger vessels built on the North-East Coast of England and the West of Scotland during the years 1920-39 comprised: passenger liners; mixed passenger-cargo vessels; passenger-cargo vessels with large refrigeration capacity and pilgrim carriers. In addition, passenger transport at sea was also used in relation to short-sea and coastal journeys. Such vessels comprised: passenger ferries, especially cross channel types; passenger-cargo vessels; passenger-vehicle ferries; train ferries; excursion pleasure steamers; and tenders, which serviced large passenger liners. Passenger-cargo types constituted the majority of passenger vessels. They were capable of transporting twelve or more passengers as well as large volumes of cargo. The definitional boundaries are not always neat as passenger liners had facilities for modest amounts of cargo, and certain passenger-cargo vessels carried many passengers. The West of Scotland and particularly the Clyde focussed on the construction of liners and warships.⁴² Over 60 percent of the tonnage of passenger liners built in Britain was contracted

⁴¹ The distinction between the differing types of vessels is as identified by Professor Ian Buxton's BSD as maintained at Newcastle University. An analysis of merchant tonnage built on the North-East Coast of England and the West of Scotland annually is set-out at Appendix 6.0.

⁴² Buxton, 'Scottish Shipbuilding', p. 106.

on the Clyde in the years, 1921-1938.⁴³ The Clyde benefitted after the First World War, because of its ability to transfer shipbuilding from activities involved in warshipbuilding to the construction of high-class passenger vessels.⁴⁴ Over the interwar period, shipbuilding within the passenger trade can be analysed annually and the details are set out within Diagram 1.0.



Source: British Shipbuilding Database – Appendix 3.0

The North-East Coast of England shipbuilders constructed 94 vessels of 631,656 grt that came within this category. Amalgamating deep sea passenger and small passenger transport on the North-East Coast of England would give rise to the analysis at Table 1.2.

⁴³ Johnman and Murphy, 'An Overview', p. 252; Buxton, 'Scottish shipbuilding', p. 112.

⁴⁴ Buxton, 'Scottish Shipbuilding', p. 111.

Table 1.2 Deep sea and small passenger vessels built on the North-East Coast of England, 1920-1939

| Vessel | No. | Grt | Average/Grt |
|-------------------------------|-----------|----------------|-------------|
| Passenger liners | 4 | 58,965 | 14,741 |
| Passenger cargo | 60 | 425,365 | 7,089 |
| Passenger cargo/refrigeration | 14 | 130,338 | 9,310 |
| Passenger vehicle | 3 | 1,636 | 545 |
| Passenger ferry | 6 | 3,312 | 552 |
| Train ferry | 4 | 11,379 | 2,845 |
| Excursion | 2 | 440 | 220 |
| Tender | <u>1</u> | <u>221</u> | 221 |
| | <u>94</u> | <u>631,656</u> | |

Source: British Shipbuilding Database

According to the BSD, the North-East Coast of England only had ten shipbuilders that built deep sea and small passenger vessels during the interwar period. SH&WR accounted for over 50 percent of the number and tonnage of passenger transport vessels, though three of the other shipbuilders each built less than 500 grt's (Table 1.3).

Table 1.3 Top ten shipbuilders constructing passenger vessels on the North-East Coast of England, 1920-1939

| | No. | Grt |
|----------------------|-----------|----------------|
| SH&WR | 57 | 362,633 |
| Hawthorn Leslie | 15 | 122,125 |
| Armstrong Whitworth | 6 | 67,791 |
| Vickers Armstrong | 1 | 22,424 |
| William Gray | 5 | 20,336 |
| Palmers Shipbuilding | 4 | 19,242 |
| Furness Shipbuilding | 2 | 16,252 |
| John Crown | 2 | 440 |
| Smith's Docks | 1 | 221 |
| Amble shipbuilding | <u>1</u> | <u>192</u> |
| | <u>94</u> | <u>631,656</u> |

Source: British Shipbuilding Database

Only 65 vessels with a tonnage of 575,587 grt was involved with deepsea trade, whilst 29 vessels are classified according to the BSD as small passenger vessels with a tonnage of 56,069 grt. Shipbuilders on the Tyne built 93.75 percent of all tonnage involved with passenger vessels on the North-East Coast of England and the five largest shipbuilding clients were:

| | No. | Grt |
|------------------------------------|------------|------------|
| British India Steam Navigation Co. | 12 | 94,797 |
| Cunard | 5 | 75,539 |
| P&O | 3 | 49,620 |
| Shaw Savill Albion | 1 | 27,155 |
| Bullard King | 3 | 24,483 |

Source: British Shipbuilding Database

Within the fields of passenger ship construction, the activities on the West of Scotland were extensive in comparison to shipbuilding undertaken on the North-East Coast of England. The Clyde benefitted from being ‘all things to all people.’ Its shipbuilding workforce built the ‘gamut of tonnage from naval warships and passenger liners to river craft.’ Clyde shipbuilders focussed upon ‘high-value passenger liners, passenger-cargo vessels, as well as warships and its work was concentrated on a twenty-five mile stretch of the Clyde between Glasgow and Greenock, which provided a ‘highly specialised workforce’ unlike any other area in Britain.⁴⁵ From the statistics disclosed in Tables 1.2 and 1.4, it is quite clear that the West of Scotland was the main passenger shipbuilding region, building 239 vessels more than the North-East Coast of England, as well as approximately 1.35 mgrt.

⁴⁵ Johnman and Murphy, ‘An Overview’, pp. 231 & 252.

Table 1.4 Deep sea and small passenger vessels built in the West of Scotland, 1920-1939

| Vessel | No. | Grt | Average/Grt |
|-------------------------------|------------|------------------|-------------|
| Passenger liners | 7 | 221,992 | 31,713 |
| Passenger-cargo | 203 | 1,264,045 | 6,227 |
| Passenger cargo/refrigeration | 27 | 272,069 | 10,077 |
| Pilgrim carrier | 4 | 20,467 | 5,117 |
| Passenger vehicle | 20 | 22,668 | 1,133 |
| Passenger ferry | 52 | 102,491 | 1,971 |
| Train ferry | 2 | 4,452 | 2,226 |
| Excursion | 14 | 14,372 | 1,027 |
| Floating Bridge | 2 | 320 | 160 |
| Tender | <u>2</u> | <u>1,986</u> | 993 |
| | <u>333</u> | <u>1,924,862</u> | |

Source: British Shipbuilding Database

It becomes apparent from Tables 1.2 and 1.4 that the extent of this form of shipbuilding within the West of Scotland outperformed the activity undertaken in Britain's other shipbuilding districts. Passenger/cargo vessels involved in deepsea trade totalled 156 vessels of 1,640,078 grt; short-sea passenger vessels totalled 108 vessels of 245,683 grt; and local passenger vessels numbered 69 vessels of 39,101 grt. Out of the top ten largest vessels, John Brown constructed six, including the two largest vessels, the *RMS Queen Mary* and the *Empress of Britain*, whilst two were built by Fairfield Shipbuilding and two by William Beardmore. The top ten shipbuilders of passenger vessels on the West of Scotland during the years 1920-39, are set out below.

Table 1.5 Top ten shipbuilders constructing passenger vessels on the West of Scotland, 1920-1939

| | No. | Grt |
|------------------------|-----|------------------|
| John Brown | 27 | 407,796 |
| Fairfield Shipbuilding | 30 | 242,485 |
| Alexander Stephen | 25 | 207,080 |
| Barclay Curle | 26 | 205,511 |
| William Beardmore | 13 | 165,905 |
| William Denny | 57 | 159,911 |
| Harland & Wolff | 21 | 111,376 |
| Scott's Shipbuilding | 21 | 102,850 |
| Caird & Company | 8 | 100,039 |
| Lithgows | 14 | 70,406 |
| | | <u>1,773,359</u> |

Source: British Shipbuilding Database

The ten shipbuilders (Table 1.5) accounted for 92.13 percent of the grt of all passenger vessels constructed in the West of Scotland during the years 1920-39. The five major shipbuilding company clients of passenger vessels built in the West of Scotland were:

| | No. | Grt |
|----------------------------------|-----|---------|
| P & O Steam Navigation Company | 13 | 192,576 |
| Canadian Pacific Railway Company | 8 | 186,583 |
| Cunard | 5 | 143,973 |
| British India Steam Navigation | 16 | 139,766 |
| Anchor Line (Henderson Bros) | 6 | 92,581 |

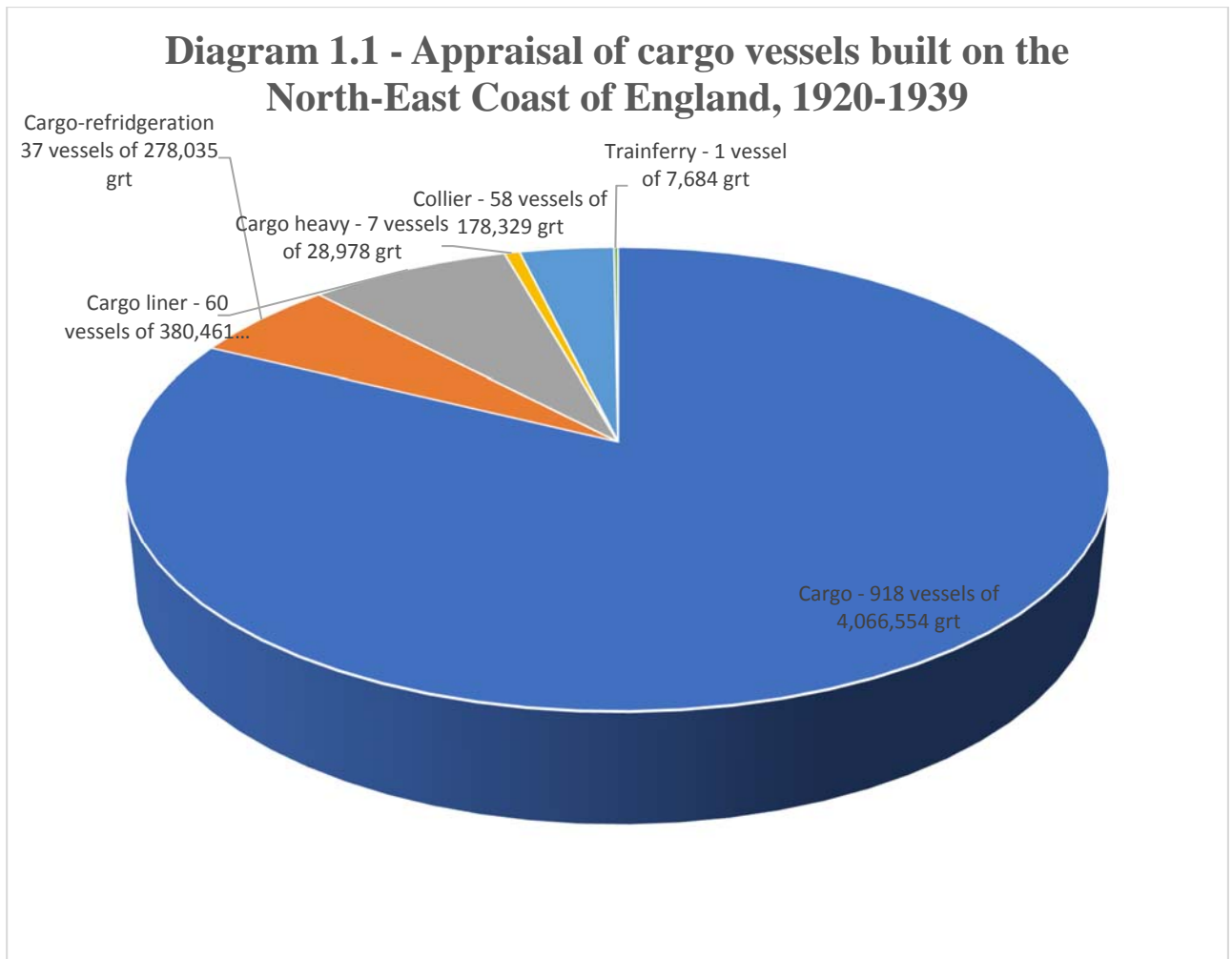
Source: British Shipbuilding Database

On the North-East Coast of England, shipbuilders only constructed 41 passenger ships for overseas countries, though nevertheless, this still represented 34.11 percent of the tonnage involved in passenger shipping in that region. However, in the West of Scotland shipbuilders built 360,747 grt of passenger tonnage for overseas countries though this only represented 18.74 percent of the tonnage relating to passenger shipping. Whilst the tonnage percentage was lower in the West of Scotland in real terms it surpassed that built on the North-East Coast

of England by 145,257 grt. It appears that geography had little or no relevance to where overseas shipowners placed their orders within Britain. It may be thought that it was natural for shipowners in Sweden, when placing orders in Britain, to place orders on the North-East Coast of England, since that region was closest to Sweden, though that logic does not apply in relation to shipowners in the Netherlands who placed all their orders for passenger type vessels on the West of Scotland. Australia placed ten orders on the West of Scotland and only one order on the North-East Coast of England, however New Zealand placed two orders on the North-East Coast of England and no orders were placed in the West of Scotland (Appendix 7.0). The only conclusion that can be drawn from this brief analysis is that shipbuilders' reputation in the West of Scotland was sufficiently pronounced to demonstrate the region's capabilities in building the better class of ship in relation to passenger vessels. The West of Scotland shipbuilders undertook passenger vessel work on behalf of customers in 26 overseas countries, whilst shipbuilders on the North-East Coast of England only undertook passenger work on behalf of customers in 15 overseas countries.

Cargo vessels

The written history of shipbuilding on the North-East Coast of England is limited in comparison to the West of Scotland, this is particularly disconcerting in relation to the construction of cargo vessels. The North-East Coast of England, constructed 1,081 vessels of 4,940,041 grt (including cargo ships, cargo-liners, cargo-refrigeration vessels, colliers and coasters) (Appendices 6.0 and 7.0). In contrast, the West of Scotland constructed 665 cargo vessels totalling 3,463,430 grt (Appendices 8.0 and 9.0). The BSD, which has been used to compile Appendices 1.0 and 2.0, uses a regional categorization, avoiding the 'tramp' category. Nevertheless, a considerable portion of cargo vessels built in both regions were no doubt tramp vessels, whether they be coasters, colliers or cargo vessels. An appraisal of those cargo vessels built on the North-East Coast of England reveals: -

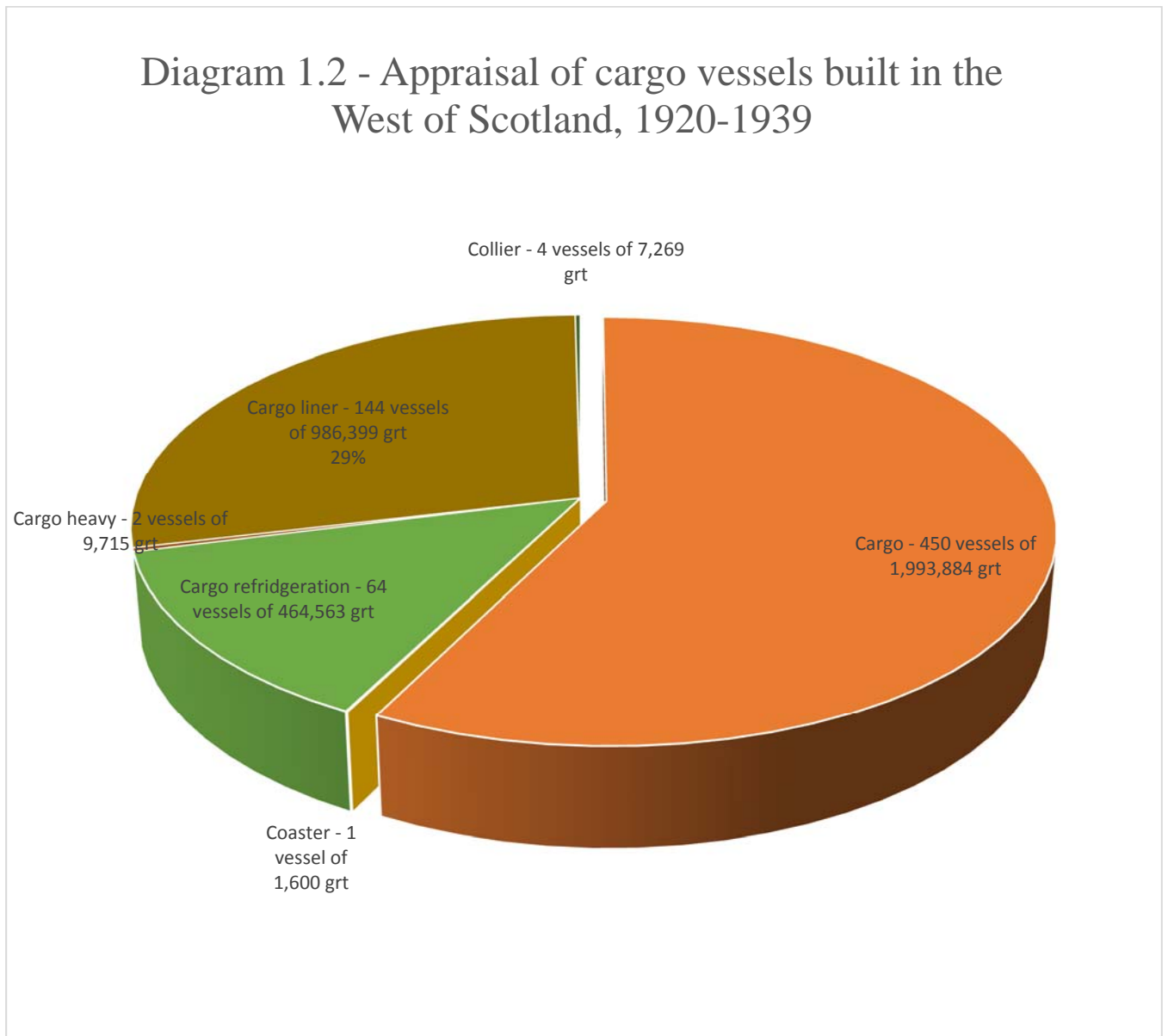


Source: British Shipbuilding Database

The West of Scotland did not construct as many cargo vessels as the North-East Coast of England, though certainly built more cargo-liners and cargo-refrigeration vessels. Simple cargo vessels averaged over both regions 4,430 grt.⁴⁶ However, in relation to specialised cargo vessels, namely cargo-liners and cargo-refrigeration vessels, the West of Scotland built over twice as many vessels as the North-East Coast of England. The West of Scotland shipbuilders certainly dominated the construction in relation to cargo-refrigeration vessels having

⁴⁶ On a regional basis, the simple cargo vessels average weight was 4,430 grt on the North-East Coast of England and 4,431 grt in the West of Scotland.

constructed 64 vessels of 464,563 grt. Of this total, Alexander Stephen built 12 vessels of 78,387 grt, whilst Lithgows constructed 10 vessels of 70,132 grt.



Source: British Shipbuilding Database

Professor Ian Buxton's BSD allows an analysis of Cargo, Tankers, Passenger vessels, Barges and various miscellaneous types of vessel and thereafter broken down further to give greater detail.⁴⁷

⁴⁷ The BSD does not make use of the word 'tramp' which implies a type of ship inferior to a passenger liner or a passenger-cargo liner, instead the BSD adopts a more informative description that befits shipbuilding with a degree of accuracy.

This section differentiates those shipyards that were undertaking the construction of cargo vessels, cargo liners, cargo-refrigeration vessels, cargo heavy vessels, colliers and coasters, categorised within the BSD as Cargo (CA) or Coasters (CO). Over 8.4 mgt of cargo vessels were built on the North-East Coast of England and the West of Scotland during the years 1920-1939 (Table 1.6). As Murphy indicates, the majority of the cargo tramp shipbuilders were located on the North-East Coast of England.⁴⁸

Table 1.6 Cargo vessels built on the North-East Coast of England and the West of Scotland, 1920-1939

| | North-East Coast of England | | West of Scotland | | Variance Analysis | |
|---------------------|-----------------------------|------------------|------------------|------------------|-------------------|------------------|
| | No. | Grt | No. | Grt | No. | Grt |
| Cargo | 916 | 4,055,553 | 450 | 1,993,884 | 466 | 2,061,669 |
| Cargo liners | 58 | 375,892 | 144 | 986,399 | - 86 | - 610,507 |
| Cargo refrigeration | 38 | 287,483 | 64 | 464,563 | - 26 | - 177,080 |
| Cargo heavy | 7 | 28,978 | 2 | 9,715 | 5 | 19,263 |
| Coasters | - | - | 1 | 1,600 | - 1 | - 1,600 |
| Colliers | 61 | 184,451 | 4 | 7,269 | 57 | 177,182 |
| Train ferry | 1 | 7,684 | - | - | 1 | 7,684 |
| | <u>1,081</u> | <u>4,940,041</u> | <u>665</u> | <u>3,463,430</u> | <u>416</u> | <u>1,476,611</u> |

Source: British Shipbuilding Database

British shipyards on the North-East Coast of England during 1920 built more cargo vessels for foreign shipowners than for British shipowners, thus:

| | | |
|--------------------|------------|--------------|
| British shipowners | 69 vessels | 362,738 grt |
| Foreign shipowners | 82 vessels | 358,282 grt. |

⁴⁸ Murphy, 'British Shipbuilding Industry', p.24

Albeit the actual tonnage favoured British vessels by 4,456 grt. However, foreign shipowners placed increasing orders, and during 1921, the level of output on the North-East Coast of England's shipyards reveals:

| | | |
|--------------------|------------|--------------|
| British shipowners | 36 vessels | 175,031 grt |
| Foreign shipowners | 68 vessels | 309,563 grt. |

By 1922, shipyards on the North-East Coast of England were building a higher proportion of cargo vessels for the British merchant fleet than they were for overseas operators; this continued for the remainder of the interwar period. In that year shipbuilders on the North-East Coast of England built 43 vessels of 214,958 grt for British owners compared to 20 vessels of 83,862 grt for foreign shipowners. These figures diverged during the rest of the interwar period. In contrast, on the West of Scotland, more cargo ships were built for overseas owners in the years 1920 – 1925 than were built for overseas customers in the remainder of the interwar period.⁴⁹

When comparing foreign cargo ships built on the West of Scotland, a somewhat different profile develops. The North-East Coast of England's main customer during the interwar period was Norway, whom had 85 vessels of 350,452 grt built. Norway was the second most important customer in terms of tonnage in the West of Scotland, in relation to cargo vessels. On the West of Scotland its most important customer was the Netherlands. However, on the North-East Coast of England, the Netherlands was fourth with 26 cargo vessels of 146,382 grt. France constructed 13 cargo vessels on the West of Scotland totalling 43,235 grt and on the North-East Coast of England it built 62 vessels of 247,829 grt (Appendix 12.0).

⁴⁹ In the years 1920 to 1925, the West of Scotland shipbuilders built 70 vessels of 318,962 grt; and during the years 1926-39 63 vessels of 277,866 grt for foreign customers.

The two regions had distinctive geographical patterns of demand both in terms of the foreign/domestic balances of the country and overseas clients. Within the general category of cargo vessels, there was a significant element of specialization with the North-East Coast of England opting for general cargo, heavy cargo and colliers with the West of Scotland prioritising cargo liners and cargo refrigeration vessels.

Coasters

Within the BSD, the category coasting vessels comprised cargo vessels, cargo-refrigeration vessels, coasters and colliers, the analysis of which is set out in Table 1.7.

Table 1.7 Coasting vessels built on the North-East Coast of England and the West of Scotland, 1920-1939

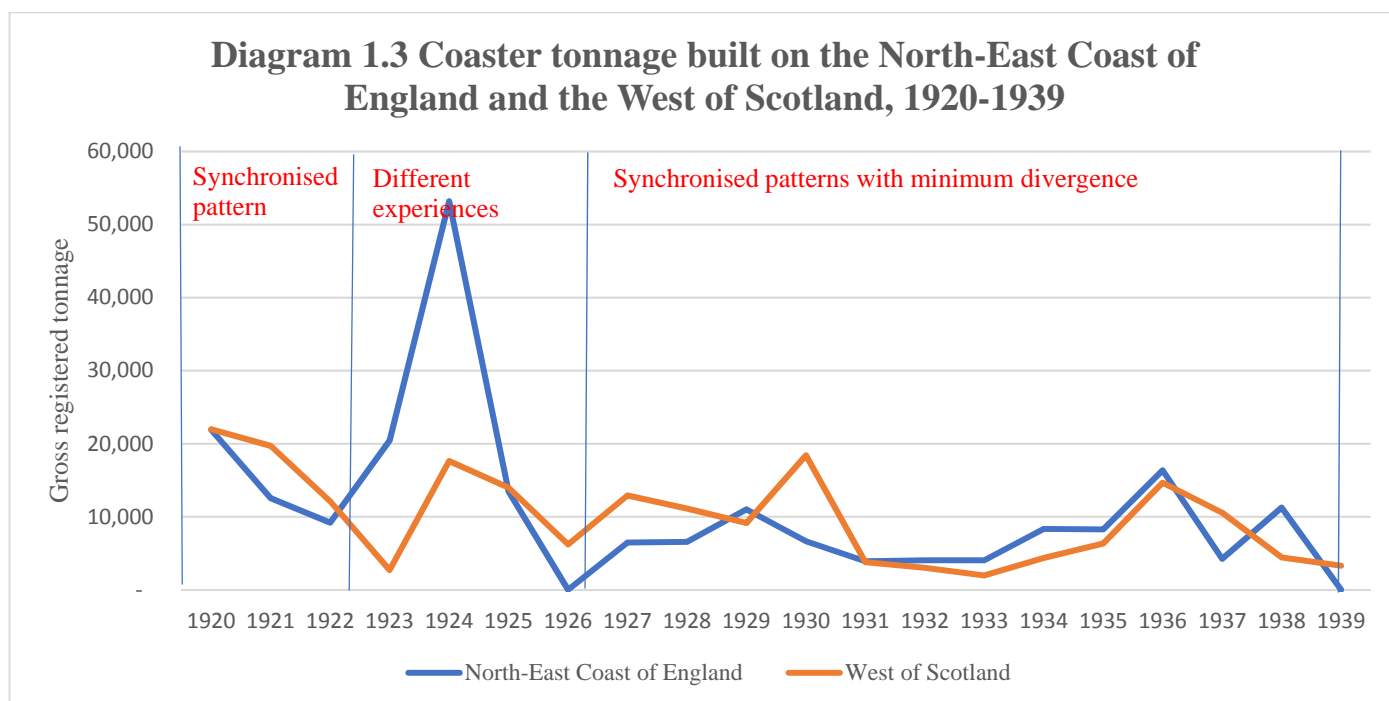
| | North-East Coast of England | | West of Scotland | | Variance Analysis | |
|---------------------|-----------------------------|----------------|------------------|----------------|-------------------|---------------|
| | No. | Grt | No. | Grt | No. | Grt |
| Cargo | 41 | 49,371 | 73 | 81,431 | -32 | -32,060 |
| Cargo refrigeration | - | - | 7 | 4,983 | -7 | -4,983 |
| Coasters | 68 | 61,254 | 154 | 106,156 | -86 | -44,902 |
| Colliers | 75 | 111,227 | 7 | 5,683 | 68 | 105,544 |
| | <u>184</u> | <u>221,852</u> | <u>241</u> | <u>198,253</u> | <u>-57</u> | <u>23,599</u> |

Source: British Shipbuilding Database

These vessels tended to be employed within trade in or around the British Isles, though were also used to transport goods to and from mainland Europe. Whilst the North-East Coast of England built more tonnage in relation to this category of shipping, the West of Scotland built more vessels. The shipyards building coasters are set out within Appendices 11.0 and 12.0. On the North-East Coast of England, even the largest shipbuilders were prepared to participate in the construction of coasters.⁵⁰ However on the West of Scotland firms like John Brown and

⁵⁰ SH&WR built 30 coasters of 38,079 grt; Hawthorn Leslie built 14 coasters of 11,285; Furness Shipbuilders built 15 coasters of 19,752 grt.

Fairfield Shipbuilding reserved their facilities for the better class of shipping and were more aligned to trade with passenger liners and warships for the Admiralty. The British coastal trade peaked during the years 1870-1914. However, the First World War prompted serious decline.⁵¹



Source: British Shipbuilding Database

Trade in the construction of coasters peaked in 1924 on the North-East Coast of England and then fell away for the remainder of the interwar period (Appendix 15.0). Whilst the West of Scotland built more coasters, the volume of tonnage per vessel was less than achieved on the North-East Coast of England. The average size of a coaster on the North-East Coast of England was 1,205 grt, whilst in the West of Scotland the average size of a coaster was 823 grt. The coaster was mainly used in the transportation of coal, competing with the transport of coal by train. Whilst the shipbuilders on the North-East Coast of England supplied significant numbers of colliers only seven were built in the West of Scotland. Despite differences in average size,

⁵¹ John Armstrong, 'Climax and Climacteric: The British Coastal Trade, 1870-1930', David J Starkey and Alan G Jamieson (eds.), *Exploiting the sea, aspects of Britain's maritime economy since 1870* (Exeter: University of Exeter Press, 1998), p. 45.

both regions provided a roughly comparable output of coasters indicating the degree of specialization vested across this category of vessel.

Tankers

By 1870, world crude oil production totalled approximately one million tons. Over the course of the next 45-years crude oil output increased to 45 million tons, and by 1920 the amount produced, had jumped to 95 million tons. The expansion of oil continued throughout the interwar period, with production reaching 276 million tons by 1937. By 1938-39, Sturmeay believed the world seaborne trade in oil totalled 25 percent of world trade.⁵²

The first British oil tanker, the *Gluckauf*, was built by Armstrong Whitworth's shipyard in Walker, Newcastle upon Tyne in 1886, for a German client, Wilhelm Anton Riedemann, a shipping firm based in Geestemünde, Germany.⁵³ The *Gluckauf* could carry up to 2,600 tons of oil and 'embodied many long-lasting tanker features.'⁵⁴ The development of the tanker continued when Joseph Isherwood provided a design that facilitated 'lengthwise framing' that saved approximately 10 percent of weight whilst providing a vessel that was approximately 20 percent stronger to combat stresses within the vessel's hull.⁵⁵

⁵² Sturmeay, *British shipping*, p. 74.

⁵³ Thornton, *British shipping*, p.119.

⁵⁴ Hope, *A New history*, p. 319.

⁵⁵ W S Cormack, (1930), 'An Economic History of Shipbuilding and Marine Engineering', (University of Glasgow, PhD Thesis), p. 156.



Picture 1.0 SS *Gluckhauf* – the ancestor of the modern tanker⁵⁶

During the First World War, British shipbuilders built standard ships to the Shipping Controller's requirements.⁵⁷ These vessels comprised 'eight types of dry-cargo vessels, five types of coasters and three types of tankers.'⁵⁸ Neil Buxton stated that Clydeside was less dependent on the construction of oil tankers compared to North-East Coast of England and whilst Clydeside only amounted to 27.6 percent of its tonnage in oil tankers, the North-East Coast of England totalled 60.4 percent during the years 1924-1930.⁵⁹ Throughout the Twentieth Century, the dependency upon oil resulted in a considerable expansion of tankers. In 1912, there existed 258 tankers though by 1937, the number had increased to 1,558, however, these statistics only tell part of the story.⁶⁰ The size of tankers increased throughout the interwar period and during the 1920s, the average tanker built on the North-East Coast of

⁵⁶ www.oilpollutionliability.com - [accessed 21 June 2016]

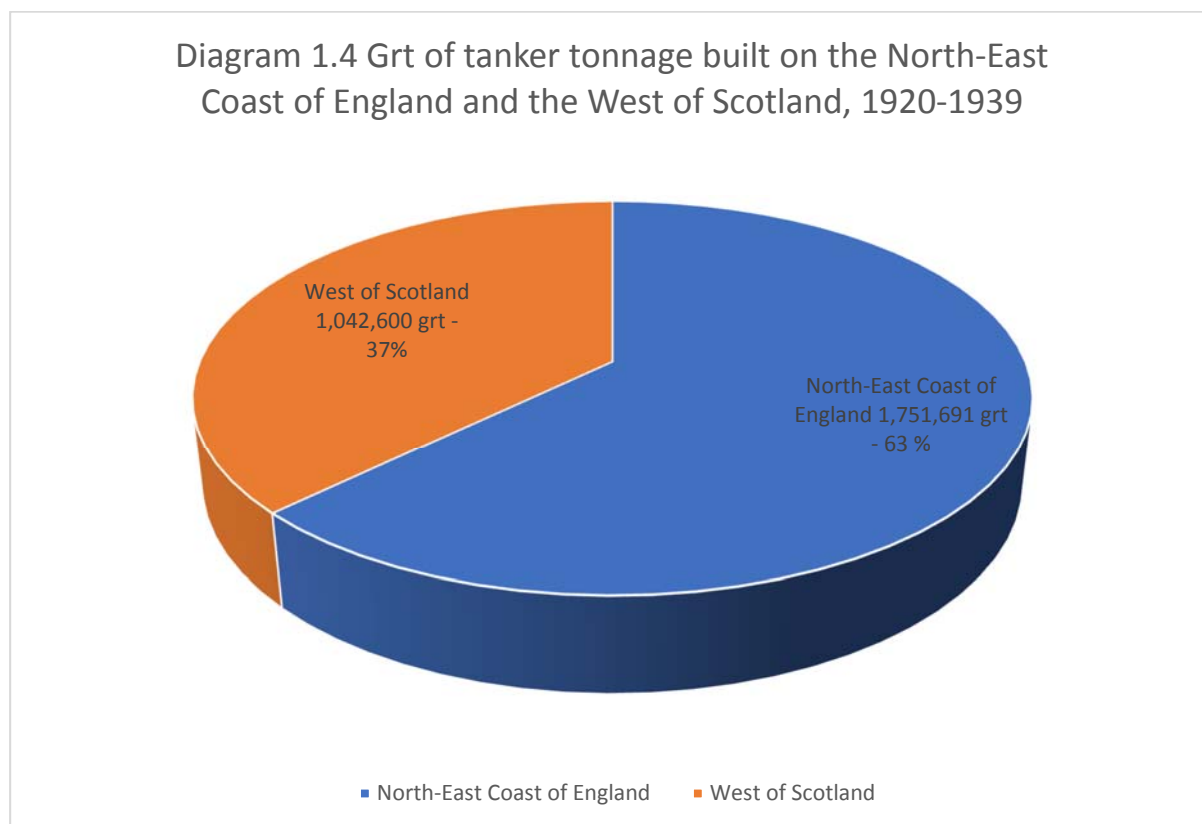
⁵⁷ Murphy, 'The British Shipbuilding Industry', p. 36.

⁵⁸ *Ibid.*, p. 49.

⁵⁹ Buxton, 'Scottish shipbuilding', p. 111.

⁶⁰ Thornton, *British shipping*, p.119.

England totalled 6,234 grt compared to the West of Scotland where the average tanker totalled 5,992 grt.⁶¹



Source: British Shipbuilding Database

As the demand for oil increased, the demand for coal fell, Consequently, more tankers were constructed and more tramp vessels laid-up.⁶² The vessels used for carrying oil were of a standard construction.⁶³ The tanker is a simple, straightforward vessel, yet its grt is measured in line with all merchant shipping when considering shipbuilding output. Tankers and cruise liners are entirely different types of vessels, though, despite the complexity of the liner it may have a similar grt to the tanker.⁶⁴ British shipowners, unlike Norwegian shipowners, failed to

⁶¹ The average grt of the tanker has been based upon tonnage for tanker vessels in each region over 2,000 grt.

⁶² Sir John Biles provided assertions that made coal a more reliable and cheaper commodity compared to oil and the debate over coal and oil caused controversy throughout the 1920s.

⁶³ Lorenz, 'An evolutionary explanation', p. 923.

⁶⁴ Ian L Buxton, Ray Fenton and Hugh Murphy, 'Measuring Britain's Merchant Shipbuilding Output in the Twentieth Century', *The Mariner's Mirror*, Vol. 101, Issue 3, 2015, p. 134.

grasp the importance of the tanker.⁶⁵ Norway had neither a natural supply of coal or oil and therefore it opted for a fuel source that would be most beneficial. During the years 1920–1939, over 21.84 percent of tonnage built on the North-East Coast of England related to tankers, whilst on Clydeside tanker construction accounted for 15.07 percent of the merchant tonnage built.

Throughout the interwar period, Jones estimates that tanker tonnage within Britain took-up over 20 percent of all gross tonnage built during the years 1921–1938.⁶⁶ However, British shipowners were unable to exploit the trade in tankers due to their conservative attitudes following the losses experienced during the First World War and the recession during the early 1920s.⁶⁷ This was despite the trend that moved distinctly towards the development of tankers and the construction of motorships.⁶⁸

Whilst the tanker appears to be of a simple type of construction. it took up the facilities of yards that were the largest shipbuilders in their regions, most notably, SH&WR, Armstrong Whitworth, Palmers Shipbuilding and Sir James Laing on the North-East Coast of England and Lithgows, H&W-Govan, Blythswood Shipbuilding and Barclay Curle on Clydeside. Whilst other yards built tankers, these were the main shipbuilders building tankers on the North-East Coast of England and in the West of Scotland.

Tanker construction during the interwar period

When the markets collapsed in 1920, shipowners quickly sought to cancel orders. It was not just the tramp sector that experienced the downturn. Once the cancellations began, almost all vessels suffered the same fate, and the only vessels where orders were still available were

⁶⁵ Sturmev, *British Shipping*, p. 78.

⁶⁶ Jones, *Shipbuilding*, p. 43.

⁶⁷ Saif I Shah Mohammed and Jefferey G Williamson, 'Freight rates and productivity gains in British tramp shipping 1869-1950', *Explorations in Economic History*, vol. 41, issue 2, 2004, p. 200.

⁶⁸ Slaven, 'Management Policy', in Walker and Slaven (eds.), *European Shipbuilding*, pp. 80 & 81.

tankers. The construction of tankers was relentless from 1920 until the end of the decade. During this period, the tanker trade expanded by approximately five million tons. However, in the years which followed, whilst the construction of tankers slowed particularly in Britain, the level of tankers to total tonnage continued to increase.⁶⁹ The total volume of tanker tonnage built on the North-East Coast of England during the years 1920 to 1939 totalled 281 vessels of 1,751,691 grt, whilst the West of Scotland built 174 tankers of 1,042,600 grt (Appendix 16.0). Shipbuilders on the North-East Coast of England built from five river locations, but only launched tankers from the yards of fourteen shipbuilders compared to the West of Scotland, which launched tankers from eighteen shipbuilders.⁷⁰

On the North-East Coast of England, SH&WR built 73 tankers of 499,783 grt, Palmers Shipbuilding built 57 tankers of 325,860 grt and Armstrong Whitworth built 49 tankers of 312,794 grt. Tankers were no salvation for companies in difficulties. Neither Palmers Shipbuilding nor Armstrong Whitworth continued trading for the whole of the interwar period. In the early post war years, 1919 and 1920, Palmers Shipbuilding attracted orders from the British Tanker Company, the Venezuela Gulf Oil Company and Eagle Oil and Shipping Company (Eagle Oil), which assisted its liquidity.⁷¹ SH&WR built tankers that averaged 6,846 grt. That said, it constructed no tankers during the difficult years of 1932-34. Whilst the warning signs were already apparent, SH&WR secured an order toward the end of 1930 to build *Pan Bolivar* an 8,773 grt oil tank steamer for the Pan American Petroleum & Transport Company of New York, USA. The machinery was to be triple expansion with a Bauer-Wach turbine installation, which was to be constructed by the Wallsend Slipway and Engineering

⁶⁹ Jones, *Shipbuilding*, p. 42.

⁷⁰ The tanker construction on the North-East Coast of England is summarised at Appendix 17.0.

⁷¹ Anthony J Arnold, 'Dependency, Debt and Shipbuilding in 'Palmer's Town'', *Northern History*, Vol. 49, Issue 1, 2012, p. 112.

Company. The contract was agreed at a cash price of £155,000.⁷² Jones pointed out that the North-East Coast of England's specialisation in the construction of tankers, resulted in an uneven requirement for labour throughout Britain.⁷³ Shipbuilders in the West of Scotland produced almost 28 percent of British tanker tonnage during the years 1924 to 1930, whilst overall British shipbuilders built 53 percent of the total world tonnage of tankers.⁷⁴ During the speculative activity of 1919, Blythswood Shipbuilding was established specifically to build tankers. During the interwar period this company built 28 tankers totalling 177,561 grt.⁷⁵ In terms of the greatest tanker output by firm in the West of Scotland, Lithgows built 31 tankers of 225,880 grt followed by Blythswood Shipbuilding, and H&W-Govan who built, 26 tankers of 139,329 grt (Appendix 18.0).

Tanker construction was much enhanced following the introduction of welding. Oil tankers clearly required to be thoroughly oil-tight and therefore the welded joint provided considerable benefits, which were not available within a vessel constructed, using rivets.⁷⁶ By the 1930s, some all-welded tankers were being constructed on both the Rivers Tyne and Clyde, though at this stage they were the exception rather than the norm.⁷⁷ Scott's Shipbuilding developed their electric welding in ship construction in line with Admiralty requirements. The Admiralty specified that structural work should be welded in the two destroyers *Esplanade* and *Escort* and considerably more in the cruiser *Galatea*. This resulted in Scott's Shipbuilding establishing a training school for welders at their dockyard.⁷⁸ Welding also spread on the Wear.

⁷² TWAS, DS.SWH/1/5/4, Swan Hunter & Wigham Richardson Limited, Report presented to the Board, No. 4, 1 November 1930, p. 698.

⁷³ Jones, *Shipbuilding*, p. 102

⁷⁴ Johnman and Murphy, 'An Overview', p. 240.

⁷⁵ *Ibid.*, p. 229, Michael S Moss and John R Hume *Workshop of the British Empire, Engineering and Shipbuilding in the West of Scotland*, (London, Heinemann, 1977), p. 106 and John R Hume and Michael S Moss, *Beardmore The History of a Scottish Industrial Giant*, (London, Heinemann, 1979), p. 154.

⁷⁶ Jones, *Shipbuilding*, p. 43.

⁷⁷ Murphy 'The Health of Electric Arc Welders', p. 73.

⁷⁸ Glasgow University, GD 319/1/1/2, Scott's Shipbuilding & Engineering Company Limited, Directors Minute Book, 29 May 1933.

By 1936, J L Thomson acquired four single operator welding sets in view of the increasing need to undertake welding in relation to merchant shipbuilding contracts.⁷⁹ The use of welding according to Hugh Murphy afforded increased carrying capacity, particularly in relation to tankers.⁸⁰

From 1920, whilst millions of tons of shipping were laid-up, and those voyages undertaken operated at a loss, one trade offered the possibility of profitability.⁸¹ In 1914, Britain owned 50 percent of the world's tanker tonnage, then only 1.5 mgt. By 1939, the tonnage had risen to 11.4 mgt, though at this stage Britain only owned 25 percent.⁸² Expanded consumption of oil and petrol in the immediate aftermath of the First World War resulted in the construction of an increased number of tanker vessels. Such vessels did not compete with any other form of vessel, as tankers were the only vessels that could carry oil.⁸³ Despite the growing volume of shipping in the immediate months after the First World War, British shipowners claimed they were not responsible for this unwarranted expansion, and that, as far as they were concerned, the increased volume of shipping under the British flag resulted exclusively from tanker construction.⁸⁴ During the difficulties that arose in the 1920s, there were cancellations of orders for British tanker construction due to increasing costs in the context of shipbuilding overseas. In early 1921, Eagle Oil cancelled orders for a number of vessels being built on the North-East Coast of England as the cost of building new tonnage increased alarmingly.⁸⁵ In 1924, Anglo-Saxon Petroleum (Anglo-Saxon) placed contracts with two Dutch shipbuilders to construct six diesel engine oil-tank ships, at a total cost amounting to at least £1,200,000, which should not have caused the concern that it did, since Anglo-Saxon was a company which had

⁷⁹ TWAS, DS.JLT/1/11/2, J L Thomson & Company Limited, Minute Book, 5 October 1936, p. 94

⁸⁰ Murphy 'The Health of Electric Arc Welders', p. 69.

⁸¹ C E Fayle, *A short history of the world's shipping industry*, (New York, Dial Press 1933), p. 295.

⁸² Hope, *A new history*, p. 369.

⁸³ Sturme, *British shipping*, p. 74.

⁸⁴ Fayle, *World's shipping industry*, p. 296.

⁸⁵ TWAS, 130/1298, Sir Armstrong Whitworth & Company Limited, Meeting of Executive Committee, 2 June 1921, p. 1.

a Dutch shareholder that owned 50 percent of Anglo-Saxon. The larger shipbuilding firms on the North-East Coast of England almost all quoted for these vessels. Whilst there was keen competition for the work, most tenders covered little more than labour costs and materials, with little margin for overheads.⁸⁶ The problems escalated during the early 1920s, James Lithgow became desperately concerned when British shipowners placed 27 orders with Dutch shipbuilders including orders for ten tankers during the years 1924 and 1925.⁸⁷ If surprise was expressed, that in 1924 Anglo-Saxon built oil tank ships on the continent, then this should not be as unusual as it first sounds, since in 1910, Anglo-Saxon built its first diesel-engine ship in the Netherlands, *Vulcanus*, a Dutch-built tanker. British mercantile trades did not at this stage share the enthusiasm for the diesel engine as appreciated in mainland Europe.

The reluctance of British shipping companies to commit to tanker tonnage and ‘preserve its lead over its foreign rivals’ requires explanation. British shipowners have received much criticism for their failure to adopt the motorship and tanker vessels, areas which may have continued their lead over its international competitors.⁸⁸ Equally, British shipowners were reluctant to borrow money to construct tanker tonnage in view of the difficulties encountered with the ‘boom and bust’ period of 1919-1921.⁸⁹

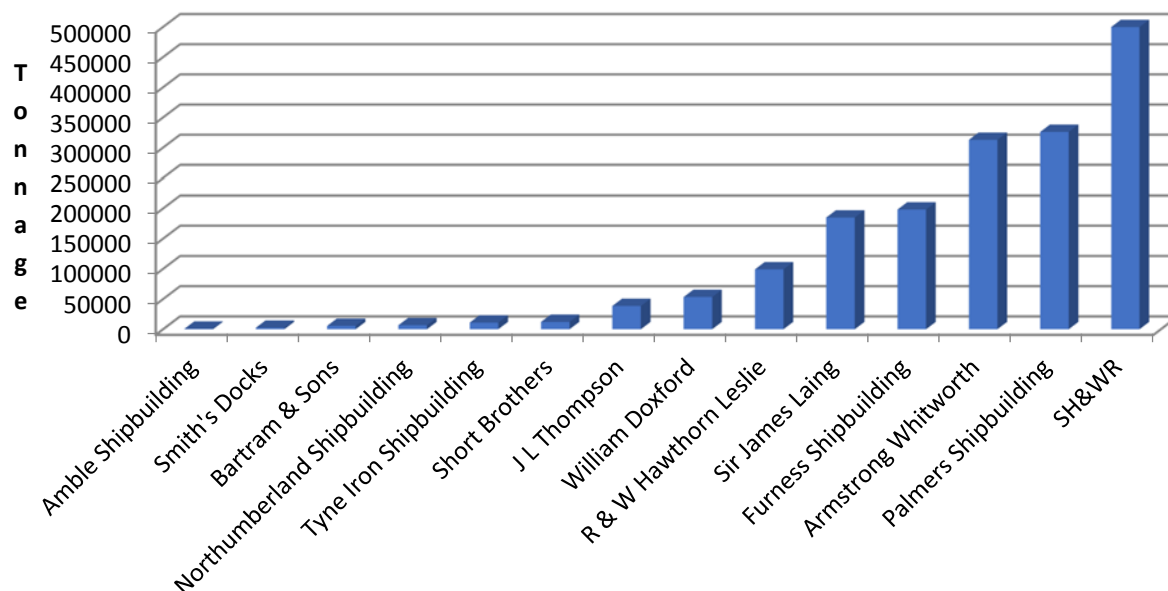
⁸⁶ ‘The shipbuilding centres, North-East coast’, in *The Shipbuilder*, ed. A G Hood (1924), p. 193.

⁸⁷ Johnman and Murphy, *Scott Lithgow*, p. 44

⁸⁸ Alan G Jamieson, *Ebb Tide in the British Maritime Industries, Change and Adaptation, 1918-1990*, (Exeter, University of Exeter Press, 2003), p. 15.

⁸⁹ *Ibid.*, p. 41.

Diagram 1.5 Analysis of tanker tonnage constructed on the North-East Coast of England during the interwar period, 1920-1939



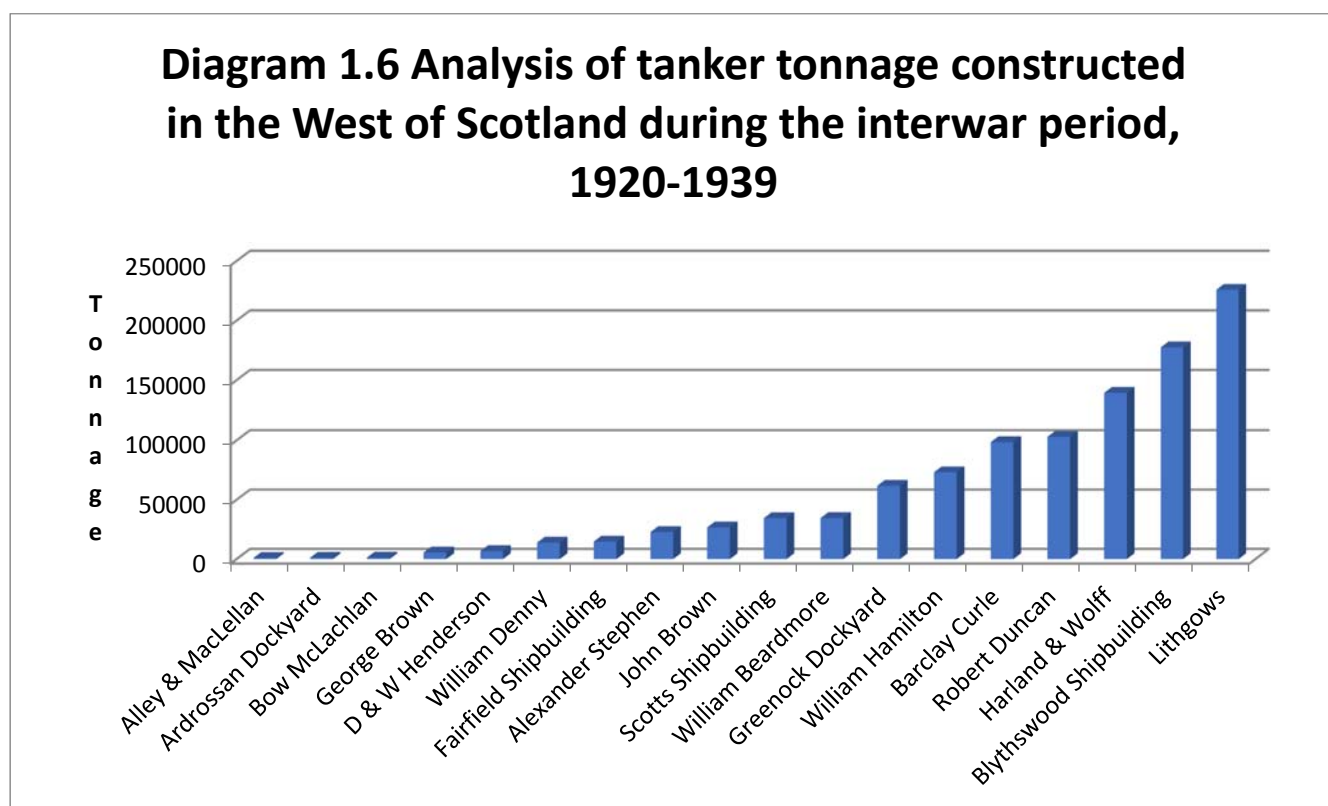
Source: British Shipbuilding Database

British shipbuilders constructed tankers large and small.⁹⁰ SH&WR built *British Thrift*, the smallest coastal tanker of 707 grt, and the largest tanker *SS San Felix* was built by Armstrong Whitworth in 1921 at 13,037 grt. The smallest tanker on the West of Scotland, *Sagnes* was built by Bow, McLachlan and had a 195 grt. The largest tanker built on West of Scotland, *MV Victolite* was built by Alexander Stephen at 11,410 grt in 1928.⁹¹ North-East Coast of England shipbuilders built over double the tonnage for overseas customers (96 tankers of 582,423 grt (Appendix 17.0)) compared to West of Scotland, (50 tankers of 245,729 grt (Appendix 18.0)). The BSD data suggests that the West of Scotland, did not build as many tankers as North-East Coast of England, though it recovered more quickly from the depression during the 1930s and

⁹⁰ Over 94.26 percent of the grt of all tankers were constructed for the purpose of transporting oil, though tankers were also used to transport chemicals, molasses, bitumen and LPG (Appendix 19.0).

⁹¹ *MV Victolite* was torpedoed by U-564 on 10 February 1942 with the loss of all her crew of 47 men.

began to lead the way in tanker construction. Most of the main shipbuilders on the West of Scotland, as well as building passenger liners, also built tankers.



Source: British Shipbuilding Database

The case of the *MV Victolite* illustrates both the vicissitudes of the tanker trade and the effects of the General Strike and miners' lockout of 1926. The motor tanker *MV Victolite* was built by Alexander Stephen in Glasgow for its owners the Imperial Oil Shipping Company of Toronto, a subsidiary of the Standard Oil Company. The vessel launched on 28 November 1927, and completed in March 1928 and was the largest tanker built on the West of Scotland during the interwar years. Scott's Shipbuilding 'continued to innovate' and by 1928, launched the *MV Brunswick* for the Atlantic Refining Company of Philadelphia, this was the first diesel-electric tanker to be built on the Clyde.⁹² Much of the trade in tankers secured in 1927, probably partly related to trade that was withheld from 1926 because of the miners' lockout. The miners'

⁹² Johnman and Murphy, 'An Overview', p. 240.

lockout of 1926 severely affected shipbuilding. Shipbuilding output was ‘doomed to disappointment as the Miners’ lockout paralysed industry for about six months or so, with the result that the returns for shipbuilding and engineering showed considerable decreases.’⁹³ Whilst the miners’ lockout began from mid-night on Saturday 1 May 1926, within a short-time shipbuilders were experiencing considerable difficulty in getting delivery of materials to continue their operations.⁹⁴ The miners’ lockout, unfortunately was prolonged and not settled until October. Consequently, work was at a standstill at Scott’s Shipbuilding for half the financial year. The stoppage of the supply of coal impacted heavily upon the steel works, which had been closed down, resulting in considerable delays after the termination of the strike before normal deliveries of steel could be secured.⁹⁵ The strike not only delayed the building of ships, but it also caused orders to be withheld.⁹⁶ Even so, Sir Thomas Bell’s report recommended laying down on the company’s account, an oil tanker similar to No. 506, which became *British Diplomat*, a diesel engine tanker built for the British Tanker Company.⁹⁷ By 1927, the construction of tankers was gaining a momentum.⁹⁸ The bulk of tanker construction in 1929 related to ships constructed for owners overseas, and Norwegian owners were by far the largest customer. In 1929, tanker tonnage built in Britain totalled 398,000 grt, whilst abroad tankers under construction amounted to 230,000 grt.⁹⁹ By 1929, tanker tonnage under construction throughout the world totalled 630,000 grt of which Britain was constructing 60 percent. Over time, British shipbuilding’s share of the tanker market dropped considerably.

⁹³ DS.SWH/3/15/26, Report of Proceedings at the 21 Annual General Meeting of the Shareholders of John G Kincaid & Company Limited, Report presented by James S Kincaid, Chairman & Managing Director, 7 June 1927.

⁹⁴ Glasgow University, GD 319/1/1/2, Scott’s Shipbuilding & Engineering Company Limited, Directors Minute Book, 21 May 1926, p. 127.

⁹⁵ Glasgow University, Alexander Stephen & Sons Limited, Minute Book No. 2, p. 93.

⁹⁶ Jones, *Shipbuilding*, p. 101.

⁹⁷ Glasgow University, UCS 1/1/2, John Brown & Company Limited, Minutes of meeting of the Committee of the Board, 27 February 1925, p. 31 and 30 April 1926, p. 62.

⁹⁸ Johnman and Murphy, ‘An Overview’, p. 241.

⁹⁹ TWAS, 1811/199/27, Shipbuilding, Present Position and Prospects for 1939, December 1938, p. 3

By 1938, whilst the world tonnage had increased to 838,000 grt, the tonnage built in Britain had fallen to 237,000 grt (28 per cent).¹⁰⁰

By 1929, Britain and its dominions operated 427 tankers totalling 2,393,177 grt and by 1933 this increased to 437 tankers of 2,602,070 grt. British tanker tonnage was both larger and younger than its international competitors.¹⁰¹ Whilst Correlli Barnett believed that British shipbuilders failed because of a lack of their technical ability, Leslie Jones felt that British shipbuilding remained vibrant because of developments, which included the growth of tanker tonnage.¹⁰² As late as June 1932, SH&WR experienced trouble in collecting monies due on tankers constructed for British Oil Shipping during the years 1927-29. SH&WR had sold these vessels at a cost of £468,000 and whilst the purchaser still owed £200,000, Mr Rapp, the main shareholder wished to form a new company to take over the vessels and attempt to settle the outstanding monies.¹⁰³

The depression of the 1930s had a severe impact upon British shipbuilders, which built tankers and whilst they had 398,000 grt of tankers under construction in December 1929, they were only building 65,000 grt in December 1931 and then only 30,000 grt a year later.¹⁰⁴ Tanker tonnage accounted for 37.5 percent of the output from British shipbuilders in 1930, however, the tonnage of tankers under construction fell from 390,000 grt at 31 December 1930 to 65,000 grt twelve months later.¹⁰⁵ By September 1932, the directors of Alexander Stephen saw no sign whatsoever of any respite for the industry in its worst state in living memory. The Board

¹⁰⁰ TWAS, 1811/198, The Shipbuilding Conference, Memorandum on the conditions now existing in the Shipbuilding Industry, December 1938, p. 9

¹⁰¹ Greg C Kennedy, 'Great Britain's Maritime Strength and the British Merchant Marine, 1922-1935', *The Mariner's Mirror*, Vol. 80, No. 1, 1994, p. 72.

¹⁰² Jones, *Shipbuilding*, p. 101.

¹⁰³ TWAS, DS.SWH/1/5/5, Swan Hunter & Wigham Richardson Limited, Report presented to the Board No. 5, 7 June 1932, p. 223.

¹⁰⁴ Buxton, 'Scottish shipbuilding', p. 111. According to the BSD tanker tonnage in 1929 on the North-East Coast of England totalled 12 tankers of 78,217 grt and on the West of Scotland 10 tankers of 66,621 grt. See Appendix 16.0.

¹⁰⁵ Jones, *Shipbuilding*, p. 105.

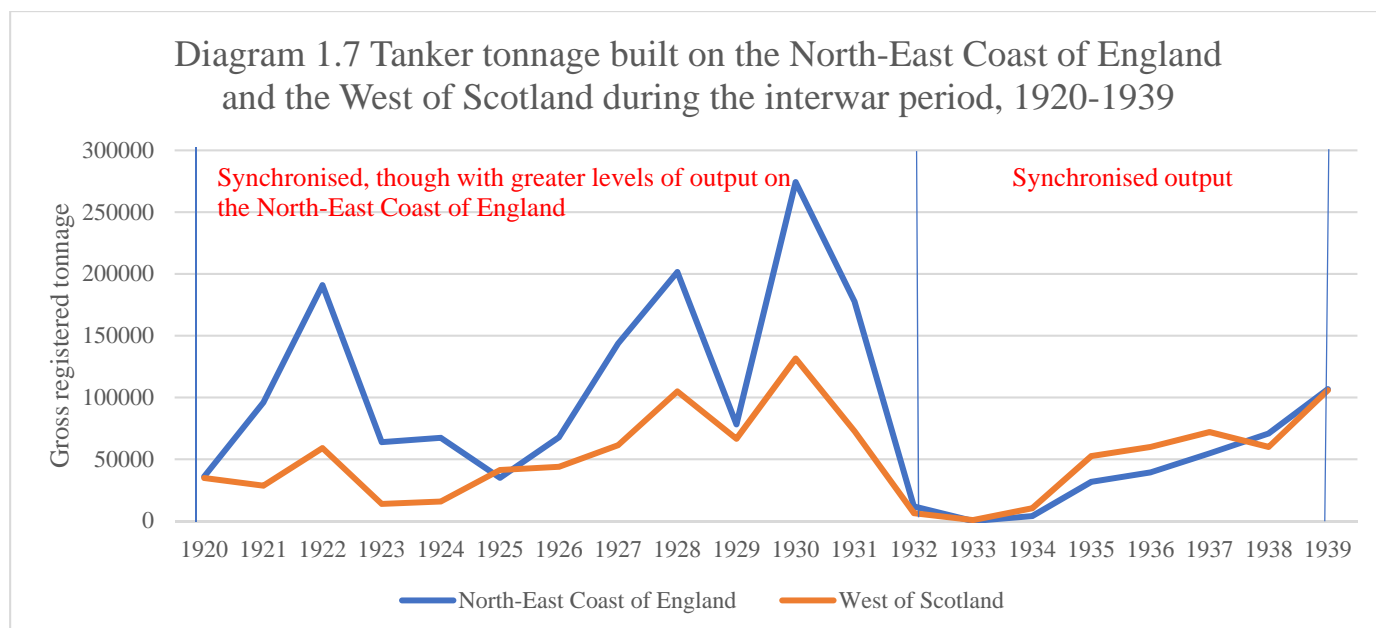
observed that with the exception of the *Gazcon* that was being built for the French Compagnie de Navigation d'Orbigny (taken at a very low price), no orders have been received for over two years. Their report continued in this sombre tone. Notwithstanding shipyard closures since 1930 the number of shipyards in the country remained too great, and consequently the capacity exceeded any conceivable future demand. Enquiries for new tonnage were non-existent and the probability of any improvement in this direction is, at least for the time being, remote.¹⁰⁶

North-East Coast of England did not recover from the depression in the early 1930s as quickly as the West of Scotland, though by the end of 1933, SH&WR was reporting a 'large number of enquiries for liners and special ships' and Anglo Saxon sought a number of diesel tankers.¹⁰⁷ By early January 1934, SH&WR was constructing a motor tank ship for Eagle Oil, with Hawthorn Leslie supplying the machinery.¹⁰⁸ Tanker tonnage built on the North-East Coast of England and on the West of Scotland during the years 1920-1939 can be summarised as follows:

¹⁰⁶ Glasgow University, Alexander Stephen & Sons Limited, Minute Book No. 2, 1 September 1932, p. 112.

¹⁰⁷ TWAS, DS.SWH//1/5/5, Swan Hunter & Wigham Richardson Limited, Directors Minute Book, No. 5, 7 November 1933, p. 315.

¹⁰⁸ TWAS, DS.SWH//1/5/5, Swan Hunter & Wigham Richardson Limited, Directors Minute Book, No. 5, 9 January 1934, p. 329.



Source: British Shipbuilding Database¹⁰⁹

The optimum tonnage built in both regions arose in 1930 when North-East Coast of England, constructed 42 tankers of 274,330 grt and the West of Scotland built 20 tankers of 131,538 grt. The worst trading period arose, according to the data appraised in the years 1932 to 1934. By 1939, North-East Coast of England, constructed less than a third of the ships built in 1930 and only 38.9 percent of the tonnage. Whilst in 1939, the West of Scotland built 75.0 percent of the ships constructed in 1930, though built 80.43 percent of its 1930, grt.

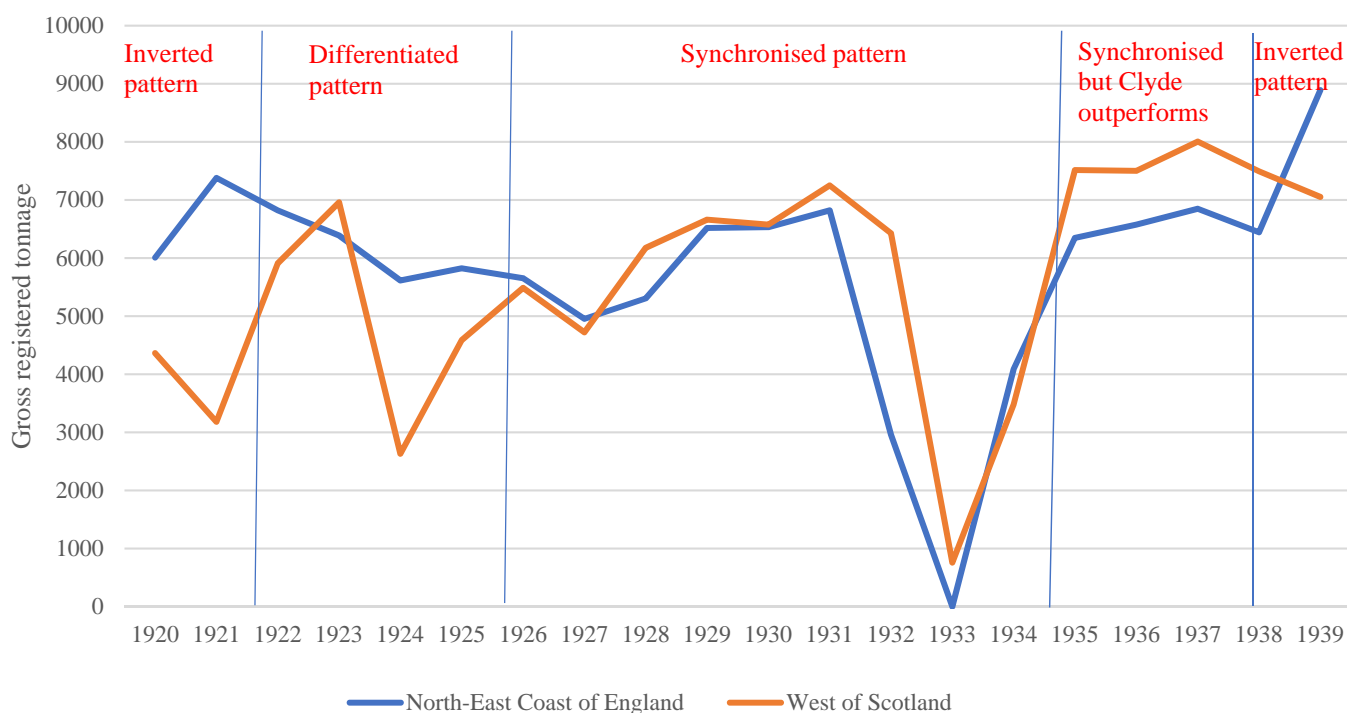
Whilst the demand for tankers were strongest for shipbuilders on the North-East Coast of England during the 1920s, the recovery in the latter part of the 1930s revealed that the West of Scotland was just as strong.¹¹⁰ Lorenz acknowledged that the general size of tankers increased during the interwar period as an element of standardisation developed with their construction.¹¹¹

¹⁰⁹ See Appendix 16.0.

¹¹⁰ Buxton, 'Scottish shipbuilding', p. 111.

¹¹¹ Lorenz, 'An evolutionary explanation', p. 923.

Diagram 1.8 Average size of tankers built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939



Source: British Shipbuilding Database

Diagram 1.7 shows that North-East Coast of England built a larger tanker tonnage during the interwar years, but that the West of Scotland recovered more quickly from the 1930s depression in areas that had been a stronghold of shipbuilding undertaken on the North-East Coast of England. During the years 1934 to 1939, the West of Scotland revealed tanker tonnage built totalling 360,868 grt compared to North-East Coast of England that built only 307,659 grt.

However, during the 1930s, tanker tonnage constructed on behalf of overseas customers waned.¹¹² Whilst throughout the interwar period, North-East Coast of England constructed 33.25 percent of tonnage on behalf of foreign customers, the West of Scotland constructed 23.57 percent. In relation to tonnage, built on the North-East Coast of England 20.14 percent

¹¹² TWAS, 1811/198, The Shipbuilding Conference, Memorandum on the conditions now existing in the Shipbuilding Industry, December 1938, p. 12

related to tonnage built on behalf of Norwegian shipowners. The West of Scotland shipbuilders built 245,729 grt on behalf of foreign shipowners, of which 59.78 percent related to Norwegian shipowners. Norwegian shipowners like their British counterparts showed little interest in tanker construction prior to the First World War, although between 1914 and 1920 Norway doubled their ownership of tankers and doubled it again during the years 1920 to 1925. However, from 1925 to 1939 Norway increased their tanker fleet by 2.12 mgrt.¹¹³

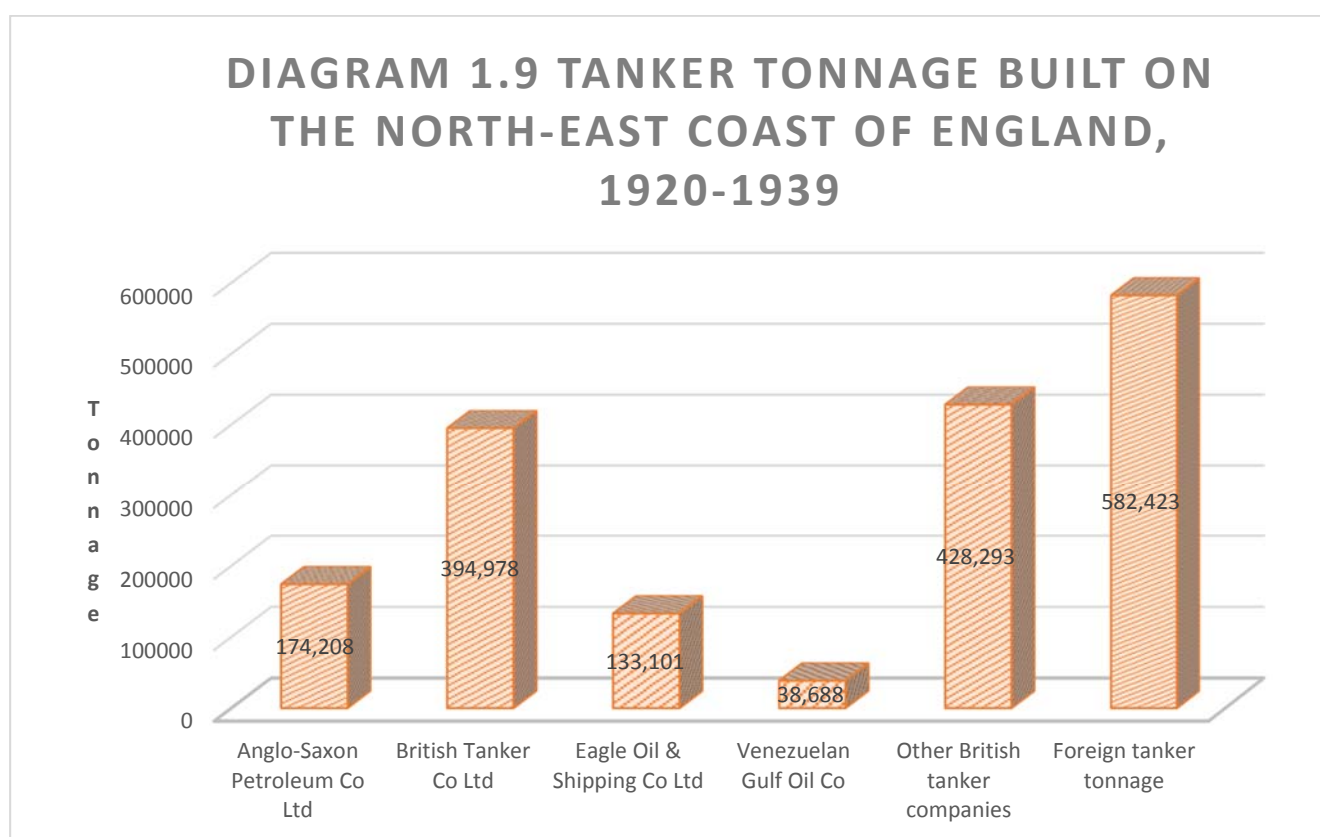
The largest tanker shipbuilders and their customer base

During the interwar period three major tanker operators maintained the construction of tankers on the North-East Coast of England and West of Scotland. These shipowners/tanker operators were British Tanker Company, Anglo-Saxon and the Eagle Oil. These three companies were by far the largest tanker clients in both regions. Whilst the British Tanker Company transported all the oil of the Anglo-Iranian Oil Company, Anglo-Saxon was prepared to give charters to independent tanker companies. The dominance of the oil companies may explain a degree of reluctance of British shipowners to become involved in the tanker trade.¹¹⁴ The British Tanker Company was the forerunner of British Petroleum (BP), though during the interwar period it was known first as Anglo-Persian Oil Company until 1935 when it changed its name to Anglo-Iranian Oil Company which continued until 1954 when changing to British Petroleum. The company was responsible for transporting oil from the Middle-East to refineries all around the world, including those built at Llandarcy in Wales and Grangemouth in Scotland. The British Tanker Company built 59 tankers on the North-East Coast of England during the years 1920 to 1939 with a total tonnage of 394,978 grt. Palmers Shipbuilding constructed the largest share of this tonnage, building 21 vessels of 142,646 grt, followed by SH&WR which constructed 20 vessels of 129,491 grt and then Sir James Laing who built eleven vessels of 78,473 grt.

¹¹³ Sturmeay, *British Shipping*, p. 80.

¹¹⁴ Jamieson, *Ebb Tide*, p. 17.

When the British Tanker Company repaired vessels or undertook refits, the vessel in question did not necessarily return to the original shipbuilder for work to be undertaken. In 1929, the British Tanker Company sent the *British Aviator* and the *British Chemist* to William Doxford to have the vessels main motors and propelling machinery repaired at a cost of £86,250.¹¹⁵ Originally Palmers Shipbuilding built these vessels in 1924 and 1925. During the 1920s, British Tanker Company, ordered vessels with both steam and diesel engines. By 1929, the British Tanker Company preferred to install diesel engines in its tankers.¹¹⁶



Source: British Shipbuilding Database

The assumption that those ships that transported oil would naturally be built using diesel engines did not always hold. In terms of grt the British Tanker Company favoured the North-East Coast of England over the West of Scotland, with 50 percent less grt constructed on the

¹¹⁵ TWAS, DS.DOX/1/5/3, William Doxford & Sons Limited, Minute Book, 7 October 1929, p. 98.

¹¹⁶ Jamieson, *Ebb Tide*, p. 16.

latter rather than the former. Lithgows, H&W-Govan and William Beardmore built over 79.20 percent of the tonnage, constructed for the British Tanker Company in the West of Scotland.¹¹⁷

William Beardmore entered into an agreement for a Standard Licence from J W Isherwood, London, to build vessels under the Isherwood System of framing.¹¹⁸ This licence appears to have helped secure a number of contracts from the British Tanker Company that comprised:

| | | | |
|---------|-------------|---------------------------|-------------------------|
| No. 621 | 5,000 tons | <i>British Trader</i> | £250,000 |
| No. 622 | 10,000 tons | <i>British Merchant</i> | £410,000 |
| No. 623 | 5,000 tons | <i>British Enterprise</i> | £250,000 ¹¹⁹ |
| No. 624 | 5/6,000-ton | <i>British Industry</i> | £250,000 |
| No. 625 | 5/6,000-ton | <i>British Commerce</i> | £250,000 ¹²⁰ |

Lithgows secured a contract to build the *British Courage* on 16 March 1928¹²¹ and then during 1930, Lithgows built four vessels for the British Tanker Company:

| | |
|---------|--|
| No. 846 | <i>British Fortune</i> |
| No. 847 | <i>British Venture</i> |
| No. 849 | <i>British Pride</i> |
| No. 850 | <i>British Prestige</i> ¹²² |

¹¹⁷ Lithgows built ten vessels of 64,259 grt, Harland & Wolff-Govan built six vessels of 50,539 grt and William Beardmore constructed only four vessels of 19,607 grt.

¹¹⁸ Glasgow University, UGD 1/1/2, William Beardmore & Company Limited, Minute Book No. 2, 18 February 1920

¹¹⁹ Glasgow University, UGD 1/1/2, William Beardmore & Company Limited, Minute Book No. 2, p. 24 September 1920

¹²⁰ Glasgow University, UGD 1/1/2, William Beardmore & Company Limited, Minute Book No. 2, 19 October 1920

¹²¹ Glasgow University, UGD 223/1/1/3, Lithgows Limited, Minute Book, p. 67.

¹²² Glasgow University, UGD 223/1/1/3, Lithgows Limited, Minute Book, 8 May 1930, p. 81.

Anglo-Saxon was established to operate the transport of ships for Shell Transport and Trading. From 1908, all vessels were placed into the Anglo-Saxon and Bataafsche Petroleum Maatschappij, which controlled the assets of Royal Dutch Shell. Anglo-Saxon contracted to build twenty-five vessels on the North-East Coast of England during the years 1920–1939 to a total of 174,208 grt. These vessels were built at SH&WR, (twelve vessels of 86,559 grt), Hawthorn Leslie (ten vessels of 70,095 grt) and Palmers Shipbuilding (two vessels of 14,936 grt). Only three shipyards on the West of Scotland contracted to build vessels for Anglo-Saxon, of which Lithgows built (seven vessels totalling 56,454 grt), H&W-Govan built (eight vessels totalling 59,441 grt) and Blythswood Shipbuilding constructed (three vessels of 24,266 grt).

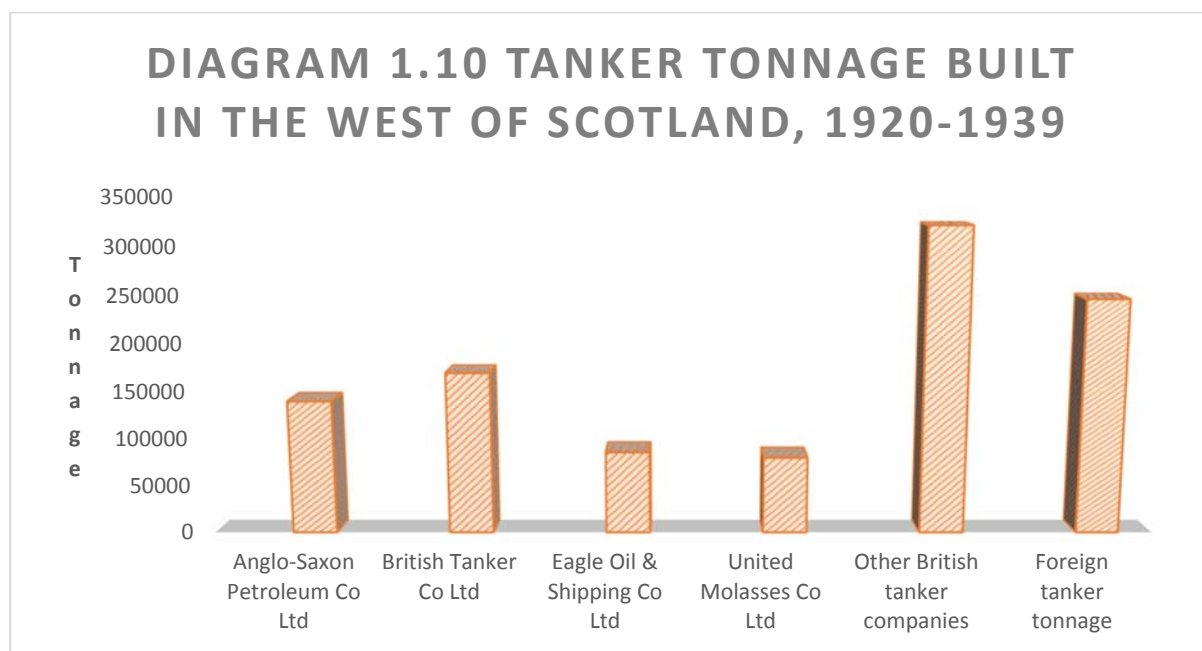
Eagle Oil were the smallest of the three main tanker companies building ships on the North-East Coast of England and in the West of Scotland. On the North-East Coast of England, it built:

| | No. | Grt |
|----------------------|------------|------------|
| Armstrong Whitworth | 7 | 52,209 |
| Palmers Shipbuilding | 4 | 37,686 |
| Furness Shipbuilding | 3 | 23,515 |
| Others | 4 | 19,691 |

Whilst on West of Scotland, Eagle Oil built eleven vessels at:

| | No. | Grt |
|-------------------------|------------|------------|
| Blythswood Shipbuilding | 5 | 39,383 |
| H&W-Govan | 2 | 15,490 |
| Lithgows | 4 | 31,461 |

Eagle Oil was set up to transport oil from the Gulf of Mexico and in 1919 the company was sold to Royal Dutch Shell. Throughout the interwar years, British Petroleum and Shell controlled a large proportion of the tanker tonnage built by British shipbuilders.



Source: British Shipbuilding Database

The growing level of overseas competition

Foreign shipbuilders built 233,000 grt for British owners, most of which comprised cargo liners and tanker tonnage during the interwar period. British shipbuilders appeared to be failing the ‘litmus test of competitiveness.’¹²³ Whilst Norwegian shipowners developed their trade in liners, refrigeration and whaling, their most pronounced trade came about in relation to tankers.¹²⁴ In the years before the First World War, a large proportion of tanker tonnage was owned by oil companies.¹²⁵ However in the years following the First World War, tanker tonnage expanded, through the growth in tanker construction by independent tanker companies,

¹²³ Hugh Murphy, “No Longer Competitive”, p. 44.

¹²⁴ Stig Tenold, ‘Norway’s Interwar Tanker Expansion – A Reappraisal’, *Scandinavian Economic History Review*, Vol. 55, Issue 3, 2007, p. 248.

¹²⁵ Jamieson, *Ebb Tide*, p. 17.

whose tonnage could be chartered in good operating times, or whose tankers could be laid-up during a down-turn in trade.¹²⁶ During 1926, Anglo-Saxon disposed of its older tankers, with 22 vessels being purchased by Norwegian shipping operators and two each were purchased, by British and German shipowners. Anglo-Saxon entered into an agreement with the purchasers to charter back the vessels during the next ten-years. Whether the purchase of the Anglo-Saxon vessels was a major break-through for the Norwegian shipowners must be doubtful, as significant sums were invested in new tonnage built in Oslo.¹²⁷ Norway adopted a strategy whereby in 1932 they owned eighteen percent of the world tanker fleet, whilst in 1920 it only owned three percent.¹²⁸ During the ten-years to 1939, whilst the rest of the world's fleet declined, Norway increased her fleet by 40 percent and in so doing Norwegian owners built up the world's largest independent tanker fleet in the period 1920–1939.¹²⁹ Unlike most countries, Norway managed its tanker tonnage admirably and avoided the 'calamities' that befell many during the interwar period. Whilst the world's shipping industry was almost in crisis throughout the interwar years, Norwegian shipowners identified an area of trade, which aided its development with investment in the tanker trade.¹³⁰ Norway's shipowners bought tankers unlike British shipowners and whilst Norwegians bought from British shipbuilders initially, this demand shifted as the 1930s progressed.¹³¹

Most noticeably, Norwegian shipowners ordered the largest volume of tonnage in both regions. On the North-East Coast of England shipbuilders built 50 tankers of 352,711 grt on behalf of Norwegian shipowners, whilst on the West of Scotland, Norway was still the main customer in relation to tankers, though the West of Scotland only built 21 tankers of 146,899 grt for

¹²⁶ Ibid.

¹²⁷ Tenold, 'Norway's', pp. 250-251.

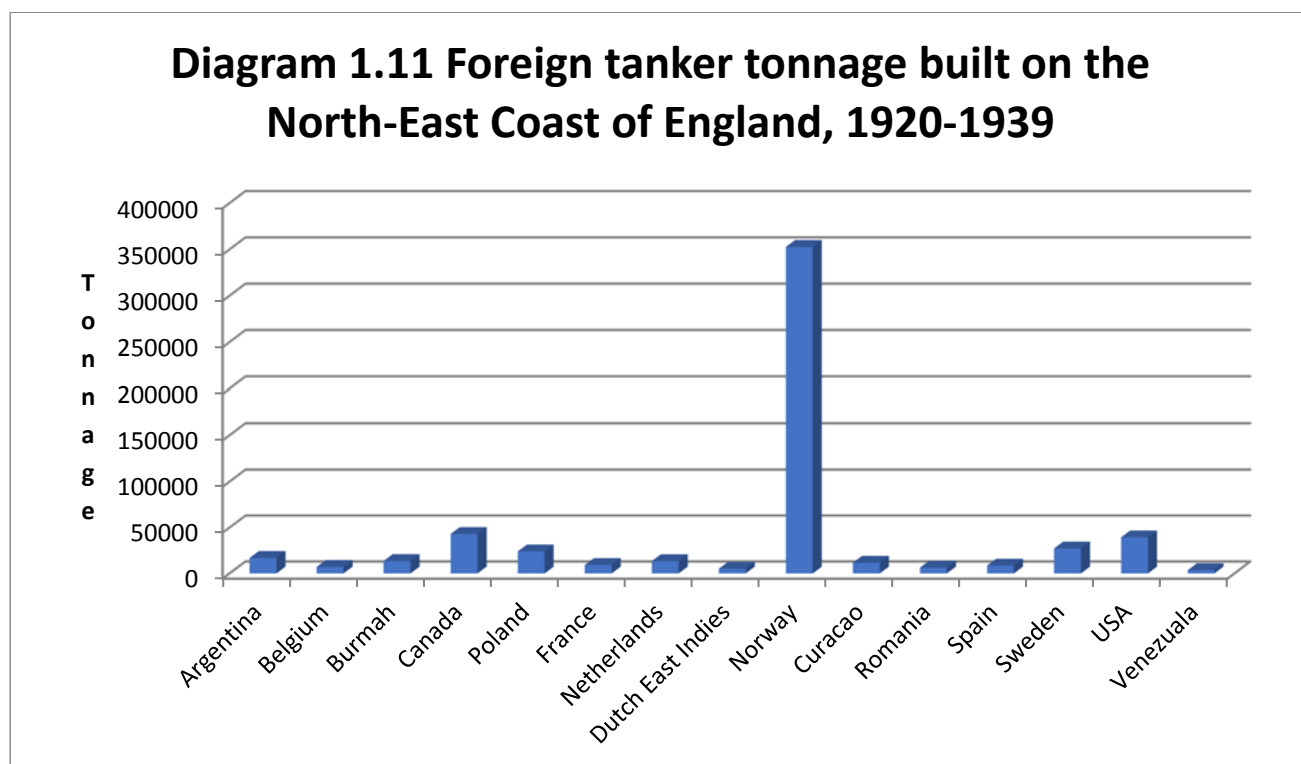
¹²⁸ Jamieson, *Ebb Tide*, p. 17.

¹²⁹ C Brautaset and Stig Tenold, 'Globalisation and Norwegian Shipping Policy, 1850-2000', *Business History*, Vol. 50, No. 5, 2008, p. 568.

¹³⁰ Tenold, 'Norway's', p. 246.

¹³¹ Ibid., p. 245 and Murphy, "'No Longer Competitive'", p. 40.

Norwegian owners (Appendix 20.0). Shipbuilders on the North-East Coast of England built tankers for fifteen overseas countries and the West of Scotland shipyards built tankers for shipowners in fourteen overseas countries.



Source: British Shipbuilding Database

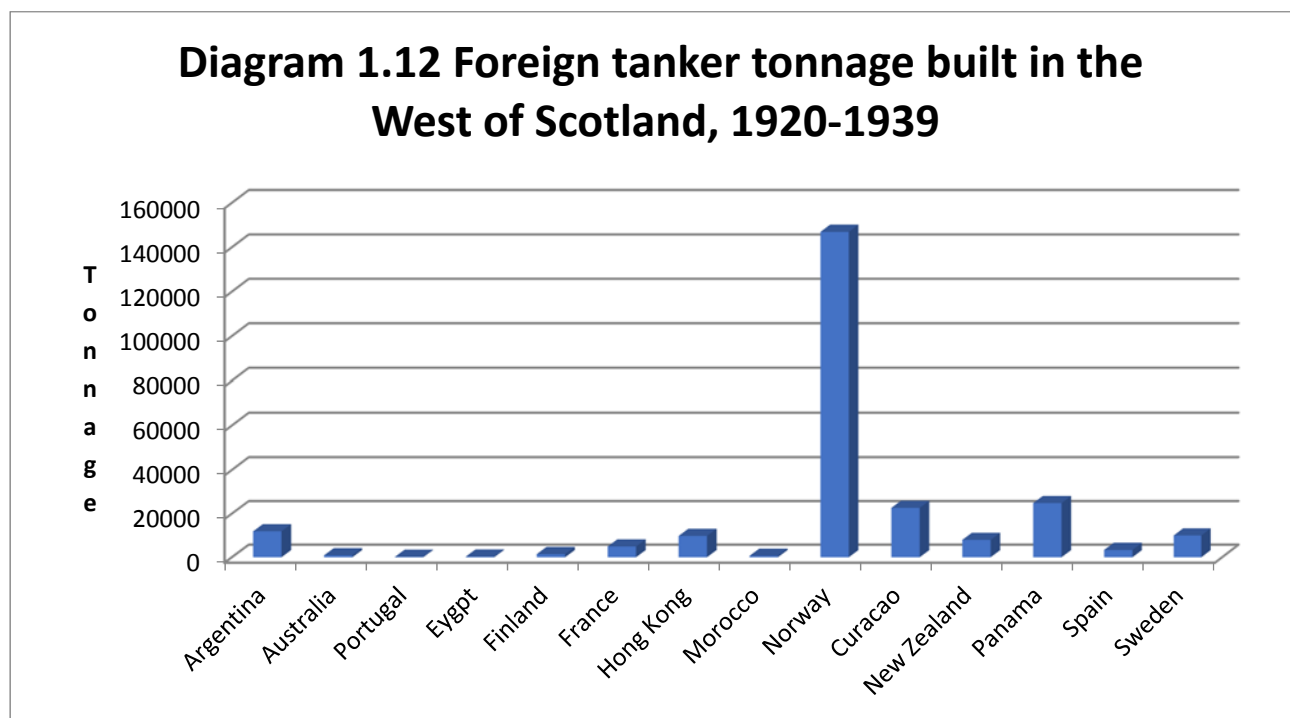
Whilst the tanker market collapsed in 1930, with 15 percent of its tonnage laid up in Britain and 40 percent laid-up world-wide.¹³² By 1934, the establishment of the Schierwater Scheme established a mechanism whereby the market in tankers could be stabilised.¹³³ Whilst the trade press heralded that Britain had ‘Still the Greatest Shipbuilders’ based on the volume of tonnage built, the output was only achieved by virtue of tankers built on behalf of Norwegian owners whose finance was provided by the shipbuilder.¹³⁴ Whilst shipbuilders financed numerous tanker contracts, it was always likely that bad debts would materialise. Agreements between shipbuilders and tanker companies settled outstanding debts at heavily discounted rates in order

¹³² Jamieson, *Ebb Tide*, p. 18.

¹³³ Ibid.

¹³⁴ Johnman and Murphy, *British Shipbuilding*, p. 30.

to avoid bad debts.¹³⁵ Consequently, orders from Norwegian customers ensured the survival of certain British shipyards.



Source: British Shipbuilding Database

Whilst Britain established strong relationships with Norwegian shipowners, Swedish shipbuilders encroached on British markets by attempting to build strong ties with Norwegian shipowners.¹³⁶ It was apparent that Norwegian shipowners particularly those from Oslo received major benefits in terms of financial assistance from Swedish shipyards.¹³⁷ Both Swedish and Dutch shipbuilders sought to develop relationships with Norwegian shipping operators by delivering a more competitive form of construction.¹³⁸ Whilst both Danish and Swedish shipbuilders were important to Norway, it nevertheless remained ‘the single most important export market for British shipbuilders.’¹³⁹

¹³⁵ TWAS. DS.DOX//1/5/3, William Doxford & Sons Limited, Minute Book, 15 December 1936, p.273.

¹³⁶ TWAS, 1811/198, The Shipbuilding Conference, Memorandum on the conditions now existing in the Shipbuilding Industry, December 1938, pp. 10 and 11

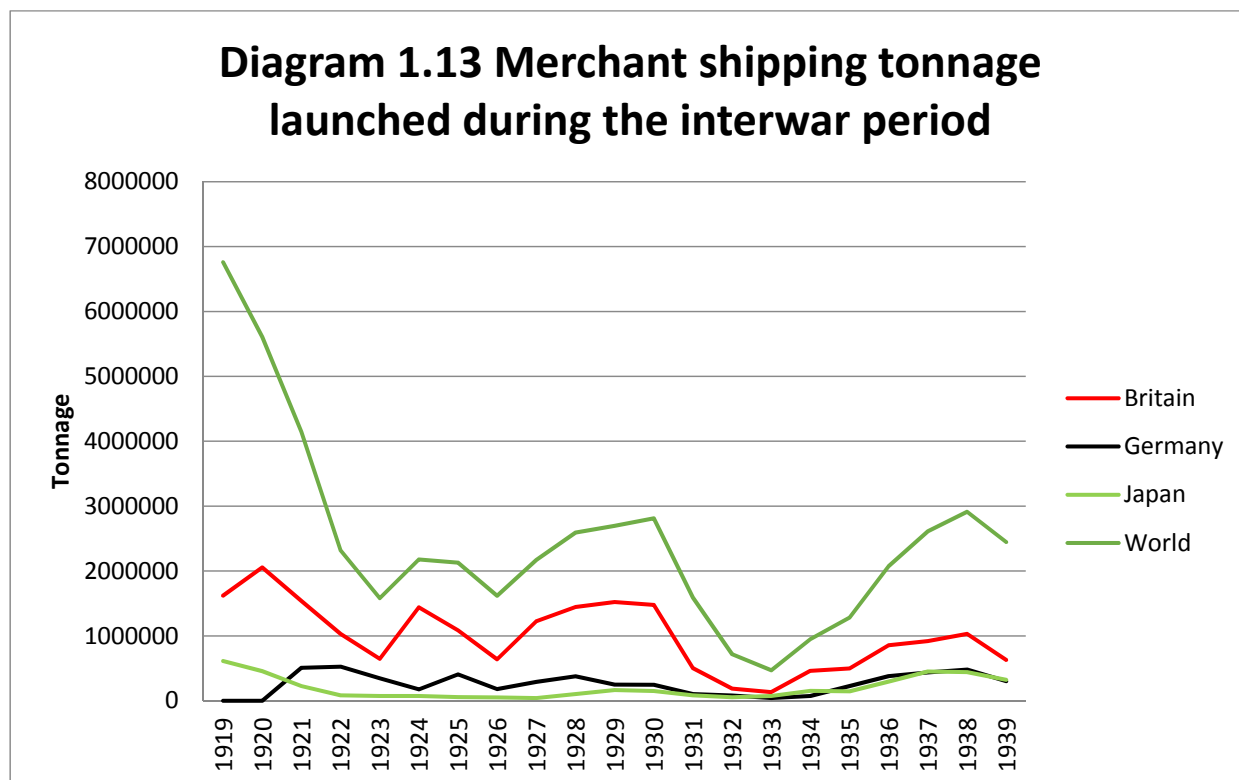
¹³⁷ Brautaset and Tenold, ‘Globalisation’, p. 570.

¹³⁸ Lorenz, ‘An evolutionary explanation’, p. 923.

¹³⁹ Johnman and Murphy, ‘The Norwegian Market’, p. 57.

Interwar Shipbuilding output on the North-East Coast of England and the West of Scotland

Britain's domination of world shipbuilding developed from activities undertaken on the West of Scotland – principally the Clyde – and the North-East Coast of England. Up until 1920 the two regions enjoyed good levels of trade within their shipbuilding environment.¹⁴⁰



Source: Table 12 of the Lloyd's Register of Shipping Statistical Tables 1962

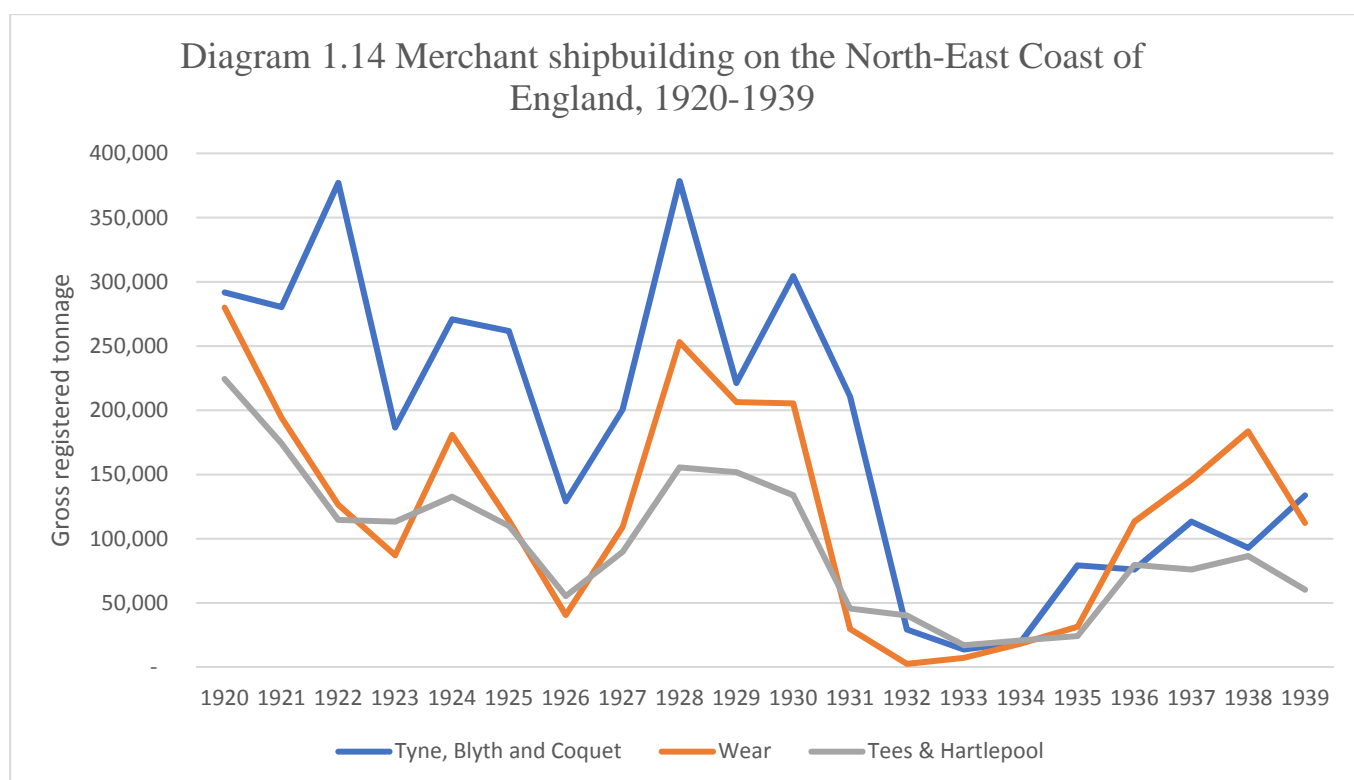
British shipbuilding output

Parkinson believes that Britain's shipbuilding strength derived from its ability to construct tramp shipping in an economical manner as much as the Clyde's ability to construct highly finished and specialised ships.¹⁴¹ However, his comments in relation to shipyards constructing

¹⁴⁰ Todd, 'Industrial inertia', p. 291.

¹⁴¹ John Richard Parkinson, *The economics of shipbuilding in the United Kingdom* (Cambridge: Cambridge University Press, 1960), p. 10.

tramp vessels being ‘sparsely equipped’ in comparison to competitors cannot be strictly correct, as most regions had shipyards undertaking a mixture of tramp and liner construction and their yards were not meagrely furnished.¹⁴² SH&WR and Lithgows undertook a reasonable proportion of tramp-shipbuilding and their yards were technically advanced, if not the most technically advanced in Britain. Although British shipbuilding peaked during 1920, it operated the remainder of the interwar period at well below its potential capacity.¹⁴³



Source: British Shipbuilding Database – Appendix 3.0

Shipbuilders with facilities on the Rivers Tyne, Blyth, Wear and Tees, and at Hartlepool, and Amble in Northumberland, undertook shipbuilding on the North-East Coast of England. Analysis of the shipbuilding data on the North-East Coast of England reveals a common pattern across the rivers of the region. It would appear from the data included in (Diagram 1.14) that on the rivers that undertook shipbuilding on the North-East Coast of England, no river

¹⁴² Ibid.

¹⁴³ Jones, *Shipbuilding*, p. 92.

challenged the trend in terms of shipbuilding output. Shipbuilding in Northumberland centred on activity principally undertaken on the Rivers Tyne, Blyth and at Amble, and these areas had facilities to build in excess of 750,000 grt.¹⁴⁴ Whilst Aberconway saw shipbuilding as a trade barometer, the immediate post-war activity failed to foreshadow large-scale wealth.¹⁴⁵ From 1920, these locations operated under 22 shipbuilders, despite the closure of 17 shipyards during the interwar years (Appendix 21.0).¹⁴⁶ However, not all closures resulted in the end of shipbuilding. Armstrong Whitworth closed in 1927 yet relaunched as Vickers-Armstrong, and Northumberland Shipbuilding closed during 1925 though the company relaunched as Northumberland Shipbuilding (1927) and continued in business until 1930, following which it closed and was then purchased by NSS in 1932. The Tyne contracted with most shipowners, whether they were foreign customers, liner companies or tramp-shipping operators. However, by 27 September 1932 whilst there were 77 shipbuilding berths on the River Tyne, only 5 berths were occupied.¹⁴⁷ During the interwar period the Tyne and its subsidiary locations, constructed 45.80 percent of all merchant tonnage built on the North-East Coast of England, whilst the Wear built 30.46 percent and Tees and Hartlepool 23.74 percent: according to Aberconway, the ‘Tyne was the cradle of the shipbuilding industry.’¹⁴⁸ In terms of merchant shipbuilding, SH&WR was the largest shipbuilder in mainland Britain, completing 1,382,253 grt during the years 1920-1939 of which 1,297,276 grt completed on the Tyne and 84,977 grt was built on the Wear.

Shipbuilders operated within an environment where trade cycles heavily influenced the patterns of business. In view of the fraught difficulties during the interwar period, shipbuilders

¹⁴⁴ Clarke, *Building ships*, p. 223.

¹⁴⁵ Lord Aberconway, *The basic industries of Great Britain: coal, iron, steel, engineering, ships. A historical and economic survey* (London: E Benn, 1927), p.159.

¹⁴⁶ Joseph Finbar Clarke, *Power on land and sea, 160 years of industrial enterprise on Tyneside, A history of R & W Hawthorn Leslie & Company Limited, engineers and shipbuilders* (Newcastle upon Tyne: Clarke Hawthorn, 1979), p. 81.

¹⁴⁷ *Ibid.*, p 83.

¹⁴⁸ Aberconway, *The basic industries*, p. 161.

managed their shipyards with excess capacity and in uncertain trading conditions.¹⁴⁹ By 1920, rather than building naval vessels, activity at the Armstrong Whitworth yard at Low Walker on the Tyne returned to constructing merchant shipping.¹⁵⁰ The company completed vessels for Eagle Oil, Shaw, Saville Albion, Union-Castle Mail, Cunard, and Peninsular & Oriental (P&O).¹⁵¹

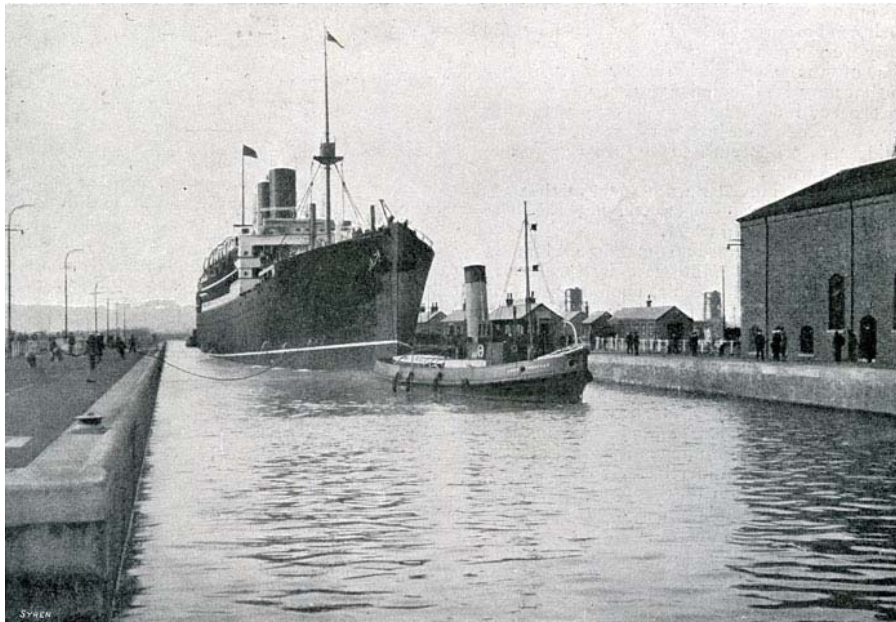


Photo 1.1: *SS Ascania*, built by Armstrong Whitworth for Cunard¹⁵²

The company completed *SS Ausonia* during 1922 and *SS Ascania* in 1925, both contracts undertaken for Cunard. The vessels were turbine propelled and employed for passenger service to Canada.¹⁵³ As well as the Cunard vessel *SS Andania*, Hawthorn Leslie completed the P&O liners *SS Ranpura* and *SS Ranchi*, to operate from Tilbury to Bombay during 1925.¹⁵⁴ It was felt that shipbuilding was the hardest hit of all British heavy industries and it could only recover

¹⁴⁹ Todd, 'Strategies', p. 56.

¹⁵⁰ Warren, *Armstrongs*, p. 197.

¹⁵¹ Norman Middlemiss states (Middlemiss, *British shipbuilding yards*, p.61.) that *SS Tairoa*, built for Shaw Savill & Albion, was the first merchant ship launched post the First World War. The *SS Tairoa* was launched on 4 February 1920 and completed later that year.

¹⁵² www.newportpast.com - [accessed 1 February 2016]

¹⁵³ Clarke, *Building ships*, p. 225.

¹⁵⁴ Ron French and Ken Smith, *Lost shipyards of the Tyne* (Newcastle upon Tyne: Tyne Bridge Publishing, 2004), p. 30; Clarke, *Power*, p. 82. *SS Ranchi* joined the war effort in 1939 as a merchant cruiser.

as shipping revived with the ‘development of Empire and foreign trade.’¹⁵⁵ As trading became difficult during the early 1920s, Cunard attempted to suspend work, something that became a regular occurrence for shipbuilders; if the contracts could not be suspended or even cancelled, construction continued at a reduced pace.¹⁵⁶ At the end of March 1922, Lloyd’s Register of Shipping reported that although there was 2,235,998 tons under construction in Britain, this included 617,000 tons that had been suspended for some time, while overseas shipbuilding totalled 1,443,624 of which suspended tonnage totalled 325,000 tons.¹⁵⁷ Armstrong Whitworth’s business was difficult during the 1920s due to activities in non-shipbuilding related activities.¹⁵⁸ The merger between Vickers and Armstrong Whitworth certainly fitted the description of a ‘depression-induced merger’, however, little else is available to compare it with, since other shipyards with Admiralty building experience failed without any form of reconstruction, namely Palmers Shipbuilding and William Beardmore.¹⁵⁹ Following the merger of Vickers and Armstrong Whitworth in 1927, the merged business completed only one merchant ship during the remainder of the interwar period, the 22,424 grt *SS Monarch of Bermuda* for Furness Withy.¹⁶⁰

¹⁵⁵ ‘Shipbuilding’, *Sunderland Daily Echo and Shipping Gazette*, 19 November 1923, p. 3.

¹⁵⁶ Johnman and Murphy, ‘An Overview’, p. 227; Clarke, *Power*, p. 81.

¹⁵⁷ ‘All over the world, slump in shipbuilding industry, A quarters return’, *Sunderland Daily Echo and Shipping Gazette*, 12 April 1922, p. 5.

¹⁵⁸ Marshall J Bastable, *Arms and the state: Sir William Armstrong and the remaking of British naval power, 1854-1914* (Aldershot: Ashgate, 2004), pp. 262 and 263; Warren, *Armstrongs*, pp. 217-221.

¹⁵⁹ Todd, ‘Strategies’, 61.

¹⁶⁰ John Dick Scott, *Vickers, A history* (London: Weidenfeld & Nicolson, 1962), pp. 185-86.

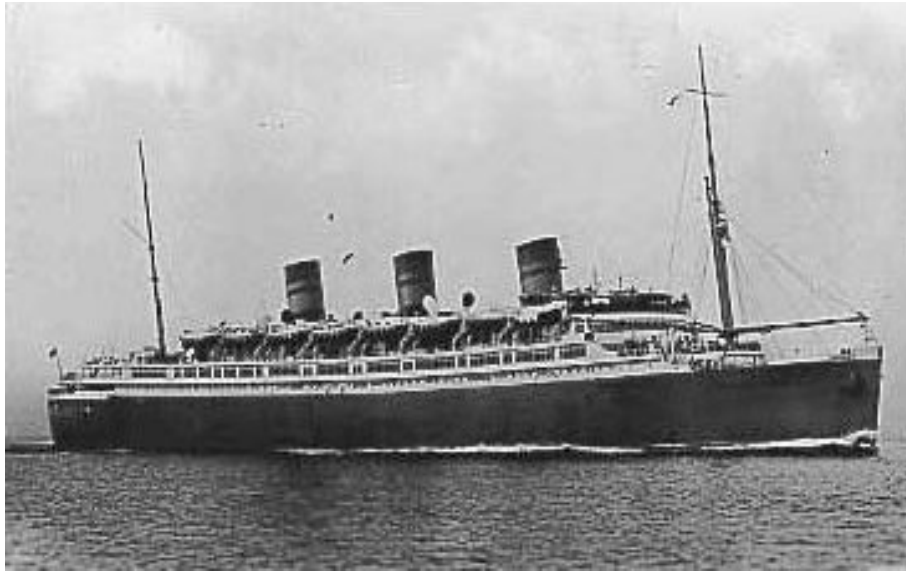


Photo 1.2: SS Monarch of Bermuda¹⁶¹

For the remainder of the interwar period, the business was heavily involved in the construction of vessels for the Admiralty.¹⁶² When Vickers and Armstrong Whitworth merged in 1927, the residual activities of Armstrong Whitworth took control of William Dobson and Tyne Iron Shipbuilding, which continued until 1931, when all three closed.¹⁶³

Throughout the interwar period, the River Wear completed 587 merchant ships totalling 2,453,582 grt from 16 shipbuilders.¹⁶⁴ From 1920, until the outbreak of the Second World War, the number of shipbuilders on the Wear fell by 50 percent, though it was mainly the River's larger shipbuilders that survived. Appendix 22.0 details the tonnage constructed on the Wear during the years 1920-1939.

The Wear's reputation mainly focussed on cargo vessels, having built over 83.08 percent of this category of vessel. William Doxford built for shipping companies, particularly Moor Line,

¹⁶¹ The *Monarch of Bermuda* was known as one of 'the millionaires' ships.' Both the *Monarch of Bermuda* and her sister ship the *Queen of Bermuda* were built by Vickers-Armstrong Shipbuilders Ltd, the *Monarch of Bermuda* at Walker-on-Tyne, and the *Queen of Bermuda* at Barrow, both for Furness Withy's New York-Bermuda service. The *Monarch of Bermuda* was 579 feet long with a beam of 76 feet. The vessel was launched on 17 March 1931. www.offshore-radio.de – [accessed 1 February 2016]

¹⁶² Scott, *Vickers*, pp. 216-26.

¹⁶³ Middlemiss, *British shipbuilding yards*, p. 64.

¹⁶⁴ See Appendix 3.0.

B J Sutherland, MacAndrews, Court Line, Furness Withy, and others. William Doxford was the largest shipbuilder on the Wear building 95 merchant ships with a tonnage totalling 508,499 grt.¹⁶⁵ The firm's main competitors on the Wear were J L Thompson, Sir James Laing, and Short Brothers.¹⁶⁶



Photo 1.3: William Doxford's motor tramp *MV Hannington Court*, built for Court Line¹⁶⁷

Sir James Laing constructed 318,397 grt, whilst J L Thompson built 291,699 grt and Short Brothers 261,396 grt. William Gray's Sunderland shipyard commenced trading as Egis Shipbuilding, named for the initials of John Ellerman, William Gray, Lord Inchcape and Frank C Strick, though it was absorbed into William Gray & Company during 1923.¹⁶⁸ The River Wear's trade mainly focussed on cargo boats and tankers. Whilst cargo vessels accounted for

¹⁶⁵ Roberts, 'A Question', p. 98.

¹⁶⁶ Parkinson, *Economics*, p. 19.

¹⁶⁷ The *MV Hannington Court* was launched for Court Line Limited on 22 February 1939. www.benjidoog.co.uk – [accessed 1 February 2016]

¹⁶⁸ Middlemiss, *British shipbuilding yards*, p. 261.

83.08 percent of the River's output, Tankers accounted for a further 12.20 percent, whilst Coasters made up another 4.42 per cent.

Shipbuilding on the Tees and at Hartlepool took place at nine shipyards, the largest being William Gray of Hartlepool.¹⁶⁹ The yard's reputation lay in the construction of cargo steamers for such shipping companies as Strick Line, Ellerman Lines, British India Steam Navigation, RMSPC and Reardon Smith Line (Appendix 23.0).¹⁷⁰

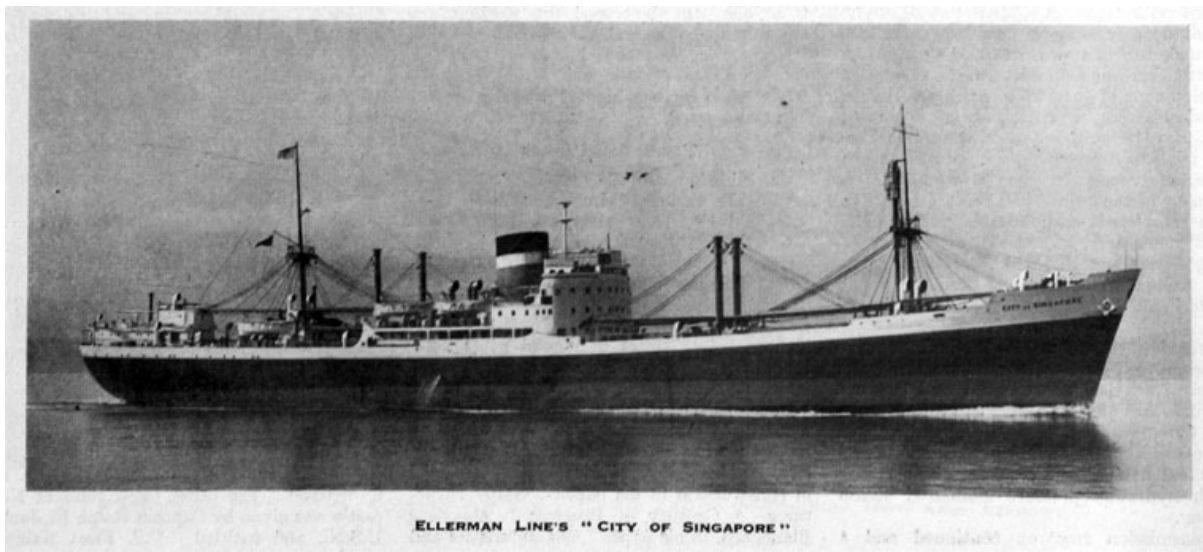


Photo 1.4: *SS City of Singapore*¹⁷¹

The excitement within the industry during 1919 was overwhelming when Tees and Hartlepool built 207,483 grt, and little dampened expectations. Viscount Furness was sufficiently impressed with the shipbuilding industry's performance that he relinquished his position as Furness Withy's chairman, in order to commit himself to shipbuilding, steel and coal.¹⁷²

¹⁶⁹ Ibid., pp. 261 and 266.

¹⁷⁰ Ibid., p. 268.

¹⁷¹ *SS City of Singapore* was built by William Gray on 17 November 1922 for Ellerman City Lines Limited. In addition to his interests in Egis Shipbuilding Company, Lord Inchcape acquired a controlling interest in Alexander Stephen & Company during 1920: see Lewis Johnman and Hugh Murphy, 'An Overview', p. 230; Moss and Hume, *Workshop*, pp. 105 and 106; and www.gracesguide.co.uk – 1 February 2016

¹⁷² Parkinson, *Economics*, p. 35; 'The shipbuilding centres, North-East coast', p. 194.

According to Slaven, the North-East Coast of England built half of Britain's cargo tonnage and over 50 percent of its oil tankers, whilst the Clyde built 50 percent of all passenger liners.¹⁷³ Shipbuilding on the West of Scotland was extensive, centring upon activities on the Clyde. From 1920, up until the end of 1939, the shipyards on the West of Scotland completed 6,918,905 grt of shipping excluding naval tonnage built for the Admiralty (Appendix 24.0).

The West of Scotland's shipyards built 1,923,994 grt by way of passenger vessels, 3,491,629 grt in cargo vessels and 1,042,600 grt in tankers. Throughout the interwar period, shipbuilding took place at 42 sites, the largest being Lithgows, a business that launched its first vessel on 27 December 1917. By 1923, Lithgows was a large, vertically integrated business with interests spreading from shipbuilding to coal, iron and steel, shipowning, ship management and marine engineering.¹⁷⁴ The business founded by Joseph Russell in 1874 originally traded as Russell & Company. In 1891, William Tod Lithgow then acquired the company, which then became Lithgows from 30 November 1918.¹⁷⁵ The Lithgows directors upon incorporation were James Lithgow, Henry Lithgow, John Muirhead and William Benson Allan, who also acted as Company Secretary.

¹⁷³ Slaven, *British shipbuilding*, p. 76.

¹⁷⁴ Hugh Murphy, 'Déjà vu', p. 38.

¹⁷⁵ Moss and Hume, *Workshop*, p. 104.



Photo 1.5: *MV Southern Prince*, built for Prince Line Limited by Lithgows Limited¹⁷⁶

On the Clyde, Lithgows, H&W, Barclay Curle, John Brown, Fairfield Shipbuilding, and Scott's Shipbuilding were amongst the largest shipbuilders in the region.¹⁷⁷ Barclay Curle was the second largest merchant shipbuilder on the West of Scotland, established during 1818 by John Barclay. SH&WR then acquired the business as a wholly owned subsidiary during 1912, and then secured the North British Engine Works from Doctor Rudolph Diesel.¹⁷⁸ The activity of Barclay Curle improved when SH&WR purchased a significant interest in the Glasgow Iron & Steel Company.¹⁷⁹ The acquisition of Rudolph Diesel's business assisted Barclay Curle immensely when it built the diesel engine liner *MV Jutlandia*.¹⁸⁰

¹⁷⁶ Lithgows built the *MV Southern Prince* for Prince Line. The vessel had a tonnage of 10,917 grt, a length of 514 feet, a beam of 64 feet 11 inches and a service speed of 16.5 knots. The vessel was launched on 12 March 1929. www.simplonc.co.uk – [accessed 1 February 2016]

¹⁷⁷ Parkinson, *Economics*, p. 19.

¹⁷⁸ Murphy, 'British Shipbuilding Industry', pp. 23 & 60; Denis Griffiths, 'British shipping and the diesel engine: The early years', *Mariner's Mirror*, vol. 81, no. 3 (1995), p. 313; Slaven, *British shipbuilding*, p. 55; Aberconway, *The basic industries*, p. 231; Cormack, 'An Economic History', pp. 315 and 316.

¹⁷⁹ Moss and Hume, *Workshop*, p. 109; Jones, *Shipbuilding*, p. 131.

¹⁸⁰ Murphy, 'The British Shipbuilding Industry', p. 60; Slaven, *British shipbuilding*, p. 49; Slaven, *West of Scotland*, p. 181.

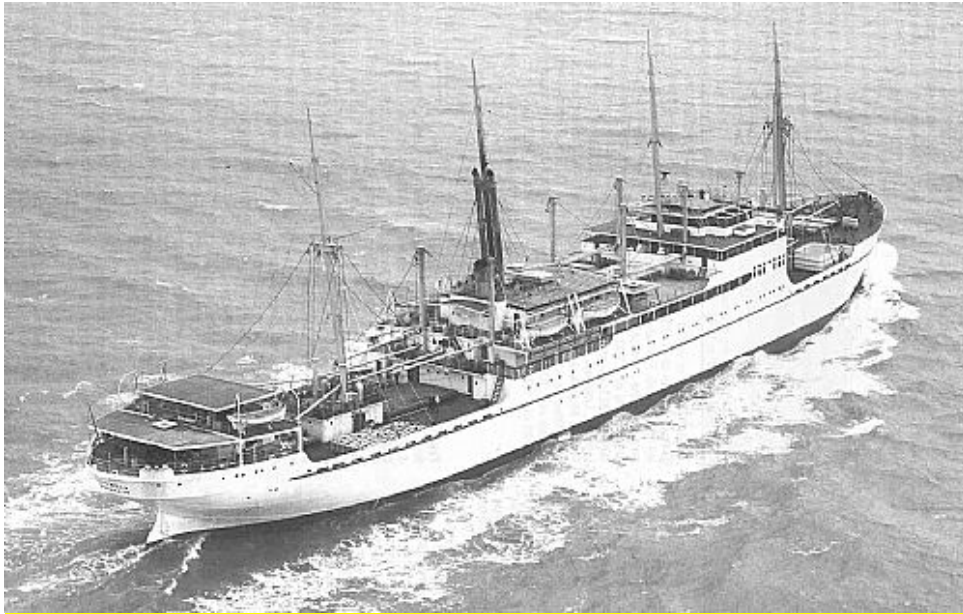


Photo 1.6: *MV Jutlandia*, built by Barclay Curle & Company Limited¹⁸¹

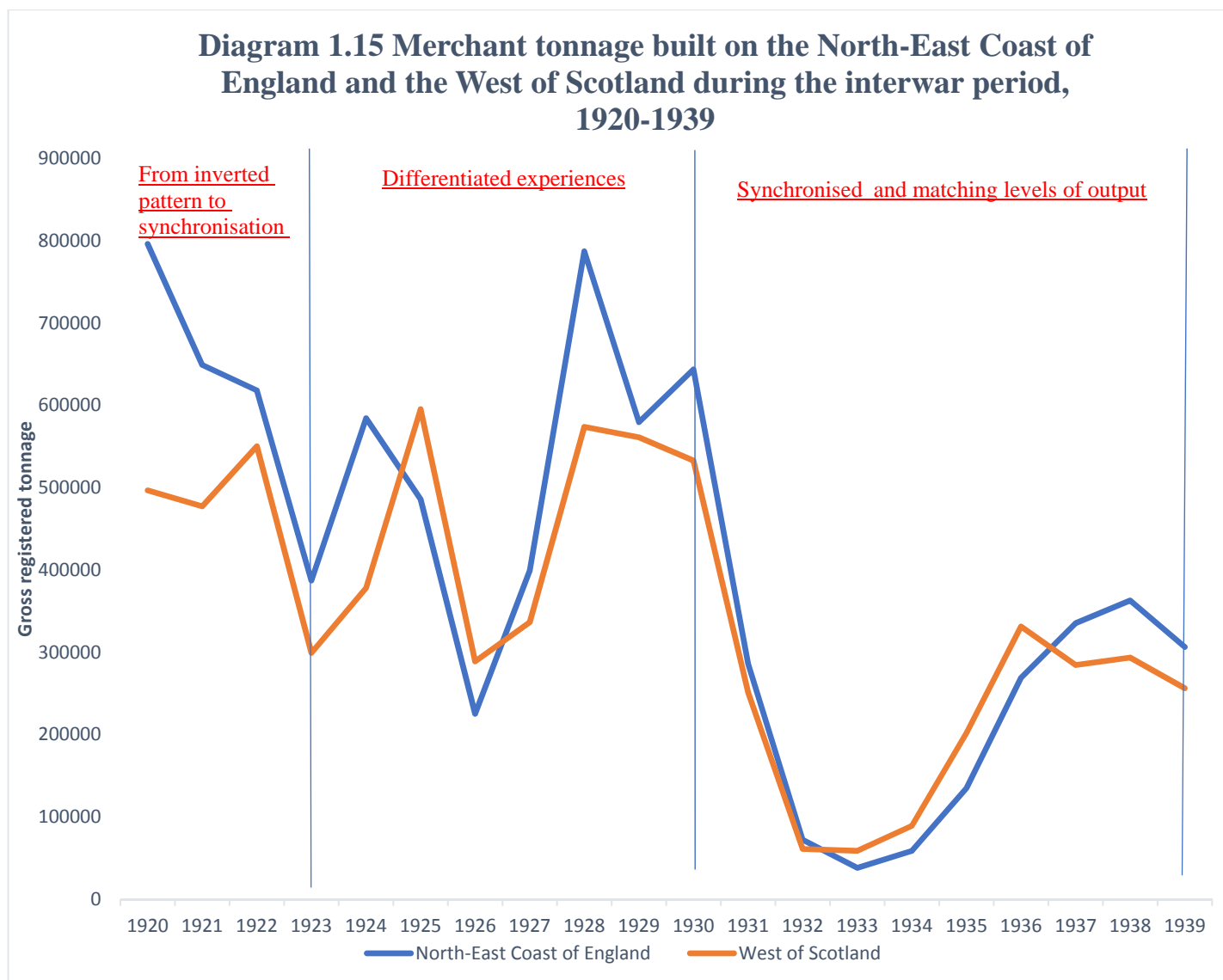
In the postwar years, unlike the directors of Fairfield Shipbuilding and William Beardmore, Thomas Bell of John Brown believed that re-equipment of existing facilities was more appropriate rather than the expansion of facilities.¹⁸² British shipbuilders experienced immense difficulties from 1920 and throughout the remainder of the interwar years as tonnage output fell. Statistics on merchant shipbuilding output during the years 1920-1939 show that the North-East Coast of England completed 8,019,782 grt and the West of Scotland 6,918,905 grt.¹⁸³ By 1937, Scottish output had fallen by 40 percent from that achieved in 1913 and whilst rearmament and government intervention provided a lifeline this would prove to be a short-term remedy that failed to make any real change to the economic path faced by the industry.¹⁸⁴

¹⁸¹ Barclay Curle built *MV Jutlandia*, which was launched on 10 November 1911. The vessel was the first ocean-going motor ship built in Britain. The vessel weighed 4,874 grt, and had a length of 370 feet and a breadth of 53 feet. She was owned by the East Asiatic Company, Copenhagen. www.clydesite.co.uk – [accessed 1 February 2016]

¹⁸² Moss and Hume, *Workshop*, p. 131; Johnston, *Ships*, p. 166.

¹⁸³ Statistics relating to the totals built, differentiating between the various yards, are given in Appendix 3.0.

¹⁸⁴ Buxton, 'Scottish shipbuilding', p. 118.



Source: British Shipbuilding Database (Appendix 3.0)

Foreign tonnage output

The West of Scotland has always been widely reported as the world's largest shipbuilding region.¹⁸⁵ Its shipbuilding, like that of the North-East Coast of England linked intricately the production of steel, coal mining, and marine engineering.¹⁸⁶ However, from 1870 Britain began to witness a decline in its shipbuilding output, resulting from an embryonic shipbuilding

¹⁸⁵ Ibid., p. 101.

¹⁸⁶ Ibid.

industry developing overseas.¹⁸⁷ Despite overseas shipbuilders constructing increasing levels of tonnage, Britain continued to dominate shipbuilding throughout the interwar period because it built tonnage to a higher standard and largely without financial assistance or protective legislation, at least until the BSAA.¹⁸⁸ Foreign competition benefitted from government protection and subsidy, and the reluctance of British shipowners to expand their trade.¹⁸⁹

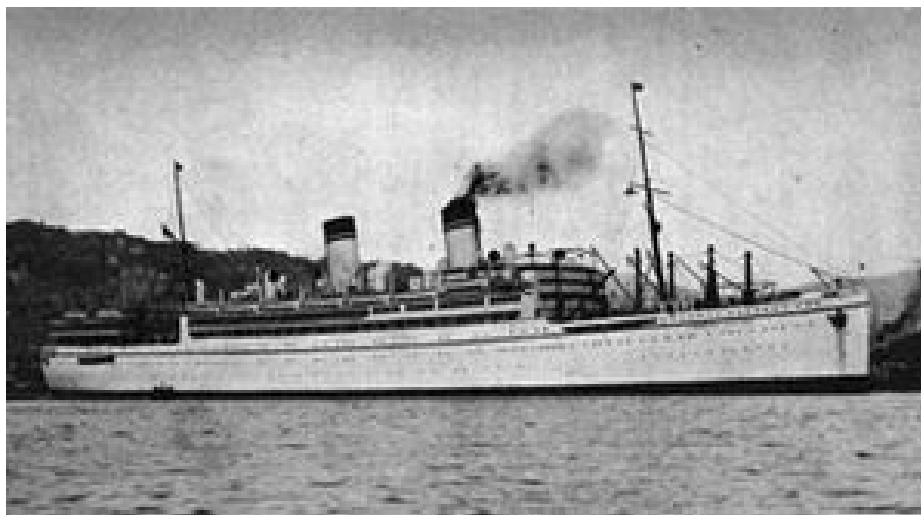


Photo 1.7: SS Giulio Cesare, built by SH&WR¹⁹⁰

Almost all shipyards on the North-East Coast of England undertook work for shipowners overseas. SH&WR completed 147 foreign contracts during the interwar period totalling 552,912 grt, the majority of which were undertaken for Norwegian, Italian, French and Canadian shipowners.

The work undertaken by Armstrong Whitworth for foreign customers included 31 vessels for Norwegian shipowners with 166,512 grt. Work was also undertaken for customers in Canada building six vessels of 8,310 grt; South Africa: two vessels of 14,426 grt; and Sweden: two

¹⁸⁷ Pollard, 'British', p. 426; Greaves, *Industrial*, p. 214.

¹⁸⁸ Anthony Burton, *The rise and fall of British shipbuilding* (London: Constable, 1994), pp. 182-98; J W Smith and T S Holden, *Where ships are born* (Sunderland: Thomas Reed, 1953), p. 119.

¹⁸⁹ Todd, 'Strategies', p. 57.

¹⁹⁰ *SS Giulio Cesare*, owned by the Navigazione Générale Italiana, operated as an ocean-class liner. The vessel had a gross tonnage of 21,848 grt and a length of 636 feet, with a beam of 76.15 feet. She had four sets of geared steam turbines manufactured by Wallsend Slipway. en.wikipedia.org – [accessed 1 February 2016]

vessels of 26,026 grt.¹⁹¹ The majority of William Doxford's foreign contracts related to Norwegian customers, who were the largest customers of the North-East Coast of England.¹⁹² Whilst William Doxford completed 195,456 grt from 33 contracts for overseas customers, Sir James Laing built twelve foreign contracts during the interwar period with a tonnage of 88,832 grt. J L Thompson completed eight contracts for overseas customers with a 47,666 grt. Short Brothers completed 38,735 grt also relating to eight foreign contracts. William Gray built extensively for Greek, Danish, Dutch, Norwegian, New Zealand, French, and Spanish customers. The total volume of foreign tonnage built by William Gray during the interwar period totalled 187,559 grt.

Shipbuilding statistics of the North-East Coast of England and the West of Scotland reveal a converging pattern of tonnage in terms of the volume of shipping built for overseas shipowners. The North-East Coast of England built 2,377,112 grt for 44 overseas countries, whilst the West of Scotland's shipbuilders built 1,520,287 grt for 63 countries. Foreign shipowners sought their ships from different yards and even from different regions (Appendix 25.0).

Whilst Britain witnessed the decline of shipbuilding in the period 1920–23, this fall in output was a feature within world shipbuilding and the industry experienced a recurring theme of recovery and decline throughout the 1920s up until the depression that occurred in the early 1930s.¹⁹³ The government was not necessarily concerned at Britain's overall shipbuilding performance from the mid-1930s since in absolute terms it was still building more ships than any other nation, though the relative decline was gathering pace.¹⁹⁴ Whilst an absolute decline in foreign orders arose from the mid-1930s, greater concern was the purchase by British shipowners of an average of 120,000 grt from overseas shipbuilders, since British shipbuilders

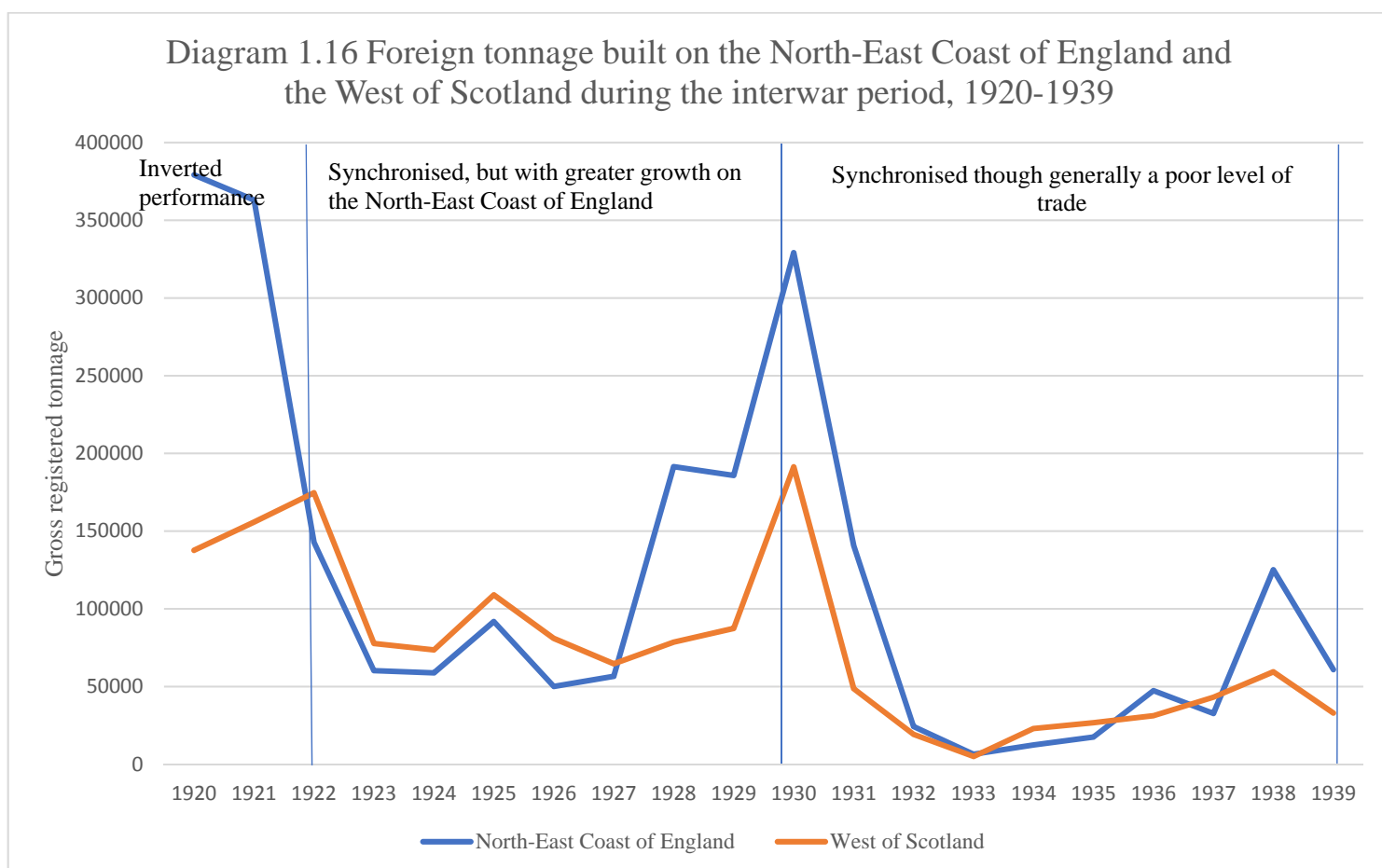
¹⁹¹ See Appendix 3.0.

¹⁹² 'Norway's shipbuilding orders: our loyal customer', *Manchester Guardian*, 25 September 1930, p. 12.

¹⁹³ Dougan, *The History*, p. 131.

¹⁹⁴ Greaves, *Industrial*, p. 214.

were unable to compete on price in view of the subsidies that were received by overseas shipbuilders.¹⁹⁵



Source: British Shipbuilding Database (Appendix 3.0)

On the West of Scotland, three shipyards built in excess of 100,000 grt for foreign customers and Lithgows completed in excess of 215,000 grt, whilst 8 shipyards completed in excess of 50,000 grt for foreign customers. Six shipyards on the North-East Coast of England, built in excess of 100,000 grt for overseas customers, whilst nine shipyards built in excess of 50,000 grt. SH&WR built the largest volume of shipping for overseas customers at 552,912 grt, followed by Furness Shipbuilding at 283,136 grt, then Armstrong Whitworth at 252,099 grt, followed by Lithgows at 215,942 grt.

¹⁹⁵ Ibid., p. 227.

Work for Norwegian customers absorbed 9.57 percent of the North-East Coast of England's total merchant output whilst building 767,393 grt. On the West of Scotland, shipbuilding for Norwegian customers totalled 3.63 percent of its overall output whilst building 251,301 grt. Examining the top twenty foreign countries customers on the West of Scotland shows that 85 percent of these foreign countries customers also had tonnage built on the North-East Coast of England and only Brazil, Chile and Japan failed to have a ship built on the North-East Coast of England whilst completing 95,690 grt on the West of Scotland. However, the West of Scotland attracted orders from 29 countries that failed to place orders on the North-East Coast of England during the interwar period, whereas the North-East Coast of England built for 10 countries that did not have ships built on the West of Scotland.

The data set out in Appendix 25.0 reflects only the tonnage built for overseas customers it does not reveal the level of tonnage operated by overseas countries. In addition to new tonnage, British tramp-shipowners sold a significant volume of second-hand tonnage to overseas customers in the interwar period, particularly during the depression 1930–33.¹⁹⁶ However, more important was the ability of overseas shipbuilders to begin building for overseas customers.¹⁹⁷ Throughout the interwar period, competition arose from Germany, the Netherlands, Sweden and Japan, all of whom encroached upon Britain's customer base. During the First World War, Japan increased its output tenfold and by 1919, it was launching 612,000 grt.¹⁹⁸

Prior to 1914, Britain provided approximately a quarter of the world's shipbuilding tonnage in addition to that within the home market. However, by 1925, the marketplace was shifting with increasing levels of British ships built overseas.¹⁹⁹ By 1936, foreign yards were building 14.6

¹⁹⁶ Jones, *Shipbuilding*, pp. 55 and 56.

¹⁹⁷ Greaves, *Industrial*, p. 214.

¹⁹⁸ Clarke, *Building ships*, p. 217

¹⁹⁹ Johnman and Murphy, *British Shipbuilding* p. 23; 'Lost shipping contract' *The Times*, 7 March 1925, p. 12.

percent of British ships; by 1938, this increased to 16.7 percent, and on occasion imports actually exceeded exports. Whilst the demand for ships increased from 1928 to 1930, it was stronger from overseas customers than from British operators. Likewise, in the period 1936 to 1938, with assistance available from state intervention, the increased demand reflected greater activity from overseas shipowners.²⁰⁰ The River Wear completed 40 ships of 183,559 grt in 1938, the highest tonnage on the Wear since 1930.²⁰¹ During the second half of the interwar period, Sweden, Denmark, Norway and the Netherlands together increased their share of shipbuilding output from 6 percent of world output in 1913 to 20 percent in 1935–38. This heavily influenced British output as the cost of new shipping resulting from rearmament made foreign shipbuilders more competitive.²⁰²

Corporate and technological innovation

In the later years of the nineteenth century marine engineering developed from triple and quadruple expansion engines, to the steam turbines developed by Sir Charles Parsons; into the progress achieved by Rudolph Diesel with his diesel engine. These three types of engines would provide the motive power that supported the maritime trades throughout the interwar period. Whilst British shipbuilders mainly focussed on building and fitting out hulls, marine engineers were responsible for the construction of the engine that powered the vessel.²⁰³ Certain shipbuilders were large enough to have their own marine engineering facilities within their shipyards and therefore benefitted from vertical integration, whilst others relied upon outside contractors to provide marine engineering services. The British marine engineers operating on the North-East Coast of England and the West of Scotland included:

²⁰⁰ Aldcroft, *The interwar*, pp. 165–66.

²⁰¹ Smith and Holden, *Where ships*, p. 121.

²⁰² Greaves, *Industrial*, p. 215.

²⁰³ Slaven, *West of Scotland*, p. 125.

| | |
|--|--------------------------------------|
| Aitchison Blair | - Greenock |
| British Auxiliaries | - Glasgow |
| Central Marine Engine Works | - Hartlepool |
| J G Kincaid & Company | - Greenock |
| North Eastern Marine Engineering Company | - Newcastle-upon-Tyne and Sunderland |
| Parsons Marine Steam Turbine Company | - Wallsend-on-Tyne |
| Rankin & Blackmore | - Greenock |
| Richardson Westgarth & Company | - Hartlepool and Middlesbrough |
| D Rowan & Company | - Glasgow |
| White Marine Engineering Company | - Newcastle-upon-Tyne |

In addition, foreign marine engineering facilities were also available from Burmeister & Wain (B&W) of Denmark, Sulzer Brothers of Switzerland, Maschinenfabrik-Augsburg-Nürnberg (MAN) of Germany, and Werkspoor of the Netherlands, though others also existed. The construction of such foreign machinery was undertaken under licence. The larger shipbuilders often had facilities within their shipyards to undertake engine building and such firms included, but again were not limited to:

Alexander Stephen
 Armstrong Whitworth
 Barclay Curle
 Fairfield Shipbuilding
 John Brown
 SH&WR
 William Beardmore
 William Denny
 William Doxford

Some independent marine engineers, J G Kincaid, D Rowan, Richardson Westgarth, etc., provided shipyards with engines, where shipbuilders facilities lacked engine building capabilities, or where the shipbuilder was required to comply with the shipowners requests, or

to relieve hold ups in work flow within the shipbuilders' facilities, or alternatively shipbuilding received greater priority over engine building.²⁰⁴ Whilst the demand for new tonnage was at best uncertain during the interwar period, shipbuilding benefitted from developments with the reciprocating steam engine, turbine, and the motorship.²⁰⁵

Experiments with the use of steam had been undertaken from the late eighteenth century.²⁰⁶

To ensure the effectiveness of steam navigation it was necessary to minimize the loss of steam and provide an opportunity for steam to be used at increased pressure. The ability to achieve reductions in coal consumption ensured the viability of the steamship. However, it took almost 50 years before these issues were overcome with the introduction of the compound engine. By the 1870s, shipbuilders had developed the steamship into something approaching the idea of the modern vessel. By 1870, Clyde shipbuilders were building up to 70 percent of iron shipping in shipyards that combined shipyards, engine works and boiler shops within one organization.²⁰⁷ Though by 1875, steel had begun to replace iron in the construction process, whilst for marine purposes the use of the triple expansion engine was becoming widespread.²⁰⁸

By the 1880s, steam had eventually reached a dominance over sail in long distance travel and this was due to the adoption of high pressure compound engines.²⁰⁹ The use of the compound

²⁰⁴ Johnman and Murphy, 'The Rationalisation', in Starkey and Murphy (eds.), *Beyond shipping*, p. 29.

²⁰⁵ Kennedy, 'Great Britain's Maritime Strength', p. 72

²⁰⁶ For the use of steam engines see: Campbell, 'Scottish shipbuilding', pp. 107-113; Fred M Walker, *Songs of the Clyde, A History of Clyde Shipbuilding*, (Edinburgh: John Donald Publishers, 1984), p. 22; Jones, *Shipbuilding*, p. 22; Roy Fenton, 'Refining the Steam Coaster: Scotland's contribution', *The Mariner's Mirror*, vol. 102, no. 1, (2016), p. 16; John Guthrie, *A History of Marine Engineering*, (London, Hutchinson Education Ltd 1971), p. 37; John Armstrong & David M Williams, 'Technological Advance and Innovation: The Diffusion of the Early Steamship in the United Kingdom, 1812-34', *The Mariner's Mirror*, vol. 96, no. 1, (2010), pp. 43-46; Cormack, 'An Economic History', pp. 52-53, p. 103 and p. 150; Slaven, *West of Scotland*, p. 128; Johnman & Murphy, 'An Overview', p. 227; John Strang, 'On the Progress, Extent, and Value of Steamboat Building and Marine Engine Making on the Clyde', *Journal of the Statistical Society of London*, vol. 16, no. 1, (1853), p. 78; Alan J S Paterson, *The Golden Years of the Clyde Steamers (1889-1914)*, (New York: Augustus M Kelley Publishers 1969), p. 16.

²⁰⁷ Johnman & Murphy, 'An Overview', p. 227;

²⁰⁸ Cormack, 'An Economic History', p. 150.

²⁰⁹ G Henning and K Trace, 'Britain and the Motorship: A Case of the Delayed Adoption of New Technology?', *The Journal of Economic History*, Vol. 35, Issue, 2, 1975, p. 353.

engine and developments with screw propulsion were major strides in the improvement of the modern ocean-going ship. The development of the compound engine with triple and quadruple expansion resulted inevitably in greater steam pressure and the triple expansion engine of 1890 remained unchanged until after the First World War.²¹⁰

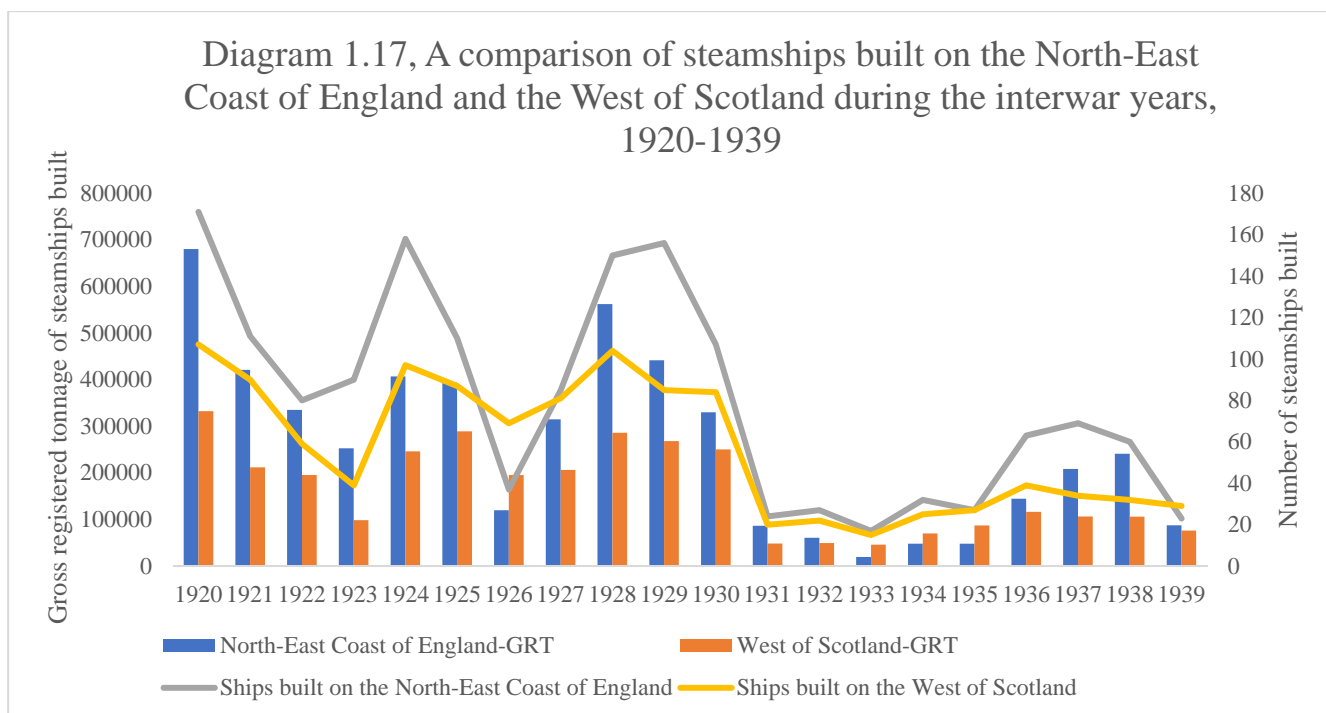
During the interwar period, the triple-expansion engine was used widely in relation to tramp steamers because of its lower costs. Murphy believed that the tramp steamer sector, which encompassed a large part of Britain's merchant fleet prior to the First World War, relied upon its 'economy of operation.' Shipowners generally favored a standard approach to engines, boilers and steering gears within their fleet of vessels.²¹¹ However, Cormack believed that eventually the compound engines would be solely used in relation to tugs, tenders, fishing boats and small coasting vessels.²¹² In the years prior to the First World War, the triple and quadruple expansion engines together with the steam turbine had a solid hold in the face of competition from the motorship.²¹³ The shipbuilders located on the North-East Coast of England built significantly more tonnage of steam engined vessels, as was built on the West of Scotland (Appendix 27.0), and throughout the interwar period relied upon the construction of vessels making use of compound engines. However, the years 1926, 1933, 1934 and 1935 reveal more tonnage with steam engines being built in the West of Scotland. The North-East Coast of England's shipbuilders built 1,597 steamships of 5,201,269 grt compared to the West of Scotland's shipbuilders who constructed 1,145 steamships of 3,283,069 grt. Whilst in both regions 1920 is identifiable as the year of highest output in terms of both tonnage and vessel numbers, the depression of the 1930s reveals a dismal level of achievement.

²¹⁰ Guthrie, *A History*, p. 133.

²¹¹ Murphy, 'The British Shipbuilding Industry', p. 37

²¹² Cormack, 'An Economic History', p. 167.

²¹³ Murphy, 'The British Shipbuilding Industry', p.60.



(The data supporting this table is set out at Appendix 27.0)

By the final decade of the nineteenth century, Sir Charles Parsons had developed the steam turbine, which was fitted to a vessel built by Brown and Hood, at Wallsend in Newcastle upon Tyne.²¹⁴ The vessel *Turbinia* achieved a speed of 34 knots in 1897 at the Naval Review at Spithead, where she demonstrated the benefits of the steam turbine in relation to high speed vessels, particularly for naval vessels.

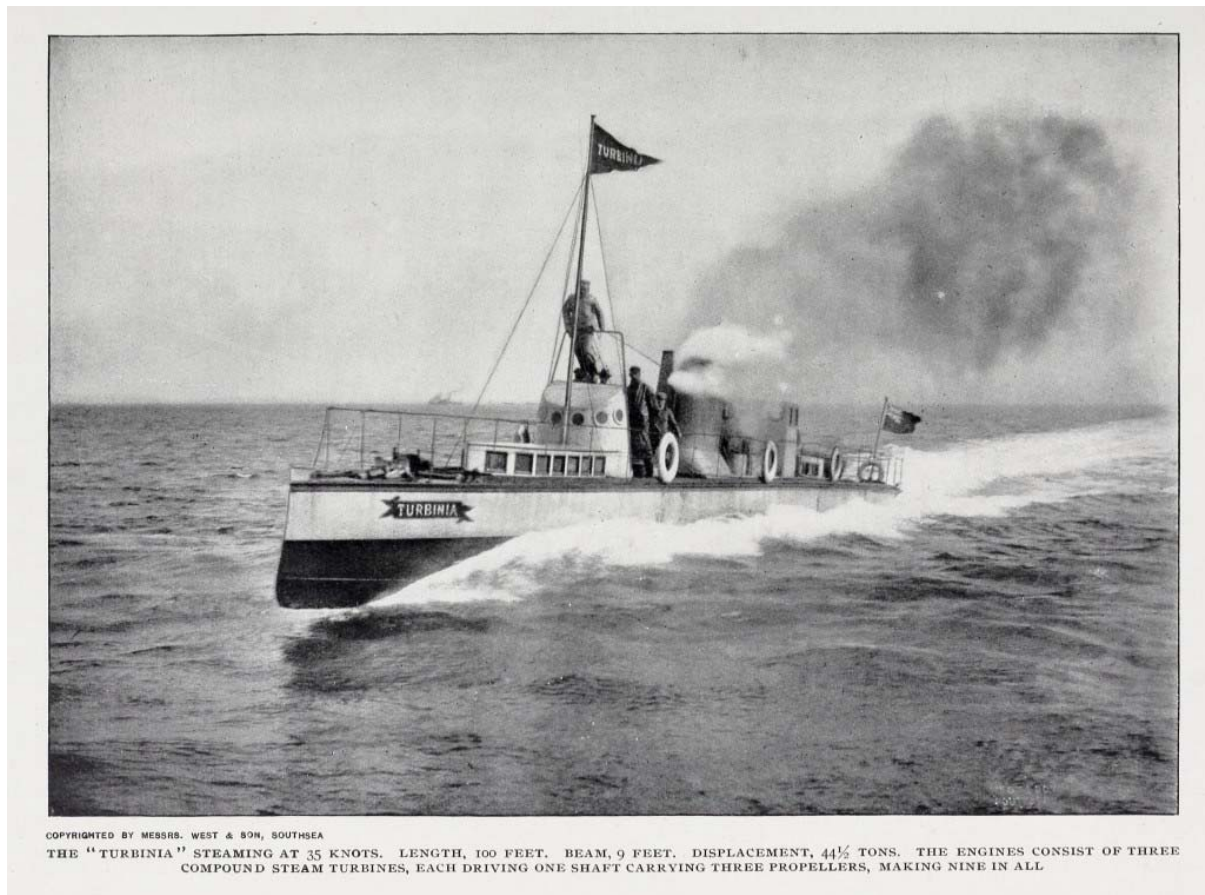
Within 12 months the Admiralty placed an order with Parsons to provide turbines for the destroyer *Viper*, which was completed in 1900 and whilst the vessel appeared to be successful by attaining 35.5 knots ahead and 15 knots astern, she was lost in 1901 off Alderney and therefore little opportunity existed to demonstrate the effectiveness of the turbine.²¹⁵

The steam turbine was more successful not just in high speed travel, but also at moderate speeds compared to the reciprocating engine. In both regions, the steam turbine was used widely

²¹⁴ Guthrie, *A History*, p. 158.

²¹⁵ *Ibid.*, p. 159.

throughout the interwar period. In the West of Scotland over 22.54 percent of the grt of merchant ships were built using steam turbines, whilst merchant shipbuilders on the North-East Coast of England only used steam turbines in relation to 11.82 percent of the grt.



Picture 1.8 SS Turbinia²¹⁶

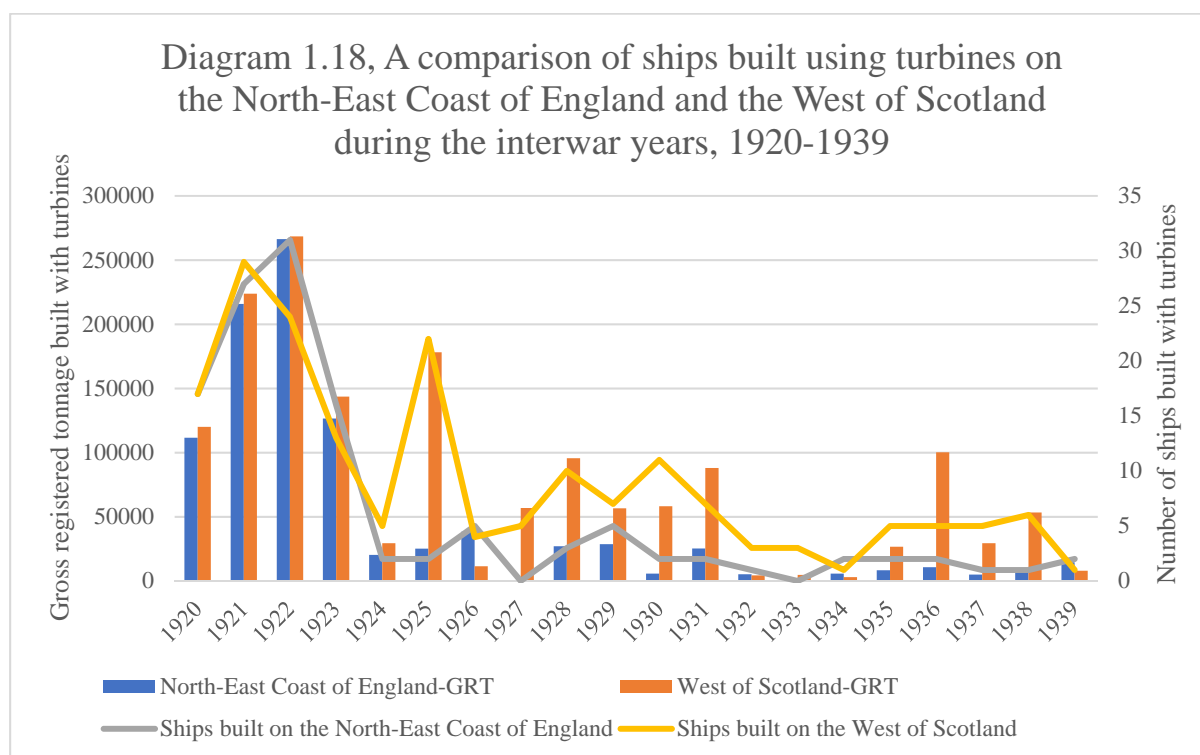
The Clyde had a major hold on tonnage that was built in the form of large cargo vessels and passenger liners, which made use of geared turbines as its main form of propulsion.²¹⁷ Up until the first quarter of the twentieth century, Britain had been at the forefront of most innovations within the shipbuilding industry, whether iron hulls, steel hulls, cargo carriers, passenger liners, oil tankers, cellular bottoms, screw propellers, compound engines, or the use of turbines.

²¹⁶ SS Turbinia, jpeg ctgpublishing.com – [accessed 22 April 2017]

²¹⁷ Johnman and Murphy, 'An Overview', p. 240.

Further developments by Yarrow and Thornycroft resulted in the development of the water-tube boiler, which resulted in savings in weight and much higher steam pressure.²¹⁸

Particular note must be given to the *King Edward* built by William Denny & Brothers in 1901 and which continued in service until 1951 when it was sold for breaking-up at Troon.²¹⁹ The vessel was propelled by direct drive triple screw steam turbines designed and built by Parsons Marine Steam Turbine Company.²²⁰ Throughout the interwar period 1920-1939, the West of Scotland constructed 183 vessels that were built using turbines that had a 1,559,250 grt, whilst the North-East Coast of England only constructed 123 vessels of 948,071 grt (Appendix 28.0).



(The data supporting this table is set out at Appendix 28.0)

²¹⁸ Jones, *Shipbuilding*, p. 20.

²¹⁹ Ambrose Greenway, 'Coastal and Short-Sea Shipping', in Robert Gardiner (Ed), *The Golden Age of Shipping, The Classic Merchant Ship, 1900-1960*, (London: Conway Maritime Press 1994), p. 95; Nick Robins, *Turbine Steamers of the British Isles*, (Newtownards, Colourpoint 1999), p. 6.

²²⁰ The Turbine Steamers Limited was a company owned under a tripartite agreement between, William Denny and Brothers, Charles Parsons and Captain John Williamson. Peter McOwat, 'The *King Edward* and the Development of the Mercantile Marine Steam Turbine', *The Mariner's Mirror*, vol. 88, issue 3, 2002, pp. 302 and 304; Jones, *Shipbuilding*, p. 21.

From 1904, oil-powered diesel engines became available to power vessels.²²¹ Diesel oil engines were initially used to power small river craft and coastal vessels.²²² However, a reluctance existed in the minds of tramp operators and passenger liner companies, in view of their preference for coal over diesel. Furness Withy owned and built the first motorship to be engined by a slow speed diesel engine, in 1912. Whilst built by Furness Withy, the vessel was engined by Richardson Westgarth, who used a Corels engine. However, the engine proved ineffective and she was later converted to steam.²²³

At about the same time, the *TSMV Jutlandia* was built at Barclay Curle's yard on the Clyde, for the East Asiatic Company. Whilst her sister ship, the *TSMV Selandia* was built by B&W in Copenhagen.²²⁴ This became the first ocean going cargo liner.²²⁵ The *Jutlandia* was the first motorship built in Britain for foreign owners. The vessel was built under licence from B&W and had the ability of carrying sufficient fuel to enable a return journey from the Clyde to South America without refuelling.²²⁶ More space was available for carrying customers' goods, in addition the ship had no requirement for firemen, coal bunkers or boilers.²²⁷ In the years leading up to the First World War, shipowners had begun to realize that the motorship gave rise to certain benefits, nevertheless the tramp shipowners preferred to rely upon steam propulsion with the triple and quadruple expansion engines.²²⁸

²²¹ Along with Doctor Rudolph Diesel, others were associated with the development of the diesel engine including Lenoir, Otto and Lagan, Beau de Rochas, Daimler. On the emergence of diesel engines, see Johnman and Murphy, 'The Rationalisation', in Starkey and Murphy (eds.), *Beyond shipping*, pp. 29 & 30; Guthrie, *A History*, p. 195.

²²² Johnston, *Ships*, p. 174.

²²³ Johnman and Murphy, 'The Rationalisation', in Starkey and Murphy (eds.), *Beyond shipping*, p. 31.

²²⁴ A C Hardy, *History of Motorshipping, The story of Fifty years of Progress which have had a Profound Influence upon the Development of Sea Transport during the Twentieth Century*, (London, Whitehall Technical Press 1955), p. 342.

²²⁵ Henning and Trace, 'Britain and the Motorship', p. 353.

²²⁶ Murphy, 'The British Shipbuilding Industry', p.60.

²²⁷ Walker, *Songs of the Clyde*, p. 154.

²²⁸ Henning and Trace, 'Britain and the Motorship', p. 357.

Insignificant innovation developed within ship design during the interwar years, though of course the diesel ship/motorship became widely prominent once its reliability and feasibility became established during the latter years of the 1920s. Though ship design changed little, Sayers believed that the three types of marine engines, the reciprocating steam-engine, steam-turbine, and the diesel, existed ‘in a neck-and-neck race through most of the period.’²²⁹ However, Henning and Trace believed that by the early 1920s, the steam turbine and diesel engined ships were beginning to outnumber the ‘conventional steam engine.’²³⁰

From as early as 1906, William Doxford had been investigating the possibility of manufacturing diesel engines, competing with B&W, MAN, Sulzer Brothers and Werkspoor.²³¹ William Doxford built the ‘slow speed diesel marine engine of the opposed piston type’ at its facilities on the River Wear in Sunderland.²³² William Doxford had entered into an ‘exclusive licence’ to develop an opposed piston oil engine in line with Junkers design, although the engine was not perfected by the outbreak of the First World War and the relationship with Junkers was concluded.²³³ After hostilities ended William Doxford resumed work on their four-cylinder engine and in 1921 the engine was installed in the Swedish ship, *Yngaren*.²³⁴ By 1924, further development work resulted in William Doxford producing a three-cylinder, two-cycle, single acting engine, which gained a growing popularity amongst tramp-shipowners and which became popular as the ‘Doxford Economy ship.’²³⁵ European shipbuilders had recognised at an early stage the advantages that were available in adopting the diesel engine.²³⁶ Shipbuilders in Britain had been slow to recognise the benefits associated with the diesel engine, though increasing numbers of ships with diesel engines were built during the

²²⁹ R S Sayers, ‘The springs’, p. 285.

²³⁰ Henning and Trace, ‘Britain and the Motorship’, p. 353.

²³¹ Griffiths, ‘British shipping’, p. 313;

²³² *Ibid.*, p. 20.

²³³ Johnman and Murphy, ‘The Rationalisation’, in Starkey and Murphy (eds.), *Beyond shipping*, p. 32.

²³⁴ *Ibid.*

²³⁵ *Ibid.*

²³⁶ Henning and Trace, ‘Britain and the Motorship’, p. 353.

1920s, particularly on the Clyde. Some shipowners' continued to favour coal as opposed to diesel. In defence of the steam engine, Sir John Biles produced a paper to the Institute of Naval Architects advocating steam for every type of vessel, comparing data on steam plants that were still in a state of development with diesel engines from earlier installations.²³⁷ In view of the investment committed to the steam engine, there was a reluctance in Britain to invest in diesel engines. John Brown showed little interest in diesel engines, since their shipbuilding activities within passenger liners and warships were driven by steam turbines and this itself was at an early stage of development.²³⁸ Their first motorship, *Loch Katrine*, was built for the RMSPC in 1922, though the engine was built by H&W under license from B&W. Both SH&WR and Barclay Curle had expressed interest in the B&W engine, though the relationship was terminated and B&W entered into a sole British licence with H&W.²³⁹ Thomas Bell had closely studied the construction and installation of the engine, though nevertheless took licenses from Sulzer and eventually Doxford.²⁴⁰

The Maclagan engine was developed during the early 1920s and was fitted into the *Swanley*, built at Barclay Curle's, Whiteinch shipyard. Two further vessels were built at the same shipyard, *City of Stockholm* and the *Storsten*. All three were engined by North British Diesel Engines under a license from Maclagan. The engine comprised a three-cylinder double-acting engine which had 'a single, long piston in each cylinder while the cylinder liner itself reciprocated in phase with the pistons, though on a much shorter stroke.'²⁴¹

²³⁷ Moss and Hume, *Workshop*, pp. 100 and 101. Sir John Harvard Biles (1854-1933) served his apprenticeship at Portsmouth Dockyard and graduated in 1875 from the Royal Naval College, Greenwich. He was heavily involved with the development of the *Dreadnought* battleships.

²³⁸ Johnston, *Ships*, p. 174.

²³⁹ Denis Griffiths, 'British Maritime Industry and the Diesel Engine', *Northern Mariner*, vol. VII, no. 3, (1997), p. 11.

²⁴⁰ *Ibid.*

²⁴¹ Guthrie, *A History*, p. 223.

By 1921, ten percent of ships built on the Clyde made use of diesel motorships.²⁴² Conversely, by 1927 Johnman and Murphy state the level of output had increased to 30 percent and during the years 1934-38 output of diesel engine motorships increased to 41 percent.²⁴³ Nevertheless, by 1934, almost half the world's tonnage were built as motorships.²⁴⁴ The BSD reveals that the output of diesels motorships in 1926 on the West of Scotland represented 27.28 percent of total output, whilst 1927 reveals an output of 21.14 percent. However, the BSD does show that during the years 1934-38, 41.33 percent of the ships built in the West of Scotland were diesel engined vessels. Whilst the West of Scotland shipbuilders took steps to adopt the new technology the same cannot be said for the rest of Britain as in 1925 less than 4.0 percent of UK tonnage was powered by diesel engines and even by 1934 this had only risen to 16.7 percent.²⁴⁵

Scott's Shipbuilding experimented with the use of the Still engine invented by William Joseph Still, which provided a combination of steam power and internal combustion.²⁴⁶ The first Scott-Still engines were installed in the twin-screw cargo liner *Dolius*, of 5,995 grt and built in 1924 and owned by the Ocean Steam Ship Company, a subsidiary of the Blue Funnel Line, which was ultimately owned by Alfred Holt & Co of Liverpool.²⁴⁷ On a voyage from Cardiff to Algiers the vessel averaged 11.45 knots whilst burning 8.4 tons of fuel per day. However, the engines were later replaced by conventional diesel engines in order to control costs. Another vessel built by Scott's Shipbuilding was the *Eurybates*, completed in 1928.²⁴⁸ Again

²⁴² Johnman & Murphy, 'An Overview', p. 240.

²⁴³ Johnman and Murphy, 'The Rationalisation', in Starkey and Murphy (eds.), *Beyond shipping*, p. 30; Johnman and Murphy, 'An overview', p. 240.

²⁴⁴ Murphy, 'The British Shipbuilding Industry', p.60.

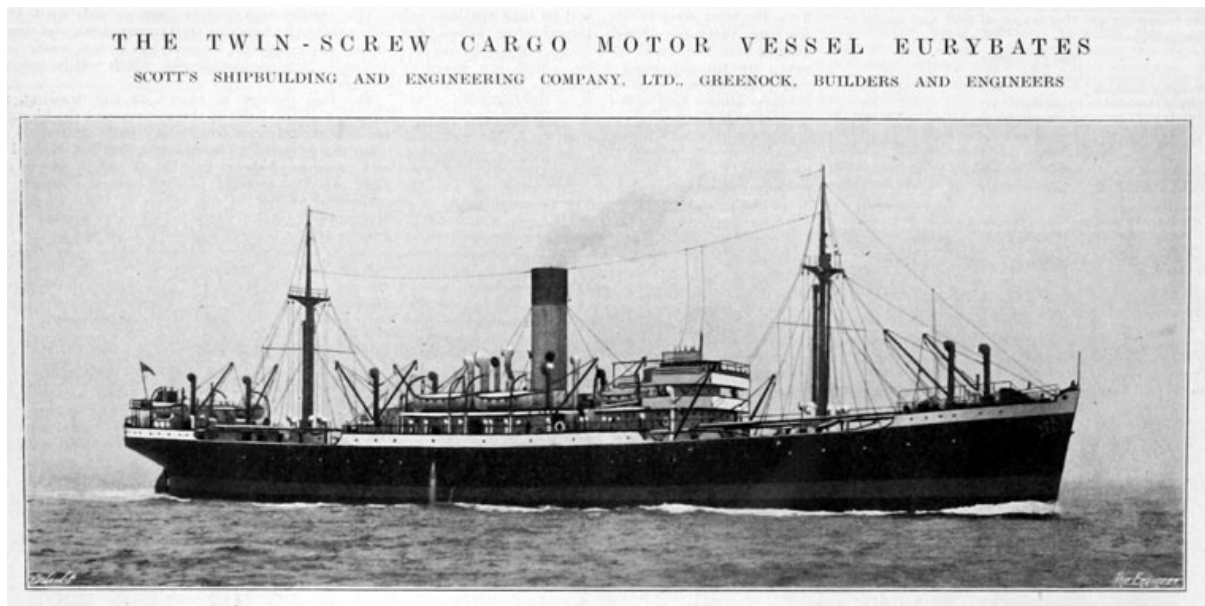
²⁴⁵ Johnman and Murphy, 'An overview', p. 240.

²⁴⁶ Griffiths, 'British Maritime', p. 18.

²⁴⁷ www.douglas-self.com/MUSEUM/POWER/still/still.htm

²⁴⁸ Griffiths, 'British Maritime', p. 18.

this vessel adopted similar machinery to the *Dolius* and was converted to straight diesel drive after the Second World War for economic reasons.²⁴⁹



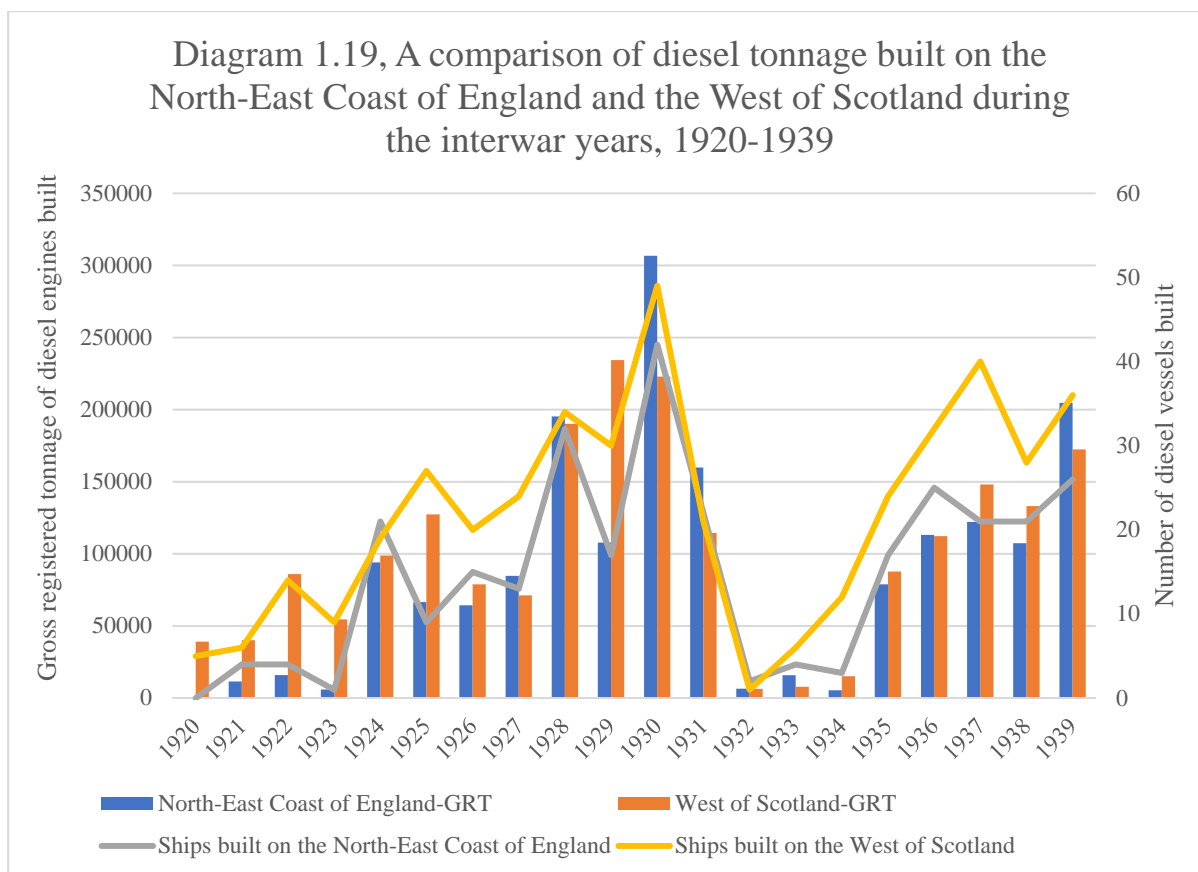
Picture 1.9 *MV Eurybates*²⁵⁰

The cost of diesel engines was considerably higher than that of the reciprocating steam engine and boilers, and also greater than the machinery of geared turbine vessels. If, however, the freight earning capacity of a ship is to be taken as a criterion, and not the dimensions, the difference between the cost of steamers and motorships was often negligible.²⁵¹

²⁴⁹ Guthrie, *A History*, p. 221.

²⁵⁰ Graces Guide, File: 1m 1928v145-p345.jpg – [accessed 22 April 2017].

²⁵¹ A P Chalkley, *Diesel Engines for Land and Marine Work*, Sixth Edition, (London, Constable & Company 1927), p. 162.



(The data supporting this table is set out at Appendix 29.0)

The UK was by far the builder of the largest volume of motorship tonnage during the interwar years. However, other nations built larger proportions of their total tonnage in motorships.²⁵² Prior to the First World War, steam engines and steam turbines were the main engines built, even though it was believed that oil-powered diesel engines, which were first used in relation to marine propulsion in 1904 were more economical.²⁵³ During the 1920s, shipbuilders and shipowners began to recognise that the diesel engine offered a suitable replacement for the steam engine.²⁵⁴ From 1920-25, the North-East Coast of England built only 39 vessels with diesel engines. The West of Scotland built more than twice that number. The use of coal or diesel certainly had cost implications. This depended on port facilities for oil. For example,

²⁵² Johnman and Murphy, 'The Rationalisation', in Starkey and Murphy (eds.), *Beyond shipping*, p. 30.

²⁵³ *Ibid.*, pp. 29 and 30.

²⁵⁴ Johnman and Murphy, *British Shipbuilding*, p. 134.

Aden could fuel those liners passing through the Suez Canal, since ‘relatively low-cost oil bunkering’ was available at that port. This benefitted British trade with Asia, Australia and New Zealand. It is hardly surprising that the Scandinavian countries led the way with the use of diesel engines, since Scandinavia had neither a natural supply of either coal or oil and therefore had the option of building vessels that offered the natural benefits of cost savings. According to Henning and Trace by 1925, 33 percent of European vessels involved in the trade between Europe and Australia were driven by marine diesel compared to one percent of British vessels.²⁵⁵ Whilst by 1929, increasing numbers of British shipping was being built using diesel engines, this nevertheless only comprised 16 percent of the British fleet. In contrast, the European fleet at this stage comprised 42 percent made up of motorships.²⁵⁶ Throughout the years 1920-39, the North-East Coast of England built 299 vessels of 1,766,011 grt with diesel propulsion, whilst 437 vessels of 2,040,221 grt were built on the West of Scotland (Appendix 29.0).

The British government’s control of shipping during the First World War may have been a contributing factor to its delay in adopting the diesel engine/motorship.²⁵⁷ However, when British shipowners were free to order ships on their own account, they tended to continue with steam. Some contribute this to the fact that tramp shipping companies had no wish to expend resources on building new diesel-powered vessels, whilst others wished to protect the use of coal. Many British shipbuilders/shipowners owned or at least had interests in mining and by turning to the diesel engine would impact upon their interests in mining.²⁵⁸

Denis Griffiths believed that British shipbuilders fell behind shipbuilding on the continent in terms of the engines they could offer. The West of Scotland’s statistics on engine building

²⁵⁵ Henning and Trace, ‘Britain and the Motorship’, p. 357.

²⁵⁶ *Ibid.*

²⁵⁷ Griffiths, ‘British shipping’, p. 315.

²⁵⁸ *Ibid.*, p. 318.

demonstrate the meticulous research undertaken in ‘private experimental establishments and technical colleges’ to perfect the different types of marine engines.²⁵⁹ The pattern of investment was at times bewildering during the interwar period as marine engineering changed at a rapid yet uncertain manner.²⁶⁰ However, the diesel engine was increasingly adopted at the expense of the coal-fired steamer.²⁶¹ Shipping companies postponed investment in new low-cost engines until ‘more experience and perhaps further invention’ offered greater benefits.²⁶² By the end of the interwar period, over 40 percent of British vessels comprised motorships compared to 70 percent of European vessels. Shipbuilders on the West of Scotland believed in the benefits of the steam turbine and constructed 22.54 percent of their tonnage using this type of engine compared to 14 percent of European shipbuilders, whilst shipbuilders on the North-East Coast of England only built 11.82 percent of their tonnage using steam turbines.²⁶³ A lot of ships were constructed in both regions with engines built to the designs of engineers located in Europe, including: B&W, MAN, Sulzer Brothers and Werkspoor. This indicated that the British shipbuilders and marine engineers no longer monopolised the industry’s technological frontier. B&W was a Danish shipyard which during the twentieth century specialized in the construction of ships using diesel engines. During the later years of the 19th century B&W negotiated exclusive rights in Denmark to build Rudolph Diesel’s engine. By 1912, B&W had built the *MV Selandia*, which became the world's first ever ocean-going diesel-powered ship, powered by two four-stroke main engines that furnished 2,500 hp. MAN also worked in association with Rudolph Diesel in his earlier developments of the diesel engine. Their four-stroke engine was unusual to the extent that it could burn either oil or tar. Numerous shipyards constructed Sulzer diesel engines under licence on the West of Scotland: Fairfield

²⁵⁹ Sayers, ‘The springs’, p. 281.

²⁶⁰ Ibid, p. 289.

²⁶¹ Griffiths, ‘British shipping’, p. 316.

²⁶² Sayers, ‘The springs’, p. 290.

²⁶³ Henning and Trace, ‘Britain and the Motorship’, p. 357.

Shipbuilding, Alexander Stephen, John Brown, William Denny, Scott's Shipbuilders, etc. whilst on the North-East Coast of England Armstrong Whitworth constructed Sulzer engines.²⁶⁴ The Werkspoor engine was a Dutch diesel that began its life in 1905. This engine was built under licence in Britain by North Eastern Marine Engineering Company as well as Hawthorn Leslie, both based on the River Tyne. The Tosi engine was the product of Franco Tosi of Legnano, Italy and was constructed under licence in Britain by William Beardmore in the West of Scotland and Richardson Westgarth in Hartlepool.

Of course, some shipbuilding continued without engines. This accounted for 104,431 grt on the North-East Coast of England and 36,365 grt in the West of Scotland between 1920 and 1939 (Appendix 30.0).

New technologies in assembly

The major innovation in the assembly of vessels in the interwar period was welding.²⁶⁵ Reduced shipbuilding for the Admiralty during the 1920s resulted in a lack of innovation in warship production. However, the introduction of welding in shipbuilding had a major impact during the 1930s. Despite the technical difficulties, chemists eventually discovered a means to weld metal by combining 'extreme temperature and pressure' with new chemical processes.²⁶⁶ The *SS Fullagar*, a coaster constructed by Cammell Laird became Britain's first ship of an all welded design.²⁶⁷ Eventually shipbuilding and marine engineering benefitted from this new form of construction, particularly during the 1930s, as automatic welding became more prevalent.²⁶⁸ The construction of the *Fullagar* is generally recognised as the first British sea-

²⁶⁴ A C Hardy, *Motorships, An investigation into the characteristics of mercantile vessels propelled by internal combustion engines*, (London, Chapman & Hall Limited 1925), p. 38

²⁶⁵ The automatic electric welding process was patented by L J Steele, Electrical Engineer at Portsmouth Dockyard, and H Martin.

²⁶⁶ Sayers, 'The springs', p. 276.

²⁶⁷ Murphy, 'The Health', p. 73; D McKeown, 'Welding – The quiet revolution', in *European Shipbuilding: One hundred years of change*, ed. F M Walker and Anthony Slaven (London: Marine Publications International Limited, 1983), p. 100.

²⁶⁸ Sayers, 'The springs', p. 278.

going vessel of an all-welded design using a quasi-arc system.²⁶⁹ The *Fullagar's* sea worthiness demonstrated the reliability of the welding throughout the vessel. Despite a period aground, the vessel was eventually re-floated and repaired.²⁷⁰ The *Fullagar* survived 17 years of service before the vessel was lost in a collision.²⁷¹ The timing of welding's break through was unfortunate coinciding with the recession of the early 1920s, slowing the adoption of this new technique.²⁷² At the same time, attempts were in hand to utilize welding in other forms of construction, mainly in civil engineering, all of which heralded the move of welding from a 'repair technology'²⁷³ to that of a manufacturing/construction facility in its own right.²⁷⁴ By the 1930s, welding had become accepted by such bodies as Lloyd's of London, as well as the aircraft industry.²⁷⁵ Despite the success of the *Fullagar* in 1920, shipbuilders nevertheless realised that welding gave rise to greater costs, heavy losses were experienced on the *Fullager* itself, though this is understandable given the one-off nature of the ship. Further issues arose with ship classification, which discouraged shipbuilders from adopting this new mode of construction. Whilst there was more welding during the 1930s, riveted assembly continued to be the preferred mode of construction in British shipbuilding.²⁷⁶ British shipbuilders were reticent with the adoption of welding, had it not been for encouragement by the Admiralty during the 1930s.²⁷⁷ Whilst its introduction was slow, welding would eventually facilitate greater labour productivity as well as prefabrication.²⁷⁸ The Royal Navy began using automatic welding from the 1930s in the construction of naval vessels because the vibration and shock

²⁶⁹ The *Fullager* was built in 1920. Parkinson, *Economics*, p. 112.

²⁷⁰ Parkinson, *Economics*, p. 112

²⁷¹ Ibid

²⁷² Lewis Johnman and Hugh Murphy, 'Welding and the British Shipbuilding Industry, A major constraint?', Richard Harding Ed, *The Royal Navy, 1930-2000, Innovation and Defence* (London, Frank Cass, 2005), p. 91.

²⁷³ Sayers, 'The springs', p. 277.

²⁷⁴ Alistair Mutch, 'The construction of a 'traditional' occupation: welding 1900-1960', *Labour History Review*, Vol. 66, Iss. 1, (2001), p. 43.

²⁷⁵ Ibid.

²⁷⁶ Jamieson, *Ebb Tide*, p. 55 and Murphy, 'The British Shipbuilding Industry', p. 25.

²⁷⁷ Johnman and Murphy, 'Welding', Harding Ed, *The Royal Navy*, p. 89.

²⁷⁸ Greaves, *Industrial*, p. 15.

from gunfire worked rivets loose in the bulkheads, whereas the welding of steel plates ensured a watertight joint.²⁷⁹ Whilst mercantile shipping does not have to withstand the same level of shock experienced by warships, welding would nevertheless facilitate quicker construction in due course.²⁸⁰

Corporate structure

Britain's approach to shipbuilding changed little during the interwar period, compared to activities in the United States, Japan, Germany and other overseas countries, which adopted a differing structure as they developed.²⁸¹ Throughout the period from the first Industrial Revolution, Britain had led the way in her output of shipbuilding, even though from 1870 onwards she faced a growing level of competition.²⁸² However, according to Lewis Johnman, Daniel Todd, Christine Shaw, David Jeremy and Peter L Payne, British shipbuilders did little to adopt the corporate structures implemented by foreign shipbuilders, which would have met the challenges that confronted them.²⁸³ Organisational structures have been used to provide an explanation for the development of immense businesses.²⁸⁴ Of course, Britain adopted technical processes that developed, and even in some case invented the technology, but its ability to change structures was limited.²⁸⁵ Following the industry's highpoint in 1920, shipbuilders capitulated as businesses failed or became confined by merger activities.²⁸⁶ Organisational expansion within Britain during the interwar years proved foolhardy. In considering purely, the activities of the North-East Coast of England, during the first half of

²⁷⁹ Johnman and Murphy, 'Welding', Harding Ed, *The Royal Navy*, p. 89; Sayers, 'The springs', pp. 278 & 279.

²⁸⁰ Albu, 'Causes', p. 516.

²⁸¹ Pollard, 'British', p. 426-44.

²⁸² Lorenz, *Economic*, p. 2.

²⁸³ David J Jeremy, 'The hundred largest employers in the United Kingdom, in manufacturing and non-manufacturing industries in 1907, 1935 and 1955', *Business History*, vol. 33, no. 1 (1991), pp. 93-111; Lewis Johnman, 'The largest manufacturing companies of 1935', *Business History*, vol. 28 no. 2 (1986), pp. 226-45; Peter L Payne, 'The emergence of the large-scale company in Great Britain, 1870-1914', *Economic History Review*, vol. 20, no. 3 (1967), pp. 519-42; Todd, 'Strategies', pp. 55-67.

²⁸⁴ Todd, 'Strategies', p. 55.

²⁸⁵ Chandler, *Scale*, p. 341.

²⁸⁶ Todd, 'Strategies', p. 58.

the twentieth century, only three amalgamations of note involved North-East Coast of England companies. One of these failed (Northumberland Shipbuilding's consolidation), and another developed out of reconstruction with the assistance of the BIDC (on the merger of Armstrong Whitworth and Vickers, see Chapter Four). The only apparently successful independent merger was the acquisition of Barclay Curle by SH&WR in 1912. Both companies continued following the merger under their own individual, corporate entities, though operated under common directors.²⁸⁷ Up until 1920, vertical integration from acquisition was a regular occurrence as shipbuilders took control of collieries and marine engineering businesses. North British Diesel Engines was absorbed by SH&WR/Barclay Curle, William Beardmore acquired Lidgerwood of Coatbridge, and Lithgows acquired Rankin & Blackmore and David Rowan.²⁸⁸

It should be appreciated that the comparative turnover may not necessarily comprise pure shipbuilding turnover, as firms like Armstrong Whitworth, Vickers, SH&WR, John Brown, Lithgows and others had activities in iron and steel, marine engineering, mining, and of course armaments. Whilst the activities of Vickers do not necessarily concern us in the period up until its merger with Armstrong Whitworth in 1927, these activities became a constituent element in the years that followed.²⁸⁹ What becomes immediately clear following the activities of the First World War was that British shipbuilding was unable to change the organisational structure of a large number of shipyards located in a small number of locations.²⁹⁰ Other nations did not have the same level of confinement confronted by Britain, and as overseas shipbuilding developed, they were able to overcome the restrictions that impeded British shipbuilding.²⁹¹ What in Britain is termed large business does not necessarily equate to large enterprise in the

²⁸⁷ Slaven, *British shipbuilding*, p. 55.

²⁸⁸ Todd, 'Strategies', p. 60.

²⁸⁹ Payne, 'The emergence', p. 533.

²⁹⁰ Slaven, *British shipbuilding*, p. 50.

²⁹¹ Alfred Dupont Chandler, 'The beginning of 'big business' in American industry', *Business History Review*, vol. 3, no. 1, 1959, p. 5.

US and other countries, where the size of the entities was significantly larger, and capable of securing economies of scale.²⁹² Large British shipbuilders, such as SH&WR, Armstrong Whitworth, William Gray, John Brown, Lithgows, and H&W, certainly made use of vertical integration and centrally operated organisational structures, but nevertheless they suffered a degree of confinement that limited the size of their shipbuilding facilities.²⁹³ Shipbuilding activities appeared restricted to the locations where their business originated. Of course, one could argue that the change of location of Yarrows in 1906 from the River Thames to Scotstoun was significant,²⁹⁴ though Yarrows recognised the need to be close to the facilities that would assist in constructing ships from iron and steel.²⁹⁵ Nevertheless, British shipbuilders tended to remain in the location where their facilities were first established. In appraising the shipbuilding activities upon the Tyne it becomes difficult to see how Tyneside shipbuilders could have expanded their facilities, other than by takeover or mergers with adjacent shipyards.²⁹⁶ However, with declining market share during the interwar period, it becomes difficult to consider why shipbuilders would seek to expand their facilities in a declining market when NSS was buying up delinquent shipbuilding facilities during the 1930s.²⁹⁷ Between the Tyne Bridge in Newcastle upon Tyne and North Shields, there remained limited opportunities for shipbuilding to develop during the interwar years. Following the First World War, shipbuilding occupied all the prime sites on the river, and after the collapse of shipbuilding in 1920, there was no demand for additional facilities. The yards of SH&WR and Armstrong Whitworth dominated the activity on the river, although other shipbuilders, such as Hawthorn

²⁹² Payne, 'The emergence', p. 524.

²⁹³ Chandler, *Scale*, p. 288.

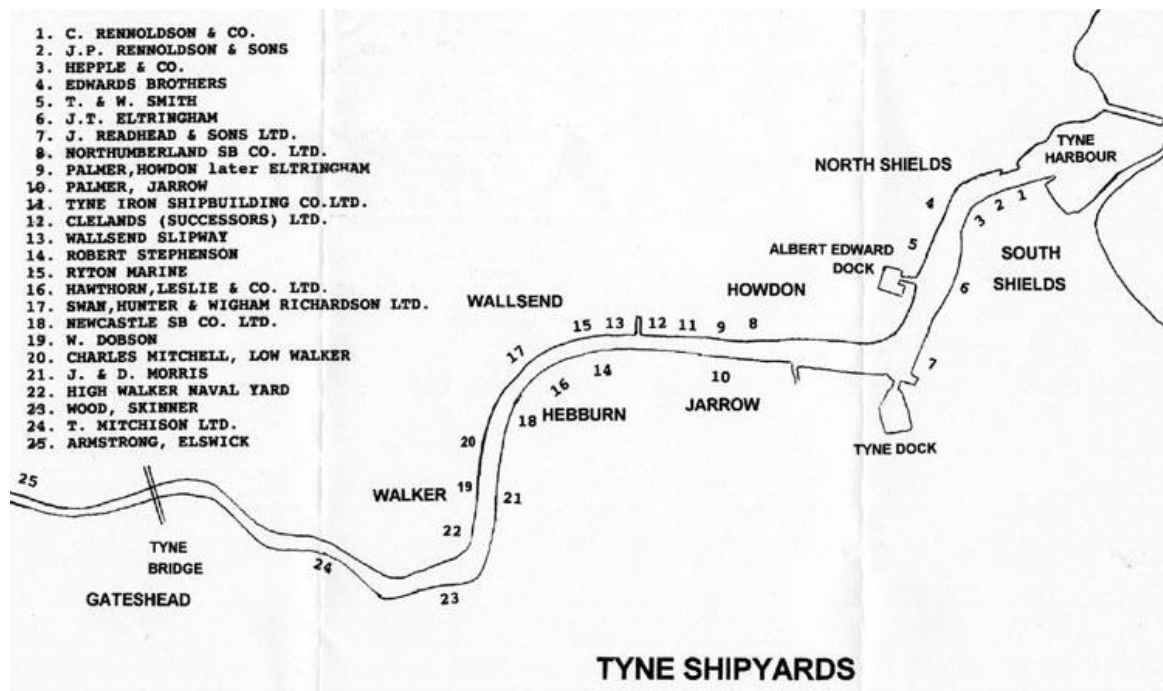
²⁹⁴ Johnman and Murphy, 'An Overview', p. 227

²⁹⁵ Borthwick, *Yarrow*, p. 31; Todd, 'Strategies', 62.

²⁹⁶ Dougan, *The History*, p. 140.

²⁹⁷ Slaven, 'Self-liquidation', in *Chartered and Unchartered Waters*, ed. Palmer and Williams, p. 129.

Leslie, Palmers Shipbuilding and Readhead's, were actively involved in maintaining the river's output.

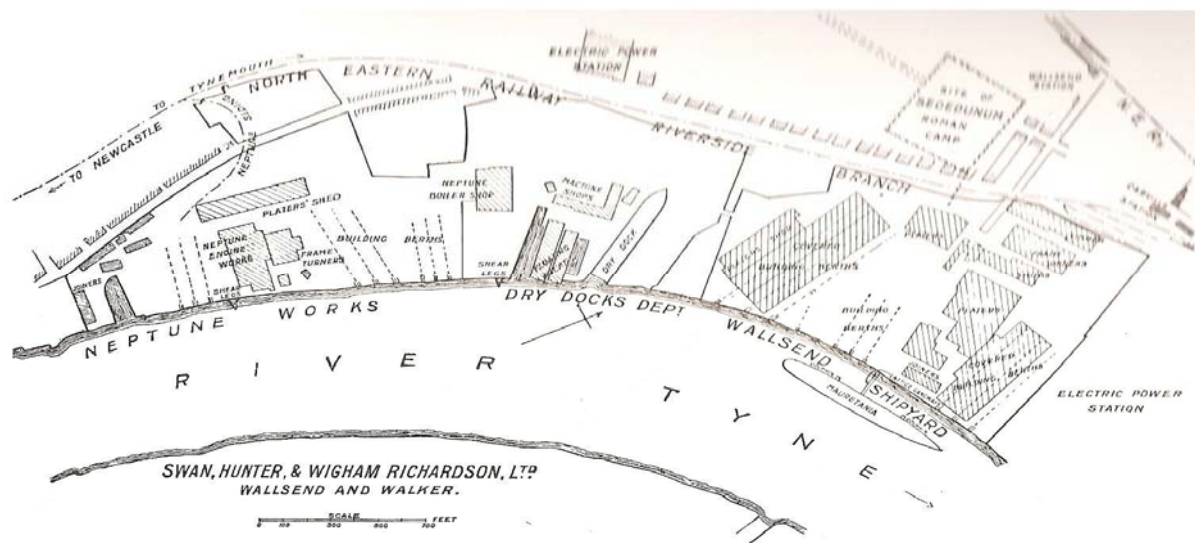


Map 1.0: Shipbuilders based on the River Tyne²⁹⁸

The shipbuilding firm of SH&WR was formed in 1903 from an amalgamation between two established North-East Coast of England companies: C S Swan & Hunter and Wigham Richardson. This new company proved competitive and, in contrast to many other British shipbuilders, SH&WR not only survived the challenges faced by other companies between its formation and the Second World War but proved very successful. From the early days, the yards of SH&WR grappled with labour issues, technological change, government intervention and changing market forces, though nevertheless remained strong enough to survive where others failed. The management behind SH&WR were of exceptional quality, understanding their business, their markets and their staff. By 1919, SH&WR's board of directors comprised Sir George Hunter (chairman), William Denton, Sir P W Richardson, J Denham Christie, C S

²⁹⁸ http://www.jamesott.webspace.virginmedia.com/shipyards/Yards_images/Shipyards_map.jpg [accessed 1 February 2016].

Swan, G B Richardson, G E Hunter, Earl Grey of Howick, G F Tweedy, T E Thirlaway, W Russell Ferguson – Glasgow, Noel E Peck – Glasgow, and Archibald Gilchrist – Glasgow. Wigham Richardson Limited and C S Swan & Hunter Limited had effectively merged to ensure that adequate funds and skill base would be available to tender for and build Cunard's *Mauretania*.²⁹⁹ Following the merger in 1903, SH&WR was able to offer facilities at Wallsend on the North Bank of the River Tyne, spread over a site of 78 acres with a river frontage of 1,400 yards. This enabled SH&WR to provide 16 shipbuilding berths with a maximum length of 900 feet. Together with graving, pontoon docks, marine engine and boiler works, this provided employment for approximately 8,000 men.³⁰⁰ More importantly, it provided the opportunity for a possible annual output of somewhere between 100,000 to 120,000 grt of new shipping.



Map 1.1: SH&WR – Site plan following the launch of *Mauretania*

Armstrong Whitworth was another major Tyneside shipbuilder, established in 1847 to manufacture cranes and hydraulic equipment. The company then produced military ordnance

²⁹⁹ Kenneth Groundwater, *Newcastle and the River Tyne* (Kettering: Silver Link, 1998), p. 62.

³⁰⁰ 'The Cunard Liner 'Mauretania'', in *The Shipbuilder*, ed. A G Hood (1907), p. 92.

and subsequently merged with Mitchell & Company, followed by a merger with Sir Joseph Whitworth & Company in 1897, when it was renamed as Sir W G Armstrong Whitworth & Company.³⁰¹ Armstrong Whitworth's reputation depended on its naval construction work, undertaken since 1883 at its naval shipbuilding yard, at Elswick on the Tyne.³⁰² During the First World War, Armstrong Whitworth constructed a new yard in Newcastle at Walker, to replace the Elswick shipbuilding centre.³⁰³ In 1919, the Armstrong Whitworth board comprised J M Falkner, H N Gladstone, Saxton W A Noble, J H B Noble, The Right Honourable Sir George H Murray, Col. Sir Edouard Percy Cranwell Girouard, Sir Glynn Hamilton West, Sir Albert George Hadock, Sir C L Ottley, Lord Southborough, Lord Sydenham and Sir Philip Watts. By December 1919, Armstrong Whitworth's work pattern was in complete contrast to its position one year earlier.³⁰⁴ During the war, the company completed 61 naval vessels with tonnage totalling 281,532 sdt.³⁰⁵ In the period up to its merger with Vickers following difficulties in Newfoundland, the company was renowned for its Admiralty work; the company also built passenger ships and cargo liners as well as ferries, oil tankers and turret ships.³⁰⁶ Vickers-Armstrong had a berth that was able to accommodate vessels up to 1,100 feet long.³⁰⁷ After re-opening as Vickers-Armstrong, the shipyard embarked upon an ambitious warship programme.³⁰⁸

³⁰¹ Murphy, 'The British Shipbuilding Industry', p. 22.

³⁰² L A Ritchie, *Modern British shipbuilding, a guide to historical records* (Greenwich: Trustees of the National Maritime Museum, 1980), p. 11.

³⁰³ Warren, *Armstrongs*, p. 199.

³⁰⁴ Whilst the construction of *HMS Nelson* was undertaken at the Walker yard, Armstrong Whitworth also secured orders to build the Swedish liner *Gripsholm*, which was the first diesel-powered transatlantic ship in 1925. In the immediate post-war era, the company also converted the *SS Aquitania* and *SS Berengaria* from coal burning to oil firing.

³⁰⁵ 'The shipbuilding centres, North-East coast', pp. 193 and 194. Whilst Armstrong Whitworth completed 61 vessels totalling 281,532 sdt during the war, the shipyards on the Clyde completed 481 vessels during the Great War totalling 759,407 sdt – Glasgow Herald, 28 December 1918.

³⁰⁶ Ritchie, *Modern British*, pp. 10 and 11; Warren, *Armstrongs*, p. 214.

³⁰⁷ *Ibid.*, p. 98.

³⁰⁸ Harold Evans, *Vickers: against the odds 1956-1977* (London: Hodder and Stoughton, 1978), p. 20; Middlemiss, *British shipbuilding yards*, p. 66.

Shipbuilding difficulties arose in the months following the ending of the First World War when London financiers Sperling & Company sought funding from merchant bankers, Kleinwort, to finance the purchase of a number of shipbuilding companies.³⁰⁹ These companies included Irvine's Shipbuilding of Hartlepool, Workman Clark of Belfast, and William Doxford of Sunderland, Fairfield Shipbuilding and Blythwood Shipbuilding of Clydeside, and Monmouth Shipbuilders.³¹⁰ In addition, the consolidation included collieries and a steel company, the Lanarkshire Steel Company. The consolidated companies were shocked to find that the steel company had not rolled any steel plate and the shipbuilding companies had no alternative but to purchase steel from Dorman Long, Cargo Fleet, and South Durham Steel and Iron Company in order to maintain their contractual commitments.³¹¹ The management team behind the purchase of Northumberland Shipbuilding and the other shipbuilders had also offered to purchase the ordinary share capital of SH&WR, although unsuccessfully.³¹² The executives behind the consolidation of Northumberland Shipbuilding and its subsidiaries had limited knowledge of the shipbuilding industry, and failed to create a viable organisation to manage the extended consolidation. Within a short time scale, the consolidation disintegrated, though fortunately the subsidiaries returned to their original owners, where it was possible to avoid liquidation.³¹³ What became evident from the activities of Northumberland Shipbuilding during the early 1920s was that the shipbuilding industry would become an 'independent industrial sector' that would be unable to buy its way out of difficulties.³¹⁴ Following the liquidation of Northumberland Shipbuilding in 1926, the company relaunched during 1927 and

³⁰⁹ Aberconway, *The basic industries*, pp. 230 and 232.

³¹⁰ H B Peebles, 'Shipbuilding between the wars – An accountant's view of the experience of the Fairfield company', in *European Shipbuilding*, ed. Walker and Slaven, p. 118; Johnman and Murphy, *British Shipbuilding*, p. 26; and Johnman and Murphy, 'An Overview', p. 230

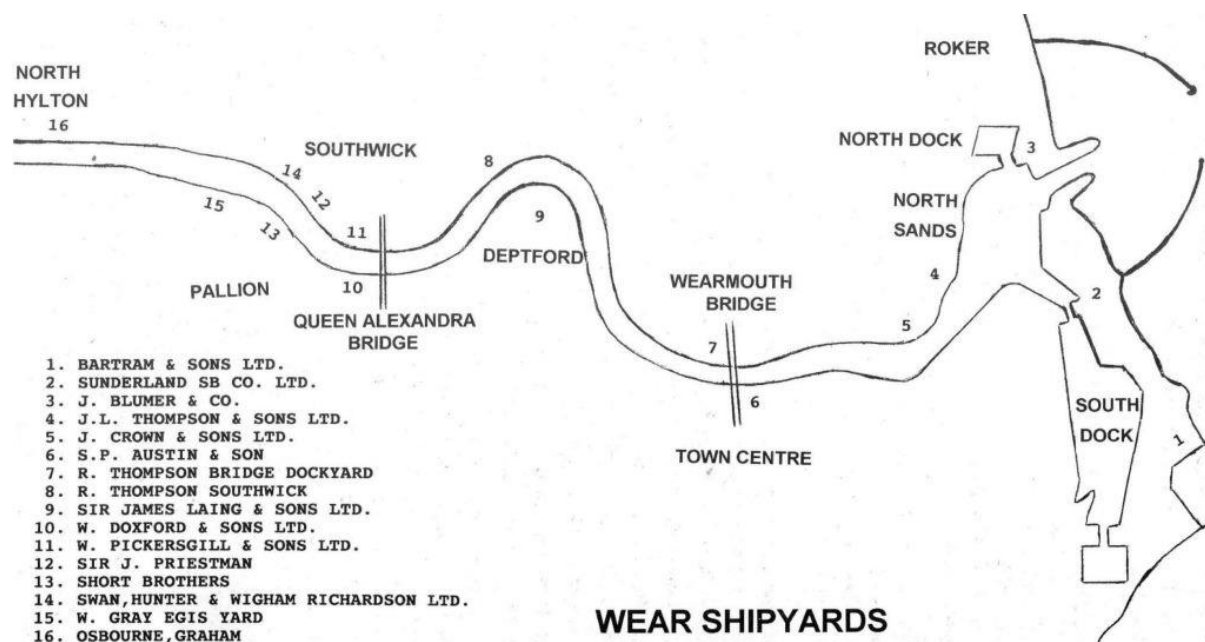
³¹¹ TWAS, DS.DOX/1/5/2, William Doxford & Sons Limited, minute book, dated 6 September 1923.

³¹² Clarke, *Building ships*, p. 228.

³¹³ Leslie Hannah, 'Managerial innovation and the rise of the large-scale company in interwar Britain', *Economic History Review*, vol. 27, no. 2 (1974), p. 268.

³¹⁴ Johnman and Murphy, *British Shipbuilding*, p. 28.

after that it built eighteen ships up until its purchase by NSS in 1932.³¹⁵ For a short while before the attempts at consolidation by Sperling & Company, Northumberland Shipbuilding had been under the control of the Furness family. However, following the incorporation of Furness Shipbuilding all interests in Northumberland Shipbuilding were realised.³¹⁶



Map 1.2: Shipbuilders based on the River Wear³¹⁷

Admittedly, the Wear appeared cramped, narrow and tortuous, and it is surprising that it became a major shipbuilding river.³¹⁸ Sunderland shipbuilders appear to have faced the greatest level of difficulties from the construction of tramp shipping during the two decades that made up the interwar period. The difficulties confronted by the Wearside shipbuilders were exceptional.³¹⁹ From the initial heady heights of the post-war phase to the desperately depressed months of 1920–21 took a little over fourteen months. Whilst difficulties continued into 1923, the shipbuilding industry experienced a brief revival during 1924 when 53 ships

³¹⁵ Jones, *Shipbuilding*, p. 137.

³¹⁶ Parkinson, *Economics*, p. 35.

³¹⁷ Bagejohn.webspace.virginmedia.com [accessed 1 February 2016].

³¹⁸ Johnman and Murphy, *British Shipbuilding*, p. 27; Aberconway, *The basic industries*, p.164.

³¹⁹ Smith and Holden, *Where ships*, p. 105.

were completed on the Wear with a tonnage totalling 180,824 grt.³²⁰ However, the revival was only temporary and the depression continued throughout 1925 and 1926, leading to John Blumer's and the Sunderland Shipbuilding Company's shipyards closing, and the Wear being reduced to 46 berths.³²¹ A meeting of all shipbuilders on the Wear was organised by the River Wear Commission on 9 September 1925. The meeting heard proposals from Mr J E Davison, the chairman of the Commission. In an attempt to alleviate the difficulties faced by shipbuilders on the Wear, it was proposed that all 'shipbuilders on the Wear should be amalgamated into one company.' However, the meeting rejected the proposal unanimously.³²² It took almost thirty years from this point before the entities of J L Thompson, Sir James Laing, and later William Doxford, were in 1954 incorporated as the Sunderland Shipbuilding, Drydocks and Engineering Company.³²³ The relationship between these three companies was close. It was reported in November 1925 that despite the difficulties in shipbuilding, J L Thompson and Sir James Laing would share contracts to build six large vessels for Silver Line Limited. These vessels would be equipped with engines from William Doxford and auxiliary equipment supplied by Sunderland Forge and Engineering Company Limited.³²⁴

The Doxford family negotiated to sell their company, with the Sperling vehicle-Northumberland Shipbuilding Company of Howden on Tyne, whose Chairman was R A Workman.³²⁵ In a defensive move, in March 1918, the Doxford family had increased the company's share capital to £1.0 million by the creation of 50,000 additional shares of £10 each, of these, half were preference shares to be divided among the Doxford family.³²⁶ Although

³²⁰ Ibid, p. 109.

³²¹ Roberts, 'A Question', p. 114; Dougan, *The History*, p. 141.

³²² TWAS, DS.DOX/1/5/3, William Doxford & Sons Limited, Board of directors meeting minutes, 13 October 1925.

³²³ Todd, 'Strategies', p. 61.

³²⁴ 'Orders for Wear, Contracts for six big Steamers, Work for unemployed', *Shields Daily Gazette and Shipping Telegraph*, 26 November 1925, p. 5.

³²⁵ Hugh Murphy, draft, 'Research Organisations in British Shipbuilding, 1944-1977', work in progress.

³²⁶ TWAS, Doxford Papers, DS Dox 1/5/2 Minute Book No. 2, Meeting of Board of Directors, 25 March 1918.

nothing in the surviving Doxford records indicate negotiations to sell the company, by 10 January 1919, the Doxford family had agreed to a takeover by the Northumberland Shipbuilding Company. Diaper, who did not consult the Doxford records, states that as part of the deal they accepted £500,000 in debentures, and the former chairman, Charles Doxford (1856-1935) was retained as manager of the new company. She states that Northumberland paid £3.0 million for Doxford raised by issuing £3.0 million worth of 6 percent mortgage debentures.³²⁷ Doxford was in fact purchased by Northumberland for £805,030.³²⁸ Thereafter, it was soon decided by the new chairman of Doxford, Robert Alfred Workman, at a Board meeting on 20 January 1919 that Doxford should advance a 'temporary' loan to Northumberland Shipbuilding (of which Workman was also chairman) from 1 February 1919 of £1,800,000 at 6 percent interest repayable by 28 February 1919.³²⁹ Following the experiences of the early 1920s, from 1924 onwards Sir A M Kennedy, George Strachan and Robert Haswell took control of William Doxford.³³⁰

Whilst Sir George Hunter served his apprenticeship under his cousin, the Sunderland shipbuilder William Pile, he started in partnership with the Austin family during the nineteenth century.³³¹ At the start of the interwar period, the board of directors of S P Austin & Company comprised J Weston Adamson, Samuel P Austin, Selwyn P Austin, James Westoll and W H

³²⁷ Stefanie Diaper, 'The Spering Combine and the Shipbuilding Industry: Merchant Banking, and Industrial Finance in the 1920s', in Jean Jacques Van Helten and Youssef Cassiis (eds.) *Capitalism in a Mature Economy and British Industry, 1870-1939*, (Aldershot, 1990), pp. 75-80. The author can find no evidence of £500,000 in debenture stock accruing to Doxford. Diaper seems to rely on an article in the trade magazine, *The Shipbuilder*, vol., 20 (1919) pp. 143-144, rather than on company records; and A Armitage, 'Shipbuilding at Belfast: Workman Clark and Company, 1880-1935', in L R Fischer (ed), *From Wheel House to Counting House: Essays in Honour of Professor Peter Neville Davies*, (Research in Maritime History, No. 2, St John's Newfoundland, 1992), pp. 113-122.

³²⁸ TWAS, DS Dox 1/16/1 Purchase of shares by Northumberland Shipbuilding Limited. They amounted to 24,543 Preference shares of £10 each, 25,000 six percent Preference Shares of £10 each, 25,000 Ordinary shares of £10 each, and 596 four percent debenture stock at £100 each.

³²⁹ TWAS, DS Dox 1/5/2, Minutes of Meeting of Board of Directors, 20 January 1919.

³³⁰ Sir Alexander Kennedy whilst managing director of Northumberland Shipbuilding also took charge of Fairfield Shipbuilding and William Doxford. Kennedy became chairperson in 1930 at a time of severe economic depression, and died in 1939.

³³¹ Dougan, *The History*, pp. 74 and 75; Pollard, 'Laissez-faire', p. 99.

Dugdale.³³² By the end of the 1920s, the board had changed significantly as a result of death and retirement, and a new board took office comprising Richard S Middleton, Ralph S Clark and James Westoll Junior.³³³ What becomes apparent from reviewing the activities of the Sunderland shipbuilders is that there was little or even no ambition to expand their facilities during the interwar period. Of course, they required more tonnage to construct, however, little talk of a takeover or merger activities appear in the archives. The operations of J L Thompson further typified the family-controlled operations that epitomised Wearside. The shareholders comprised the Thompson and Marr families, Robert Thompson, R N Thompson, S M Thompson, Georgina Thompson, J W Thompson, Sir James Marr, Amelia Rachel Marr, Peter Pherson and Adam Turnbull. During the difficulties confronted by the company in the early 1930s, Barclays Bank acquired over 10 percent of the equity on 18 July 1932.³³⁴ According to the register of directors, at this stage the board comprised only Thompson and Marr family members.³³⁵ Sir James Marr, as well as being chairperson of J L Thompson, also became a director of Sir James Laing, another Sunderland shipbuilder, which got into financial difficulties following the death of its founder in 1901; having saved the company Sir James Marr became its chairperson in 1912. Sir James Marr was also a director of Sunderland Forge and Engineering Company and Silver Line (Shipowners).³³⁶ Like Sir James Marr, Robert Norman Thompson was also chairperson of the Wear Shipbuilders Association, and during 1946 Thompson took over the business of John Crown & Sons, another Wearside shipbuilder.³³⁷ British shipbuilders and tramp operators suffered immense difficulties particularly on the North-East Coast of England. The impact of the decline in world trade,

³³² Clarke, *Building ships*, p. 220.

³³³ TWAS, DS.AP/1/4/2-4, S P Austin & Company Limited, Annual reports and accounts, April 1919 to April 1939.

³³⁴ TWAS, DS.JLT/1/18/1, J L Thompson & Sons Limited, Annual Return.

³³⁵ TWAS, DS.JLT/1/13/1, J L Thompson & Sons Limited, Register of directors or managers.

³³⁶ 'Sir James Marr', *Who was who, 1929-1940*, vol. III (London: Adam & Charles Black, 1941), p. 904.

³³⁷ Obituaries, *The Times*, 3 October 1951.

shrinkage of the coal trade, increased foreign competition and rationalisation provided little positive prospects to shipbuilders and tramp operators.³³⁸

William Pickersgill & Sons operated originally from 1838 at the North Dock in Sunderland and transferred to Southwick in 1851. From 1863, the business became a family concern, building iron ships from as early as 1880. In 1907, the business became incorporated as a private limited company and continued in this format until its merger with S P Austin & Son in 1954.³³⁹

Readhead's operated a site comprising 16 acres with a river frontage extending to 1,500 feet on the Tyne. The facilities were modern, with electrical, hydraulic and pneumatic machines.³⁴⁰

The company enjoyed good profitability between 1920–22, achieving £353,000 net profit and undertaking large amounts of work for Edward Hain & Sons and Walter Runciman & Company.³⁴¹ During the remainder of the interwar period the company's results declined by almost 50 percent.³⁴² At the 21st Annual General Meeting (AGM) of Readhead's on 18 February 1930, the chairman reported that shipbuilders were still unable to obtain even cost price for new tonnage even though ample contracts were available.³⁴³ Shipowners were still suggesting that markets were 'dull and freights so un-remunerative' that they could not afford to contract at shipbuilders' prices and in many cases were laying up tonnage.³⁴⁴ The Readhead's directors recognised that in order to keep their works going it was necessary to take orders at the best prices obtainable, and this might be the policy for some time to come.³⁴⁵

³³⁸ Johnman and Murphy, 'An Overview', p. 248.

³³⁹ World Shipbuilding Society, Yard List 111, p. 1.

³⁴⁰ [No author] *John Readhead & Sons Limited South Shields 1865-1965* (South Shields: John Readheads, 1982), p. 22.

³⁴¹ *Ibid.*, p. 19.

³⁴² Clarke, *Building ships*, p. 186.

³⁴³ *John Readhead*, p. 19.

³⁴⁴ Amy C Flagg, *Notes on the history of shipbuilding in South Shields 1746-1946 (with appendices)* (South Shields: South Tyneside Borough Council Library Service, 1979), p. 117.

³⁴⁵ TWAS, Accession 2931, John Readheads & Sons Limited, Minute Book, 18 February 1930, p. 106; Flagg, *Shipbuilding in South Shields*, pp. 117-118.

Throughout the interwar period, the directors adopted a strategy of being fully committed to keeping Readhead's operating, even by taking contracts that incurred losses.³⁴⁶

By 1921, Palmers Shipbuilding suffered difficulties not just within shipbuilding; its colliery struggled during the year with a coal strike and its iron and steel works closed.³⁴⁷ The appointment of Lord Aberconway as a director of Palmers Shipbuilding whilst acting as a main Board director at John Brown was not an attempt at extending the corporate structure of John Brown. Aberconway had extensive knowledge as an industrialist and there was hope that he might change the fortunes of Palmers Shipbuilding during the 1920s.³⁴⁸ Apart from Lord Aberconway, there is little evidence of the two regions sharing directors between shipbuilding companies. The debacle of Northumberland Shipbuilding in the early post-war years affected Fairfield Shipbuilding and Blythswood Shipbuilding, though the group's failure allowed for the preservation of their independence.³⁴⁹ The SH&WR structure certainly resulted in a number of its directors serving on the board of Barclay Curle.

At the beginning of the interwar period, the West of Scotland operated with 42 shipyards, the vast majority based on the Clyde. As shipbuilders moved from partnerships to private limited companies and then to public company status, the founding families tended to retain control.³⁵⁰ Todd believed that mergers and acquisitions within shipbuilding during the 1920s were either 'prosperity induced or depression induced.' Given the difficulties encountered in both regions, it would appear sensible to suggest that prosperity did not induce merger activity in the interwar years.³⁵¹ During this time, a third of the shipyards on the West of Scotland were under the control of three shipbuilding companies. SH&WR had acquired Barclay Curle; H&W as well

³⁴⁶ TWAS, Accession 2931, John Readheads & Sons Limited, Minute Book, 18 February 1930, p. 109.

³⁴⁷ *Ibid.*, p. 128.

³⁴⁸ Aberconway, *The basic industries*, p. 162.

³⁴⁹ Parkinson, *Economics*, p. 35.

³⁵⁰ Slaven, *British shipbuilding*, p. 59.

³⁵¹ Todd, 'Strategies', p. 59.

as its own yard at Govan, owned Archibald McMillan & Sons, A J Inglis, D & W Henderson & Company, Caird & Company³⁵² and Ayrshire Dockyard.³⁵³ Lithgows took control of Fairfields Shipbuilding, William Beardmore's forge at Parkhead, Murdoch & Murray, William Hamilton, Robert Duncan, Dunlop Bremner, and Russell & Company.³⁵⁴ The Lithgow connection acquired Robert Duncan when Lithgows still traded under the name Russell & Company.³⁵⁵ Although Joseph Russell retired in 1891, it took until 1918 before the business name changed to Lithgows, with James and Henry in control. By this stage, in addition to Robert Duncan, the brothers had acquired the businesses of Dunlop Bremner and William Hamilton, as well as the marine engineering businesses of Rankin & Blackmore and David Rowan.³⁵⁶ The Lithgow brothers salvaged Dunlop Bremner in 1919 when it was in the process of being taken over by a financial combine.³⁵⁷

³⁵² Johnman and Murphy, 'An Overview', p. 229

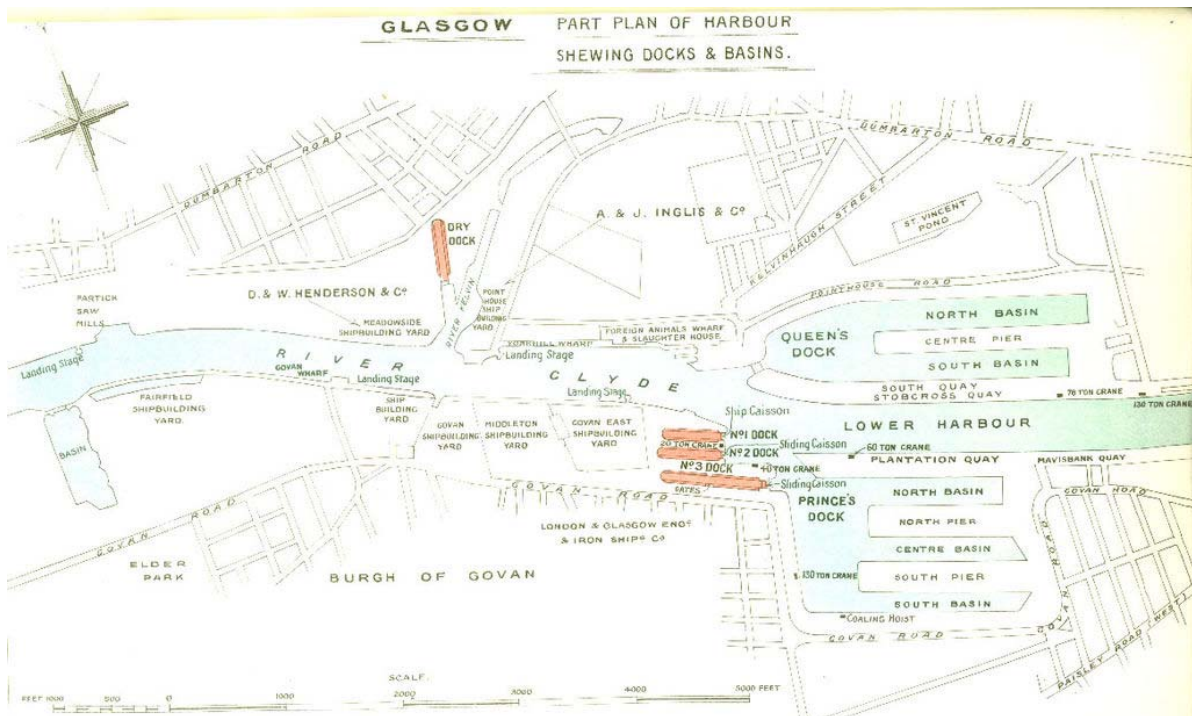
³⁵³ In 1912, Harland & Wolff acquired the Govan yard of Mackie & Thompson and in 1915 the name was changed to Ayrshire Dockyard Company Limited. In 1928, the six-berth yard was bought by Lithgows though continued to trade as Ayrshire Dockyard until it was purchased by NSS in 1934.

³⁵⁴ Aberconway, *The basic industries*, pp. 227 and 228; Peebles, 'Shipbuilding', p. 122.

³⁵⁵ Reid, *James Lithgow*, p. 75.

³⁵⁶ Parkinson, *Economics*, p. 30.

³⁵⁷ Reid, *James Lithgow*, p. 75.



Map 1.3: Plan of part of Glasgow Harbour showing a number of shipbuilding yards³⁵⁸

Following difficulties, NSS placed the shipyard of D & W Henderson on a care and maintenance contract basis during the year ending 31 March 1936 along with Caird & Company.³⁵⁹ Lithgows retained D & W Henderson's ship repair department, which continued to trade as a going concern.³⁶⁰ The activities of Lord Pirrie and the Lithgow Brothers in buying up shipyards on the Clyde were not tantamount to establishing monopoly-style empires, but the establishment of groups with a wide range of high-quality skills and the promotion of greater specialisation.³⁶¹

Whilst the North-East Coast of England had only four shipbuilders that had naval shipbuilding capacity: Armstrong Whitworth/Vickers, Hawthorn Leslie, Palmers Shipbuilding and SH&WR; the West of Scotland had seven shipbuilders who were classified as mixed naval and

³⁵⁸ British Admiralty Dockbook 1909: <http://www.gwpda.org/naval/dkbkpl34.jpg> [accessed 29 January 2016].

³⁵⁹ Slaven, 'Self-liquidation', in *Chartered and Unchartered Waters*, ed. Palmer and Williams, p. 134.

³⁶⁰ Jones, *Shipbuilding*, p. 137.

³⁶¹ T J Parker, 'Harland & Wolff: Towards 125 years of shipbuilding', in *European Shipbuilding*, ed. Walker and Slaven, p. 155; Parkinson, *Economics*, p. 31.

mercantile builders: Alexander Stephen, Fairfield Shipbuilding, John Brown, Scott's Shipbuilding, William Beardmore, William Denny and Yarrows.³⁶² Those mixed naval and mercantile shipbuilders on the Clyde had recognised historically that benefits arose from being able to shift from naval to mercantile work as the peaks and troughs of the economy warranted. Though during the interwar period this logic did not continue.

The relationship developed between the Scottish steel industry and shipbuilding established an extraordinary linkage during the interwar years. Shipbuilders generally feared a shortage of materials, particularly immediately after the First World War. This resulted in H&W taking over David Colville & Sons; William Beardmore acquiring the Glasgow Iron & Steel Company; Alexander Stephen, the Greenock Dockyard Company, Yarrows, Blythswood Shipbuilding and Napier & Miller entering into a joint venture to purchase the Steel Company of Scotland during 1920.³⁶³ Lithgows gained control of James Dunlop & Company.³⁶⁴ Eventually, James Dunlop & Company and David Colville & Sons merged to create Colvilles Limited.³⁶⁵ Sir James Lithgow then acquired The Steel Company of Scotland and merged this business into Colvilles during 1934.

The early 1930s were difficult for Fairfield shipbuilding due to the economic climate prevailing throughout the nation, though the failure of Anchor Line (Henderson Brothers) Limited added to the difficulties that the company was experiencing.³⁶⁶ Fairfield Shipbuilding was owed £145,000 in bills which were dishonoured.³⁶⁷ It was reported in the 46th Annual Report dated 18 November 1935, that Sir James Lithgow had joined the Board of Directors of the company

³⁶² Johnman and Murphy, 'An Overview', Appendix A, p. 254. However, neither Palmers Shipbuilding or William Beardmore traded for the full interwar period.

³⁶³ Carvel, *Stephen*, p. 117.

³⁶⁴ Reid, *James Lithgow*, p. 76.

³⁶⁵ Buxton, 'Economic growth', p. 552; Buxton, 'Efficiency and organisation', p. 118.

³⁶⁶ The Balance Sheets of Fairfield Shipbuilding 1920-1939, are set out at Appendix 31, Page 1 of 8, and whilst the Company appears to be technically insolvent, the Company was neither placed into liquidation or receivership, and turned around its fortunes within a very short period – Mitchell Library, UCS.2/5/2: Fairfield Shipbuilding's Directors' Reports and Balance Sheets, 1890-1959, 46th Annual Report.

³⁶⁷ Glasgow Mitchell Library, UCS.2/1/6, Minute Book No. 6, 13 November 1935, p. 62.

and together with his brother took responsibility for the Company's bank debt, through their own Kingston Investment Company Limited.³⁶⁸ By 1936 with assistance from Sir James Lithgow, Fairfield's began to experience a good period of trade, with two orders secured from the reconstructed Anchor Line as well as a large number of naval contracts from the Admiralty.³⁶⁹

Financial structures

In the immediate period after the First World War, funding within the maritime trades was abundantly available. The boom period of 1919–20 stimulated an increase in capacity in the basic industries of shipbuilding coal, iron and steel.³⁷⁰ However, this extension of trade amplified the difficulties of industrial over-commitment, which was destructive to the core staple industries. Funding was available for investment, due to the recoveries from war losses, the lack of capital gains tax when tonnage or shares exchanged hands at inflated values, and even after making allowance for excess profit duty for four years of good trading during the war.³⁷¹ During the war, shipping companies faced accusations of profiteering by earning profits at five times the rate of their normal profitability.³⁷² Regardless of the level of losses incurred during the First World War, British shipowners earned substantial profits, which unfortunately failed to replace the war losses.³⁷³ However, the promise of substantial profits enticed speculators into the industry, which led to the inflation of shipping prices, whether they were for the benefit of shipbuilders or shipping companies selling second-hand tonnage.³⁷⁴ Certain tramp-shipping operators cooperated with the speculators to dispose of their shipping

³⁶⁸ Glasgow Mitchell Library, UCS.2/5/2, Fairfield Shipbuilding & Engineering Company Limited, 46th Annual Report, 18 November 1935.

³⁶⁹ Johnman and Murphy, 'An Overview', p. 247.

³⁷⁰ Anthony J Arnold, 'Profitability and capital accumulation in Britain', *Economic History Review*, vol. 52, no. 1 (1999), p. 47.

³⁷¹ D L McLachlan, 'The conference system since 1919', *Business History*, vol. 4, no. 1 (1961), p. 54.

³⁷² Arnold, 'Profitability', p. 48.

³⁷³ Sturmeay, *British shipping*, pp. 51-52.

³⁷⁴ Hope, *A new history*, p. 351.

and invested in government securities, which earned a higher return than could be achieved in tramp shipping.³⁷⁵ During 1919, shipping companies whose shares were available upon the Stock Exchange benefitted from immense speculation, however, it became apparent that an ‘increased volume of shipping’ was in fact chasing a ‘reduced volume of trade.’³⁷⁶

At the Armistice, shipbuilders had received approval to 304 schemes to update their shipyards.³⁷⁷ By 1920 the number of operational shipbuilding berths available within Britain had increased to 806 compared to 580 in 1914; this represented an increase of 38.97 percent and led to a number of new shipbuilding organisations, some of which were highly speculative.³⁷⁸ The fact that British shipbuilders only constructed 2,000,000 gross tons during 1920 was, in the eyes of Lord Inchcape and the Committee on Commercial and Industrial Policy, which advised on post-war reconstruction, an unmitigated tragedy.³⁷⁹ The Committee had recommended an annual shipbuilding programme of not less than 3.0 mgt of merchant shipping per annum and without it, the industry would be ‘compromised beyond redemption.’³⁸⁰ Clearly, this proved not to be the case, as any additional tonnage would have compromised the maritime trades even further.³⁸¹

The difficulties in shipbuilding manifested themselves in the staple industries, and because shipbuilders had undertaken vertical integration within coal, iron and steel only added complications.³⁸² Such difficulties were apparent at Palmers Shipbuilding, who in 1919 undertook capital expenditure, developing its Jarrow Steelworks. The company updated the facilities at Hebburn shipyard, creating two additional shipbuilding berths, as well as

³⁷⁵ Sturmev, *British shipping*, p. 53.

³⁷⁶ *Ibid.*, p. 56.

³⁷⁷ Murphy, ‘The British Shipbuilding Industry’, p. 56.

³⁷⁸ Slaven, *British shipbuilding*, p. 67.

³⁷⁹ The government recognised that peace would lead to difficulties and took action to establish reconstruction committees for various industries; see Warren, *Armstrongs*, p. 195.

³⁸⁰ Johnman and Murphy, *British Shipbuilding*, p. 8.

³⁸¹ Aldcroft, ‘Port’, p. 97.

³⁸² Greaves, *Industrial*, p. 14.

purchasing facilities at Amble, Northumberland and Swansea.³⁸³ The facilities in Amble, along with collieries and a shipping company, were all undertaken at the ‘height of folly.’³⁸⁴ In addition, Palmers Shipbuilding expended money on its engine works and ship-repairing facilities as trade tailed off.³⁸⁵

In the aftermath of the First World War, shipbuilders, heavy engineering and cotton manufacturers were at least able to finance a ‘materially greater share of their investment needs’ than those businesses that were developing in electrical engineering, motor vehicles, aircraft, synthetic fibres, or chemicals.³⁸⁶ The Stock Exchange became particularly concerned at unscrupulous and fraudulent investment schemes similar to those involved with Sperling & Company or Clarence Hatry.³⁸⁷ However, during the years 1920–38, the investment in shipbuilding, heavy engineering and cotton proved to be extremely modest in comparison to the levels of funds committed to investment in electrical engineering, motor vehicles, rubber, and synthetic fibres.³⁸⁸

During the First World War, shipbuilding and shipping were heavily under government control, and by 1919 concerns were arising as to whether the controls experienced by the shipbuilding industry presaged nationalisation. However, shipbuilding enjoyed fourteen months of encouraging trade before difficulties arose.³⁸⁹ Nevertheless, the shipbuilders were prepared to accept the introduction of the Trade Facilities Acts 1921–27 (see Chapter Three); the Cunard

³⁸³ Matt Perry, *The Jarrow crusade: protest and legend* (Sunderland: University of Sunderland Press, 2005), p. 11.

³⁸⁴ Wilkinson, *The town*, p. 132; Slaven, *British Shipbuilding*, p. 101.

³⁸⁵ Wilkinson, *The town*, p. 130.

³⁸⁶ David Chambers, ‘Going public in interwar Britain’, *Financial History Review*, vol. 17, no. 1 (2010), p. 52.

³⁸⁷ Clarke, *Building ships*, p. 220; Stefanie Diaper, ‘Merchant banking in the inter-war period: The case of Kleinwort, Sons & Co.’, *Business History*, vol. 28, no. 4 (1986), p. 60; P S Manley, ‘Clarence Hatry’, *Abacus*, vol. 12, no. 1 (1976), pp. 49-60; R G Walker, ‘The Hatry affair’, *Abacus*, vol. 13, no. 1 (1977), pp. 78-82; Moss and Hume, *Workshop*, p. 106.

³⁸⁸ Chambers, ‘Going public’, p. 55.

³⁸⁹ Johnman and Murphy, *British Shipbuilding*, p. 7.

(Insurance) Agreement Act 1930 (see Chapter Five); and the British Shipping Assistance Act 1935 (see Chapter Six).

Mixed naval and mercantile shipbuilders experienced greater overheads, compared to those shipbuilders that concentrated on merchant shipbuilding like Lithgows.³⁹⁰ Mixed merchant and naval shipbuilders experienced increased overheads from design teams, estimating staff, more employees, shipbuilding berths, craneage, as well as plant and equipment. The demand for both merchant and naval vessels did not coincide and tended more often than not to compensate each other enabling overheads to be spread in an equitable manner between the two types of work.³⁹¹

The government was proactive in taking action to regenerate industries suffering depressed levels of trade, particularly the staple industries, during the interwar years.³⁹² The difficulties experienced in the immediate postwar years became exacerbated between 1929 and 1933 and whilst no industry was left untouched, the core staple industries of coal, cotton, shipbuilding, iron and steel suffered worst of all.³⁹³ The government introduced the Special Areas (Development and Improvement) Act in 1934 to provide assistance to areas in Britain affected by high rates of unemployment.³⁹⁴ The worst affected areas were Tyneside, Scotland, South Wales, and Cumberland. Because of the Special Areas (Development and Improvement) Act 1934, where tenders existed, the Admiralty allocated contracts to shipyards in the special and distressed areas. Whether the Admiralty's ability to award contracts to such areas made any real difference to the wellbeing of the shipbuilding industry is doubtful. The main shipbuilders who were capable of undertaking such work were mainly based in the special and distressed

³⁹⁰ Johnman and Murphy, 'An Overview', p. 230.

³⁹¹ *Ibid.*, p. 231.

³⁹² Greaves, *Industrial*, pp. 14-15.

³⁹³ Reid, *James Lithgow*, p. 128.

³⁹⁴ Slaven, *West of Scotland*, p. 202.

areas.³⁹⁵ The Second Report of the Commissioner for the Special Areas (England and Wales) announced that ‘... the new Admiralty programme will further benefit the Tyne. It cannot, however, be expected that this will bring Tyneside back to a full measure of prosperity.’³⁹⁶ The fact that the West of Scotland, particularly the Clyde concentrated on higher-valued tonnage in the form of passenger and cargo liners as well as naval vessels supports the argument that the West of Scotland performed relatively better than most other areas in Britain.³⁹⁷

Shipbuilding regions in comparison

Overall comparison of these two shipbuilding regions is a matter of controversy and methodological dispute. According to gross registered tonnage in terms of merchant shipbuilding, the North-East Coast of England built 1,100,877 grt more than the West of Scotland, although this excludes naval vessels (see Appendix 4.0). Dougan asserted that the ‘... North East, which was still the greatest shipbuilding centre in the world.’³⁹⁸ However, Parkinson states that the ‘... proximity to the transatlantic routes led to the building of many vessels on the Clyde.’ He then goes on to highlight that the West of Scotland ‘... encouraged technical development and the construction of the better class of ship.’³⁹⁹ Neil Buxton observes that Clydeside became ‘...the leading building centre not only of the UK but of the world.’⁴⁰⁰ In relation to naval shipbuilding during the interwar period, Neil Buxton is correct. According to the BSD, shipbuilders on the West of Scotland built 296,238 sdt and 86,263 grt in terms of naval vessels, in comparison to shipbuilders on the North-East Coast of England, who built

³⁹⁵ NA, CAB/24/265, Note by the First Lord of the Admiralty, Allocation of contracts to the distressed and special areas, 18 November 1936, p. 1.

³⁹⁶ NA, CAB/24/259, The Second Report of the Commissioner for the Special Areas (England and Wales) 1936, p. 32.

³⁹⁷ Johnman and Murphy, ‘An Overview’, p. 250.

³⁹⁸ Dougan, *The History*, p. 137.

³⁹⁹ Parkinson, *Economics*, p. 9.

⁴⁰⁰ Buxton, ‘Scottish shipbuilding’, p. 101.

225,427 sdt and 86,092 grt.⁴⁰¹ It appears to be very emotive between maritime historians though since this thesis utilizes Professor Ian Buxton's BSD, it appears sensible to adopt the conversion recommended by him.⁴⁰² Therefore, the estimated total grt can be shown as follows:

Table 1.8 Estimated total tonnage built on the North-East Coast of England and the West of Scotland, 1920-1939

| | North-East Coast of England | West of Scotland |
|--|--|-----------------------------|
| Total merchant shipbuilding-grt (Appendix 3.0) | 8,019,782 | 6,918,905 |
| Naval shipbuilding (Appendix 4.0) | | |
| Sdt multiplied by 4 ⁴⁰³ | 901,708 | 1,184,952 |
| Grt | <u>86,092</u> | <u>86,263</u> |
| Estimated total tonnage | <u>9,007,252</u> | <u>8,190,120</u> |

From 1920 onwards, the trade of the two regions stagnated. The levels of stagnation on the North-East Coast of England varied depending upon the examination of each river within the region. For example, Wearside shipbuilding suffered dramatic decline during the 1920s in comparison to Tyneside.⁴⁰⁴ Historians have attributed this decline to the deterioration of the tramp-shipbuilding trade, despite the Wear also building liners and foreign shipping.⁴⁰⁵

⁴⁰¹ It is extremely controversial to attempt to convert sdt to grt, though some historians have used two grt's to equal one sdt, others have used as many as four grt's to equal one sdt. Ian Buxton recommends four grt would equal one sdt. Buxton, Fenton and Murphy, 'Measuring Britain's shipbuilding', p. 305.

⁴⁰² Ibid.

⁴⁰³ The sdt for both regions were: North East Coast of England 225,427 sdt; West of Scotland 296,238 sdt.

⁴⁰⁴ Smith and Holden, *Where ships*, p. 107.

⁴⁰⁵ Clarke, *Building ships*, p. 238.

Lloyd's Register of Shipping classifies vessels by their size, age and method of propulsion, with calculations made on a specific date during the year.⁴⁰⁶ Therefore, it was possible for transactions to occur in which a tramp ship could attain a different classification if purchased by a liner company immediately before or after a classification exercise. Consequently, it becomes an extremely difficult task to distinguish with any degree of reliability between the number of tramp ships and cargo liners at any point in time.⁴⁰⁷ The large liners of the interwar period are clearly distinguishable from most vessels, as the *RMS Queens Mary* and *Elizabeth* are clearly unique and had a grt far superior to all other liners.⁴⁰⁸ However, liners, and particularly cargo liners, were at times not at all different from tramp vessels.

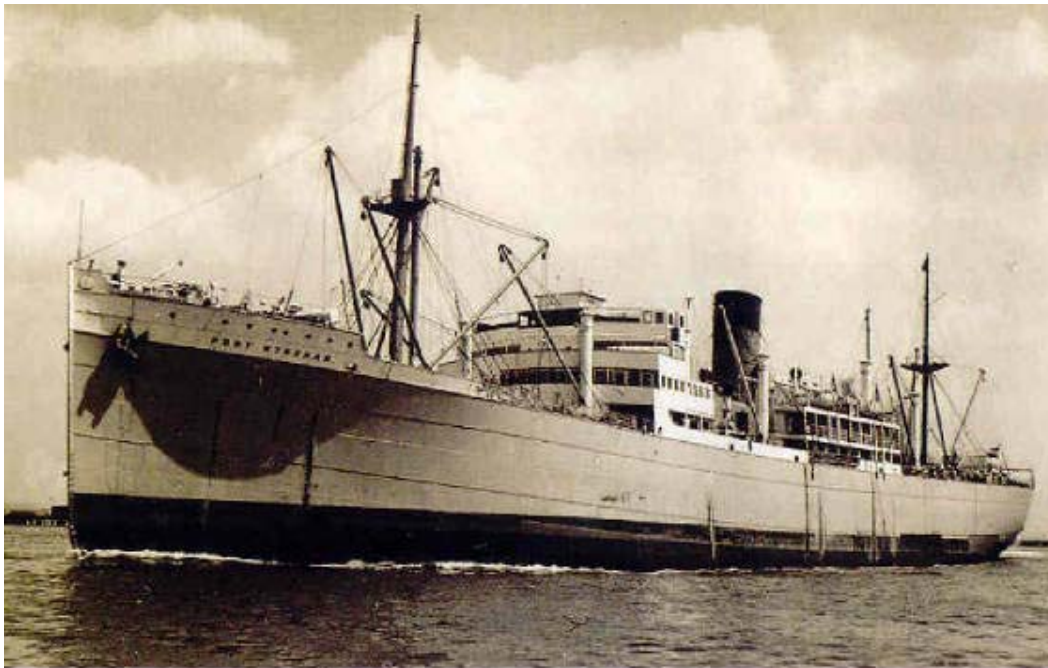


Photo 1.10: *MV Port Wyndham*, built by John Brown⁴⁰⁹

Little differentiates *SS Port Wyndham* in Photo 1.10 from the *SS Dallington Court* shown in Photo 1.11. However, the former is a liner and the latter is a tramp. Both vessels carried similar

⁴⁰⁶ L Isserlis, 'Tramp Shipping Cargoes, and freights', *Journal of the Royal Statistical Society*, vol. 101, no. 1 (1938), p. 58.

⁴⁰⁷ Isserlis, 'Tramp shipping', p. 60.

⁴⁰⁸ The *RMS Queen Mary* was 80,774 grt and the *RMS Queen Elizabeth* was 83,673 grt.

⁴⁰⁹ The *MV Port Wyndham* was of 8,580 grt. The origins of Port Line go back to 1914 when its predecessor, the Commonwealth & Dominion Line, was formed by merging Thomas B Royden & Co.'s Indra Line, J P Corry's Star Line, William Milburn's Anglo-Australian Steam Navigation Co, and G D Tyser & Co. www.iancombe.tripod.com – [accessed 1 February 2016]

cargoes. Both vessels were built in modern shipyards, as both John Brown and Northumberland Shipbuilding were up-to-date facilities, which again contradicts the comments by Parkinson.⁴¹⁰

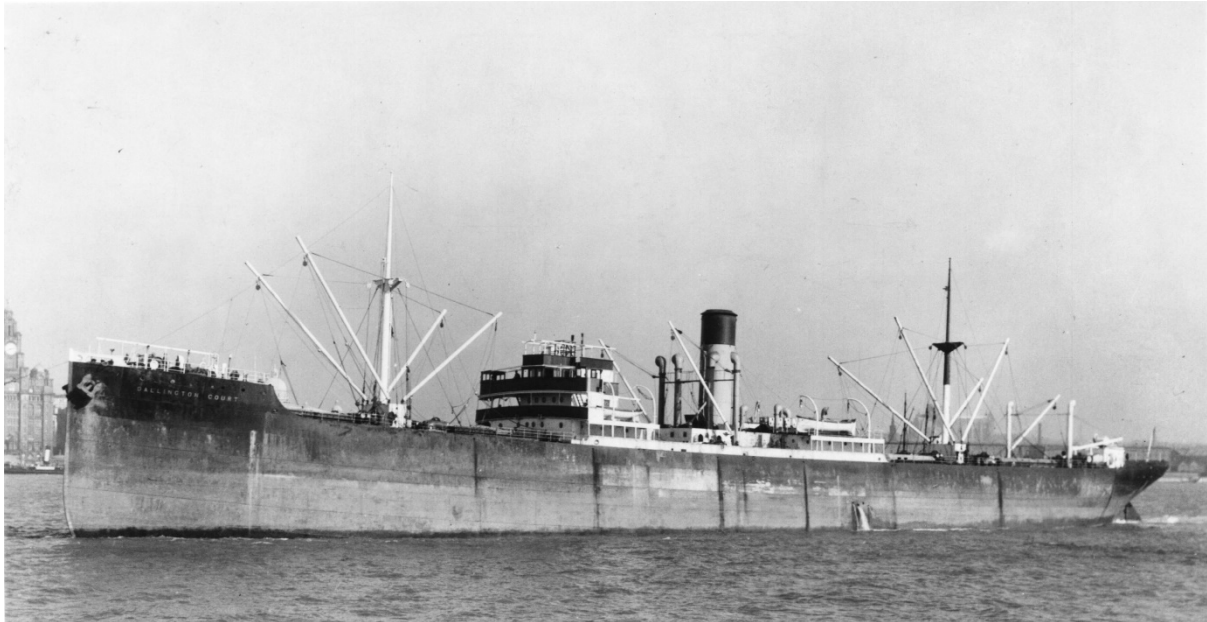


Photo 1.11: *SS Dallington Court*, built by Northumberland Shipbuilding Co. (1927)⁴¹¹

Of course, there were tramp ships that appeared very much rough and ready, but managed their tasks efficiently, namely the export of coal, returning with grain, timber, ore, fertilisers or sugar. However, there were also tramp ships mainly of a coastal nature built by shipyards that did not maintain the high standards of those yards that built liners or tramps employed in international trade. It therefore becomes evident that the classification of ships is not immediately available upon appearance, whilst some tramp ships employed within the coastal trade are relatively small in comparison with tramps employed in international trade, and the latter are not particularly different from liners.

⁴¹⁰ Parkinson, *Economics*, p. 10.

⁴¹¹ The *SS Dallington Court* was launched for Framlington Syndicate Limited on 3 September 1929 with 6,889 grt. The vessel served for 36 years, and was broken up in Belgium in 1965. www.benjido.co.uk – [accessed 1 February 2016]



Photo 1.12: *SS River Humber*, built by Hepples (1919)⁴¹²

Based upon information contained in Appendix 3.0, it becomes extremely difficult to establish the importance of the two regions in terms of their shipbuilding capabilities. The North-East Coast of England certainly had the greater tonnage output, but the West of Scotland had more large shipbuilders. Ignoring the two exceptional vessels launched by John Brown during the 1930s (*RMS Queens Mary* and *Elizabeth*), it would now be pertinent to compare the volume of liners built between the two regions, by examining the grt built for certain liner companies in specific shipbuilding yards.

An appraisal of the larger shipbuilding yards employed on the West of Scotland and the North-East Coast of England may reveal where liner companies preferred to have their ships constructed. The directors of shipping companies often held shares in shipbuilding companies and this may have influenced the placing of orders, but certain shipbuilders likewise held shares in shipping companies, which may have influenced their pricing policies. Excluding the *RMS*

⁴¹² Hepples (1919) Limited built the *SS River Humber* for the Porthgain Steamship Company Limited and launched the vessel on 16 June 1920. *SS River Humber* was of 351 grt. The ship is very different from *SS Dallington Court* though both represent the tramp-shipping industry. www.tynebuiltships.co.uk – [accessed 1 February 2016]

Queens Mary and *Elizabeth*, Cunard built five vessels on the Tyne during the interwar period and four vessels on the Clyde, and these vessels were broadly of similar size.

Table 1.9: Schedule of ships built for Cunard during the interwar period on the West of Scotland and the North-East Coast of England

| Shipbuilder | Ship's name | Completed | Grt |
|---------------------|------------------|-----------|--------|
| William Beardmore | <i>Tyrrhenia</i> | 1922 | 16,243 |
| John Brown's | <i>Franconia</i> | 1923 | 20,158 |
| John Brown's | <i>Alaunia</i> | 1925 | 14,030 |
| Scotts of Greenock | <i>Albania</i> | 1920 | 12,768 |
| Hawthorn Leslie | <i>Andania</i> | 1922 | 13,950 |
| SH&WR | <i>Laconia</i> | 1922 | 19,680 |
| SH&WR | <i>Aurania</i> | 1924 | 13,984 |
| Armstrong Whitworth | <i>Ausonia</i> | 1922 | 13,912 |
| Armstrong Whitworth | <i>Ascania</i> | 1925 | 14,013 |

In 1912, the New Zealand Shipping Company acquired Federal Steam Navigation Company but continued to trade under its own name. By 1916, P&O acquired the New Zealand Shipping Company.

Table 1.10: Ships built for the Federal Steam Navigation Company during the interwar period on the West of Scotland and the North-East Coast of England

| Shipbuilder | Ship's name | Completed | Grt |
|------------------|------------------|-----------|--------|
| John Brown's | <i>Suffolk</i> | 1939 | 11,145 |
| William Hamilton | <i>Cornwall</i> | 1920 | 10,537 |
| SH&WR | <i>Middlesex</i> | 1921 | 8,569 |

Almost two decades elapsed between the completion of *SS Cornwall*, built by William Hamilton and *MV Suffolk*, built by John Brown.

J P Corry & Company, William Milburn & Company, Thomas B Royden & Company and Tyser & Company formed the Commonwealth & Dominion Line in 1914, with 23 ships to operate services to Australia and New Zealand. In 1916, Cunard acquired the share capital of the company, though it continued to operate separately from its parent company. The North-

East Coast of England built eleven vessels for the Commonwealth & Dominion Line whilst only one vessel was built on the West of Scotland.

Table 1.11: Schedule of ships built for Commonwealth & Dominion Line during the interwar period on the West of Scotland and the North-East Coast of England

| Shipbuilder | Ship's name | Built | Grt |
|--------------------|------------------------|--------------|------------|
| John Brown | <i>Port Wyndham</i> | 1935 | 8,580 |
| Hawthorn Leslie | <i>Port Kembla</i> | 1920 | 8,435 |
| Hawthorn Leslie | <i>Port Hunter</i> | 1922 | 8,437 |
| Hawthorn Leslie | <i>Port Hardy</i> | 1923 | 8,705 |
| SH&WR | <i>Port Hobart</i> | 1925 | 7,448 |
| SH&WR | <i>Port Huon</i> | 1927 | 8,021 |
| SH&WR | <i>Port Gisborne</i> | 1927 | 8,228 |
| SH&WR | <i>Port Fairy</i> | 1928 | 7,980 |
| SH&WR | <i>Port Alma</i> | 1928 | 8,400 |
| SH&WR | <i>Port Chalmers</i> | 1933 | 8,535 |
| SH&WR | <i>Port Townsville</i> | 1935 | 8,661 |
| SH&WR | <i>Port Jackson</i> | 1937 | 9,687 |

Cunard gained control of the Commonwealth and Dominion Line in 1916, and several Cunard directors joined its board. After the First World War, the Commonwealth and Dominion Line adopted Cunard's funnel colours, but otherwise remained largely autonomous within the Cunard group.⁴¹³ Whilst Table 1.11 reveals a tonnage weighted in favour of the North-East Coast of England, this did not become the norm within the Cunard group. T & J Brocklebank, another Cunard subsidiary, built eighteen liners on the West of Scotland during the interwar period and no vessels upon the North-East Coast of England.

Lord Inchcape became chairman of British India Steam Navigation Company in 1913 and managed its merger with the P&O group of companies in 1914, though it continued with its own identity. By 1922, British India Steam Navigation Company had more than 160 ships in its fleet and during the interwar period, the North-East Coast of England built 29 vessels and

⁴¹³ Hope, *A new history*, p. 363.

shipbuilders on the Clyde built 22. Shaw Savill & Albion Line was a liner company under the control of Lord Kylsant during the interwar years, until taken over by Furness Withy,⁴¹⁴ the company arranged the construction of five ships on the North-East Coast of England and four vessels on the West of Scotland. The vessels built are set out in Table 1.12.

Table 1.12 Ships built for Shaw Savill & Albion Line during the interwar period on the West of Scotland and the North-East Coast of England

| Shipbuilder | Ship's name | Completed | Grt |
|------------------------|-------------------------|------------------|------------|
| Palmers Shipbuilding | <i>Maimoa</i> | 1920 | 8,011 |
| SH&WR | <i>Zealandic</i> | 1928 | 8,281 |
| SH&WR | <i>Coptic</i> | 1928 | 8,281 |
| SH&WR | <i>Dominion Monarch</i> | 1939 | 27,155 |
| Armstrong Whitworth | <i>Tairoa</i> | 1920 | 7,983 |
| Fairfield Shipbuilding | <i>Taranaki</i> | 1928 | 8,286 |
| Fairfield Shipbuilding | <i>Karamea</i> | 1928 | 8,281 |
| Alexander Stephen | <i>Matakana</i> | 1921 | 8,048 |
| Harland & Wolff | <i>Wairangi</i> | 1935 | 10,779 |

Furness Withy acquired Shaw Savill & Albion during 1932 resulting from the collapse of the RMSPC.⁴¹⁵

The exercise of appraising the liner tonnage built on the North-East Coast of England and the West of Scotland could be quite endless. However, the total merchant tonnage built in each region may reveal the extent to which there was compatibility of the shipyards output in both regions. Table 1.13 clearly shows that there is a strong correlation coefficient between the two region's output of merchant ships built during the interwar years, where the product moment correlation coefficient is 0.9116. This is regardless of whether the vessel was a cargo vessel, coaster, passenger ship, barge, tanker, yacht or a service or fishing vessel. Further emphasis

⁴¹⁴ Johnman and Murphy, *British Shipbuilding*, p. 39.

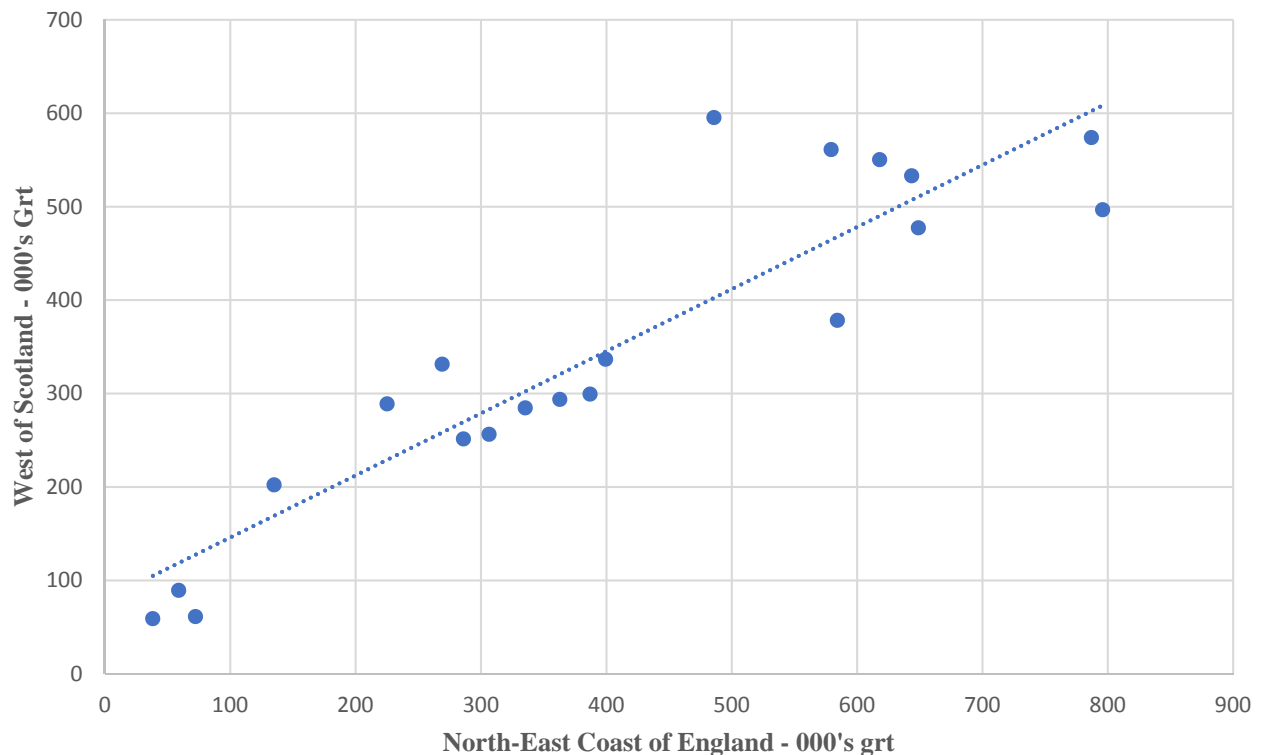
⁴¹⁵ *Ibid.*, p. 38.

attaches to the data when transferred to a scatter diagram with a line of best fit applied, and this is set out in Diagram 1.20.

Table 1.13: Analysis of the relationship between merchant shipbuilding on the North-East Coast of England and the West of Scotland during the interwar years, 1920-1939

| | North-East Coast of England | West of Scotland | | | Xsq | Ysq | XY |
|------|-----------------------------------|---------------------|-----------|-----------|-------------|-------------|---|
| 1920 | 795.973 | 496.659 | 394.9839 | 150.71375 | 156012.2813 | 22714.63444 | 59529.50476 |
| 1921 | 649.023 | 477.271 | 248.0339 | 131.32575 | 61520.81555 | 17246.45261 | 32573.23794 |
| 1922 | 618.141 | 550.247 | 217.1519 | 204.30175 | 47154.94767 | 41739.20505 | 44364.51319 |
| 1923 | 387.118 | 299.293 | -13.8711 | -46.65225 | 192.4074152 | 2176.43243 | 647.118025 |
| 1924 | 584.341 | 378.152 | 183.3519 | 32.20675 | 33617.91923 | 1037.274746 | 5905.168805 |
| 1925 | 485.882 | 595.338 | 84.8929 | 249.39275 | 7206.80447 | 62196.74375 | 21171.67379 |
| 1926 | 225.221 | 288.893 | -175.7681 | -57.05225 | 30894.42498 | 3254.95923 | 10027.96558 |
| 1927 | 399.452 | 336.549 | -1.5371 | -9.39625 | 2.36267641 | 88.28951406 | 14.44297588 |
| 1928 | 787.045 | 573.828 | 386.0559 | 227.88275 | 149039.1579 | 51930.54775 | 87975.48015 |
| 1929 | 579.442 | 561.052 | 178.4529 | 215.10675 | 31845.43752 | 46270.9139 | 38386.42335 |
| 1930 | 643.678 | 532.899 | 242.6889 | 186.95375 | 58897.90218 | 34951.70464 | 45371.59994 |
| 1931 | 286.023 | 251.322 | -114.9661 | -94.62325 | 13217.20415 | 8953.559441 | 10878.46602 |
| 1932 | 72.326 | 61.249 | -328.6631 | -284.6963 | 108019.4333 | 81051.95476 | 93569.15208 |
| 1933 | 38.255 | 58.878 | -362.7341 | -287.0673 | 131576.0273 | 82407.60602 | 104129.0806 |
| 1934 | 58.849 | 89.307 | -342.1401 | -256.6383 | 117059.848 | 65863.19136 | 87806.23652 |
| 1935 | 135.031 | 202.088 | -265.9581 | -143.8573 | 70733.71096 | 20694.90838 | 38260.00088 |
| 1936 | 269.109 | 331.384 | -131.8801 | -14.56125 | 17392.36078 | 212.0300016 | 1920.339106 |
| 1937 | 335.396 | 284.532 | -65.5931 | -61.41325 | 4302.454768 | 3771.587276 | 4028.285449 |
| 1938 | 362.924 | 293.634 | -38.0651 | -52.31125 | 1448.951838 | 2736.466877 | 1991.232962 |
| 1939 | 306.553 | 256.33 | -94.4361 | -89.61525 | 8918.176983 | 8030.893033 | 8462.914711 |
| | 8019.782 | 6918.905 | 0 | 0 | 1049052.629 | 557329.3552 | 697012.8368 |
| | | | 400.9891 | 345.94525 | | | 5.84668E+11 764635.7468 |
| | | | | | | | Product moment correlation = 0.91156193 |

Diagram 1.20 Analysis of the relationship between merchant shipbuilding on the North-East Coast of England and the West of Scotland during the interwar years, 1920-1939



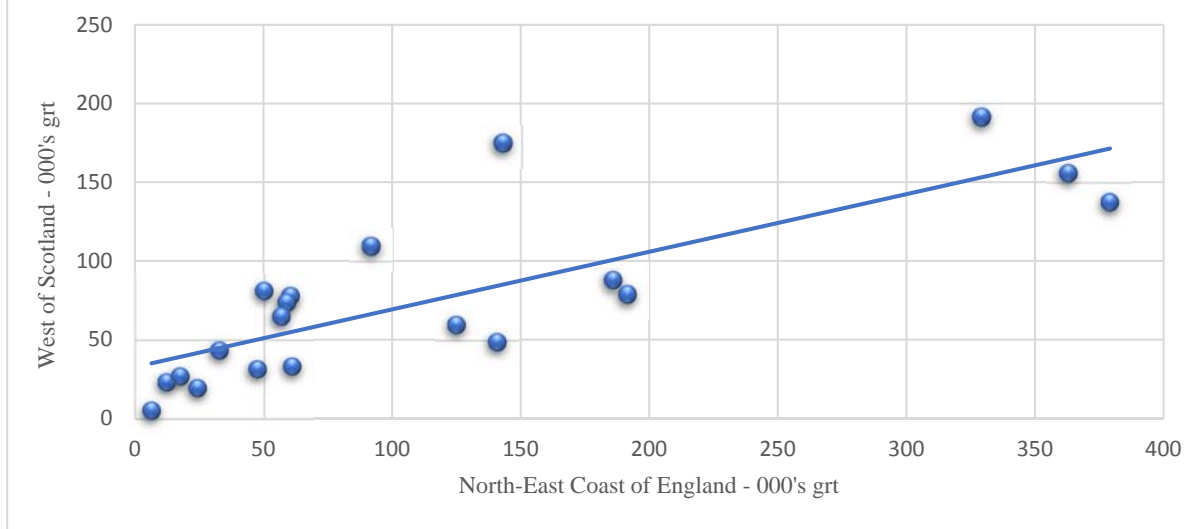
An appraisal of tonnage built for foreign shipping companies still reveals a positive level of correlation (see Table 1.14). In relation to the foreign tonnage, the product moment correlation coefficient between the two regions is 0.31171, not as strong as that produced in relation to the total merchant tonnage, but nevertheless a positive coefficient between the two regions. Whether greater divergence would be apparent if the data were broken down in detail to reveal the correlation coefficient in relation to pure tramp shipping or liner shipping is unknown and would be extremely unreliable given the manner by which shipping companies could operate both tramp vessels and liners. The main conclusion is that the tonnage built on the West of Scotland followed a similar pattern to that built on the North-East Coast of England.

Table 1.14 Analysis of the relationship between foreign merchant tonnage built on the North-East Coast of England and the West of Scotland during the interwar years, 1920-1939

| | North- East Coast of England | West of Scotland | | | | | |
|------|---------------------------------------|---------------------|-----------------|-----------------|----------------|----------------|--------------------|
| | Grt | Grt | | | Xsq | Ysq | XY |
| 1920 | 379.178 | 137.654 | 260.3224 | 61.5753 | 143776 | 18948.6 | 16029.41686 |
| 1921 | 363.095 | 155.828 | 244.2394 | 79.7493 | 131838 | 24282.4 | 19477.90897 |
| 1922 | 142.982 | 174.742 | 24.1264 | 98.6633 | 20443.9 | 30534.8 | 2380.389035 |
| 1923 | 60.265 | 77.751 | -58.5906 | 1.6723 | 3631.87 | 6045.22 | -97.9781309 |
| 1924 | 58.778 | 73.623 | -60.0776 | -2.4557 | 3454.85 | 5420.35 | 147.5355662 |
| 1925 | 91.872 | 109.068 | -26.9836 | 32.9893 | 8440.46 | 11895.8 | -890.168726 |
| 1926 | 50.05 | 80.956 | -68.8056 | 4.8773 | 2505 | 6553.87 | -335.582113 |
| 1927 | 56.637 | 64.711 | -62.2186 | -11.3678 | 3207.75 | 4187.51 | 707.2854902 |
| 1928 | 191.485 | 78.577 | 72.6294 | 2.4983 | 36666.5 | 6174.34 | 181.4463986 |
| 1929 | 185.834 | 87.477 | 66.9784 | 11.3983 | 34534.3 | 7652.23 | 763.4365478 |
| 1930 | 329.16 | 191.391 | 210.3044 | 115.3123 | 108346 | 36630.5 | 24250.67355 |
| 1931 | 140.694 | 48.678 | 21.8384 | -27.4008 | 19794.8 | 2369.55 | -598.388539 |
| 1932 | 24.304 | 19.283 | -94.5516 | -56.7958 | 590.684 | 371.834 | 5370.129036 |
| 1933 | 6.481 | 5.044 | -112.3746 | -71.0348 | 42.0034 | 25.4419 | 7982.501617 |
| 1934 | 12.439 | 23.014 | -106.4166 | -53.0648 | 154.729 | 529.644 | 5646.970275 |
| 1935 | 17.567 | 26.789 | -101.2886 | -49.2898 | 308.599 | 717.651 | 4992.489772 |
| 1936 | 47.407 | 31.297 | -71.4486 | -44.7818 | 2247.42 | 979.502 | 3199.593343 |
| 1937 | 32.748 | 43.173 | -86.1076 | -32.9058 | 1072.43 | 1863.91 | 2833.435159 |
| 1938 | 125.208 | 59.51 | 6.3524 | -16.5688 | 15677 | 3541.44 | -105.251328 |
| 1939 | <u>60.928</u> | <u>33.009</u> | <u>-57.9276</u> | <u>-43.0698</u> | <u>3712.22</u> | <u>1089.59</u> | <u>2494.92725</u> |
| | <u>2377.112</u> | <u>1521.575</u> | | | <u>540445</u> | <u>169814</u> | <u>94430.77003</u> |
| | | | 118.8556 | 76.0788 | | | |
| | | | | | | | 91775184440 |
| | | | | | | | 302944.1936 |

Product moment correlation = 0.31171

Diagram 1.21 Analysis of the relationship between foreign merchant tonnage built on the North-East Coast of England and the West of Scotland during the interwar years, 1920-1939



Conclusions

The comparison of these two shipbuilding regions reveals a complex and entangled experience. The absolute volume of output aside, the detailed comparison of the shipbuilding in these two regions demonstrated significant differentiation in terms of product specialisation and technological innovation. At times, and in particular fields of production, the regional patterns of output moved in different directions. During these moments, it appears that one region was outperforming the other and thus may have found an answer to the relative decline of British shipbuilding. These phases also suggest that the balance of shipbuilding power was shifting within the UK. However, these periods were short-lived. More usually, the cycles of output synchronised, moving in the same direction though with suggestions of stronger performance in one or another region in particular fields of production. Thus, viewed overall, their experiences of the interwar period were very similar. Neither region was able to reverse the UK's declining share of world shipbuilding output. Given their different profiles of output, there was neither a technological panacea nor a profitable new field of shipbuilding that would

transform a region's (or for that matter national) fortunes. Of course, comparison of output can only take us so far. Shipbuilding took place within a changing environment in which the fortunes of the world economy, post-war great power diplomacy and shifting relations between government, finance and industry all played a part. The following chapters will examine different facets of that environment in turn and their impact upon these shipbuilding regions.

CHAPTER TWO: NAVAL SPENDING, LIMITATION TREATIES AND NAVAL SHIPBUILDING IN THE REGIONS OF THE NORTH EAST AND CLYDESIDE

Introduction

The nucleus of this chapter is the government's attitude towards naval expenditure, the role of the limitation treaties, and their regional impact upon naval shipbuilding during the interwar period. Various studies have explored the interdepartmental dynamics between the Treasury that sought retrenchment and the Admiralty concerned to maintain the British Empire's global status through naval power.¹

As for the limitation treaties, opinion has historically divided the governmental motives and their place in the political process, the wisdom or the success of the treaties, and the significance of greater power competition. Naval literature is quite wide on the subject of the limitation treaties, and along with the historians already mentioned, the works of Macdonald, Braeman, McBride, Bell and Berg have provided valuable insights into different aspects taken by the main actors.²

As regards the regional impact of such patterns of naval expenditure, the policies adopted by the British government had a significant effect upon the shipbuilding industry as it struggled to maintain its viability during difficulties encountered in the interwar years. The works of Jones,

¹ Stephen Roskill, *Naval Policy between the Wars: The period of Anglo-American Antagonism 1919-1929* (London: George Allen and Unwin, 1968); George C Peden, *British Rearmament and the Treasury: 1932-1939* (Edinburgh: Scottish Academic Press, 1979); George C Peden, *Keynes, The Treasury and British economic policy – studies in economic and social history* (Basingstoke: MacMillan Education, 1988); Peebles, *Warshipbuilding*; Andrew McDonald, 'The Geddes Committee and the Formulation of Public Expenditure Policy, 1921-1922', *Historical Journal*, vol. 32, no. 3 (1989), pp. 643–74.

² James Ramsay Macdonald, 'The London Naval Conference 1930', *Journal of the Royal Institute of International Affairs*, vol. 9, no. 4 (1930), pp. 429–51; John Braeman, 'Power and Diplomacy: The 1920s Reappraised', *Review of Politics*, vol. 44, no. 3 (1982), pp. 342–69; William M McBride, 'The Unstable Dynamics of a Strategic Technology: Disarmament, Unemployment, and the Interwar Battleship', *Technology and Culture*, vol. 38, no. 2 (1997), pp. 386–423; Ernest Andrade Jnr, 'The Cruiser Controversy in Naval Limitation Negotiations, 1922-1936', *Military Affairs*, vol. 48, no. 3 (1984), pp. 113–20; Meredith William Berg, 'Admiral William H. Standley and the Second London Naval Treaty, 1934-1936', *The Historian*, vol. 33 no. 2 (1971), pp. 215–36; Bell, *Royal Navy*.

Pollard & Robertson, Johnman & Murphy, Johnston, Todd and Dougan have all provided support for the work undertaken for this thesis, highlighting the extent to which increasing difficulties were encountered.³

Peden examines government policies and the interaction of the Treasury and Admiralty during the interwar period, and explains that naval shipbuilding, as managed by the limitation treaties, was used as an instrument of meeting government objectives for industry rather than a mechanism of international disarmament.⁴ Roskill appraises naval policy in terms of Anglo-American relations and the extent to which they became stronger as the limitation treaties developed. Pollard rejects the idea that shipbuilding decline began prior to 1914, and makes the case that the government could have arrested decline.⁵ McKercher argues that government was committed to limitations on domestic political grounds.⁶ Whilst the First World War appeared as a 'war to end all wars' there was a mood within Britain to refrain from massive expenditure for naval armaments that might never be required again. In view of the stringency imposed by the Treasury, the Admiralty competed with other ministries supporting domestic social policies.⁷ Even Churchill as Chancellor in 1924 was reluctant to damage domestic programmes by providing funds to construct 'silly little cruisers', a somewhat surprising comment from a former First Lord of the Admiralty.⁸ Whilst MacDonald had been critical following the Geneva Conference in 1927, he followed as Prime Minister in 1929 the 'blueprint' developed by Austen Chamberlain.⁹ Throughout the years 1920 to 1936, British government was too preoccupied with dimensions of the limitation treaties to understand their relationship

³ Jones, *Shipbuilding*; Pollard and Robertson, *British Shipbuilding*; Johnman and Murphy, *British Shipbuilding*; Johnston, *Ships*; Todd, 'Strategies'; Dougan, *The History*.

⁴ Peden, *British Rearmament*, p. 5.

⁵ Pollard and Robertson, *British Shipbuilding*; Pollard, 'Laissez-faire', pp. 98-115.

⁶ Brian McKercher, 'The Politics of naval arms limitations in Britain in the 1920s', *Diplomacy & Statecraft*, vol. 4, no. 3 (1993), p. 35.

⁷ *Ibid.*, p. 36.

⁸ *Ibid.*, p. 48.

⁹ *Ibid.*, p. 50.

to the regional distribution of naval shipbuilding and the threat of decline.¹⁰ Berg's appraisal of Admiral Standley and the second London Naval Conference is somewhat misleading as a 'qualified success.'¹¹ However, immense dissatisfaction materialised. Japan had since 1922 sought equality with Britain and the US, though a combined Anglo-American effort prevented this. It became evident at an early stage that Japan would withdraw from the LNT 1936 due to demands for complete naval equality with Britain and the US.¹² Attempts by Britain to ensure that Japan conformed to the proposed discussions caused 'suspicion, frustration and fear' in the minds of the US President and his delegation.¹³ While Pollard and Peden are authorities on the macro-level relationship between government and industry, Jones provides a yard-by-yard appraisal of shipbuilding statistics and an account of how industry operated in the interwar period.¹⁴ Peden argues strong links between anti-proliferation of armaments lobby and economic policy rather than international security.¹⁵

This chapter will first detail the financial restraints arising from government retrenchment and naval limitation treaties upon warship construction. Second, it will examine construction of Admiralty contracts and the extent to which competition existed between naval dockyards and private shipbuilders on the North-East Coast of England and the West of Scotland, identifying the main competitors for those Admiralty contracts. Given the diminished opportunities, this chapter will then examine whether naval shipbuilding was an appropriate object of rationalisation. It will then attempt to build on a yard-by-yard statistical analysis to provide a fuller revised picture of the implications of Admiralty orders, and will analyse the geographical distribution of contracts and their implications for the shipbuilding industry in the West of

¹⁰ Bell, *Royal Navy*, p. 46.

¹¹ Berg, 'Admiral Standley', p. 215.

¹² *Ibid.*, p. 218.

¹³ *Ibid.*, p. 224.

¹⁴ Jones, *Shipbuilding*.

¹⁵ Peden, *British Rearmament*, p. 5.

Scotland and the North-East Coast of England.¹⁶ Finally, the chapter will assess whether the government compromised Britain's naval strength during the interwar period, because of cost-cutting measures.

Government retrenchment and warship construction: from Colwyn to Geddes

By 1921, the Royal Dockyards employed 57,500 workers, costing £9.5 million per annum.¹⁷ The 1920–21 work programmes required only 41,500 men. A committee appointed by government, under Lord Colwyn's leadership, investigated employment in the Royal Dockyards.¹⁸ Colwyn proposed that the Royal Dockyards could undertake merchant shipbuilding, despite the main shipbuilding centres experiencing a downturn in trade.¹⁹ The construction of Colwyn's oil tankers enabled the Royal Dockyards' workforce to increase to 45,000 operatives during 1920–21.²⁰ Despite new work, the Admiralty reduced the workforce in the Royal Dockyards as work became scarce.²¹ Notwithstanding government policy, as Peden comments, 'at the best of times labour mobility in the interwar period was low.'²² With the exception of Rosyth, few opportunities existed for employees discharged from the Royal Dockyards.

By July 1920, two oil tankers were under construction at the Royal Dockyards and arrangements existed for two further vessels. Sir Clement Kinloch-Cooke, Unionist MP for Devonport, saw no reason why the Royal Dockyards could not compete with private

¹⁶ Appendices 1.0 and 2.0 provide an analysis of shipbuilding on the North-East Coast of England and the West of Scotland during the interwar period.

¹⁷ HOCD, Navy Estimates 1920-21, 18 March 1920, vol. 129, cc2441-551.

¹⁸ 'Merchant shipbuilding in Royal dockyards: recommendations to Admiralty', *Manchester Guardian*, 5 March 1920, p. 6.

¹⁹ NA, CAB/24/94, Explanatory of the Navy Estimates 1919-1920, p. 15.

²⁰ NA, CAB/24/98, Memorandum for the Cabinet, Naval Estimates and Naval Policy, 13 February 1920, p. 2.

²¹ NA, CAB/24/94, Statement of the First Lord of the Admiralty, p. 15.

²² Peden, *Keynes*, p. 31.

shipbuilders.²³ According to Walter Hume Long, First Lord of the Admiralty, mercantile shipbuilding in the Royal Dockyards should only be a ‘temporary expedient.’²⁴ Colwyn’s report highlighted that the Royal Dockyards should not receive special treatment in the construction of merchant ships.²⁵ A Cabinet memorandum on the Royal Dockyards identified poor relationships with shipowners, rigid demarcation, and poor workmanship.²⁶ George Lambert, MP and Liberal Party chairman 1919–21 and Civil Lord of the Admiralty 1905–1915, complained that government departments could not compete with commercial enterprise.²⁷ Lambert favoured dismissing dockyard staff if they were not required and believed that, in private shipyards, ‘one man turns out the work of two in the Royal Dockyards.’²⁸ Colwyn considered using some Royal Dockyards as ports, but Devonport was the only one suitable.²⁹ Viscountess Astor, Conservative MP for Plymouth and Devonport, lobbied for assistance for her unemployed constituents, and others were amazed at the vagueness of Colwyn’s Report and the ‘absence of any definite proposal.’³⁰ Upon its publication, the Shipping Controller demanded that the Admiralty went ‘full-blast’ with redundancies of almost 800 workers per week.³¹ Against Colwyn’s advice, the Controller believed opportunities existed to use certain

²³ HOCD, Navy Estimates 1920-21, 18 March 1920, vol. 126, cc2441-551. Kinloch-Cooke became Unionist MP for Devonport in 1910, and held his seat until his defeat at the general election in 1923. He returned to the House of Commons the following year as MP for Cardiff East, a seat he held until defeated at the 1929 general election. During his time at Westminster, he served as chairman of the Naval and Dockyards Committee for fourteen years.

²⁴ NA, CAB/24/94, Memorandum for the Cabinet by the First Lord of the Admiralty, Report of Lord Colwyn’s Committee, 11 December 1919.

²⁵ NA, CAB/24/94, Report of Lord Colwyn’s Committee on Work in H M Dockyards, 11 December 1919, p. 3.

²⁶ NA, CAB/24/97, Memorandum for the Cabinet by the First Lord of the Admiralty, Dockyard Policy and Labour, 26 January 1920, p. 2.

²⁷ Lambert was the fifth-longest serving MP of the twentieth century. First elected as a Liberal MP in 1891, he served as the Civil Lord of the Admiralty between 1905 and 1915. His political career continued for 49 years.

²⁸ HOCD, Navy Estimates 1920-21, 18 March 1920, vol. 126, cc2441-551.

²⁹ NA, CAB/24/94, Report of Lord Colwyn’s Committee, p. 15.

³⁰ Considerable time was taken over the Navy Estimates on 18 March 1920, and George Lambert MP for South Molton felt that the workforce should be reduced, as they could not compete with the private shipyards. Mr A Wilkie, MP for Dundee, felt that the private shipyards should have the opportunity of taking over some of the capacity of the Royal Dockyards to build merchant shipping. However, Sir Shirley Benn, Sir C Kinloch-Cooke and Viscountess Astor believed the Royal Dockyards were capable of undertaking merchant shipbuilding, although with reservations; see HOCD, Navy Estimates 1920-21, 18 March 1920, vol. 126, cc2441-551.

Viscountess Astor entered politics, in 1919 winning her seat in Plymouth and becoming the first woman to sit as a Member of Parliament in the House of Commons.

³¹ NA, CAB/24/97, Dockyard Policy, p. 1.

Royal Dockyards as repair facilities under lease arrangements with private shipbuilders.³² The Admiralty considered breaking up obsolete warships at Devonport to avoid unemployment.³³ During December 1920, the Admiralty introduced short-time working, and whilst the reduction in hours delayed the completion of vessels, savings materialised.³⁴ The Earl of Onslow, the Civil Lord of the Admiralty, believed the scheme was prejudicial to ‘efficiency and economy’, as insufficient work existed to keep operatives fully employed.³⁵ A Cabinet committee report in January 1923 underlined the belief that the Royal Dockyards were inefficient owing to infrequency of work.³⁶ The sketch Navy Estimates presented to Parliament during March 1921 confirmed that the Admiralty still deemed the capital ship ‘the final arbiter in naval war.’³⁷ However, given war debt, the Navy Estimates for 1920–21 anticipated no new construction, and therefore, no prospect of alleviating the Royal Dockyards’ unemployment.³⁸ According to Walter Long, in February 1920 naval limitations made sense and because of the desire for ‘a union between the English speaking nations’, whether in the form of ‘an Alliance or an Entente with the US.’³⁹ Nine months later Walter Long warned that unless government commenced a programme of construction, Britain would have to accept that it was no longer ‘supreme upon the seas.’⁴⁰ Given the US building programme, Walter Long emphasised the importance of expanding the British fleet.⁴¹ Britain had numerous capital ships involved at the Battle of Jutland in 1916, beforehand and thereafter. However, in his report to the Cabinet, Long

³² *Ibid.*, p. 2.

³³ NA, CAB/24/109, Weekly application of matters of naval interest, 9 July 1920.

³⁴ NA, CAB/24/97, Dockyard Policy, p. 1.

³⁵ NA, CAB/24/117, Memorandum for the Cabinet by the Civil Lord of the Admiralty, Short time in the dockyards, 29 December 1920; NA, CAB/23/26, Conclusions of Cabinet meeting – Unemployment-short time in HM dockyards, 5 August 1921.

³⁶ NA, CAB/24/160, Cabinet Committee report on Reduction of National Expenditure, 20 January 1923, p. 22.

³⁷ NA, ADM 116/3442, Note by Major Harding: The function of the capital ship, 18 September 1919, p. 9.

³⁸ ‘The Navy Estimates for 1920–21’, in *The Shipbuilder*, A G Hood (ed.) (1920), p. 264.

³⁹ NA, CAB/24/98, Naval Estimates and Naval Policy, p. 3.

⁴⁰ NA, CAB/24/115, Memorandum for the Cabinet by the First Lord of the Admiralty on Naval Policy and Construction, 22 November 1920, Part 1, p. 1. Walter Long took up politics in 1880, when he became the Conservative MP for North Wiltshire. In his later career, he became heavily involved with Irish politics. In January 1919, Walter Long took office as First Lord of the Admiralty, a post he held for two years before retiring to the House of Lords.

⁴¹ ‘The Navy Estimates for 1920–21’, in *The Shipbuilder*, A G Hood (ed.) (1920), p. 264.

highlighted that Britain by November 1920, had 36 vessels categorised as either Battleships and Battle Cruisers.⁴² Furthermore, Long was concerned that without a naval construction programme the Royal Navy would remain in this state, while by 1925, the US would have twelve capital ships of over 40,000 sdt, as well as four ships of over 30,000 sdt, and Japan would have at least eight such ships by 1925 and sixteen by 1928, all of which would be over 40,000 sdt.⁴³ Despite the Admiralty's concern about US strength, Braeman observes 'that the political and intellectual atmosphere in the US during the 1920s opposed large scale military and naval expenditure.'⁴⁴ Long also emphasised that the Admiralty were concerned that vessels transferred from private yards after the Armistice were deteriorating because of their unfinished state, which he believed 'a most wasteful policy' that as such, 'affords a valuable object-lesson to the agitator, and is doing great harm to the government in the dockyard towns.'⁴⁵



Photo 2.0: HMS Hood under construction at John Brown⁴⁶

⁴² NA, CAB/24/115, Memorandum for the Cabinet by the First Lord of the Admiralty on Naval Policy and Construction, 22 November 1920, Appendix One, pp. 6-7.

⁴³ NA, CAB/24/115, Naval Policy, p. 2.

⁴⁴ Braeman, 'Power', p. 345.

⁴⁵ NA, CAB/24/115, Naval Policy, p. 2.

⁴⁶ HMS Hood was launched on Thursday, 22 August 1918 at John Brown, Clydebank, and completed in 1920. She had a length of 860.5 feet, and a tonnage of 42,100 sdt. www.flickr.com – [accessed 1 February 2016]

In 1920, Britain abandoned the ‘two power standard’,⁴⁷ although remained committed to maintaining a navy equal to any world power.⁴⁸ The Admiralty was heavily critical: ‘we must remember that we are more dependent upon the sea ... than any other nation.’⁴⁹ Long believed air power would become an ‘essential adjunct’ to the fleet in the future. By late 1920, the Admiralty had *HMS Argus*, an aircraft carrier of 14,450 sdt, built by William Beardmore and launched on 2 December 1917. The Admiralty was also completing further aircraft carriers, *HMS Glorious* at H&W Belfast, as well as *HMS Eagle* and *HMS Hermes* at Armstrong Whitworth’s shipyard on Tyneside, which was also updating *HMS Furious*.⁵⁰

In August 1921, the Cabinet appointed Sir Eric Geddes to examine government expenditure.⁵¹ Geddes’s review proposed reducing the Naval Estimates for 1921–22 to £60 million from £82.5 million.⁵² The Geddes report marked ‘the end of the expansionary phase of post war social reform.’⁵³ The Admiralty was concerned that the proposed cuts would end the one power standard.⁵⁴ Because of alarm expressed by the Admiralty, a committee led by Winston Churchill reviewed the Geddes report. Churchill’s review identified savings totalling £20.6 million compared to the £22.5 million reported by Geddes in respect of 1921–22, with further economies identified for 1922–23.⁵⁵ Churchill criticised Geddes, as ‘Geddes’s committee do not appear to have taken into consideration the diminution in the purchasing power of money.’⁵⁶

⁴⁷ The ‘two power standard’ meant the Royal Navy should maintain a battle fleet equal to the combined strength of the next two largest navies in the world. Peebles, *Warshipbuilding*, p. 98.

⁴⁸ Serious doubts arose with the ‘one power standard.’ Johnman and Murphy, *British Shipbuilding*, p. 18.

⁴⁹ HOCD, vol. 129, cc2441-551.

⁵⁰ J J Colledge, *Ships of the Royal Navy: An historical index* (Newton Abbot: David & Charles, 1969), pp. 180, 223, 234 and 264.

⁵¹ NA, CAB/24/110, Extract from the final conclusions of the 23rd Meeting of the Finance Committee on the formation of a Committee on National Expenditure, 7 August 1920, pp. 2-3.

⁵² The purchasing power of £46 million was equivalent of £22 million in 1914.

⁵³ George C Peden, *British Economics and Social Policy, Lloyd George to Margaret Thatcher*, 2nd edition (Oxford: Philip Allen, 1990), p. 55.

⁵⁴ NA, CAB/23/29, Conclusions of Cabinet meeting – National Expenditure, 15 February 1922, p. 3.

⁵⁵ Rodney Lowe, ‘The ministry of labour, 1916-19: a still, small voice?’ in *War and the state, the transformation of British government, 1914-1919*, ed. Kathleen Burk (London: George Allen & Unwin, 1982), p. 109.

⁵⁶ NA, CAB/24/132, Report of Cabinet Committee to examine Part 1 (Defence Departments) of the Report of the Geddes Committee on National Expenditure, 4 February 1922, p. 4.

The total economies proposed by Geddes relating to supply estimates totalled £87 million in a total budget of £528 million, with the Admiralty bearing approximately 26 percent of the proposed cutbacks.⁵⁷ Despite Geddes identifying specific savings of £14.5 million, in respect of the 1921–22 estimates his general recommendations were that savings of £22.5 million were appropriate. These savings took no account of economies arising from the Washington Naval Conference (WNC), which Geddes believed should be additional.⁵⁸ Churchill sympathised with the Admiralty, and noted the ease of proposing economies, whilst not bearing the responsibility ‘for seeing that the nation’s safety was maintained.’⁵⁹ The government’s dilemma, however, related more to whether the proposed cutbacks should lower the national debt or provide the opportunity to lower taxation.⁶⁰

Table 2.0: Comparison of proposed savings identified in respect of the 1921–22 and 1922–23 naval estimates⁶¹

| | 1921–22 | 1922–23 |
|---------------------------------------|----------------|----------------|
| | £ | £ |
| Original naval estimates | 82,479,000 | 81,183,800 |
| Geddes committee’s recommendations | 60,000,000 | 60,000,000 |
| Cabinet committee’s recommendations | 61,883,800 | 61,883,800 |
| Savings proposed by Geddes | 22,479,000 | 21,183,800 |
| Savings proposed by Cabinet committee | 20,595,200 | 19,300,000 |

The WNC undermined the Admiralty’s calls for additional capital ships and this resulted in heavy discharges as various ships were decommissioned, although the government hoped that the discharged labour would find work within private shipyards.⁶² Given that four-fifths of the

⁵⁷ Andrew McDonald, ‘The Geddes Committee’, p. 643.

⁵⁸ NA, CAB/24/132, Report of Cabinet Committee, p. 4.

⁵⁹ *Ibid.*, p. 10.

⁶⁰ McDonald, ‘The Geddes Committee’, p. 647.

⁶¹ NA, CAB/24/132, Report of Cabinet Committee, p. 2.

⁶² *Ibid.*, p. 7.

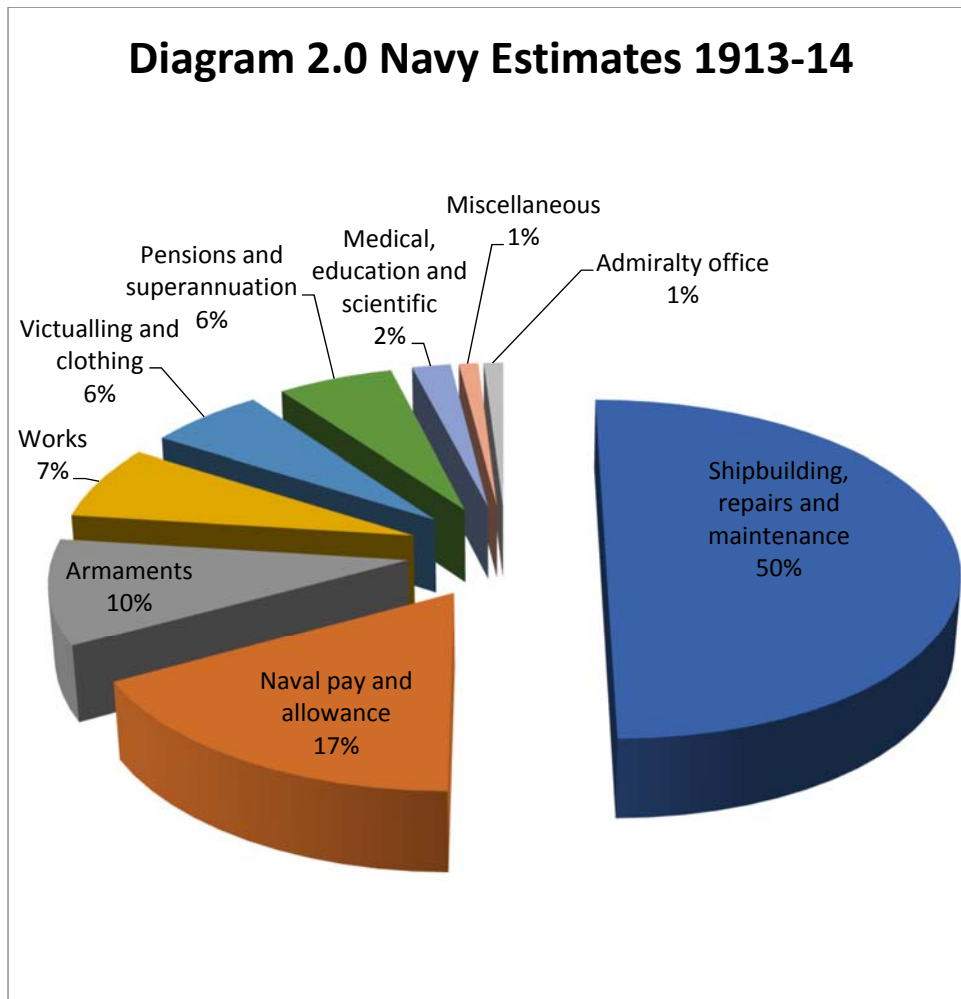
Royal Navy's personnel were from Chatham, Devonport and Portsmouth, Churchill felt that 'exceptional distress and congestion' might arise within these 'great-ganglion centres', which required consideration.⁶³ This was particularly so because the regions of the North-East Coast of England and the West of Scotland, along with the other shipbuilding districts, had surplus shipyard staff following the economic downturn that started during 1920, and would be unable to accommodate labour dismissed by the Royal Dockyards.⁶⁴

From 1918 to 1936 when the limitation treaties expired, the Admiralty and government disagreed over size and function of the Royal Navy. As a member of the cabinet committee reviewing cutbacks in naval expenditure, Churchill commented, 'the duty of the Admiralty is to give effect to the naval policy of the Government.' He also felt that Government should 'decide whether the policy is too costly to carry out or not, and if it is too costly to decide upon an alternative policy.'⁶⁵

⁶³ Ibid.

⁶⁴ Todd, 'Strategies', p. 57.

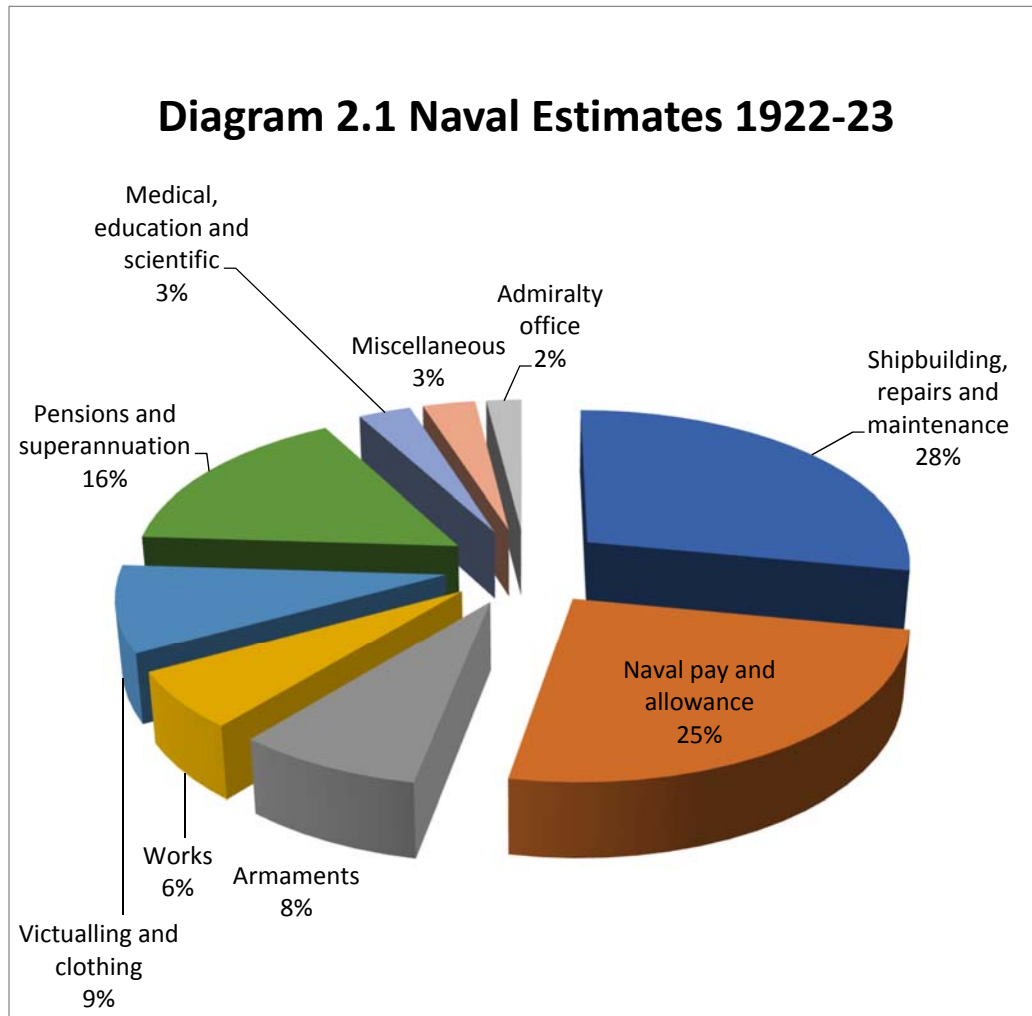
⁶⁵ NA, CAB/24/132, Appendices to Report of Cabinet Committee, p. 1.



Diagrams 2.0 and 2.1 analyse the full extent of the reduction in naval funding, and compares the expenditure in 1922–23 with pre-war expenditure in 1913–14. The Navy Estimates for 1913–14 totalled £48,732,621 compared to £64,883,700 in 1922–23. In the period between those estimates, the purchasing power of money diminished by as much as 250 percent. By 1922, the naval strength of 1914 would cost £115 million against the actual cost of £51 million.⁶⁶ During that period, the Admiralty provided greater funding for pensions and superannuation, resulting from the number of men discharged from the Royal Navy after 1918, as well as increased wages for those still in service. The steps taken by Geddes were necessary in view of naval expenditure arising not from capital outlay involved in building naval ships,

⁶⁶ Ibid., p. 3.

but from the increasing levels of expenditure relating to pensions and superannuation, which increased by over 300 percent between 1913–14 and 1922–23, and naval pay and allowance, which almost doubled, though with a reduced Royal Navy.



Limitation Treaties: striving for peace or a fiscal policy

On 10 July 1921, the US President, Woodrow Wilson invited government representatives from Britain, France, Italy and Japan to attend a conference in Washington to discuss the limitation of naval armaments. The Admiralty believed the League of Nations would have been an effective route by which to limit capital ships.⁶⁷ The government realised the international

⁶⁷ NA, ADM 116/3442, Minute: Some notes on capital ship policy, Undated, p. 23.

climate remained volatile.⁶⁸ However, as Braeman opines, from the years of Wilson through to Hoover, the pacifist movement developed and the situation with the formation of foreign policy was no different on either side of the Atlantic.⁶⁹ The conflict between military and Congress, whereby military service advisors overlooked ‘larger policy goals’ mirrored the manner in which the Treasury overruled the advice of the Admiralty. Nevertheless, the participating powers expected the US to lead the initiative in Washington, with an anticipation that proposals would merely reiterate the US policies of ‘open-door’ equalities of commercial opportunities.⁷⁰ Hoover’s support for capital ship reduction created difficulties between him and the naval officer corps.⁷¹ The WNC took place between 11 November 1921 and 6 February 1922, and focused on disarmament and Far Eastern affairs. The agreement’s main terms in relation to capital ships were:

1. Abandonment of capital ship building programmes;
2. Capital ship replacement tonnage should not exceed: British Empire 525,000 sdt, US 525,000 sdt, Japan 315,000 sdt, France 175,000 sdt, Italy 175,000 sdt;
3. Capital ships should be limited to a size not exceeding 35,000 sdt;
4. Capital ships’ armaments should be limited to a calibre of 16 inches;
5. No vessel of war other than a capital ship should carry a gun with a calibre in excess of 8 inches.⁷²

Additionally, Article IX provided that no aircraft carrier exceeding 27,000 sdt should be acquired or constructed and Article XI prevented the construction of cruisers exceeding 10,000

⁶⁸ HOCD, Capital ships, 2 March 1921, vol. 138, cc1965-72.

⁶⁹ Braeman, ‘Power’, p. 369.

⁷⁰ ‘Washington Conference, ‘The open door and commercial equity’, *Shields Daily Gazette and Shipping Telegraph*, 24 October 1921, p. 2.

⁷¹ McBride, ‘Unstable Dynamics’, p. 394.

⁷² ‘Some of the consequences of the Washington conference with regard to naval construction’, in *The Shipbuilder*, A G Hood (ed.) (1922), p. 58.

sdt.⁷³ Neither of these issues gave Britain any difficulty as its proposed aircraft carriers were well below 27,000 sdt and government had no wish to continue constructing the super-*Hood* battlecruisers.⁷⁴ In the event of no reduction in British naval facilities being possible, this would necessitate increasing expenditure to maintain the ‘one power standard.’⁷⁵ Braeman considers that the US delegation sought to strike a ‘hard bargain’ with the British delegates, and the need for Anglo-US parity in naval strength arose from the US fear of a ‘possible threat to the western hemisphere from British bases in the West Indies.’⁷⁶ Britain only fell in line with US demands because of economic pressure and the desire for an alliance with the US.⁷⁷ The treaty allowed the British government two new battleships, *HMS Rodney* and *HMS Nelson* of 35,000 sdt, rather than constructing four battlecruisers, each with a tonnage in excess of 40,000 sdt.⁷⁸

The Admiralty stated that due to the financial pressures of the early 1920s, it would be difficult to maintain the naval strength stipulated in 1921 and endorsed at the Washington Conference.⁷⁹ The government desired not to breach the Washington Treaty; however, with regard to cruiser construction, Britain had a degree of flexibility. In general, all contracting parties accepted that ‘special needs’ arose with this class of vessel because of Britain’s need to protect trade and her vast dominion. The estimates for 1924–25 proposed a building programme for eight new cruisers, but the Labour government reduced this to five, which according to the Admiralty meant failure to maintain the one power standard. The First Lord therefore raised concerns that if this were not revised back to eight, he could not ‘... contemplate the reception which our supporters would give to a programme which could easily and not unfairly be represented as

⁷³ HOCD, Treaties of Washington, 07 July 1922, vol. 156, cc717-61.

⁷⁴ Johnman and Murphy, ‘An Overview’, p. 231.

⁷⁵ NA, CAB/24/132, Report of Cabinet Committee to examine part 1, p. 5.

⁷⁶ Bell, *Royal Navy*, pp. 49-52; Braeman, ‘Power’, p. 355.

⁷⁷ Braeman, ‘Power’, p. 355.

⁷⁸ Roskill, *Naval Policy*, p. 332.

⁷⁹ NA, CAB/24/132, Report of Cabinet Committee to examine part 1, p. 5; Peebles, *Warshipbuilding*, pp. 98-99.

worse than that of the Socialist party.’⁸⁰ The Admiralty believed that 70 cruisers were required in the event of war, but in early 1925 Britain possessed only 51. The requirement for 70 cruisers, and therefore numerical superiority over the US, according to Andrade, arose from Britain’s requirement to have ‘scouts’ to operate with the main fleets and to provide protection to the trade routes with the dominions.⁸¹ Furthermore, the 1925–26 construction programmes contained no proposals for destroyers, despite the US being vastly superior to Britain, with the US fleet comprising 288 destroyers compared to Britain’s 205.⁸² As regards submarines, the position was even more disproportionate.

Table 2.1: Main fleets’ numbers of submarines in 1925⁸³

| | US | British Empire | Japan |
|------------------------|-----|----------------|-------|
| Built | 120 | 60 | 51 |
| Building and projected | 7 | 5 | 28 |

Churchill, however, noted the serious ramifications if the Admiralty commenced the naval programme, since there would be no possible reduction in taxation for at least three years (Table 2.2). Churchill emphasised that the proposed estimates were financially viable, but it was at the expense of everything else. He felt this would prompt ‘a formidable agitation at home.’⁸⁴ When the 1925 construction programme was prepared under the ten-year rule,⁸⁵ Britain would be ready to meet the challenges of a World War by 1935. Churchill concluded that the heads of all the armed services assumed that Britain was unlikely to face a major war during the next

⁸⁰ Ibid., p. 4.

⁸¹ Andrade, ‘The Cruiser’, p. 113.

⁸² NA, CAB/24/171, Admiralty note on Navy Estimates, p. 7.

⁸³ NA, CAB/24/171, Memorandum by the First Lord of the Admiralty – Navy Estimates, 4 February 1925, p. 8.

⁸⁴ NA, CAB/24/171, Memorandum by the Chancellor of the Exchequer – Navy Estimates, 29 January 1925, p. 3.

⁸⁵ Peebles, *Warshipbuilding*, p. 153.

ten years, though ‘the assumption should be reviewed every year by the Committee of Imperial Defence.’⁸⁶ Peden believes that the ten-year rule persuaded defence departments to accept lower estimates.⁸⁷

Table 2.2: Original programmes of naval construction 1924–29⁸⁸

| | 1924–25 | 1925–26 | 1926–27 | 1927–28 | 1928–29 |
|--------------------|-----------|-----------|------------|------------|------------|
| | £ | £ | £ | £ | £ |
| Under construction | 6,975,496 | 7,525,000 | 6,778,570 | 1,941,480 | 68,050 |
| 1925–26 programme | | 1,950,480 | 7,944,127 | 7,549,958 | 4,120,413 |
| 1926–27 programme | | | 3,693,700 | 9,984,800 | 7,852,000 |
| 1927–28 programme | | | | 3,234,540 | 8,608,900 |
| 1928–29 programme | | | | | 3,734,800 |
| Totals | 6,975,496 | 9,475,480 | 18,416,397 | 22,710,778 | 24,384,163 |

On 18 February 1925, the Cabinet concluded that the most appropriate course of action was the appointment of a committee to consider the replacement of cruisers and other warships.⁸⁹ In the course of discussions with the Treasury, the Admiralty conceded that it would reduce its programme of future construction; extend the lifespans of certain vessels; and eliminate certain ancillary vessels from the programme.⁹⁰

The Admiralty’s concessions would save £51 million in the six years to 1930–31. The Chancellor advised that the Admiralty’s proposed construction plan was acceptable to the Treasury, but only if the Admiralty deferred it for twelve months (Table 2.3). Churchill

⁸⁶ Winston Churchill, *The Second World War* (Boston: Houghton Mifflin, 1953), p. 58.

⁸⁷ Peden, *British rearmament*, p. 3; Peebles, *Warshipbuilding*, p. 137; and Roskill, *Naval Policy*, p. 560.

⁸⁸ NA, CAB/24/171, Navy Estimates, 29 January 1925, p. 11,

⁸⁹ NA, CAB/24/174, Report of the Naval Programme Committee, 13 July 1925, p. 1.

⁹⁰ NA, CAB/24/190, Naval Programme Committee report on cruisers, 14 December 1927, p. 1.

remarked that the Admiralty could make great strides in reducing the overall deferment by effecting major savings in other areas, and had ‘a great deal of latitude in this sphere.’⁹¹

Table 2.3: Revised programmes of naval construction 1925–32⁹²

| | 1925–26 | 1926–27 | 1927–28 | 1928–29 | 1929–30 | 1930–31 | 1931–32 |
|---------------|-----------|-----------|-----------|------------|------------|------------|--------------------------|
| Cruisers | | 4 | 3 | 3 | 3 | 3 | 4 |
| Destroyers | | | 9 | 9 | 9 | 9 | 9 |
| Submarines | | 6 | 6 | 6 | 6 | 6 | 6 |
| Other | | 9 | | 2 | 3 | 4 | 4 |
| | £ | £ | £ | £ | £ | £ | £ |
| Old programme | 7,647,877 | 6,953,950 | 2,197,634 | 68,055 | | | |
| New programme | Nil | 1,280,950 | 6,626,850 | 11,558,736 | 12,949,431 | 13,160,280 | 13,298,611 |
| Total | 7,647,877 | 8,234,900 | 8,824,484 | 11,626,791 | 12,949,431 | 13,160,280 | 13,298,611 ⁹³ |

Between June and August 1927, the main naval powers met in Geneva to consider reductions in armaments.⁹⁴ The Admiralty led discussions in Geneva, with Vice-Admiral W A H Kelly in the chair.⁹⁵ However, in view of the British proposals, Geneva became a conference for re-armament rather than disarmament, much to everyone’s amazement.⁹⁶ The US was anxious to extend the general reduction to size of ships and calibre of armaments. This proved difficult

⁹¹ NA, CAB/24/174, New Construction Programme, p. 3.

⁹² NA, CAB/24/174, Report of the Naval Programme Committee, p. 5.

⁹³ A large proportion of the expenditure in relation to the old programme would have related to the capital ships constructed in accordance with the WNT, in addition to construction undertaken in the Royal Dockyards. Whilst Table 2.3 reveals increased expenditure year on year, this increase cannot be attributed to inflation, as inflation for the 1920s was virtually zero.

⁹⁴ Charles More, *Britain in the twentieth century* (Harlow: Pearson Education Limited, 2007), p. 75.

⁹⁵ HOCD, Disarmament (Preparatory Commission), 30 November 1927, vol. 211 cc474-5.

⁹⁶ Andrade, ‘The Cruiser’, p. 114.

owing to the question of parity between British and US cruiser fleets.⁹⁷ The criticism of the British proposals in the US press indicated that Britain wanted to ‘perpetuate its naval mastery’; however, Britain believed that ‘parity’ meant inferiority owing to the extensiveness of the British Empire.⁹⁸ According to Andrade, both the US and Britain attempted to abrogate responsibility for Geneva’s failure, though the British delegates acknowledged that some of their proposals would never have been acceptable to the US.⁹⁹

Parliament’s reaction to this failure was overwhelming; Ramsey MacDonald, the opposition, Labour party leader, signalled dismay,¹⁰⁰ particularly at the poor preparation and military preponderance of the delegation, ‘which seriously contributed to the failure’, and he believed that the government was bound to pursue a policy to continue disarmament.¹⁰¹ Hoover likewise expressed disappointment at the outcome and excluded naval officers from the negotiating team in London in 1930.¹⁰² In view of the failure in Geneva, the Admiralty believed no workable formula existed to satisfy all parties. However, the US Secretary of State, Frank Kellogg’s proposals for a multilateral treaty appeared the best possible opportunity for further disarmament. The Foreign Office acknowledged that the US government wished to explore naval disarmament in ‘private conversations’, but considered the British government should lead the initiative. Encouraged by such proposals the Cabinet believed this might curtail cruiser construction.¹⁰³

⁹⁷ NA, CAB/24/209, London Naval Conference 1930, Memorandum respecting proposals to be submitted by H M Government in the United Kingdom to the Conference, Part III, Historical survey of the negotiations since the war for the limitations of naval armament, Undated, p. 23.

⁹⁸ Charles Loch Mowat, *Britain between the Wars 1918–1940* (London: Methuen, 1955), p. 345.

⁹⁹ Andrade, ‘The Cruiser’, p. 114; Raymond G O’Connor, ‘The Yardstick and Naval Disarmament in the 1920s’, *Mississippi Valley Historical Review*, vol. 45, no. 3 (1958), p. 443.

¹⁰⁰ Ramsay MacDonald was the Labour Member of Parliament for Aberavon from 15 November 1922 to 30 May 1929, when he became the MP for Seaham, County Durham.

¹⁰¹ HOCD, International Peace and Disarmament, 24 November 1927, vol. 210, cc2071-2206.

¹⁰² McBride, ‘Unstable Dynamics’, p. 398.

¹⁰³ NA, CAB/23/58, Conclusions of a meeting of the Cabinet, 22 June 1928, p. 6.

Despite their differences in Geneva, the two delegations agreed to remain in close contact.¹⁰⁴ During preliminary discussions in Geneva in April 1929, American representatives set out proposals to achieve an effective limitation of armaments.¹⁰⁵ The US indicated that provided both Britain and Japan agreed, the US would disarm in the spirit of economic common sense and desire to avoid the ‘dangers of war.’¹⁰⁶ In reality, no naval power, other than Britain, the US and Japan mattered.¹⁰⁷ The US pursued the principle that real disarmament could only materialise with a ‘change in attitude towards the use of force in the settlement of international disputes.’¹⁰⁸ However, President Hoover also recognised Britain’s need for a larger cruiser fleet and would allow Britain a larger quota of smaller cruisers, rather than ‘strict mathematical parity.’¹⁰⁹

In reviewing cruiser policy in 1929, the Treasury sought, prior to the LNC, to appraise the lifespan and size of the British cruiser. The Admiralty pointed out that ‘... nothing is more wasteful than the construction of ships that cannot carry out the duty assigned to them.’¹¹⁰ Additionally, the Admiralty believed any change in British naval policy would be viewed with suspicion by the US as an ‘insidious attempt to put them off their guard’, particularly when significant strides were being taken towards disarmament. If the two cruisers proposed under the 1928–29 programme had been of 10,000 sdt, this would have maintained the ratio of 5:3 with Japan, creating an acceptable position with the US until 1930 (Table 2.4).

¹⁰⁴ NA, CAB/24/209, London Naval Conference 1930, p. 27.

¹⁰⁵ The US delegation believed that all vessels including auxiliary vessels had to be limited to achieve a meaningful limitation treaty.

¹⁰⁶ NA, CAB/24/203, Statement by the Honourable Hugh Gibson, on behalf of the United States of America, at the Meeting of the Preparatory Commission on Disarmament at Geneva on 22 April 1929, p. 7.

¹⁰⁷ The principal naval powers had nothing to fear from any other nation or combination thereof. For example, the cruiser strength of all the non-signatory countries to the WNC did not amount to one-half of the cruiser tonnage of the greatest single fleet.

¹⁰⁸ NA, CAB/24/203, Statement by the Honourable Hugh Gibson, p. 8.

¹⁰⁹ NA, CAB/24/209, London Naval Conference 1930, p. 28.

¹¹⁰ NA, CAB/24/209, Joint Report by the Admiralty and Treasury on Navy Estimates 1930, 13 December 1929, p. 6.

Table 2.4: Analysis of cruisers with 8-inch guns¹¹¹

| | 1928 | 1929 | 1930 | 1931 |
|-----------------|------|------|------|------|
| British Empire: | | | | |
| 10,000 tons | 13 | 15 | 15 | 15 |
| 8,000 tons | 2 | 2 | 2 | 2 |
| Total | 15 | 17 | 17 | 17 |
| US | 8 | 13 | 18 | 23 |

During preparations for the LNC 1930, President Hoover indicated that if ‘no international agreement could be completed’, the US would commence a naval programme, costing in excess of £240 million (\$1,200 million).¹¹² The British Treasury was concerned that the Admiralty still insisted on parity with the US.¹¹³ The British government proposed: immediate and substantial reductions of ships and expenditure; a further conference in 1936 to review ‘parity’; restriction on new building; submarines to be abolished; and consideration given to extending the lives of ships beyond that of the capital ship.¹¹⁴

Britain indicated they were prepared to set a target of 339,000 sdt by 31 December 1936, on the understanding that there would be substantial reductions in the strength of other powers, and to hold a further conference before 1936 to decide future limits of naval strength.¹¹⁵ There were indications that the US would fall in line with the British quota; however, in reaching agreement, the US wanted to negotiate maximum gun calibre and vessels’ lifespan. All these

¹¹¹ NA, CAB/24/199, Memorandum by the First Lord of the Admiralty, Announcement as to cruiser type, 15 December 1928, p. 3.

¹¹² NA, CAB/24/209, Memorandum by the Treasury on Financial Aspects of the Naval Conference, 16 December 1929, p. 2 and ‘US World Policy.’ *The Times*, 4 December 1929; p. 13; Issue 45377.

¹¹³ NA, CAB/24/209, Financial Aspects of the Naval Conference, p. 4.

¹¹⁴ *Ibid.*, p. 7.

¹¹⁵ Britain’s proposed tonnage of 339,000 comprised: fifteen 8-inch cruisers with a total tonnage of 146,800 sdt; fourteen new 6-inch cruisers with a total tonnage of 90,720 sdt; and twenty-one older 6-inch cruisers with a total tonnage of 101,480 sdt.

factors required consideration to ensure that a sensible yardstick existed to measure the respective fleets.¹¹⁶ This ‘yardstick’ created the impasse in Geneva, yet by 1929, with both Hoover and MacDonald in office, the ‘yardstick’ appeared less problematic, as Andrade says, with two ‘ideological pacifists’ controlling negotiations. It appeared that the relationship between the US and Britain had become increasingly ‘more important than the preservation of any particular naval position.’¹¹⁷ When MacDonald spoke at the Royal Institute of International Affairs on 13 May 1930, he summed up his differences with the Admiralty: ‘when someone speaks of security ... Admiral Freemantle ... thinks of a battleship’, but the speaker instead thought of ‘treaties and agreements.’¹¹⁸ Hoover recognised naval strength was not just tonnage and other factors were important: weapons, technology and speed should be instrumental in the development of the ‘yardstick.’¹¹⁹ The Anglo-American relationship improved after the election of Ramsay MacDonald through what Roskill termed a ‘new understanding’, which was eventually consummated with the signing of the LNT 1930.¹²⁰

¹¹⁶ Further details considering the limits and the arguments put forward by the contracting parties is available in C.P. 5 (30), LNC, and memorandum respecting proposals submitted by His Majesty’s Government in the United Kingdom to the Conference.

¹¹⁷ Andrade, ‘The Cruiser’, p. 115.

¹¹⁸ Macdonald, ‘London Naval Conference’, p. 450.

¹¹⁹ McBride, ‘Unstable Dynamics’, p. 395.

¹²⁰ Roskill, *Naval Policy*, p. 20; ‘Britain’s naval shipbuilding. Com. Kenworthy’s attack. Reply from the First Lord’, *Manchester Guardian*, 17 July 1930, p. 14.

Table 2.5: Order of priority of ships in the new programme 1929–30¹²¹

| | Estimated expenditure | | Dockyard labour affected | |
|---------------------------------------|-----------------------|------------------|--------------------------|--------------|
| | 1930 | 1931 | 1930 | 1931 |
| | £ | £ | No. of men | No. of men |
| 1 cruiser (dockyard) | 340,540 | 563,070 | 180 | 750 |
| 1 cruiser (dockyard) | 340,540 | 563,070 | 180 | 750 |
| 1 leader (contract) | 108,036 | 185,578 | 18 | 10 |
| 8 destroyers (1 dockyard; 7 contract) | 861,964 | 1,479,602 | 210 | 255 |
| 3 dockyard-built sloops | 235,220 | 148,680 | 650 | 300 |
| 3 contract-built sloops | 191,370 | 231,130 | 3 | 6 |
| 2 “S” submarines (dockyard) | 168,620 | 201,860 | 500 | 600 |
| 1 “G” submarine (contract) | 123,292 | 298,910 | 22 | 16 |
| 2 other ‘S’ submarines (contract) | 109,020 | 209,560 | 35 | 25 |
| The 2nd “G” submarine (contract) | 123,293 | 298,910 | 22 | 16 |
| Net layer | 95,500 | 140,800 | 150 | 370 |
| Submarine depot ship | 141,480 | 484,640 | - | 12 |
| Total | 2,838,875 | 4,805,810 | 1,970 | 3,110 |

Expenditure on new construction in 1929 was low. This was not surprising given Ramsay MacDonald’s election as Prime Minister in June 1929.¹²² In view of the imminent LNC, the Admiralty wanted to propose a prioritisation of the 1929–30 programmes. MacDonald’s government supported the abolition of submarines and therefore these vessels were low in the suggested priority list.¹²³ The situation, as with the WNC, was somewhat complicated, and Parliament received the naval estimates before the conference. Any announcements on naval estimates therefore exposed Britain’s intentions at the upcoming naval conference.¹²⁴ It was

¹²¹ NA, CAB/24/209, Joint Report by the Admiralty and Treasury on Navy Estimates 1930, p. 8. According to a memorandum from the Fighting Services Committee dated 14 November 1929, the Admiralty believed that the programme as a whole would probably afford employment for 13,500 men in 1930 and 22,500 men in 1931, in addition to the numbers given for the dockyards detailed in Table 2.5.

¹²² NA, CAB/24/209, Joint Report by the Admiralty and Treasury on Navy Estimates 1930, 13 December 1929.

¹²³ Roskill, *Naval Policy*, p. 61.

¹²⁴ NA, CAB/24/209, Joint Report by the Admiralty, p. 4.

inevitable that supplementary estimates would follow the conference once it was possible to affirm naval policy within the constraints of a new treaty. The Admiralty believed any cancellation of the proposed 1929 programme would create ‘disturbance, hardship and the maximum of anxiety in the dockyard towns as well as on the Clyde, the Tyne’¹²⁵ Naval construction in the 10 years following the signing of the WNT was exceptionally low (Table 2.6).¹²⁶

Table 2.6: Regional analyses of Admiralty orders built 1 January 1922 to 31 December 1931¹²⁷

| Year | North-East | West of |
|--------------|---------------------|----------|
| | Coast of England | Scotland |
| | Sdt | Sdt |
| 1922 | 1,075 | 4,765 |
| 1923 | 0 | 2,285 |
| 1924 | 36,810 | 960 |
| 1925 | 1,000 | 0 |
| 1926 | 9,194 | 9,353 |
| 1927 | 35,900 | 572 |
| 1928 | 0 | 30,042 |
| 1929 | 11,920 | 11,305 |
| 1930 | 15,770 | 17,226 |
| 1931 | 8,158 | 3,419 |
| Total | 119,827 | 79,927 |

After the LNC, the difficulties the Admiralty experienced in negotiations with the Treasury intensified. The Chancellor worried that the Admiralty’s interpretation of the LNT was that the

¹²⁵ Ibid., p. 5.

¹²⁶ NA, CAB/24/209, C.P. 5 (30), The London Naval Conference 1930, Part III, Historical survey of the negotiations since the war for the limitations of naval armaments, p. 15.

¹²⁷ The details shown in Table 2.6 is a summary of information in Appendix 4.0.

quotas to which the government must adhere were the ‘minima.’ In the Chancellor’s view they were the ‘maxima.’ The Chancellor pointed out that if the Admiralty observed the amended programme suggested by the Treasury, then by 31 December 1936, Britain would ‘have 50 cruisers less than 20 years of age built or building.’ The Chancellor was ‘not convinced we need have more.’¹²⁸ The amended construction plan for 1930–33 allowed a possible saving of £5.75 million at the cost of two cruisers, five destroyers and six sloops (Table 2.7).

Table 2.7: Comparison of construction programmes 1930–33¹²⁹

| | Original programme | | Amended programme | |
|------------------------|--------------------|-------------------|-------------------|-------------------|
| | No. | £ | No. | £ |
| Large cruisers | 9 | 13,950,000 | 7 | 10,850,000 |
| Small cruisers | 3 | 3,375,000 | 3 | 3,375,000 |
| Leaders and destroyers | 36 | 12,600,000 | 31 | 10,850,000 |
| G submarines | 4 | 2,100,000 | 4 | 2,100,000 |
| S submarines | 8 | 1,792,000 | 8 | 1,792,000 |
| Sloops | 18 | 2,475,000 | 12 | 1,650,000 |
| Net-layer | 1 | 281,900 | 1 | 281,900 |
| Miscellaneous craft | | 75,500 | | |
| Small craft | | 128,000 | | 128,000 |
| Totals | 79 | 36,777,400 | 66 | 31,026,900 |

The 1933 naval programme originally made provision for the construction of one *Leander* and three *Arethusa* class cruisers. Because of a change in construction policy by the US and Japan,

¹²⁸ NA, CAB/24/219, Fighting Services Committee, Memorandum by the Chancellor of the Exchequer, Naval Construction Programme 1931, 23 January 1931, p. 5.

¹²⁹ NA, CAB/24/219, Fighting Services, Appendix A.

whereby these nations began to construct larger 6-inch gunned cruisers, the Admiralty considered the introduction of a new larger cruiser class. The Admiralty had studied the introduction of this new vessel to ensure it fell within the limitation treaties, and even the Treasury agreed that the only response was for Britain to introduce a new type of cruiser. Representations to Washington to reverse the policy failed.¹³⁰ The Treasury and the Admiralty considered the possibility of altering the 1933 programme and no objections to the new proposals were forthcoming. The construction of an *Arethusa* class cruiser, and two new cruisers of 8,900 sdt under the 1933 programme, became possible. This resulted in the abandonment of the *Leander* cruiser and two of the *Arethusa* cruisers under the 1933 programme. The estimated cost of the new cruiser totalled approximately £2.1 million (Table 2.8).

Table 2.8: Comparison of amendments to 1933 cruiser programme¹³¹

| | Original programme | | Revised programme | |
|---|--------------------|-----------|-------------------|-----------|
| | No. | £ | No. | £ |
| <i>Leander</i> type cruiser | 1 | 1,600,000 | - | - |
| <i>Arethusa</i> type cruiser | 3 | 4,200,000 | 1 | 1,400,000 |
| New type cruiser (<i>Minotaur</i> class) | - | - | 2 | 4,200,000 |
| | 4 | 5,800,000 | 3 | 5,600,000 |

By 1933, because of new tonnage under construction in the US and Japan, Britain was forced to design a new larger cruiser with 6-inch guns, the *Minotaur* class. According to Lord Ponsonby of Shulbrede, Britain probably required at least ten of the new larger vessels to

¹³⁰ NA, CAB/24/243, Memorandum by the First Lord of the Admiralty, Programme of new construction 1933, Proposed Alteration, 24 October 1933, p. 2.

¹³¹ Ibid.

maintain its position in relation to the US and Japan. Viscount Cecil of Chelwood felt it apparent that towards the end of the 1930s all British battleships would require replacement.¹³²

As early as April 1934, the government began preparing for the next naval conference planned for end of 1935, though it became obvious that difficulties would arise with Japan. The purpose of the conference was to address not only fleet sizes, but also the qualitative aspects. Whilst it might not have been possible to reach agreement in all areas, the three main signatories believed they should reach consensus at least on qualitative parameters regarding vessel size and armaments.¹³³ Whilst quantitative limitations gave rise to major issues, the British government proposed that signatories to such agreements could issue unilateral declarations about construction programmes over a number of years.¹³⁴

The French government felt a need to agree to qualitative limitations, regardless of the position on quantitative measures, and the tone of the French government was 'sympathetic' to the British government's efforts.¹³⁵ The Italian government was in general accord with Britain but preferred 'a system providing for the mutual communication by the various Powers of their annual programmes' to deal with quantitative limitation.¹³⁶ The Japanese government were not prepared to deal with one aspect in isolation. However, the US became concerned that a European policy on limitations was developing that would cause rifts between the two main signatories.¹³⁷ The differences centred on size in terms of tonnage and armaments of the capital ship.

¹³² HOLD, Government Statement on Defence, 13 March 1935 vol. 96 cc51-118. In 1935, the estimated cost of a battleship ranged between £7 million and £9 million and the Admiralty expected to have fifteen at their disposal: therefore, the costs could have ranged between £105 million and £135 million.

¹³³ NA, CAB/24/257, Report of Ministerial Committee, The Naval Conference 1935, 11 October 1935, p. 1.

¹³⁴ NA, CAB/24/257, Memorandum by the Foreign Office and Admiralty, Course of Naval Negotiations, 11 October 1935, p. 1.

¹³⁵ Ibid., p. 2.

¹³⁶ Ibid., p. 2.

¹³⁷ Ibid., p. 3.

The limitation agreements of 1921 and 1930 proved an effective deterrent to international hostilities between the main contracting parties. However, Roosevelt had perhaps complicated the position by his actions in 1933 by making warship construction part of the National Industrial Recovery Act. This action probably increased the desire of Japan to enlarge its naval force.¹³⁸ The five parties to the limitation agreements had between 1934 and 1936 continuously sought a satisfactory solution upon which to base the second LNT. However, by 1934 Japan, driven by 'militarism', believed there was no reason why they should not have parity with Britain and the US. During late 1934, British and Japanese delegates continued to discuss the possibility of an Anglo-Japanese agreement, though to the United States' displeasure.¹³⁹ The agreement sought in 1936 gave rise to further complications as the US felt restricted by the tonnage allowed in respect of heavy cruisers, and Britain was dissatisfied with the allocation of light cruisers. A rift had developed throughout the conference, which arose from Japan insisting on supremacy in the Far East where both Britain and the US had 'important commercial interests.'¹⁴⁰ However, the inability to conclude an acceptable agreement regarding equality resulted in the Japanese delegation leaving the conference on 15 January 1936 and returning home.¹⁴¹ The Anglo-American negotiations continued, and on 23 January they eventually reached accord on the agreement of qualitative limits and proposals regarding the construction of cruisers.¹⁴² The US therefore suggested an agreement between Britain and the US as well as France and Italy, and the opportunity would remain available to Japan, should they wish to become a party to the agreement later.¹⁴³ On 25 March 1936, Britain, the US and France signed

¹³⁸ McBride, 'Unstable Dynamics', p. 390.

¹³⁹ Berg, 'Admiral Standley', p. 224.

¹⁴⁰ 'Japan's bombshell for Naval Conference', *Sunderland Echo and Shipping Gazette*, 14 January 1936, p. 1.

¹⁴¹ Berg, 'Admiral Standley', p. 216; Peebles, *Warshipbuilding*, p. 138.

¹⁴² Berg, 'Admiral Standley', p. 234.

¹⁴³ *Ibid.*, p. 233.

the second LNT 1936. The terms provided the opportunity for the tripartite agreement to be broken should circumstances change.¹⁴⁴

The London treaties, with the exception of provisions regarding battleships, were not true limitation agreements as such, since they failed in real terms to halt ‘the proliferation of weaponry.’¹⁴⁵ Moreover, whilst cruisers received considerable attention, the limitations provoked the expansion of construction, hence the need for the *Minotaur* class, as in 1933 both the US and Japan began building larger cruisers that were more powerful than previously agreed. However, agreement was possible with regard to auxiliary vessels such as destroyers and submarines.¹⁴⁶ By 1936, both Japan and Germany had withdrawn from the League of Nations, which made a new naval limitation treaty more problematic. This resulted in an increased programme for the Royal Navy in 1936, which raised hopes of much needed work on the North-East Coast of England and the West of Scotland.¹⁴⁷

Competing for Admiralty contracts

The First World War was expensive and cost British taxpayers £7 billion, and taxation was ‘high beyond the vituperative nightmares’ of the pre-war period.¹⁴⁸ After the Armistice, the government reduced naval expenditure.¹⁴⁹

¹⁴⁴ Roskill, *Naval Policy*, p. 67.

¹⁴⁵ Andrade, ‘The Cruiser’, p. 118.

¹⁴⁶ Ibid.

¹⁴⁷ NA, CAB/24/265, Note by the First Lord of the Admiralty, Allocation of contracts to the distressed and special areas, 18 November 1936, pp. 2-3.

¹⁴⁸ David Lloyd George, *The truth about the peace-treaties* (London: Victor Gollancz, 1938), p. 467.

¹⁴⁹ HOCD, Navy Estimates 1922-23, 16 March 1922, vol. 151, cc2409-57.

Table 2.9: Admiralty shipbuilding programme at the Armistice¹⁵⁰

| Type | Ordered and under construction 11.11.18 | Since cancelled | Completed 31.10.19 | To be Completed |
|----------------------|---|-----------------|--------------------|-----------------|
| Battlecruisers | 4 | 3 | - | 1 |
| Light cruisers | 21 | 4 | 8 | 9 |
| Flotilla leaders | 11 | 4 | 4 | 3 |
| Destroyers | 97 | 40 | 41 | 16 |
| Patrol boats | 1 | - | 1 | - |
| Submarines | 73 | 33 | 20 | 20 |
| Aircraft carriers | 2 | - | - | 2 |
| Minelayers | 2 | 2 | - | - |
| Twin screw | 99 | 36 | 57 | 6 |
| Minesweepers | 5 | 5 | - | - |
| Paddle minesweepers | 56 | 31 | 24 | 1 |
| Patrol gunboats | 259 | 215 | 44 | - |
| Trawlers | 206 | 173 | 31 | 2 |
| Drifters | 29 | 1 | 26 | 2 |
| Boom defence vessels | 99 | 43 | 47 | 9 |
| Tugs | 23 | 19 | 4 | - |
| Seaplane towing | 11 | 2 | 8 | 1 |
| Lighters | 7 | - | 4 | 3 |
| '24' class | | | | |
| Mooring vessels | | | | |
| Total | 1,005 | 611 | 319 | 75 |

Although the Admiralty suspended and cancelled contracts, it was concerned about the disruption to shipbuilding facilities, and the Royal Navy's global supremacy.¹⁵¹ Historically,

¹⁵⁰ NA, CAB/24/94, Statement of the First Lord of the Admiralty, Explanatory of the Navy Estimates 1919-1920, 2 December 1919, p. 13.

¹⁵¹ NA, CAB/24/83, Memorandum by W H Long, First Lord of the Admiralty, Naval Estimates 1919-1920, 5 July 1919, p. 2. The construction of new ships was carried out by such firms as John Brown, Fairfield Shipbuilding and William Beardmore on the Clyde, and Armstrong Whitworth, Palmers Shipbuilding and SH&WR on the Tyne, as well as Lairds on the Mersey and Vickers at Barrow.

the Royal Dockyards (Rosyth, Haulbowline, Pembroke, Sheerness, Devonport, Portsmouth, and Chatham), as well as a limited number of favoured private shipyards, undertook naval shipbuilding.¹⁵² In contrast to the Royal Dockyards, these private shipyards were mainly located on the Clyde and on the North-East Coast of England. Important yards also existed on the Mersey, at Barrow and in Belfast, Northern Ireland. The Admiralty contracts thus insulated a select list of warship builders. Their yards had to meet Admiralty's expectations of high standards of workmanship.¹⁵³ Furthermore, and although Pollard and Robertson argue that favoured yards did not face the same competitive pressure that most commercial yards experienced up to 1914, the picture is less certain after that point because of the Geddes report, Churchill's review and the limitation treaties.¹⁵⁴ Naval shipbuilding involved special plant and equipment, and Hardy and Tyrell observed that yards capable of building larger merchant ships tended to be those that built larger warships.¹⁵⁵ From 1885 to the beginning of the First World War, the Royal Dockyards built over 43.9 percent of Admiralty's requirements, whilst the West of Scotland built 24.6 percent and North-East Coast of England over 12.2 percent.¹⁵⁶

In the years, immediately following the Armistice, shipbuilding for the Admiralty continued, though on a limited basis on both the North-East Coast of England and West of Scotland. In the post-war years, from 1920 up until 1925, shipyards on the North-East Coast of England completed 42,838 sdt for the Admiralty. Throughout this period work continued at Armstrong Whitworth's yard on both *HMS Emerald* (a cruiser which was completed in 1926) and *HMS Nelson* (one of the battleships allocated to Armstrong Whitworth's under the terms of the WNT,

¹⁵² The Admiralty's facility at Haulbowline near Cork in Southern Ireland will not form part of this study.

¹⁵³ Lorenz and Wilkinson, 'The shipbuilding industry', p. 111.

¹⁵⁴ John Alfred Spender, *Great Britain, Empire and commonwealth, 1886-1935* (London: Cassell and Company Limited, 1936), p. 604.

¹⁵⁵ Alfred Cecil Hardy and Edward Tyrrell, *Shipbuilding: Background to a great industry* (London: Pitman, 1964), p. 100.

¹⁵⁶ Pollard and Robertson, *British Shipbuilding*, p. 217.

which was not completed until 1927).¹⁵⁷ The years 1921–24 were a period when new warshipbuilding for the British Admiralty was limited to the two battleships, *Nelson* and *Rodney*, allowed in accordance with the WNT, though work was undertaken in both regions to complete other vessels including two aircraft-carriers on the North-East Coast of England and two cruisers in the West of Scotland.¹⁵⁸

Table 2.10: Admiralty ships completed on the North-East Coast of England in the post-war period, 1920-1925¹⁵⁹

| Shipyard | Aircraft | | Cruisers | | Destroyers | | Submarines | | Other | | Total | |
|--------------|----------|-----|----------|-----|------------|-----|------------|-----|-------|-----|--------|-----|
| | Carriers | | | | | | | | | | Total | |
| | Dis. | No. | Dis. | No. | Dis. | No. | Dis. | No. | Dis. | No. | Dis. | No. |
| Hawthorn | | | | | | | | | | | | |
| Leslie | | | | | 1,075 | 1 | | | | | 1,075 | 1 |
| Smith Docks | | | | | | | | | 895 | 1 | 895 | 1 |
| Palmers | | | | | | | | | | | | |
| Shipbuilding | | | | | 1,075 | 1 | | | | | 1,075 | 1 |
| SH&WR | | | | | 1,325 | 1 | | | | | 1,325 | 1 |
| Armstrong | | | | | | | | | | | | |
| Whitworth | 33,450 | 2 | | | | | 3,943 | 4 | | | 37,393 | 6 |
| Doxford's | | | | | 1,075 | 1 | | | | | 1,075 | 1 |
| | 33,450 | 2 | | | 4,550 | 4 | 3,943 | 4 | 895 | 1 | 42,838 | 11 |

Armstrong Whitworth completed two aircraft carriers (33,450 sdt) and four submarines (3,943 sdt). These contracts related to instructions from the Admiralty, given prior to the Armistice and the ships were launched prior to 1921. The major shipyards on Tyneside had contracts to

¹⁵⁷ Roskill, *Naval Policy*, p. 401.

¹⁵⁸ In the post-war period up until 1925, with two exceptions, no Admiralty vessels were launched in private shipyards other than those in the course of construction at the Armistice, where scrapping was not practical. The exceptions were the two battleships launched in accordance with the WNC. See Jones, *Shipbuilding*, 127.

¹⁵⁹ The data included in this table is a summary of construction for the years 1920 to 1925 from Appendix 4.0, p. 1-3.

complete during the period 1918–20, though once they were finished only *HMS Nelson* remained on the stocks until she was launched in 1925.¹⁶⁰ The majority of vessels completed for the Admiralty during the years 1918–20 comprised minesweepers, sloops, trawlers, and patrol boats. These vessels were what Jackie Fisher believed would only ‘last six months’ and were capable of being ‘driven by the man in the street.’¹⁶¹

The tonnage completed on the North-East Coast of England compared favourably with launchings at the Royal Dockyards, where only 29,870 sdt were launched in the period up until 1925. The difficulties shipbuilding faced affected both the private shipbuilding yards and the Royal Dockyards. The level of disarmament achieved was broadly in line with the deflationary stance sought by the British government, and very much in line with the war-weary mood of the general public. However, the deceleration in war-shipbuilding had an alarming effect upon the rising levels of unemployment.¹⁶² Whilst the private shipbuilders faced difficulties, they had at least the opportunity to work within merchant shipbuilding, whilst the Royal Dockyards normally survived on ‘refit and repair’ work.¹⁶³ In the thirteen years up until the outbreak of the First World War, the Royal Dockyards had launched 642,356 sdt; their cutbacks between the end of the war and 1925 were severe in comparison to the private yards, which were able to turn to merchant shipbuilding following the Armistice.¹⁶⁴

¹⁶⁰ Dougan, *The History*, p. 143.

¹⁶¹ Jackie Fisher was a British Admiral known for his efforts in reforming the Royal Navy. His career spanned over 60 years, during which the Royal Navy changed from wooden sailing ships armed with cannons to *Dreadnought*-type battleships, submarines and aircraft carriers. Andrew Gordon, ‘Naval procurement and shipbuilding capacity, 1918–1939’, in *Exploiting the sea*, p. 104.

¹⁶² Johnman and Murphy, *British shipbuilding*, pp. 17–18.

¹⁶³ Gordon, ‘Naval procurement’, p. 108.

¹⁶⁴ Jones, *Shipbuilding*, p. 124.

Table 2.11: Admiralty ships completed in the West of Scotland in the post-war period, 1920-1925¹⁶⁵

| Shipyards | Battlecruisers | | Cruisers | | Destroyers | | Submarines | | Other | | Total | |
|-------------------|----------------|----------|---------------|----------|--------------|----------|--------------|----------|--------------|----------|---------------|-----------|
| | Dis. Tons | No. | Dis. Tons | No. | Dis. tons | No. | Dis. Tons | No. | Dis. tons | No. | Dis. Tons | No. |
| Fairfields | | | 4,765 | 1 | | | | | | | 4,765 | 1 |
| Wm Denny | | | | | | | 960 | 1 | | | 960 | 1 |
| William Beardmore | | | 9,750 | 1 | | | 1,383 | 2 | | | 11,133 | 3 |
| John Brown | 41,200 | 1 | | | | | | | | | 41,200 | 1 |
| Scotts Shipbuild. | | | 4,650 | 1 | | | 960 | 1 | | | 5,610 | 2 |
| Yarrows | | | | | 1,325 | 1 | | | | | 1,325 | 1 |
| Bow McLachlan | | | | | | | | | 1,440 | 2 | 1,440 | 2 |
| Total | 41,200 | 1 | 19,165 | 3 | 1,325 | 1 | 3,303 | 4 | 1,440 | 2 | 66,433 | 11 |

The activities on the West of Scotland were problematic after the WNT. The withdrawal of the contracts resulting from the WNT created difficulties upon the Clyde. In the immediate postwar period, John Brown continued with the completion of *HMS Hood*, whilst William Beardmore carried-on with the construction of a cruiser, and two submarines. During the 1920s, the difficulties within war-shipbuilding continued, and whilst 1929 was an encouraging year for merchant shipbuilding, war-shipbuilding continued to be severe. In 1930, war-shipbuilding was a mere seventh of its volume in 1913, and further difficulties were likely to arise.¹⁶⁶ In the post-war period up until 1925, three cruisers were completed on the Clyde, *HMS Durban*, *HMS Raleigh* and *HMS Despatch*. Despite the need for cruisers to protect imperial interests, the government failed to maintain the rate of construction in line with naval programmes throughout the 1920s, and it quickly became too little, too late.¹⁶⁷ Certainly, the difficulties

¹⁶⁵ The data included in this table are a summary of construction for the years 1918 to 1925 from Appendix 4.0, pp. 4-8.

¹⁶⁶ Gordon, 'Naval procurement', p. 108.

¹⁶⁷ Daniel Todd, 'Regional variations in naval construction: the British experience, 1895-1966', *Regional Studies*, vol. 15, no. 2 (1981), p. 129.

found within shipbuilding during the post-war period reversed the position ten years earlier when Admiralty contracts were a mechanism for ‘unemployment alleviation.’¹⁶⁸

Walter Long believed that together with the vessels relocated from the private shipyards to the Royal Dockyards for completion, it was necessary to take immediate action and take steps to commission four capital ships, as well as a minelayer and an experimental submarine.¹⁶⁹ The private shipyards would build the four capital ships proposed under the Naval Programme 1921–22. Despite the retrenchment in naval expenditure, Long argued that Britain should embark on a major building programme, since he planned four capital ships with construction commencing in 1921–22 and four in 1922–23, costing £75 million over five years.¹⁷⁰ Long pointed to the Admiralty’s restraint in demanding only what was ‘absolutely essential for the security of the empire.’¹⁷¹ However, the government was reluctant to expend the monies sought by Long whilst it pursued a policy of retrenchment.¹⁷²

Table 2.12: Estimated costs of completing unfinished ships in the Royal Dockyards¹⁷³

| | 1921–22 | 1922–23 | 1923–24 | 1924–25 | 1925–26 | Total |
|---------------------|---------|---------|---------|---------|---------|-------|
| | £ m | £ m | £ m | £ m | £ m | £ m |
| Completion of ships | 5.2 | - | - | - | - | 5.2 |
| Conversions | - | 1.3 | - | - | - | 1.3 |
| Other expenditure | 0.5 | 0.7 | 0.8 | 0.3 | - | 2.3 |
| | 5.7 | 2.0 | 0.8 | 0.3 | - | 8.8 |

¹⁶⁸ Ibid., p. 127.

¹⁶⁹ NA, CAB/24/115, Naval Policy, Part 1, p. 4.

¹⁷⁰ Ibid.

¹⁷¹ Ibid., p. 3.

¹⁷² Till, ‘Retrenchment’, p. 321.

¹⁷³ NA, CAB/24/115, Naval Policy, Appendix II.

The main Admiralty contractors on the Tyne comprised Armstrong Whitworth (from 1927 Vickers-Armstrong), Palmers Shipbuilding (closed in 1933), Hawthorn Leslie, and SH&WR. The main Admiralty contractors on the Clyde were John Brown, Fairfield Shipbuilding, William Beardmore (closed in 1930), Yarrow's (liquidated on 31 December 1921) but recommenced 12 weeks later, Alexander Stephen, Scott's Shipbuilding and William Denny. Throughout the First World War, most British shipyards undertook work for the Admiralty, whether that involved the construction of mooring vessels, tugs, trawlers, sloops, destroyers or even larger vessels. By the end of 1920, 'normality' had returned and those yards that specialised in merchant shipbuilding proceeded to face the economic climate thrust upon them. Reduced Admiralty orders affected the industry, though Jones may have overplayed this point.¹⁷⁴ Of course, naval yards suffered serious results. William Beardmore, mainly a naval constructor, was one of the first yards purchased by NSS; the merger of Armstrong Whitworth and Vickers was partly a result of cutbacks in naval construction; and Palmers Shipbuilding's shipyard on the Tyne might have survived had further Admiralty work been forthcoming after the launching of *HMS Duchess*.¹⁷⁵ Armstrong Whitworth, Palmers Shipbuilding and William Beardmore clearly suffered because of the reduction in contracts from the Admiralty.¹⁷⁶ These shipyards nevertheless sought a degree of diversity to continue their operations. All these shipyards constructed merchant ships and work outside of shipbuilding, but the turnover generated was insufficient to make good the loss of naval contracts.¹⁷⁷ Despite Todd's opinion, there has been very little worthwhile comparison undertaken of regional competition during the 1920s, after taking into account the effects of the WNT.¹⁷⁸ The only two vessels above 10,000 sdt built in accordance with the WNT were built on the Tyne and on the Mersey.

¹⁷⁴ Jones, *Shipbuilding*, pp. 124-27.

¹⁷⁵ 'National Shipbuilders Security', *The Times*, 31 July 1931, p. 18.

¹⁷⁶ Peebles, *Warshipbuilding*, pp. 121, 122 and 132.

¹⁷⁷ Jones, *Shipbuilding*, p. 127.

¹⁷⁸ Todd, 'Regional variations', p. 129.

In the early post-war period, the Admiralty was sceptical that, in the event of placing orders for the construction of capital ships, there was sufficient armour plating production capacity.¹⁷⁹ At the end of the war, five firms were capable of producing armour plate and whilst the Admiralty made proposals to pay £50,000 per annum by way of subsidy to these firms to keep the plant in operation, Sir Samuel Roberts MP for Hereford suggested that this payment was little more than a token gesture.¹⁸⁰ Armstrong Whitworth closed its Oppenshaw armour-plating division at the end of 1920. In contrast, on 22 November 1919 the chairman of Armstrong Whitworth, Mr J M Faulkner believed that the pattern of trade was uncertain. Nevertheless, he believed that it might be necessary to maintain part of the company's operations 'for the possible need of this country.'¹⁸¹ Armour plate facilities had been capable of supplying four large ships under construction at any one time. However, declining armour plate capacity clearly jeopardised the construction of the four proposed battle cruisers under the terms of the 1921–22 naval programmes.¹⁸² When the Cabinet eventually decided to give the Admiralty authority to proceed to complete the design of the new super-*Hood* battlecruisers, it did so after much pressure from the Admiralty.¹⁸³ The Admiralty sent tenders to Armstrong Whitworth, William Beardmore, John Brown, Cammell Laird, Fairfield Shipbuilding, H&W, SH&WR and Vickers.¹⁸⁴ The successful tenders, which included a profit of £700,000, were as follows:

¹⁷⁹ Because of the fall in naval construction, the large armour plate firms found themselves in a difficult situation. The operations of these firms were quite extraordinary because the nature of their plant and equipment meant that they had no alternative use. The plant by its very nature was extremely large and gave rise to an enormous investment.

¹⁸⁰ HOCD, Navy Estimates 1920-21, 18 March 1920, vol. 126, cc2441-551.

¹⁸¹ TWAS, 130/1453, Report of Proceedings at the 25th Ordinary General Meeting of Sir W G Armstrong Whitworth & Co Ltd.

¹⁸² The government's strategy in delaying the orders for the four new battlecruisers would result in a saving of £5.5 million on new construction expenditure under the 1921-22 naval estimates.

¹⁸³ 'Big work for Clyde', *The Times*, 25 October 1921, 10, Issue 42860.

¹⁸⁴ Roskill, *Naval Policy*, p. 227; Ian Johnston, *Beardmore Built: The rise and fall of a Clydeside shipyard* (Clydebank, Clydebank District Libraries & Museums Dept., 1993), p. 172; Gordon, 'Naval procurement', p. 107.

| | £ |
|------------------------|--------------------------|
| William Beardmore | 3,786,332 |
| John Brown | 3,879,000 |
| Fairfield Shipbuilding | 3,900,000 |
| SH&WR | 3,977,175 ¹⁸⁵ |

On 21 October 1921, SH&WR, John Brown and Fairfield Shipbuilding received orders to build three battlecruisers, with one to be built at William Beardmore being ordered on 1 November 1921.¹⁸⁶ Initial reports estimated that the contracts for the four vessels were worth nearly £30 million.¹⁸⁷ Shipbuilding experts estimated that the four super-*Hood* battlecruisers would have provided work for 5,000 men in 1922, increasing in the following year to 25,000.¹⁸⁸ No sooner had work commenced on the battlecruisers when the Admiralty ordered suspension, with the contracts cancelled four months later.¹⁸⁹ Fairfield Shipbuilding's minute book recalls that the hull and machinery of its battle-cruiser No. 615, had only been provisionally ordered, though the Admiralty acknowledged that compensation for the cancelled contract would have to be considered.¹⁹⁰ Discussions in Washington soon made it apparent that two battleships of lesser tonnage would replace the four battlecruisers. Given the compensation under the terminated battlecruiser contracts, the Admiralty expected the two battleships ordered in line with the WNT would be laid down with two of the yards that had lost the battlecruiser contracts. Churchill

¹⁸⁵ Johnston, *Beardmore*, p. 122.

¹⁸⁶ 'Iron, steel, and coal', *The Economist*, 29 October 1921, p. 795.

¹⁸⁷ 'Battleship orders, Reported placing of contracts', *Evening Chronicle*, 25 October 1921, p. 6.

¹⁸⁸ Johnston, *Beardmore*, p. 127.

¹⁸⁹ Roskill, *Naval Policy*, p. 227.

¹⁹⁰ Glasgow Mitchell Library, UCS.2/1/5, Fairfield Shipbuilding and Engineering Company Limited, Minute Book No. 5, 22 February 1922, p. 242.

even concurred, stating that at least two of the four firms would have to receive compensation.¹⁹¹

Naval shipbuilding and rationalisation

The cutbacks in naval shipbuilding in 1920 highlighted the difficulties that shipbuilding would face throughout the 1920s and the early 1930s. The initial steps of rationalising the shipbuilding industry began with the Bank of England's involvement with Armstrong Whitworth; this followed with the establishment of the Shipbuilding Conference in 1928 to act as a 'price-protective organisation', with a particular aim of protecting the naval shipbuilding yards.¹⁹² The full extent of the shipbuilding industry's difficulties became apparent following the incorporation of NSS in early 1930, which led to the rationalisation of 28 shipyards.¹⁹³

Armstrong Whitworth complied with the sound principle of diversification during the 1920s, by moving away from the depressed regions with a blend of international and national investments.¹⁹⁴ Underestimating the risk of diversification beyond key competency, Heim views SH&WR and Hawthorn Leslie as successful because of their ability to generate acceptable returns from investments while awaiting any upturn in trade.¹⁹⁵ After 1918, with increasing competition, rising costs and a scarcity of Admiralty contracts, shipbuilders needed to improve efficiency and reduce overheads wherever possible, particularly naval shipbuilders. These goals were achieved increasingly via mergers. By 1927, both Armstrong Whitworth and Vickers had found that orders were insufficient to provide work to carry the burden of shop and

¹⁹¹ NA, CAB/24/132, Report of Cabinet Committee, p. 3.

¹⁹² Johnman and Murphy, *British shipbuilding*, p. 29.

¹⁹³ Greaves, *Industrial*, p. 223; Jones, *Shipbuilding*, p. 135.

¹⁹⁴ C E Heim, 'Interwar Responses to Regional Decline', in *The decline of the British economy*, ed. Elbaum and Lazonick, p. 249; 'City news – Armstrong Whitworth's report', *The Times*, 31 May 1926, p. 22.

¹⁹⁵ Heim, 'Interwar Responses', p. 250.

general charges (including research and experimental expenditure) incidental to the business of naval shipbuilding.¹⁹⁶

Table 2.13: Armstrong Whitworth and Vickers: tonnage completed 1920–27¹⁹⁷

| | Armstrong Whitworth | Vickers |
|---------------------------------|----------------------------|----------------|
| Naval tonnage | 82,043 | 11,478 |
| Merchant and other tonnage | 396,759 | 236,188 |
| Total tonnage | 478,802 | 247,666 |
| Admiralty tonnage as % of total | 17.14 % | 4.63 % |

Armstrong Whitworth appeared to be more dependent on naval orders, though the figures are highly distorted by the tonnage of *HMS Nelson*. Armstrong Whitworth appeared to have a stronger presence in merchant ship construction, though not all the facilities for merchant shipbuilding were included in the amalgamation. Clay states that Armstrong Whitworth initiated the merger with Vickers; however, the merger arose because of the intervention of the Bank of England.¹⁹⁸ Vickers actually needed the merger as much as Armstrong Whitworth did. On their own, both were extremely vulnerable. Whether Vickers had the ability to survive is debatable. Whether Armstrong Whitworth could have survived, under the supervision of the Bank of England after its short burst of economic activity from 1926–29, remains uncertain. Furthermore, Vickers was extremely sensitive to the government's goal of a possible submarine ban at the LNC 1930.¹⁹⁹ The total annualised tonnage for these two firms for the period 1920–27 was as follows:

¹⁹⁶ Valerio Cerretano, 'The Treasury, Britain's postwar reconstruction, and the industrial intervention of the Bank of England, 1921-9', *Economic History Review*, vol. 61, no. 1 (2009), p. 89.

¹⁹⁷ See Appendices 1.0 for Armstrong Whitworth; and the data in relation to Vickers has been estimated with reference to data maintained by the World Ship Society.

¹⁹⁸ Sir Henry Clay, *Lord Norman* (London: MacMillan, 1957), pp. 320-23.

¹⁹⁹ McKercher, 'The Politics', p. 45.

| | Armstrong Whitworth | | Vickers | |
|------|---------------------|--------------|-----------------|--------------|
| | Merchant grt | Naval Sdt | Merchant Grt | Naval sdt |
| 1920 | 29,398 | 2,023 | 31,850 | 890 |
| 1921 | 56,296 | 960 | 56,068 | 890 |
| 1922 | 88,911 | - | 42,299 | 4,850 |
| 1923 | 28,069 | - | 2,156 | 2,140 |
| 1924 | 75,310 | 34,410 | 36,206 | - |
| 1925 | 57,190 | 1,000 | 53,461 | - |
| 1926 | 33,184 | 7,750 | 6,791 | - |
| 1927 | 28,401 | 35,900 | 7,357 | 2,708 |

The merger resulted in little internal rationalisation though considerable synergy existed between the two organisations.²⁰⁰ Recognising the plight of Armstrong Whitworth, the Bank of England forced through the merger, which was probably the least bad option, the alternative being closure of Armstrong Whitworth and liquidation.²⁰¹

William Beardmore's demise was hardly surprising since the company incurred losses for 15 out of 25 years.²⁰² During the 1920s, William Beardmore built *HMS Shropshire* (cruiser: 9,750 sdt), *HMS Olympus* (submarine: 1,475 sdt) and *HMS Orpheus* (submarine: 1,475 sdt).²⁰³ Unlike some competitors, the company failed to develop a strong relationship with the Admiralty, but more importantly, it had not developed historically strong links with shipping lines, which could have provided a financial lifeline.²⁰⁴

²⁰⁰ Evans, *Vickers*, pp. 18 and 19.

²⁰¹ TWAS, 130/1307 Papers to be attached to minutes, Memorandum on the proposed merger of Vickers and Armstrong Whitworth by William Plender, Independent Chairman of the Joint Committee of Vickers Limited and Sir W G Armstrong Whitworth & Co Limited, 22 June 1927.

²⁰² In the period from 1906 to 1919, William Beardmore built 52 vessels for the Admiralty including 4 battleships, 7 cruisers, 21 destroyers, 13 submarines and other ancillary vessels.

²⁰³ Johnman and Murphy, *British Shipbuilding*, p. 36; Lorenz, *Economic*, p. 29.

²⁰⁴ Johnston, *Beardmore*, p. 150 and Peebles, *Warshipbuilding*, p. 123.

Todd attributes Palmers Shipbuilding's failure to the lack of naval work.²⁰⁵ Conversely, Dougan pinpoints the beginning of Palmers Shipbuilding's demise back to 1889, when Palmers Shipbuilding submitted damagingly low tenders for *HMS Resolution* and *HMS Revenge*, both contracts resulting in heavy losses.²⁰⁶ Because of such losses, the company limped precariously through the remainder of its life, losing its financial strength and surviving on debt.²⁰⁷

Naval shipbuilding and its effect upon the shipbuilding regions

If shipbuilders believed that the merchant tonnage built during the 1920s was disappointing, they had greater justification to complain about the effects of the government cutbacks imposed upon Admiralty construction following the First World War.²⁰⁸ The impact of the WNC 1921 followed by the LNC 1930 enabled the government to limit the levels of expenditure permitted to the Admiralty.²⁰⁹ The Fisher period had effectively ended, whereby the private shipyards had been the major beneficiaries of naval programmes during the first part of the twentieth century in the lead-up to hostilities.²¹⁰ Whilst Britain experienced heavy losses during the First World War, its shipbuilding capacity remained intact to meet post-war challenges.²¹¹

Naval shipbuilding continued into 1919 from orders placed before the Armistice. However, throughout the interwar period, the effect of the limitation treaties curtailed naval shipbuilding, which Britain would not undertake in earnest until the LNT 1936 broke down.²¹² Despite the constraints during the interwar period 1920-1939, the North-East Coast of England shipyards built a battleship, cruisers, destroyers, submarines, sloops, minesweepers, naval trawlers and

²⁰⁵ Todd, 'Regional variations', p. 127.

²⁰⁶ Dougan, *The History*, p. 119.

²⁰⁷ Ibid, p. 120.

²⁰⁸ Barnett, *The audit*, p. 112.

²⁰⁹ O'Connor, 'The Yardstick', p. 442; Macdonald, 'The London Naval Conference', p. 450; Berg, 'Admiral Standley', p. 216.

²¹⁰ Admiral Jackie Fisher was responsible for the development of the *Dreadnought* battleship as well as the cruiser. Fisher also recognized the importance of submarines and their role in future hostilities.

²¹¹ Todd, 'Strategies', p. 59.

²¹² Dougan, *The History*, p. 173.

sundry craft from eight shipyards. The West of Scotland built from 15 shipyards during the interwar period 1920-1939, but completed no battleships until after the declaration of hostilities in 1939; however, this region did build a superior number of cruisers and destroyers.²¹³ The work undertaken on behalf of the Admiralty in the West of Scotland, mainly comprised the construction of ships and engines designed by the Admiralty, although Yarrows, in addition to building destroyers and river gun boats, were also successful in 'warship design.'²¹⁴

In view of the decisions reached at the WNC, and whilst agreeing to the termination of battlecruisers, Britain obtained approval to construct two battleships, *HMS Nelson* and *HMS Rodney*.²¹⁵ Armstrong Whitworth on the Tyne built the battleship *HMS Nelson* whilst Cammell Laird on the Mersey built *HMS Rodney*.²¹⁶ To severe disappointment, the Clyde failed to be involved in the two orders for the battleships.²¹⁷ However, whilst the North-East Coast of England benefitted from the construction of the battleship *HMS Nelson*, the Clyde constructed thirteen cruisers during the interwar years, in comparison to the North-East Coast of England's eight cruisers. Throughout the interwar period, the North-East Coast of England built naval vessels totalling 225,427 sdt and 86,093 grt, compared to the West of Scotland, which built 296,238 sdt and 86,263 grt. Nevertheless, there was a long period of unemployment in both regions due to the frugality of a government unprepared to expend money on a naval force when it was unlikely to face war for at least ten years.²¹⁸

At the end of the First World War, Britain's position appeared to be in good order as the remnants of its naval armoury far exceeded all other forces (Table 2.14). Britain had 61 battleships, as well as being far superior in all other forms of naval armament at the Armistice.

²¹³ Appendix 4.0, 1 to 8.

²¹⁴ Peebles, *Warshipbuilding on the Clyde*, p. 157.

²¹⁵ Johnston, *Beardmore*, p. 173; Gordon, 'Naval procurement', p. 107.

²¹⁶ Roskill, *Naval Policy*, p. 332; Till, 'Retrenchment', p. 320.

²¹⁷ Gordon, 'Naval procurement', p. 107.

²¹⁸ Whilst Britain stood down its ideology of the two-power standard, it remained committed to the 'ten-year rule', whereby the Government decreed that it would not go to war against a major power for ten years.

However, Table 2.14 is highly deceptive.²¹⁹ Britain suffered exhaustion, lacked prosperity, was politically unstable, and its economy was insecure.²²⁰ The economic outlook appeared uncertain and whilst Britain had 61 battleships at its disposal, the reality was that the government wanted to see Britain's battleships reduced in number to below that operated by the US.²²¹ By June 1919, the Admiralty expected to keep 21 battleships in service, although the Treasury had wanted this reduced to 15 immediately, with further reductions in due course.²²² In the immediate days of peace following the First World War, Churchill believed that Britain should maintain its position as the world's leading naval power, though within a short period his enthusiasm softened. These conflicting difficulties continued until the signing of the WNT 1921.²²³

Table 2.14: Analysis of the main naval forces in November 1918²²⁴

| | Britain | United States | France | Germany | Japan | Italy |
|-------------------|----------------|----------------------|---------------|----------------|--------------|--------------|
| | No. | No. | No. | No. | No. | No. |
| Battleships | 61 | 39 | 20 | 40 | 13 | 14 |
| Battlecruisers | 9 | - | - | 5 | 7 | - |
| Cruisers | 30 | 16 | 21 | 3 | 10 | 7 |
| Light cruisers | 90 | 19 | 8 | 32 | 16 | 10 |
| Flotilla leaders | 23 | - | - | - | - | 8 |
| Destroyers | 443 | 131 | 91 | 200 | 67 | 44 |
| Submarines | 147 | 86 | 63 | 162 | 16 | 78 |
| Aircraft carriers | 4 | - | - | - | - | - |

²¹⁹ Till, 'Retrenchment', p. 319.

²²⁰ Ibid.

²²¹ Bell, *Royal Navy*, p. 8.

²²² Ibid.

²²³ Tuvia Ben-Moshe, *Churchill, strategy and history* (Colorado, Lynne Rienner Publishers, 1992), p. 85.

²²⁴ Roskill, *Naval Policy*, p. 71.

From 1919 until 1938, the Royal Dockyards launched 212,358 sdt, which represented an average of 10,618 sdt per annum from the four naval dockyards at Chatham, Sheerness, Portsmouth and Devonport. In comparison, the same dockyards launched 606,492 sdt during the years 1900–13, which represented an annual average output of 43,321 sdt. Up until 1880, private shipyards undertook very little naval construction, as the Royal Dockyards mainly built new ships.²²⁵ However, from the beginning of the twentieth century the private shipyards built at least 50 percent of the Royal Navy's requirements, though during the interwar period up until 1938 the private shipyards built 77.6 percent of all British naval vessels.²²⁶

Unlike the private shipyards, the Royal Dockyards failed to implement piecework rates or any form of incentive-based wage rates.²²⁷ Steps taken as far back as 1888 compared the cost of work undertaken in Royal Dockyards and private shipbuilding yards, though during the early 1920s, difficulties arose in dismissing staff, as workers were no longer required in the Royal Dockyards.²²⁸ Whilst it was cheaper to maintain new construction within private shipyards, such yards could not compete with the costs undertaken by the Royal Dockyards in relation to repair work.²²⁹ Geddes believed that if the Royal Dockyards were unable to reduce their costs, then Admiralty work would be re-allocated in order to achieve further curtailments of expenditure.²³⁰

²²⁵ R J Irving, 'New industries for old? Some investment decisions of Sir W G Armstrong Whitworth & Co Ltd, 1900-1914', *Business History*, vol. 17, no. 2 (1975), p. 167.

²²⁶ Jones, *Shipbuilding*, p. 126.

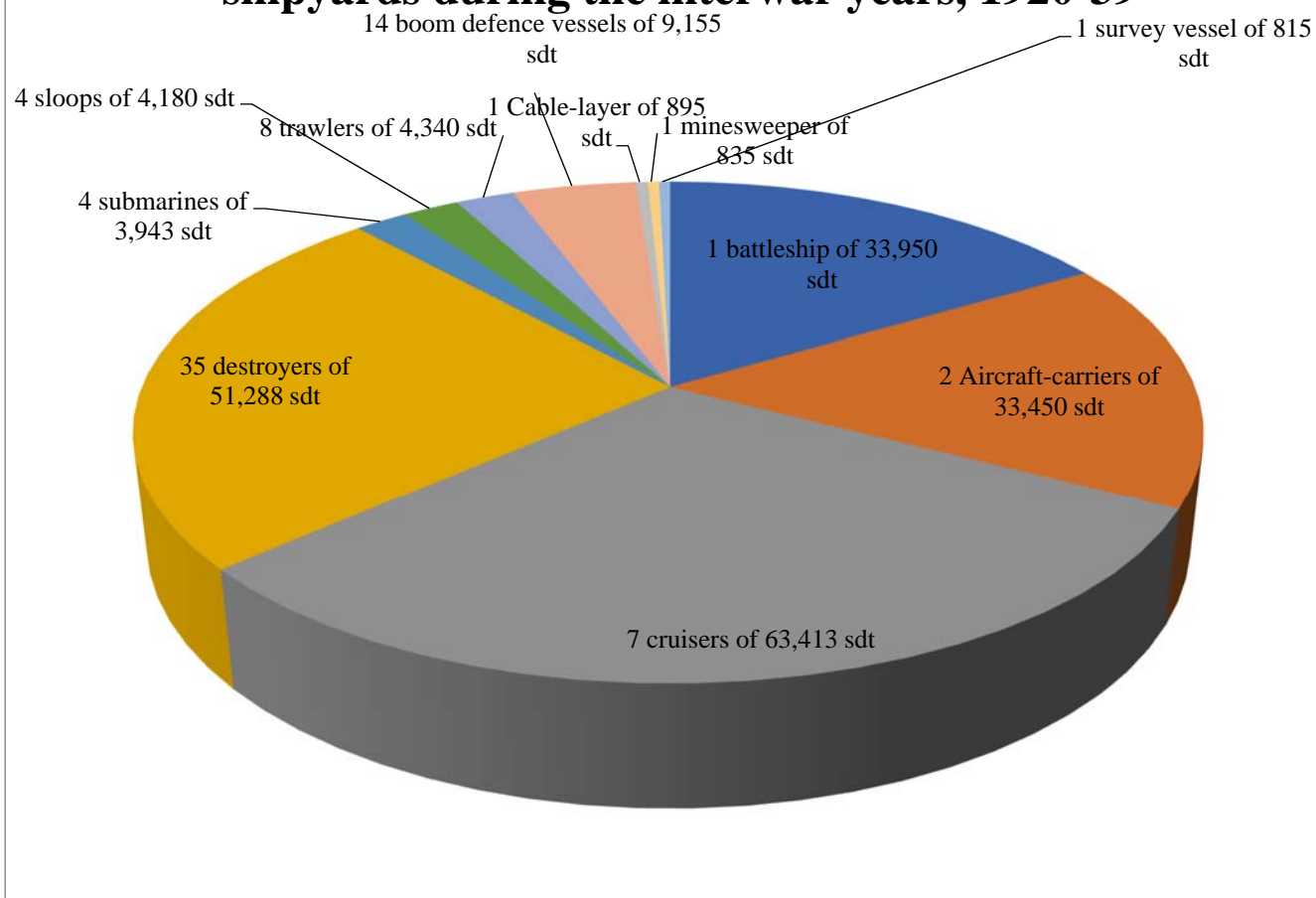
²²⁷ Geoff Burrows and Phillip Cobbin, 'Controlling government expenditure by external review: The 1921-2 "Geddes Axe"', *Accounting History*, vol. 14, no. 3 (2009), p. 208.

²²⁸ *Ibid.*

²²⁹ Jones, *Shipbuilding*, p. 126.

²³⁰ Burrows and Cobbin, 'Controlling government', p. 208.

Diagram 2.2 Tonnage completed on behalf of the Admiralty by the North-East Coast of England shipyards during the interwar years, 1920-39

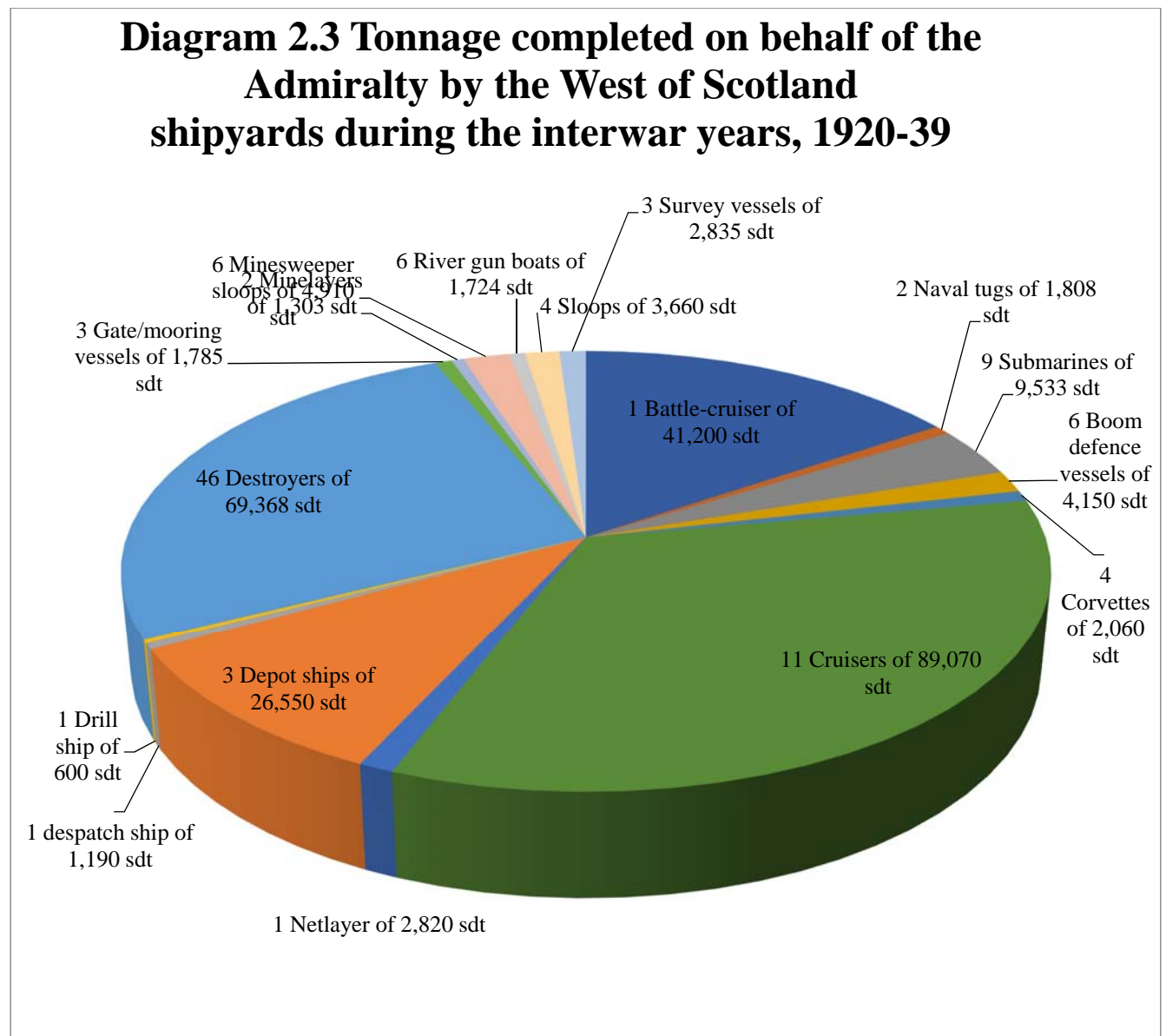


In addition, to the Admiralty vessels set out in diagram 2.2, there were also 11 naval vessels built for overseas nations totalling 19,163 sdt. Furthermore, not all Admiralty vessels were built in terms of sdt. On the North-East Coast of England shipbuilders constructed 15 naval vessels of 86,092 grt, whereas shipbuilders on the West of Scotland built 86,263 grt.²³¹ Shipbuilders in the West of Scotland built 109 vessels of 264,566 sdt for the Admiralty as well as 13 vessels of 31,672 sdt for foreign forces.

The development of armoured materials by the main private shipbuilders resulted in the Royal Navy becoming increasingly dependent upon shipbuilders based on the West of Scotland,

²³¹ See Appendix 4.0.

North-East Coast of England, Merseyside and Barrow as these shipbuilders controlled the supply of steel armour and gun turrets, needed by the Admiralty.²³² During the interwar years, the Clyde and the Tyne continued to dominate shipbuilding for the Admiralty.²³³ The difficulties experienced within the Royal Dockyards in the post-war years mirrored the problems that the private shipbuilders confronted, because of the fall in orders of both merchant and Admiralty shipbuilding contracts.²³⁴



²³² Todd, 'Regional variations', p. 130.

²³³ Ibid., p. 131.

²³⁴ Jones, *Shipbuilding*, p. 126.

In 1918, Britain's private shipbuilding yards constructed over 500,000 sdt of Admiralty vessels, however, by 1920 the volume of output had decreased to less than 20,000 sdt.²³⁵ During the interwar years Britain faced a period of conserving its battleships whilst developing its cruisers.²³⁶ In view of difficulties that arose following the commencement of the Second World War, the Royal Dockyards resorted to dealing with repair and maintenance. The outbreak of the Second World War differed significantly from the First World War because of the use of airpower, since the Royal Dockyards based on the Thames estuary and the South coast became increasingly vulnerable to air attacks.²³⁷ As this continued, ship repair work relocated to shipyards on the Clyde and at Rosyth, as well as Palmers Shipbuilding on the Tyne, which NSS acquired in 1936.²³⁸

Whilst the government took steps during 1926 to close the Royal Dockyard at Pembroke, the Admiralty continued to place orders in the remaining Royal Dockyards during the interwar years. The placing of orders within the Royal Dockyards facilitated the training of dockyard staff as well as creating a check on contract prices charged by the private contractors.²³⁹ The Admiralty used price-competitive tendering in the procurement of warship contracts. Johnman and Murphy believe that during the 1930s, despite attempts by the Admiralty to compare costs, it proved virtually impossible because of a degree of collusion on price-fixing by private shipbuilders.²⁴⁰ In addition to building ships for the British Admiralty during the interwar years, British shipyards built naval vessels for other countries, including Australia and other Commonwealth countries. In 1935, *HMS Sydney*, which had been laid down at SH&WR for

²³⁵ Ibid., p. 125.

²³⁶ The cruisers built on the North-East Coast of England and the West of Scotland during the 1920s comprised *HMS Emerald* (7,750 sdt), *HMS York* (8,250 sdt), *HMS Sussex* (9,830 sdt), *HMS Despatch* (4,765 sdt) *HMS Berwick* (9,750 sdt), *HMS Enterprise* (7,580 sdt), *HMS Durban* (4,650 sdt), *HMS Raleigh* (9,750 sdt), and *HMS Shropshire* (9,830 sdt). See Appendix 4.0.

²³⁷ Till, 'Retrenchment', p. 335.

²³⁸ Todd, 'Regional variations', p. 129.

²³⁹ Ibid., p. 132.

²⁴⁰ Johnman and Murphy, *British shipbuilding*, p. 57.

the Admiralty, was transferred to the Australian government and launched on 22 September 1934. Twelve months later she was ready to leave the Tyne and proceed to Portsmouth to undertake sea trials before sailing to Australia.²⁴¹

During the years 1920 to 1938, Naval shipbuilding totalled 788,943 sdt including 208,908 sdt built in the Royal Dockyards.²⁴² Buxton stated that during the interwar years, the Clyde built 40 percent of total warship tonnage.²⁴³ Jones states that during the years 1920-38, the West of Scotland built 23.75 percent of the Admiralty's contracts, the North-East Coast of England constructed 21.24 percent, the Royal Dockyards built 26.48 percent, and other British shipbuilders built 28.53 percent.²⁴⁴

Britain's naval supremacy appeared intact at the Armistice in 1918; however, Japan and the United States felt disgruntled with their mediocrity in relation to warship construction.²⁴⁵ The WNT was of the utmost importance since for economic purposes it enacted an agreement that prevented and removed 'primary weapon systems.'²⁴⁶ Given difficulties encountered during the First World War, the WNT provided the British government with the opportunity to make economies and restrict naval expenditure.²⁴⁷ The treaty reached in Washington provided a stable environment and minimised uncertainty in world affairs, particularly in the Far East.²⁴⁸ The WNT addressed issues regarding weapons, quality of tonnage built, as well as tonnage of capital ships. The difficulties Britain faced in the immediate post-war period arose from the age of its battle-fleet, including the old *Dreadnought* class, which by the 1920s was obsolete. Whilst building the battleships that were launched in 1925, Britain began to focus on cruiser

²⁴¹ 'Sydney leaves, Tyne's farewell to cruiser', *Shields Gazette*, 24 September 1935, p. 3.

²⁴² Jones, *Shipbuilding*, p. 125.

²⁴³ Buxton, 'Scottish shipbuilding', p. 112; Jones incorrectly includes a battleship on the Clyde during 1925, whereas it was actually built on the Mersey.

²⁴⁴ Jones, *Shipbuilding*, p. 125; and Appendix 4.0.

²⁴⁵ Berg, 'Admiral Standley', p. 216.

²⁴⁶ Cassady B Craft, 'An analysis of the Washington naval agreements and the economic provisions of arms control theory', *Defence and Peace Economics*, vol. 11, no. 1 (2000), p. 128.

²⁴⁷ Berg, 'Admiral Standley', p. 216.

²⁴⁸ Craft, 'An analysis', p. 129.

construction, particularly from 1926.²⁴⁹ The British Admiralty refrained from constructing any further vessels in private shipbuilding yards in the period up until 1926.²⁵⁰

Given the heightened threat of hostilities, the programme of 1937 expanded naval construction significantly, including three capital ships, two aircraft carriers, seven cruisers, sixteen destroyers, seven submarines, and a large number of support craft. Admiralty's proposed construction programme for 1939 was extensive, although the programme created problems with regard to production capacity in those firms, which manufactured armour as well as armaments.²⁵¹ Of the new programme, the Royal Dockyards built four vessels, whilst the remaining 81 vessels were to be contract-built in private shipyards.²⁵² Admiralty orders during 1939 provided some comfort to the private shipbuilding sector, given that merchant shipbuilding in Britain witnessed a fall of over 14 percent within the two regions during 1939. However, the problems of years of cutbacks were beginning to take effect. The capacity for heavy guns was now less than in 1914, owing to the number of firms that had gone out of business. Current programmes had absorbed all the facilities for gun mountings and the dates of ordering vessels became fixed to the dates by the availability of gun mountings.²⁵³

²⁴⁹ Ibid., p. 128.

²⁵⁰ After launching *HMS Nelson*, the North-East Coast of England had to wait until 28 February 1928 before Hawthorn Leslie launched *HMS Sussex*, a 9,740 sdt cruiser, which had armoury comprising eight 8-inch guns and eight 4-inch guns. Palmers Shipbuilding then launched the cruiser *HMS York* during July 1928, with armoury comprising six 8-inch guns and eight 4-inch guns. During 1928, Fairfield Shipbuilding launched *HMS Norfolk* (9,925 sdt), and William Beardmore launched *HMS Shropshire* (9,830 sdt). Both *HMS Norfolk* and *HMS Shropshire* had armoury comprising eight 8-inch guns and eight 4-inch guns.

²⁵¹ NA, CAB/24/282, Memorandum by the First Lord of the Admiralty, New Construction Programme 1939, p. 2.

²⁵² 'The Navy Estimates – ships completed and under construction', p. 176.

²⁵³ NA, CAB/24/281, Report by the Minister for Co-ordination of Defence. The increase of manufacturing capacity for certain armaments to build up a greater war potential and to meet foreign orders, 19 December 1938, p. 6.

Conclusions

After 1918, naval shipbuilders and the Admiralty had to come to terms with the lack of naval orders arising from the government's concern about the national debt and the limitation treaties. The Admiralty believed Britain faced potential hostilities with the US and Japan, but managed to reduce its naval strength from a two-powered to a one-powered standard, even under pressure. Consequently, persistent disagreements arose between Admiralty and Treasury as to what, in fact, was the required level of naval strength. Whilst, the lack of naval orders placed a heavy burden on those shipbuilders specialising in warship construction. However, the government was always able to argue that, whilst bound by the limitation treaties, Britain had to abide by their terms. Peden argued that reduced Admiralty demand for ships between 1921 and 1936 was not the result of the limitation treaties, but was due to the frugality of political parties that governed Britain during the interwar period.²⁵⁴ The cancellation of naval contracts during 1919 affected the shipbuilding industry. Lack of co-ordination and poor financial planning accompanied the procurement of *HMS Nelson* and *HMS Rodney*. Jones believed that the co-ordination of naval construction improved after 1939. However, as this chapter has attempted to show, fiscal planning had been effective immediately after 1918, although more often than not, Treasury plans did not tally with those of the Admiralty. In fact, strategic planning became an essential feature of naval construction programmes. Admiralty and Treasury planning adapted to the naval treaties to operate within Inskip's finance proposals for defence expenditure leading up to the Second World War.²⁵⁵ Jones correctly highlights that planning would have been more effective where programmes of construction were announced, and then adhered to. This would have protected the capacity and expertise required to undertake naval construction in the event of war.²⁵⁶ Capacity was lost in terms of both armament and

²⁵⁴ Ibid., p. 5.

²⁵⁵ Jones, *Shipbuilding*, p. 234.

²⁵⁶ Ibid.

shipbuilding facilities. Some yards performed better than others did. While some failed, others merged in order to avoid failure. The failure of both William Beardmore on the West of Scotland and Palmers Shipbuilding on the Tyne were the main failures of firms heavily involved with naval shipbuilding. Armstrong Whitworth rationalised in 1927 and became Vickers-Armstrong. Vickers-Armstrong's contracts were shared between Barrow and Tyneside. On 15 August 1935, it was reported that Vickers-Armstrong had secured a contract to build a cruiser for the Argentine government, and whilst the ship was built at Barrow, the armaments were built at the firm's Elswick shipyard.²⁵⁷ Naval tonnage built on the West of Scotland and the North-East Coast of England during the interwar period can be summarised as follows:

Table 2.15: Summary of naval contracts completed in private shipyards²⁵⁸

| | North-East Coast of England Sdt | West of Scotland Sdt |
|--------------|--|-------------------------------------|
| 1920s | 100,852 | 119,453 |
| 1930s | <u>124,575</u> | <u>176,785</u> |
| Total | <u>225,427</u> | <u>296,238</u> |

By the time the depression ended in the 1930s the North-East Coast of England was left with only three main naval shipbuilding firms on the Tyne: SH&WR, Hawthorn Leslie and Vickers-Armstrong. However, the West of Scotland continued with John Brown, Fairfield Shipbuilding, William Denny, Scott's Shipbuilding, Alexander Stephen, and Yarrows.

Throughout the interwar period, workers left the industry and there were significant falls in the number of apprenticeships, which seriously affected the skills base required to build naval

²⁵⁷ '£1,000,000 cruiser contract, Tyneside to share in order from Argentine', *Shields Gazette and Shipping News*, 15 August 1935, p. 1.

²⁵⁸ See Appendix 4.0.

vessels.²⁵⁹ While certain companies such as SH&WR and John Brown invested and upgraded their facilities, a large number of yards continued to operate machinery that had been in place in 1914.²⁶⁰ These companies avoided the burden of capital investment during the precarious interwar decades, knowing that capital lockup could always be minimised and workers dismissed when work diminished.²⁶¹ The causes of the depressed state of naval shipbuilding were largely beyond management control.

In a regional comparison of the British shipbuilding industry, analysis of the relationship between naval and merchant shipbuilding helps to clarify the complexity of government-industry relations and patterns of performance. In his 1957 publication, Jones implies that some form of correlation existed between naval and merchant shipbuilding output. In general, therefore, Jones's statement that 'variations in shipyard employment arising from cyclical fluctuations in the demand for merchant ships were accentuated by a similar pattern of naval demand' in effect cannot be correct on a regional basis.²⁶² Later, however, he concludes that 'warship building is dictated very largely by political and strategic factors.'²⁶³ Appendix 32.0 pages 1 to 8 examine the relationship between merchant and naval shipbuilding during the interwar period, on the North-East Coast of England and the West of Scotland on an actual basis, in both overall terms and the 1920s and 1930s in isolation, as well as on the assumption the super-*Hood* battlecruisers were built, as originally envisaged, and without the battleships sanctioned under the WNT.²⁶⁴ The economic cycles that affected the interwar period bore little or no relationship to the contracts awarded by the Admiralty, despite the reference by Buxton,

²⁵⁹ Robertson, 'Technical', p. 222.

²⁶⁰ Lorenz and Wilkinson, 'The shipbuilding industry', p. 113.

²⁶¹ J D Scott and R Hughes, 'The Administration of War Production', in *History of the SWW*, ed. K Hinceck (London: HMSO, 1955), p. 103.

²⁶² Jones, *Shipbuilding*, p. 58.

²⁶³ *Ibid.*, p. 234.

²⁶⁴ In attempting to calculate the relationship between merchant and naval shipbuilding during the interwar period, a measure of linear correlation has been calculated using the product moment coefficient. The coefficient demonstrates the strength of the relationship that exists between two sets of variable data.

who in effect supports Jones.²⁶⁵ All eight calculations demonstrate varying degrees of correlation between merchant and naval shipbuilding. However, correlation is evidenced best when the 1920s and 1930s are looked at as separate calculations, though even then the correlation ranges between -0.248356 and +0.559682. The results are understandable given that one form, of shipbuilding relates purely to economic conditions of world trade and the impact upon freight rates and the other to political and international security.

²⁶⁵ Buxton, 'Scottish shipbuilding', p. 117; Jones, *Shipbuilding*, p. 58.

CHAPTER THREE: THE SHIPBUILDING INDUSTRY AND THE TRADE FACILITIES ACTS

Introduction

Notwithstanding the difficult times experienced by the shipbuilding industry during the 1920s, assistance from government was limited.¹ In addition to postal subventions, which were available to large liner companies, in 1921 the government introduced the TFA.² This Act provided, through government-backed guarantees, a stimulus towards construction, in an attempt to alleviate rising unemployment.³

This chapter will examine the difficulties which shipbuilding suffered from foreign competition, and appraise Britain's relative failure to adopt the motorship as a suitable replacement for the tramp steamer. In addition, it will review the troubling impact of changing patterns in world trade. Finally, this chapter will assess the effectiveness of the legislation regarding unemployment and the shipbuilding industry, with reference to government assistance, mainly through the TFAs.⁴

Johnman and Murphy have investigated government's difficulties in dealing with the paralysis of the 1920s. They note that in relation to the TFAs that 'in the absence of any reliable estimate of net employment benefit its impact was in all likelihood heavily disproportionate to the sums advanced over the lifetime of the TFA scheme.'⁵ For them, shipbuilders were 'unlikely to look a gift horse in the mouth', when considering guarantees. They support the Treasury's view that funds might have been available to construct ships built under the TFAs, regardless of government assistance. Prior to 1921, shipbuilders and shipowners had been restricted through

¹ Parkinson, *Economics*, p. 85.

² Hogwood, *Government*, p. 35.

³ M Davies, *Belief in the Sea, State Encouragement of British Merchant Shipping and Shipbuilding* (London: Lloyd's of London Press, 1992), p. 110.

⁴ Gilbert, *British*, p. 46.

⁵ Johnman and Murphy, 'Subsidy', p. 107.

Blue Book rates and Excess Profit Tax regulations, as well as the high cost incurred in ship replacement, and an uneconomical insurance recovery level for war losses.⁶ This, together with a drastic fall in freight rates during 1920–21, suggests that the TFAs provided much-needed assistance to the shipbuilding industry. According to Jones, the goal of the TFAs was to reduce unemployment, and shipbuilding just happened to be a beneficiary.⁷

Johnman and Murphy note, ‘their closure at the end of 1927, in some ways forced the industry to stand on its own two feet and led it into some form of self-rationalisation, ultimately aided by the Bank of England, which culminated in the formation by leading shipbuilding firms in 1930 of a private company, National Shipbuilders Security (NSS).’⁸ Jones believes that TFAs’ critics failed to appreciate that those vessels built with government assistance-backed guarantees sought to recover trade that had been lost under the British flag during the First World War. According to Jones, few ships built under the TFAs related to ordinary tonnage; the largest share involved the liner trade. Jones notes that during the six years the TFAs were in operation, British shipyards built 6.5 mgt of shipping. The construction that took place under the auspices of the TFAs, and somewhat similar measures undertaken in Northern Ireland, provided less than one year’s work.⁹

The studies undertaken by historians such as Slaven are essential, and his work on the Clyde shipbuilder, John Brown provides a valuable assessment of the problems experienced by one particular shipbuilder during the interwar period: the difficulties within John Brown’s yard had industry-wide ramifications. In his work, Slaven argues that the industry had three problems: persistent weak demand and an ever-shrinking order book; excess capacity made worse by an increasing cost base; and a failure to adopt new technology.¹⁰ As shipbuilders, both Lithgow

⁶ Sturmeay, *British Shipping*, pp.48-49.

⁷ Johnman and Murphy, ‘Subsidy’, p. 102.

⁸ *Ibid.*, p. 107.

⁹ Jones, *Shipbuilding*, p. 144.

¹⁰ Slaven, ‘A shipyard’, p. 194.

and Hunter referred to the untenable position with regard to the cost structure, whilst Jones details the failure to adopt the motorship as a major setback. This chapter will provide clarification of the shipbuilders' position and the difficulties they faced with government assistance during the 1920s.

British shipbuilding after war's end

During 1919, British shipyards launched 1.6 mgrt in merchant shipping, whilst the rest of the world launched 4.3 mgrt. However, in 1919 British shipyards completed Admiralty contracts and ships built for the shipping controller, in addition to reconditioning and repairing existing tonnage, following the Armistice.¹¹ In the post-war period, it became difficult to get new tonnage launched or even commenced. The tonnage under construction in 1919 was twice the volume launched.¹² This in itself was initially unproblematic as shipbuilders recognised they had strong order books that would last for several years. The Report of Proceedings to the shareholders at Armstrong Whitworth dated 22 November 1919 expressed the optimism within the shipbuilding industry at that time. The report indicated that the company's yards were full and that modifications undertaken had created adequate 'capacity for constructing the very largest passenger and freight vessels.' The report further advised that its slips 'are now occupied' and the company was building 'three of the finest liners, two for Cunard and one for P&O.'¹³

¹¹ Johnman and Murphy, *British Shipbuilding*, p. 7.

¹² Sturmeay, *British Shipping*, p. 60.

¹³ TWAS, 130/1453, Report of Proceedings at the 25th Ordinary General Meeting of Sir W G Armstrong Whitworth & Co Ltd.



Photo 3.0: *RMS Ausonia*, built for Cunard by Armstrong Whitworth¹⁴

In the immediate post-war period, Britain had recourse to four supply lines in order to replenish its depleted merchant fleet.¹⁵ During the war, the government constructed standard ships to assist the British merchant marine and whilst their suitability for all trades was questionable, they were, after the war, sold into private ownership.¹⁶ Shipbuilders worried about the government's obligations to build standard ships on a mass-produced bases to assist the war effort.¹⁷ Mass production did not fit well within a British shipyard environment where work was specialised and carried out to specific orders, and where even sister ships differed significantly.¹⁸ This government sale provided the merchant fleet with 1.4 mgt of new shipping. In addition to government ships, German merchant ships seized as reparations became available in September 1920.¹⁹ Germany conceded to the Allies all its vessels totalling 1,600 grt and over, and approximately 50 percent of those with a tonnage between 1,000 and 1,600 grt, together with 250,000 grt relating to shipping under construction.²⁰ The German

¹⁴ Armstrong Whitworth in Newcastle built the *RMS Ausonia* as the third of Cunard's six post-First World War 'A' Liners. www.norwayheritage.com [accessed 29 January 2016].

¹⁵ Sturme, *British shipping*, p. 56.

¹⁶ Cormack, 'An Economic History', p. 289

¹⁷ Reid, *James Lithgow*, p. 60.

¹⁸ *Ibid.*

¹⁹ More, *Britain*, p. 73.

²⁰ Sturme, *British Shipping*, p. 45.

shipping was an unwanted gift to the British shipowners. British and allied shipowners purchased the vessels at low values, averaging £8 per ton.²¹ British owners failed to take up the total available, at which stage Lord Inchcape purchased a large amount of shipping, to prevent it forming a possible nationalised fleet.²² British shipowners were able to purchase vessels from foreign owners, as well as newly built tonnage from British shipbuilders. The purchase of ships from the British government, the reparation vessels, and the ships bought from overseas were an unmitigated tragedy to the British shipbuilder. In total, Britain received approximately 2.2 mgt by way of reparations, although the compensation from Germany went much further.²³ More importantly, Germany now had the opportunity to rebuild a modern and efficient fleet to replace its old vessels.²⁴ British shipowners were not particularly interested in the reparation vessels, since by September 1920 the market was already deteriorating.²⁵ Ships were also available from foreign owners. Greece, Spain and the Scandinavian countries all provided British shipowners with shipping, though at inflated rates. Newly constructed ships were also available to the British shipowner.²⁶

Even though there was ample shipping, the demand to replace wartime losses, as well as participate in the post-war boom, inflated shipbuilding costs. Shipbuilders were prepared to accommodate increased wages as ship prices rose.²⁷ However, it was not until the bubble burst in 1921 that shipbuilders sought to reduce wages. At the point when demand was at its highest, in March 1920, shipowners would pay 30 percent over the vessel's cost in order to secure a ship immediately and take advantage of the rising freight market.²⁸ No one anticipated a sudden change in circumstances in the expectation of unabated prosperity. Tonnage prices continued

²¹ Ibid.

²² Johnman and Murphy, *British Shipbuilding*, p. 8.

²³ Pollard, *Peaceful*, p. 285; Sturmey, *British Shipping*, p. 57.

²⁴ Thornton, *British Shipping*, p. 84.

²⁵ Ibid.

²⁶ Sturmey, *British Shipping*, pp. 56-59.

²⁷ Slaven, 'A shipyard', p. 204.

²⁸ Sturmey, *British Shipping*, p. 59.

to rise until the first quarter of 1920, when it reached £58.18 per ton. However, from that point until the second quarter of 1921, tonnage prices fell to £10.80 per ton.²⁹

Between 1914 and 1920, construction costs rose by 400 percent.³⁰ The rising price of steel plates, increases in wage rates, reduction in working hours, and the interruption to work caused by labour disputes contributed to this increase.³¹ When the freight market collapsed in 1920, the shipbuilding industry recognised that shipbuilding costs required a reduction of 50 percent if there was to be any incentive to encourage shipping companies to continue placing orders. Sir George Hunter, chairman of SH&WR, emphasised the gravity of the situation, explaining that: ‘since the beginning of this year, no new order to build a ship has been received for Wallsend.’ Hunter went on to state that ‘a vessel, now nearly completed at the Sunderland yard, has now been sold, but at a price which is practically only half the cost of building the ship – that is at a loss of about 50 percent.’ Even contracts that would take a loss were unobtainable.³² SH&WR, whilst renowned for their diverse specialism, now experienced a dearth of orders. In fact, the North-East Coast of England received no contracts between January and June 1921, and shipyards on the River Wear were working on their final contracts.³³ SH&WR accounts for 1920 reported that ‘No new orders for ships have been received during the past six months and none can be expected until the present excessive costs of building have been greatly reduced.’ The company had temporarily closed their yard at Southwick, Sunderland despite launching 170,064 grt during 1920, which was exceptional by anyone’s standard.³⁴ However, Hunter recognised that shipbuilding was in the ‘depths of the worst depression ... ever experienced. There were hundreds of thousands of our people unemployed, and millions of

²⁹ Ibid.

³⁰ Johnman and Murphy, *British Shipbuilding*, p. 15.

³¹ Jones, *Shipbuilding*, p. 94.

³² ‘The shipbuilding centres, North East coast’, in *The Shipbuilder*, ed. A G Hood (1921), p. 258.

³³ Ibid.

³⁴ TWAS, 1826/36/20, Annual Report of Swan Hunter, Year ending 31 December 1920.

men, women and children suffering from want. Work was wanted for them – not dole – but work.³⁵

Market conditions could not sustain the high tonnage prices paid in 1919 and 1920. By 1920, the merchant fleet had expanded by 3.7 mgt in addition to the merchant ships taken as reparations from Germany.³⁶ The British merchant fleet now comprised a large volume of over-priced outdated tonnage. Much of this would be laid up for long periods after the freight rates collapsed.³⁷

When the markets began to collapse in 1920, shipowners quickly sought to cancel orders. It was not just the tramp sector that experienced the downturn. Once the cancellations began, almost all vessels suffered the same fate, and the only vessels where orders were still available were oil tankers. British shipyards, unlike Norwegian ones, failed to grasp the importance of such vessels.³⁸

The cancellations resulted in large compensation payments to shipbuilders. Up to 1914, shipowners would place orders for ships based on the 'cost plus percentage' basis. However, as costs began to increase at a rapid rate from 1914, shipowners discovered that the ship's cost when ordered bore no relationship to the final contract price. Shipowners then began placing orders on a fixed price basis, or a fixed price with some margin to reflect changes in labour costs.³⁹ In the period 1919 to 1928, John Brown's shipyard on the Clyde tendered for 226 merchant shipbuilding contracts and secured 26 orders. Of these, John Brown secured over 88 percent on a fixed price contract, which was in stark contrast to the position before the First World War.⁴⁰

³⁵ 'Sir G B Hunter & trade outlook', *Evening Chronicle*, 15 September 1921, p. 8.

³⁶ 'British shipbuilding in 1921 and the coming year', in *The Shipbuilder*, ed. A G Hood (1922), p. 65.

³⁷ Hope, *A new history*, p. 358.

³⁸ Sturmey, *British Shipping*, p. 78.

³⁹ 'British shipbuilding in 1920 and the coming year', in *The Shipbuilder*, ed. A G Hood (1921), p. 65.

⁴⁰ Slaven, 'A shipyard', p. 197.

The effects of recession within the British shipbuilding industry

1. Unemployment and labour issues

By 1921, Britain was experiencing significant unemployment, with an estimated 22 percent of insured workers unemployed (2.4 million workers).⁴¹ The unemployed within the shipbuilding industry during 1921, however, totalled only 39,712, or 11.7 percent of the industry's insured workforce. Whilst 1922 saw an improvement in production in certain industrial output, a time lag existed between shipbuilding and other industries, as vessels were completed. When this lag expired, the shipbuilding industry witnessed a serious downturn. Unemployment within the industry rose to 35.2 percent during 1922 and did not fall below 30 percent until 1928, although amongst insured workers it fell below 30 percent during 1924 before deteriorating again until 1927.⁴²

By autumn 1924, unemployment within the shipbuilding and ship-repairing industry remained a major problem, despite some improvement in trade that year. This recovery within the shipbuilding industry, however, was short-lived. Scrap values had been improving since 1922, and in the period 1922 to 1924, shipowners scrapped 2.5 million tons of shipping. This, together with the growing interest in the motorship, brought work to the shipyards. Unfortunately, trade began to tail off by early 1925, the problems being exacerbated by the coal strike between May and December 1926 (Table 3.0).⁴³

⁴¹ Aldcroft, *The interwar*, p. 37.

⁴² Johnman and Murphy, *British Shipbuilding*, p. 19.

⁴³ 'Shipbuilding decrease: Lowest figure since 1909, Effect of the coal strike', *Manchester Guardian*, 13 October 1926, p. 17; Jones, *Shipbuilding*, p. 100.

Table 3.0: British shipyard unemployment: insured workers 1923–27⁴⁴

| | Number insured | % unemployed |
|-----------|----------------|--------------|
| July 1923 | 269,970 | 43.6 |
| July 1924 | 254,230 | 28.3 |
| July 1925 | 240,120 | 34.9 |
| July 1926 | 223,100 | 41.5 |
| July 1927 | 216,030 | 22.3 |

Despite government assistance from the TFAs, the shipbuilding regions still experienced the highest unemployment levels in the country.⁴⁵ The unemployment levels amongst the adult male insured population on 19 November 1924 for the country as a whole was 12.1 percent, at a time when unemployment in the shipbuilding industry was running at 31.9 percent.⁴⁶ By comparison, in 1924, 26,000 coal miners were unemployed out of a workforce totalling 1,186,000. The coal industry's unemployment deteriorated further in 1925 when 147,000 coal miners were out of work from a work force of 1,134,000.⁴⁷ Unfortunately, the unemployment was concentrated within regions commonly associated with shipbuilding as well as the other basic industries.⁴⁸

⁴⁴ NA, BT55/49, Memorandum by Sir Philip Cunliffe-Lister, Shipbuilding, 22 November 1927, p. 7.

⁴⁵ 'British shipping depression: subsidised competition, Trade Facilities Act "shortsighted"', *Manchester Guardian*, 15 February 1926, p. 2.

⁴⁶ Johnman and Murphy, *British Shipbuilding*, p. 19; NA, CAB/24/169, Report to the Unemployment Committee on assistance to Shipbuilding by means of Trade Facilities Guarantees, 11 December 1924.

⁴⁷ HOCD, Coal Industry, 9 July 1925, vol. 186, c616w.

⁴⁸ Aldcroft, *The interwar*, p. 92.

Table 3.1: Percentage of average unemployment among adult male insured population on 19 November 1924⁴⁹

| Area | % |
|-----------|------|
| Tyneside | 24.1 |
| Wear | 34.0 |
| Tees | 26.9 |
| Mersey | 20.5 |
| Clydeside | 23.9 |

Most factors affecting shipbuilding during the 1920s were beyond the shipbuilders' control. They resulted from market forces in a changing international environment. That is not to say the shipbuilder and their workers did not cause their own difficulties. Industrial action was problematic and was self-inflicted in a great many instances.⁵⁰ Whilst 1920 is not a year renowned for industrial action within the shipbuilding industry, it nevertheless experienced numerous labour disputes. The disputes may have been trivial, but viewed together by overseas customers who wanted ships delivered in accordance with their original contract dates, such situations caused apprehension. The strike that concerned wage demands by shipwrights, drillers and ship-riggers on the Mersey, began during August 1920 and continued until 15 November. Further strikes occurred on the Wear, where 400 men went on strike for six weeks about demarcation issues. Piecework calculations caused further problems at Ropners Shipbuilding on the Tees. A long-term strike by joiners was another difficulty.⁵¹ Such

⁴⁹ NA, CAB/24/169, Report to the Unemployment Committee on assistance to Shipbuilding by means of Trade Facilities Guarantees, 11 December 1924.

⁵⁰ I P Roberts, *Craft, class and control: The sociology of a shipbuilding community* (Edinburgh: Edinburgh University Press, 1993), p. 66 and 67; Jones, *Shipbuilding*, pp. 164 and 165.

⁵¹ 'Shipbuilding wages in 1921', in *The Shipbuilder*, ed. A G Hood (1921), p. 29.

industrial unrest and disputes affected shipbuilding and its relationships with customers. As costs continued to increase, there was concern within the shipbuilding industry that good employment levels could continue only if the trade unions were responsible in their wage demands. The *Shipbuilder* reported during January 1921 that, 'Our ability to get orders for ships will be determined by the reasonableness with which trade unionists will view the wage question.' Unfortunately, the 'history of 1920 does not indicate much evidence of the reasonableness pleaded for.'⁵²

During 1922, pressure mounted on the trade unions to agree with the shipbuilding employers, a national agreement on overtime and night shift working. Whilst the employers' organisations and the trade unions agreed in late 1918 on a 47-hour week with effect from 1 January 1919, the unions sought further agreements concerning overtime and night shift arrangements.⁵³ The new agreement gave rise to much criticism. The negotiations fell into disarray, and the United Society of Boilermakers, Iron, and Steel Shipbuilders (Boilermakers' Society) withdrew from the negotiations, despite other associated unions reaching agreement. By the summer of 1919 the 'Boilermakers' Society voted overwhelming in favour of a claim for a 44-hour week.' However, the employers believed that because of German competition, the reduction in hours was not viable within Britain. Whilst the introduction of the 47-hour working week was seen by many trade unionists especially on the Clyde as an 'unnecessary compromise', particularly since representatives in the USA were advising that their operatives were more productive and believed that 'eight-hours per day is long enough for anybody to work.'⁵⁴

On 30 April 1923, industrial action began on the Tyne, and as a result, the Shipbuilding Employers' Federation (SEF) locked out all members of the Boilermakers' Society until 16

⁵² *Ibid.*, 28-30.

⁵³ J E Mortimer, *History of the Boilermakers' Society, volume 2: 1906-1939*, (London: George Allen & Unwin, 1982), pp. 103-105.

⁵⁴ *Ibid.*, p. 105.

November 1923.⁵⁵ Whilst the two parties eventually reached agreement, the boilermakers' actions highlighted the problems in Britain with regard to cost and the rate of output. Unemployment within British shipyards during 1923 totalled 115,000 workers, representing 32.1 percent of the insured workforce (compared to 10.7 percent of all insured trades). Unemployment within shipbuilding represented one eleventh of the total unemployed and was costing government £4.6 million per annum.⁵⁶ Wages would be constrained throughout the 1920s unless both time and piece-rate workers increased their output rate. Due to the depression, employers attempted to reduce wages to compete with foreign yards.⁵⁷ Whilst the situation was strange, certain trade unionists believed that the depression, which began in shipbuilding during late 1920, was a conspiracy between shipowners and shipbuilders to reduce wages.⁵⁸

2. Foreign competition

Following the First World War, foreign shipowners no longer placed the same volume of trade with British shipbuilders. They now placed nearly all their orders with foreign shipbuilders in order to qualify for subsidies and favourable loan terms.⁵⁹ In the five years to 1913, Britain built 22 percent of its shipbuilding output for foreign customers, and in the same period almost no foreign yards, built ships for British owners. The cost competitiveness within the British shipbuilding industry resulting from foreign competition became an issue following the report on the *SS Linerton*'s fate, when wrecked just off the North-East Coast of England on its maiden voyage. The vessel returned in two pieces to its shipbuilders for repair; however, the North-

⁵⁵ Mortimer, *History of the Boilermakers*, pp. 137-139; Cormack, 'An Economic History', p. 300.

⁵⁶ Johnman and Murphy, 'Subsidy', p. 97.

⁵⁷ 'Shipyard wages – Employers' case against increase', *The Times*, 22 May 1924, p. 18.

⁵⁸ 'Labour questions in 1920 and 1921', in *The Shipbuilder*, ed. A G Hood (1921), p. 49.

⁵⁹ Buxton, 'Scottish shipbuilding', p. 104.

East Coast of England ship-repairers who tendered for the repair work could compete on neither price nor completion dates and the vessel was transferred to Rotterdam for repair.⁶⁰

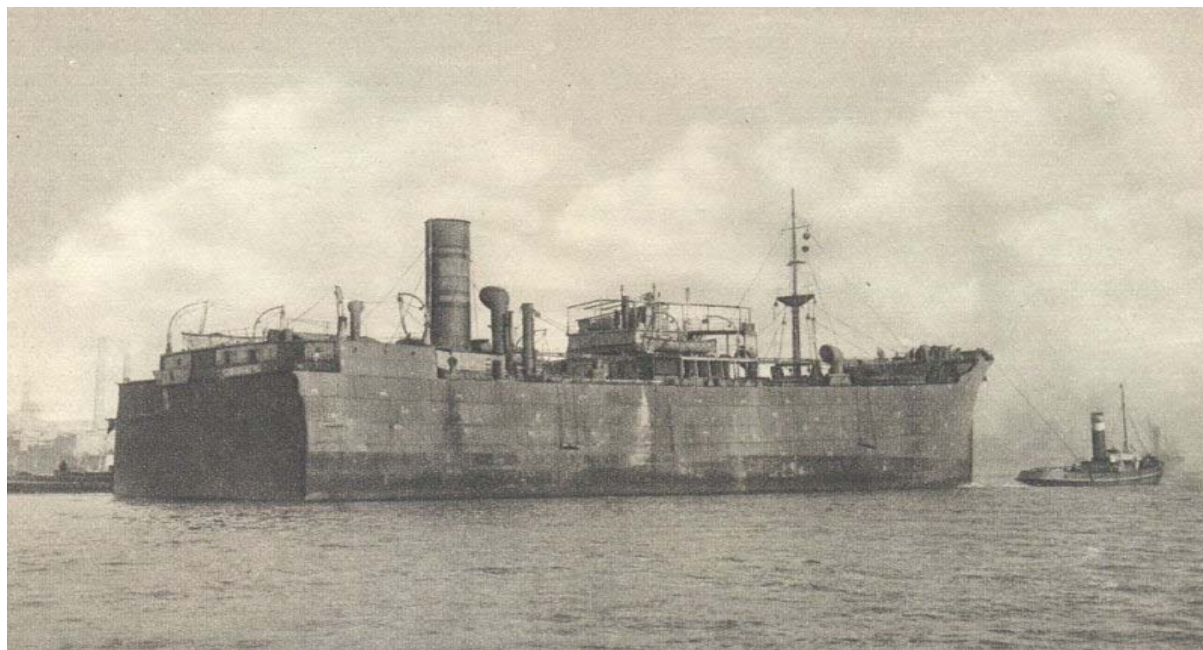


Photo 3.1: *SS Linerton*, built by William Doxford⁶¹

During the years 1922–26, British shipbuilding for overseas customers decreased to 16 percent.⁶² However, during the 1920s, British shipowners sought cost savings by placing orders for ships built overseas. Sir Philip Cunliffe-Lister cited an example illustrating the difficulties. During 1924, a German yard secured an order for five motorships totalling 10,000 tons.⁶³ The German tender was £60,000 per vessel below British tenders and whilst the German yard suffered losses, they nevertheless undertook the contract.⁶⁴

Some British shipyards fared better compared to others, although had it been possible to compete more effectively on cost, it might have been possible to protect overall market share, despite discriminatory practices adopted by other shipbuilding nations. Some countries adopted

⁶⁰ ‘The shipbuilding centres, North East coast’, in *The Shipbuilder*, ed. A G Hood (July-December, 1920), 311.

⁶¹ *SS Linerton* was built in 1919 for the Carlton Steamship Company and had a 7,064 grt. www.rdm-archief.nl – [accessed 1 February 2016]

⁶² NA, BT55/49, Shipbuilding, 22 November 1927, p. 10.

⁶³ ‘Idle shipyards – orders placed in Germany’, *The Times*, 7 March 1925, p. 8.

⁶⁴ NA, BT55/49, Shipbuilding, 22 November 1927, p. 10.

a deliberate policy of weakening the British maritime trade.⁶⁵ During the First World War, Japan sought to service Pacific trade, which had previously been the ‘preserve’ of British shipowners.⁶⁶ European shipyards were actively encouraged to compete with British yards, and foreign governments made both direct and indirect subsidies available to their shipping industries, although as with Britain, most foreign shipbuilders received very little help in terms of direct subsidies from their governments.⁶⁷ The Italian government provided construction and repair bounties to shipbuilders together with customs duties. Spain also provided bounties to shipbuilders, a practice adopted pre-war and increased in 1925. Certain other countries provided financial assistance in the form of loans to assist with construction costs.⁶⁸ Whilst such subsidies made foreign shipyards cost competitive, the British government was nevertheless not prepared to compete with subsidies.⁶⁹

The British government eventually recognised the threat from foreign competition during 1925, as concern increased with regard to unemployment.⁷⁰ When Furness Withy, a major British shipping line, placed the order with a German yard to build five large motorships, a national outcry arose, leading to a public enquiry into foreign competition, in which both trade unions and employers were more than willing to participate.⁷¹ Recommendations came from both sides: the unions called for action against unfair competition, whilst employers looked at ways to improve production processes to reduce costs.⁷² However, German yards as well as other European yards were more flexible towards employment than Britain.⁷³ Shipyard workers in

⁶⁵ Buxton, ‘Scottish shipbuilding’, p. 103.

⁶⁶ Johnman and Murphy, *British Shipbuilding*, p. 12.

⁶⁷ Slaven, ‘A shipyard’, p. 214.

⁶⁸ NA, BT55/49, Shipbuilding, 22 November 1927, pp. 12-13.

⁶⁹ Johnman and Murphy, ‘Subsidy’, p. 90.

⁷⁰ HOCD, Foreign competition, 17 March 1925, vol. 181, cc2036-40.

⁷¹ ‘The lost ship contracts’, *The Times*, 18 March 1925, p. 14.

⁷² In the post-war period, competition difficulties with overseas shipbuilders was not unusual, as Yarrows experienced in 1921 – see Johnman and Murphy, ‘An Overview’, p. 239.

⁷³ The *Times* reported that the German construction was less exacting than that expected from British builders, and that the difference in price was likely to be attributable to the use of German engines rather than British-built engines.

Germany experienced fewer demarcation issues, adopted mechanisation more readily, worked longer hours, and had less issue with overtime and night shift arrangements compared to British shipyard workers.⁷⁴ Meanwhile, the SEF claimed that the Furness Withy contract was abnormal, and did not represent the usual margins between British and overseas tenders, i.e. saving £60,000 per ship.⁷⁵ This nevertheless emphasised the difficulties British shipyards and their workers faced in the future. By 1927, John McGovern, the Vice-President of the NECIES remarked that ‘we have to remember that we do not build for other nations to the same extent as in pre-war days.’⁷⁶

3. Laid-up tonnage

By 1921, the estimated international seaborne trade amounted to 89.0 mgrt, below that carried in the immediate pre-war period, whereas the world merchant fleet’s carrying capacity was at least 13.0 mgrt above that in 1913.⁷⁷ This created a major concern throughout the early 1920s when constructing further tonnage while a considerable volume was laid up. There was a belief within Parliament that a large portion of this laid-up tonnage was either derelict or obsolete and should be realised before granting guarantees to the shipbuilding industry under the TFAs.⁷⁸ However, Parliament was more than prepared to encourage shipbuilding activities, to assist British workers.⁷⁹ By 1922, a high volume of laid-up tonnage continued to depress freight rates, as shipowners showed great reluctance to scrap ships.⁸⁰ However, during 1922, scrap values improved, which led shipbuilders to believe a revival was imminent.⁸¹

⁷⁴ Roberts, *Craft*, p. 38.

⁷⁵ NA, BT55/49, Shipbuilding, 22 November 1927, p. 10.

⁷⁶ Transactions of the North-East Coast Institution of Engineers & Shipbuilders, Vol. XXXXIII, Session 1926-1927, Economy in Shipbuilding: some lines of progress, by John McGovern, p. 391.

⁷⁷ Davies, *Belief*, p. 110.

⁷⁸ ‘Trade facilities and shipbuilding: shipowners advocate severe restrictions’, *Manchester Guardian*, 24 December 1925, p. 16.

⁷⁹ ‘Shipbuilding and Trade facilities – Proposal to limit grants for new construction – Discussion in Parliament’, *Shipbuilding and Shipping Record*, 24 April 1924, pp. 505-506.

⁸⁰ Johnman and Murphy, ‘Subsidy’, p. 100.

⁸¹ Jones, *Shipbuilding*, p. 100.

Table 3.2: Freight rate values (base year 1920 = 100) and laid-up tonnage⁸²

| Date | Freight rate index | Laid-up tonnage |
|--------|--------------------|-----------------|
| | % | Grt |
| Jul 23 | 28.68 | 667,527 |
| Oct 23 | 27.22 | 727,134 |
| Jan 24 | 30.76 | 606,585 |
| Apr 24 | 31.09 | 391,337 |
| Jul 24 | 27.41 | 447,622 |
| Oct 24 | 30.13 | 307,999 |
| Jan 25 | 30.03 | 469,951 |
| Apr 25 | 25.26 | 377,461 |
| Jul 25 | 22.06 | 753,721 |
| Oct 25 | 23.27 | 556,567 |

The brief recovery towards late 1924 saw laid-up tonnage fall to 307,999 grt, though at this stage total world tonnage still exceeded 1914 levels by 15.0 mgrt. In reality, surplus tonnage amounted only to 2.75 mgrt after taking account of new tanker tonnage (4.00 mgrt), vessels more than 25 years old (4.25 mgrt), and United States Shipping Board delinquent ships (4.00 mgrt).⁸³

From 1914 until 1929, international trade grew by 35 percent, however, during the same period the world's merchant fleet expanded by 45 percent, with a large proportion of idle tonnage

⁸² The details in Table 3.2 comprise reports entitled Trade Outlook prepared for the Board of Trade Advisory Council: NA, CAB 24/168, Board of Trade Advisory Council, Trade Outlook, 19 November 1924; NA, CAB/24/175, Board of Trade Advisory Council, Trade Outlook, 15 October 1925.

⁸³ NA, CAB 24/168, Board of Trade Advisory Council, Trade Outlook, 19 November 1924, p. 4.

owned by the United States Shipping Board. This arose from its expansion activities during the First World War. Furthermore, vessels built post-war were more efficient, using diesel engines and with major economies introduced: the merchant fleet was about 20 percent more efficient than in the pre-war period. These three factors provide an explanation for falling freight rates during the 1920s. There is a suggestion that during this period freight rates should have fallen by between 15–20 percent. However, they fell below 30 percent of the 1920 level during the period 1920–26 and then made a brief recovery before falling away again from 1927 due to the deterioration in the proportion of available trade to world tonnage.⁸⁴ However, freight rates marginally exceeded 30 percent during 1924 and early 1925, because of improvements in scrapping (Table 3.2).

Early in 1926, tonnage improved and hope was in sight that the recession was at an end. This optimism came to a sudden halt following the 1926 coal strike.⁸⁵ The effects of the coal strike were twofold. Freight rates began to increase because of the coal strike, as tramps undertook work to transport coal from US. This provided a real inducement to shipowners to begin placing replacement orders, as it eventually made shipowners realise that considerable tonnage previously laid up was in fact unfit and obsolete, and not capable of transporting coal.⁸⁶ Both factors led to an improvement in demand during 1927.⁸⁷

4. The motorship

British shipbuilders, unlike shipyards in Scandinavia, Germany and the Netherlands, were criticised for their failure to adopt the motorship.⁸⁸ However, whilst Britain continued to rely upon the steamship, she nevertheless outperformed all other nations during the 1920s when

⁸⁴ Sturmev, *British Shipping*, p. 64.

⁸⁵ Jones, *Shipbuilding*, p. 100.

⁸⁶ David Burrell, 'Shipping economics', in *The golden age of shipping*, ed. Robert Gardiner, p. 148.

⁸⁷ Jones, *Shipbuilding*, pp. 100-101.

⁸⁸ Henning and Trace, 'Britain and the Motorship', p. 360.

constructing motorships. It was reported on 30 May 1921 that the difficulties in the coal industry were making oil an increasingly attractive proposition for naval and other marine vessels, and the *Evening Chronicle* announced that within a short time steam vessels would be fitted to burn oil alone.⁸⁹

During 1924, the motorship increased in popularity: new steamship tonnage commenced totalled 257,000 grt, whilst motorship tonnage totalled 261,000 grt.⁹⁰ The vast majority of the tramp tonnage replaced in the immediate post-war period or taken over in the reparation process was steam tramps. By the early 1920s, Britain's main competitors recognised the benefits that arose from diesel engines and constructed motorships, a process that British shipping companies were slow to adopt, particularly in the tramp sector. The President of the Board of Trade investigated the possibility of encouraging shipping companies to build ships that were fitted with diesel engines.⁹¹ Whilst British shipowners were slow to adopt the motorship, they nevertheless launched 25 motorships during 1920 with an average tonnage of 3,480 grt. No other country launched larger vessels, and ignoring the Italian river and lake cruisers, no other country launched more than 50 percent of that launched by Britain. In effect, based on launchings during 1920, Britain led the way with regard to motorship construction, although, in 1920 only 4.05 percent of British launchings related to the motorship (Table 3.3).

⁸⁹ 'Oil solving the fuel problem, How coal is being displaced, Ample supply assured', *Evening Chronicle*, 30 May 1921, p. 4.

⁹⁰ NA, CAB 24/168, Trade Outlook, p. 5.

⁹¹ NA, CAB/23/46, Conclusions, Work in the dockyards, Anticipation of Orders by the Admiralty and the Dominions, 22 October 1923, p. 5.

Table 3.3: Merchant vessels launched during 1920⁹²

| Country | Steamer | | Motor vessel | | Sail & barge | | Total | |
|---------------|---------|------------|--------------|------------|--------------|------------|-------|------------|
| | No. | 000's tons | No. | 000's tons | No. | 000's tons | No. | 000's tons |
| Britain | 556 | 1,953 | 25 | 87 | 37 | 16 | 618 | 2,056 |
| United States | 439 | 2,378 | 13 | 29 | 57 | 69 | 509 | 2,476 |
| Denmark | 22 | 36 | 8 | 24 | | | 30 | 61 |
| Netherlands | 91 | 164 | 7 | 18 | 1 | 1 | 99 | 183 |
| Italy | 24 | 109 | 22 | 15 | 36 | 9 | 82 | 133 |
| Japan | 140 | 457 | | | | | 140 | 457 |
| Norway | 28 | 37 | 2 | 2 | | | 30 | 39 |
| Sweden | 28 | 52 | 11 | 10 | 7 | 2 | 46 | 64 |
| Other | 135 | 367 | 12 | 5 | | 22 | 205 | 393 |
| Total | 1,463 | 5,553 | 100 | 190 | 196 | 119 | 1,759 | 5,862 |

Whilst British shipbuilders were responsible for many technical innovations prior to the First World War, Germany and the Scandinavian shipbuilders pioneered the introduction of the diesel engine and adoption of the motorship.⁹³ Despite this, Britain consistently built more than a third of the world's motorships and by 1930, Britain was almost producing 50 percent of the world's output.⁹⁴ Other national shipbuilding industries produced greater levels of their national output in motorships, such as Denmark and Sweden, though their overall output was not as large as Britain's (Table 3.4).

⁹² 'The world's mercantile shipbuilding in 1920', in *The Shipbuilder*, ed. A G Hood, (1920), pp. 151 and 153.

⁹³ Henning and Trace, 'Britain and the motorship', pp. 353–54.

⁹⁴ The only exception being in 1926 when the output fell to 28.68 percent.

Table 3.4: Percentage of motorship tonnage to total tonnage launched⁹⁵

| | 1921 | 1923 | 1925 | 1927 | 1929 |
|---------------|-------|-------|-------|-------|-------|
| Country | % | % | % | % | % |
| Britain | 6.65 | 13.51 | 24.63 | 29.02 | 30.49 |
| Denmark | 39.95 | 45.73 | 95.00 | 88.42 | 84.89 |
| Germany | 6.55 | 13.58 | 68.75 | 40.01 | 37.37 |
| Norway | 21.60 | 10.50 | 7.60 | 0.00 | 40.34 |
| Sweden | 53.5 | 87.77 | 85.77 | 92.35 | 97.43 |
| United States | 3.88 | 9.49 | 3.02 | 21.92 | 28.92 |

The motorship was far more efficient than the coal-fuelled steamer, achieving higher levels of horsepower and consuming lower quantities of fuel. Low fuel costs provided a further advantage, since diesel was between 30–50 percent less expensive than coal. British shipbuilders and shipowners were, nevertheless, slow in adopting the diesel engine and the motorship, despite the fact that the economies associated with such ships were overwhelming.⁹⁶ Reluctance to adopt such a vessel was not so strong in the liner trade, where the RMSPC recognised at quite an early stage the advantages of such fuelling methods. Out of 78,579 grt launched by H&W for the RMSPC during the 1920s, only 5,242 grt related to steam tonnage and the remainder to motorship tonnage.

Britain's coal resources comforted the British shipowner; fuelling resources were safe and controllable, particularly in the tramping sector. British shipping did not possess its own natural oil supply and recognised that the coal available around the world was widespread. However,

⁹⁵ Table 12, Statistical Tables, Lloyd's Register of Shipping, 1962

⁹⁶ 'Mercantile shipbuilding in 1927: more motor ships', *Manchester Guardian*, 25 January 1928, p. 19.

the economies experienced by those shipping companies adopting the diesel engine were significant, after the initial capital cost.

The British shipbuilder had limited access to diesel engines without the permission to construct under licence based upon continental designs. British diesel engines were available on a small scale, though such engines did not perform as well as their continental counterparts.⁹⁷ Doxford engines built at William Doxford's on the Wear had major success, together with White Marine Engines at Hebburn on the Tyne. However, such manufacturers were in the minority and the shipbuilding industry otherwise relied upon engines built under licence from B&W in Denmark as well as Sulzer Brothers in Switzerland.⁹⁸ SH&WR preferred the Doxford engine from 1925; each engine had its advantages.⁹⁹

Having continued to replace lost tonnage in the post-war period, the tramp industry continued to invest in steam rather than countenance the alternative diesel engine.¹⁰⁰ Time became critical in the immediate post-war period, as shipowners overlooked the viability of their fleets as they failed to consider potential economies available.¹⁰¹ By 1921 tramp shipowners, realising their errors, found it difficult to raise additional funds, or were not prepared to invest in the conversion from steam to diesel, although support was available via the TFAs to fund such investment. The Bank Line, a cargo shipping company that realised the benefits derived from diesel engines, obtained guarantees under the trade facilities legislation in 1923 to expedite a public issue of capital to provide the funds for constructing nineteen motor vessels.¹⁰²

As scrap values improved from 1922 onwards, there was a tendency to replace some old steam tonnage with ships powered by internal combustion engines. As shipowners recognised the

⁹⁷ Sturmev, *British Shipping*, p. 84.

⁹⁸ Parkinson, *Economics*, p. 42.

⁹⁹ TWAS, DS/SWH/2/3, Report to the directors of Swan Hunter & Wigham Richardson Limited on the suitability of diesel engines, 16 February 1926.

¹⁰⁰ Sturmev, *British Shipping*, p. 85.

¹⁰¹ *Ibid.*, p. 78.

¹⁰² *Ibid.*, p. 82.

benefit of the motorship, then the number of motorships began to increase. With improvements in trade envisaged, the shipowners were more prepared to invest the additional 20–30 percent required for diesel rather than steam. Nevertheless, the overall ratio of motorship to steamship remained low, perhaps owing to disappointing levels of trade during 1925.¹⁰³ By 1927, however, motorship tonnage accounted for over 50 percent of the world's tonnage launched, though the tonnage launched in Britain did not follow this pattern.¹⁰⁴ Moreover, if British shipbuilders and shipowners can be criticised for their lack of interest in the motorship, greater criticism must fall on the United States, particularly because of that country's oil production (Tables 3.4 and 3.5).¹⁰⁵

Table 3.5: Merchant vessels launched during 1926¹⁰⁶

| Country | Steamer | | Motor vessel | | Sail & barge | | Total | |
|---------------|---------|-----------|--------------|-----------|--------------|-----------|-------|-----------|
| | No. | 1000 tons | No. | 1000 tons | No. | 1000 tons | No. | 1000 tons |
| Britain | 142 | 431.8 | 37 | 201.9 | 18 | 5.8 | 197 | 639.5 |
| United States | 21 | 100.8 | 30 | 23.8 | 27 | 26.0 | 78 | 150.6 |
| Denmark | 7 | 8.6 | 18 | 63.5 | | | 25 | 72.1 |
| Germany | 36 | 106.4 | 22 | 70.5 | 2 | 3.6 | 60 | 180.5 |
| Netherlands | 20 | 38.3 | 25 | 55.2 | 2 | 0.2 | 47 | 93.7 |
| Italy | 9 | 66.4 | 17 | 153.1 | 1 | 0.5 | 27 | 220.0 |
| Japan | 13 | 24.6 | 13 | 27.8 | | | 26 | 52.4 |
| Norway | 20 | 7.9 | 4 | 0.7 | 1 | 0.6 | 25 | 9.2 |
| Sweden | 2 | 1.8 | 12 | 51.7 | | | 14 | 53.5 |
| Other | 49 | 139.5 | 28 | 55.8 | 24 | 8.1 | 101 | 203.4 |
| Total | 319 | 926.1 | 206 | 704.0 | 75 | 44.8 | 600 | 1674.9 |

¹⁰³ Jones, *Shipbuilding*, p. 100.

¹⁰⁴ NA, BT55/49, Shipbuilding, 22 November 1927, p. 2.

¹⁰⁵ 'The motorship "Theodore Roosevelt", The world's mercantile shipbuilding in 1926', in *The Shipbuilder*, ed. A G Hood, (1921), p. 49.

¹⁰⁶ 'The world's mercantile shipbuilding in 1926, progress of shipbuilding during 1926', in *The Shipbuilder*, ed. A G Hood, (1927), pp. 121 and 122.

Perhaps surprisingly, shipowners failed to place orders during the 1920s, once the tonnage price had fallen. Ships lasted for up to 30 years and therefore shipowners ignored the benefits that arose from new tonnage, built with diesel engines at a time when the tonnage costs were at their lowest during the first half of the 1920s.¹⁰⁷ Shipowners tended to react to short-term opportunities without comprehending the long-term future.¹⁰⁸

5. The effects of international trade

The decline in the UK's export trade profoundly affected the shipping industry.

Table 3.6: Values of UK exports 1920 to 1927 ¹⁰⁹

| Year | Non-manufactured | Manufactured | Chemicals | Textiles | Metals and manufactured of metals | Machinery and transport equipment |
|------|------------------|--------------|-----------|----------|-----------------------------------|-----------------------------------|
| | £ m | £ m | £ m | £ m | £ m | £ m |
| 1920 | 218 | 1,103 | 58 | 541 | 158 | 69 |
| 1921 | 105 | 589 | 21 | 236 | 78 | 73 |
| 1922 | 144 | 564 | 22 | 248 | 74 | 61 |
| 1923 | 186 | 571 | 28 | 242 | 93 | 42 |
| 1924 | 171 | 614 | 28 | 269 | 93 | 42 |
| 1925 | 146 | 613 | 27 | 260 | 88 | 60 |
| 1926 | 101 | 538 | 27 | 208 | 82 | 60 |
| 1927 | 134 | 561 | 29 | 208 | 92 | 56 |

Shipbuilding relied on the import and export trades. Shipowners who placed orders for ships depended on international trade for transporting goods both to and from Britain.¹¹⁰ The British

¹⁰⁷ Harold James Dyos and Derek Howard Aldcroft, *British transport* (Leicester: Penguin, 1969), p. 326.

¹⁰⁸ Parkinson, *Economics*, p. 79.

¹⁰⁹ R F G Alford, 'Extracts from Table L, External Trade, Foreign Exchange Rates, Bank Rates', *The British Economy Key Statistics 1900-1970* (London: London and Cambridge Economic Service, 1973), p. 15.

¹¹⁰ Dyos and Aldcroft, *British transport*, p. 320-22.

economy suffered from the general decline in international trade during the 1920s.¹¹¹ Oil shipments increased as coal exports deteriorated. British shipowners had failed to recognise oil's importance and were therefore slow to become the owners of oil tankers in the 1920s.¹¹² Subsidies and protectionist policies also affected British shipping, but were not the only cause for concern, as other nations were beginning to adopt time-honoured British shipping practices.¹¹³ This strengthened further the use of foreign ships in relation to foreign trade in Britain as exports fell and imports increased.¹¹⁴

Government assistance

1. The loan guarantee schemes

The coalition government led by David Lloyd George recognised at an early stage the need to assist unemployment as the recession began to take effect during late 1920.¹¹⁵ This assistance did not materialise as tariffs or subsidies as with certain overseas governments, but in the form of unemployment relief schemes comprising land drainage and improvement works; local authority schemes; training centres for emigrants; trade commission and commercial diplomatic services; and loan guarantees schemes.¹¹⁶

The main relief targeting the shipbuilding industry came from the loan guarantee scheme introduced under the TFA 1921.¹¹⁷ Both shipping and shipbuilding benefitted under the legislation, though apart from mail subsidies, these industries received little else during the 1920s.¹¹⁸ Introduced by the TFA, the loan guarantee scheme required the Treasury to provide

¹¹¹ Terence Rodgers, 'Sir Allan Smith, the industrial group and the politics of unemployment 1919-1924', *Business History*, vol. 28, no. 1 (1986), p. 102.

¹¹² Sturmey, *British Shipping*, p. 78.

¹¹³ *Ibid.*, p. 70.

¹¹⁴ Hope, *A new history*, p. 336.

¹¹⁵ Garside, *British unemployment*, pp. 34-38; Rodgers, 'Sir Allan Smith', p. 105.

¹¹⁶ Pollard, *Peaceful*, p. 285.

¹¹⁷ Robert Jacob Alexander Skidelsky, *Politicians and the slump, The Labour Government of 1929-1931* (London: MacMillan, 1967), p. 19.

¹¹⁸ Aldcroft, *The interwar*, p. 226.

guarantees for the payment of principal and interest on loans raised in normal trade, protecting against a borrower's default.¹¹⁹ The British Chambers of Commerce welcomed the proposals from government, although it believed 'that larger grants should be given for revenue-producing work.' It was generally felt that unemployment could be resolved only by reducing the cost of production or by working longer hours.¹²⁰ Subsequent legislation continued the 1921 Act until 31 March 1927 with re-enactments during 1922, 1925 and 1926.¹²¹ The financial assistance available under the TFAs assisted local authorities, public utilities, and public and private companies.¹²² By 1927, total guarantees provided reached £74.3 million.¹²³ The shipbuilding industry absorbed 29.1 percent, or £21.6 million.¹²⁴

The Trade Facilities Advisory Committee (TFAC), who had responsibility for authorising the loan guarantees, comprised industrial experts with responsibility to ensure loans related to capital expenditure, which would lead to unemployment relief; there was evidence that the schemes could proceed only with government support; and there was security available, adequate to ensure no burden would fall upon the taxpayer.¹²⁵ Sir Robert Kindersley, the TFAC's chairman, reported within a month of introducing the TFA, 'a large number of propositions has already been submitted', though he believed 'that there must be many others' to follow.¹²⁶

In addition to the assistance provided by government to industry by the TFAs, further assistance became available under the Loan Guarantee Act (N.I.) 1922–38.¹²⁷ This Act provided

¹¹⁹ Johnman and Murphy, *British Shipbuilding*, p. 21.

¹²⁰ 'Government work schemes', *Evening Chronicle*, 22 October 1921, p. 5.

¹²¹ Johnman and Murphy, 'An Overview', p. 243.

¹²² Johnman and Murphy, 'Subsidy', p. 91.

¹²³ 'Trade Facilities Acts: guarantees total over £74,000,000', *Manchester Guardian*, 16 May 1928, p. 16.

¹²⁴ Johnman and Murphy, *British Shipbuilding*, p. 28.

¹²⁵ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, 23. The TFAC comprised Sir Robert Kindersley, a merchant banker and President of the National Savings Bank; Sir William Plender, former President of the Institute of Chartered Accountants in England and Wales; and Lieutenant-Colonel G Schuster, Barrister.

¹²⁶ 'To stimulate trade, State guarantees for industry', *Lancaster Evening Post*, 23 November 1921, p. 5.

¹²⁷ Johnman and Murphy, 'Subsidy', p. 95.

assistance to H&W, as well as its parent company RMSPC and other associated companies. The Act encompassing 16 amending Acts passed between 1923 and 1938 authorised the Ministry of Finance in Northern Ireland to give guarantees of up to £14.5 million to shipping and shipbuilding within Northern Ireland.¹²⁸

Granting guarantees was solely the responsibility of the TFAC; the Treasury had no authority to countermand the Committee's decision-making process.¹²⁹ Unemployment was seen as a political obstacle to be overcome during the 1920s and, whilst tight fiscal control continued throughout to be the Treasury's aim, politicians needed to be seen to be taking positive action to relieve unemployment.¹³⁰

Parliament experienced trouble in determining whether the TFA was in effect a subsidy to industry.¹³¹ For the duration of the TFAs, politicians saw unemployment as the key issue. William Mather Rutherford Pringle, Liberal MP for Penistone, expressed the view that he, like a great many, was 'against subsidies as a general rule, but for the purposes of the present unemployment,' and was 'quite prepared to support, in these exceptional circumstances, this kind of subsidy.' However, he objected to 'subsidising imports at the expense of the British taxpayer.'¹³² Churchill saw that the required action had to be defensible to the electorate. He worried about the relief schemes proposed to assist unemployment and wholly rejected subsidies, stating 'once you begin, there would be no end to this.'¹³³ Sir P Lloyd-Graeme, President of the Board of Trade, felt that 'all contracts must be carried out with British materials and British labour.'¹³⁴ The trade facilities legislation required little in the way of financial

¹²⁸ Davies, *Belief*, p. 111.

¹²⁹ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, p. 23; Johnman and Murphy, 'Subsidy', p. 100.

¹³⁰ Johnman and Murphy, 'Subsidy', p. 95.

¹³¹ HOCD, Trade Facilities & Loan Guarantee [Money], 4 December 1922, vol. 159, cc1383-470.

¹³² HOCD, Trade Facilities and Loan Guarantees, 4 December 1922, vol. 159, cc.1410-1411.

¹³³ Johnman and Murphy, 'Subsidy', p. 91.

¹³⁴ 'Trade Facilities Act, Conditions for placing of contracts', *Yorkshire Post and Leeds Intelligencer*, 6 December 1922, p. 11.

support, since any expense to government materialised only when any borrower defaulted under its loan terms; government therefore did not see it as a subsidy.¹³⁵ Under the loan schemes, government paid out an estimated £14 million, against which by 1962 it had recovered £13.25 million, with further potential recoveries amounting to £500,000.¹³⁶

The loan guarantee scheme was not a major expense for the government, but it did affect government credit. When the scheme was finalised in 1927, its conclusion was welcomed by the Treasury,¹³⁷ which tirelessly opposed the TFAs as it sought to deal with the national debt.¹³⁸ The Treasury felt that any assistance to unemployment must have been slight, despite the fact that in the initial period up to 30 June 1922, guarantees totalling £17 million had created employment amounting to 879,000 man months.¹³⁹ Shipbuilding was not the only industry to receive assistance from guarantees under the TFAs: electric and railway companies, as well as labour and dock facilities, were all areas that benefitted.¹⁴⁰ By the end of June 1923, the RMSPC had secured over £2.3 million in guarantees for the construction of three vessels, whilst the Union-Castle Mail Steamship Company received £1.0 million for the construction of another vessel.¹⁴¹

According to Johnman and Murphy, the assistance to the shipbuilding industry probably compounded its problems, adding to the surplus tonnage already in existence.¹⁴² However, the arguments favouring the availability of loan guarantees to shipbuilding emphasised that the vast proportion of the tonnage built under the guarantee scheme related to the liner trade.

¹³⁵ Applications under the TFAs ceased on 31 March 1927, though the loan schemes continued until 1962 when they were finally wound up.

¹³⁶ Davies, *Belief*, p. 111.

¹³⁷ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, p. 12.

¹³⁸ 'Shipbuilding and trade facilities', *Manchester Guardian*, 18 February 1927, p. 13.

¹³⁹ NA, CAB/23/30, Trade Policy Committee, Interim Report to the Cabinet, 9 August 1922, p. 5.

¹⁴⁰ Johnman and Murphy, 'Subsidy', p. 95.

¹⁴¹ 'Mining and shipping, Treasury Guarantees under the TFA 1921', *Sunderland Daily Echo and Shipping Gazette*, 13 July 1923, p. 8.

¹⁴² Aldcroft, *The interwar*, pp. 167-68.

Competition within the liner trade was still intense, despite Germany losing all its major tonnage in the reparation process. Whilst the main beneficiary within the maritime trades from the TFAs was the liner trade, this sector also received help throughout the 1920s from the government's assistance to the mail contract system, or postal subventions.¹⁴³

The TFAC had to deal with applications from speculative commercial enterprises. In addition, the loan guarantees provided to certain enterprises were little more than a gift and raised considerable criticism from competitors as well as Parliament's disapproval. As money became less expensive, certain members of government as well as the Treasury felt that certain applications could have been funded from the applicants' own profits and resources.¹⁴⁴ Furthermore, prior to the re-enactment in 1922, the TFAC had formed the view that any new legislation should be restricted to public utility propositions, as well as propositions for loans to foreign and colonial governments.¹⁴⁵ The Committee felt that any further benefits derived by private enterprise would result in criticism from the electorate as well as the opposition. The Committee also had anxieties with regard to the scheme's administration as far as private enterprise was concerned, since the scheme required external organisation with semi-judicial powers in order to avoid accusations of partiality.¹⁴⁶

In discharging its functions, the TFAC had trouble obtaining reliable accounting information. The loan guarantee contract provided for the contractor to certify that all the plant, machinery and materials required in connection with the work to be undertaken was British, and had been purchased at the lowest prices available, unless authority from the Treasury was obtained to the

¹⁴³ Davies, *Belief*, p. 112.

¹⁴⁴ The Treasury's economist, Otto Niemeyer was of the view that there was ample money available for investment and government assistance was not required. Winston Churchill felt that the trade facilities legislation was flawed and incapable of utilisation as a policy to assist unemployment.

¹⁴⁵ Johnman Murphy, 'Subsidy', p. 94.

¹⁴⁶ Command Paper 4159, Trade Policy Committee, Appendix to Interim Report to the Cabinet, 9 August 1922, p. 2-4.

contrary.¹⁴⁷ As well as providing guarantees to the lender, the TFAs ensured loans at lower interest rates owing to the fact that such a banking proposition resulting from government guarantees reduced risks. When the 1921 Act was re-enacted, the Conservative government under the leadership of Andrew Bonar Law ensured that loans were not available where assets were insufficient to act as security to cover the guarantees provided, and therefore minimised any proposed ventures that were speculative.¹⁴⁸ Lieutenant-Commander Kenworthy, the Liberal Member of Parliament for Central Hull, expressed concern at a guarantee amounting to £600,000 to William Beardmore, for the costs associated with completing the *Conte Verde*.¹⁴⁹ This guarantee was little more than a speculative venture, given the large number of ships under construction where the original customer could not guarantee payment for the shipbuilding costs.¹⁵⁰



Photo 3.2: SS Conte Verde of the Lloyd Triestino line in the 1930s¹⁵¹

¹⁴⁷ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, p. 23.

¹⁴⁸ HOCD, Clause 1 – (Amendment of s. 1 of 11 & 12, Geo. 5, c. 65), 7 December 1922, vol. 159, cc2145-6.

¹⁴⁹ Johnman and Murphy, 'An Overview', p. 239 and Peebles, *Warshipbuilding*, p. 105.

¹⁵⁰ HOCD, Trade Facilities and Loans Guarantee, 4 December 1922, vol. 159, cc1467-1469.

¹⁵¹ The *SS Conte Verde* launched on 21 October 1922 at William Beardmore & Company, Dalmuir and completed 1923. Her dimensions were a length of 570.2 feet, and a tonnage of 18,765 grt. www.clydesite.co.uk – [accessed 1 February 2016]

Under the TFAs, guarantees were also available for overseas work.¹⁵² However, Parliament was particularly concerned that such guarantees should not damage employment in Britain. Armstrong Whitworth had made an application during 1922, relating to equipment for its proposed paper mill in Newfoundland. The paper mill was already experiencing financial difficulties and expenditure was already over budget, creating financial pressure throughout the Armstrong Whitworth group.¹⁵³ Despite the loan guarantees, providing work within Armstrong Whitworth's manufacturing divisions in Britain, ultimately this equipment would compete with the British paper pulp industry.¹⁵⁴

Guarantees amounting to £17 million became available by June 1922, providing employment opportunities, though unemployment persisted. Due entirely to the price of capital, which had fallen, and with lower interest rates, Treasury guarantees were insignificant in reducing costs and acting as an incentive for new employment. Otto Niemeyer, the Treasury's economist, supported the TFA's removal from the statute books, since he believed that money was freely available to borrowers.¹⁵⁵ Even the TFAC's Secretary, W J Sainsbury, echoed the calls from the Treasury and the Bank of England to end the guarantees because of the diminishing differential in the bank's lending rate compared to that available under the Trade Facilities scheme.¹⁵⁶ However, the unemployment committee was intent on increasing employment in the 'necessitous areas' where shipbuilding and railway work was undertaken.¹⁵⁷

¹⁵² 'House of Lords: Building for foreign shipowners, use of the Trade Facilities Act', *Manchester Guardian*, 11 February 1926, p. 11.

¹⁵³ 'Newfoundland strike settled – effect of public opinion.' *The Times*, 4 August 1924, p. 7.

¹⁵⁴ HOCD, Trade Facilities and Loans Guarantee, 4 December 1922, vol. 159, cc1409-1410.

¹⁵⁵ Johnman and Murphy, 'Subsidy', p. 94.

¹⁵⁶ *Ibid.*, p. 97.

¹⁵⁷ *Ibid.*, p. 96.

Table 3.7: Bank base rate

| | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 |
|---------|------|------|------|------|------|------|------|------|
| High | 7.00 | 7.00 | 5.00 | 4.00 | 4.00 | 5.00 | 5.00 | 5.00 |
| Low | 6.00 | 5.00 | 3.00 | 3.00 | 4.00 | 4.00 | 5.00 | 4.50 |
| Average | 6.50 | 6.00 | 4.00 | 3.50 | 4.00 | 4.50 | 5.00 | 4.75 |

When the 1921 Act was re-enacted, the amended scheme increased the facility up to £50 million and created an insurance fund raised by premiums for loans guaranteed, so that funds were available to discharge any losses arising.¹⁵⁸ Within the trade facilities legislation, there was a requirement to provide security for receipt of government guarantees, which reduced government's exposure, but created difficulties for the TFAC. Most companies seeking guarantees under the Acts were private companies with no requirement to file company accounts, creating difficulty identifying secured assets. H&W's chairman, Lord Pirrie refused to provide security for the guarantees obtained, explaining that he would prefer not to assist the government in alleviating unemployment, if that meant providing the government with security.¹⁵⁹

Initially introduced for twelve months, the Act provided guarantees totalling £25 million by 29 March 1922, of which the shipbuilding industry secured guarantees amounting to £2.4 million (or 15.9 percent of the total).¹⁶⁰ In the first five months after the introduction of the loan guarantees, the TFAC considered 500 applications, though sanctioned only fifteen.¹⁶¹ The

¹⁵⁸ Command Paper 4159, Trade Policy Committee, Interim Report to the Cabinet, 9 August 1922, p. 4-6.

¹⁵⁹ Edwin Green and Michael S Moss, *A Business of National Importance: The Royal Mail Shipping Group 1902-1937* (London, Methuen, 1982), p. 55.

¹⁶⁰ Gilbert, *British*, p. 48.

¹⁶¹ '£15 million trade credits', *Manchester Guardian*, 8 April 1922, p. 16.

shipbuilding industry during this period secured the following guarantees: H&W £1,493,345; William Beardmore £600,000; and Palmers Shipbuilding £300,000.¹⁶²

With the Loans Guarantee (Northern Ireland) Act on the statute books until 1938, this was partly responsible for placing a disproportionate number of contracts in Northern Ireland, rather than on the North-East Coast of England or on the Clyde, and demonstrates the conflict inherent in the allocation of guarantees. The Silver Line Company obtained guarantees totalling £600,000 for 20 years from the Irish government and placed orders during 1929 in Belfast rather than in Sunderland.¹⁶³

By March 1927 when the loan guarantees scheme under the TFAs ended, the scheme's losses were approximately £342,000, although at that stage, repayments under the scheme amounted to only £7 million. These losses made no provision for the potential disaster associated with the RMSPC, which under Lord Kysant's control manipulated the loan guarantee scheme to assist his financially unstable and highly geared shipping and shipbuilding conglomerate.¹⁶⁴ A considerable amount of the guarantees allocated to shipbuilding under both the TFAs and the Northern Ireland legislation were for the RMSPC's benefit. However, at first this had gone wholly unnoticed. No one had realised the extent to which one company was responsible for so many guarantees.¹⁶⁵ The situation was far worse, since the RMSPC was insolvent and unable to meet the liabilities under the guarantees it had received. Such was its size that the RMSPC's potential demise would have profound consequences for the British economy.¹⁶⁶

¹⁶² Johnman and Murphy, 'Subsidy', p. 96.

¹⁶³ The chairperson of Silver Line Company Limited, Sir James Marr was also the managing director of Sir James Laing, J L Thompson and Sunderland Forge & Engineering Company. Up until 1929, the Silver Line Company had placed orders with two Sunderland shipyards during the previous four years for ten vessels. However, following which the relationship with Sunderland re-focussed, H&W received the orders, launching four ships during 1930, and Sunderland shipyards received no further orders from the Silver Line Company.

¹⁶⁴ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, p. 12.

¹⁶⁵ Johnman and Murphy, 'Subsidy', p. 98.

¹⁶⁶ *Ibid.*, pp. 99-106.

The loan guarantee scheme was not a panacea to increasing shipbuilding output for participating firms. The downturn that impinged on shipbuilding during the 1920s affected all regions, with the exception of Northern Ireland, which benefitted more than most regions from the introduction of the loan guarantee schemes, though by 1924 it also began to experience a fall in shipbuilding activity. During the operation of the TFAs, the shipbuilding industry launched 6.5 mgt of shipping, of which 13 percent came under the loan guarantee schemes.¹⁶⁷

2. Postal subventions

Since the nineteenth century, British shipping had benefitted from what the industry termed 'postal subventions', a subsidy from the British government to those shipping lines that operated the fast-express liners on the main international sea routes. This subsidy provided assistance with mail transport, which reduced the high costs involved with express steam transport to supplement the poor revenue levels. The Royal Navy had previously transported the mail, but its vessels were extremely inefficient for such purpose. Whilst it was Britain that had introduced mail subsidies, by 1914 most maritime nations had adopted this convention.¹⁶⁸

The mail subsidies provided the British government with additional naval strength during the First World War, as ships that benefitted from the subsidy were available for requisition by the Royal Navy to act as troopships and hospital ships.¹⁶⁹ Postal subventions continued during the interwar period, and whilst the cost to the British government was not vast, it nevertheless provided additional revenues to Cunard and White Star Line, whose vessels plied their trade on the competitive North Atlantic trade routes.¹⁷⁰ By 1928, the mail subsidies totalled £811,572

¹⁶⁷ The TFAs provided much-needed assistance to the liner trade. However, little stimulus became available to the tramp industry for two reasons: first, the industry had replaced its war losses and redundant shipping in the immediate post war period at very high prices, and second there was already sufficient tonnage in existence to meet the current demand for freight.

¹⁶⁸ Sturmey, *British Shipping*, p. 27.

¹⁶⁹ *Ibid.*, pp. 30-31.

¹⁷⁰ *Ibid.*, p. 106.

per annum. The government did not consider the payments to the shipping companies as subsidies, since they were payments for mail transport.¹⁷¹

Conclusions

Johnman and Murphy argue that building a large proportion of the ships under the guarantee schemes occurred regardless of the TFAs. They maintain that shipbuilders – and for that matter shipowners – were ‘unlikely to look a gift horse in the mouth.’ However, the shipbuilders’ and shipowners’ financial strength was restricted during wartime activities by the control exercised through the Blue Book rates, the Excess Profit Tax, and the high cost of ship replacement and an uneconomical level of insurance recovery for war losses. This, together with a drastic fall in freight rates, must go some way to supporting the notion that the TFA provided much-needed assistance, although it lacked appropriate control. This assistance also provided help to the ‘necessitous areas’ during the 1920s.¹⁷² The loan guarantee scheme, however, created problems and gave rise to conflict within the shipbuilding industry.¹⁷³ Both the Bank of England and the Treasury recognised that difficulties would materialise with the legislation, which was open to abuse and could cause complications in relation to foreign competition.¹⁷⁴ For example, H&W obtained a loan guarantee for funds from Midland Bank Limited totalling £1,493,345 to establish a ship-repairing division at Tilbury, extending the company’s facilities in Glasgow, and improving the yard at Caird & Company at Greenock, a wholly owned H&W subsidiary.¹⁷⁵ Such guarantees gave rise to much resentment from other shipowners and shipbuilders, particularly at a time when there was a disproportionate level in capacity compared to demand. Lord Pirrie could argue, quite justifiably, that he was not expanding the existing shipping

¹⁷¹ Davies, *Belief*, p. 112.

¹⁷² Johnman and Murphy, ‘Subsidy’, p. 102.

¹⁷³ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, p. 13.

¹⁷⁴ Johnman and Murphy, ‘Subsidy’, p. 95.

¹⁷⁵ Shipbuilding and Shipping Record, Royal Mail Group Holdings, 17 March 1932, p. 319.

volume and therefore not compounding the problems relating to laid-up tonnage, but updating his shipbuilding facilities to compete with foreign yards when good trading conditions returned. Anti-competitive allegations were made, though most complaints arose from facilities expanded without consideration for demand.¹⁷⁶ Whilst shipbuilders supported the guarantees, most shipowners (with Lord Kysant and the RMSPC as exceptions) resented their introduction, since they merely provided further tonnage, when surplus tonnage already existed. As signs of recovery in shipbuilding during 1924 became apparent, the Treasury and the TFAC achieved their goal, and suspended guarantees to the shipbuilding industry.¹⁷⁷ Unfortunately, hints of improvement were a false dawn, and on 1 January 1925, Stanley Baldwin, the Conservative Prime Minister, announced that guarantees would once again be available to the shipbuilding industry. By this stage, Sainsbury believed that certain shipyards were about to fail and support was now necessary from the TFA. Armstrong Whitworth, William Beardmore, and Palmers Shipbuilding all experienced financial difficulties, as well as many smaller yards. The loan guarantee schemes facilitated constructing 148 ships with a total tonnage amounting to 1,214,000 grt. In failing to restore the TFA in 1927, the government commented that any improvement throughout the TFA's duration was slight.¹⁷⁸ However, by 1927, the shipbuilding industry, besieged by an oversupply in shipping, apparently required a period to re-adjust and rationalise.¹⁷⁹

British shipbuilders were thus not backward in motorship construction, since during the interwar period they built over 38.0 percent of all motorship tonnage. However, over a quarter of tonnage launched by the top twenty shipbuilders were for overseas customers. While British shipbuilders were not technically backward, British shipowners were reluctant to adopt the

¹⁷⁶ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, p. 132.

¹⁷⁷ Johnman and Murphy, 'Subsidy', p. 97.

¹⁷⁸ Johnman and Murphy, *British Shipbuilding*, p. 29.

¹⁷⁹ Johnman and Murphy, 'Subsidy', p. 99.

motorship. The slow adoption of the motorship was an index of the conservatism not of British shipbuilders, but British clients. From the total volume launched as merchant tonnage by the top twenty shipbuilders, almost 20.0 percent were motorships for British shipowners totalling 1,976,355 grt. It is also noteworthy that 26.8 percent of all motorships launched were built by British shipyards for British shipowners. This statistic ignores the motorship tonnage launched for British shipowners by foreign shipyards. Overall then, the single most striking observation must be that Britain was not backward when adopting the motorship. Despite the motorships' growing popularity, Lord Kylsant believed that shipowners were hesitant with investment in such ships, for two reasons: first, due to uncertainty regarding oil supplies; and second, initial costs exceeded those generally associated with the steamship.¹⁸⁰ The steam tramp thus remained the British merchant fleet's 'backbone.' Wider adoption of motorships did not materialise until tramp owners were convinced of their viability and propulsion.¹⁸¹ From 1918 until 1930 (excluding 1924 for which no figures have been identified), it is apparent that Britain launched substantially more motorships than any other nation. The motorship tonnage launched during that period by the major shipbuilding nations were as follows:

¹⁸⁰ 'The future of the motor ship', in *The Shipbuilder*, ed. A G Hood (1926), p. 201.

¹⁸¹ Jones, *Shipbuilding*, p. 83.

| | Grt |
|---------------|------------------|
| Britain | 2,831,176 |
| Netherlands | 560,474 |
| Japan | 381,443 |
| Denmark | 657,302 |
| Sweden | 578,250 |
| Germany | 980,647 |
| Italy | 517,909 |
| United States | 291,173 |
| Other | <u>581,282</u> |
| Total | <u>7,379,656</u> |

The economic climate of the 1920s was unpredictable, which could explain shipbuilding's trade cycle throughout that period. All the great shipbuilders had undergone recessions in the past. Hunter experienced six previous recessions prior to 1920.¹⁸² Downturns highlighted patterns up until 1920 that did not continue.¹⁸³ Both the government and entrepreneurs who managed shipyards adapted reactively rather than proactively with fiscal policies. Unfortunately, no one exercised caution during 1919, when shipbuilding berths were being booked at excessively high prices or predicted problems that lay ahead when ships were costing in 1920 four times as much as they did in 1914. These difficulties were, with hindsight, evident. The post-war depression,

¹⁸² 'Sir George Burton Hunter', *Who was who 1929-1940*, Volume III (London: Adam & Charles Black, 1941), p. 680.

¹⁸³ 'The causes of trade depression – Sir George Hunter's views', *The Times*, 16 October 1924, p. 11.

according to Hunter, ‘had very far reaching and disastrous effects.’¹⁸⁴ Table 3.8 analyses the tonnage of steamships and motorships built for both British and foreign shipowners, during the years 1920-1930, two key indicators of the competitive position.

Table 3.8: Mercantile tonnage built 1920-30 by the top twenty shipyards¹⁸⁵

| | Total | Steamships | Turbines | Motorship | | |
|-------------------------|------------------|-------------------|------------------|------------------|----------------|---------------|
| | | | | British | Foreign | Other |
| | grt | grt | grt | Grt | grt | grt |
| Armstrong Whitworth | 608,573 | 259,873 | 115,853 | 14,550 | 156,312 | 61,985 |
| Furness | 456,355 | 211,234 | 93,143 | 53,383 | 93,910 | 4,685 |
| J L Thompson | 165,677 | 107,830 | 12,196 | 39,557 | 6,094 | - |
| Hawthorn Leslie | 244,999 | 169,338 | 51,861 | 23,800 | - | - |
| John Readhead | 204,748 | 204,748 | - | - | - | - |
| Palmers Shipbuilding | 504,205 | 212,128 | 168,208 | 111,554 | 12,043 | 272 |
| Sir James Laing | 231,873 | 132,204 | 35,245 | 50,927 | 13,497 | - |
| SH&WR | 879,343 | 402,071 | 237,457 | 136,961 | 97,694 | 5,160 |
| Alexander Stephen | 244,203 | 112,860 | 102,353 | 28,990 | - | - |
| Barclay Curle | 424,752 | 214,687 | 108,623 | 33,486 | 67,956 | - |
| Fairfield Shipbuilding | 260,022 | 38,999 | 127,130 | 93,893 | - | - |
| H&W | 358,044 | 40,339 | 30,884 | 246,126 | 36,738 | 3,957 |
| John Brown | 349,628 | 12,234 | 264,851 | 72,543 | - | - |
| Lithgows | 579,265 | 434,253 | 71,811 | 60,310 | 12,891 | - |
| Robert Duncan | 278,001 | 212,578 | 7,979 | 39,006 | 18,438 | - |
| Scott's Shipbuilding | 264,440 | 61,467 | 135,350 | 38,448 | 29,175 | - |
| William Hamilton | 235,017 | 110,560 | 59,337 | 56,436 | 8,684 | - |
| Blythswood Shipbuilding | 145,843 | 37,765 | 80,040 | 28,038 | - | - |
| William Gray | 610,119 | 530,392 | 78,627 | - | - | 1,100 |
| William Doxford | 282,117 | 168,832 | - | 72,685 | 40,600 | - |
| | <u>7,327,224</u> | <u>3,674,392</u> | <u>1,780,948</u> | <u>1,200,693</u> | <u>594,032</u> | <u>77,159</u> |

Shipbuilding costs and foreign competition continued to be major obstacles throughout the 1920s. Lithgow declared in late November 1924 that there existed ‘very little ground for any feeling of optimism.’ He believed that high production costs were damaging the industry and affecting export orders. This consequently prevented the shipbuilding workers from achieving

¹⁸⁴ TWAS, Annual Report of Swan Hunter, Year ending 31 December 1921.

¹⁸⁵ Appendix 4.0.

the 'standard of living such as they have been led to expect.'¹⁸⁶ Lithgow did not blame shipbuilding workers as they accepted wage reductions in an attempt to facilitate an internationally competitive cost structure. However, the Board of Trade believed that labour subcontractors were exploiting the sector with high prices that with 'international complications quickly obscure the effect' of cost and impact with overseas shipyards.¹⁸⁷ This forced shipbuilders to internalise expenditure in an effort to control costs, as an essential shipbuilding feature once management began to tender on a fixed price contract basis.¹⁸⁸ Furthermore, supply rings and price-fixing associations operated amongst subcontractors who supplied the shipbuilding industry, much to its detriment.¹⁸⁹ Successive British governments failed to safeguard its shipbuilding interests during the interwar period. Foreign competition intensified and British shipowners placed orders overseas. The change in market conditions contrasted with those prior to 1914.¹⁹⁰ However, foreign shipowners still placed orders in Britain, and some shipyards built well above the industry's average of 16 percent for foreign tonnage during the interwar period. William Hamilton at Port Glasgow built 21.30 percent of its tonnage for foreign shipowners; almost 36.03 percent of Barclay Curle's output related to foreign shipowners. On the North-East Coast of England, the results were just as striking: SH&WR built 39.99 percent of its output for foreign customers, and Armstrong Whitworth 40.03 percent. Admittedly, this trend did not prevail throughout the shipbuilding industry: Sir James Laing on the Wear built only 27.90 percent of its tonnage for foreign customers between the Armistice and 1930, whereas in the five years prior to the First World War it built 44.5 percent for foreign customers. Likewise, Hawthorn Leslie on the Tyne built only 10.26 percent of its merchant

¹⁸⁶ NA, CAB/24/168, Memorandum by the President of the Board of Trade, Trade Outlook, Shipbuilding, 19 November 1924, p. 5.

¹⁸⁷ *Ibid.*

¹⁸⁸ Slaven, 'A shipyard', p. 203.

¹⁸⁹ *Ibid.*, p. 205.

¹⁹⁰ *Ibid.*, p. 215.

tonnage for foreign customers in the period under review, though in the five years up to 1914 it had built 21.7 percent for overseas customers.

The fall in British exports severely limited the need for more tonnage. As diesel began to replace coal, exports of coal fell. Whilst imports remained constant, exports decreased by 24.3 percent between 1913 and 1928.

Table 3.9: Movement in tonnage of overseas trade 1913 to 1928¹⁹¹

| | Imports | Exports |
|-------------|---------------------|---------------------|
| Year | Million tons | Million tons |
| 1913 | 56.0 | 93.6 |
| 1924 | 58.0 | 80.1 |
| 1928 | 56.5 | 69.3 |

As export markets diminished, shipowners soon realised that if their vessels were to be used, for some of the time they would have to sail in ballast, and on other occasions sail with part cargoes. Patterns in world trade affected first the British shipowners and then the shipbuilders. Britain's exports fell by 28 percent between 1913 and 1937, whilst imports increased by 33 percent over the same period. However, the volume of imported goods carried by British shipping fell because of the policy of foreign governments to expand overseas merchant fleets.¹⁹²

¹⁹¹ NA, CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929, pp. 3-4.

¹⁹² Buxton, 'Scottish shipbuilding', p. 102.

CHAPTER FOUR: RATIONALISING THE SHIPBUILDING INDUSTRY

Introduction

The rationalisation of the shipbuilding industry during the interwar period lacks comprehensive scholarly attention.¹ Surplus capacity during the 1920s had left the shipbuilding industry in difficulty. Unemployment within shipbuilding had been high throughout the 1920s, and increased from 23.2 percent in 1929 to 59.5 percent in 1932.² The government believed rationalisation to be necessary across a number of industries due to obsolete machinery and antiquated procedures. Thus, Edward Timothy Palmer observed that it was a ‘fallacy that reduced wages and longer hours are essential to industrial prosperity.’³ The worldwide depression that followed the Wall Street Crash of October 1929 decimated demand for ships, once the lag effects of ships under construction had been completed (Table 4.0).⁴

Table 4.0: British unemployment in the basic industries in 1929 and 1932⁵

| Industry | 1929 | 1932 |
|---------------------------|-------|-------|
| Shipbuilding | 23.2% | 59.5% |
| Cotton textiles | 14.5% | 31.1% |
| Woollen and worsted trade | 15.6% | 26.6% |
| Coal mining | 18.2% | 41.2% |
| Iron and steel | 19.9% | 48.5% |

¹ Whilst Pollard, Robertson, Johnman, Murphy and Garside have covered shipbuilding during the interwar period. Slaven, in addition to his article ‘A Shipyard in Depression: John Browns of Clydebank 1919-1938’, also contributed the chapter ‘Self-liquidation: The National Shipbuilders Security Limited and British shipbuilding in the 1930s’, in *Chartered and Unchartered Waters*, ed. Palmer and Williams. See also S V Ward, ‘The Geography of Interwar Britain: The State and Uneven Development’ in *Historical Geography Series*, ed. R A Butlin (London 1988).

² Kirby, *Decline*, p. 58.

³ HOCD, Rationalisation, 5 November 1930, vol. 244, cc947-1000. Edward Timothy Palmer was the labour Member of Parliament for Greenwich.

⁴ Matt Perry, *Bread and work: The experience of unemployment, 1918–39* (London: Pluto Press, 2000), p. 28 and 29. Furthermore, according to Kindleberger, *The world in depression*, p. 119 – ‘The stock market crash in 1929 was a momentous event, but it did not produce the Great Depression and it was not a major factor in the depression’s severity. A sharp but not unprecedented contraction was converted into a catastrophe by bad monetary policy....’

⁵ Kirby, *Decline*, p. 58.

Despite the efforts of Sir James Lithgow's National Shipbuilders Security Limited (NSS), the shipbuilding industry did not improve significantly until rearmament commenced. This chapter will concentrate on the rationalisation of the shipbuilding industry throughout the interwar years. The merger of Armstrong Whitworth and Vickers offered a precedent in the process and an interesting moment of realisation for the industry and the Bank of England. Todd suggests that, within the defence sector, the merger of Armstrong Whitworth and Vickers during 1927 eliminated 'excess capacity, following the shortfall in orders after World War One', because of the steps taken at the WNC.⁶ This chapter will consider the transition of the journey from the collective trade association, in the shape of the Shipbuilding Conference, formed in 1928, to self-regulation.⁷ The trajectory traversed an economic environment that amplified the appeal of rationalisation.⁸ Soon after its formation the Shipbuilding Conference considered action to eradicate surplus capacity. The Conference sought to encourage greater specialisation to restore profitability through economies of scale. The Conference also assisted with the tendering process by fixing certain minimum tendering prices for specific vessels, together with creating a fund to assist shipbuilders when tendering for foreign contracts.⁹ This chapter will examine the emergence, nature and activities of NSS under the aegis of Sir James Lithgow.¹⁰ Whilst the Shipbuilding Conference was the first step in this new period of collective cooperation, the formation of NSS followed as a result. More than thirty shipbuilding companies closed under the auspices of NSS, and the environment for those who survived, changed.¹¹ NSS began trading with the objective of removing under-performing shipbuilders, on a voluntary basis. This rationalisation process continued until the Second World War. Shipbuilders sensed the

⁶ Ibid., p 61.

⁷ Johnman and Murphy, 'An Overview', p. 242.

⁸ Buxton, Fenton and Murphy, 'Measuring Britain's Merchant Shipbuilding', p. 307.

⁹ Jones, *Shipbuilding*, p. 85.

¹⁰ Bank of England, SMT 2/283, Shipyard work decreasing, Tonnage booked only half of output, An Oil tanker year by AL Ayre, reprinted from *The Glasgow Herald*, 30 December 1930, p. 5.

¹¹ Todd, 'Strategies', p. 56.

need for industry-wide cooperation, largely in terms of tackling anti-competitive practices rather than integration, merger and rationalisation.¹² The depression in the early 1930s provoked shipbuilding to re-examine excess capacity. Shipbuilders began to understand that collective action could adjust capacity levels and pricing arrangements. Unfortunately, NSS's incorporation coincided with the worst depression the shipbuilding industry had seen and even as trade began to recover in 1934, 77 percent of shipbuilding berths remained idle.¹³ Finally, this chapter will consider the case of Palmers Shipbuilding of Jarrow, a shipbuilding town almost wholly reliant upon one company, which focussed public attention on NSS and rendered the body notorious – perhaps unfairly. Despite building both major tonnage for merchant shipping companies and naval vessels for the Admiralty, the company was unable to survive the quagmire that engulfed the industry during the interwar period.

A precedent of rationalisation led by the Bank of England – Armstrong Whitworth

Armstrong Whitworth, a customer of the Bank of England, was already indebted to the Bank, after what should have been a good period of trading during the war years, but required further funding to move through the transition period from wartime to peacetime activities.¹⁴ During the immediate pre-war years, the Bank occasionally provided clearing facilities to large business concerns that were overstretched by diversification.¹⁵ The Newcastle upon Tyne branch of the Bank provided banking arrangements to Armstrong Whitworth. In the immediate post-war period, Armstrong Whitworth sought to diversify away from wartime manufacturing and in the process closed certain activities, including the company's armour-plating plant at Openshaw.¹⁶ Limited success came from diversification, including commercial shipbuilding

¹² Professor H Clay. 'What is rationalisation?' *The Listener*, 27 January 1932, p. 147.

¹³ Jones, *Shipbuilding*, p. 135.

¹⁴ Clay, *Lord Norman*, p. 130.

¹⁵ Reid, *James Lithgow*, p. 129.

¹⁶ A Cairncross, 'The Bank of England and the British economy' in *The Bank of England: Money, Power and Influence 1694-1994*, ed. R Roberts and D Kynaston (Oxford, Clarendon Press, 1995), p. 66.

and railway engine manufacturing. However, for example, Armstrong Whitworth incurred significant losses and a drain on working capital from an investment to construct a pulp paper processing plant in Newfoundland.¹⁷ The Bank's lending to the company was significant in comparison with any other Bank customer. The Bank consulted with the Treasury as concern grew in relation to the development of the Newfoundland business. It soon became apparent that Armstrong Whitworth had never had sufficient funds to complete the pulp manufacturing facilities. The pulp markets also began to deteriorate owing to excessive competition, resulting in a fall in pulp paper prices.¹⁸ Fortunately, the Treasury continued with the view that the Bank could not withdraw its support.¹⁹ This was despite the fact that the industry was shrinking at quite an alarming rate and that, assuming demand on merchant shipping in 1913 as 100, the position was by 1930 as follows:

| | % |
|--|--------------|
| Pre-war total merchant and war ships | 100.00 |
| Less 25 percent for pre-war warships | <u>25.00</u> |
| Pre-war merchant | 75.00 |
| Less 21 percent merchant in post-war period | <u>15.75</u> |
| | 59.25 |
| Add back, post-war warships say 1/7 of pre-war amount (25) | <u>3.57</u> |
| Post-war position ²⁰ | <u>62.82</u> |

¹⁷ Ibid.

¹⁸ Clay, *Lord Norman*, p. 319.

¹⁹ Ibid., p. 318.

²⁰ SMT 2/283, Bank of England, Shipyard work decreasing, p. 5.

The situation after the post-war boom led to cash flow difficulties and trade became heavily reliant upon bills of exchange. Shipbuilders began building speculative stock-ships where no order existed, and existing customers had trouble in arranging payment or meeting payment terms.²¹

Table 4.1: Key financial data for Armstrong Whitworth²²

| | 30.12.23 | 30.12.24 | 30.12.25 | 30.12.26 | 30.12.27 |
|--------------------------|----------|----------|----------|----------|----------|
| | £ m | £ m | £ m | £ m | £ m |
| Total assets | 20.7 | 25.7 | 27.3 | 25.1 | 24.2 |
| Loan capital | 4.4 | 7.2 | 9.3 | 9.1 | 9.0 |
| Other liabilities | 3.9 | 6.2 | 6.8 | 5.2 | 5.0 |
| Net Assets | 12.4 | 12.3 | 11.2 | 10.8 | 10.2 |
| Profit/loss for the year | 0.4 | 0.5 | 0.0 | -0.5 | -0.5 |
| Dividend | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 |

Occasional discussions regarding a possible merger between Armstrong Whitworth and Vickers took place, though informally. However, by late 1926, Frater Taylor of Armstrong Whitworth and Sir Mark Webster Jenkinson from Vickers agreed to formal discussions and a potential way forward. During January 1927, the Bank received a working suggestion for a possible merger. Following consideration by the Bank, there was agreement to incorporate a new company to take over the armaments and shipbuilding businesses relating to both Vickers and Armstrong Whitworth. Montagu Norman, governor of the Bank of England, anticipated that the ‘government would undoubtedly have to be carried’ with the companies’ proposals and

²¹ Clay, *Lord Norman*, p. 319.

²² TWAS, 130/1369-73, Sir W G Armstrong Whitworth & Company Limited, data extracted from printed annual reports and balance sheets for the period 1 January 1923 to 31 December 1927.

furthermore, 'it might be necessary to ask the government to become a party to the scheme.'²³ Undoubtedly, a merger would benefit both companies given the slowdown in naval contracts within the system.

Table 4.2: Merchant ship tonnage built by Armstrong Whitworth²⁴

| Year | Tonnage |
|------|---------|
| 1920 | 29,398 |
| 1921 | 56,296 |
| 1922 | 88,911 |
| 1923 | 28,069 |
| 1924 | 75,310 |
| 1925 | 57,190 |
| 1926 | 33,184 |
| 1927 | 28,401 |

Norman accepted a significant role for the Bank in the restructuring of British industry.²⁵ The Armstrong Whitworth and Vickers merger was his attempt to minimise the Bank's exposure as a clearing bank. The Bank's exposure dictated the reconstruction of the cotton industry from 1928 and then shipbuilding as well as steel from 1932, particularly given the government's reluctance to intervene.²⁶ The government largely supported the reconstruction process, but little financial support was forthcoming.²⁷ Through the BIDC and the Securities Management

²³ 'Sir W G Armstrong Whitworth & Co – Position and outlook', *The Times*, 10 June 1927, p. 20; TWAS, 130/1307, Papers to be attached to minutes, Sir W G Armstrong Whitworth & Company Limited, Letter from Baring Bros to Lord Southborough, 15 January 1927.

²⁴ See Appendix 3.0.

²⁵ Cairncross, 'The Bank of England', p. 66.

²⁶ W R Garside and J I Greaves, The Bank of England and industrial intervention in interwar Britain, *Financial History Review*, vol. 3, no. 1, 1996, pp. 70 and 73.

²⁷ Cairncross, 'The Bank of England', p. 66.

Trust (SMT), Norman helped to organise industrial change. Whilst problems continued well into the world depression in other industries, shipbuilding attained recognition for 'self-help' to try to correct its problems.²⁸ However, there were still yards that held on for longer than was appropriate. Prior to Norman's involvement in Armstrong Whitworth, he had little experience of the shipbuilding industry. During the 1920s, he began to understand how firms such as Armstrong Whitworth, William Beardmore, and Fairfield Shipbuilding suffered due to their specialist trade.²⁹ Eventually Norman involved himself in all three: Armstrong Whitworth's merger with Vickers, a failed bid to save William Beardmore, purchased by NSS, and loan facilities to ensure that Fairfield Shipbuilding did not close.³⁰ Despite Fairfield Shipbuilding's difficulties during 1935, within a very short period of Sir James Lithgow becoming involved, its financial position began to look promising and the directors believed that the shipbuilding industry's '... continuous upward trend, raised hopes of an early return to days of prosperity.'³¹

As the financial position at Armstrong Whitworth continued to deteriorate, the Bank took action and appointed an advisor, Frater Taylor, who acted as company doctor, to restore the fortunes of ailing companies.³² His first report to the Bank confirmed the worst, and envisaged receivership.³³ Upon receipt of Taylor's first report, a merger with Vickers was proposed.³⁴ A structure quickly arose, whereby the armament and naval shipbuilding capacity at Armstrong Whitworth transferred into a new company, which was then capable of merging with Vickers

²⁵ Greaves, *Industrial*, p. 59.

²⁹ Clay, *Lord Norman*, p. 131.

³⁰ Loan facilities amounting to £150,000 were available to Fairfield Shipbuilding, though it required only £45,000. 'Decline in shipbuilding – Rationalisation Axe on a Clyde yard', *Manchester Guardian*, 11 September 1930, p. 15; Clay, *Lord Norman*, p. 340.

³¹ Glasgow Mitchell Library, UCS.2/1/6, Fairfield Shipbuilding and Engineering Company Limited, Minute Book No. 6, 18 November 1935, p. 67.

³² J Frater Taylor was a company doctor associated with various industrial undertakings on an international basis and was director of International Power and Paper Company and the Canadian and Foreign Investors Limited. Frater Taylor accepted appointment as a member of the MacMillan Committee in the Labour Government during 1929 to enquire into banking, finance, and credit to promote the development of trade and commerce and the employment of labour.

³³ Scott, *Vickers*, p. 162.

³⁴ *Ibid.*, p. 163.

on a share exchange transaction.³⁵ The terms were hugely beneficial to Vickers. In return, this required the government to guarantee certain naval orders to maintain good levels of capacity. The Bank did not look favourably on the offer made by Vickers, which was heavily weighted in the Barrow firm's favour. However, for every week that passed, Armstrong Whitworth's financial position deteriorated.³⁶

Since the First World War, armament work had been reduced such that important firms were now operating at less than 40 percent capacity. Orders available by 1927 were insufficient to provide shipyards and workshops with enough work to carry the heavy burden of overheads and general charges. Given that both Vickers and Armstrong Whitworth were primarily armament manufacturers, it was necessary for them to continue unless their vast skill and experience was to be lost. By merging production, certain works were closed and others dismantled. A merger in the armament divisions of Vickers and Armstrong Whitworth would not only improve the prospects for both companies, but ensured the survival of staff necessary to undertake armament work.³⁷

While Vickers experienced trouble in securing merchant shipbuilding contracts at prices that covered normal operating costs, it experienced the transition to peace with less difficulty than did Armstrong Whitworth.³⁸

³⁵ 'Armstrong's and Vickers – Terms of the fusion', *The Times*, 19 November 1927, p. 21.

³⁶ Scott, *Vickers*, p. 164.

³⁷ TWAS, 130/1307, Papers to be attached to minutes, Sir W G Armstrong Whitworth & Company Limited, Memorandum prepared by Wm Plender dated 22 June 1927.

³⁸ Scott, *Vickers*, p. 185.

Table 4.3: Merchant ship tonnage built by Vickers³⁹

| Year | Tonnage |
|-------------|----------------|
| 1920 | 12,089 |
| 1921 | 42,201 |
| 1922 | 42,299 |
| 1923 | 2,156 |
| 1924 | 36,206 |
| 1925 | 53,461 |
| 1926 | 6,791 |
| 1927 | 7,357 |

By 1927, Armstrong Whitworth's debt to the Bank was difficult to ignore. The company continued to incur losses and Norman recognised that action was urgent. He realised that Armstrong Whitworth could not be closed down for reasons of national security. Those areas of the business unrelated to its core armament and naval activities required hiving off. Norman recognised that a significant loss to the Bank might materialise, but he believed this to be the best option in a difficult situation. He realised that trading losses would cease and some recovery materialise.⁴⁰

The decision to merge certain activities at Armstrong Whitworth with those at Vickers and to dispose of loss-making activities or close them down was the British shipbuilding industry's first step on the road to rationalisation. This followed similar principles applied within the coal,

³⁹ The data shown at Table 4.3, has been estimated from information obtained from the World Ship Society and relates to completed tonnage.

⁴⁰ Clay, *Lord Norman*, p. 320.

cotton and steel industries.⁴¹ Norman realised that restructuring was likely to lead to financial losses. Even though the Bank believed that the Armstrong Whitworth's restructuring was successful, the Bank lost an estimated £5 million in debenture value and £0.5 million in interest.⁴² The Bank saw that for rationalisation to be possible, banks and creditors needed to be realistic about the recovery of outstanding debt, as otherwise the industry faced a long process of insolvency.

As negotiations continued, difficulties mounted for Armstrong Whitworth because Vickers had financial strength and was therefore able to withstand the need to conclude the merger. Vickers knew that with every week that passed, the merger was more akin to a takeover. Taylor highlighted to the Bank that 'Vickers can stand a prolonged siege where Armstrong Whitworth cannot.'⁴³ At the time of the merger, Armstrong Whitworth was still incurring losses, while Vickers had returned to profitability following the 1926 capital adjustment to its balance sheet, and was now paying dividends. Therefore, Vickers eventually received a larger share apportionment of the new business in recognition of Vickers' higher profitability. Any realisations from selling the shipbuilding division of Armstrong Whitworth and its Newfoundland paper pulp project along with other non-core activities were then transferred to the Bank in partial repayment of Armstrong Whitworth's indebtedness.⁴⁴ The merger was an opportunity to make a fresh start for both Vickers and Armstrong Whitworth. The merged business had wide experience and renewed confidence.⁴⁵ However, the negotiations did not go entirely Norman's way as he was dealing with senior management well versed and experienced in bureaucratic procedures within a military environment.⁴⁶

⁴¹ Ibid., p. 321.

⁴² Jones, *Shipbuilding*, p. 133.

⁴³ Scott, *Vickers*, p. 164.

⁴⁴ Clay, *Lord Norman*, p. 322.

⁴⁵ Scott, *Vickers*, p. 166.

⁴⁶ L Hannah, *The Rise of the Corporate Economy*, 2nd edition (London: Methuen, 1983), p. 107.

By 1929, the industry sought either ‘regional or product based mergers’ to reorganise the shipbuilding industry. This major reconstruction ensured that the core of both companies survived while hiving off unrelated activities.⁴⁷ After the successful merger of Vickers and Armstrong Whitworth, the Bank of England played a greater role in the shipbuilding industry’s reconstruction.⁴⁸ The merger, whilst quite complex, saw certain subsidiaries formed to which non-core trading activities were transferred so that sales could be initiated on behalf of the secured creditors. This hiving down procedure also prevented smaller creditors from disrupting the reorganisation process by issuing winding-up proceedings, which might have created difficulties within the monetary system.⁴⁹

First phase of cooperation: Shipbuilding Conference

The Shipbuilding Conference was formed in 1928 to circulate information concerning trade throughout the industry.⁵⁰ Various trade publications were useful, though tended to be outdated quickly. Through the Conference, shipbuilders organised market conditions. The Conference recognised trouble with surplus capacity at an early stage.⁵¹ Sir James Lithgow undertook to investigate this matter. Lithgow believed that shipbuilders who failed faced the liquidators or receiver’s appointment to realise the assets for the debenture holder’s benefit, without regard for the industry’s long-term interests, which were a ‘grave danger that the establishment would be purchased by speculative people’ at low values who might commence business with minimum capital and without historical liabilities. Such speculative ventures would endanger the industry as a whole, as all viable concerns came under threat.⁵²

⁴⁷ Greaves, *Industrial*, pp. 155-56.

⁴⁸ *Ibid.*, p. 59.

⁴⁹ Green and Moss, *Business*, p. 166.

⁵⁰ Buxton, Fenton and Murphy, ‘Measuring Britain’s Merchant Shipbuilding’, p. 307.

⁵¹ Murphy, “‘No longer Competitive’”, p. 41.

⁵² TWAS, 1811/86/37, Memorandum from the Shipbuilding Conference to A J Campbell of Wm Beardmore & Co Ltd dated 25 September 1930, The Shipbuilding Conference, 1 October 1928–13 July 1931, p. 2.

Lithgow used the Shipbuilding Conference to promote rationalisation, to maintain shipbuilders' 'industrial independence and avoid damaging bankruptcies.'⁵³ From 1920 to 1931, the shipbuilding workforce fell from 358,640 to 201,330, and yet 107,000 shipbuilding employees were out of work.⁵⁴ Rationalisation did not mean the same process to everyone. Unemployed workers viewed it as a prolonged period without work, perhaps the need to change careers, whilst the industrialist saw it as a route to industrial revival. Perhaps the most generally accepted definition of rationalisation was that of Jenkinson, the managing director of Vickers, who was intimately associated with the restructuring of the British heavy steel trades. On 7 March 1928, he declared that 'rationalisation was the mobilisation of the fighting forces of an industry. It is accomplished by the fusion of manufacturing capacity and the closing down of redundant units to eliminate waste and loss, production being concentrated in the best-equipped shops, under the most favourable output conditions. It implies not merely a reconstruction of capital, a reorganisation of management, a re-shuffling of plant, but a revolution in our ideas, in our mentality, in our outlook on the industrial situation.'⁵⁵

As the industry was working at almost half capacity, the aim was to eliminate spare capacity and incentivise greater niche specialisation.⁵⁶ This process reduced fixed costs and ensured that remaining shipyards secured work that enabled competition within 'modern, well organised foreign yards.' On 26 February 1930, the Shipbuilding Conference notified its members of the incorporation of NSS and the company was registered on the following day.⁵⁷ A press statement detailed which shipbuilders had joined, its policies, and funding arrangements. It declared that 'the British shipbuilding industry during the last two years has been steadily consolidating its

⁵³ Reid, *James Lithgow*, p. 130.

⁵⁴ *Ibid.*

⁵⁵ TWAS, 1811/86/37, Statement by the Shipbuilding Conference, Rationalisation in Great Britain dated 2 July 1929, pp. 1-2.

⁵⁶ It is generally accepted that merchant shipbuilding output was unlikely to exceed 1.5 mgt. Jones, *Shipbuilding*, p. 133.

⁵⁷ Cormack, 'An Economic History', p. 335.

position in world shipbuilding, resulting from unprecedented subsidised foreign competition.’ By early 1930, Britain was constructing over 54 percent of the world’s tonnage, though in the following years this went into decline (Table 4.4).⁵⁸

Table 4.4: British and world merchant tonnage launched⁵⁹

| Year | Britain 1000 grt | World 1000 grt | Britain as % of world |
|-------------|-----------------------------|---------------------------|----------------------------------|
| 1925 | 1,085 | 2,193 | 49.48 |
| 1926 | 640 | 1,675 | 38.21 |
| 1927 | 1,226 | 2,286 | 53.63 |
| 1928 | 1,446 | 2,699 | 53.58 |
| 1929 | 1,523 | 2,793 | 54.53 |
| 1930 | 1,479 | 2,889 | 51.19 |
| 1931 | 502 | 1,617 | 31.05 |
| 1932 | 188 | 727 | 25.86 |
| 1933 | 133 | 489 | 27.20 |
| 1934 | 460 | 967 | 47.57 |
| 1935 | 499 | 1,302 | 38.33 |
| 1936 | 856 | 2,118 | 40.42 |

The shipbuilding industry recognised that it needed to maintain its stability, and only by concentration of such activities did it enable the reduction of significant costs. The statement also highlighted problems in shipbuilding, which worsened each year, with naval shipbuilding

⁵⁸ TWAS, 1811/86/37, Press Statement, Redundant Shipbuilding Capacity – Industry Scheme for Elimination dated 26 February 1930, p. 1.

⁵⁹ Table 12, Statistical Tables, Lloyd’s Register of Shipping, 1962 and Jones, *Shipbuilding*, p. 64.

curtailed, which articulated the need for concerted action.⁶⁰ Lithgow believed that many firms faced insolvency, unless the industry contracted immediately due to the lack of available orders. A consensus in financial and business elites emerged. Taylor from Armstrong Whitworth stated that shipbuilders must undertake their own 'house cleaning' and eliminate the present 'unhealthy, unsound, and uneconomical' conditions. The *Investors Chronicle* proposed the eradication of 'disastrous price-cutting, which resulted from the severe competition between yards, all hungry for work to meet standing charges.' The competition was sharper than that experienced from the continent.⁶¹ Nevertheless, Taylor was more cheerful with regard to the industry as a whole despite shipbuilding being in a position that was less than satisfactory.⁶² The *Investors Chronicle* felt that Vickers-Armstrong, with wide-ranging unrivalled engineering capacity, 'ought to do well enough when general conditions improve.'⁶³

Government action appeared inappropriate given the state of the industry and the worsening unemployment position.⁶⁴ Any action taken by government might have resulted in fierce resistance. The Balfour Committee on Industry and Trade reported after almost five years of evidence, concluding that they did not under-estimate the difficulties facing British industry in the rationalisation process though felt that Britain had not achieved the same progress as achieved by some overseas competitors.⁶⁵ Despite difficulties at most major shipyards, the Board of Trade took no action and the burden fell upon the Bank of England.⁶⁶ Lithgow believed that his rationalisation strategy for the industry through NSS was the only way forward. However, the difficulties affected not only employees, but also loan creditors,

⁶⁰ TWAS, 1811/86/37, Press Statement, Redundant Shipbuilding Capacity – Industry Scheme for Elimination dated 26 February 1930, p. 2.

⁶¹ Bank of England, SMT 2/283, *Investors Chronicle*, 1 June 1929.

⁶² 'Armstrong Whitworth New Directors.' *The Times*, 12 July 1926; p. 23; Issue 44321.

⁶³ Bank of England, SMT 2/283, *Investors Review*, 1 June 1929.

⁶⁴ 'Closed shipyards: position on the North-East coast', *Manchester Guardian*, 19 May 1933, p. 20.

⁶⁵ TWAS, 1811/86/37, Statement by the Shipbuilding Conference, Rationalisation in Great Britain dated 2 July 1929, pp. 4-5.

⁶⁶ Clay, *Lord Norman*, p. 342.

debenture holders and shareholders, who would also face financial loss in the short term from closures designed to facilitate the industry's survival.⁶⁷

Lithgow's committee envisaged that a specific entity, which had been set up for the 'sterilisation' process, would purchase the surplus capacity. The company would obtain funding by providing security in debentures creating a first charge on all its assets. The repayment of the funding by the Conference members arose from a levy whereby each member would agree fixed dates to pay, half-yearly, a sum equal to one percent of the contract or the value of ships built by that particular member.⁶⁸ In addition, NSS would pay no dividend and following the settlement of loans, the Conference members received the remaining funds.⁶⁹

Even after 1931, NSS and the Shipbuilding Conference explored options to assist the industry: combating price-cutting, improving the tendering process, and continued attempts at curtailing excessive capacity. The Shipbuilding Conference also examined levies to support export orders as well as schemes to promote specialisation.⁷⁰ Whilst shipyard output remained below two-thirds capacity throughout the 1930s, this was an improvement on the 1920s, particularly regarding foreign competition.⁷¹ During the late 1920s, the Shipbuilding Conference anticipated improvements in specialisation, higher concentration, rationalisation, lowering costs, improving export trade, and further technical advances. However, from 1934 there were few improvements in export trade, whilst prices began to increase. British shipowners continued placing orders abroad to gain the benefit of subsidies in overseas shipyards.⁷²

⁶⁷ Reid, *James Lithgow*, p. 124.

⁶⁸ TWAS, 1811/86/37, Statement by the Shipbuilding Conference, dated 24 January 1930, pp. 1-2.

⁶⁹ *Ibid.*, p. 3.

⁷⁰ Greaves, *Industrial*, p. 223.

⁷¹ *Ibid.*, p. 224.

⁷² Pollard, *Development*, p. 72.

The need for rationalisation

British shipbuilders slowly recognised the importance of mechanisation, though continued to prefer labour-intensive techniques unlike those adopted in Europe. Such procedures had laid the foundations of Britain's unrivalled position in shipbuilding.⁷³ From 1918, foreign shipyards adopted prefabrication, welding and mechanisation more generally, in an attempt to gain a competitive cost advantage over British yards.⁷⁴ Even though mechanisation was not widely adopted, shipbuilding suffered excessive fixed costs. Paying such costs when the yards were idle resulted in losses being unavoidable. The loss in orders and revenue, and the need to maintain payment for fixed costs, helped to forge the employers' consensus around rationalisation.⁷⁵ During 1931–33, shipbuilding output fell, resulting in many redundant shipyards (Table 4.5).

Table 4.5: Merchant tonnage output completed by region 1929–33⁷⁶

| Region | 1929 1000 grt | 1930 1000 grt | 1931 1000 grt | 1932 1000 grt | 1933 1000 grt |
|-----------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| West of Scotland | 561,052 | 532,899 | 251,322 | 61,249 | 58,878 |
| North-East Coast of England | 579,442 | 643,678 | 286,023 | 72,326 | 38,255 |

Paradoxically, the depression militated against specialisation. Those firms specialising in specific vessel types took any work to fill surplus capacity, thereby ensuring some contribution to overhead charges. However, speculative building more often than not resulted in heavy losses, as the shipbuilder failed to adhere to the types of ships for which his yard was equipped.⁷⁷

British shipbuilders faced criticism for poor investment in plant and machinery during the

⁷³ 'British shipbuilding prospects: A gloomy outlook', *Manchester Guardian*, 26 April 1930, p. 18.

⁷⁴ Greaves, *Industrial*, p. 217.

⁷⁵ Clay, *Lord Norman*, p. 341.

⁷⁶ Data taken from Appendix 3.0.

⁷⁷ Jones, *Shipbuilding*, p. 85.

1920s, although Sir Amos Ayre, director of Burntisland Shipbuilding Company and vice-chair of NSS, argued that firms that invested in mechanisation actually witnessed lower returns.⁷⁸ Nevertheless, Ayre noted in March 1930 that, mainly thanks to large volumes of orders for Norwegian tankers, British shipbuilding reached peak figures relating to work under construction for the post-war period, with over 1.6 mgt in hand.⁷⁹ Unfortunately, the state of world trade, with its immediate reaction to shipping cargoes and freights, rapidly created in the intervening months an altogether different situation. By March 1930, tonnage launched was more than doubled tonnage commenced, orders decreased alarmingly, and the industry started 1931 with fewer orders in hand than the worst point in the post-war depression 1921–23.⁸⁰

Whilst the Bank of England were an ‘unwilling accomplice’ in rationalising the main export industries, government ministers had no desire to be associated with the closures determined by such organisations as NSS.⁸¹ Whilst unemployed shipyard workers confronted rationalisation sooner than most stakeholders, Montagu Norman believed the unwillingness of shareholders and creditors to understand possible recoveries posed major obstacles to the rationalisation process.⁸² The Bank of England was all too aware that the heavily indebted British shipbuilding industry had suffered a reduction in production of approximately 40 percent since the threshold of 1914.⁸³ With better output and improved organisation, shipbuilding in 1930 avoided the continuous loss that had arisen, and enabled a cheaper cost of production per unit with which to meet foreign competition.⁸⁴ Despite the balance sheet asset values far exceeding their realisable values, and the financial difficulties that had engulfed the industry by 1930, very few companies sought protection by mergers, and very few companies

⁷⁸ Johnman and Murphy, *British Shipbuilding*, p. 30.

⁷⁹ ‘Norway’s shipbuilding orders: our loyal customer’, *Manchester Guardian*, 25 September 1930, p. 12.

⁸⁰ Bank of England, SMT 2/283, Shipyard work decreasing, p. 1.

⁸¹ Greaves, *Industrial*, p. 224.

⁸² *Ibid.*, p. 53.

⁸³ Bank of England, SMT 2/283, Shipyard work decreasing, p. 6.

⁸⁴ *Ibid.*, p. 7.

proceeded into formal insolvency.⁸⁵ During 1929–30, survival rendered a self-administered rationalisation scheme the only alternative to liquidation in the absence of government bailouts, or banks extending credit indefinitely, which might thereby threaten the financial system. This capacity reduction would require purchasing and scrapping obsolete and redundant shipyards. T E Thirlway, Managing Director of SH&WR, stated that ‘the worst competition they had faced was not from abroad, but from uneconomic concerns which were supported by advances from banks in this country’ [...] ‘Montagu Norman was asked if he would use his endeavours to prevent any further bolstering of uneconomic concerns.’⁸⁶

Championing the shipbuilders’ cause and the need for rationalisation, Lithgow realised that since the First World War, demand for further yards were unnecessary, and a third of the workforce employed in 1922 were still no longer required within the industry. Formed in April 1928 in an attempt to aid shipbuilders, the Shipbuilding Conference assisted with the tendering for shipbuilding contracts. The Conference issued details for a fund to purchase surplus shipyard capacity, which it saw as one of its fundamental roles.⁸⁷

Lithgow then informed Norman that various members in the Shipbuilding Industry wished to discuss rationalisation.⁸⁸ Speaking on 8 October 1929 as President of the Institute of Engineers and Shipbuilders in Scotland, Lithgow explained that the industry was experiencing difficulties imposed by the ‘national outlook’ and he believed that ‘higher taxation and shorter hours’ were unavoidable. Lithgow acknowledged that the industry needed to recognise its failure, and would continue to do so without restructuring. Rationalisation would enable the industry, according to Lithgow, to ‘give us time to recover our profitable trade’, and without this the industry would continue to contract. Drawing analogies from his distinguished military career,

⁸⁵ Aldcroft, *The interwar*, p. 168.

⁸⁶ Bank of England, SMT 2/280, Minutes of Meeting, 24 April 1929, p. 3.

⁸⁷ Greaves, *Industrial*, p. 221.

⁸⁸ Bank of England, SMT 2/280, Minutes of Meeting, 24 April 1929, p. 1.

Lithgow likened the situation to the battlefields of the First World War where soldiers fell back to reserve trenches to prepare for the next attack, whilst the ‘feeble’ were sacrificed; the longer that discussions took place, the greater the sacrifices. Lithgow hoped that once all surviving shipbuilders were in the reserve trenches, the industry would be ready to advance when trading conditions allowed.⁸⁹ Pursuing this logic after discussions with Montagu Norman and Sir Andrew Duncan, Lithgow established NSS with himself as chairman, and directors from the main shipbuilding regions.⁹⁰

By 1930, realising the severity of the difficulties ahead, shipbuilders devised a plan to facilitate rationalising the industry. Aldcroft states that the competition and amalgamation would achieve the reduction in capacity that industry sought, though in reality very little amalgamation arose, as this did not necessarily lead to a reduction in surplus capacity in shipbuilding berths; and competition would merely be survival of the fittest.⁹¹ Aldcroft’s solution failed on both accounts: it was not necessarily survival of the fittest, and matters were more random than that due to its urgency. In industrial and economic circles, rationalisation was a new process.⁹² Lithgow first approached Norman during spring 1929; however, it was not until 1930 that NSS commenced trading. Following his meeting with Lithgow, Norman recognised that urgent action was required to save the shipbuilding industry. Within the month, Lithgow brought shipbuilding’s difficulties to the attention of the Treasury and the government. According to Lithgow, no political intrusion appeared in the process ‘and that such members of the industry as had been approached were all strongly of the opinion that the whole question should be dealt with on a non-political basis.’⁹³ Providing no problems with competition materialised, the

⁸⁹ Reid, *James Lithgow*, pp. 130-31.

⁹⁰ *Ibid.*

⁹¹ Aldcroft, *The interwar*, p. 168.

⁹² Reid, *James Lithgow*, pp. 130-31.

⁹³ Bank of England, SMT 2/280, Minutes of Meeting, 24 April 1929, pp. 2-3.

government would be supportive.⁹⁴ Norman believed that the shipbuilders' scheme required encouragement, to prevent government intervention if funding did not become available.⁹⁵

National Shipbuilders Security Limited

NSS began trading early in 1930.⁹⁶ Funded by the BIDC as well as a levy on tonnage, the company bought up redundant and obsolete shipyards to combat excessive capacity.⁹⁷ Pollard observes that as the shipbuilding industry went into decline, NSS came to the shipbuilding industry's rescue.⁹⁸ Of the 100 British shipyards that would be involved in the proposed scheme, 30 were in five hands and 40 were under the control of their bankers.⁹⁹ Despite NSS closing and sterilising 28 shipyards, the scheme was voluntary, the decision being entirely for company management, who looked to realise their assets before the liquidator's appointment.¹⁰⁰ Taylor stated: 'shipbuilders cannot be expected to say that they will sell their yards, unless the purchase basis is acceptable to them.' He maintained that the sale of each shipyard should be undertaken on a going concern basis, with regard to the profit of the last five calendar years, also to the short-term outlook and the general circumstances surrounding the particular shipyard.¹⁰¹ Kirby maintains that the NSS approach was 'indiscriminate and ill considered' and 'was hardly a shining example of rationalisation', whilst Leslie Hannah believes that the sterilisation process did not go far enough.¹⁰²

⁹⁴ R S Sayers, *The Bank of England 1891-1944 Volume 1* (Cambridge: Cambridge University Press, 1976), pp. 320-21.

⁹⁵ Greaves, *Industrial*, p. 221.

⁹⁶ 'Rationalisation in shipbuilding - claims of displaced workmen', *The Times*, 12 November 1930, p. 16.

⁹⁷ Johnman and Murphy, *British Shipbuilding*, p. 35.

⁹⁸ Pollard, *Development*, p. 71.

⁹⁹ Bank of England, SMT 2/280, File note by Sir James Lithgow.

¹⁰⁰ 'Displaced workmen in shipyards - Joint conference in Edinburgh', *The Times*, 10 February 1933, p. 7.

¹⁰¹ Bank of England, SMT 2/280, Letter to Sir James Lithgow from J Frater Taylor, 11 December 1929.

¹⁰² Kirby, *Decline*, p. 77.

As with other basic industries, speculative investors created surplus capacity in the immediate post-war years. As Hannah points out, there was concern that the market would not ensure that the least efficient firms closed down.¹⁰³ With the exception of William Beardmore and Palmers Shipbuilding at Jarrow, the shipyards whose capacity was sterilised in the 1930s were mainly merchant shipyards.¹⁰⁴ Whilst MacDonald's Labour Government refrained from involving itself with NSS activities, there were those within the Labour Party who believed that the President of the Board of Trade should assume responsibility for coordinating yard closures. Such a role for the government would ensure that new industries requiring premises might have opportunities to take over obsolete yards, whilst securing work for displaced employees. Though supporting rationalisation, MacDonald refused to act on this delicate matter.¹⁰⁵

In total, NSS dealt with 35 shipyards, 28 separate shipbuilding companies and 201 berths. These berths totalled annual construction capacity amounting to over 1,000,000 grt of merchant shipping and 160,000 sdt relating to warships (Table 4.6).¹⁰⁶

¹⁰³ Ibid.

¹⁰⁴ S V Ward, 'The Geography of Interwar Britain: The State and Uneven Development' in *Historical Geography Series*, ed. R A Butlin (London 1988), p. 88.

¹⁰⁵ HOCD, Rationalisation, 5 November 1930, vol. 244, cc947-1000.

¹⁰⁶ TWAS, 1811/86/43, A review of the operations of National Shipbuilders Security Ltd and proposals concerning the future, with particular reference to preparations against a depression, dated February 1938, p. 1.

Table 4.6: National Shipbuilders Security Ltd: operations to 31 December 1937¹⁰⁷

| Region | Berths No. | Maximum annual output of plant and berths in gross tons | | |
|------------------------|---------------|--|-----------------|----------------|
| | | Total Grt | Merchant Grt | Warship Sdt |
| West of Scotland | 60 | 453,000 | 343,000 | 110,000 |
| East coast of Scotland | 5 | 3,000 | 3,000 | - |
| North East coast | 75 | 579,000 | 529,000 | 50,000 |
| Northern Ireland | 7 | 120,000 | 120,000 | - |
| Merseyside & Barrow | 26 | 10,000 | 10,000 | - |
| Yorkshire | 12 | 34,000 | 34,000 | - |
| Other | 16 | 24,000 | 24,000 | - |
| | 201 | 1,223,000 | 1,063,000 | 160,000 |

The initial approach to Montagu Norman over NSS came at the suggestion of Sir Andrew Duncan, a close associate of Lithgow's.¹⁰⁸ Sir Andrew Duncan assisted the Bank's governor with the establishment of the SMT and BIDC in order to manage the finances of the industries affected by rationalisation. Sir James Lithgow met Norman on 29 April 1929 to discuss a potential scheme for buying up redundant shipyards and dismantling their facilities. Norman supported the proposition, provided the Bank's advisers agreed, and as far as the government was concerned, it did not raise any contentious or political issues. Lithgow initially experienced trouble in raising the funds: whilst the shipyards supported the concept, including the levy to repay monies borrowed, it proved difficult to convince investors of the scheme's potential success. Fortunately, the Bank was able to provide funding through the BIDC, a division of the Bank of England.¹⁰⁹ Lithgow was looking to the Bank to provide funding, with repayment over

¹⁰⁷ Ibid., Appendix.

¹⁰⁸ Johnman and Murphy, *British Shipbuilding*, p. 34.

¹⁰⁹ Greaves, *Industrial*, p. 221.

either five or ten-years.¹¹⁰ Given the Bank of England's experience with the Armstrong Whitworth and Vickers merger, it knew how to assist the shipbuilding industry's rationalisation. To the Treasury's delight, the ability to return the shipyards to profitability through rationalisation limited any requirement for direct government assistance and the introduction of subsidies.¹¹¹ The Bank of England conceptualised rationalisation as part of a carefully planned strategy to minimise bad debts within the banking community at large, without 'political interference.' The staple industries, whilst receiving BIDD support, had to develop their own rationalisation strategy. While the shipbuilding industry did this with industry-wide cooperation, the other industries such as cotton, coal and steel achieved little.¹¹² Speaking at the launch of the P&O liner *Strathnaver*, Sir Herbert Lawrence, chairman of Vickers-Armstrong, offered his congratulations to Sir James Lithgow and his NSS, believing Lithgow to be dealing pragmatically with 'the reorganisation and the reconstruction of our industries.'

By 1930, market forces were insufficient to eliminate surplus capacity and the Bank of England – assisted by the SMT and BIDD – helped to give the scheme credibility and initial funding, and removed any doubts over the debenture issue.¹¹³ NSS enabled shipyards to realise their assets without the liquidator's appointment.¹¹⁴ Whilst the launchings in 1930 approximated 1.5 mgt, which was broadly in line with the previous year, that output was primarily from orders placed in 1928 and 1929, which enabled a high level of completion during 1930. Sir Amos Ayre elaborated upon the position to prevent any misunderstanding, namely:

1. The merchant tonnage ordered in 1930 was only 50 percent of the tonnage ordered in 1929, after taking the *Queen Mary* into account;
2. The merchant tonnage commenced was only 50 percent of the tonnage launched;

¹¹⁰ Clay, *Lord Norman*, p. 339.

¹¹¹ Peden, *British Economics*, p. 99.

¹¹² Greaves, *Industrial*, p. 59.

¹¹³ *Ibid.*, p. 222.

¹¹⁴ Jones, *Shipbuilding*, p. 133.

3. The merchant tonnage under construction fell from over 1.6 mgt in March to 1.0 mgt in December, and the warship tonnage also decreased significantly;
4. British shipbuilders suffered more severely than foreign shipbuilders, owing to subsidisation;
5. Shipping laid up in Britain almost trebled;
6. Shipyard unemployment almost doubled;
7. Furthermore, unemployment in shipbuilding was twice as severe as the general average for all insured occupations. British shipbuilding felt the depression greater than British industry generally.¹¹⁵

Within the shipbuilding community, 47 companies subscribed for NSS shares. The company commenced with a share capital totalling £10,000 in ordinary £1 shares, and had power to lend up to £2.5 million in order to purchase redundant and obsolete shipyards.¹¹⁶ NSS acquired the shipyards and sterilised them at exceptionally low prices. Then in the sale of the former shipyard sites, the Bank recovered its funding in addition to monies received from the levy on new tonnage. The yards were redeveloped but on the understanding that the shipyard facilities could not be re-used for shipbuilding purposes for 40 years.¹¹⁷ The sale of the sites and their contents produced funds to repay in part the purchase of the redundant yards. The resultant savings in overhead charges and administrative costs and in rates and taxes together with greater work concentration enabled the remaining yards to operate economically by functioning at a higher capacity. The excessive shipbuilding capacity was an anomaly of the First World War. The scheme was a novel but rational one, and in business circles, indicated what an industry itself was capable of, when dealing with excessive capacity.¹¹⁸ The BIDC made two public issues in connection with rationalisation and the basic industries, namely, 5 percent debentures

¹¹⁵ Bank of England, SMT 2/283, Shipyard work decreasing, pp. 4-5.

¹¹⁶ Jones, *Shipbuilding*, p. 134.

¹¹⁷ Greaves, *Industrial*, p. 223.

¹¹⁸ Bank of England, SMT 2/283, The Redundant Shipyard Scheme, 28 February 1930.

of £1,000,000 for NSS, and a second totalling £2,000,000 in 6.5 percent debentures for the Lancashire Cotton Corporation. By July 1931, the SMT was examining potential schemes to make further funds available to industries that required downsizing.¹¹⁹ Dependent upon willing sellers coming forward, NSS provided assurances regarding local employment, to realise sites for employment by other industries.¹²⁰

NSS's early conflicts arose in persuading the shipyards to dismantle their facilities and at what price. Given the depression, the levy fell below the original anticipated level, although it compared well to the cost of inducements to persuade a shipbuilder to sell his yard and facilities. As shipbuilding recovered from 1934 onwards, the levy yield increased, as did NSS purchase prices for yards to be sterilised.¹²¹ Although some shipyard owners sought higher prices for their facilities, Lithgow believed that the NSS scheme's greatest virtue was its voluntary nature. Any shipyard that sold its assets to NSS did so at the owners' behest.¹²²

Incorporated in 1930, NSS began the process of buying up redundant and obsolete yards almost immediately, with the acquisition of the Dalmuir yard of William Beardmore.¹²³ Whether NSS would have been established had the depression started earlier is a moot point. Clearly, a different approach to funding might have arisen. Given that funds loaned by the BIDC were to be repaid as a levy on future ship turnover, the birth of NSS at a deeper point in the depression would have revised expectations significantly downwards, thereby increasing the levy ratio or needing some other means to bridge the gap. Thus, timing was crucial to NSS achievements. Despite some insolvencies, the severity was not as anticipated, following the sterilisation of

¹¹⁹ HOCD, Bankers Industrial Development Company, 21 July 1931, vol. 255, cc1224-5.

¹²⁰ HOCD, National Shipbuilders' Security Limited, 19 June 1934, vol. 291, cc182-3.

¹²¹ Jones, *Shipbuilding*, p. 140.

¹²² Reid, *James Lithgow*, p. 127.

¹²³ Johnman and Murphy, 'An Overview', p. 242.

yards.¹²⁴ NSS board members comprised leading names from the shipbuilding industry, all experienced in shipbuilding and fully supporting its activities (Table 4.7).

Table 4.7: Initial list of NSS directors and companies represented¹²⁵

| Director | Representing |
|-------------------|---|
| Sir James Lithgow | Lithgows (West of Scotland) William Hamilton (West of Scotland) Robert Duncan (West of Scotland) |
| A L Ayre | Burntisland Shipbuilding (East coast of Scotland) |
| J Barr | Formerly of Vickers (Merseyside & Barrow) |
| C W Craven | Vickers-Armstrong (Merseyside & Barrow and North East Coast of England) |
| J W Kempster | H&W (Northern Ireland) |
| A M Kennedy | Fairfield Shipbuilding (West of Scotland) Doxford's (North East Coast of England) Northumberland Shipbuilding (North East Coast of England) |
| F C Pyman | William Gray & Company (North East Coast of England) |
| A Murray Stephen | Alexander Stephen (West of Scotland) |
| T E Thirlway | SH&WR (North East Coast of England) Barclay Curle (West of Scotland) |
| R Norman Thompson | J L Thompson (North East coast) Sir James Laing (North East coast) |

The end of the post-war boom coincided with the serious cutbacks in naval expenditure reinforced by the agreement of the major naval powers to the limitation treaty in 1921. Consequently, the government reduced all naval expenditure, particularly the construction of

¹²⁴ Clay, *Lord Norman*, p. 340.

¹²⁵ 'National Shipbuilders' Security Limited, Shipbuilding and marine engineering finance', in *The Shipbuilder*, ed. A G Hood (1930), p. 523.

naval vessels. This process forced shipbuilders who specialised in naval construction to identify new markets. William Beardmore, who by late 1920 was heavily indebted to the Bank of England, experienced a number of commercial disasters as it attempted to stabilise after the post-war boom.¹²⁶



Photo 4.0: *SS Daldorch*, launched on 27 August 1930 by William Beardmore¹²⁷

William Beardmore's assets comprised the steel forge and foundry at Parkhead in Glasgow, eventually acquired by Sir James Lithgow. Before 1914, William Beardmore was one of the main military suppliers, producing armour plate, artillery, warships, tanks, aero engines and planes, as well as shell factories. Post-war, the company diversified without much success into civil aircraft, seaplanes, airships, locomotives, diesel engines, and motor cars. Unfortunately, the company failed to manage the transition required during the 1920s and became the first yard purchased by NSS, despite having built both famous liners and warships.¹²⁸ The demise of William Beardmore, culminating in its purchase by NSS, largely failed to deal with capacity as

¹²⁶ Reid, *James Lithgow*, p. 144.

¹²⁷ www.clydesite.co.uk [accessed 1 February 2016].

¹²⁸ Reid, *James Lithgow*, p. 143.

originally envisaged, since the construction of liners was not necessarily an area with overcapacity, compared to the plain tramping and cargo shipbuilders.¹²⁹ NSS purchased the William Beardmore yard at Dalmuir first, principally a naval shipbuilder that suffered from the curtailment of Admiralty expenditure during the 1920s.¹³⁰ William Beardmore's sale to NSS went public in September 1930. By the end of the financial year, NSS had also acquired the yards of Napier & Miller in Glasgow, part of Ardrossan Dockyard facilities in North Ayrshire, and the shipyard of John Chambers at Lowestoft (Table 4.8).¹³¹

Table 4.8: Merchant tonnage completed by shipyards purchased by NSS in 1931¹³²

| | 1926 | 1927 | 1928 | 1929 | 1930 |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| | Grt | Grt | Grt | Grt | Grt |
| John Chambers | Nil | Nil | Nil | Nil | Nil |
| William Beardmore | 1,559 | 4,978 | 31,644 | 9,289 | 12,726 |
| Ardrossan Dockyard | 4,037 | 1,289 | 6,088 | 9,428 | 16,351 |
| Napier & Miller | 12,185 | 14,929 | 16,696 | 29,074 | 17,470 |

The following year saw a further eleven shipyards closed and a more widespread character to NSS activities.¹³³ The North-East Coast of England experienced nine closures, whilst the West of Scotland witnessed two – Archibald McMillan, based at Dumbarton, and Barclay Curle's west yard on the Clyde (Table 4.9).¹³⁴

¹²⁹ Ibid.

¹³⁰ 'William Beardmore and Company, reasons for trading losses, difficult conditions', *The Times*, 13 July 1934, p. 23.

¹³¹ Jones, *Shipbuilding*, p. 135 and Johnman and Murphy, 'An Overview', pp. 242 and 243.

¹³² Comprises data taken from Appendix 3.0 and Jones, *Shipbuilding*, p. 137.

¹³³ 'Eight shipyards to be scrapped: All on North-East coast, part of reduction plan', *Manchester Guardian*, 1 August 1931, p. 16.

¹³⁴ 'Scrapping of shipyards – purchases for dismantling', *The Times*, 15 April 1932, p. 20.

Table 4.9: Merchant tonnage completed by shipyards purchased by NSS in 1932¹³⁵

| | 1927 | 1928 | 1929 | 1930 | 1931 |
|-----------------------|--------------|--------------|--------------|--------------|--------------|
| | Grt | Grt | Grt | Grt | Grt |
| Northumberland S. B. | Nil | 33,643 | 33,459 | 23,458 | Nil |
| Chas Rennoldson | Nil | Nil | Nil | Nil | Nil |
| Craig Taylor | 4,601 | 11,301 | 9,001 | 4,409 | Nil |
| Smith Docks – Ropners | Nil | Nil | Nil | Nil | Nil |
| Renwick & Dalgleish | Never opened | Never opened | Never opened | Never opened | Never opened |
| Cleveland S B | Nil | Nil | Nil | Nil | Nil |
| Whitby S C | Nil | Nil | Nil | Nil | Nil |
| Osbourne Graham | Nil | Nil | Nil | Nil | Nil |
| Arch. McMillan | 11,418 | 8,617 | 5,486 | 8,852 | Nil |
| Robert Thompson | 10,408 | 15,897 | 15,910 | 9,116 | 2,336 |
| Barclay Curle | 10,288 | 21,489 | 17,019 | 26,473 | Nil |

At the Third AGM of NSS held on 9 June 1932, Lithgow reported ‘that during the year under review eleven shipyards had been purchased for scrapping or under restrictive covenants against shipbuilding.’ Further, he advised that NSS ‘had now dealt with 17 shipyards and 91 berths, representing an annual output of 634,000 tons during the two years following incorporation.’ The meeting learnt that owing to the stagnation in world trading conditions, the volume of work in hand within the industry during the year was lower than at any time in modern shipbuilding history. Despite the difficulties, Lithgow acknowledged that ‘progress had been made in the industry’s cooperative effort to deal in their own hands with the problem relating to redundant

¹³⁵ Comprises data taken from Appendix 3.0 and Jones, *Shipbuilding*, p. 137.

capacity in an ordered and equitable manner.’¹³⁶ By 1932, NSS activities closed 99 berths: 46 berths situated on the Clyde; 37 on the North-East Coast of England; 8 in Whitby; 4 in Hull; and 4 at Lowestoft.

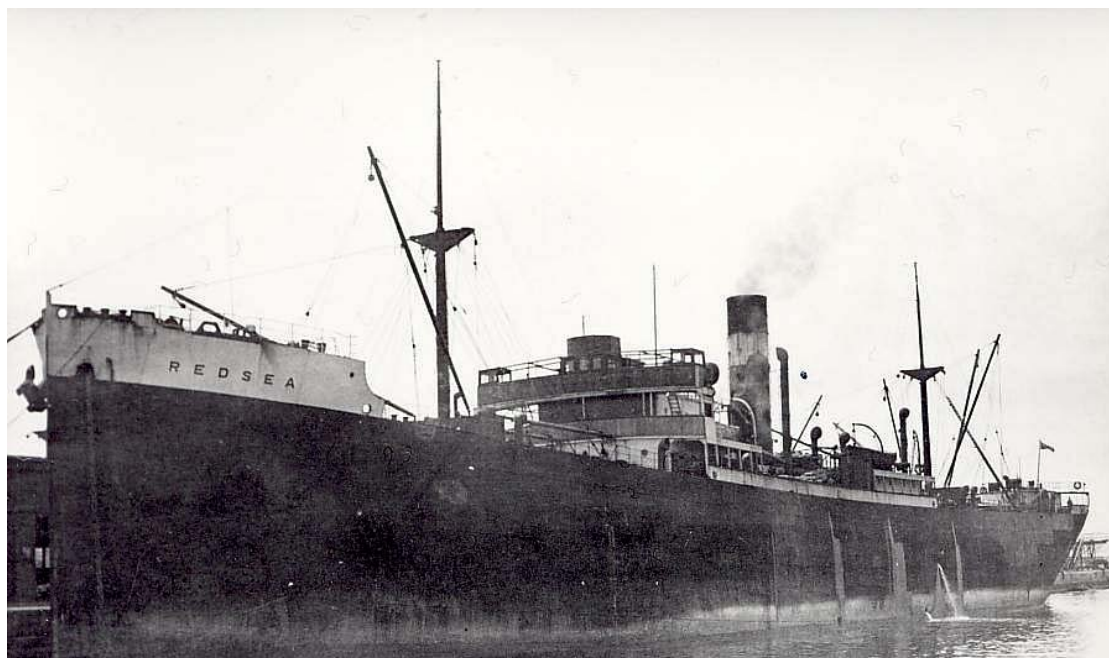


Photo 4.1: *SS Redsea*, built by Northumberland Shipbuilding (1927) Limited¹³⁷

As at 24 November 1932, the berths purchased totalled 14.6 percent of those in existence at the commencement of NSS activities; considering only berths of 300 feet in length and over, the percentage of berths NSS purchased totalled 17.0 percent.¹³⁸ By December 1933, NSS had sterilised 159 berths throughout Britain or they had fallen so far into disuse that they were no longer functional. NSS continued to purchase shipyards until 31 March 1937, closing down a capacity totalling 1.0 mgt. This statistic was in line with available potential tonnage of 2.5 mgt at the outbreak of the Second World War, which is consistent with the tonnage capacity

¹³⁶ Bank of England, SMT 2/280 National Shipbuilders Security Limited, Statement by Sir James Lithgow at the Third Annual General Meeting, 9 June 1932.

¹³⁷ *SS Redsea* was one of the final ships launched by Northumberland Shipbuilding (1927) Limited for Sea Steamship Company Limited prior to the acquisition of that company by NSS in 1932. Tyne built ships, courtesy of Richard Cox

¹³⁸ Bank of England, SMT 2/280 National Shipbuilders Security Limited position at 24 November 1932.

of 3.5 mgmt in 1930.¹³⁹ Uncertainty exists regarding the precise tonnage curtailed by NSS activities, and Greaves suggests that such a capacity reduction could have been as high as 1.4 mgmt.¹⁴⁰ Due to flexibility in vessel types (plain cargo ships, passenger liners, warships), it is extremely difficult to identify with any certainty the categories affected by rationalisation. According to Sir Frederick Pyman, by 1930 there were 684 berths in Britain. By 1933, cargo shipbuilders had lost about 30 percent of their capacity, whereas those yards that constructed passenger and warship tonnage had lost approximately 7 percent.¹⁴¹

By 1934, the government was coming under increasing pressure from the Labour Party to monitor NSS and provide details of yard closures. Ministers provided assurances wherever possible, and reiterated that NSS was a private company and no concern to the government. Despite the constant worries over unemployment and the restrictive covenant that prevented the closed yards from shipbuilding for 40 years, shipyards were working at only 21 percent capacity. NSS never anticipated the industry working at full capacity, though recognised the necessity in emergencies to have spare capacity available.¹⁴² The return of economic prosperity to the shipbuilding industry limited the opportunities to reduce capacity and somewhat changed NSS strategy, although yards belonging to SH&WR, Fairfield Shipbuilding and William Gray were available to NSS. Fairfield Shipbuilding commenced negotiations with NSS during the year ended 31 March 1934, to enter into restrictive covenants against shipbuilding in respect of the company's West Yard.¹⁴³ Sir A M Kennedy believed that 'it was a matter of regret to the directors that the outcome of the year's workings is not more favourable.'¹⁴⁴ Kennedy further emphasised that the British government should take action when merchant shipbuilding was 'at

¹³⁹ Jones, *Shipbuilding*, pp. 135-36.

¹⁴⁰ Greaves, *Industrial*, p. 223.

¹⁴¹ Jones, *Shipbuilding*, p. 138.

¹⁴² HOCD, *National Shipbuilders' Security Limited, 20 February 1934, vol. 286, cc168-70.*

¹⁴³ Jones, *Shipbuilding*, p. 137.

¹⁴⁴ Glasgow Mitchell Library, UCS.2/1/6, Fairfield Shipbuilding and Engineering Company Limited, Minute Book No. 6, 24 November 1933, p. 20.

a low ebb, naval programmes should be anticipated' ... 'to maintain our skilled workmen in regular employment.'¹⁴⁵ William Gray survived until November 1936, when the shipyard at Pallion on the Wear closed. Fortunately, no redundancies resulted from the sale to NSS as the shipyard had not built a ship for over six years. This loss reduced shipbuilders on the Wear to nine, whilst at the end of the First World War there had been fourteen shipbuilders.¹⁴⁶ NSS then went on to purchase the shipyard of Palmers Shipbuilding, and in the process raised concerns of employees and politicians alike. Breaking with NSS's prior pattern, three shipyards taken over during 1935–36 remained in operation on a care-and-maintenance basis.¹⁴⁷

H&W had significant surplus capacity. NSS acquired its MacMillan yard at Dumbarton as well as the yards at Ardrossan and Greenock, and the north yard at Belfast. The 1931 estimates indicate that 12 of the 42 slipways retained for the Royal Mail Group's benefit were no longer required and were available for sale.¹⁴⁸ Particularly disconcerting was that some of the H&W facilities had received government funding under the TFAs only a few years earlier to update their yards.¹⁴⁹ However, certain facilities were retained for 'care and maintenance': Caird & Company and D & W Henderson, both on the West of Scotland, and Vickers-Armstrong at the Walker yard on the Tyne.¹⁵⁰ However, by 17 January 1936, H&W had acquired the ship-repairing division and graving dock previously owned by D & W Henderson.¹⁵¹

Government financial support was not required and was only one reason that the MacDonald Labour government was prepared to allow NSS to continue with its activities without any

¹⁴⁵ Ibid.

¹⁴⁶ 'Wear loses shipyard, Rationalising of Messrs Gray's', *Sunderland Echo and Shipping Gazette*, 13 November 1936, p. 3.

¹⁴⁷ Jones, *Shipbuilding*, p. 136.

¹⁴⁸ Green and Moss, *Business*, p. 55.

¹⁴⁹ Ibid., p. 126.

¹⁵⁰ 'Rationalisation of shipbuilding: Company's progress', *Manchester Guardian*, 20 September 1935, p. 4; Jones, *Shipbuilding*, p. 137.

¹⁵¹ 'Clyde shipyard, Repair section taken by Harland & Wolff', *Sunderland Echo and Shipping Gazette*, 17 January 1936, p. 6.

intervention.¹⁵² The government recognised the benefits of rationalisation and the concentration of production, but also realised that such activities brought social consequences as shipyards closed down. MacDonald did not want to be associated with such consequences and sought distance with government as far as possible from the activities of NSS.¹⁵³ By 1931, most of the shipbuilding workforce was either already redundant or laid off and therefore the sterilisation process and the formalities associated with the closure of the shipyards did not necessarily aggravate unemployment.¹⁵⁴

Rationalisation was more than the purchase and then dismantling of the shipyards, though it symbolised the first steps by the industry in taking control. Rationalisation also comprised the ability to reduce costs and achieve a more flexible pricing structure, greater specialisation and a higher degree of concentration, as well as cooperation amongst the surviving shipyards. Jones states that the costs incurred by NSS in what appeared to be the initial stages should have been borne by those yards that survived the sterilisation process. Furthermore, even at that stage, it was virtually impossible to attach any monetary worth to the benefits derived by rationalisation, in view of increases in material and labour costs after 1935 as well as the stimulus that rearmament programmes provided.¹⁵⁵

Sir John Priestman, proprietor of Sir John Priestman & Company, shipbuilders of Sunderland, stated during the opening of an unemployment centre that in his opinion, ‘Sunderland needed all the shipyards it could get, and that in the event of another war, those that have been scrapped, would be solely missed.’ Furthermore, he indicated that NSS was opening the way for the foreigner to come in and steal British trade. ‘Money to buy and close shipyards [...] went on to the price of ships [...] built.’ In addition, he said his business ‘had lost several orders because

¹⁵² ‘Shipyard problems – Sir James Lithgow’s warning’, *Financial Times*, 5 November 1936, p. 5.

¹⁵³ Greaves, *Industrial*, p. 223.

¹⁵⁴ Jones, *Shipbuilding*, p. 139.

¹⁵⁵ *Ibid.*, p. 140.

his price was £200 higher than that of foreigners.’ It appeared to Priestman that ‘NSS was formed to scrap redundant shipyards, at the expense of those remaining in the industry.’¹⁵⁶

From the late 1930s, NSS believed that shipbuilding demand could still fluctuate between 200,000 and 1,400,000 tons in merchant ships, even though a minimum 1,000,000 tons had been sterilised. During the previous decade, shipbuilding output plummeted to 133,000 tons in 1933, despite having reached 1,523,000 tons in 1929.¹⁵⁷ Having achieved its primary objective, NSS then considered future depressions and how to spread a small amount of work, during such a period, over a large number of shipbuilding establishments. NSS believed that such a downturn would generate appreciably less than 30 percent of capacity. Furthermore, NSS considered possible compensation payments where shipyards were prepared to forego business on a temporary basis by closing voluntarily, or for compensation in return for reduced output.¹⁵⁸

Some dispute remains as to the actual capacity eliminated, though it is generally accepted that there remained a capacity of 2.5 mgt after the sterilisation process. By 1937, shipyard closures totalled 28, although half of all berths in Britain remained idle. Rationalisation remained unfinished business, although rearmament improved the position within a short period.¹⁵⁹ By the outbreak of the Second World War, shipbuilding was still uncompetitive and remained with excess capacity.¹⁶⁰ Whether due to the threat of war or the increased hope of profits materialising, the prospects of further shipyard acquisitions by NSS were small. A few yards belonging to non-members of NSS appeared to be possibilities, though NSS did not succeed in getting any further proprietors to dispose of their shipyards after 1939.¹⁶¹ Much anticipation

¹⁵⁶ Bank of England, SMT 2/283, Morning Post – ‘Danger of scrapping shipyards – warning in the event of another war’ 21 March 1935.

¹⁵⁷ Murphy, “‘No longer Competitive’”, p. 43.

¹⁵⁸ TWAS, 1811/86/43, A review of the operations of National Shipbuilders Security Ltd and proposals concerning the future, with particular reference to preparations against a depression, dated February 1938, pp. 6-9.

¹⁵⁹ Aldcroft, *The interwar*, p. 167.

¹⁶⁰ Johnman and Murphy, *British Shipbuilding*, p. 59.

¹⁶¹ During the year to 31 March 1939, NSS acquired Wood & Skinner & Co Ltd at Bill Quay on the River Tyne.

existed within NSS regarding a further depression and the possibility that further shipbuilders might decide to give up business. In any event, as long as supply continued to be so substantially in excess of likely maximum demand, it was desirable that the shipbuilding industry needed the machinery provided by NSS to absorb any redundant shipyards as and when facilities were no longer required. NSS hoped that the improved equation of 'supply and demand' that the industry attained would no longer be affected by speculators purchasing and developing units that, once closed, redundant or obsolete, would benefit NSS. The ability to control supply and demand would minimise hardship in poor trading conditions.¹⁶²

As far as the B IDC was concerned, the responsibility for the sterilisation programme rested with NSS. NSS and Lithgow disagreed with the B IDC on this point, stating that the sterilisation process for a period of forty years belonged entirely to the shipbuilding company realising its assets. Any assets purchased from NSS realised little in value due to the limited interest in investing in fixed assets. However, the Bank of England was pleased at shipbuilding's 'self-help' attitude, as were successive governments.¹⁶³ At last, the Bank believed, its rationalisation proposals were working, in contrast to cotton and steel. However, in the years after incorporation, NSS showed shipbuilding at its worst: the scheme funded its own industry's reduction whilst protecting the Bank's capital.¹⁶⁴

NSS was not a compulsory purchase scheme. The decision to sell shipyards to NSS remained solely with the yard sold. NSS provided a better return to those yards selling machinery and land at values higher than those achieved by the liquidator's auctioneer.¹⁶⁵ There was always an expectation that NSS would have a limited lifespan. It lived on after its last acquisition because it might be required to enforce the covenants against shipbuilding on the yards it

¹⁶² TWAS, 1811/86/43, A review of the operations of National Shipbuilders Security Ltd and proposals concerning the future, with particular reference to preparations against a depression, dated February 1938, p. 4.

¹⁶³ Greaves, *Industrial*, p. 222.

¹⁶⁴ *Ibid.*, pp. 221-22.

¹⁶⁵ Reid, *James Lithgow*, p.131.

purchased. Whether in liquidation or not, it would continue to collect the 1 percent on all vessels built until any outstanding balance due to the bankers was repaid.¹⁶⁶ Without NSS sterilisation, capacity utilisation would have been only 44 percent as Britain prepared for war; instead, it was 64 percent. This meant that, in the average case, the work in progress during 1938 was about 50 percent, greater than it would have been if spread over the original larger number of units in operation before 1930.¹⁶⁷ The impact of NSS indicates that the rationalisation strategy, whilst a sensible option, did not go far enough in correcting capacity given the facilities that continued to be available.¹⁶⁸ Furthermore, as Jones believes, the purchase and dismantling of redundant shipyards could not in itself be regarded as a programme of rationalisation, but simply an initial mechanism of dealing with the industry's difficulties arising from increasing costs.¹⁶⁹

Palmers Shipbuilding & Iron Company Limited

The activities of NSS came under immense scrutiny following the sterilisation of Palmers Shipbuilding at Jarrow in 1936. Following the reconstruction and rationalisation undertaken in the late 1920s and early 1930s, it therefore becomes increasingly difficult to ignore the plight of this particular company, which had employed approximately 32,000 operatives.¹⁷⁰ The difficulties were becoming increasingly apparent from the levels of tonnage built during the late 1920s and early 1930s (Table 4.10).

¹⁶⁶ Bank of England, SMT 2/280, Shipbuilding Conference Notes, 9 October 1929, pp. 1-3.

¹⁶⁷ TWAS, 1811/86/43, A review of the operations of National Shipbuilders Security Ltd and proposals concerning the future, with particular reference to preparations against a depression, dated February 1938, p. 2.

¹⁶⁸ Kirby, *Decline*, p. 77.

¹⁶⁹ Jones, *Shipbuilding*, p. 140.

¹⁷⁰ TWAS, G/EMP 2/8, Notes on the Present Industrial Situation in Jarrow, 19 January 1934, p. 1; Jones, *Shipbuilding*, p. 133.

Table 4.10: Tonnage built by Palmers Shipbuilding 1928 to 1932¹⁷¹

| | 1928 | 1929 | 1930 | 1931 | 1932 |
|------------------|-------------|-------------|-------------|-------------|-------------|
| | Grt | Grt | Grt | Grt | Grt |
| Merchant tonnage | 40,506 | 50,406 | 54,771 | 7,139 | - |
| | Sdt | Sdt | Sdt | Sdt | Sdt |
| Naval tonnage | 8,250 | - | 2,720 | - | 2,750 |

The level of tonnage prior to 1931 does not reveal a company that was about to fail given the tonnage levels achieved by its competitors, both on the North-East Coast of England and on the Clyde. However, by early 1933, work on the last remaining contract at Palmers Shipbuilding was almost complete and *HMS Duchess* was ready for the Admiralty.¹⁷² The firm's survival by then was seriously in doubt. Since 1920, there had been practically no household without unemployed family members in Jarrow. The proportion of unskilled workers was dangerously high. It was almost impossible for surplus labour to be absorbed to any extent by adjacent areas. The possibility of new industries was remote.¹⁷³ However, the rhetoric of all those concerned with Jarrow's demise failed to disguise that the company had been in financial difficulty for many years.¹⁷⁴ Despite the inherent difficulties, the town was unable to alleviate unemployment.¹⁷⁵ In fact, losses arose as far back as 1889 and there was even speculation surrounding the ability of the company during 1893, when it failed to produce its accounts on time.¹⁷⁶ In the later years of the nineteenth century, the company's founder Charles Mark Palmer threw his personal wealth and reputation behind the business but to no avail, and in

¹⁷¹ The data set out in Table 4.10 are given in Appendices 1.0 and 2.0.

¹⁷² Perry, *The Jarrow crusade*, p. 11.

¹⁷³ TWAS, G/EMP 2/7, Report by the Ministry of Labour, Employment Exchange Jarrow to the Divisional Controller Leeds, 25 January 1933, p. 1.

¹⁷⁴ Dougan, *The History*, pp. 119-21.

¹⁷⁵ TWAS, G/EMP 2/8, Notes on the Present industrial Situation in Jarrow, 19 January 1934, p. 1.

¹⁷⁶ Dougan, *The History*, p. 119.

1893 he resigned his position in order to avoid further embarrassment and or to jeopardise his parliamentary seat.¹⁷⁷

Jarrow was a company town built around shipbuilding activities during the previous eighty years.¹⁷⁸ A highly integrated business that was almost entirely self-sufficient, the company used both vertical and horizontal integration to its advantage. Whilst problems existed before 1914, the company's situation became exacerbated during the interwar period.¹⁷⁹ By early 1933, concern was mounting with regard to Palmers Shipbuilding. The company, which usually employed all shipyard workers in the Jarrow area, remained closed, and no further information was available as to the firm's future. The Palmers Shipbuilding's engineering works was at a standstill and all the blast furnaces and rolling mills were idle and unlikely to reopen.¹⁸⁰ As late as 27 September 1935, Sir John Jarvis, the head of the 'Surrey Fund', was hoping to reopen the Palmers Shipbuilding's blast furnaces and steelworks, though the extent of the company's difficulties was beginning to make him realise that it was unrealistic to be optimistic, given the manner by which the people of Jarrow had been treated.¹⁸¹

In the immediate, post-war period the company expanded capacity at a cost of approximately £2 million to finance extensions and shipbuilding facilities in Hebburn on Tyneside, and at Amble in Northumberland, as well as dry dock facilities in Swansea, South Wales.¹⁸² Despite these changes, Palmers Shipbuilding facilities remained predominantly dedicated to constructing plain tramp tonnage, although the company had for many years undertaken the construction for the Admiralty of warships including battleships, both pre- and post-*Dreadnought*.¹⁸³ Even between the 1921 and 1930 Limitation Treaties, the company built four

¹⁷⁷ Ibid., pp. 119-20.

¹⁷⁸ Ibid., p. 160.

¹⁷⁹ Ibid., p. 120.

¹⁸⁰ TWAS, G.EMP 2/7, Employment Exchange Report, 21 March 1933.

¹⁸¹ 'Jarrow steelworks doubts', *Shields Gazette*, 27 September 1935, p. 5.

¹⁸² Jones, *Shipbuilding*, pp. 131-32.

¹⁸³ Scott, *Vickers*, p. 217.

destroyers for the Admiralty as well as the cruiser *HMS York*. In addition, Palmers Shipbuilding enjoyed major success in undertaking contracts for the British Tanker Company, Eagle Oil, and many overseas oil companies.¹⁸⁴

However, with the exception of the war years, Palmers Shipbuilding struggled financially for a long period. The company's steel facilities closed in 1921 after incurring heavy losses.¹⁸⁵ By the time NSS purchased the shipbuilding yards, the company was already in receivership.¹⁸⁶

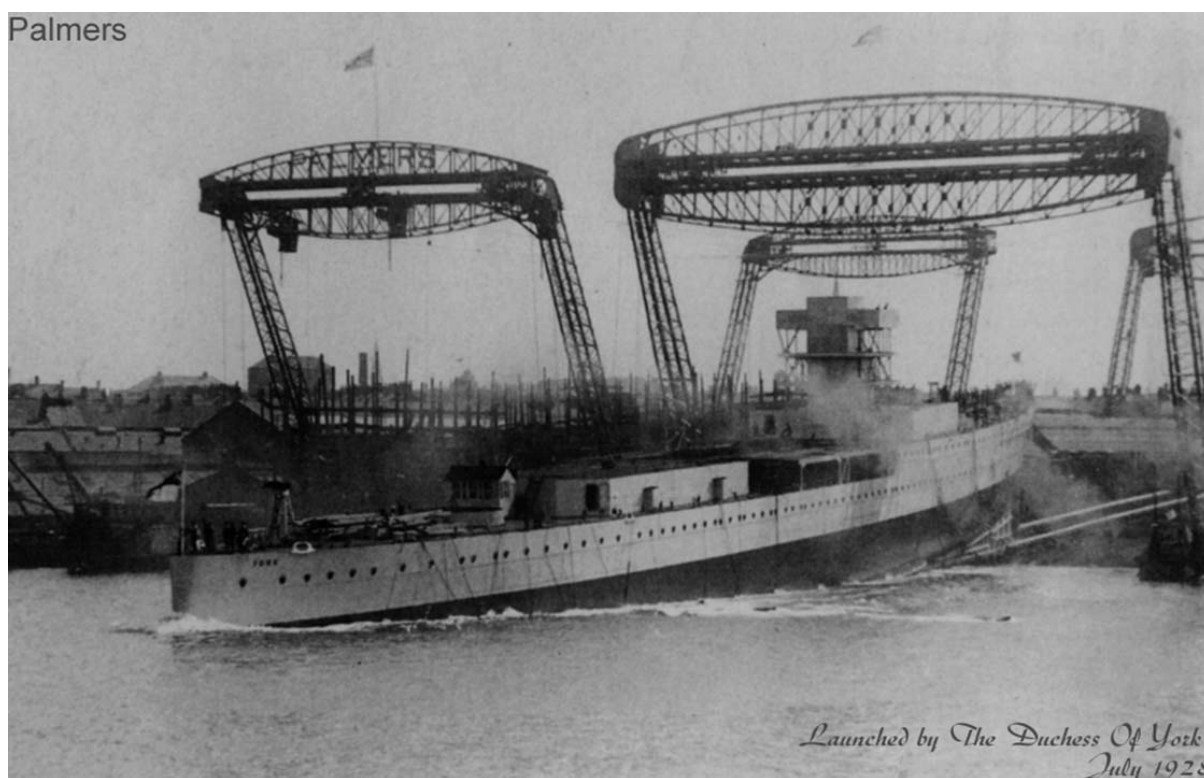


Photo 4.2: *HMS York*, built at Palmers Shipbuilding of Jarrow and launched on 17 July 1928¹⁸⁷

The decision to purchase Palmers Shipbuilding's redundant and obsolete shipyards was the subject of criticism from within the region as well as in political circles.¹⁸⁸ NSS defended itself,

¹⁸⁴ Dougan, *The History*, p. 162.

¹⁸⁵ Kenneth Warren, *Jarrow: Victorian industrialisation and afterwards* (Berwick on Tweed: Martins the Printers, 2013), p. 133.

¹⁸⁶ *Ibid.*, p. 163.

¹⁸⁷ The launching of *HMS York* on 17 July 1928: www.geordstoree.com - [accessed 29 January 2016].

¹⁸⁸ 'Sale of shipbuilding plant: three Tyneside yards', *Manchester Guardian*, 26 March 1935, p. 19.

stating that it intervened only in cases where companies had ‘shut their doors.’ Such establishments were ‘purchased at mutually agreed figures’, which resulted in creditors obtaining payments, which then passed again into circulation. Had such a sale not materialised, capital would have remained locked up in unused berths as well as dormant plant and machinery.¹⁸⁹

Palmers Shipbuilding had the capacity to produce over 130,000 grt of shipping each year, though even in the good years of the late 1920s when shipbuilding experienced a brief revival, it only produced just over 50,000 tons.¹⁹⁰ According to Scott, the company appeared overcapitalised for some time before its eventual demise. If management had written down the value of its capital earlier by reconstructing its financial position, the business might have continued to exist.¹⁹¹ Furthermore, despite spending over £2 million in post-war reconstruction and expansion of its facilities, the company’s yards suffered – like its competitors – from poor mechanisation and the lack of up-to-date shipbuilding facilities.¹⁹² This was such a problem that when Vickers-Armstrong purchased the ship-repair facilities in 1936 from NSS, being the only Palmers Shipbuilding business to survive, Vickers-Armstrong spent £100,000 in upgrading.¹⁹³

Whilst common sense dictated that the least efficient organisations be sterilised and dismantled, financial and employment factors intervened. Despite efficiency being a problem within the company’s organisation, other factors affected the shipyard’s survival.¹⁹⁴ NSS attempted to buy up surplus capacity as evenly as possible across the shipbuilding districts. This policy

¹⁸⁹ TWAS, G.EMP 2/10, Letter to E Rosamund, Hebburn Employment Exchange from Hebburn Shipbuilding Yards enclosing report upon the industrial position, 19 July 1935, p. 2.

¹⁹⁰ TWAS, 1811/86/43, Details taken from a list of shipbuilding firms in Great Britain and Ireland – giving particulars of present and possible members of the shipbuilding conference: and number of building berths, p. 13.

¹⁹¹ Scott, *Vickers*, pp. 217-18.

¹⁹² Jones, *Shipbuilding*, pp. 131-32.

¹⁹³ Scott, *Vickers*, pp. 217-18.

¹⁹⁴ Jones, *Shipbuilding*, p. 136.

intended to protect particular towns or regions from suffering hardship. Palmers Shipbuilding's fate contrasted with that of Hawthorn Leslie, in neighbouring Hebburn. Hawthorn Leslie was financially sound and possessed up-to-date machinery. Like Palmers Shipbuilding, they too secured contracts from home and foreign governments for naval work, as well as from home and foreign shipowners for cargo boats. Palmers Shipbuilding was stronger in constructing oil tankers, though Hawthorn Leslie also constructed passenger liners. Like all other shipyards in the district, Hawthorn Leslie experienced difficulties during the early 1930s. However, unlike Palmers Shipbuilding, it was anticipated that they would receive their quota of orders, and achieve work for at least a third of their capacity when trade improved. Even during 1934, Hawthorn Leslie was building five naval vessels: two for the Admiralty, two for the Portuguese government, and one for the Indian government (as well as a coaster for the Tyne Tees Shipping Company). The company's workforce at that time comprised 1,500 employees (down from 2,800 in 1929), and it was unlikely that this yard would be able to absorb any significant level from Palmers Shipbuilding's unemployed.¹⁹⁵

While all forms of shipbuilding experienced short-term difficulties from 1931, tramp-shipbuilding had been in decline since the early 1920s, in terms of laid-up tonnage and surplus specialised berths. From an examination of the various classes of tonnage output, the extent that an even-handed policy applied in the sterilisation strategy is not particularly clear. The ability of yards to undertake different classes of work made the decision-making process appear arbitrary.¹⁹⁶ Palmers Shipbuilding's closure generated significant social problems for Jarrow and the surrounding areas.¹⁹⁷ The health and welfare of the insured population suffered, with no ability to secure future employment.¹⁹⁸ Since 1852, the town had been almost entirely

¹⁹⁵ TWAS, G.EMP 2/9, Addendum to a letter to E P Rosamund, Hebburn Employment Exchange regarding the position of Hebburn and Jarrow, 3 May 1934, p. 5.

¹⁹⁶ Jones, *Shipbuilding*, pp. 131-32.

¹⁹⁷ 'Closing of North-East coast shipyards', *The Times*, 15 March 1934, p. 16.

¹⁹⁸ 'The plight of Jarrow', *The Times*, 7 February 1933, p. 8.

dependent upon Palmers Shipbuilding, which embraced shipbuilding, ship repairing, pig iron manufacturing, steel manufacturing, marine engineering, and galvanising. The firm was a developer in iron shipbuilding, and enjoyed considerable prosperity up until 1909, when a decline in profits began.¹⁹⁹ This initially did not affect the numbers employed. This state of affairs continued until 1915 when Palmers Shipbuilding's operations returned to greater profitability. The town's population was almost entirely employed on ammunition and naval work, and earned very high wages. However, commencing in October 1920 unemployment spread, becoming acute in April 1921 and continuing unabated until 1927, when it improved for a few months, becoming serious again in 1928 and continuing so until 1933, when 90 percent of the population were registered unemployed. The local labour exchanges recognised the difficulty that lay ahead when attempting to source work for 32,000 operatives, 90 percent of whom were unemployed, without any main industrial employer in the town.²⁰⁰

The fusion of Vickers and Armstrong Whitworth in 1927 showed that it was possible to rationalise and reconstruct through merger activities. It was generally felt that Palmers Shipbuilding, however, was beyond help due to its precarious financial position, which deteriorated to such an extent that it necessitated the appointment of a receiver. In any event, mergers were not the appropriate answer, as firms were unwilling to surrender control whilst abrogating partial responsibility.²⁰¹ During difficult times, it was inevitable that the strongest party in any merger would be the dominant force, which would take advantage of customer relationships, contracts and the best staff. An ensuing rationalisation scheme would guarantee that only the beneficial elements of the merged business moved forward. Fear of this form of merger resulted in much disgruntlement, causing a number of businesses to fail without any ability to regenerate as trade improved. However, in the Vickers-Armstrong merger, the Bank

¹⁹⁹ TWAS, G.EMP 2/7, Employment Exchange report, Addendum to monthly report, 21 March 1933, pp. 1-2.

²⁰⁰ Ibid.

²⁰¹ Jones, *Shipbuilding*, p. 133.

of England was able to save the main constituent elements at Armstrong Whitworth.²⁰² In the event of earlier action, other mergers might have been more possible, rather than awaiting the receiver's or liquidator's appointment, by which time the possibility of resurrection was limited.



Photo 4.3: Palmers Shipbuilding's shipyard in Jarrow, dismantled by Thomas W Ward Ltd of Sheffield²⁰³

Both politicians and the elite were vocal with positive proposals, despite the limited creation of employment, given that the town had a very high level of unemployment.²⁰⁴ Jarrow was a town where the unemployed knew nothing but shipbuilding and heavy industry. They believed they had been let down, and saw no reason for the demise of Palmers Shipbuilding's fortunes.²⁰⁵ The reality of the situation is demonstrable: the company had been failing for many years, and

²⁰² Johnman and Murphy, *British Shipbuilding*, p. 25.

²⁰³ www.skyscrapercity.com [accessed 29 January 2016].

²⁰⁴ Heim, 'Interwar Responses', p. 259.

²⁰⁵ Wilkinson, *The Town*, pp. 197 and 198.

it was hardly surprising that it closed, without government intervention.²⁰⁶ By 1934, receivers appointed by the company's bankers controlled Palmers Shipbuilding.²⁰⁷ The firm, which had previously employed approximately 65 percent of the working population, was already in negotiations with NSS to close down the shipyard altogether.²⁰⁸ It was reported on 2 May 1935 that Thomas Ward had acquired the Palmers Shipbuilding site from NSS and that 'part of the shipyard may be used by the firm for ship-breaking.'²⁰⁹ Palmers (Hebburn) Company Limited's repair facilities continued into 1935 when it secured work to repair *SS Kaolack* and *SS Fresno Star*.²¹⁰ The Palmers Hebburn yard was taken over by Vickers-Armstrong on 4 April 1935, and Sir Charles Craven hoped Vickers-Armstrong would 'be able to do something towards increasing employment in one of the most distressed areas in the country.'²¹¹ The impression that Palmers Shipbuilding was the only business in Jarrow is a common mistake; there were others. However, since the war, many had closed down, either because of failure, or under rationalisation schemes. They included such companies as the Jarrow Paper Mills, Hedworth Barium Works, Tyne Tube Works, cement works and various mines, as well as Palmer's Steelworks and Blast Furnace, which latterly employed approximately 2,000 work-people, and was closed down in 1921.²¹² In addition, many other firms in nearby areas upon which Jarrow work-people depended for employment also ceased to exist.²¹³ Unemployed men from Palmers Shipbuilding at Jarrow depended on other shipyards on Tyneside. Given the prevailing difficulties during the early 1930s, it was unlikely that work would be available.²¹⁴ Even in the best economic conditions, the Ministry of Labour did not anticipate that more than 25 percent

²⁰⁶ 'Redundant shipyards', *The Times*, 28 December 1933, p. 7.

²⁰⁷ TWAS, G/EMP 2/8, Notes on the Present industrial Situation in Jarrow, 19 January 1934, p. 1.

²⁰⁸ Johnman and Murphy, 'An Overview', p. 242.

²⁰⁹ 'Future of Palmer's', *Sunderland Echo and Shipping Gazette*, 2 May 1935, p. 10.

²¹⁰ 'Work in Tyne shipyards', *Shields Gazette*, 5 August 1935, p. 3.

²¹¹ 'Vickers-Armstrong's purchase, Palmers Hebburn yard and dock taken over', *Evening Chronicle*, 4 April 1935, p. 1.

²¹² *Ibid* and Warren, *Jarrow*, p. 133.

²¹³ *Ibid*.

²¹⁴ 'Jarrow's vicissitudes', *The Economist*, 21 October 1939, p. 81.

of Jarrow workers would be absorbed into employment; after the War, it became increasingly difficult for Jarrow to attract new industries.²¹⁵

Conclusions

Pollard has shown that from 1920 trading conditions within shipbuilding were poor. Though 1927–30 provided some encouragement, the tonnage of ships built was well below the pre-war years, by as much as 25 percent.²¹⁶ With the expansion of the shipbuilding industry in the post-war boom, it was capable of producing 3.0 mgt per annum at a time when demand existed for only 1.5 mgt. Almost half the building berths were empty for the vast part of the 1920s.²¹⁷ After the difficulties from 1921 to 1926, Britain's share of the world's shipbuilding trade began to improve.²¹⁸ Even though unemployment within Britain was still high, British shipbuilders no longer experienced the same level of competition from mainland Europe. There was uncertainty regarding this recovery in shipbuilding orders, as unemployment remained a major factor, though once again Britain became capable of attracting a reasonable share of the world's trade in shipbuilding, with over 50 percent of the world's output built in Britain.²¹⁹

However, changing patterns of international trade in the shipbuilding industry prompted Lithgow's rationalisation policy.²²⁰ Industrial concentration and increasing company size did not ensure financial security. Neither did the British shipbuilding industry's share of world trade. The total world output of merchant tonnage for the seven pre-war years, 1907–13, was 17,056,075 grt, as compared with 15,537,441 grt for the seven post-war years, 1923–30. The world's annual average in the post-war years, therefore, shows a 9 percent reduction. It was not over-building that primarily caused the poor freight market position: in the main, this resulted

²¹⁵ TWAS, G.EMP2/8, Industrial and Social Survey Report, 19 January 1934, p. 1; 'Hope renewed at Jarrow', *The Economist* (London, England), 2 October 1937, p. 7; Issue 4910.

²¹⁶ Pollard, *Development*, p. 70.

²¹⁷ Reid, *James Lithgow*, p. 127.

²¹⁸ Greaves, *Industrial*, p. 218.

²¹⁹ Reid, *James Lithgow*, p. 123.

²²⁰ Greaves, *Industrial*, p. 216.

from conditions of world trade.²²¹ Shipbuilding companies fell from the list of Britain's top 50 companies in the first half of the twentieth century (Table 4.11).²²²

Table 4.11: Number of shipbuilders in top 50 British companies²²³

| Year | No. |
|------|-----|
| 1905 | 5 |
| 1919 | 4 |
| 1948 | 1 |

Up until 1935, the government allowed shipbuilding to continue unassisted on the grounds that the industry organised its own rationalisation scheme. There is little evidence to suggest that the government were even interested in such rationalisation activities, which eliminated 1.0 to 1.4 mgt when surplus capacity persisted up to 1939.²²⁴ Despite shipping benefitting from quasi-government assistance, shipping companies resented the shipbuilding industry's rationalisation scheme, because they feared increasing shipbuilding prices. Shipbuilders believed that the levy on ships built should pass to the shipowner in the cost of new tonnage.²²⁵ Writing to William Doxford, Lithgow challenged the statement that the NSS levy would mean an additional burden to the shipbuilding client or a handicap in the challenge of foreign competition. Lithgow reminded his members that NSS had adopted the fundamental principle that the concentration of work in fewer shipyards would affect substantial savings not only in overheads charged but also in the actual direct cost of labour and materials.²²⁶

²²¹ Bank of England, SMT 2/283, Shipyard work decreasing, pp. 8 and 9.

²²² Hannah, *The rise of the corporate economy*, p. 103.

²²³ *Ibid.*, pp. 187-91.

²²⁴ Johnman and Murphy, *British Shipbuilding*, p. 45.

²²⁵ Jones, *Shipbuilding*, p. 139.

²²⁶ TWAS, 1811/86/43, Letter from Sir James Lithgow, Chairman of National Shipbuilders Security Limited to William Doxford & Sons Limited, 12 February 1931.

Table 4.12: British shipbuilding berths and capacity²²⁷

| | No. of Berths | Annual output Capacity |
|-----------------------------|----------------------|-------------------------------|
| Position in 1914 | 696 | 3,051 |
| Additions 1914–20 | 163 | 1,235 |
| Position in 1920 | 859 | 4,286 |
| Closed in course of trading | 187 | 389 |
| Sterilised by NSS | 196 | 1,341 |
| Position at December 1938 | 476 | 2,555 |
| % reduction from 1914 | 32 | 16 |

Capacity is an unreliable index when examining the impact of NSS and the rationalisation process. Prior to the War, 25 percent of shipbuilding related to warship construction. By the early 1930s, the figure was less than 4 percent. The government's objectives towards arms limitations encouraged this position. It was natural that the average size of merchant ships, particularly their breadth, increased during the post-war years, and that this would result in fewer berths being required for the same tonnage.²²⁸ Technical changes in propulsion and construction methods transformed speed and carrying capacity. It remained increasingly difficult to obtain a true assessment of capacity eliminated, as the gap between capacity and requirement was still much in excess of that anticipated.²²⁹ Shipyard closures might have been greater had the shipbuilding industry experienced the full impact of the economic conditions during the period 1930–34. However, Lithgow's scheme provided relief to shipbuilders who

²²⁷ Greaves, *Industrial*, p. 216.

²²⁸ HOCD, Rationalisation, 5 November 1930, vol. 244, cc947-1000.

²²⁹ Aldcroft, *The interwar*, p. 164.

might not have survived if the marketplace had not reduced in size.²³⁰ NSS rationalisation was subject to much criticism, particularly once shipbuilding orders began to flow again in 1934. The criticism was heightened by those that remained unemployed, particularly in towns like Jarrow, where shipbuilding was the main industry and everything else in the town centred on such activities. However, at that time there was no appreciation of how NSS was organised to try to restore competition to British shipbuilding.²³¹ Despite the elimination of a third of capacity by 1938, overcapacity remained: rationalisation clearly had not gone far enough, costing only £2.2 million in the process and revealing that the industry was not over-capitalised. In addition, the assets purchased from NSS were probably antiquated and worth little more than scrap value, whilst there was an acceptance that any land would have no value to shipbuilders owing to the state of the industry.²³²

Had Lithgow foreseen the bleakness during the years 1931–33, it might have been possible to await the natural closure through the insolvency of yards that underperformed from out-of-date plant and machinery, or pure financial losses. The yards that closed had not built vessels for some time, or were already in liquidation. It might have been possible to reduce the capacity even further, bringing greater competitiveness and concentration.²³³ By the early 1930s, the shipbuilding industry experienced an economic environment about as bad as it could possibly get. Repair work offered little respite, and the large number of ships laid up provided minimal work. The British shipbuilding industry had no desire for support by ‘purely artificial methods of financial assistance.’ As a construction industry, shipbuilding had to carry the compounded burden from the national social services as it affected a great many processes up to the condition of the completed ship. Ayre believed that the government needed to halt the public purse in

²³⁰ Clay, *Lord Norman*, p. 342.

²³¹ *Ibid.*, p. 341.

²³² Greaves, *Industrial*, pp. 216–17.

²³³ Jones, *Shipbuilding*, p. 136.

providing funds to one type of industry as against another, and enable industry to defend its own position on its own merit.²³⁴ Whilst the government was able to act as an interested bystander regarding the role of NSS and its rationalisation strategy, it played an extremely important role in resolving the debacle involving the RMSPC, the merger between Cunard and White Star Line, and the *Queen Mary's* completion at John Brown's yard on the Clyde.²³⁵

²³⁴ Bank of England, SMT 2/283, Shipyard work decreasing, p. 10.

²³⁵ Johnman and Murphy, *British Shipbuilding*, p. 41.

CHAPTER FIVE: JOHN BROWN'S, CUNARD, AND THE ROYAL MAIL STEAM PACKET COMPANY

Introduction

This chapter will address the scandal of Lord Kysant and the RMSPC, which had profound ramifications for shipbuilding on Clydeside and highlighted the problems of corporate structure and the dilemmas of government subsidy. The world's largest shipping conglomerate, with a complex, opaque structure of subsidies in both shipping and shipbuilding, collapsed dramatically.¹ This chapter will address how the government dealt with the insolvency of a corporation that appeared too big to fail, in order to secure jobs and ensure the construction of the *RMS Queens Mary* and *Elizabeth* at John Brown's Clydeside shipyard.²

Historians have adopted various forms of analysis regarding the Kysant affair. Anthony Slaven's appraisal of John Brown covers the difficulties as an Admiralty contractor as well as the complications encountered when constructing the *RMS Queens Mary* and *Elizabeth*.³ Government intervention overcame the company's difficulties, resulting in a merger that created Cunard White Star, and events leading to the rearmament of the Royal Navy. Davies and Bourn detail the rise and fall of Kysant and the RMSPC, which held wide-ranging significance.⁴ Davies explains the background of Kysant as the RMSPC's chairman and the difficulties with his brother, Lord St Davids.⁵ However, the true extent of the company's problems was not immediately apparent, though Johnman and Murphy highlight Kysant's

¹ H&W owned Caird & Company, D & W Henderson, Archibald McMillan & Sons Limited, Mackie & Thomson and A & J Inglis Limited.

² F E Hyde, *Cunard and the North Atlantic 1840-1973* (London: MacMillan, 1975), pp. 206, 207 and 216 and Johnman & Murphy, 'An Overview', p. 251.

³ Slaven, 'A shipyard.'

⁴ P N Davies and A M Bourn, 'Lord Kysant and the Royal Mail', *Business History*, vol. 14, no. 2 (1972), pp. 103-23.

⁵ Davies, 'Business', pp. 214-15. Up until the end of the First World War the brothers Kysant and St Davids assisted each other, but they fell out over politics in 1921 as St Davids moved towards the Labour Party and Kysant joined the Conservatives.

abuse of the TFAs as a mechanism that led to his downfall.⁶ Whilst Johnman and Murphy pinpoint the introduction of the TFAs on 19 October 1921 as the beginning of the struggles, Davies and Bourn believe the purchase of the Oceanic Steam Navigation Company (Oceanic) may have caused the RMSPC's demise.⁷ Arnold demonstrates that Kylsant's difficulties stem from the company's incorporation under Royal Charter. Without the requirement of normal accounting disclosures, the situation was highly misleading for commentators.⁸ The TFAs no doubt assisted the purchase of Oceanic and White Star Line.⁹ Taking a legal perspective, MacIntyre and Ashton demonstrate that Kylsant was unfortunate when found guilty of the offence relating to the prospectus.¹⁰ They focus upon an embarrassing legal trial resulting in Lord Kylsant's imprisonment for twelve months.¹¹

This chapter scrutinises the Kylsant affair in order to relate the themes of the entanglement of regional shipbuilding performance with the fortunes of the shipping industry, considering the visibility of decline in the context of accounting practices, government intervention, and the awkward transition from free trade to a managed national economy. This chapter will first examine Kylsant's difficulties of balancing different objectives, the fortunes of the RMSPC, and his relationship with the government. Second, it will scrutinise the role of Sir William McLintock, the Chartered Accountant responsible for advising on the RMSPC. Third, it will analyse the construction of *RMS Queen Mary* and the manner by which those involved heralded a major rescue and reconstruction.¹² Finally, it will compare the situation to the rest of the

⁶ Johnman and Murphy, 'Subsidy', p. 98.

⁷ Davies, 'Business'; Davies and Bourn, 'Lord Kylsant', p. 119.

⁸ A J Arnold, 'No substitute for hard cash? An analysis of returns on investment in the Royal Mail Steam Packet Company, 1903-29', *Accounting, business and financial history*, vol. 1, no. 3 (1991), p. 335.

⁹ NA, CAB/24/169, Unemployment Committee, Report of assistance to shipbuilders, by means of trade facilities guarantees, 11 December 1924, p. 3.

¹⁰ A prospectus is a document used to introduce potential investors.

¹¹ M A MacIntyre, 'Criminal provisions of the Securities Act and analogies to similar criminal statutes', *Yale Law Journal*, vol. 43, no. 2 (1933), p. 254; C Brooks (ed.) *The Royal Mail case, Rex v. Lord Kylsant, and another* (Edinburgh: W Hodge & Company Limited, 1933).

¹² 'Clydebank workers jubilant.' *The Times*, 14 December 1933; p. 14; Issue 46627.

industry and consider the economic quagmire. Despite the difficulties confronted, the actions taken rejuvenated Britain's position in North Atlantic transport as Britain recovered from depression. It will consider Davies and Bourn's view that the RMSPC's demise was already likely even before the acquisition of Oceanic and its subsidiary White Star Line, though the question remains of how long before.¹³

The background to the problem

The difficulties experienced by the RMSPC

By the early 1920s, the RMSPC was the largest company within the shipbuilding and shipping industries.¹⁴ Its associated and subsidiary companies included H&W, Caird & Company, Elder Dempster Shipping (Elder Dempster), Glen Line, Union-Castle Mail Steamship Company (Union-Castle), Lamport & Holt, and White Star Line. The RMSPC commenced trading in services to the West Indies, Brazil, and the River Plate in 1839.¹⁵ From time spent with Allen C Gow & Company, Owen Crosby Philipps (Philipps), with the support of his elder brother John, acquired the King Alfred Steamship Company Limited and arranged to have a ship built at Blyth in Northumberland.¹⁶ Philipps then changed the company's name to King Line Limited in 1893, and by the end of the century expanded the business.¹⁷ By 1900, the RMSPC faced intensified competition and suffered from poor financial management. The directors suspended dividend payments for 1901–02.¹⁸ Consequently, in March 1903 Philipps acquired the

¹³ Sturmeay agrees with Davies and Bourn that Kysant's decision to buy White Star Line may have resulted in the failure of the Royal Mail Group.

¹⁴ Wallace J (1995), 'The Political Career of Walter Runciman, 1st Viscount of Doxford (1870-1949)', (University of Newcastle-upon-Tyne, PhD Thesis), p. 323.

¹⁵ Runciman Papers, WR 241, In the matter of the RMSPC and In the matter of the Companies Act 1929, Summary of the statement of affairs as at 10 February 1936, p.11; Davies and Bourn, 'Lord Kysant', p. 107; Brooks (ed.) *The Royal Mail case*, p. 7.

¹⁶ Green and Moss, *Business*, p. 8.

¹⁷ Davies, *The trade makers*, p. 169.

¹⁸ Green and Moss, *Business*, p. 15; Davies and Bourn, 'Lord Kysant', p. 107.

RMSPC.¹⁹ Whilst established within shipping circles, Philipps did not have the standing of Furness, Ellerman or Ismay.²⁰ His employment in the shipping environment broadened his horizons.²¹ Philipps then secured the position as chairman of the RMSPC.²²

The early years of the twentieth century provided difficult trading, having ‘escaped the clutches’ of the International Mercantile Marine (IMM). The maritime industries experienced an extremely volatile period because of US competition.²³ Parkinson observes that by 1910, the RMSPC’s physical assets no longer supported its capital structure.²⁴ The War brought significant change for the RMSPC. First, the company lost over 100 vessels. Consequently, Philipps resumed dividend payments in 1915 to reflect improved rates available from the British government for transporting essential food.²⁵ Second, the RMSPC moved from reserve accounts to excess profit duties as its financial survival mechanism.²⁶

All companies within the RMSPC established excess profit duties, reserves and provisions for income tax liabilities. The capital set aside immediately financed trade at H&W. Third, the amount attributable to second-hand tonnage exceeded its balance sheet value. The shipping values rose by a minimum factor of five and consequently earning power of maritime assets expanded in cash terms. However, Philipps recognised that the RMSPC remained vulnerable to takeover.

¹⁹ Philipps became a director of the RMSPC on 7 January 1903, following which he became the company’s chairman on 25 March 1903, a position he held until his resignation on 1 September 1931; see Newcastle University, Runciman Papers, WR 241, Summary of the statement of affairs, p.12; Davies, *The trade makers*, p. 169.

²⁰ Furness operated Furness Withy & Company Limited, Ellerman was the chairman of Ellerman Lines, and Ismay was the founder of the Oceanic Steam Navigation Company, which was the parent company of White Star Line. Davies, ‘Business’, p. 214.

²¹ *Ibid.*, p. 215.

²² *Ibid.*, p. 216.; Alan S Mallett and Andrew M B Bell, *The Pirrie-Kylsant Motorships, 1915-1932, The story of the 111 motorships built for the RMSP Group between 1915 and 1932*, (Norfolk: Mallett and Bell Publications, 1984), p. 3.

²³ Pollard and Robertson, *British Shipbuilding*, p. 95.

²⁴ Parkinson, *Economics*, p. 35.

²⁵ Green and Moss, *Business*, p. 36.

²⁶ *Ibid.*, p. 37; R K Ashton, ‘The Royal Mail Case: A legal analysis’, *Abacus*, vol. 22, no. 1 (1986), p. 4; Arnold, ‘No substitute’, p. 339.

The problems confronted at John Brown

Following the Armistice, John Brown faced limited orders and an intimidating environment.²⁷ By May 1920, trading terms were changing: Cunard, which normally settled instalments in cash, moved to bills of exchange.²⁸ Ranked among the top five shipbuilders in Britain, John Brown undertook work in a highly competitive environment. The Royal Navy was a major customer, and Greece, Argentina, Australia and Poland had naval vessels built at John Brown during the interwar period. Commercial vessels were built for Cunard, Canadian Pacific Railway Company, P&O, and the New Zealand Shipping Company, to name but a few. In total, the company undertook work for 23 customers, although the Admiralty and Cunard were the main customers. John Brown had completed three vessels for Cunard totalling 114,962 grt, representing 22.05 percent of merchant tonnage built by the company, during the interwar years. In the period to 1938, the company tendered for 405 vessels, of which 121 were naval. In the full interwar period, the company built 636,648 tons, of which 115,210 sdt were naval ships and 521,438 grt were merchant vessels.²⁹ The company comfortably fitted the description of a combine, with interests in numerous industrial processes. Between the wars, its situation juxtaposed high costs and poor profitability.

Johnman and Murphy observe that during early 1920, John Brown, along with, SH&WR, William Beardmore, and Fairfield Shipbuilding, would share in orders for the construction of four battlecruisers. As preparations began, concern arose in the US as to the effects of the escalation of the naval arms race. By late 1921, the WNT resulted in termination of the work on the battlecruisers.³⁰ This transformed the John Brown order book as the table below illustrates:

²⁷ Campbell, 'Scottish shipbuilding', p. 173.

²⁸ Arnold, 'No substitute', p. 340.

²⁹ Slaven, 'A shipyard', p. 198.

³⁰ Johnman and Murphy, *British Shipbuilding*, p. 18.

| | 1909-18 | 1919-39 |
|----------------|-----------|-----------|
| Battleships | 1 | - |
| Battlecruisers | 4 | - |
| Light cruisers | 4 | 3 |
| Destroyers | 44 | 13 |
| Minelayers | 2 | - |
| Submarines | 3 | 2 |
| Minesweepers | - | 2 |
| Miscellaneous | <u>2</u> | <u>1</u> |
| Total | <u>60</u> | <u>21</u> |

During the 1921–22 depression, pig iron prices fell to £4.5s per ton; basic blooms fell to £8.10s, a price that was more than competitive with Belgium output. The price of coal suffered due to transport costs, particularly in relation to the output from Yorkshire mines. At the Atlas works in Sheffield, John Brown reduced its workforce of 1920 by two thirds. By 1923–24, the economy was recovering, despite showing limited signs within the shipyards.³¹

The post-war experience

The RMSPC's treatment of reserve accounts confused contemporaries.³² Commentators on the financial aspects of the business, bankers, and even internal management including Philipps

³¹ NA, CAB/24/161, Memorandum by the President of the board of trade, The trade outlook, 6 July 1923, p. 7.

³² Brooks (ed.), *The Royal Mail case*, p. 39.

appeared confused about such reserves. This led to the belief that ‘secret reserves’ existed beyond the balance sheet.³³ Various reserves did exist, but owing to accounting requirements for companies incorporated by Royal Charter, they were never disclosed.³⁴ Moreover, the government’s special obsolescence allowance enabled Philipps to ignore liabilities arising from excess profit duties and taxation.³⁵ The RMSPC thus received substantial taxation repayments during the early 1920s.

Unlike a great many in the immediate post-war era, both Philipps and Pirrie sounded a note of caution, advising the shareholders of Lamport & Holt, a RMSPC subsidiary, that problems within the economy lay ahead.³⁶ Both Philipps and Pirrie recognised that trading might be difficult after the War and that replacing lost tonnage was a potential problem. Despite this caution, Lord Inchcape agreed to take over 137 standard steamers that were under construction in British yards.³⁷ The eventual agreement facilitated Philipps taking 77 vessels costing £15,248,241.³⁸ The RMSPC then allocated these vessels throughout the group. Despite falling freight rates and deterioration in shipping values, Philipps believed that new ships were required to enable the RMSPC to develop, particularly in replacing those lost during hostilities. By late 1921, the RMSPC faced difficulties from the recession and certain profitable RMSPC members propped up the Group’s under-performing entities.

Government assistance and the Royal Mail Group

On 19 October 1921, the RMSPC benefitted from Lloyd George’s assistance to engineering and shipbuilding. Whilst these proposals were not available to Northern Ireland, Stormont made provisions compatible to the mainland available under the Northern Ireland Loans

³³ Green and Moss, *Business*, p. 38.

³⁴ MacIntyre, ‘Criminal’, p. 258.

³⁵ Ashton, ‘Royal Mail Case’, p. 4.

³⁶ Arnold, ‘No substitute’, p. 340.

³⁷ NA, CAB/24/108, Powers of the Ministry of Shipping, ex-enemy tonnage, 24 June 1920, pp. 2 and 3.

³⁸ Davies and Bourn, ‘Lord Kysant’, p. 113.

Guarantee Act during April 1922.³⁹ Almost immediately, the RMSPC applied for a loan of £1,493,345 to establish ship-repairing facilities on the Thames and improvements on the Clyde to enhance graving dock facilities at the Greenock shipyard of Caird & Company.⁴⁰

Despite the TFA monies, the RMSPC's position remained difficult.⁴¹ By late 1922, the company had raised £25 million, including £18 million raised on interest-bearing capital, which was more alarming still, and resulted in annual interest payments in excess of £1 million. Within the RMSPC, Union-Castle was beginning to improve, as well as Elder Dempster, in the face of fierce overseas competition. Furthermore, the RMSPC itself as well as Lamport & Holt strived to meet the challenge provided by services from the US.⁴² Whilst Philipps saw the market as one that was recovering, conditions alarmed Pirrie. Pirrie sought to minimise shipbuilding expenditure, as post-war government spending ended, and other orders were minimal. John Brown realised that no work would be available during 1923 and abandoned various expansion activities on the Clyde in an attempt to control cash flow.⁴³

The November 1922 general election saw the Conservatives take office, and Philipps believed the political outlook had improved. In the 1923 New Year's honours list, Philipps received a peerage and was granted the title Lord Kylsant. However, just as important was the appointment of the Duke of Abercorn, a director of the RMSPC, to the Governorship of Northern Ireland. Kylsant welcomed the news, and looked to obtain finance from Northern Ireland's government. Funding was available, though all the loans were redeemable during 1928 and 1929.⁴⁴ The RMSPC received further funding throughout 1923, with repayment scheduled for autumn 1930. Unfortunately, freight rates continued to deteriorate throughout

³⁹ Johnman and Murphy, 'Subsidy', p. 98.

⁴⁰ Ibid., pp. 96 and 103.

⁴¹ Green and Moss, *Business*, p. 55.

⁴² Davies and Bourn, 'Lord Kylsant', p. 109.

⁴³ 'Shipbuilding collapse: Grave situation on the Clyde, less work than ever in the yards', *Manchester Guardian* 31 August 1923, p. 7; Green and Moss, *Business*, p. 57.

⁴⁴ Johnman and Murphy, 'Subsidy', p. 98.

1923. However, the RMSPC improved its services, including mail transport to the West Indies.⁴⁵ In view of emigration and postal transport, Kysant sought to promote cheaper traffic with tourist-class tickets.⁴⁶ Efforts to reduce wages and overheads necessitated laying up vessels on a temporary basis, although Kysant still cultivated the perception of a 'great employer.'⁴⁷

During 1924, the TFAC worried about the RMSPC's guarantees. By 1925, Kysant had obtained further guarantees exceeding £1.3 million to facilitate constructing eleven vessels on the Clyde. The following year Kysant sought assistance from Sir Vernon Thompson in the Northern Ireland government to secure funding totalling £2.5 million to construct eight motorships at H&W. Further orders became available for H&W, though Kysant realised that the shipyard was, nevertheless, low on instructions and consequently, approximately 5,000 jobs were lost between 1925 and 1926.

By late 1926, the RMSPC was in a precarious position, with major liabilities outstanding on ships built anything up to five years earlier, and with increasing liabilities to the TFA scheme, worrying trading losses were beginning to mount.⁴⁸ The early months of 1926 provided a degree of optimism. However, British commerce received a serious blow through the miners' strike, which lasted for eight months from 3 May 1926.

During 1926, Furness Withy and Cunard combined to acquire IMM's British-owned tonnage.⁴⁹ However, following an approach by an American company that sought to purchase IMM's entire worldwide fleet, both Furness Withy and Cunard withdrew their interest. IMM still suggested that the White Star Line element might be available. The eventual opportunity to

⁴⁵ NA, CAB/24/160, IEC (23)-9, Imperial Economic Conference, inter-imperial mail service, 8 June 1923, p. 1.

⁴⁶ NA, CAB/24/125, Memorandum by the Secretary of State for the Colonies, West Indian Steamship Service, 25 June 1921, p. 1.

⁴⁷ Green and Moss, *Business*, p. 62.

⁴⁸ *Ibid.*, p. 66.

⁴⁹ Hyde, *Cunard*, p. 191.

conclude the IMM deal collapsed, leaving an opportunity for Kylsant to open negotiations to purchase the Oceanic, including its subsidiary White Star Line.⁵⁰ Despite negotiations concluding on 27 November 1926, Kylsant did not bring it to the attention of the Court of Directors' until a special meeting on 1 December 1926. Regardless of losses amounting to £440,000 during 1926, the Court of Directors approved the acquisition on 12 December.⁵¹

On 17 January 1927, Kylsant issued 2.5 million preference shares. Owing to a revival in patriotism, in restoring a well-known shipping company to national ownership, the preference shares were over-subscribed.⁵² This enabled the payment of the initial instalment of £2 million in accordance with the RMSPC's obligations to IMM. With a facility amounting to £1.5 million provided by the Northern Ireland government, Kylsant hoped for the construction of new vessels to assist with trade to South America, which did not recover as quickly as he anticipated. Nevertheless, the South American trade did enable the RMSPC and Lamport & Holt to return a surplus in operating accounts for 1928.⁵³ In delivering the accounts for 1927, Kylsant entered into accounting transactions throughout the RMSPC that were dubious, and whilst the published accounts revealed profits of £737,293, the reality was that profits totalled only £6,064 and the audit report for 1927 was qualified.⁵⁴ Kylsant returned to the Court of Directors to obtain authorisation for £2 million to assist with the current shipbuilding programme and meet instalments to purchase Oceanic.⁵⁵

On 29 June 1928, Kylsant arranged the issue of a prospectus to raise £2 million in capital. The capital issue was again heavily over-subscribed. The TFAC reviewed the RMSPC's accounts on 23 April 1928, when Walter K J Wigham, a member of the committee, criticised the accounts

⁵⁰ Ibid., p. 192.

⁵¹ Davies and Bourn, 'Lord Kylsant', p. 114.

⁵² Ibid., p. 112.

⁵³ Green and Moss, *Business*, p. 73.

⁵⁴ Where accounts are qualified, this usually meant that the auditor was unable to attach a view that the accounts were prepared in a manner to show a true, complete and fair view.

⁵⁵ Green and Moss, *Business*, p. 76.

stating that he ‘did not understand them and he thought that Lord Kylsant did not either.’⁵⁶ Kylsant gave the impression that the RMSPC prospered throughout the period 1921 to 1928, despite the RMSPC not making a profit from year to year.⁵⁷

Morland, the company’s auditor from Price Waterhouse, was in an extremely difficult position. He had concerns regarding the accounts, but his action might jeopardise the RMSPC’s funding.⁵⁸ As the accounts for 1927 showed improvement, Kylsant believed the worst was past. He thus turned to shipping and the availability of work in Australia. In the process, Kylsant paid £7.6 million for the Australian Commonwealth Line’s seven vessels. Runciman (London) Limited made the next highest offer, but proposed only £1.25 million.⁵⁹

Kylsant claimed that his vessels travelled 20 million miles annually, carrying cargo totalling 15 million tons, and 1.5 million passengers. Moreover, he was responsible for employing 36,000 men at sea and 23,000 shore staff.⁶⁰ Kylsant controlled approximately 140 companies, although the primary parent company was not the RMSPC, but Elder Dempster.⁶¹ In addition, Kylsant was an MP, President of the London Chamber of Commerce, and President of the Federation of Chambers of Commerce of the British Empire, Peer, and Lord Lieutenant of Hereford, Vice-Admiral of North Wales, and vice-chair of the Representative Body of the Church of Wales.⁶²

Difficulties ahead

The published accounts for all the RMSPC’s main companies gave the impression of strong management and sound financial policies. By late 1928 however, the RMSPC was facing difficult conditions in all aspects of trade.⁶³ During 1929, British shipping companies generally

⁵⁶ Ibid., p. 78.

⁵⁷ MacIntyre, ‘Criminal’, p. 257.

⁵⁸ Brooks (ed.), *The Royal Mail case*, p. 6.

⁵⁹ Green and Moss, *Business*, p. 79.

⁶⁰ Davies, ‘Business’, p. 217.

⁶¹ Green and Moss, *Business*, p. 81.

⁶² MacIntyre, ‘Criminal’, p. 257.

⁶³ Green and Moss, *Business*, p. 83.

began to experience a fall in the value of their shares, as reported in the demise of Clarence Hatry's empire in September 1929.⁶⁴ In early 1929, Kysant approached the TFAC for a moratorium on a loan provided by the Midland Bank to H&W amounting to £1,194,676. The meeting between representatives from the RMSPC and Eric Bamford, Secretary of the TFAC, took place on 15 April 1929 and revealed how H&W was heavily involved in unprofitable work in order to sustain a scheme of unemployment relief and extensive employment.⁶⁵ Bamford learned that the enforcement of loan terms against H&W might leave it necessary to reduce its workforce.⁶⁶ He discovered that if the government deferred H&W's loan repayments, the company would suspend its preference dividend until repayment of the loan. Bamford declined the RMSPC's request on 22 April 1929.⁶⁷ This did not surprise Kysant. Hoping for political intervention, Kysant wrote to Stanley Baldwin, the Prime Minister and Winston Churchill, the Chancellor, who again refused his requests. Meetings and lengthy correspondence ensued between John Craig from the RMSPC and Sir Richard Hopkins at the Treasury, and eventually they agreed that H&W would meet its responsibility to pay £198,669 to the Midland Bank on 31 January 1930.⁶⁸ Whilst negotiations continued between the RMSPC and the TFAC, Kysant published and presented the 1928 accounts for the RMSPC, Elder Dempster, and White Star Line.⁶⁹ Investors were pleased with the accounts for White Star Line, which revealed an apparent net profit of £611,965, disguising a net loss of £163,062. Likewise, the RMSPC declared £457,215 in profits, on a £290,326 loss. At the AGM, a transfer from reserves was not mentioned. Kysant explained the reduction in the depreciation provision for 1928 because of the previous generous depreciation allowance made in earlier years. This raised some

⁶⁴ Davies, *The trade makers*, p. 254.

⁶⁵ The Northern Ireland Government could not support any measure that left H&W less than fully occupied.

⁶⁶ Johnman and Murphy, 'Subsidy', 103.

⁶⁷ Green and Moss, *Business*, p. 85.

⁶⁸ *Ibid.*, p. 86.

⁶⁹ NA, CAB/24/195, Memorandum by the President of the board of trade, Trade Outlook, Engineering, 19 June 1928, p 10.

concerns, as investors feared increased provisions in future years.⁷⁰ Upon publishing the RMSPC accounts, Lord St Davids, Kylsant's brother, sought to question the auditor's qualification and the accounts status. Whilst St Davids wanted to interview the auditor, Kylsant refused and instead offered an opportunity for the two brothers to meet so that Kylsant could explain the situation.⁷¹ St Davids declined, and issued a circular to stockholders advising the refusal of access to the RMSPC's auditor and his lack of consent for the additional £2 million worth of debentures issued in June 1928.

Within the RMSPC, disquiet arose concerning its position. Arthur Cook, a director and former managing director at Lamport & Holt, vocalised his scepticism about RMSPC finances with its auditor, stating that assets bore little resemblance to the levels of capital. Furthermore, Cook was prepared to contact the debenture holders and other colleagues within the RMSPC to share his anxieties, highlighting the transfer of Lamport & Holt's capital to Elder Dempster.⁷² In answer to Cook, Kylsant explained that the RMSPC's fleet had a value totalling £10 million and a written-down value of £5 million. The RMSPC overdraft totalled £600,000 secured against marketable securities; in addition, the loans from the TFA and shipbuilding bills totalled £330,000. By autumn 1929, after dismissing Cook's comments, the RMSPC was out of control.⁷³ Furthermore, the cancellation of the order for the *SS Oceanic* added a further difficulty.⁷⁴

Kylsant sought to forestall the TFA loan repayments, using the threat of increased unemployment as his leverage. The Treasury was scrutinising the RMSPC with independent enquiries to ascertain its financial position. However, given the RMSPC's complexity and

⁷⁰ Green and Moss, *Business*, p. 86.

⁷¹ Ashton, 'Royal Mail Case', p. 5.

⁷² Green and Moss, *Business*, p. 89.

⁷³ *Ibid.*, p. 90.

⁷⁴ R P De Kerbrech, *Ships of the White Star Line* (Hersham: Ian Allan, 2009), p. 222.

Kylsant's evasion, the Treasury was not able to establish the financial position.⁷⁵ A parliamentary question about the TFA loans to the RMSPC identified a total of £950,569, with another £185,317 provided to RMSP Meat Transports Limited, and £325,000 to MacAndrews & Company.⁷⁶ The position was perilously understated.⁷⁷ In September 1929, with rumours in the financial press, Sir Frederick Lewis, chairman of Furness Withy, contacted the Board of Trade to discuss the RMSPC's potential failure.⁷⁸ Lewis had concluded that the RMSPC probably would fail. Lewis believed Cunard should take over White Star Line and the remaining shipping lines could be absorbed by Furness Withy.⁷⁹ Sir Horace Hamilton, a Civil Servant at the Treasury came under further pressure when the editor of *Fairplay* announced that he thought the RMSPC was worth less than £2.5 million.⁸⁰ Fearing *Fairplay* publishing such an article before the government had agreed a plan for reconstruction, Hamilton consulted Sir Charles Hipwood, secretary of the Board of Trade, with knowledge of the Mercantile Marine Department.⁸¹

According to Hipwood, Kylsant needed to deal with three burdens. First, pressure from the Treasury with regard to the monies owed under the TFA scheme, which was mounting; second, the liabilities following the *Vestris* shipping tragedy, which had damaged Kylsant's Lamport & Holt business; and finally, there was the dispute between Kylsant and his brother Lord St Davids, which threatened to be Kylsant's ruin.⁸² Sir Richard Hopkins prepared a memo indicating that the Treasury and the Northern Ireland government had guaranteed loans totalling £9.75 million against assets worth approximately £14 million, at a time when the RMSPC's assets totalled only £16 million. Kylsant met Sir William Plender, a former president of the

⁷⁵ Green and Moss, *Business*, p. 90.

⁷⁶ 'Royal Mail Steam Packet.' *Financial Times*, 23 July 1929, p. 7; Edition 12,653.

⁷⁷ HOCD, Royal Mail Steam Packet Company (Guaranteed Loans), 23 July 1929, vol. 230, cc1079-80.

⁷⁸ Johnman and Murphy, 'Subsidy', p. 105.

⁷⁹ Hyde, *Cunard*, p. 192.

⁸⁰ Sir Horace Hamilton was the Permanent Secretary at the Board of Trade.

⁸¹ Green and Moss, *Business*, p. 93.

⁸² Johnman and Murphy, 'Subsidy', p. 105.

Institute of Chartered Accountants and chairman of the TFAC, on several occasions.⁸³ At one of these meetings on 16 October, Kylsant advised that the RMSPC was unable to meet £1.8 million in repayments due under the TFA scheme, telling Plender that the RMSPC's fleet of 700 vessels had previously had a value totalling £100 million but in the context of the slump was worth only £50 million. In Kylsant's opinion, such assets were nevertheless sufficient to secure the monies that he was seeking. Plender disagreed.⁸⁴

At a meeting with Sir Richard Hopkins on 28 October, Kylsant attempted to explain his position. Initially, he considered that the argument with his brother was damaging the RMSPC's reputation and its ability to reach its TFA commitments arranged by Lord Pirrie.⁸⁵ Unsurprisingly, St Davids was furious and again announced to the Court of Directors that he would resign as Trustee. Kylsant now sought to insulate the RMSPC, and he appointed a committee to consider possible economies. Following the committee's review, the RMSPC immediately tightened its activities. White Star Line's bankers, Glyn Mills & Company, also sought additional security. Eventually all parties agreed to increase the facility to £1.5 million. In the meanwhile, the information that Plender requested from Kylsant proved impossible to obtain. Plender asked Bamford to put four specific questions to Kylsant:

- 'What is the indebtedness of each company to other companies within your RMSPC?
- What exactly is the shipping and other investments held by these companies, showing the cost, market value and the basis of the valuation adopted in the last balance sheet?
- What management agreement has been entered into by each company with the Chairman or other persons, and what remuneration is received by each of such persons as managing director from each company in the RMSPC?

⁸³ Brooks (ed.), *The Royal Mail case*, p. 38.

⁸⁴ Green and Moss, *Business*, p. 94.

⁸⁵ 'Lord Pirrie', *Who was who 1916-1928*, vol. II (London: Adam & Charles Black, 1941), p. 841.

- What fees are payable to the directors of each Company apart from the managing director's remuneration?'⁸⁶

Plender believed Kylsant could still rescue the situation by stopping dividends and appointing either Sir William McLintock, a chartered accountant and managing partner at Thomson McLintock & Company, or B H Binder, a director of SMT, to advise on the state of the balance sheet. The concerns became apparent when it was learned that H&W was planning to pay its preference dividend on 1 January, whilst seeking permission to defer £4.6 million of shipbuilding bills guaranteed by the Northern Ireland government. On 6 December, a spokesperson at H&W contacted Hopkins and Bamford to secure a further deferment of the TFA loan. The H&W representative stated that 'the government could either have the money or employment, whichever they wished' but could not have both. H&W learnt that if it were unable to meet its liabilities under the TFA, then the company would have to produce a full statement of its liabilities as at 1 January 1929.⁸⁷

By 9 December, the British & African Steam Navigation Company entered default for further TFA monies. Plender again summoned Kylsant to discuss the RMSPC's annual accounts.⁸⁸ Kylsant advised that the RMSPC's cash flow would amount to only £3.4 million. Immediately prior to the RMSPC's collapse, its capital comprised £45,060,946 in ordinary shares, £26,385,375 in preference shares, and debentures totalling £19,932,082.⁸⁹ To the public, the share structure appeared satisfactory, however, upon appraisal the RMSPC's many cross-shareholdings were of limited value.⁹⁰

Kylsant advised Plender that he would blame the government and the TFAC for any potential default. He then threatened 'that the government could take their choice; either they could have

⁸⁶ Green and Moss, *Business*, p. 97.

⁸⁷ *Ibid.*, p. 98.

⁸⁸ Johnman and Murphy, 'Subsidy', p. 103.

⁸⁹ Davies and Bourn, 'Lord Kylsant', p. 111.

⁹⁰ *Ibid.*, p. 112.

repayment at the expense of breaking up the RMSPC and throwing a large number of men on the streets, or they could extend the loan and keep some 100,000 men in employment.’⁹¹ On the following day, Kysant told Plender of his decision to withhold the RMSPC’s dividend payments. Plender was by now so concerned that he believed an independent investigation of the RMSPC’s financial position was necessary. On 19 December, Plender appointed Sir William McLintock for this task.⁹² McLintock’s report was to focus on:

- The extent to which the existing capitalisation was justified by the assets and whether any measure of reconstruction was necessary;
- Whether there were any difficulties in the liquidity position of the various companies;
- How far there was an excess of unfunded indebtedness, e.g. in the form of bills;
- What was the earning power of the RMSPC;
- How far had ordinary and preference dividends, been paid out of current earnings;
- If the earning power of the RMSPC is inadequate at present, what are the prospects of an improvement in future years;
- Is the structure of the RMSPC sound or can any proposal be made for proper rationalising of the RMSPC;
- Is the management satisfactory?

Both Snowdon and Norman considered McLintock’s appointment and agreed to Plender’s action. Kysant learned of McLintock’s appointment on 19 December 1929. In addition, the Bank of England guaranteed the Northern Ireland government’s exposure in relation to the loan to the British & African Steam Navigation Company amounting to £637,000.⁹³

⁹¹ Green and Moss, *Business*, p. 99.

⁹² Brooks (ed.), *The Royal Mail case*, p. 41; Hyde, *Cunard*, p. 193.

⁹³ Johnman and Murphy, ‘Subsidy’, p. 105.

Kylsant then worried about the overdraft at H&W, which was still wishing to pay its preference dividend, as non-payment would jeopardise the discounting of bills of exchange. The Treasury and the Bank of England were alarmed that no sooner had they relieved one problem when further ones arose.⁹⁴ Between October 1929 and January 1930, Kylsant offered to pay instalments due under the TFA loans.⁹⁵ Kylsant used further stalling tactics during January 1930, though more concerning to the Treasury was the fact that the Royal Mail court had authorised further debentures totalling £1.5 million.⁹⁶ This resulted in St Davids seeking the High Court's sanction to resign as Trustee of the 5 percent debenture stock.

Britain's stake in North Atlantic shipping

Sir Thomas Bell reported to the John Brown board of directors on 28 March 1930 that 'enquiries had been received from Cunard Company for an Atlantic steamer.'⁹⁷ When John Brown tendered for the Cunard contract, their tender totalled £3,992,000 together with an allowance of £75,000 to cover increased wages.⁹⁸ In December 1930, Cunard attempted to maintain its position in North Atlantic transport and laid down a keel at the John Brown yard on the Clyde for a vessel that in size and speed was unlikely to be outdone in the near future.⁹⁹ Cunard was in negotiations with shipbuilders on both the Clyde and Tyne, though the government denied any preference.¹⁰⁰ Although three tenders were received for the vessel that was to become *RMS Queen Mary*, ... SH&WR would build one vessel, and the other would be placed with John Brown.¹⁰¹ Estimates indicated that the build costs for each vessel would be in the region of £6

⁹⁴ Green and Moss, *Business*, p. 100.

⁹⁵ Johnman and Murphy, 'Subsidy', p. 104.

⁹⁶ Green and Moss, *Business*, p. 101.

⁹⁷ Glasgow University, UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board, 19 December 1930, p. 157.

⁹⁸ Glasgow University, UCS 1/16/1, John Brown & Company Limited, Cunard Letter Book, Proposed new express steamer, 10 May 1930, p. 11.

⁹⁹ Davies, *Belief*, p. 112. Glasgow University, UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board, 19 December 1930, p. 174.

¹⁰⁰ HOCD, Tyne Shipbuilding Contract, 9 July 1930, vol. 241, c450W.

¹⁰¹ Glasgow University, John Brown & Company Limited, Contract for construction and related correspondence with Cunard, File Note of Sir Percy Bates of Meeting with Sir Thomas Bell, 25 May 1930, p. 1.

million with each vessel being ‘a floating mammoth of steel.’¹⁰² At this stage, France was sailing the *Ile de France*, whilst Germany had the *Bremen*, and certain other vessels provided ample competition.¹⁰³ Cunard’s reply to the foreign competition engaged in the North Atlantic trade was to be 75,000 grt with speed sufficient to maintain a programme of fortnightly sailings across the Atlantic.¹⁰⁴

The press responded favourably to the news that Cunard was to commit to such expenditure, estimated at £4.5 million, which would provide employment for up to three years for an estimated 3,500 operatives, based at the John Brown shipyard on the Clyde.¹⁰⁵ The emphasis from the government reinforced the news that the contract for this ship would give rise to benefits ‘throughout the realm.’¹⁰⁶

By September 1930, the John Brown shipyard was on the verge of closure. Launching *HMS Beagle* left the shipyard with eight idle berths and no future contracts. This position appeared to have changed when the yard obtained Cunard’s contract for vessel No. 534, the *RMS Queen Mary*.¹⁰⁷ The need for suitable insurance arrangements delayed negotiations and this required government assistance.¹⁰⁸ Cunard and John Brown signed the contract for vessel No. 534 on 1 December 1930. John Brown received funds on Boxing Day by advanced instalments from Cunard amounting to £250,000; without this, the John Brown overdraft would have deteriorated to £300,000, being £150,000 beyond the company’s overdraft facility with the Union Bank.¹⁰⁹

¹⁰² ‘Hopes of £6,000,000 liner order, Tyne looking for new super-Cunarder’, *Evening Chronicle*, 12 March 1930, p. 6.

¹⁰³ Hyde, *Cunard*, p. 203. Compagnie Générale Transatlantique built the *Ile de France* and Norddeutscher Lloyd Line built the *Bremen*.

¹⁰⁴ Denis Griffiths, *Power of the great liners: A history of Atlantic Marine Engineering* (Yeovil: Patrick Stephens, 1990), p. 148.

¹⁰⁵ Hyde, *Cunard*, p. 206.

¹⁰⁶ HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, c1825.

¹⁰⁷ Sir Allan Grant, *Steel & Ships: The history of John Brown’s* (London, Joseph, 1950), p. 77.

¹⁰⁸ HOCD, Cunard (Insurance) Agreement [Money], 10 November 1930, vol. 244, cc1325-84.

¹⁰⁹ Slaven, ‘A shipyard’, p. 201; Johnman and Murphy, ‘Subsidy’, p. 102.

Governmental rescue strategy

Pressure intensified on Plender and the other members of the TFAC as the government was more interested in keeping H&W in production than in maintaining the RMSPC's wellbeing.¹¹⁰ However, Henry Pollock, a director of the Bank of Ireland, indicated that he could arrange funding for a guarantee in relation to a loan of £637,000 to the British & African Steam Navigation Company, provided acceptable security was available.¹¹¹ Kylsant was angered at the Treasury's reluctance to provide assistance, despite the help he had given since the War.¹¹² All RMSPC members called up unpaid share capital to meet the payment of short-term liabilities.¹¹³ On 13 February, Kylsant contacted Bamford to advise that the Midland Bank, was prepared to extend H&W's TFA loans amounting to £1,044,000 for up to five years.

Kylsant's own proposal was to redeem approximately £4.5 million of TFA loans under an amalgamation scheme that would then enable the building programme to continue. The proposal made at a meeting with McLintock then went to Reginald McKenna, the chairman of the Midland Bank, and to the TFAC. McKenna also sought Walter Runciman's appointment to take executive control at the RMSPC with Kylsant acting as President without executive powers. Neither, conditions were acceptable to Kylsant, who rejected them on 24 February 1930. On 27 February, Hopkins met Kylsant, who advised that the Midland Bank was prepared to continue with the funding only if it was termed as an investment rather than an advance.

Due to the difficulties in managing the potential relationship with Runciman and the Midland Bank, Kylsant contacted the Prudential to secure approximately £200,000 to meet repayments due in March. The Prudential would provide funds contingent upon the appointment of Lewis

¹¹⁰ Green and Moss, *Business*, p. 102.

¹¹¹ Johnman and Murphy, 'Subsidy', p. 105.

¹¹² Green and Moss, *Business*, p. 103.

¹¹³ De Kerbrech, *Ships*, p. 229.

as chairman and Chief Executive. Kysant would then be required to resign as director from all companies within the RMSPC. Once again, Kysant refused and negotiations concluded.¹¹⁴

Whilst McLintock's report was still in draft, discussions took place with Bamford. Plender was sufficiently concerned that he advised Bamford that security provided by the TFA scheme could be tantamount to an illegal preference over trade creditors. Without providing suitable recommendations McLintock's report indicated that Kysant had been making transfers from 'hidden reserves' as far back as 1921, and undisclosed overdrafts were available to pay dividends.¹¹⁵ Whilst McLintock was sceptical of Kysant's ability to do so, little alternative remained but to allow Kysant to begin a reconstruction of RMSPC.¹¹⁶

During the first week of March, McLintock finalised his figures and advised Plender and Hopkins that, excluding the liabilities for White Star Line, the RMSPC had current liabilities of £20 million. On 7 March, McLintock then revealed that White Star Line had unsecured liabilities totalling £10.12 million, including £1.75 million in respect of TFA loans.¹¹⁷ Norman was so concerned that he thought the only solution would be to put several RMSPC companies into receivership. Despite this, Kysant appointed Sir Gilbert Garnsey, a senior partner within Price Waterhouse, to effect a reconstruction of the RMSPC.¹¹⁸

Plender waited until seeing both the McLintock report and the Price Waterhouse report before advising the Treasury. Plender was reluctant to see the TFA loans relegated behind all the remaining liabilities. In addition, he felt it appropriate for Kysant to continue in office, and be dealt with by the RMSPC's shareholders. Whilst Plender was negotiating with Runciman, Lewis was discussing Furness Withy acquiring the RMSPC. Realising that his options were

¹¹⁴ Green and Moss, *Business*, p. 105.

¹¹⁵ MacIntyre, 'Criminal', p. 258.

¹¹⁶ Green and Moss, *Business*, p. 106.

¹¹⁷ *Ibid.*, p. 107.

¹¹⁸ *Ibid.*

diminishing, Kysant turned to the Northern Ireland government, reporting that it was his intention to close down H&W and its subsidiaries unless he received an extension to the TFA loans. Kysant's message to the Treasury appeared mischievous. The Northern Ireland government worried that H&W might close. Norman was concerned at the possible closure of Colvilles, a H&W subsidiary, and the impact on his efforts to rescue the Scottish steel industry.¹¹⁹

On 14 April 1930, it became public knowledge that St Davids had resigned as Trustee of the 5 percent RMSPC debenture stock.¹²⁰ Given the difficulty confronting Kysant, Plender agreed that Kysant would make contact immediately with all the RMSPC's principal bankers. Plender then learnt that Kysant was planning a ten-day holiday in Wales with immediate effect. Whilst Kysant was absent, Runciman, with assistance from Norman, McKenna and other bankers, devised a scheme to forward to Kysant. On 16 April, Plender met Frederick Hyde, Managing Director of the Midland Bank. Plender confirmed that Hyde's understanding of the situation was incorrect. Upon learning the RMSPC's actual position, Hyde was unable to support the RMSPC's restructure.¹²¹

On 17 April, McLintock formally submitted his report to the TFAC.¹²² Plender studied the report over the Easter weekend and wrote to Hopkins on 23 April stating that he supported the issues raised by McLintock and that the principal creditors should consider a moratorium. Plender remained resolute that Kysant should take responsibility for the RMSPC's position, and advised him accordingly.¹²³ By 28 April, Kysant had not made contact. Sir Warren Fisher (Permanent Secretary to the Treasury) wrote to Kysant requesting that the Treasury should see the Price Waterhouse report to determine the course of action that Kysant proposed to

¹¹⁹ Ibid., p. 111.

¹²⁰ Davies and Bourn, 'Lord Kysant', p. 116.

¹²¹ Green and Moss, *Business*, p. 112.

¹²² Davies and Bourn, 'Lord Kysant', p. 116.

¹²³ Green and Moss, *Business*, p. 113.

undertake. Kysant sent by return details proposing a scheme of arrangement for almost all shipping companies in the RMSPC and information concerning prior lien debentures for not less than £10 million. Kysant's report impressed neither Plender nor McLintock owing to the omission of £4 million of shipbuilding liabilities, as well as the situation of H&W and its subsidiary Colvilles.¹²⁴

Kysant learned that the government would not rescue the RMSPC. On Lord Sankey's advice, Kysant contacted Runciman and agreed to his proposals. Despite his comments to Plender and McLintock, Kysant nevertheless hoped to avoid the Treasury's proposals of adopting the McLintock report. Kysant wrote to Fisher on 7 May expressing doubt concerning the valuations that McLintock had attached to assets in his report, and the lack of conclusions or recommendations.

Whilst meeting Fisher, Kysant advised that his proposals were entirely dependent upon the TFAC agreeing to an extension of the loans. Dismayed by Kysant's reply, Fisher arranged to meet Kysant and representatives from Price Waterhouse at the Treasury on 14 May. However, much to Kysant's surprise, Hopkins, Plender, McLintock and Bamford accompanied Fisher. Plender announced the need to discuss how the RMSPC would manage the funding gap identified by McLintock. Kysant argued that it would be essential to secure the support of the Treasury to extend the repayment of the TFA loans. In the event of such agreement, Kysant would then be able to convene a conference of the RMSPC's bankers and appoint Runciman as deputy-chairman.¹²⁵ Fisher, encouraged by Kysant's remarks, felt that the short-term debts rather than the TFA loans were creating the problems.¹²⁶ Kysant expected support from the banks against any Treasury proposals. A conference was convened for 19 May, and Kysant

¹²⁴ *Ibid.*, p. 113.

¹²⁵ Davies, *The trade makers*, p. 258; Wallace 'The Political Career of Walter Runciman', p. 323.

¹²⁶ Green and Moss, *Business*, p. 115.

despatched a memorandum to each delegate, failing to mention the pressure from the Treasury. At the meeting on 19 May the Treasury, represented by Plender, McLintock and Bamford, attended. Five clearing banks and representatives from the Bank of England also attended. After debating the issue, those in attendance rejected Kysant's views and the Price Waterhouse report, and accepted the views held by McLintock and the warnings concerning the RMSPC's position. The bankers in attendance agreed with Plender that the TFAC would support a moratorium. A committee was appointed, comprising Maxwell (Managing Partner of Glyn, Mills & Company), Hyde (Midland Bank), and McLintock.¹²⁷ Runciman, McLintock and Maxwell accepted appointment as Voting Trustees, to protect the lenders' position.¹²⁸ Without the Voting Trustees' authority, it was not possible to enter into capital commitments, declare dividends, lend or borrow money.¹²⁹ However, by end of business on 11 June, the committee was fully constituted, with powers to act on all managerial matters, administration and finance until 31 December 1930.¹³⁰ The bankers' conference also confirmed Runciman's appointment as the RMSPC's deputy-chairman and director of all the principal subsidiaries.¹³¹ Whilst Green & Moss state it had taken six months for the Treasury to ascertain Kysant's indebtedness, McLintock may have ascertained the position much earlier.¹³² The wreckage that resulted from the RMSPC's demise was widespread, from shipyards in Glasgow and Belfast to shipping lines operating in every ocean of the world.

Without discussion with either McLintock or Maxwell, the Runciman family went ahead with specific assignments. Accordingly, McLintock felt it appropriate to ask Runciman to resign by October, and even discussed the situation with Norman. The Voting Trustees felt that

¹²⁷ Davies, *The trade makers*, p. 258.

¹²⁸ Hyde, *Cunard*, p. 194.

¹²⁹ Green and Moss, *Business*, p. 117.

¹³⁰ Davies and Bourn, 'Lord Kysant', p. 116.

¹³¹ *Ibid.*, p. 117.

¹³² Green and Moss, *Business*, p. 118.

Runciman undertook his responsibilities quite independently without reference to them. Throughout the first six months of the moratorium, Runciman and the Trustees took action to realise the Argentine Navigation Company with its goodwill, its yard at Carmelo, and its fleet of 286 river vessels including 14 motorships. In addition, the government acquired Royal Mail's property on Cockspur Street in London, and the American Lever Brothers acquired the shares in Thomas Hedley & Company, Fairy Soap's owners.¹³³

The merger of Cunard and White Star Line

Throughout 1931, an assessment was made of White Star Line's viability.¹³⁴ Neither the Treasury nor the Northern Ireland government could allow the formal insolvency of White Star Line. The government could take no account of the potential loss of £2 million in respect of TFA loans and the effect that the *Britannic* or the *Georgic* was available for commissioning. Both vessels provided a lifeline to those employed in Northern Ireland.¹³⁵ The Voting Trustees recognised that the only sensible solution to White Star Line was to sell its North Atlantic assets to Cunard.¹³⁶ In July 1931, Runciman met Sir Percy Bates and his co-director Sir Thomas Royden to discuss White Star Line's acquisition by Cunard.¹³⁷ Bates had previously succeeded Royden as chairman in 1930.¹³⁸ However, Cunard had at that stage begun the *RMS Queen Mary*'s construction at John Brown.¹³⁹

¹³³ Davies, 'Business', p. 218.

¹³⁴ Green and Moss, *Business*, p. 128.

¹³⁵ De Kerbrech, *Ships*, p. 223.

¹³⁶ Green and Moss, *Business*, p. 129.

¹³⁷ H Johnson, *The Cunard Story* (London: Whittet, 1987), p. 100.

¹³⁸ Hyde, *Cunard*, p. 191.

¹³⁹ Davies, *Belief*, pp. 112 and 113.



Photo 5.0: The SS *Georgic* during fitting out at Harland & Wolff¹⁴⁰

On 27 July 1930, Cunard's board agreed to assist Furness Withy in its acquisition of White Star Line and in the process, Cunard would then purchase the White Star North Atlantic passenger line. When meeting Runciman a few days later, Bates received advice that an under-priced offer was not acceptable to the Voting Trustees. Bates and Runciman considered several plans for the disposal of White Star Line, but the construction of the two giant liners restricted Bates, due to the liquidity absorbed in the building process. Without consulting Lewis, Bates decided on 5 August to make an independent proposal to acquire the North Atlantic assets of White Star Line. Lewis was annoyed to hear of Bates's tactics. The government rejected Cunard's offer.¹⁴¹

On 12 November 1930, the reconvened bankers' meeting took place. The meeting received information on the realisations achieved to date, whilst Runciman appraised those present of the shortcomings.¹⁴² The meeting learned that the moratorium would be required to operate for

¹⁴⁰ www.thegreatoceanliners.com [accessed 1 February 2016].

¹⁴¹ Newcastle University, Runciman Papers, WR 238, Letter from Walter Runciman to Sir Percy E Bates, Rejection of Cunard's offer to purchase White Star Line, 18 October 1930.

¹⁴² Green and Moss, *Business*, p. 131.

at least another twelve months with no input from Kylsant. The banks, Northern Ireland government and the Treasury accepted the proposals. In the initial period following his leave, Kylsant had remained optimistic that he would regain control of the RMSPC. When he learned of the November meeting, he began to comprehend the situation.¹⁴³ By January 1931 the RMSPC's financial position was so critical that any legal action by creditors, whether that be secured or unsecured, would have had catastrophic consequences.¹⁴⁴ Kylsant and his wife departed on 27 February 1931 to South Africa on the *Winchester Castle*. The Voting Trustees then sent telegrams to Union-Castle's representatives in South Africa, informing them not to undertake any instruction from Kylsant.¹⁴⁵

By the time Kylsant departed for South Africa, his position and the RMSPC's current financial standing were common knowledge.¹⁴⁶ The RMSPC had to secure funding from Glyn Mills early in January 1931 to protect the Oceanic's position as the Voting Trustees had heard that creditors were planning to obtain a Court Order to assist in seizing its fleet.

While hoping to avoid a scandal, the RMSPC's management faced sustained opposition from St Davids.¹⁴⁷ In February 1931, St Davids issued summons against the RMSPC on the basis that they had failed to forward him information that he was duty bound to pass to the debenture holders. The proceedings were tactfully planned at a time when the Voting Trustees were seeking to secure the approval of the RMSPC's shareholders and debenture holders for the moratorium. The moratorium received approval at the creditors' meeting held on 12 February 1931, and St Davids withdrew his High Court proceedings.

¹⁴³ Ibid., p. 132.

¹⁴⁴ Newcastle University, Runciman Papers, WR 241, Summary of the statement of affairs, p.11.

¹⁴⁵ Davies and Bourn, 'Lord Kylsant', p. 118.

¹⁴⁶ Arnold, 'No substitute', p. 339.

¹⁴⁷ Green and Moss, *Business*, p. 135.

Kylsant's full involvement in the treatment of dividend payments in 1926–29 concerned McLintock. Unfortunately, *The Times* had stated that McLintock had thrown 'lurid light' on the RMSPC's finances, refraining from public criticism of either Kylsant or the Voting Trustees. On 17 February 1931, Sir John Ferguson, Conservative MP for Twickenham, with considerable support in the Commons, asked whether the RMSPC's finances were fraudulent.¹⁴⁸ Ferguson called for legislation to amend the auditor's certificate used by Price Waterhouse in the RMSPC audit to warn the shareholders of the profit and loss allocations up to 1929.

Runciman assured Sir William Jowitt, the Attorney General, that to the best of his knowledge no criminality had arisen. Jowitt continued to review all the available paperwork at the behest of the Commons, when Detective-Inspector George Stubbings of the Metropolitan Police handed summonses to Kylsant and Harold Morland, the RMSPC's auditor. Jowitt effectively bowed to the pressure when bringing the criminal proceedings, although expected a successful defence to the proceedings.¹⁴⁹ Kylsant faced charges under Section 84 of the Larceny Act 1861 in allowing the publication of false statements of the RMSPC accounts for 1926 and 1927.¹⁵⁰ The charges against Morland comprised aiding and assisting in the publication of the accounts. Section 84 of the Larceny Act 1861 imposed criminal liability upon any officer of a company who induced by a written statement or account knowing it to be false to advance any property to a body corporate or public body.¹⁵¹ The Crown brought charges in the Mansion House Police Court at the Guildhall between 2 June and 22 June 1931, including a new charge that the 1928 Royal Mail prospectus was false.¹⁵² Kylsant was solely responsible for this new charge. The RMSPC was a company incorporated under a Royal Charter and therefore only limited financial

¹⁴⁸ Ibid., p. 140.

¹⁴⁹ Ashton, 'Royal Mail Case', p. 5.

¹⁵⁰ Ibid, p. 3.

¹⁵¹ MacIntyre, 'Criminal', p. 256.

¹⁵² 'Lord Kylsant in court – Prosecution case opened.' *Manchester Guardian*, 3 June 1931, p. 17.

information was available in the form of dividend percentages and 'esoteric financial accounts.'¹⁵³ Kysant admitted in Court that shareholders never received the fullest details concerning the profit and loss account, as the Companies Act did not govern the company.¹⁵⁴ The Royal Charter that incorporated the RMSPC only required its 'Court of Directors' to provide a statement of its debts and assets.¹⁵⁵ The proceedings at the Mansion House Police Court were inconclusive and the Lord Mayor had no alternative but to refer the matter to the Central Criminal Court. Kysant was somewhat confused by the events. The Trial at the Old Bailey against both Kysant and Morland was one of the most publicised court cases during the interwar period. The trading results for the years 1926 and 1927 had indicated that the RMSPC had made large trading profits, whereas the reality of the situation was that the RMSPC had in fact incurred serious trading losses.¹⁵⁶ During the early 1920s, the RMSPC had ceased referring to profit and merely stated 'there was a balance.'¹⁵⁷ Nevertheless, Kysant's response impressed the Jury, despite the misleading nature of the accounts.¹⁵⁸

The information contained in the prospectus had indicated that the RMSPC's trading profits during the past ten years were sufficient to pay interest on the new debenture stock more than five times over.¹⁵⁹ The prospectus issued under Kysant's guidance, and for which he assumed responsibility, denied that he never intended to deceive or defraud any creditor in the process.¹⁶⁰ The Court asked Kysant whether he issued the prospectus knowing 'it to be false in a material particular, in that it concealed the true position of the company, with intent to induce persons to entrust or advance property to the company.'¹⁶¹ As a reluctant witness, McLintock explained

¹⁵³ MacIntyre, 'Criminal', p. 257.

¹⁵⁴ Newcastle University, Runciman Papers, WR 241, Summary of the statement of affairs, p.13,

¹⁵⁵ MacIntyre, 'Criminal', p. 258.

¹⁵⁶ Davies and Bourn, 'Lord Kysant', 140.

¹⁵⁷ Brooks (ed.), *The Royal Mail case*, p. 23.

¹⁵⁸ MacIntyre, 'Criminal', p. 259.

¹⁵⁹ *Ibid.*, p. 260 and Brooks (ed.), *The Royal Mail case*, p. 34.

¹⁶⁰ *Ibid.*

¹⁶¹ Brooks (ed.), *The Royal Mail case*, p. 3.

that the RMSPC's profits relied upon unpublished transactions, which involved the transfer of over £1 million from inner reserves including income tax reserves and excess profits duty reserves.¹⁶² Both McLintock and Plender explained how large conglomerate companies smoothed out the 'business cycle' by making use of such reserves. Jowitt stated that he could understand why directors might be reluctant to publicise the full extent of the difficulties experienced by the company.¹⁶³ The Court cleared Kysant and Morland of the charges relating to the publication of the 1926 and 1927 accounts.¹⁶⁴

With the charge relating to the prospectus, Kysant lacked adequate assistance in his defence, whilst Hastings defended Morland, with a strong brief from Price Waterhouse.¹⁶⁵ Sir John Simon argued on Kysant's behalf that the prosecution raised matters that had become a criminal offence only with the Companies Act 1929, which required prospectuses to contain positive statements regarding past profits.¹⁶⁶ The new law was not applicable retrospectively.¹⁶⁷ Kysant was a poor witness and sustained a great deal of attack from Jowitt. Sir John Simon, who led the defence, attempted to uphold the practice of maintaining secret reserves and refuted any attempt to defraud. Simon claimed that the predicament resulted from the economic downturn.¹⁶⁸ Hastings was at pains to highlight during the Court hearing that the phrase 'secret reserves' did not refer to something that was unscrupulous.¹⁶⁹ Simon, however, was unable to fill the gaps to provide an adequate response generally in support of Kysant.¹⁷⁰ Mr Justice Wright, the presiding judge, decided that a 'deliberate and wicked and criminal intent to concoct

¹⁶² Davies and Bourn, 'Lord Kysant', p. 118.

¹⁶³ Brooks (ed.), *The Royal Mail case*, p. 4.

¹⁶⁴ Davies, *The trade makers*, p. 261.

¹⁶⁵ Sir Patrick Gardiner Hastings as well as a Barrister was previously the Attorney General and a Labour politician.

¹⁶⁶ 'Lord Kysant – Sir J Simon asked to undertake defence.' *Sunday Times*, 17 May 1931; p. 15; Issue 5640.

¹⁶⁷ Brooks (ed.), *The Royal Mail case*, p. xxxiii.

¹⁶⁸ MacIntyre, 'Criminal', p. 260.

¹⁶⁹ Brooks (ed.), *The Royal Mail case*, p. 39.

¹⁷⁰ Green and Moss, *Business*, p. 142.

a false and misleading document' motivated Kyslant.¹⁷¹ However, this attempt to construct a case against Kyslant failed in its first attempt as the jury returned after two hours to report that they could conceive of a non-fraudulent intent to deceive.¹⁷² After considering the position briefly, the Judge advised the Jury that 'their interpretation was not possible.' After a further thirty minutes, the Jury returned and found Lord Kyslant guilty.¹⁷³ Taking a lenient view, Mr Justice Wright sentenced Lord Kyslant to a year's imprisonment in the second division at Wormwood Scrubs.¹⁷⁴ On 10 February 1936, two directors of the RMSPC submitted a statement of affairs to the Official Receiver in which they stated that the demise of the RMSPC was attributable to:

- a. the long-drawn-out depression in the shipping industry;
- b. liquidity issues resulting from heavy liabilities;
- c. the acquisition of Oceanic;
- d. the establishment of a fleet within the post-war environment at peak prices; and
- e. the overpayment of investments at excessive prices.¹⁷⁵

The Economist believed that if Kyslant was guilty then so would be the majority of chairmen of large public companies in Britain.¹⁷⁶ The Court dismissed the appeal in November.¹⁷⁷ Sir John Simon commented that McLintock totally misunderstood the RMSPC's financial position.¹⁷⁸ Both Jowitt and Plender came to McLintock's assistance, claiming that he undertook a valuable role in providing his evidence in a way that protected the ongoing work

¹⁷¹ Ibid.

¹⁷² Davies and Bourn, 'Lord Kyslant', 119; Davies, 'Business', p. 217.

¹⁷³ Ashton, 'Royal Mail Case', p. 12; Wallace 'The Political Career of Walter Runciman', p. 323.

¹⁷⁴ 'Lord Kyslant – Tomorrow's appeal.' *Sunday Times*, 1 November 1931, p. 17, Issue 5664; Davies and Bourn, 'Lord Kyslant', p. 119; Davies, 'Business', p. 217.

¹⁷⁵ Newcastle University, Runciman Papers, WR 241, Summary of the statement of affairs, p.10.

¹⁷⁶ Green and Moss, *Business*, p. 142.

¹⁷⁷ 'Lord Kyslant's appeal: The prospectus defended', *Manchester Guardian*, 3 November 1931, p. 4; MacIntyre, 'Criminal', p. 262.

¹⁷⁸ Brooks (ed.), *The Royal Mail case*, p. 122.

undertaken to assist the RMSPC.¹⁷⁹ Kysant's behaviour in prison was exemplary and he earned three months' remission at the end of his sentence.¹⁸⁰ After serving his sentence, Lord Kysant returned to his home at Coomb, Carmarthenshire where he remained until his death in June 1937.¹⁸¹

During June 1931 Norman again asked Bates whether the latter wished to acquire White Star Line. Bates felt that his difficulties over discounting bills would affect the completion of ship No. 534.¹⁸² Having implemented insurance cover, the contract commenced, ending without conclusion after exactly one year.¹⁸³ There was a general condemnation from both sides of the House as well as industry that the government would not come to the assistance of both Cunard and John Brown. The government had experienced similar difficulties in 1904 with the construction of the *Lusitania* and the *Mauretania*, when £2,600,000 became available from the Treasury to build similar luxury liners.¹⁸⁴ The day of the mammoth luxury liner had passed; such vessels amounted to merely an expense to the taxpayer.¹⁸⁵ It is now evident that the facilities provided by these vessels were prosperous, and that the finance proved to be good security.¹⁸⁶

The statement of 10 December 1931 released to shareholders and published in the press emphasised that for the first time for many years Cunard has been unable 'to earn depreciation on its old ships.'¹⁸⁷ There was little prospect of government intervention at the stage when

¹⁷⁹ Green and Moss, *Business*, p. 143.

¹⁸⁰ 'Lord Kysant – release from prison soon.' *Sunday Times*, 26 June 1932, p. 15, Issue 5698. Lord Kysant died at his Carmarthen home on 5 June 1937. See 'Lord Kysant', *Who was who 1929-1940*, vol. III (London: Adam & Charles Black, 1941), p. 769.

¹⁸¹ Mallett and Bell, *The Pirrie-Kysant Motorships*, p. 7.

¹⁸² Green and Moss, *Business*, p. 145.

¹⁸³ Johnson, *The Cunard Story*, p. 103.

¹⁸⁴ Grove, *Government*, p. 32.

¹⁸⁵ Hyde, *Cunard*, p. 207.

¹⁸⁶ HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, cc1826-1827.

¹⁸⁷ NA, CAB/23/69, Conclusions of Cabinet meeting – The New Cunard Liner, 10 December 1931, Appendix, p. 1.

work was suspended in December 1931.¹⁸⁸ Any bills raised at the date of suspension were settled from Cunard's cash reserves as they fell due.¹⁸⁹

Following the cessation at John Brown, the Chancellor of the Exchequer undertook to review the contract. The Chancellor concluded that if the vessel would assure Britain's ascendancy on the Atlantic without competition between two rival firms then assistance might be an option.¹⁹⁰ All sides in Parliament acknowledged that completing vessel No. 534 would reduce unemployment by at least 3,500 in Glasgow's immediate vicinity, and possibly a great deal more throughout the country. However, there remained those who continued to question the need for the laying down of a second ship. Clearly, by supporting a second vessel, anticipation arose as to a change in fortunes and a return to more prosperous times. In addition, the fall in emigration to the US continued weakening the demand for such ships. Generally, most sceptics supported the proposed construction of both No. 534 and its sister ship.¹⁹¹ Sir Alfred Beit, Conservative MP for Saint Pancras South East, believed it was difficult to operate a 'fleet of hares and tortoises', whilst others expressed concern that the *SS Olympic* and *SS Mauretania* were hardly tortoises, although faced with the competition from vessel No. 534 these ships would be redundant.¹⁹²

Negotiations continued between Bates, the Bank of England and the Voting Trustees throughout the summer 1931. These discussions persisted on the basis that McLintock attempted to protect White Star Line's value and Bates strove to exclude the *Georgic* from the negotiations whilst raising additional funds to assist completing vessel No. 534. During October, Norman made it clear that unless Cunard and Oceanic's debenture holders agreed over

¹⁸⁸ Glasgow University, UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board, 18 December 1931, p. 200.

¹⁸⁹ *Ibid.*, p. 2 and Johnman & Murphy, 'An Overview', p. 244.

¹⁹⁰ HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, c1827.

¹⁹¹ Johnson, *The Cunard Story*, p. 105.

¹⁹² HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, c1842-1843.

White Star Line's assets, then Norman would facilitate the winding up of the White Star Line companies. As regards White Star Line, the company – whilst included within the moratorium – was not embodied within the RMSPC's restructuring and remained part of the Oceanic group. Fortunately, during 1931, White Star Line had returned steady trading results, enabling it to sustain its business until the *Georgic* joined the *Britannic* in service during June 1932.¹⁹³ White Star Line had shown good profits since 1930 and now in 1932 had an estimated thirty-two cruises booked, with a potential 23,000 passengers.¹⁹⁴ Moreover, Lord Essendon's (Sir Frederick Lewis) appointment as chairman in November increased the possibility that Furness Withy, Cunard and White Star could maintain activity on the North Atlantic.¹⁹⁵

In February 1932, Bates sought to resurrect the Cunard/White Star Line merger by requesting the Prime Minister, Ramsay MacDonald's assistance. Bates required significant support for the purchase and completion of vessel No. 534 and the construction of its sister ship. The government refused, fearing that this might encourage others to seek similar guarantees. By autumn 1932 the deserted structure, vessel No. 534, was causing immense embarrassment and Neville Chamberlain, now Chancellor of the Exchequer, requested assistance from Lord Weir and Sir James Lithgow. By late December, Weir had completed a report, which proposed a structure whereby the government would advance funds to Cunard at 3.5 percent interest repayable over a maximum 30 years. Essendon and Bates negotiated an agreement between Cunard and White Star Line, though Weir believed a sensible solution would be the payment of White Star Line's creditors by exchange for Cunard's shares and income debentures.¹⁹⁶ Essendon replied with a counter-proposal to raise funds for vessel No. 534 on special terms

¹⁹³ De Kerbrech, *Ships*, p. 230.

¹⁹⁴ *Ibid.*, p. 229.

¹⁹⁵ Upon admission to the House of Lords, Sir Frederick Lewis took the title Lord Essendon.

¹⁹⁶ Green and Moss, *Business*, p. 158.

from the government and then merge Cunard and White Star Line on a capital ratio of approximately 55:45.¹⁹⁷

On 22 March 1933, the government indicated the availability of financial assistance to complete vessel No. 534, provided the North Atlantic fleets of Cunard and White Star Line amalgamated to remove competition between British firms on the North Atlantic. During 1933, the government and representatives from both Cunard and White Star Line agreed to form a new company and that shareholders should exchange shares in the old companies for shares in the new merged company.

On 12 May, Bates, Essendon and Weir discussed the proposed merger/takeover without reaching agreement. In frustration, Norman ordered Weir to reconsider in view of Cunard's poor trading position in 1933, which amounted to a £927,000 loss, despite White Star Line's improving trade since the introduction of the *Britannic* and the *Georgic*.¹⁹⁸ Weir agreed to Norman's request and asked Essendon to prepare a scheme to merge the two entities. Within two days, Essendon had prepared a scheme to merge Cunard and White Star Line and incorporate a new holding company that acquired both companies' assets free of mortgages. The new company had a share capital comprising four million £1 ordinary shares and 250,000 £1 4 percent cumulative preference shares. The estimated fleet value was £10 million, with £6 million on a share premium and £250,000 representing pre-paid tickets.

Bates and Weir met Essendon again on 26 May to discuss merger possibilities. Bates and Weir wished to continue their support by absorbing White Star Line for approximately £4 million. Now, Essendon announced that the two new White Star Line vessels had produced a trading profit totalling £384,000 in 1932 rather than the £200,000 previously estimated. Whilst

¹⁹⁷ Ibid.

¹⁹⁸ Griffiths, *Power*, pp. 166 and 167.

surprised by these results, Bates softened his approach towards a merger.¹⁹⁹ Essendon at this stage circularised two proposals to the Treasury, the Northern Ireland government, the Bank of England, Weir, and the Voting Trustees:

- Proposal one: the merger scheme as tabled by Essendon
- Proposal two: a scheme that provided for Cunard purchasing the White Star Line North Atlantic fleet for £4.5 million, of which £500,000 would be in cash and £4 million in 4.5 percent Cunard ‘A’ debentures. This proposal also provided for the appointment of two White Star directors to the board of Cunard.

Bates was sufficiently confident to suggest that if an agreement were available on a commercial basis, he could raise the funds required to build the sister ship no. 535. However, Runciman believed that such a proposal would require government assistance and that the government could not assist the construction of another ‘floating Dorchester Hotel.’²⁰⁰ Chamberlain recognised in 1933 that at some stage the government might have to assist in financing a second ship, and that it might be difficult to refuse, but was not at this stage suggesting government support.²⁰¹ He also felt it would be extremely difficult for the government to announce that they were unable to provide support for the second ship.²⁰² Cunard had experienced trading losses of £900,000 in the previous financial year, and whilst able to raise funds in the market, it would find raising fresh capital somewhat expensive. Regardless of this, Runciman and Viscount Hailsham, the Secretary of State for War, remained opposed to both vessels.²⁰³

On 18 June, Bates agreed to enter into discussion in compliance of his directors’ wishes on incorporation for a merger company with a 60:40 apportionments of capital.²⁰⁴ By 5 July,

¹⁹⁹ Green and Moss, *Business*, p. 160.

²⁰⁰ NA, CAB/23/76, The New Cunard Liner, p. 6.

²⁰¹ Ibid.

²⁰² HOCD, North Atlantic Shipping [Advances], 22 February 1934, vol. 286, cc639-640.

²⁰³ NA, CAB/23/76, The New Cunard Liner, p. 8.

²⁰⁴ Green and Moss, *Business*, p. 161.

Essendon had amended the proposals and circularised proposal number one, with the working capital being only £250,000 and vessel No. 534 being a matter between the government and Cunard, who would then sell it to the new merged company. Bates was not satisfied with the proposal and immediately submitted a revised draft that transferred vessel No. 534 to the new company upon its incorporation, and provided for working capital of £1.5 million that arose from the work that Cunard had already undertaken on vessel No. 534. On 18 July, Hopkins met Royden, Cunard's director. Royden noted that bad feelings had emerged between Bates and Essendon, and that the Cunard directors were concerned at their mounting losses. Bates, Weir, Royden and Essendon met on 24 July and reached an agreement to incorporate a new company with a share capital of £4 million and that the apportionment of share capital would be dependent upon valuations.²⁰⁵ During July, the Treasury forced the Chancellor to obtain Cabinet approval to complete vessel No. 534. Despite Runciman's opposition, sanction became available for building vessel No. 534 on 28 July. On 29 September, Bates contacted Essendon – who had heard nothing from Cunard for two months – to announce his willingness to conclude a merger agreement between White Star Line and Cunard. On the day prior to this approach, Essendon had written to Hopkins for approval of a scheme to build three ships for White Star Line. Even during the latter negotiations, Essendon still tried to offload vessel No. 534 to the Admiralty to have it converted into a possible aircraft carrier, and proposed that any funds recovered would assist in the building of three vessels for White Star Line. However, in November 1933, Essendon agreed to incorporate vessel No. 534 within the agreement for the merger. The negotiations were eventually finalised on 27 November 1933, and the government agreed to advance £1 million to Cunard and £2 million to the merged company to complete the construction; £1.6 million would be available as working capital to the new company. In addition, the parties agreed to build a second giant liner. As regards the capital for the new

²⁰⁵ Ibid.

company, Bates favoured an apportionment of 60:40 with a starting date of 6 April 1934 in order to meet an October launching date.²⁰⁶ Essendon and White Star Line's creditors moved from 58:42 to 59:41. On 1 December, however, Essendon conceded to an apportionment of 62:38 and assurance that work would recommence on vessel No. 534 as soon as possible. By 11 December 1933, with Bates as chairman at Cunard and Essendon acting as chair for Oceanic, White Star Line's owners had settled on contractual terms. The agreement would enable a new merged business to take over the assets of both companies employed upon the North Atlantic, and enable the completion of vessel No. 534. Despite the general assumption that vessel No. 534 needed to earn £450,000 per annum after all charges, or a net profit totalling £18,000 per voyage, in order to pay its way, the ship continued to have immense support. At this stage, trade on the North Atlantic was precarious. Yet with falling emigration, there was still a great importance attached to trade in the US and the need to protect Britain's interest in the Blue Riband of the Atlantic.²⁰⁷ However, if the trade had continued to decline with the US, the vessels' viability would have been questionable. Indeed, Bates recognised that the viability of such ships was reliant on a steady traffic flow, similar to that achieved by Germany.²⁰⁸ On 13 December 1933, the Chancellor of the Exchequer was able to report to the Cabinet on the financial arrangements of White Star Line and Cunard. He also announced that Parliament would receive 'proposals for furnishing the necessary finance for completion of the new Cunard liner known as No. 534.' However, Runciman asked to be placed on record for his objections to the proposals because: the Atlantic was not an Empire route; vessel No. 534 was not viable; vessel No. 534 had already benefitted from insurance arrangements; Cunard was already in

²⁰⁶ 'Shipping share prospects.' *The Economist*, 27 October 1934, p. 785, Issue 4757.

²⁰⁷ Griffiths, *Power*, p. 148; Cormack, 'An Economic History', p. 163.

²⁰⁸ NA, CAB/23/76, Meeting of the Cabinet, Conclusions, The New Cunard Liner, 28 July 1933, p. 5.

default under the TFA; Cunard were already raising the issue of building a second vessel; and there was already a request to assist 1,400 tramp steamers with a subsidy.²⁰⁹

Whilst Runciman was unable to support the Chancellor's proposals, the Chancellor himself was strongly opposed to indiscriminate subsidies. In the climate of the time, private interests in shipbuilding required government assistance to pursue a construction programme for vessel No. 534, and if the government could represent this assistance by a purposeful objective, benefits were available. Cunard and White Star Line were literally 'cutting each other's throats and both were likely to bleed to death' without trade on the North Atlantic being restructured.²¹⁰ In such an event, both the British government and the Northern Ireland government would lose £2,250,000 in the process. Amalgamating these two companies and building vessel No. 534 ensured that the 'end justified the means', and the Chancellor was eager to point out that other schemes would be looked at in exactly the same way.²¹¹

The Chancellor wished to highlight that Lord Essendon's views had changed, and he now believed that vessel No. 534 could pay its way on the Atlantic route; Weir's support for the proposal had always been strong. As regards constructing a second vessel, this would clearly need government sanction and there was no certainty at this stage that the government would aid its construction. On the other hand, vessel No. 534 might prove to be a great success and the merged business might be able to obtain the funding for the ship's construction programme without government assistance.²¹² On 30 December, Cunard and White Star Line signed the formal agreements, amalgamating the companies.²¹³

²⁰⁹ NA, CAB/23/77, Meeting of the Cabinet, Conclusions, The New Cunard Liner, 13 December 1933, p. 7.

²¹⁰ *Ibid.*, p. 8.

²¹¹ *Ibid.*, p. 9.

²¹² *Ibid.*

²¹³ Hyde, *Cunard*, p. 213.

Throughout 1933 and early 1934, the Admiralty had continued with its naval programme for two sloops and two destroyers to be built at the John Brown premises.²¹⁴ Whilst the Admiralty continued with these four vessels, shipbuilding remained depressed. This increased activity did enable John Brown to reopen the west section of the shipyard. The eagerly awaited news came on 3 April 1934 with the announcement that work would resume on vessel No. 534.²¹⁵ Nevertheless, given the stoppage between December 1931 and April 1934, Sir Thomas Bell worried both that the resumption of work would not lead to the level of productivity achieved prior to the stoppage in December 1931 and that therefore further delays would result.²¹⁶



Figure 5.0: ‘And I hear there’s another one coming.’²¹⁷

Both Bates and Essendon were shrewd negotiators.²¹⁸ Norman clearly supported Essendon’s efforts and was highly appreciative of his willingness to intervene.²¹⁹ No doubt, Essendon was

²¹⁴ Grant, *Steel & Ships*, p. 80.

²¹⁵ *Ibid.*, p. 81. Sir Thomas Bell reported regarding negotiations with Cunard and the actual resumption of work on No. 534 having been started on 3 April 1934 - Glasgow University, UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board, 27 April 1934, p. 254.

²¹⁶ Glasgow University, UCS 1/16/4, John Brown & Company Limited, Cunard Letter Book, Correspondence with Sir Percy Bates, 24 March 1934, p. 212.

²¹⁷ S G Strube, *Daily Express*, 27 September 1934.

²¹⁸ Hyde, *Cunard*, p. 212.

²¹⁹ Cairncross, ‘The Bank of England’, p. 67.

favourable to Norman's cooperation.²²⁰ The conclusion of the Cunard and White Star Line negotiations freed the Voting Trustees to more complex issues involving H&W and Union-Castle.²²¹

By March 1934, all parties were ready to recommence the contract for vessel No. 534 in the John Brown shipyard, a contract which commenced in 1930 and which had already received significant support via the Cunard (Insurance Agreement) Act 1930.²²² An Act of Parliament provided facilities for insurance that was essential for the construction of the vessel.²²³ During February 1934, Sir Thomas Bell reported to the Board that Underwriters had provisionally extended insurance regarding No. 534. The Board was also advised 'that a very complete inspection of No. 534 had been undertaken by Lloyd's Chief Hull and Engine surveyor and these officials appeared thoroughly satisfied with the condition of the Hull and Machinery.'²²⁴ The insurance market was unable to undertake such a risk at the time.²²⁵ Despite criticisms of the government for making funds available to ensure the introduction of the Cunard (Insurances) Agreement Act in 1930, the government recovered £880,539 when the scheme concluded in 1954. Maintaining insurance cover was only a small part of the government's involvement in the funding and management of British transatlantic shipping during the 1930s. By 1931, Cunard's financial standing was untenable and it was unable to continue with the construction programme despite Cunard's ability to rely upon bills of exchange. By 1932, with the situation surrounding the RMSPC's survival becoming critical, the government attempted to broker an agreement. There was hope that this would preserve the RMSPC, assisting Cunard

²²⁰ 'Sir Montagu Norman', *Who was who 1941-1950*, vol. IV (London: Adam & Charles Black, 1951), p. 854.

²²¹ Green and Moss, *Business*, p. 163.

²²² Davies, *Belief*, p. 114.

²²³ NA, CAB/23/69, Conclusions of Cabinet meeting – the new Cunard liner, 10 December 1931, p. 1.

²²⁴ Glasgow University, UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board, 2 February 1934, p. 250.

²²⁴ S G Strube, *Daily Express*, 27 September 1934.

²²⁵ Davies, *Belief*, p. 113.

to obtain the funding and complete vessel No. 534 at the John Brown yard on Clydebank.²²⁶ Whilst the transaction resulted in the RMSPC disposing of its interests in White Star Line, a mechanism ensured that the RMSPC's liabilities under the TFAs and the liabilities to the British and Northern Ireland governments were resolved.²²⁷

Conclusions

The difficulties experienced by the RMSPC/H&W group contributed to the decline of shipbuilding upon the West of Scotland, and suggests that the decline of British shipbuilding began earlier than conventionally thought. Decline contributed to the difficulties that confronted Kysant. The North East Coast of England had no shipbuilder included within the RMSPC group, neither did it build extensively for that group's shipping lines, and therefore it avoided any repercussions.

The RMSPC, which had been trading since 1839, operated under an opaque corporate structure whereby shareholders, loan creditors, bankers and government agencies were unable to unmask the company's true financial identity and status.²²⁸ Following Kysant's acquisition of the RMSPC in 1903, a 'snowball effect' assisted the company's financial development as preference shares and debenture loan stock funded the highly geared corporate structure.²²⁹ 'Cross-shareholdings in ordinary shares', along with the accounting requirements for companies incorporated under Royal Charter, masked the RMSPC's financial position. Whilst the RMSPC was incorporated under Royal Charter, other companies within the group comprised wholly owned subsidiaries and associated companies incorporated under the Companies Acts. By 1914, the RMSPC's activities embraced both shipping and shipbuilding. In reality, the difficulties encountered by Kysant and the RMSPC were probably present

²⁰⁷ Ibid.

²²⁷ Ibid.

²²⁸ Davies and Bourn, 'Lord Kysant', p. 107.

²²⁹ Ibid., pp. 111 and 112.

before, and certainly during the First World War, and its insolvency possibly predates the TFAs by anything up to eight years.²³⁰ Whilst Kysant believed that he lost over 100 vessels during the First World War, which equated to 12.0 percent of the RMSPC's fleet, it is highly likely that he recovered approximately 52.0 percent of the book value of those vessels lost during the First World War only by way of insurance recoveries.²³¹ During the war years, excess profit duties, substantial taxation repayments, and the government's special obsolescence allowance masked losses, which allowed the RMSPC to continue trading, and even pay dividends when not in profit. In an attempt to replenish his fleet, Kysant purchased vessels from Lord Inchcape that had previously been owned by the British government. These vessels were acquired at a cheap price to prevent possible nationalisation.²³² RMSPC management sounded caution during the early post-war years, whilst Kysant believed the industry was recovering, although recognising that difficulties existed; Pirrie was concerned and sought to limit expenditure.²³³ Once trading became precarious, Kysant struggled to maintain confidence in his ailing group structure.²³⁴

Kysant's difficulties became evident during the interwar period. British shipbuilding's global market share deteriorated during 1900–14 whilst Kysant's difficulties may have been mounting, although the First World War was timely for Kysant. The RMSPC survived into the 1920s only because of activities undertaken during the First World War and Kysant's ability to obtain finance under the TFAs as well as funds from the debenture stockholders.

²³⁰ Whilst Johnman and Murphy highlight that Kysant's difficulties began with the introduction of the TFAs and Davies and Bourn identify the acquisition of Oceanic and White Star Line as a root cause for the RMSPC's failure, the probability is that the RMSPC was already technically insolvent during the First World War and survived the war years because of excess profit duties, substantial taxation repayments, and the government's special obsolescence allowance.

²³¹ Green and Moss, *Business*, 35; Jones, *Shipbuilding*, p. 48.

²³² Johnman and Murphy, *British Shipbuilding*, p. 8.

²³³ Lord Pirrie died on 7 June 1924 in Panama at the age of 77; Mallett and Bell, *The Pirrie-Kysant Motorships*, p. 10.

²³⁴ The difficulties within the RMSPC had become obvious to Lord St Davids at an early stage, hence his desire to resign as Trustee for the debenture holders.

In the period immediately after the First World War, shipping and shipbuilders feared nationalisation, which in hindsight may have given Kysant a legitimate way out of his beleaguered empire. At that stage there were excuses for some of the difficulties that had arisen, namely the loss of market share during the war, wartime casualties, and the escalation of shipbuilding prices, which were all explanations that provided Kysant the opportunity to downsize the RMSPC. Kysant, however, was unable to see the woes that would consume the RMSPC as government began to relinquish its commitment to *laissez-faire*, and Kysant sensed that the RMSPC was too big to fail.

The Kysant affair retains to this day a measure of opacity. The RMSPC and its associated companies experienced a depression from 1920 that affected all maritime trades. Whilst cash flow became difficult, Kysant's remedies were unwise, highly misleading, and criminal. Whether Kysant's strategy collapsed with the death of Lord Pirrie is unclear: it is apparent that an organisational structure as big as the RMSPC was too large for one man to control, particularly in an autocratic manner.²³⁵ When Pirrie made the initial application under the TFA, his request for funds was logical enough, however, the solicitations that followed from the group were, on the face of it, highly speculative and obtained without giving full disclosure. Though Kysant confronted the ensuing problems, the government escaped any culpability for the funds advanced under the TFAs to the RMSPC and its associated companies. Clearly, the government had failed to undertake any due diligence and therefore some responsibility must attach to the TFAC, particularly given that William Plender was a former President of the Institute of Chartered Accountants and chairman of the TFAC. However, the product of the Kysant affair highlights the manner by which the government, the banking community and industry had to organise themselves to ensure that large corporate failures were minimised and

²³⁵ The manner by which Kysant and Pirrie controlled the share structure of the RMSPC could only be described as autocratic.

restructured. The Companies Act 1929 was one of the first steps in correcting the difficulties encountered within the Kylsant affair, though it was the Companies Act 1948 that largely remedied the situation.

Given the difficulties of the tramp-shipping industry throughout the 1920s and early 1930s, the government assistance to ensure the completion of the *RMS Queen Mary* prompted intervention into this industry via the British Shipping (Assistance) Act 1935 (BSAA). Thus, the government edged pragmatically away from *laissez-faire* in spite of becoming entwined in the fortunes of the shipbuilding and shipping industries. Kylsant was right in a sense. The government could not ignore the employment consequences of the catastrophic failure of a firm the size of the RMSPC. The government's solution to let Kylsant fail but safeguard a measure of jobs on the Clyde highlighted the contradictions of the policy context, with geopolitical strategic interests, employment, regional policy, and the doctrine of free trade pulling in different directions.

CHAPTER SIX: THE TRAMP-SHIPPING INDUSTRY DURING THE 1930s

Introduction

While the Kylsant affair illustrated how the government might be drawn into intervening in the work of private industry and the failure of a major shipping and shipbuilding concern, tramp shipping provided another instance of intervention. Laid-up tramp tonnage threatened insolvency for the shipping industry directly and shipbuilding collaterally. Again, as in the Kylsant affair, crisis prompted the government to intervene. This chapter will explore three dimensions of the problem of tramp shipping. First, it will examine the dilemmas that tramp shipping posed to a government averse to intervene and an industry reluctant about government interference. Second, it will assess the constituent elements and nature of the British Shipping (Assistance) Act 1935 (BSAA). Finally, it will consider the impact of the BSAA, in particular how this affected Britain's two principal shipbuilding regions, the North-East Coast of England and the West of Scotland.

Whilst the Act intended to compensate for foreign protectionism in shipbuilding, the British government had failed to consider the impact of the consequent renewal of competition within both shipping and shipbuilding at a time when freight rates were rising. These measures, whilst assisting the shipping industry, did little to encourage shipbuilding. Furthermore, within a very short period, in 1937 a further recession set in, and shipping began once again to struggle. The BSAA has received limited academic attention.¹ The efforts of Germany, France, Italy and other maritime powers left the British government with little alternative but to introduce the BSAA, in an attempt to force overseas governments to rethink their attitudes towards state

¹ Jones, *Shipbuilding*, p. 110; Johnman and Murphy, *British shipbuilding*, p. 52; Ware, 'In search of subsidy', pp. 167–193; Slaven, *British Shipbuilding*, p. 93.

assistance.² The introduction of the BSAA provided assistance to the maritime industries, although to differing degrees, and restored a modicum of commerciality to shipbuilding in Britain to the extent that Britain still produced 35 percent of the world's output during the 1930s, although this had fallen by 10 percent from the 1920s.³

The 1930s provided immense challenges to the tramp-shipping operators, particularly with the increasing use of economical and efficient motor vessels, built and owned in Europe. Certain British shipping owners including F T Everard & Sons and Coast Line Limited responded by building motorships in British shipyards; however, some British shipowners arranged to have their ships built overseas in Europe.⁴ In this period, British tramp-shipowners sold older tonnage for scrap at home, or alternatively and more favourably, realised tonnage for higher prices in overseas markets.⁵ Tramp shipping experienced turbulent trading conditions during the interwar years as markets adapted to changing economic environments and new technologies, witnessing a fall in coal since 1914, whilst changes in food consumption and other industrial materials increased.

During the 1930s, the trade associated with tramp tonnage experienced competitive decline at the hands of the liner companies, as they sought to obtain cargoes wherever possible.⁶ Liners were able to survive without subsidy whereas tramp shipping required statutory assistance to get over the difficulties during the early 1930s.⁷ By 1933, a third of British deep-sea tramps were laid up and the economic environment was treacherous.⁸ The World Monetary and Economic Conference held in July 1933 failed to curtail tariffs or subsidies paid by foreign

² Leon Fink, 'Global sea or national backwater? The international labour organisation and the quixotic quest for maritime standards, 1919-1945', in *Working across the Americas, The transnational turn in labour history*, ed. Leon Fink (Oxford: Oxford University Press, 2011), p. 420.

³ Edward H Lorenz, *Towards a theory of British economic decline: The case of shipbuilding, 1890-1970*, Working Paper no. 148, Helen Kellogg Institute, November 1990, p. 3.

⁴ Robin Craig, *Steam tramps and cargo liners 1850-1950 (The ship, no. 5)* (London: HMSO, 1980), p. 51.

⁵ Jones, *Shipbuilding*, p. 55.

⁶ *Ibid.*, p. 54.

⁷ Sturmeay, *British Shipping*, p. 87.

⁸ Ware, 'In search of subsidy', p. 169.

governments to shipping. The Chamber of Shipping was immensely concerned that the tramp-shipping industry could deteriorate to such an extent that tramp operators would fail to replace the scrapped vessels.⁹ The tramp-shipowners were particularly defensive and ‘tended to act’ with great independence, whilst politically ‘the government was reluctant to introduce a general subsidy.’¹⁰ However, the problems of shipping and shipbuilding did not arise in the 1930s; they were the product of capacity that arose from the rebuilding programmes that quickly developed in the immediate post-war years, the TFAs, and the slowdown in trade throughout the world during the 1920s, compounded by the increasing protectionism, of which even Britain was prepared to partake.¹¹ The problems increased during the early 1930s because of the decline in world trade and further strides made throughout Europe by the protectionist movement.¹² Despite Keynes’s opinion in the early 1920s that trade restrictions were unacceptable even though other Europeans pursued such policies, his attitude mellowed as he focussed on reducing unemployment and stimulating investment during the depression.¹³ By October 1933, pressure was mounting for the British government to assist the tramp sector to deal with unfair competition. This led to the BSAA.¹⁴ Whilst the BSAA went some way to assist the mercantile trade, Britain remained at the lower end of recipients of state intervention compared to many overseas nations.¹⁵

The decline in shipbuilding orders and the establishment of NSS in the early 1930s created an uncertain environment whereby shipbuilders closed down in an attempt to rescue whatever was

⁹ R G Roberts, ‘The Board of Trade, 1925-1939’, Unpublished PhD thesis, Oxford University (1986), pp. 142-43.

¹⁰ Ware, ‘In search of subsidy’, p. 169.

¹¹ D H Aldcroft, *The British economy, Volume 1: The years of turmoil 1920–1951* (Brighton: Wheatsheaf, 1986), p. 125.

¹² Roberts, ‘The Board’, p. 138.

¹³ Barry J Eichengreen, ‘Keynes and protection’, *Journal of Economic History*, vol. 44, no. 2 (June 1984), pp. 364-65.

¹⁴ Roberts, ‘The Board’, p. 143.

¹⁵ S Tolliday, *Business, Banking and Politics, The case of British Steel, 1918–1939* (Cambridge, Massachusetts: Harvard University Press, 1987), p. 285.

available for creditors. The problems within shipbuilding extended to shipping and the tramp fleet, and difficulties associated with the BSAA.¹⁶ The legislation was intended to assist the tramp-shipping industry in facing up to overseas competition. This chapter will attempt to demonstrate the efforts taken by the British government to ensure that Britain remained the main maritime force in the world.¹⁷

Slaven has stated that management's attitude allowed the marine industries to reject growth and seek a more stable mentality during the 1930s. However, given the conditions, the options that were available to shipowners and shipbuilders were stark.¹⁸ Just as in the steel industry, client-consumer links constrained strategic options between the steel industry and shipbuilders; the close relationships were ever more obvious between the shipbuilders and their customer base. According to Slaven, nineteen shipping companies ordered one third of total British tonnage during the interwar period. Slaven has identified that the largest British shipbuilders sold half of their overall output to no more than a dozen British operators, and believes that this arose because a structural symbiotic relationship developed between British shipbuilders and shippers from the mid-nineteenth century. In the interwar period, the shipbuilders had no inclination to seek new orders outside their customary home markets.¹⁹ Government did not embrace the ideology of assistance to shipbuilders and shipowners.²⁰ It was only natural that governments should foster national maritime industries after the experiences of the First World War. Consequently, foreign shipbuilders benefitted from subsidy at the British operators' expense.²¹ Britain's maritime register reveals that, in 1914, there were 2,868 tramp vessels totalling 10.2 mgt, while foreign vessels totalled 3,298 vessels with 10.6 mgt. By 1933, Britain's tramp

¹⁶ Stevenson and Cook, *The slump*, p. 12

¹⁷ Ware, 'In search of subsidy', pp. 167-93.

¹⁸ Sturme, *British Shipping*, p. 108.

¹⁹ Tolliday, *Business*, p. 164.

²⁰ Slaven, 'Management Policy', in Walker and Slaven (eds.), *European Shipbuilding*, p. 80.

²¹ Aldcroft, *The interwar*, p. 166.

fleet fell to 1,372 vessels with a tonnage of 4.9 mgt compared to an overseas fleet totalling 4,198 vessels with a tonnage of 13.9 mgt.²² By March 1933, a precarious position existed as 28 percent of the world's tramp tonnage was laid up. This amounted to twice the size of British merchant tonnage.²³ The tramp shipping's weakened performance was evident from company results in the depressed international freight markets and the shipping companies' balance sheets: freight rates fell from an index of 100 in 1929 to 76.28 by 1935, and even lower during 1932–33. The freights in the liner trade were relatively higher due to the Conference System, although many liners were experiencing difficulties over available credit facilities. Certain companies only survived by amalgamation.²⁴

The BSAA provided a necessary short-term subsidy to shipowners and a scrap-and-build scheme for shipbuilders during 1935.²⁵ This proposal by the Board of Trade would be conditional upon a 'measure of organisation' that held as its ultimate objectives collaboration with foreign shipowners and the elimination of redundant tonnage.²⁶ In return for scrapping obsolete ships, the government proposed loans on terms that were beneficial to the cargo vessel owners.²⁷ Lorenz states that the protectionist strategies of overseas governments left the British government no alternative but to resort to similar tactics in the shape of the BSAA. 'Supply side factors also contributed to Britain's declining market share during the interwar period, particularly during the post 1935 boom, as shortages of manpower and materials in Britain led to the placement of orders abroad and a loss of export markets.'²⁸

²² Ware, 'In search of subsidy', p. 167.

²³ Ibid.

²⁴ Pollard, *Development*, p. 95.

²⁵ Dougan, *The shipwrights*, p. 245.

²⁶ NA, CAB/24/255, Statement by His Majesty's Government on Certain Proposals submitted to them by Lloyd George, 11 July 1935, p. 21.

²⁷ Ibid.

²⁸ Edward H Lorenz, *Towards a theory of British economic decline*, p. 4.

Throughout the 1930s, British-owned tramps suffered decline, which unlike the liner trade, according to Sturmeý, were unable to survive without assistance.²⁹ Though dependent on state assistance during the 1930s, as Ware states, the tramp-shipping trade was ‘far from being inefficient, politically inept, and divided.’³⁰

Baldwin’s government introduced the BSAA and provided for a subsidy of £2 million.³¹ The facility existed during 1935 and 1936, but was withdrawn in 1937 because freight rates increased.³² However, it was then necessary to reintroduce subsidies on a much larger scale during the next recession from 1938.³³ The government also made £10 million available at special rates for a scrap-and-build scheme representing the estimated deficiency in the depreciation allocations of the tramp fleet during 1930 to 1935.³⁴ The scheme proposed eliminating 2 tons for every ton built.³⁵ Government projected 600,000 grt in construction to replace 1.2 mgrt in obsolete ships.³⁶ The main benefactors of these statutory measures were the shipbuilders based on the North-East Coast of England.³⁷ Sir Walter Runciman, President of the Board of Trade and a Liberal National, had hoped that these steps would make foreign powers refrain from subsidising their own shipping lines.³⁸ With a background in the shipping industry, President of the Board of Trade was not a new role to Runciman, having previously acted as such in the Liberal Governments during 1908–11 and 1914–16.³⁹ An ‘old style liberal’, Runciman’s instincts were against state intervention, and he ‘objected on grounds of principle

²⁹ Sturmeý, *British Shipping*, p. 87.

³⁰ Ware, ‘In search of subsidy’, p. 168.

³¹ Parkinson, ‘Shipbuilding’, p. 94.

³² Sturmeý, *British Shipping*, p. 110.

³³ Harry Ward Richardson, *Economic Recovery in Britain, 1932-9* (London: Weidenfeld & Nicolson, 1967), p. 229.

³⁴ NA, CAB/24/251, Memorandum by the President of the Board of Trade, The British mercantile marine, Draft British Shipping (Assistance) Bill, 26 November 1934, p. 1.

³⁵ Jones, *Shipbuilding*, p. 110.

³⁶ Sturmeý, *British Shipping*, p. 109.

³⁷ Dougan, *The History*, p. 169.

³⁸ NA, CAB/24/251, Memorandum by the President of the Board of Trade, 26 November 1934, p. 1.

³⁹ Roberts, ‘The Board’, p. 106.

to subsidies and legislation', though during his third term of office, he tempered his objections in view of the economic climate.⁴⁰

Colby claimed that the BSAA ended the free trade era of British shipping. He believed its causes sprung from the War, when belligerent powers subordinated manufacturing and trade to war. Trading partners who had previously received commercial consideration sought assistance in supplying goods wherever available. From 1918, Britain and other combatant powers failed to recover their prior markets.⁴¹ The BSAA was a tentative protectionist step to assist British trading, albeit for a limited period only.⁴² These statutory measures acted as a catalyst for cooperation with other European trading nations in the abolition of protectionist policies. As world trade slumped in the early 1930s, economic nationalism and bilateral agreements were the 'order of the day', if not in Britain, then certainly for its near neighbours.⁴³ Britain had moved from the *Belle Époque* of free trade prior to the War, to an era when tariffs and state assistance were the only methods of survival.⁴⁴ Thus, in the following decade, Keynes saw the role of protectionist policies as short-term in the hope of reducing unemployment.⁴⁵

By 1931, the City of London lost its global supremacy and by 1933 at the World Economic Conference, Britain no longer sought world leadership and preferred the position of managing and developing her colonial interests.⁴⁶ In addition, supervising sterling brought a heavy burden.⁴⁷ The recovery in sterling began in early 1932 with a growth in belief that the Bank of England would meet its commitment to enable its payments under the 1931 summer credits without resorting to its gold stock. Britain at this stage turned her back on the 'free trade'

⁴⁰ Ibid., p. 107.

⁴¹ Charles C Colby, 'Regional Aspects of World Recovery', *Annals of the American Academy of Political and Social Science*, vol. 218, (1941), p. 141.

⁴² 'More merchant shipbuilding.' *The Times*, 15 January 1936, p. 13, Issue 47272.

⁴³ Colby, 'Regional', p. 145.

⁴⁴ Skidelsky, *Politicians*, p. 227.

⁴⁵ Eichengreen, 'Keynes', p. 366.

⁴⁶ Pollard, *Peaceful*, p. 285

⁴⁷ Charles Poor Kindleberger, *The world in depression 1929-1939* (London: Penguin, 1973), p. 297.

movement and introduced the Import Duties Act in February 1932.⁴⁸ Keynes, for one, found the statute distasteful and ‘a first class curse.’⁴⁹ The availability of cheap money was a major factor that led to a return to prosperity during the 1930s and assisted a mass-market in house construction as the British economy rallied to overcome its difficulties.⁵⁰ The strategy, which arose from tariff barriers, was a ‘highly persuasive’ mechanism that enabled Britain to correct her trading position, despite providing a lifeline for ‘inefficient producers.’ While tariffs aided Britain’s iron and steel industries to recover and prepared them for rearmament, it did retard ‘voluntary reforms.’⁵¹ By 1934, depreciation following Britain’s abandonment of the Gold Standard in late 1931 and cheap money created conditions for a recovery that was strongest in electrical engineering, vehicle manufacturing, and private house building.⁵² Unemployment remained high in the staple industries.⁵³ The steel industry benefitted from the Import Duty Act of 1932 and the European Steel Cartel of 1935.⁵⁴ The British Iron and Steel Federation (BISF) was created with the industry’s support of the British government and a branch network of autonomous associations, all of whom became affiliates to the BISF. The BISF was empowered to effect collective negotiations regarding general policy including negotiations with the cartels in France, Belgium, Luxembourg and Germany.⁵⁵ Given the events of 1931, the British economy recovered from the world depression more quickly than most.⁵⁶

The British government assisted shipping and associated industries alongside efforts to bring commercial cooperation in order to establish a ‘level playing field’ with its trading partners.

⁴⁸ Constantine, *Unemployment*, p. 71.

⁴⁹ Kindleberger, *The world*, p. 180; Eichengreen, ‘Keynes’, p. 367.

⁵⁰ Kindleberger, *The world*, 181.

⁵¹ Raymond Gram Swing, ‘British experiments in state intervention’, *Foreign Affairs*, vol. 15, no. 1 (1937), 296-97.

⁵² Broadberry, *The British economy*, p. 6.

⁵³ Kindleberger, *The world*, p. 243; H Jaeger, ‘Business in the Great Depression’ in *The Great Depression, revisited essays on the Economics of the Thirties*, ed. H V D Wee (The Hague: Nijhoff, 1972), p. 138; A Maddison, *The World Economy, A Millennial Perspective* (Paris: Development Centre of the OECD, 2001), p. 101.

⁵⁴ Kindleberger, *The world*, p. 244.

⁵⁵ Swing, ‘British experiments’, 297.

⁵⁶ Maddison, *The World Economy*, p 102.

This was to no avail for shipping.⁵⁷ Dewey doubted that an operating subsidy to tramp-shipping and the scrap-and-build scheme did much to discourage overseas competition from seeking state assistance. If anything, it compounded the difficulties, as the Japanese government introduced a scrap-and-build scheme in 1935.⁵⁸ European governments, most notably Germany, France and Italy, regularly provided subsidies to their home industries, particularly shipbuilding because of its depressed state as well as its military strategic significance, and were unlikely to withdraw such support.⁵⁹ During the 1930s, Italian vessels benefitted most from state assistance, which totalled approximately £3,500 per vessel of 8,000 grt.⁶⁰

Specific measures for tramp-shipping raised complaints of favouritism from the British Chamber of Shipping and the Liverpool Steam Ship Owners' Association.⁶¹ Isserlis found it difficult to distinguish between a tramp ship and a cargo liner. More often than not, tramp vessels and cargo liners competed on a direct basis and because the tramp trade received assistance, this would be very much at the liners' expense. Cargo-shipowners believed that if tramp-shipping received assistance, then so should the liner trade.⁶²

The early 1930s experienced a low replacement of shipping because of poor profitability. The tramp-shipping industry had experienced 'five years of ruinous freights' and was almost depleted.⁶³ Within Britain, investment in shipping affected the shipbuilding industry, offering an opportunity to Belgium, the Netherlands and Germany to strengthen their shipping operations. However, preferential government treatment was justified on grounds that tramp-shipowners did not enjoy the prosperity of the liner trade. In the event that Britain was to

⁵⁷ Dougan, *The shipwrights*, p. 252.

⁵⁸ Sturmey, *British Shipping*, p. 108.

⁵⁹ Ralph L Dewey, 'The Merchant Marine Act of 1936', *American Economic Review*, vol. 27, no. 2 (1937), p. 251.

⁶⁰ Ware, 'In search of subsidy', p. 168.

⁶¹ *Ibid.*

⁶² *Ibid.*, p. 173; Isserlis, 'Tramp Shipping', p. 60.

⁶³ Gripaios H, *Tramp shipping* (London: Thomas Nelson and Sons Ltd, 1959), p. 3.

compete in international markets, Runciman believed that Britain ‘must use the same weapons as were used against us.’ During 1935–36, the government allocated conditional assistance to ‘those who performed the very necessary industrial duties for the benefit of the country.’ Runciman deemed it essential that the industry should rid itself of internal competition and minimise freights, using the subsidy to achieve this end.⁶⁴

The dilemma facing government

By 1934, shipbuilding was beginning to recover despite being slow to adjust to ‘rapid economic change.’ In the post-war period, successive governments sought to restore the economic framework that had prevailed in 1913, not recognising the irreversibility of change. The economic cycle of the 1930s encouraged British shipbuilders to remain labour intensive, with sharp reductions in the workforce during downswings.⁶⁵

In autumn 1931, the national government abandoned the gold standard.⁶⁶ Consequently, government moved in a protectionist direction, imposing the Import Duty Act in 1932 particularly to safeguard British jobs, as a short-term attempt to boost economic recovery.⁶⁷ At this time, Keynes advocated tariffs for the iron and steel industry, motor cars and agriculture. Though he recognised that protection was ‘crude and dubious’, it was a mechanism that could redirect market forces. Whilst accepting the benefits derived from tariffs in relation to economic planning and unemployment, Keynes saw straightforward protection as an ill to eradicate.⁶⁸ Despite economic signs indicating that the British economy was improving, serious difficulties remained.⁶⁹ In comparison to the pre-war years, turnover within the shipbuilding industry was weak but, compared to the previous three years, the conditions were much

⁶⁴ ‘The shipbuilding centres, North East coast’, p. 183.

⁶⁵ Edward H Lorenz, *Towards a theory of British economic decline*, p.10.

⁶⁶ Donald Edward Moggridge, *British Monetary Policy 1924-1931, The Norman Conquest of \$4.86* (Cambridge: University Press, 1972), p. 2.

⁶⁷ Broadberry, *The British economy*, p. 20.

⁶⁸ Eichengreen, ‘Keynes’, p. 372.

⁶⁹ Roberts, ‘The Board’, p. 83.

improved.⁷⁰ On 30 September 1934, in relation to those ships of 100 grt and over, 48 merchant ships totalling 290,841 grt were under construction on the Clyde, whereas Tyneside was working on 10 ships totalling 61,430 grt.⁷¹

Table 6.0: Estimated numbers of insured persons in the shipbuilding and ship-repairing and marine engineering industries⁷²

| Region | Shipbuilding and ship repairing | | Marine engineering | |
|--------|---------------------------------|--------------|--------------------|--------------|
| | At July 1928 | At July 1933 | At July 1928 | At July 1933 |
| Clyde | 45,410 | 35,070 | 17,440 | 12,910 |
| Tyne | 29,550 | 24,940 | 10,120 | 9,160 |
| Wear | 11,250 | 8,170 | 3,600 | 2,770 |

The Report of the Special Committee of the Chamber of Shipping on Tramp-shipping, presented to the Board of Trade during 1933, indicated that British tramp-shipping was on the edge of bankruptcy. The British shipbuilding and shipping industries still required assistance, beyond the remedy that NSS offered.⁷³ Banks and shipbuilders were deeply involved in shipping. Nearly 23 percent of British tramp tonnage was laid up and that which was running was unable to earn depreciation to replace obsolete ships.⁷⁴ The Special Committee recommended a temporary subsidy so that British tramp-shipping could compete with foreign shipping, which enjoyed subsidies and lower labour costs. The government thus established a Cabinet Committee on the British mercantile marine. However, Runciman, the Committee's chairman, believed that subsidies would risk an international auction and requests for assistance from other domestic industries. He ruled out a return to the TFA, which had assisted

⁷⁰ Sir J Stamp and Maynard J Keynes, 'Unemployment', *The Listener*, 26 February 1930, p. 361, Issue 59.

⁷¹ HOCD, Shipbuilding, 1 November 1934, vol. 293, c375W.

⁷² HOCD, *Unemployment (Statistics)*, 23 February 1934, vol. 286, cc645-6W.

⁷³ Parkinson, 'Shipbuilding', p. 97.

⁷⁴ Johnman and Murphy, *British Shipbuilding*, p. 47.

shipbuilding to the disadvantage of the shipping industry.⁷⁵ True to his *laissez-faire* instincts, Runciman opposed funds to complete the *RMS Queen Mary*, and firmly believed that after help for one class of ship, ‘a precedent would be established to help them all.’⁷⁶ The Board of Trade considered the tanker tonnage position to be satisfactory and without need for further assistance. On cargo liners, the Board of Trade had in 1932 reviewed the financial position of thirty typical British companies, concluding that most liner companies were profitable, their values averaging £12.5 per grt, with dividends paid. However, tramp values in 1932 averaged £7.8 per grt, in other words about scrap value, or very little more. The Committee considered two possibilities: granting a temporary subsidy for tramp-owners, and a possible scrapping scheme, on the model adopted in Japan.⁷⁷ Tanker companies received no assistance, whilst the Conference system protected cargo liner companies.⁷⁸

The government was prepared to assist if shipowners formulated a satisfactory scheme with minimal disruptive competition between British tramp ships and cargo liners.⁷⁹ This ensured the employment of British tramp-shipping at the expense of foreign subsidised shipping.⁸⁰ Runciman also hoped that British shipping companies would ‘press upon the shipowners in other maritime countries’ the need to match demand and supply and raise freight rates once again to acceptable levels.⁸¹

In a report presented to the Commons on 23 November 1933, the Tramp-shipping Committee wanted a ‘stable and permanent cure’ so that the British tramp trade could return to its former dominant position. In the ensuing debate, Colonel Ropner, a leading British tramp owner and

⁷⁵ Ibid.

⁷⁶ Roberts, ‘The Board’, p. 144.

⁷⁷ Hope, *A new history*, p. 367.

⁷⁸ Johnman and Murphy, *British Shipbuilding*, p. 48.

⁷⁹ Sturmeay, *British Shipping*, p. 110.

⁸⁰ NA, CAB/24/251, Memorandum by the President of the Board of Trade, 26 November 1934, p. 6.

⁸¹ Ibid.

Conservative Member of Parliament representing Barkston Ash, stated that the problems of the British shipping industry arose from 'the low level of world trade, excess of world tonnage and the diminution of Britain's share of world trade.'⁸² In response to state subsidies to European neighbours, Ropner believed in a short-term policy of subsidy. In response, Runciman would overturn Britain's established principles of free trade if it furthered national commercial interests. These discussions continued well into 1934 and the government's proposals heralded a radical change in British navigation policy.⁸³

As a member of the coalition government, Runciman was prepared to support the tramp-subsidy if the funds were not wasted. The government would assist the tramp sector in the hope that the introduction of such measures would discourage European powers from subsidising their shipping fleets.⁸⁴ Faced with subsidised foreign vessels, British shipowners were less able or willing to provide funds in a high-cost market to compete with overseas operators. British shipyards also suffered as foreign owners placed orders in home yards to benefit from lower costs and greater financial incentives. Throughout the 1930s, such nationalistic shipping policies damaged British exports.⁸⁵ Runciman recognised the need to introduce further facilities in an attempt to provide assistance for building new ships or modernising existing ones.⁸⁶

Falling freights and increased competition compounded the tramp-shipping industry's difficulties.⁸⁷ Taking 1923 as having an index of 100, by August 1933 freights had fallen to

⁸² Davies, *Belief*, p. 121.

⁸³ *Ibid.*

⁸⁴ Sturmey, *British Shipping*, pp. 110-11.

⁸⁵ Aldcroft, *The interwar*, pp. 166-67.

⁸⁶ Sturmey, *British Shipping*, p. 109.

⁸⁷ Grove, *Government*, p. 46.

62, and costs were about 60 percent above those prevailing during 1914. Tonnage within the tramping sector thus significantly exceeded the figure required.

During 1934, the Board of Trade sought detailed information on the British mercantile marine's relative position from tramp-shipowners, the Chamber of Shipping, and the Liverpool Steam Ship Owners' Association. Most shipping operators were happy to communicate such evidence to government through their trade associations, the Chamber of Shipping representing all types of shipping on all routes, and the Liverpool Steam Ship Owners' Association mainly acting for the liners; and of course, there were independent operators who were sufficiently large to command direct access at government level.⁸⁸

Table 6.1: Working of the proposed strategy of amount of subsidy payable

| Index representing average level of freight rates during subsidy year (1929=100) | Limit of amount of subsidy payable |
|---|---|
| 100 and above | Nil |
| 99 | £250,000 |
| 98 | £500,000 |
| 97 | £750,000 |
| 96 | £1,000,000 |
| 95 | £1,250,000 |
| 94 | £1,500,000 |
| 93 | £1,750,000 |
| 92 and under | £2,000,000 |

⁸⁸ Roberts, 'The Board', p. 106.

Rather than outright rejection, Runciman could postpone subsidy as a policy option. He believed it unacceptable to subsidise tramp-shipping, but deny such subsidy to cargo liners.⁸⁹ Whilst eventually the Chamber sought a flat-rate subsidy to all tramp ships on a tonnage per mile basis, Runciman was inclined to introduce a scheme of focussing attention on foreign subsidised shipping on specific routes, since he believed that such action would force foreign governments to abandon their subsidies when faced by economic retaliation.⁹⁰ From a review of the tramp-shipping industry, it was apparent that the sector was in a parlous state. Runciman perceived only one solution whereby the tramp industry could avoid a collapse within the freight market: a scrap-and-build scheme, which would enable tramp-owners within a five- to seven-year timescale to replace their fleets via government financial assistance.⁹¹ The government hoped that approximately 120 modern ships would replace between 350 and 400 out-of-date tramp vessels, at a time when prices were advantageously low at £10 per ton.⁹²

By early 1935, Runciman admitted that his strategy of pressing states to modify or end their subsidies had not met success. 'I regret to say that those negotiations had no effect,' he said, pointing out that they 'show very little more desire to abolish or in any way abate their subsidies.'⁹³ Runciman's dilemma was how to assist the tramp-shipping industry without 'disfranchising the rest of the shipping industry.'⁹⁴ The solutions for the shipping industry confronting Runciman were now as follows:

- a.) to revive trade levels and increase the demand for British shipping;

⁸⁹ Ibid., p. 140.

⁹⁰ Ibid., p. 158.

⁹¹ Hogwood, *Government*, p. 36.

⁹² Johnman and Murphy, *British Shipbuilding*, p. 50.

⁹³ *HOLD, British Shipping (Assistance) Bill, 12 February 1935 vol. 95 cc869-71.*

⁹⁴ Ware, 'In search of subsidy', p. 180.

- b.) to reduce shipping capacity and raise freight rates at a constant level of trade; and
- c.) for the British government to subsidise shipping in line with foreign governments.

Despite this, Runciman continued to oppose subsidies to the shipping industry, as he believed that it failed to provide a long-term solution to the industry's overcapacity and depressed trade. Any attempt by the government to buy the industry's way out of its difficulties was 'wasteful.' Despite the government's efforts to put a subsidy in place, Runciman continued to pursue alternatives, including an approach to the International Chamber of Shipping to put pressure on foreign governments to curtail subsidies. In addition, Runciman sought to introduce a 'scrap-and-build' scheme. The proposed scheme would assist the shipping industry and provide much-needed work for shipbuilders and the steel industry.⁹⁵

The impact of government strategy

According to Aldcroft, the government's only tenable option if it wished to support the maritime industries was to introduce statutory measures, not just relating to the shipowners themselves, but also to the shipbuilders, to stimulate the order books within domestic shipyards.⁹⁶ With effect from 1933, the government was considering special loans or subsidies and, despite the Cabinet's approval, the proposals for a subsidy and the scrap-and-build scheme did not materialise until 1935.⁹⁷ Though Runciman announced this in the House of Commons on 3 July 1934, it took until spring 1935 to promulgate the necessary legislation. Administered by the Tramp-shipping Administration Committee (TSAC), the scheme intended to ensure cooperation within the British tramp-shipping sector.⁹⁸ Acknowledging a need for a defensive interim subsidy for tramp-shipping, the British government unsuccessfully sought to open

⁹⁵ Roberts, 'The Board', pp. 145-46.

⁹⁶ Aldcroft, *The British Economy*, p. 126.

⁹⁷ Ware, 'In search of subsidy', p. 184.

⁹⁸ NA, CAB/24/251, Part II, Organisation of the Industry, Memorandum explaining the Constitution and Functions of the TSAC and Sub-Committees to be set up by the Shipowners, November 1934, p. 2.

negotiations with the other major powers, with a view to removing subsidies, as British shipping owners continued to place orders overseas and enjoy the benefits of foreign subsidies.⁹⁹ Whilst by 18 April 1934, there was approaching 480,000 grt under construction in British shipyards, feelings were strong that sufficient effort was not being committed towards the restoration of shipping and shipbuilding within Britain. Lord Strabolgi stated that promises had been given during the latter part of 1933 by Runciman that the government was examining ways in which action could be taken to retaliate against unfair competition by 'foreign shipowners, assisted in many cases by their own governments.'¹⁰⁰

The BSAA comprised two parts. Part One made a subsidy available to owners of vessels registered at British ports that competed with foreign vessels receiving subsidies from foreign governments.¹⁰¹ Reporting to the Treasury, the TSAC strictly monitored the campaign. The subsidy was payable for tramp voyages undertaken during 1935. Subsidies were not to exceed £2 million and were subject to a reduction if the average freight for 1935 proved to be higher than 92 percent of the 1929 average.¹⁰² Subsidies were not available for any voyages within Britain, the Irish Free State, Isle of Man, or the Channel Islands.¹⁰³

The second part of the Act pertained to the scrap-and-build scheme, as subsidies would discourage scrapping.¹⁰⁴ Such proposals would require Treasury consent even though the programme was under the control of the Ship Replacement Committee (SRC). The scheme required the scrapping of 2 tons for every new ton constructed. Furthermore, the vessels had to be demolished within Britain.¹⁰⁵ The scheme was not to exceed £10 million.¹⁰⁶ A first

⁹⁹ Pollard, *Development*, p. 72.

¹⁰⁰ HOLD, *Shipping*, 18 April 1934, vol. 91, cc648-55.

¹⁰¹ Aldcroft, *The interwar*, p. 168.

¹⁰² Sturmev, *British Shipping*, p. 110; 'A shock for British shipping', *The Economist*, 18 April 1936, p. 123, Issue 4834.

¹⁰³ Davies, *Belief*, p. 123.

¹⁰⁴ Pollard, *Development*, p. 72.

¹⁰⁵ Aldcroft, *The interwar*, p. 226; Swing, 'British experiments', p. 300.

¹⁰⁶ Parkinson, 'Shipbuilding', p. 94.

mortgage on the new vessels provided security, and any amounts owing under the proposed construction programme would bear interest at a rate not exceeding 3 percent per annum, repayable over a period not exceeding 12 years.¹⁰⁷ According to Sturmeý, the ‘scrapping provisions were a farce’ and did little to encourage British owners to take ‘the opportunity to improve their fleets at the low interest rates at which money could be obtained.’¹⁰⁸ However, by 25 July 1935, Runciman advised that the SRC had given approval to build thirteen ships under the BSAA, and shipbuilders on the North-East Coast of England would construct ten of these vessels.¹⁰⁹ David Gilbert Logan, MP for Liverpool, felt that Merseyside should at least receive some of these shipbuilding contracts.¹¹⁰ Following the introduction of the BSAA, concern quickly arose that firms on the West of Scotland were not receiving their share of tramp-shipbuilding contracts, and David Kirkwood MP even raised the issue that the interests of Scotland ‘are not so well looked after in the cabinet’ compared to other areas in Britain.¹¹¹ At the end of the year, Runciman advised Parliament that 24 orders had been placed for shipping under the scrap-and-build provisions of the BSAA, and that orders for three vessels had been placed in Glasgow, while seventeen orders had been placed on the North-East Coast of England.¹¹²

The TSAC oversaw cooperation between domestic competitors, improving freight rates and conditions and promoting British tramp-shipping against its foreign competitors.¹¹³ The TSAC sought to organise tramp-shipowners by raising freight rates to a profitable level; to encourage cooperation between tramp and cargo liner owners to maintain and improve rates; and to

¹⁰⁷ Davies, *Belief*, pp. 123 and 124.

¹⁰⁸ Sturmeý, *British Shipping*, p. 109.

¹⁰⁹ HOCD, Shipping Industry (Assistance), 25 July 1935, vol. 304, cc 2006-8. This was despite the fact that it had already been reported that 24 applications ‘covering proposals to build 36 vessels aggregating 123,000 tons gross’ had been received. ‘Shipping Assistance’, *Sunderland Echo and Shipping Gazette*, 25 June 1935, p. 1.

¹¹⁰ HOCD, Shipping Industry (Assistance), 25 July 1935, vol. 304, cc 2006-8.

¹¹¹ *Ibid.*

¹¹² HOCD, Shipping (Scrapping and Rebuilding), 5 December 1935, vol. 307, c 309w.

¹¹³ NA, CAB/24/251, Part II, Organisation of the Industry, November 1934, p. 2; Sturmeý, *British Shipping*, p. 110.

encourage free trade in world shipping.¹¹⁴ In effect, the TSAC sought to prevent any wastage in subsidy and to reduce competition between British tramp-shipowners.¹¹⁵ Whilst the British government sought international cooperation to create a level playing field, the economic climate had rendered this impossible.¹¹⁶

When the TSAC first reported to Runciman on 25 July 1935, it identified 'trading conditions so adverse' that immediate action was necessary 'to avoid disaster', proposing a minimum freight scheme for trade from the River Plate, together with schemes for the St Lawrence in Canada, and Australian trades.¹¹⁷ It also observed that its minimum freight scheme would prevent subsidised foreign ships undercutting British ships.¹¹⁸ The TSAC maintained that the actions taken during its first six months saved the British tramp-shipping industry, preventing a 'large transfer of British ships to foreign flags.'¹¹⁹

On 25 January 1936, the TSAC's second six-monthly report revealed that while world trade had improved since 1929, oversupply continued. Though the subsidy had not had time to take full effect, many more ships were now operating successfully under the minimum freight schemes. At the end of 1935, the government extended the Act for twelve months with a further subsidy of £2 million on the same basis as before. Whilst in 1935 the need for a subsidy apparently remained, the Labour opposition was critical of the regulation within the industry, particularly as shipping groups privately owned by ministers including Runciman had received substantial payment subsidies.¹²⁰ Sir Benjamin Smith, a Labour Party politician, was particularly vocal in Parliament when highlighting that the Member for Barkston Ash as well

¹¹⁴ NA, CAB/24/251, Part II, Organisation of the Industry, November 1934, p. 3.

¹¹⁵ Aldcroft, *The British Economy*, p. 126.

¹¹⁶ Sturmey, *British Shipping*, p. 110.

¹¹⁷ *Ibid.*, p. 111.

¹¹⁸ Pollard, *Development*, p. 95.

¹¹⁹ *Ibid.*, p. 94; Davies, *Belief*, p. 124.

¹²⁰ Davies, *Belief*, pp. 124-25.

as the President of the Board of Trade would benefit from receipt of ‘26 percent of the total subsidy to shipping companies on the North-East coast alone.’¹²¹

Whether due to the general recovery in trade or to the BSAA, the situation of tramp-shipping improved. This was evident from late summer 1935. Reports had revealed a ‘big decrease in the number of ships laid up on the River Tyne.’ A few years earlier, it was difficult to see the river for the number of vessels that were laid up. Whilst a number of vessels had transferred to the shipbreaker’s yard, a great many had gone into commission.¹²² By June 1936, British shipping laid up in UK ports amounted to only 60,000 grt compared to 3.5 mgt in June 1932. Furthermore, unemployment decreased and the government emphasised the extent of freight cooperation achieved between British and foreign shipowners, which had led to the trade recovery, if only for a short while.¹²³

Table 6.2: Vessels laid up during 1933, 1935 and 1936¹²⁴

| Date | All types of ships | | Foreign-going tramp ships | |
|----------------|--------------------|---------------|---------------------------|---------------|
| | No. of vessels | Gross tonnage | No. of vessels | Gross tonnage |
| 1 July 1933 | 788 | 3,207,000 | - | - |
| 1 July 1935 | 244 | 963,000 | 71 | 217,000 |
| 1 July 1936 | 179 | 758,000 | 39 | 122,000 |
| 1 October 1936 | 161 | 629,000 | 19 | 57,000 |

¹²¹ HOCD, British Shipping (Continuance of Subsidy) Bill, 19 March 1936, vol. 310, cc745-69

¹²² ‘Fewer laid-up Tyne ships, As prosperity pointer’, *Shields Gazette*, 12 September 1935, p. 8.

¹²³ Mowat, *Britain*, p. 446.

¹²⁴ NA, CAB/24/264, Tramp Shipping Subsidy, Memorandum by the President of the Board of Trade, 30 October 1936, Annex I.

Even six years since the crash, both shipbuilding and shipping still had some ground to recover. The TSAC's fourth report suggested that there was still much to do to sustain the mercantile marine's recovery. In the government's eyes, the tramp-shipping industry survival vindicated its policy; indeed, despite not achieving certain targets, the subsidy had provided a significant stimulus and had returned some companies to prosperity.¹²⁵

In 1936, the government extended the BSAA for a second time.¹²⁶ Whilst the proposals provided some protection, others sought greater measures to defend British shipping against foreign competition. However, even before the British Shipping (Continuance of Subsidy) Bill became law on 25 March 1937, Runciman believed that healthy freight rates in 1937 would render the tramp subsidy unnecessary, and the Act would fall from the statute books.¹²⁷ However, the recession of 1937 damaged merchant shipbuilding. During 1937, Britain's rearmament programme provided a degree of assistance at least to the shipbuilding industry. *The Economist* index of business activity fell by 10 percent between the summers of 1937 and 1938, unemployment rose by 30 percent in textiles, and coal suffered unemployment of 18 percent. Difficulties worsened within merchant shipbuilding, where merchant ships under construction decreased by as much as one third, although unemployment fell by 2 percent.¹²⁸ However, sympathy was limited: Arthur Greenwood MP, a prominent member of the Labour Party, believed that shipping companies had made handsome profits in the past, though had not used those profits wisely.¹²⁹

Due to the agreement between the Treasury and the Board of Trade, no subsidy was available for 1937.¹³⁰ The TSAC's final report revealed that the freight index figure had reached 135.7,

¹²⁵ Davies, *Belief*, pp.125-26.

¹²⁶ Swing, 'British experiments', p. 300.

¹²⁷ Richardson, *Economic Recovery in Britain*, pp. 228–29.

¹²⁸ *Ibid.*, p. 233.

¹²⁹ HOCD, Mercantile Marine Services, 8 July 1938, vol. 338, cc799-886.

¹³⁰ Sturmeay, *British Shipping*, p. 110.

well in excess of the 1929 level. The BSAA ceased during 1937.¹³¹ The TSAC stated that a myriad of factors had contributed to the recovery within the tramp-shipping industry: cooperation between the British tramp and liner owners; effective foreign support from Scandinavian and Dutch operators; the increase of freight rates; and the introduction of market confidence.¹³² However, according to Sturmeay, the main beneficiaries of the BSAA were the foreign owners of old depleted ships able to sell their ships at above scrap value to British owners.¹³³

Whilst providing a boost to shipbuilding, the scrap-and-build scheme did not match shipbuilders' expectations.¹³⁴ Though funding totalled £10 million, advances amounted to only £3,548,154. This produced 50 new vessels (186,000 grt) and the demolition of 97 vessels (386,625 grt). Parkinson argues that the increase in shipbuilding due specifically to the Act was probably only marginal.¹³⁵ According to the SRC report, in May 1937, the reason why the scheme proved unpopular was the scarcity of scrap tonnage, exacerbated by the SRC refusing to accept tonnage already decommissioned. Furthermore, the strong improvement in freights during autumn 1936 made scrapping virtually impossible, resulting in many abandoned proposals.¹³⁶

As war approached, scrap-and-build once again provoked disagreement between the Chamber of Shipping, the Liverpool Steam Ship Owners' Association, and the government.¹³⁷ Shipbuilders were not against state aid in principle, though they recognised that the greater the assistance, the greater the conditionality. Government departments would inevitably scrutinise recipients. Given that shipbuilders anticipated the continuing recovery, they took a minimal

¹³¹ Parkinson, 'Shipbuilding', p. 94.

¹³² Davies, *Belief*, pp. 126-27.

¹³³ Sturmeay, *British Shipping*, p. 109.

¹³⁴ Pollard, *Development*, pp. 71-72.

¹³⁵ Parkinson, 'Shipbuilding', p. 94.

¹³⁶ Davies, *Belief*, pp. 127-28.

¹³⁷ Roberts, 'The Board', p. 158.

part in the discussions for the BSAA. Rather than making explicit demands, the shipbuilders hoped to benefit from the agreement reached between the government and shipowners.¹³⁸ Shipowners were also concerned about the state aid. Tramp steamers received an operating subsidy under the BSAA partly because no other branch of the mercantile marine had specifically requested assistance. The liner trade feared retaliatory foreign subsidies. Within shipbuilding, most firms in the tramp and liner sectors were unenthusiastic about the scrap-and-build proposals, believing them to be little more than the TFA, though by another name. If the main shipping associations had had their way, the BSAA would have excluded the scrap-and-build scheme, which helps explain the limited take-up.¹³⁹ Conversely, both the Treasury and the Board of Trade believed that such assistance provided a lifeline to shipbuilding as well as shipping, and boosted British employment.¹⁴⁰

Freights peaked during September 1937 and fell for the next nine months. Unexpectedly, tramp freights fell to a level at which the full subsidy would have been payable under the now defunct BSAA.¹⁴¹ The BSAA was always likely to cause difficulties given that the direct subsidy to sailings discouraged sale for scrap. However, the government hoped that the BSAA-induced rationalisation would bring about modernisation and provide a secure basis for a sustained recovery.¹⁴²

With the exception of the BSAA, the shipbuilding industry did not benefit further from government assistance during the 1930s. Protectionism threatened to damage trade prospects. Deemed more important, the British mercantile marine position was beginning to cause concern to Whitehall. The import duties in 1932 signalled the end of the British government's axiomatic commitment to free international trade. Whilst tariffs disadvantaged competitors, they were by

¹³⁸ Aldcroft, *The British Economy*, p. 126.

¹³⁹ Greaves, *Industrial*, p. 226.

¹⁴⁰ Ware, 'In search of subsidy', p. 181.

¹⁴¹ Davies, *Belief*, p. 128.

¹⁴² Johnman and Murphy, *British Shipbuilding*, p. 52.

themselves inadequate to regenerate the economy without major industrial re-organisation. Nevertheless, Neville Chamberlain as Chancellor of the Exchequer hoped that tariffs as a protectionist policy would be the panacea 'for inducing' or 'forcing industry to set its house in order.' Both the Bank of England and certain Treasury officials were more pessimistic, seeing such duties explicitly as a stopgap that would hinder re-organisation. The next three years justified the Bank of England's pessimism. Its broad strategy in regional amalgamations depended on resolving conflicts of interest within the steel industry in favour of the most efficient producers. Yet by dealing with the industry as a whole, the Bank lent towards conciliation of all parties rather than re-organisation.¹⁴³ The government's overall global economic strategy had remained static during the early 1930s. Despite the failure of the World Monetary and Economic Conference in 1933, prompting fear of economic nationalism, the Board of Trade nevertheless sought to improve international trade and foster multilateral negotiations.¹⁴⁴

While the British fleet contracted during the early 1930s, certain foreign fleets grew because of subsidy.¹⁴⁵ As a large merchant navy was integral to British financial hegemony, no government could easily accept the relative and absolute decline in its maritime position.¹⁴⁶ The government found it difficult to boost confidence in shipping and shipbuilding. A special case existed for loan and subsidy help, but other arguments favoured caution, none more so than budgetary ones. Regardless of shipbuilding and shipping surviving in the main without assistance with the only protection coming from 'subventions', the Treasury wished to avoid a precedent for requests from other ailing industries. Furthermore, the potential claims that the shipping sector itself could make on the Exchequer were daunting. Despite losing ground, the

¹⁴³ Tolliday, *Business, Banking, and Politics*, p. 299.

¹⁴⁴ Roberts, 'The Board', pp. 84-85.

¹⁴⁵ Total steam and motor tonnage fell from 20.2 million tons in 1931 to 17.6 million tons in 1934.

¹⁴⁶ Greaves, *Industrial*, p. 225.

British mercantile marine was still the biggest in the world during the mid-1930s. Therefore, the government was able to defend making a special case for tramp-shipping and the construction of standard cargo vessels.¹⁴⁷ Lord Strabolgi believed that tramp steamers were the mainstay of the mercantile marine, although many of them were obsolete. However, he felt that it would be good policy to encourage or help in any way the shipowners in this country to scrap about two thirds of their existing fleets of cargo steamers and build modern replacements that were capable of competing for freights all over the world. Strabolgi hoped that this might be the first step in ‘encouraging the rebuilding of a great part of the British mercantile marine.’¹⁴⁸

Under the BSAA, the government intended that only British ships were available for scrapping or rebuilding projects. However, scrap prices per ton were higher on European markets. The sale of the steamships *Orient City* and *Francisco* to Italian breakers raised concerns. However, the TSAC sanctioned scrapping these two ships abroad after careful consideration and SRC recommendation. The ability to obtain permission to scrap vessels abroad clearly hinged on particular circumstances and tended to be the exception rather than the norm. Yet any insistence on demolition in Britain might have amounted to a disincentive to participate in the relatively unpopular scrap-and-build scheme.¹⁴⁹

The SRC rejected restrictions on the sale of British tramps for breaking up abroad, other than those contained within the BSAA. However, some MPs vocalised opposition since the Italian shipbreakers were paying higher prices for scrap, owing to the repression of labour, and subsidies to Italian shipping. Furthermore, British steel and iron works were paying a higher price for imported scrap than for British scrap giving rise to grievances among British

¹⁴⁷ Greaves, *Industrial*, pp. 225-26.

¹⁴⁸ HOLD, North Atlantic Shipping Bill, 22 March 1934, vol. 91, cc383-98

¹⁴⁹ HOCD, Obsolete British Ships (Sales Abroad), 07 June 1935, vol. 302 cc2182-4.

shipbreakers. When the BSAA received assent, concerns arose from within Parliament about the possibility of scrapping vessels abroad if it was impossible to secure adequate prices for scrapping in Britain. However, obtaining authority to scrap abroad was essential to securing higher prices and ensuring that all circumstances affecting the shipbuilding industry were considered.¹⁵⁰

Government, rather than the industry, wanted the scrap-and-build scheme as part of an assistance package. Given that an election was pending, the Cabinet had sought an aid package in an attempt to boost shipyard activity. The scrap-and-build scheme benefitted the industry with minimal impact upon government resources. The loans provided under the scheme were neither particularly onerous, nor unpalatable to Runciman.¹⁵¹ Given the previous attitude of shipowners, there were doubts about the take-up rate. No one envisaged such poor take-up in 1935–36 despite the scheme coinciding with the revival in world trade. This, together with the reduction of the world fleet, pushed freights up. Due to the change in trading conditions, even inefficient vessels operated at a profit.¹⁵² This was the case even though nothing in the structure of the British tramp fleet suggested that improvements were desirable.¹⁵³ Only six of the ninety-seven vessels demolished actually belonged to those companies that applied. As a degree of prosperity returned, shipowners found it easier to obtain funding from other sources for shipbuilding.¹⁵⁴

The BSAA clearly failed to be the panacea that the government had hoped it would be.¹⁵⁵ However, by 1936–37, shipping was achieving optimum employment, and gross tonnage under construction in British yards had passed 1.0 mgt for the first time since 1930. The tramp

¹⁵⁰ Ibid.

¹⁵¹ Greaves, *Industrial*, p. 226.

¹⁵² Aldcroft, *The British Economy*, p. 126.

¹⁵³ Sturmey, *British Shipping*, p. 109.

¹⁵⁴ Greaves, *Industrial*, p. 227.

¹⁵⁵ HOLD, British Shipping (Continuance of Subsidy) Bill, 9 March 1937, vol. 104, cc562-80.

subsidy ended in 1937. Yet no sooner had the statutory measures ended when shipping and shipbuilding once again faced a further recession.¹⁵⁶ This began in 1937, although halted in 1938 and was not as widespread as before. Whilst export industries suffered, shipbuilding did not suffer as badly owing to the industry's 'long gestation' period as well as rearmament.¹⁵⁷ The recovery from the second recession arose in heavy industry and the 'rapidly expanding export demand' of British products.¹⁵⁸

The BSAA was ill timed: it was introduced during an upswing and terminated in a downswing. The two parts of the Act tended to negate one another. Had the measures been introduced under the BSAA three years earlier, there might have been advantages from the prevailing low freight rates and depressed shipbuilding conditions. However, by 1935–36, trade was improving and freight rates were increasing significantly by autumn 1936. Despite freight rates recovering throughout 1936, British shipping exported coal and returned in ballast, losing previous competitive advantages.¹⁵⁹ In addition, shipbuilding was already beginning to benefit from rearmament. The North-East Coast of England was the main beneficiary of the scrap-and-build provisions, partly because the area was not usually identified with naval shipbuilding, and was stronger in building cargo vessels, particularly on the Wear.¹⁶⁰ The scrap-and-build programme depended entirely on being prepared to scrap existing tonnage which, given the BSAA, they were unlikely to do within a rising freight market. The scheme was also rigid. Initially there was a requirement that all shipbreaking should take place in the UK, ignoring the fact that the cost of scrap in Britain was 50 percent lower than in the international market. Sir Godfrey Nicholson, the Conservative MP for Morpeth in Northumberland, believed that '95,000 gross tons of British owned steamers have been sold during the present year for breaking up abroad'

¹⁵⁶ Greaves, *Industrial*, p. 227.

¹⁵⁷ Richardson, *Economic Recovery in Britain*, pp. 33–34.

¹⁵⁸ Pollard, *Development*, pp. 291–93.

¹⁵⁹ *Ibid.*, p. 95.

¹⁶⁰ Parkinson, 'Shipbuilding', p. 105.

and this was doing harm to those employed within the British shipbreaking yards.¹⁶¹ The terms for ship construction were nowhere near as generous as with the *RMS Queen Mary*. Furthermore, the scrapping of old ships and the construction of new vessels had to be on a like-for-like basis, failing to recognise the changes within international markets. The scheme did produce modern ships, although fewer than expected, and provided work for underused shipyards.¹⁶² In his tramp-shipping review, Runciman optimistically stated that legislation had removed obsolete tonnage and replaced it with tonnage that was both modern and more efficient, thereby creating employment within British shipyards.¹⁶³

The collapse in world trade and the surplus in world shipping tonnage made it difficult for tramp-shipping to survive. Tramp-shipping was an important part of the British mercantile marine, and therefore its maintenance was essential. It received substantial help under the BSAA and ended the tendency for the industry to decline. However, according to Dr Leslie Burgin, the Parliamentary Secretary to the Board of Trade, tramp-shipping did not receive either ‘a bribe or a generous present.’¹⁶⁴ The subsidy emerged based on a scheme approved by Parliament, designed to ensure a fair allocation and effectively directed to secure its objective.¹⁶⁵ Under the BSAA, the total amount distributed during its first year was £1,989,999. The subsidy paid to each claimant varied as follows:

¹⁶¹ HOCD, *Obsolete British Ships (Sales Abroad)*, 7 June 1935, vol. 302, cc2182-4.

¹⁶² Johnman and Murphy, *British Shipbuilding*, pp. 52-53.

¹⁶³ NA, CAB/24/264, Tramp Shipping Subsidy, Memorandum by the President of the Board of Trade, 30 October 1936, p. 7.

¹⁶⁴ A Liberal Member of Parliament, Dr E L Burgin became Parliamentary Secretary to the Board of Trade in 1932. In 1937, Prime Minister Neville Chamberlain appointed Burgin as Minister of Transport.

¹⁶⁵ HOCD, *British Shipping (Continuance of Subsidy) Bill, 19 March 1936*, vol. 310, cc745-69.

Number of claimants

Value of claims

| | |
|-------------------|--------------------|
| £50,000 and over | 5 |
| £30,000 and over | 8 |
| £15,000 and over | 16 |
| Less than £15,000 | 349 ¹⁶⁶ |

By 30 October 1936, the Chamber of Shipping received a request to extend the subsidy for the tramp-shipowners. The government measures had already saved the tramp-shipping industry from bankruptcy, reduced unemployment amongst British sailors, and greatly reduced laid-up tonnage. Nevertheless, tramp-shipping remained an uncertain activity.¹⁶⁷ At all times, the government was unconcerned if output was rising in absolute terms. Britain still built more ships than any other country. However, a drastic decline in new orders in the export market during 1938 gave rise for concern. Furthermore, British shipbuilders secured fewer export orders, whilst British shipowners purchased almost 120,000 grt per annum during 1936–38 in overseas markets, representing an unprecedented peacetime figure. British shipbuilders worried that their prices were ‘no longer competitive with the industry on the Continent.’¹⁶⁸ As a result of subsidy, foreign shipbuilders had gained cost advantages, whilst labour and material costs were cheaper than in Britain. Furthermore, currency instability, exchange control, the overvaluation of sterling and exchange restrictions all weakened Britain’s competitive position. Of even more significance for shipbuilding was the extent to which British shipyards suffered obsolescence and were unable to keep abreast of technical progress. Britain found difficulty in

¹⁶⁶ *Ibid.*

¹⁶⁷ NA, CAB/24/264, Tramp shipping, Memorandum by the President of the Board of Trade, 30 October 1936, pp. 1 and 2.

¹⁶⁸ Pollard, *Development*, p. 54.

adapting to oil and the diesel engine whilst continuing to rely upon steam and antiquated construction methods.¹⁶⁹

The impact upon the shipbuilding industry

Of the eight shipbuilding yards that benefitted most from the BSAA, five were on the North-East Coast of England. Wearside obtained the largest share, with twenty-four vessels totalling 98,000 grt, representing over 52 percent of the scrap-and-build scheme. The government, however, failed to deliver a comprehensive development strategy for the tramp-shipping trade. Subsidised foreign competition continued to cause a competitive disadvantage. The availability of 1.2 mgt worth of scrap in the British market was unlikely given rising freight rates. Shipowners believed that whether or not large-scale scrapping took effect, freights would improve further, encouraging income for even the oldest vessels. Therefore, BSAA provisions were insufficiently attractive to encourage scrapping on a wide scale.¹⁷⁰

Following the legislation of 1935, shipbuilders who expected increased workloads were disappointed. Only thirty-seven applications under statutory powers materialised, representing the construction of fifty ships (of approximately 186,000 grt). Despite this failure, the upward trend in shipbuilding returned. Sir Maurice Denny, President of the Shipbuilding Employers Federation, reported in 1936 a substantial improvement and about five times as many merchant ships built in the year as during 1932–33.¹⁷¹ Tonnage under construction quickly approached 1.0 mgt. ‘At long last the dark clouds have rolled away,’ Sir Maurice commented, ‘the barometer registers fair and is rising.’¹⁷²

¹⁶⁹ L Runciman. ‘New ships for old.’ *The Listener*, 28 September 1932, p. 451, Issue 194; Aldcroft, *The interwar*, p. 167.

¹⁷⁰ Aldcroft, *The British Economy*, p. 126.

¹⁷¹ ‘Sir Maurice Denny’, *Who was who 1951-1960*, vol. V (London: Adam & Charles Black, 1961), p. 298.

¹⁷² Dougan, *The History*, p. 170.

Conclusions

The legislation to assist the tramp-shipping industry took time to implement, though not through anyone's fault other than the tramp-ship operators, who were reluctant to provide information on which the government could assess the situation. The commitment by individuals such as Runciman and Colonel Ropner overcame the inherent difficulties faced by all involved and fused the cooperation of many to assist the tramp-shipping industry.¹⁷³ By 1938, British shipyards once again produced one third of ships built, but the long-term decline of the industry was evident.¹⁷⁴

In view of the assistance given by foreign countries to their own merchant navies, the British government had little alternative but to provide an aid package that would protect and enable Britain to maintain its position as the major maritime nation. It did not resort lightly to a subsidy policy, but did recognise that tramp-shipping had to recover from exceptional war losses, inflated replacement and expansion costs, as well as the severity of two major depressions during the 1920s and 1930s.

Britain failed in its attempts to recapture its share of the world seaborne trade, which fell from a pre-First World War level of 50 percent to approximately 40 percent by 1936. The policies of foreign governments sought to develop maritime policies in the form of subsidies as well as the encouragement of flag discrimination. The BSAA was contradictory in parts, and the improvement in freights made the shipowners reluctant to scrap ships. Further, given the financial difficulties experienced a few years earlier, tramp-shipowners were disinclined to construct vessels with 'borrowed money.' Nevertheless, although the outcome of the scheme was disappointing, the SRC built fifty modern ships under its stewardship and removed a

¹⁷³ Ware, 'In search of subsidy', p. 192.

¹⁷⁴ Parkinson, 'Shipbuilding', p. 80.

significant level of obsolete tonnage, and shipbuilding received a much-needed boost to trade.¹⁷⁵

Difficulties arose with the BSAA legislation. Part One (the subsidy) acted in direct competition with Part Two (the scrap-and-build) provisions. Shipowners who benefitted from the subsidy were unlikely to participate in the scrapping provisions of the Act.¹⁷⁶ Despite the provisions of the BSAA, certain British shipowners were prepared to place orders in foreign yards to derive the benefit of foreign subsidy payments.

The BSAA witnessed greater cooperation between the tramp and liner trades in order to ensure the effectiveness of the subsidy. The scrap-and-build scheme was of direct assistance to the shipbuilding industry, by encouraging the elimination of redundant and obsolete tonnage.¹⁷⁷

The effects of the early 1930s severely weakened the tramp-shipping sector, and the scrap-and-build scheme was proactive action in order to correct the situation. The situation, whilst revealing an improvement in trade, nevertheless remained volatile, as shipowners were opposed to the scrap-and-build scheme.¹⁷⁸ The scheme facilitated the construction of only fifty new vessels with a tonnage of 186,000 grt. Consequently, the Act saw ninety-seven vessels scrapped, with a tonnage of 356,625 grt. Given that the Wear was renowned for its expertise in the construction of tramp vessels, it is understandable how this river experienced the benefits of the scrap-and-build provisions.¹⁷⁹ According to Sir George Higgins, chairperson of Francis Fenwick & Company, by 14 July 1937 'Sunderland was second on the list of shipbuilding districts of the country with 34 ships under construction.'¹⁸⁰ Of the fifty tramping vessels built

¹⁷⁵ Davies, *Belief*, p.129.

¹⁷⁶ Pollard, *Development*, pp. 71 and 72.

¹⁷⁷ Aldcroft, *The British economy*, vol. 1, p. 126.

¹⁷⁸ NA, CAB/24/264, Tramp Shipping Subsidy, Memorandum by the President of the Board of Trade, 30 October 1936, pp. 5 and 6.

¹⁷⁹ Dyos and Aldcroft, *British transport*, p. 330.

¹⁸⁰ 'Shipbuilding revival, Wearside second only to the Clyde, Prosperity coming to stay', *Sunderland Daily Echo and Shipping Gazette*, 14 July 1937, p. 10.

under the BSAA, twenty-four were built on the Wear, six on the Tyne, a further four on Teesside. The West of Scotland shipbuilders received minimal activity under the BSAA, building only seven vessels, whilst three vessels were built on the East coast of Scotland, four in Yorkshire and two in Bristol.¹⁸¹

¹⁸¹ Jones, *Shipbuilding*, p.152.

CONCLUSIONS

Shipbuilding data may be reviewed in terms of the vessels either launched or built, as well as in relation to different measures of 'tonnage', either grt for merchant ships or sdt for naval vessels.¹ The statistics within this thesis have in the main relied upon the data maintained by the School of Marine Science and Technology at Newcastle University in the form of the BSD, and have been based upon completed tonnage.² In comparison, other historians have relied upon figures maintained by Lloyd's Register of Shipping, alternatively data maintained by the Shipbuilding Conference, or when considering shipbuilding on the Clyde, the Glasgow Herald Annual Trade Review. This can lead to significant variations in calculations.³ Differences between completed and launched tonnage is most noticeable when considering large vessels, whether they be naval or merchant. For instance, *HMS Hood* was launched in 1918, but not officially completed until May 1920, and during this period, Britain moved from wartime to peacetime.⁴ This large vessel might fall within figures for 1918 or 1920 depending on the completion or launch criterion.

Whilst the gross registered tonnage is seen as a measure of ship size for merchant shipbuilding, it does not necessarily reflect the complexity of the types of vessels that were built. To compare performance or output via carrying capacity is unsatisfactory. An oil-tanker and a passenger-cargo vessel of the same carrying capacity required very different scales of work, and thus

¹ See Appendix 5.0, glossary of shipping tonnage.

² Buxton, Fenton and Murphy, 'Measuring Britain's shipbuilding', pp. 304-322.

³ For instance, comparing: Johnman and Murphy, 'An Overview of the Economic and Social Effects of the Interwar Depression', p.241 & Appendix 4.0. This former using *Glasgow Herald Annual Trade Review* and the latter using the BSD. See also, Peebles, *Warshipbuilding on the Clyde*, Appendix E, pp. 181-197. In addition, Peebles acknowledges assistance from Oscar Parkes, *British Battleships*, (Seeley, Services & Co, 1966); E J Marsh, *British Destroyers*, (Seeley, Services & Co, 1966); F J Dittmar and J F Colledge, *British Warships 1914-1919*, (Allan, 1972); *All the Worlds Fighting Ships*, Vols. 1, 2 & 3, Published by Conway Maritime Press, 1979, 1985 and 1980.

⁴ Other notable examples include *HMS Hermes* launched in September 1919, but not completed until February 1924 and *HMS Emerald*, launched in May 1920, but not completed until 1926.

illustrate different levels of shipyard productivity or performance.⁵ To reflect the different types of vessels constructed, scholars have developed compensated gross tonnage as a universal measure of performance in order to render ships comparable across vessel type. It uses coefficients determining the complexity factor, which is applied to the gross registered tonnage.⁶ ‘Compensated gross tonnage’ offers a method to render shipbuilding genuinely comparable.⁷ Furthermore, this thesis adopts comments made by Professor Ian Buxton that 4.0 grt’s is comparable to 1.0 sdt.⁸ However, other estimates have been used within written material that appear wholly inaccurate.

This research compared two regions using the BSD database. Given their pre-eminence in British shipbuilding, the North-East Coast of England and the West of Scotland allow an insight into the industry’s decline. The data has enabled a critical analysis of shipbuilding output, challenging conventional wisdom about the relative significance of the regions and the timing of decline.⁹ Whilst the North-East Coast of England and the West of Scotland have received detailed appraisal based upon their shipbuilding output, the data ignores ship-repair facilities, which may have impacted upon the labour requirements within the shipyards.¹⁰ Britain had the

⁵ Likewise, in 1922 Armstrong Whitworth built the Southampton floating-dock to 60,000 grt, though this cannot be measured against the *Empress of Britain*, built at the John Brown facilities at Clydebank, which had a 42,348 grt. The Southampton floating-dock was capable of lifting 60,000 tons, which corresponds with the grt set out in the BSD. The floating dock was 960 feet long, and 170 feet wide. However, the complete weight, including fittings and machinery only amounted to 19,000 tons. Whilst the vessel had fourteen motors, the floating dock was a non-propelled vessel. The work content between the Southampton floating-dock and the *Empress of Britain* is wholly incomparable even though the Southampton floating-dock had a grt almost 50.0 percent more than the *Empress of Britain*.

⁶ Buxton, Fenton and Murphy, ‘Measuring Britain’s shipbuilding’, pp. 314-315.

⁷ Martin Stopford, *Maritime Economics*, Second Edition, (Oxon, Routledge, 1997), p. 456.

⁸ Buxton, Fenton and Murphy, ‘Measuring Britain’s shipbuilding’, p. 305.

⁹ Buxton ‘Scottish shipbuilding’, Campbell, ‘Scottish shipbuilding’, Parkinson, *Economics of shipbuilding and Slaven*, ‘A Shipyard in Depression’ do not necessarily share the views expressed within this thesis on the levels of output achieved on the North-East Coast of England and the West of Scotland. Furthermore, whilst this thesis has attempted to demonstrate that the decline was evident throughout the interwar period, Lorenz, ‘An evolutionary explanation’, Pollard, *Development of the British economy*, Kirby, ‘Institutional rigidities’ and James McGoldrick, ‘Industrial relations and the division of labour in the shipbuilding industry since the war’, *British Journal of Industrial Relations*, vol. 21, no. 2, 1983, pp. 197-220 believe that the 1950s were the tipping point of decline.

¹⁰ N S Ross, ‘Employment in shipbuilding and ship-repairing in Great Britain’, *Journal of the Royal Statistical Society*, vol. 115, no. 4 (1952), 524-33.

world's largest ship repair sector, and also its marine engine building sector led the world in terms of volume, which is hardly surprising as it had the world's largest mercantile marine.¹¹

Appendices 1.0 and 2.0 in which the data is reproduced have been based upon completed tonnage.

The economies of the North-East Coast of England and the West of Scotland developed out of the basic industries that were the foundations of Britain's industrial growth during the eighteenth and nineteenth centuries. By 1870, whilst constructing 75 percent of the world's shipbuilding, British economic leadership faced challenges, and its early maturity locked it into increasingly uncompetitive economic structures. Britain's shipbuilding tonnage output deteriorated by 15 percent as the nineteenth century concluded, however, the fall in output matched the productivity of overseas shipbuilders achieving economies of scale in the United States, Japan, Germany and certain other European nations. After 1900, despite losing ground, Britain continued to dominate the world's economy in trade, finance, mining, manufacturing, and of course shipbuilding; nevertheless, the warning signs of relative decline manifested themselves. The precipitous decline in absolute and comparative terms of the British shipbuilding industry after 1948 overshadows the industry's interwar performance, which has been scrutinized here.

These regions had their own specific character and pattern of specialisation. The North-East Coast of England covers an area of approximately 60 miles from the River Coquet in the North to the River Tees in the South, which included three main rivers and a large shipbuilding capability at Hartlepool. The West of Scotland, basically comprises extensive activities on the Clyde as well as at the Ayrshire towns of Ardrossan, Irvine, Troon and Ayr. The West of

¹¹ Lewis Johnman and Hugh Murphy, 'The Rationalisation of Slow Speed Marine Diesel Engine Building in the UK, 1912-1990' and Ian Buxton, 'The British Ship Repair Industry, 1900-1953: Four Case Studies', in David J Starkey and Hugh Murphy (eds), *Beyond shipping and shipbuilding: Britain's ancillary maritime interests in the twentieth century* (Hull: Maritime Historical Studies Centre, 2007).

Scotland dominated shipbuilding activities committed towards passenger vessels, whilst the North-East Coast of England built significantly more cargo vessels than the West of Scotland, but that in itself is a sweeping statement, since it takes no account of the volume of cargo liners or cargo refrigeration vessels that were more valuable than simple cargo vessels. Furthermore, within the category of cargo vessels includes tramp vessels. The Wear was the centre of the tramp cargo building, albeit all locations within this thesis have built a reasonable portion of tramp cargo vessels.

Table 7.0 Summary of the various types of merchant shipping built on the North-East Coast of England and the West of Scotland during the interwar period, 1920-1939

| | North-East Coast of England | | West of Scotland | |
|------------------------|--------------------------------|------------------|------------------|------------------|
| | No. | Grt | No. | Grt |
| Deepsea passenger | 65 | 575,587 | 156 | 1,640,078 |
| Small passenger | 29 | 56,069 | 177 | 284,784 |
| Cargo | 1,081 | 4,940,041 | 665 | 3,463,430 |
| Coaster | 184 | 221,852 | 241 | 198,253 |
| Tankers | 281 | 1,751,691 | 174 | 1,042,600 |
| Bulk vessels | 3 | 11,745 | - | - |
| Dredgers | 5 | 3,020 | 113 | 104,766 |
| Fishing vessels | 230 | 82,458 | 6 | 1,484 |
| Fish process vessels | 5 | 69,795 | - | - |
| Lakers | 82 | 161,655 | 19 | 34,694 |
| Lighters | 45 | 16,142 | 100 | 41,896 |
| Tugs | 22 | 5,061 | 65 | 21,356 |
| River and lake vessels | - | - | 91 | 43,321 |
| Service vessels | 15 | 29,184 | 27 | 25,749 |
| Yachts | 3 | 1,540 | 19 | 9,429 |
| Miscellaneous | 21 | 93,942 | 14 | 7,065 |
| | <u>2,071</u> | <u>8,019,782</u> | <u>1,867</u> | <u>6,918,905</u> |

The River Wear shipbuilders primarily built tramp vessels, whilst the River Tees constructed cargo liners, tramp shipping and oil tankers, and the River Tyne constructed tankers and tramp

vessels. However, the three largest shipbuilders on the River Tyne, SH&WR, Armstrong Whitworth/Vickers-Armstrong and Hawthorn Leslie built most vessels although SH&WR was easily the largest shipbuilder on the River. Nevertheless, Buxton emphasises that the Clyde was the largest shipbuilding region because of its ability to perform better, its greater specialisation, technical ability, and a greater variety of orders, as it constructed the bulk of its output principally in one area compared to the North-East Coast of England, which operated from several locations/ivers.¹² Jones's model of British shipbuilding's business cycle is broadly correct, with peaks in 1920, 1930 and 1938, and troughs in 1923 and 1933. His ten-year cyclical model overlooks the mini-recovery of 1924, which was almost as strong as the industry's performance in 1938. The mini-recovery of 1924 arose due to the resumption of work by the boilermakers after the 7-month lockout of 1923.¹³ Perhaps the reason for this oversight was that in 1926 the economy nose-dived, following the General Strike resulting in the closure of coal mines, steelworks and foundries, which affected the supplies to the shipyards. Ships were pressed into transporting American coal to break the miners' strike, obsolete tonnage stimulated demand and 92 percent of world tonnage built in 1926 and 82 percent in 1927 was built for the replacement of old vessels. There was also an increased need for oil tankers, which accounts for much of the 1929 tonnage output. However, it soon became apparent that a significant volume of tramp shipping was idle during 1926 because vessels were 'obsolete and ineffective.'¹⁴ The severe interwar trade patterns were unpredictable, however, meaning that government and the industry were blind to the nature of shipbuilding's decline. Thus, unbeknown to the actors at the time, the two greatest shipbuilding regions in the

¹² Buxton, 'Scottish shipbuilding', 101. Buxton states that the West of Scotland's lead as Britain's major shipbuilder only became established from the 1870s, though continued throughout the interwar period.

¹³ Johnman and Murphy, *British Shipbuilding*, p.22.

¹⁴ Jones, *Shipbuilding in Britain*, pp. 100 and 101.

world suffered from not only decline relative to international commitment, but also the seeds of terminal decline that other historians have postponed to the 1950s.

Whilst British shipbuilders built over 2.0 mgt during 1920, this had fallen at the interwar trough in 1933 to 133,000 grt.¹⁵ Though output recovered after 1933, it peaked at only 1,030,375 grt in 1938.¹⁶ The West of Scotland and the North-East coast of England shared essentially the same pattern of merchant shipbuilding decline, though it was more marked in the latter. By 1938, the North-East Coast of England was building only 46 percent of the output achieved in 1920, whilst the West of Scotland built 77 percent.

The interwar period signalled a break from a naval arms race and war, to arms limitation, which was only reversed in the later 1930s. Throughout the interwar period, only nine shipyards on the North-East Coast of England secured orders to build naval vessels, whether they were built on behalf of the British Admiralty or on behalf of other foreign powers. The main naval shipbuilders on the North-East Coast of England comprised Armstrong Whitworth/Vickers Armstrong, Hawthorn Leslie, Palmers Shipbuilding and SH&WR. The other shipbuilders on the North-East Coast of England building naval vessels comprised: Blyth Dry Dock, Smith's Docks, William Doxford and William Gray. In comparison, fifteen shipbuilders in the West of Scotland secured orders for naval vessels, and of course seven of these shipbuilders were the mixed naval and mercantile builders, John Brown, Fairfield Shipbuilding, William Beardmore, Scott's Shipbuilding, Alexander Stephen, William Denny and Yarrow of Scotstoun.¹⁷ The other shipbuilders in the West of Scotland mainly took work in relation to survey, mooring, tugs and boom defence vessels and those shipbuilders comprised: Ailsa Shipbuilding,

¹⁵ Murphy, "No Longer Competitive", p. 43; Buxton, Fenton and Murphy, 'Measuring Britain's shipbuilding', p. 318.

¹⁶ Buxton, Fenton and Murphy, 'Measuring Britain's shipbuilding', p. 318.

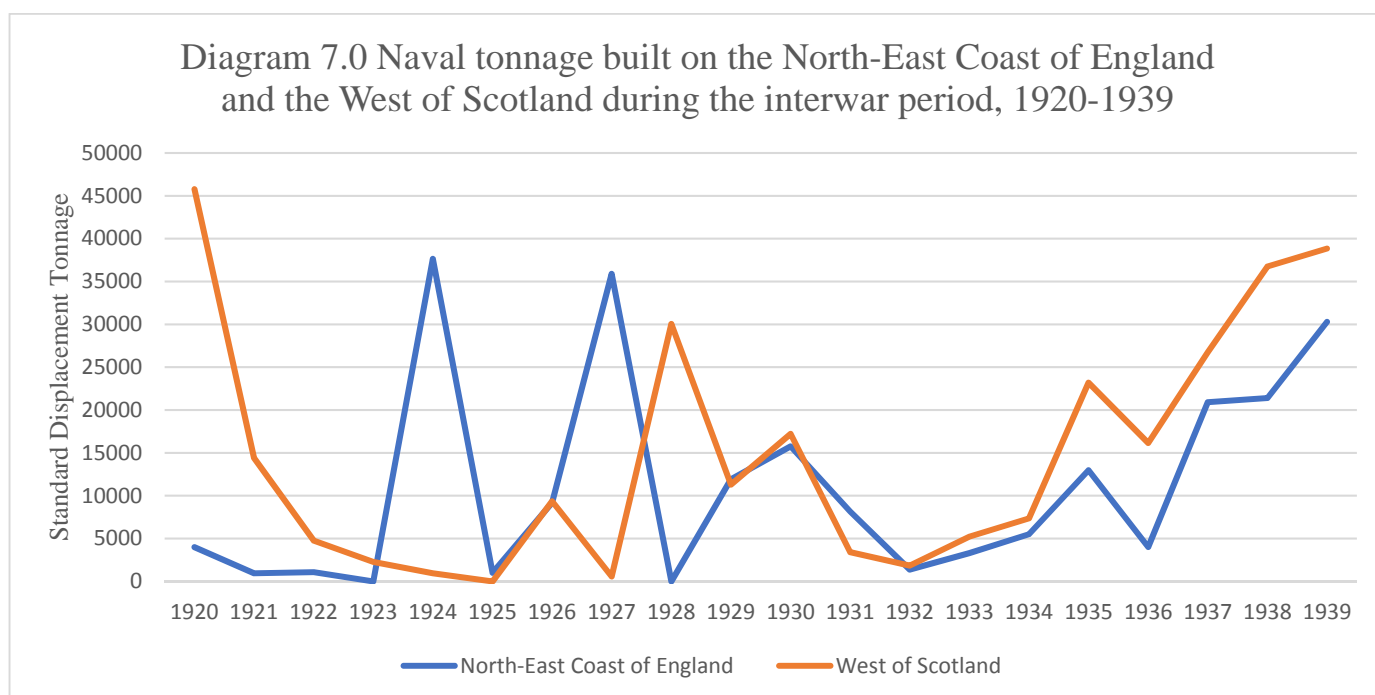
¹⁷ Johnman & Murphy, 'An Overview', p. 231

Ardrossan Dockyard, Ayrshire Dockyards, Bow McLachlan, Lobnitz, William Hamilton and William Simons

This research has detailed naval shipbuilding undertaken on the West of Scotland totalled 296,238 sdt, whereas the shipbuilders on the North-East Coast of England built 225,427 sdt.¹⁸ In addition, there was also naval vessels built measured in terms of gross registered tonnage and this comprised:

| | |
|-----------------------------|------------|
| North-East Coast of England | 86,092 grt |
| West of Scotland | 86,263 grt |

The grt set out above in relation to the North-East Coast of England included a floating dock (AFD.9), which was despatched to Singapore in 1928 in two parts and totalled 50,000 grt.



¹⁸ See Appendix 4.0.

Whilst the output of naval vessels during the 1930s follows an almost identical pattern in both regions, it is nevertheless, understandable why the West of Scotland achieved a greater level of output, this was simply because it had a larger concentration of mixed naval and merchant shipbuilders. Throughout the years 1920-1939, the Clyde continued to be 'the most important single private producer of naval tonnage' on behalf of the Admiralty.¹⁹

The peaks during the 1920s was clearly the results of the hangover from the First World War, and then the Washington Naval Conference 1921. The construction of *HMS Hood* concluded at John Brown in 1920 at 41,200 sdt, a ship that had its keel laid in September 1916, and launched in August 1918 but not completed until May 1920, prior to the enactment of the WNT 1921. In the years after the enactment of the WNT, *HMS Hermes* and *HMS Eagle* were built at Armstrong Whitworth in 1924 at 10,850 sdt and 22,600 sdt; and *HMS Nelson* also built at Armstrong Whitworth in 1927 at 33,950 sdt in accordance with the WNT. Whilst from 1936 until 1939, the West of Scotland was building naval vessels at a ratio of 1.56 sdt to 1.00 sdt on the North-East Coast of England.

Despite the laissez-faire legacy, governments sought legislative solutions to British shipbuilding's problems. During late September 1921, Hilton Young, the Financial Secretary to the Treasury, proposed the TFA at Gairloch. The government introduced this legislation to deal with the rising levels of unemployment. Shipbuilders may have benefitted from the TFAs, though shipping companies were vehemently against this legislation, believing that any increased output was unwarranted. Given that there was less than four weeks from initial proposal to the introduction of the legislation, the scale of criticism of the Act is understandable. By the mid-1920s, foreign shipbuilders were securing orders from British shipping companies that had previously established strong client relationships with British shipbuilders. Foreign

¹⁹ Buxton, 'Scottish Shipbuilding', p. 112.

shipbuilders were prepared to undertake such work despite incurring losses on contracts, in order to establish relationships with a view to further contracts.

Whilst British shipbuilding grew to global ascendancy with a workforce that was heavily reliant upon its craft skills, the overseas competition relied more heavily on mechanisation of production and what Chandler called 'corporate capitalism', which together with protectionism and subsidy of rivals rendered British shipbuilding uncompetitive in global and even British markets. The British government's response was ill-conceived and insufficient in scope. The TFAs and the BSAA failed to satisfy both shipping and shipbuilding. This legislation created its own problems and consequently the maritime trades probably derived little benefit. Despite their desire for support, the British maritime trades remained wedded ideologically to *laissez-faire* throughout the interwar period. Shipbuilders were effectively in denial as they received statutory assistance by way of the TFAs, the BSAA, and the Cunard (Insurance) Agreement Act 1930. Whilst the liner industry did not obtain the assistance that other shipping companies received, the tramp-shipping industry was by the early 1930s a broken industry, and received the assistance of a subsidy from Part One of the BSAA as a turning point to restore a degree of commercial viability. The tramp-shipping companies derived the benefit of a subsidy because no other part of the mercantile marine requested assistance. Part Two of the Act provided a scrap-and-build scheme for the benefit of British shipbuilders. The two parts of the BSAA negated each other, as tramp-shipping operators were reluctant about the scrap-and-build scheme when subsidies were available. Given that the North-East Coast of England and particularly the Wear received a major percentage of the contracts in relation to the scrap-and-build provisions, the Clyde shipbuilders complained about the workings of the Act. Part Two of the BSAA offered £10 million under the scrap-and-build provisions. However, by 1937, only £3.5 million was being used, enabling the construction of just fifty new vessels and the scrapping of ninety-seven ships.

The relationship between governments, finance and national shipbuilding industries were a crucial factor in events. The scale of the problems appeared to be beyond the control of individual shipbuilders. The three successful external interventions did not come in the shape of the legislation (the TFAs, the BSAA, and the Cunard (Insurance) Agreement Act 1930) but from government-supported financial intervention and industry-wide self-regulation.

Firstly, during late 1926, advisors to Armstrong Whitworth approached Montagu Norman to discuss a possible merger between the company and Vickers. The need to enter merger negotiations with Vickers had arisen from Armstrong Whitworth's involvement with an ill-advised diversification strategy involving a pulp paper manufacturing facility in Newfoundland. The merger between Vickers and Armstrong Whitworth concluded in 1927, being the shipbuilding industry's first phase of rationalisation. Despite losing in excess of £5.5 million, Montagu Norman recognised that Armstrong Whitworth was essential to national security, justifying the Bank of England's intervention.

Secondly, in 1930, Sir James Lithgow, with Montagu Norman's support, established NSS.²⁰ Lithgow's rationalisation strategy restrained participating shipyards by restrictive covenants from shipbuilding for forty years. Whilst twenty-eight shipyards closed under its auspices, more important was the capacity eliminated. Both regions lost major shipbuilding facilities, through insolvencies as well as NSS sterilisation, and this points to the fundamental significance of the interwar years in the long-run decline of British shipbuilding. NSS closed 216 shipbuilding berths, with the largest share being located on the North-East Coast of England and the West of Scotland.²¹ Greaves believes that the rationalisation process removed

²⁰ Buxton, 'Economic Growth', p. 553.

²¹ Greaves, *Industrial Reorganization*, p. 223.

effectively 1.4 mgmt, and supports the argument that this reduction contributed towards British shipbuilding's absolute decline.

Thirdly, the only other actions from which merchant shipbuilding benefitted during the interwar period were the coalition government's involvement in determining the difficulties associated with the catastrophe of the RMSPC, the merger of Cunard and White Star Line, and the construction of the Cunard liners at John Brown during the 1930s.²² Government involvement certainly assisted the West of Scotland in relation to the construction of the *RMS Queen Mary*. John Brown received extensive assistance after the RMSPC's failure. When construction began on vessel no. 534, the RMSPC's troubles had become common knowledge.²³ By December 1931, because of the difficulties of Cunard, John Brown's workforce was laid off. Due to the efforts of Neville Chamberlain, Montagu Norman, Lord Essendon, Sir William McIntock and others, Cunard and White Star Line amalgamated in April 1934 to form Cunard White Star. This amalgamation ensured that £9.5 million was available to complete the construction of both Cunard vessels, the *RMS Queens Mary* and *Elizabeth*. Whilst the resolution of the Cunard White Star amalgamation was a highly complex and sensitive merger, Greaves believes that the exercise was 'a special prestige project' that had limited bearing upon the maritime trades.²⁴ Nevertheless, these actions restored at least a modicum of Britain's maritime trade and character that were under threat from foreign competition. However, whilst British shipbuilding might not have failed by the end of the interwar period, its divergence was apparent.

²² Whilst we have referred to liners, John Brown had by 1938 commenced the construction of Cunard's liner the *RMS Queen Elizabeth*.

²³ White Star Line was an associated company within the RMSPC group and needed to be realised as part of the group's insolvency.

²⁴ Greaves, *Industrial Reorganization*, p. 225.

British shipbuilding's decline had intensified during the interwar period. The comparison of the North-East Coast of England and the West of Scotland during these years has helped to illuminate a particular phase of that process. The BSD has provided the data to analyse all built tonnage whilst allowing a firm-by-firm appraisal, an analysis of specialisation and regional comparisons, and a differentiation of merchant and naval shipbuilding. Detailed appraisal of the shipbuilding tonnage helps explain both the extent and pattern of overcapacity, and consequently the need for major reorganisation that, when it arrived, was late and insufficient for the task. The interwar period was a complex one for government and industry, with the dilemmas of naval treaties, inflationary pressures, foreign competition, technical changes, and industrial action. This study confirms that the decline had already begun prior to the First World War. It was the consequence of the near-monopoly position of modern British shipbuilding attributable to early maturity and therefore exceptional and unsustainable circumstances of the final quarter of the nineteenth century. Decline was exacerbated by the impact of the war on mercantile shipbuilding and shipping. British shipbuilding crossed a qualitative threshold, no longer simply facing rivals in a competitive market but definitively losing control of the technological and organisational frontier. Evaluation of the industry's merchant and naval tonnage output reveals that the malaise of British shipbuilding was mosaic, with fine-grained differences in performances according to the classes of ships, particular yards or companies, and sizes of firms. Overall, however, the regional comparison of the two major shipbuilding regions reveals strikingly consistent symptoms of malady and decline. Adding to the complexity of the performance of these two regions was the transitional nature of the period, with the reluctant, pragmatic and piecemeal shift away from *laissez-faire* on the part of the government. The government did intervene via the Trade Facilities legislation and the British Shipping Assistance Act 1935. As significantly, the Board of Trade, the Treasury and the Bank of England encouraged industry-wide rationalisation through employers' organisations in the

shape of the National Shipbuilders Security Limited, which again had a limited and tardy effect upon shipbuilding decline. British shipbuilding's interwar decline resulted from foreign competition, arms limitation, technological conservatism, a haphazard managerial structure, and corrosive industrial relations, resulting in Britain becoming an unappealing country in which to have ships built.

BIBLIOGRAPHY

Primary sources

Parliamentary Papers

HOCD, Navy Estimates 1920–21, 18 March 1920, vol. 129, cc2441–551.

HOCD, Navy Estimates 1920–21, 18 March 1920, vol. 129, cc2468-470.

HOCD, 2 March 1921, Capital ships, vol. 138), cc1965-72.

HOCD, 9 November 1921, vol. 148, cc415-6W.

HOCD, Navy Estimates 1922–23, 16 March 1922, vol. 151, cc2409-57.

HOCD, Treaties of Washington, 07 July 1922, vol. 156, cc717-61.

HOCD, Trade Facilities & Loan Guarantee [Money], 4 December 1922, vol. 159, cc1383-470.

HOCD, Trade Facilities and Loan Guarantees, 4 December 1922, vol. 159, cc.1410-1411.

HOCD, Clause 1 – (Amendment of s. 1 of 11 & 12, Geo. 5, c. 65), 7 December 1922, vol. 159, cc2145-6.

HOCD, Trade Facilities and Loans Guarantee, 4 December 1922, vol. 159, cc1409-1410.

HOCD, Trade Facilities and Loans Guarantee, 4 December 1922, vol. 159, cc1467-1469.

HOCD, Foreign Competition, 17 March 1925, vol. 181, cc2306-40.

HOCD, Coal Industry, 9 July 1925, vol. 186, c616w.

HOCD, International Peace and Disarmament, 24 November 1927, vol. 210, cc2071-2206.

HOCD, Disarmament (Preparatory Commission), 30 November 1927, vol. 211 cc474-5.

HOCD, Royal Mail Steam Packet Company (Guaranteed Loans), 23 July 1929, vol. 230, cc1079-80.

HOCD, Tyne Shipbuilding Contract, 9 July 1930, vol. 241, c450W.

HOCD, Rationalisation, 5 November 1930, vol. 244, cc947-1000.

HOCD, Cunard (Insurance) Agreement [Money], 10 November 1930, vol. 244, cc1325-84.

- HOCD, Bankers Industrial Development Company, 21 July 1931, vol. 255, cc1224-5).
- HOCD, National Shipbuilders' Security Limited, 20 February 1934, vol. 286, cc168-70.
- HOCD, North Atlantic Shipping [Advances], 22 February 1934, vol. 286, cc639-640.
- HOCD, Unemployment (Statistics), 23 February 1934, vol. 286, cc645-6W.
- HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, c1825).
- HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, cc1826-1827.
- HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, c1827.
- HOCD, North Atlantic Shipping Bill, 7 March 1934, vol. 286, cc1842-1843.
- HOCD, North Atlantic Shipping Bill, 22 March 1934, vol. 91, c 384.
- HOCD, National Shipbuilders' Security Limited, 19 June 1934, vol. 291, cc182-3.
- HOCD, Shipbuilding, 1 November 1934, vol. 293, c375W.
- HOCD, Obsolete British Ships (Sales Abroad), 07 June 1935 vol. 302 cc2182-4.
- HOCD, Shipping Industry (Assistance), 25 July 1935, vol. 304, cc2206-8.
- HOCD, Shipping (Scrapping and Rebuilding), 5 December 1935, vol. 307, c309w.
- HOCD, British Shipping (Continuance of Subsidy) Bill, 19 March 1936, vol. 310, cc745-69.
- HOCD, British Ships (Construction, Germany), 11 June 1936, vol. 313, cc527-32.
- HOCD, Germany (British Shipbuilding Orders), 16 June 1936, vol. 313, c822W.
- HOCD, British Shipping (Continuance of Subsidy) Bill, 9 March 1937, vol. 104, cc562-80.
- HOCD, Mercantile Marine Services, 8 July 1938, vol. 338, cc799-886.
-
- HOLD, North Atlantic Shipping Bill, 22 March 1934, vol. 91, cc383-98
- HOLD, Shipping, 18 April 1934, vol. 91, cc648-55
- HOLD, British Shipping (Assistance) Bill, 12 February 1935 vol. 95 cc869-71.
- HOLD, Government Statement on Defence, 13 March 1935 vol. 96 cc51-118.

Bank of England Archive

SMT 2/280, File note by Sir James Lithgow.

SMT 2/280, Minutes of Meeting, 24 April 1929.

SMT 2/280, Shipbuilding Conference Notes, 9 October 1929.

SMT 2/280, Letter to Sir James Lithgow from J Frater Taylor, 11 December 1929.

SMT 2/280 National Shipbuilders Security Limited, Statement by Sir James Lithgow at the
Third Annual General Meeting, 9 June 1932.

SMT 2/280 National Shipbuilders Security Limited position at 24 November 1932.

SMT 2/283, Investors Chronicle, 1 June 1929.

SMT 2/283, Investors Review, 1 June 1929.

SMT 2/283, The Redundant Shipyard Scheme, 28 February 1930.

SMT 2/283, Shipyard work decreasing, Tonnage booked only half of output, An Oil tanker
year by AL Ayre reprinted from The Glasgow Herald, 30 December 1930.

SMT 2/283, Morning Post – ‘Danger of scrapping shipyards – warning in the event of another
war’, 21 March 1935.

Glasgow University

Alexander Stephen & Sons Limited, Minute Book No. 2.

Alexander Stephen & Sons Limited, Minute Book No. 2, 1 September 1932.

GD 319/1/1/2, Scott’s Shipbuilding & Engineering Company Limited, Directors Minute
Book, 21 May 1926.

GD 319/1/1/2, Scott’s Shipbuilding & Engineering Company Limited, Directors Minute
Book, 29 May 1933.

UCS 1/1/2, John Brown & Company Limited, Minutes of meeting of the Committee of the
Board, 27 February 1925 and 30 April 1926.

UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board,
19 December 1930.

UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board,
18 December 1931.

UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board,
27 April 1934.

UCS 1 1/2, John Brown & Company Limited, Minutes of the Committee of the Board,
2 February 1934.

UCS 1/16/1, John Brown & Company Limited, Cunard Letter Book, Proposed new express
steamer, 10 May 1930.

UCS 1/16/4, John Brown & Company Limited, Cunard Letter Book, Correspondence with
Sir Percy Bates, 24 March 1934.

Glasgow University, John Brown & Company Limited, Contract for construction and related
correspondence with Cunard, File Note of Sir Percy Bates of Meeting with Sir
Thomas Bell, 25 May 1930.

UGD 1/1/2, William Beardmore & Company Limited, Minute Book No. 2, 18 February
1920.

UGD 1/1/2, William Beardmore & Company Limited, Minute Book No. 2, 24 September
1920.

UGD 1/1/2, William Beardmore & Company Limited, Minute Book No. 2, 19 October 1920.

UGD 223/1/1/3, Lithgows Limited, Minute Book.

UGD 223/1/1/3, Lithgows Limited, Minute Book, 8 May 1930.

Glasgow Mitchell Library

UCS.2/1/5, Fairfield Shipbuilding and Engineering Company Limited, Minute Book No. 5,
22 February 1922.

UCS.2/1/6, Minute Book No. 6, 13 November 1935.

UCS.2/1/6, Fairfield Shipbuilding and Engineering Company Limited, Minute Book No. 6,
18 November 1935.

UCS.2/5/2, Fairfield Shipbuilding & Engineering Company Limited, 46th Annual Report,
18 November 1935.

UCS.2/5/2: Fairfield Shipbuilding's Directors' Reports and Balance Sheets, 1890-1959,
46th Annual Report.

National Archives

Command Paper 4159, Trade policy committee, Appendix to interim report to the Cabinet, 9
August 1922.

ADM 116/3442, Note by Major Harding: The Function of the capital ship, 18 September
1919.

ADM 116/3442, Minute: Some notes on capital ship policy, Undated.

BT55/49, Memorandum by Sir Philip Cunliffe-Lister, shipbuilding, 22 November 1927.

CAB/23/26, Conclusions of Cabinet meeting – Unemployment-short time in HM dockyards,
5 August 1921.

CAB/23/29, Conclusions of Cabinet meeting – National Expenditure, 15 February 1922.

CAB/23/30, Trade policy committee interim report to the Cabinet, 9 August 1922.

CAB/23/46, Conclusions, Work in the dockyards, anticipation of orders by the Admiralty and
the Dominions, 22 October 1923.

CAB/23/58, Conclusions of a meeting of the Cabinet, 22 June 1928.

CAB/23/69, Conclusions of Cabinet meeting – the new Cunard liner, 10 December 1931.

CAB/23/69, Conclusions of Cabinet meeting – The New Cunard Liner, 10 December 1931,
Appendix.

CAB/23/76, Meeting of the Cabinet, Conclusions, The New Cunard Liner, 28 July 1933.

CAB/23/77, Meeting of the Cabinet, Conclusions, The New Cunard Liner, 13 December
1933.

CAB/24/82, Admiralty Memorandum for the War Cabinet on Navy Estimates 1919-1920.

CAB/24/83, Memorandum by W H Long, First Lord of the Admiralty, Naval Estimates 1919-
1920, 5 July 1919.

CAB/24/94, Statement of the First Lord of the Admiralty, Explanatory of the Navy Estimates
1919-1920, 2 December 1919.

CAB/24/94, Explanatory of the Navy Estimates 1919-1920.

CAB/24/94, Report of Lord Colwyn's Committee on Work in H M Dockyards, 4 December
1919.

CAB/24/94, Report of Lord Colwyn's Committee on Work in H M Dockyards, 11 December
1919.

CAB/24/97, Memorandum for the Cabinet by the First Lord of the Admiralty, Dockyard
Policy and Labour, 26 January 1920.

CAB/24/98, Memorandum for the Cabinet, Naval Estimates and Naval Policy, 13 February
1920.

CAB/24/108, Powers of the Ministry of Shipping, ex-enemy tonnage, 24 June 1920.

CAB/24/109, Weekly application of matters of naval interest, 9 July 1920.

CAB/24/110, Extract from the conclusions of the 23rd Meeting of the Finance Committee on
the formation of a Committee on National Expenditure, 7 August 1920.

CAB/24/115, Memorandum for the Cabinet by the First Lord of the Admiralty on Naval
Policy and Construction, 22 November 1920, Part 1.

CAB/24/117, Memorandum for the Cabinet by the Civil Lord of the Admiralty, Short time in the dockyards, 29 December 1920.

CAB/24/125, Memorandum by the Secretary of State for the Colonies, West Indian Steamship Service, 25 June 1921.

CAB/24/132, Report of Cabinet Committee to examine Part 1 (Defence Departments) of the Report of the Geddes Committee on National Expenditure, 4 February 1922.

CAB/24/160, Cabinet Committee report on Reduction of National Expenditure, 20 January 1923.

CAB/24/160, IEC (23)-9, Imperial Economic Conference, Inter-imperial mail service, 8 June 1923.

CAB/24/161, Memorandum by the President of the board of trade, The trade outlook, 6 July 1923.

CAB 24/168, Board of Trade Advisory Council, Trade outlook, 19 November 1924.

CAB/24/168, Memorandum by the President of the Board of Trade, Trade outlook, shipbuilding, 19 November 1924.

CAB/24/169, Unemployment Committee, Report of assistance to shipbuilders, by means of trade facilities guarantees, 11 December 1924.

CAB/24/169, Report to the Unemployment Committee on assistance to shipbuilding by means of Trade Facilities Guarantees, 11 December 1924.

CAB/24/171, Memorandum by the Chancellor of the Exchequer – Navy Estimates, 29 January 1925).

CAB/24/171, Admiralty note on Navy Estimates, 4 February 1925).

CAB/24/171, Memorandum by the First Lord of the Admiralty on Navy Estimates, 4 February 1925).

CAB/24/174, Report of the Naval Programme Committee, 13 July 1925).

CAB/24/174, Memorandum by the Chancellor of the Exchequer, New Construction Programme, 20 July 1925).

CAB 24/175, Board of Trade Advisory Council, Trade outlook, 15 October 1925).

CAB/24/190, Naval Programme Committee report on cruisers, 14 December 1927.

CAB/24/195, Memorandum by the President of the board of trade, Trade Outlook, Engineering, 19 June 1928.

CAB/24/199, Memorandum by the First Lord of the Admiralty, Announcement as to cruiser type, 15 December 1928.

CAB/24/203, Statement by the Honourable Hugh Gibson, on behalf of the US of America, at Meeting of the Preparatory Commission on Disarmament at Geneva on 22 April 1929.

CAB/24/209, Joint Report by the Admiralty and Treasury on Navy Estimates 1930, 13 December 1929.

CAB/24/209, Memorandum by the Treasury on Financial Aspects of the Naval Conference, 16 December 1929.

CAB/24/209, London Naval Conference 1930, Memorandum respecting proposals to be submitted by H M Government in the United Kingdom to the Conference, Part III, Historical survey of the negotiations since the war for the limitations of naval armament, Undated.

CAB/24/209, Joint Report by the Admiralty and Treasury on Navy Estimates 1930, 13 December 1929.

CAB/24/210, Departmental Report on Memorandum by Trade Union Congress General Council, 22 November 1929.

CAB/24/219, Fighting Services Committee, Memorandum by the Chancellor of the Exchequer, Naval Construction Programme 1931, 23 January 1931.

- CAB/24/243, Memorandum by the First Lord of the Admiralty, Programme of new construction 1933, Proposed Alteration, 24 October 1933.
- CAB/24/251, Memorandum by the President of the Board of Trade, The British mercantile marine, Draft British Shipping (Assistance) Bill, 26 November 1934.
- CAB/24/251, Part II, Organisation of the Industry, Memorandum explaining the Constitution and Functions of the TSAC and Sub-Committees to be set up by the Ship owners, November 1934.
- CAB/24/255, Statement by His Majesty's Government on Certain Proposals submitted to them by Lloyd George, 11 July 1935).
- CAB/24/257, Memorandum by the Foreign Office and Admiralty, Course of Naval Negotiations, 11 October 1935).
- CAB/24/257, Report of Ministerial Committee, The Naval Conference 1935 (11 October 1935).
- CAB/24/259, The Second Report of the Commissioner for the Special Areas (England and Wales) 1936.
- CAB/24/259, Memorandum by the Secretary of State for War, The Importance of Anglo-Japanese Friendship, 17 January 1936.
- CAB/24/264, Tramp Shipping Subsidy, Memorandum by the President of the Board of Trade, 30 October 1936.
- CAB/24/264, Tramp shipping, Memorandum by the President of the Board of Trade, 30 October 1936.
- CAB/24/264, Tramp Shipping Subsidy, Memorandum by the President of the Board of Trade, 30 October 1936, Annex I.
- CAB/24/264, Tramp Shipping Subsidy, Memorandum by the President of the Board of Trade, 30 October 1936, Annex II.

CAB/24/265, Note by the First Lord of the Admiralty, Allocation of contracts to the distressed and special areas, 18 November 1936.

CAB/24/281, Report by the Minister for Co-ordination of Defence, The increase of manufacturing capacity for certain armaments to build up a greater war potential and to meet foreign orders, 19 December 1938.

CAB/24/282, Memorandum by the First Lord of the Admiralty, New Construction Programme 1939.

Command Paper 4159, Trade Policy Committee, Interim Report to the Cabinet, 9 August 1922.

Command Paper 4159, Trade Policy Committee, Appendix to Interim Report to the Cabinet, 9 August 1922.

Newcastle University

Runciman Papers, WR 238, Letter from Walter Runciman to Sir Percy E Bates, Rejection of Cunard's offer to purchase White Star Line, 18 October 1930.

Runciman Papers, WR 241, In the matter of the RMSPC and In the matter of the Companies Act 1929, Summary of the statement of affairs as at 10 February 1936.

Tyne and Wear Archives

Accession 2931, John Readheads & Sons Limited, Minute Book, 18 February 1930.

130/1297 Executive Committee Minute Book Number 7, 8 April 1920.

130/1298, Sir Armstrong Whitworth & Company Limited, Meeting of Executive Committee, 2 June 1921.

- 130/1307, Papers to be attached to minutes, Sir W G Armstrong Whitworth & Company Limited, Letter from Baring Bros to Lord Southborough, 15 January 1927.
- 130/1307, Papers to be attached to minutes, an address by Mr E Bernard Smith to the board of Sir W G Armstrong Whitworth & Company Limited, 17 May 1927.
- 130/1307, Papers to be attached to minutes, Sir W G Armstrong Whitworth & Company Limited, Memorandum prepared by W Plender dated 22 June 1927.
- 130/1307 Papers to be attached to minutes, Memorandum on the proposed merger of Vickers and Armstrong Whitworth by William Plender, Independent Chairman of the Joint Committee of Vickers Limited and Sir W G Armstrong Whitworth & Co Limited, 22 June 1927.
- 130/1307, Papers to be attached to minutes, HMS Nelson, 16 March 1928.
- 130/1369-73, Sir W G Armstrong Whitworth & Company Limited, data extracted from printed annual reports and balance sheets for the period 1 January 1923 to 31 December 1927.
- 130/1453, Report of Proceedings at the 25th Ordinary General Meeting of Sir W G Armstrong Whitworth & Co Ltd.
- 1826/36/20, Annual Report of Swan Hunter, Year Ending 31 December 1929.
- 1811/86/37, Statement by the Shipbuilding Conference, Rationalisation in Great Britain, 2 July 1929.
- 1811/86/37, Statement by the Shipbuilding Conference, dated 24 January 1930.
- 1811/86/37, Press Statement, Redundant Shipbuilding Capacity – Industry Scheme for Elimination dated 26 February 1930.
- 1811/86/37, Memorandum from the Shipbuilding Conference to A J Campbell of William Beardmore & Co Ltd dated 25 September 1930, The Shipbuilding Conference, 1 October 1928-13 July 1931.

1811/86/43, A review of the operations of National Shipbuilders Security Ltd and proposals concerning the future, with particular reference to preparations against a depression, dated February 1938.

1811/86/43, Letter from Sir James Lithgow, Chairman of National Shipbuilders Security Limited to William Doxford & Sons Limited, 12 February 1931.

1811/86/43, Details taken from a list of shipbuilding firms in Great Britain and Ireland – giving particulars of present and possible members of the shipbuilding conference: and number of building berths.

1811/198, The Shipbuilding Conference, Memorandum on the conditions now existing in the Shipbuilding Industry, December 1938.

1811/199/27, Shipbuilding, Present Position and Prospects for 1939, December 1938.

AS.ES/4/1/13, Transactions of the North-East Coast Institution of Engineers & Shipbuilders, Vol. XXXVIII, Session 1921-1922, Some notes on shipbuilding methods, by John McGovern, p. 349.

DS/SWH/2/3, Report to the directors of Swan Hunter & Wigham Richardson Limited on the suitability of diesel engines, 16 February 1926.

DS.DOX/1/5/2, William Doxford & Sons Limited, minute book, dated 6 September 1923.

DS.DOX/1/5/3, William Doxford & Sons Limited, Board of directors meeting minutes, 13 October 1925.

DS Dox 1/16/1 Purchase of shares by Northumberland Shipbuilding Limited.

DS Dox 1/5/2, Minutes of Meeting of Board of Directors, 20 January 1919.

DS.SWH/1/5/4, Swan Hunter & Wigham Richardson Limited, Report presented to the Board, No. 4, 1 November 1930,

DS.SWH/1/5/5, Swan Hunter & Wigham Richardson Limited, Report presented to the Board No. 5, 7 June 1932.

- DS.SWH/3/15/26, Report of Proceedings at the 21 Annual General Meeting of the Shareholders of John G Kincaid & Company Limited, Report presented by James S Kincaid, Chairman & Managing Director, 7 June 1927.
- DS.DOX/1/8/2, William Doxford & Sons Limited, Register of Members.
- DS.AP/1/4/2-4, S P Austin & Company Limited, Annual reports and accounts, April 1919 to April 1939.
- DS.JLT/1/11/2, J L Thomson & Company Limited, Minute Book, 5 October 1936.
- DS.JLT/1/18/1, J L Thompson & Sons Limited, Annual Return.
- DS.JLT/1/13/1, J L Thompson & Sons Limited, Register of directors or managers.
- G.EMP 2/7, Report by the Ministry of Labour, Employment Exchange Jarrow to the Divisional Controller Leeds, 25 January 1933.
- G.EMP 2/7, Employment Exchange Report, 21 March 1933.
- G.EMP 2/7, Employment Exchange report, Addendum to monthly report, 21 March 1933.
- G.EMP 2/8, Industrial and Social Survey Report, 19 January 1934.
- G/EMP 2/8, Notes on the Present Industrial Situation in Jarrow, 19 January 1934.
- G.EMP 2/9, Addendum to a letter to E P Rosamund, Hebburn Employment Exchange regarding the position of Hebburn and Jarrow, 3 May 1934.
- G.EMP 2/10, Letter to E Rosamund, Hebburn Employment Exchange from Hebburn Shipbuilding Yards enclosing report upon the industrial position, 19 July 1935).

Databases

British Shipbuilding Database, The Marine Technology Special Collection, Newcastle University, Armstrong Building, Queen Victoria Road, Newcastle upon Tyne, NE17RU.

World Shipbuilding Society, Mayes House, Vansittart Estate, Arthur Road, Windsor,
SL4 1SE, United Kingdom.

Lloyd's Register of Shipping, London, 1962.

Secondary sources

Books and articles

Aberconway Lord, *The basic industries of Great Britain: coal, iron, steel, engineering, ships.*

A historical and economic survey (London: E Benn, 1927).

Albu A, 'Causes of the decline in British merchant ship-building and marine engineering',

International Journal of Management Science, vol. 4, no. 5 (1976).

Aldcroft D H, 'Port congestion and the shipping boom of 1919–20', *Business History*, vol. 3,
no. 2 (1961).

Aldcroft D H, 'The entrepreneur and the British economy, 1870–1914', *Economic History
Review*, vol. 17, no. 1 (1964).

Aldcroft D H, *The Interwar Economy: Britain, 1919–1939* (London: Batsford, 1970).

Aldcroft D H, *The British economy, Volume 1: The years of turmoil 1920–1951* (Brighton:
Wheatsheaf, 1986).

Aldcroft D H and Richardson H W, *The British Economy 1870–1939* (London: MacMillan,
1969).

Alford R F G, *The British Economy: Key Statistics 1900–1970* (London: London and
Cambridge Economic Service, 1973).

Andrade E Jnr, 'The Cruiser Controversy in Naval Limitation Negotiations, 1922–1936',
Military Affairs, vol. 48, no. 3 (1984).

Ashton R K, 'The Royal Mail Case: A legal analysis', *Abacus*, vol. 22, no. 1 (1986).

- Armitage A, 'Shipbuilding at Belfast: Workman Clark and Company, 1880-1935', in L R Fischer (ed), *From Wheel House to Counting House: Essays in Honour of Professor Peter Neville Davies*, (Research in Maritime History, No. 2, St John's Newfoundland, 1992).
- John Armstrong, 'Climax and Climacteric: The British Coastal Trade, 1870-1930', David J Starkey and Alan G Jamieson (eds.), *Exploiting the sea, aspects of Britain's maritime economy since 1870* (Exeter: University of Exeter Press, 1998).
- Armstrong John & Williams David M, 'Technological Advance and Innovation: The Diffusion of the Early Steamship in the United Kingdom, 1812-34', *The Mariner's Mirror*, vol. 96, no. 1, (2010).
- Arnold Anthony J, 'Dependency, Debt and Shipbuilding in 'Palmer's Town'', *Northern History*, Vol. 49, Issue 1, 2012.
- Arnold Anthony J, *Iron shipbuilding on the Thames 1832-1915: an economic and business history* (Aldershot: Ashgate, 2000).
- Arnold Anthony J, 'No substitute for hard cash?' an analysis of returns on investment in the Royal Mail Steam Packet Company, 1903-29, *Accounting, business and financial history*, vol. 1, no. 3 (1991).
- Bacon R and Eltis W, *Britain's economic problem: too few producers* (London: MacMillan, 1976).
- Barnett C, *The audit of war: The illusion and reality of Britain as a great nation* (London: MacMillan, 1986).
- Bastable M J, *Arms and the state: Sir William Armstrong and the remaking of British naval power, 1854-1914* (Aldershot: Ashgate, 2004).
- Bell C M, *The Royal Navy, seapower and strategy between the wars* (Basingstoke: MacMillan, 2000).

- Ben-Moshe T, *Churchill, strategy and history* (Colorado: Lynne Rienner, 1992).
- Berg M W, 'Admiral William H. Standley and the Second London Naval Treaty, 1934–1936', *The Historian*, vol. 33 no. 2 (1971).
- Booth A, 'Britain in the 1930s: a managed economy?' *Economic History Review*, vol. 40, no. 4 (1987).
- Borthwick A, *Yarrow and Company Limited: The first hundred years* (Glasgow: The University Press, 1965).
- Braeman J, 'Power and Diplomacy: The 1920s Reappraised', *Review of Politics*, vol. 44, no. 3 (1982).
- Brautaset C and Tenold Stig, 'Globalisation and Norwegian Shipping Policy, 1850-2000', *Business History*, Vol. 50, No. 5, 2008.
- Broadberry S N, *The British economy between the wars: A macroeconomic survey* (Oxford: Blackwell, 1986).
- Broadberry S N and Crafts N F R, 'Britain's productivity gap in the 1930s: some neglected factors', *Journal of Economic History*, vol. 52, no. 3 (1992).
- Brooks C (ed.) *The Royal Mail case, Rex v. Lord Kylsant, and another* (Edinburgh: W Hodge & Company Limited, 1933).
- Burrell D, 'Shipping economics', in *The golden age of shipping: The classic merchant ship 1900–1960*, ed. R Gardiner (London: Conway Maritime Press, 1994).
- Burrows G and Cobbin P, 'Controlling government expenditure by external review: The 1921–2 "Geddes Axe"', *Accounting History*, vol. 14, no. 3 (2009).
- Burton Anthony, *The rise and fall of British shipbuilding* (London: Constable, 1994).
- Butlin R A (ed.), *Historical Geography Series* (London: Routledge, 1988).
- Buxton Ian L, Fenton Ray and Murphy Hugh, 'Measuring Britain's Merchant Shipbuilding Output in the Twentieth Century', *The Mariner's Mirror*, Vol. 101, Issue 3, 2015.

- Buxton Ian, 'Ship design and construction', in *The golden age of shipping: The classic merchant ship 1900–1960*, ed. R Gardiner (London: Conway Maritime Press, 1994).
- Buxton N K, 'The Scottish shipbuilding industry between the wars: A comparative study', *Business History*, vol. 10, no. 2 (1968).
- Buxton N K, 'Entrepreneurial efficiency in the British coal industry between the wars', *Economic History Review*, New Series, vol. 23, no. 3 (1970).
- Buxton N K, 'Efficiency and organisation in Scotland's iron and steel industry during the interwar period', *Economic History Review*, New Series, vol. 29, no. 1 (1976).
- Buxton N K, 'Economic growth in Scotland between the wars: The role of production structure and rationalisation', *Economic History Review*, vol. 33, no. 4 (1980).
- Buxton N K and Aldcroft D H (eds.), *British industry between the wars: Instability and industrial development 1919–1939* (London: Scolar Press, 1979).
- Cairncross A, 'The Bank of England and the British economy', in Roberts R and Kynaston D (eds.), *The Bank of England: Money, Power and Influence 1694–1994* (Oxford: Clarendon, 1995).
- Campbell Roy H, *The rise and fall of Scottish industry 1707–1939* (Edinburgh: John Donald, 1980).
- Campbell Roy H, 'Scottish shipbuilding; its rise and progress', *Scottish Geographical Magazine*, vol. 80, no. 2 (2008).
- Carvel J L, *Stephen of Linthouse, A record of two hundred years of shipbuilding, 1750–1950* (Glasgow: The University Press, 1950).
- Cerretano V, 'The Treasury, Britain's postwar reconstruction, and the industrial intervention of the Bank of England, 1921–9', *Economic History Review*, vol. 61, no. 1 (2009).
- A P Chalkley, *Diesel Engines for Land and Marine Work*, Sixth Edition, (London, Constable & Company 1927).

- Chandler A D, 'The beginning of "big business" in American industry', *Business History Review*, vol. 3, no. 1 (1959).
- Chandler A D, *Scale and scope: The dynamics of industrial capitalism* (Cambridge, Massachusetts: Harvard University Press, 1990).
- Chida T and Davies P N, *The Japanese shipping and shipbuilding industries* (London: Athlone Press, 1990).
- Churchill Winston, *The Second World War* (Boston: Houghton Mifflin, 1949).
- Churchill W, *The SWW, Volume 1, The Gathering Storm* (London: Cassell, 1948).
- Clarke J F, *Power on land and sea, 160 years of industrial enterprise on Tyneside, A history of R & W Hawthorn Leslie & Company Limited, engineers and shipbuilders* (Newcastle upon Tyne: Clarke Hawthorn, 1979).
- Clarke J F, *A century of service to engineering and shipbuilding* (Newcastle upon Tyne: NECIES, 1984).
- Clarke J F, *Building ships on the North East coast (Part 2, c1914–c1980), A labour of love, risk and pain* (Whitley Bay: Bewick Press, 1997).
- Clay Sir H, *Lord Norman* (London: MacMillan, 1957).
- Coates D, *The question of UK decline, state, society and economy* (Hemel Hempstead: Harvester Wheatsheaf, 1994).
- Colby C C, 'Regional Aspects of World Recovery', *Annals of the American Academy of Political and Social Science*, vol. 218 (1941).
- Colledge J J, *Ships of the Royal Navy: An historical index* (Newton Abbot: David & Charles, 1969).
- Constantine S, *Unemployment in Britain between the wars* (London: Longman Group Limited, 1980).

- Craft C B, 'An analysis of the Washington naval agreements and the economic provisions of arms control theory', *Defence and Peace Economics*, vol. 11, no. 1 (2000).
- Crafts N, 'British relative economic decline revisited: The role of competition', *Explorations in Economic History*, vol. 49 no. 1 (2012).
- Crafts N, 'Victorian Britain did fail', *Economic History Review*, vol. 32, no. 4 (1979).
- Craig R, *The ship, steam tramps and cargo liners 1850–1950 (The ship, no. 5)* (London: HMSO, 1980).
- Davies M, *Belief in the Sea, State Encouragement of British Merchant Shipping and Shipbuilding* (London: Lloyd's of London Press, 1992).
- Davies P N, *The trade makers, Elder Dempster in West Africa 1852–1971* (London: George Allen & Unwin, 1973).
- Davies P N, 'Business success and the role of chance: the extraordinary Philipps Brothers', *Business History*, vol. 23, no. 2 (1981).
- Davies P N and Bourn A M, 'Lord Kysant and the Royal Mail', *Business History*, vol. 14, no. 2 (1972).
- De Kerbrech R P, *Ships of the White Star Line* (Hersham: Ian Allan, 2009).
- Dewey R L, 'The Merchant Marine Act of 1936', *American Economic Review*, vol. 27, no. 2 (1937).
- Diaper Stefanie, 'The Sperling Combine and the Shipbuilding Industry: Merchant Banking, and Industrial Finance in the 1920s', in Jean Jacques Van Helten and Youssef Cassiis (eds.) *Capitalism in a Mature Economy and British Industry, 1870-1939*, (Aldershot, 1990)
- Diaper Stefanie, 'Merchant banking in the inter-war period: The case of Kleinwort, Sons & Co.', *Business History*, vol. 28, no. 4 (1986).
- Dintenfass M, *The decline of industrial Britain: 1870–1980* (London: Routledge, 1992).

Dittmar F J and Colledge J F, *British Warships 1914-1919*, (Allan, 1972);

Dormois J-P and Dintenfass M (eds.), *The British industrial decline* (London: Taylor & Francis e-Library, 2003).

Dougan D J, *The History of North East Shipbuilding* (London: George Allen & Unwin, 1968).

Dougan D, *The shipwrights, the history of the ship constructors' and shipwrights' Association 1882–1963* (Newcastle upon Tyne: Frank Graham, 1975).

Dyos H J and Aldcroft D H, *British transport* (Leicester: Penguin, 1969)

Edgerton D, *Warfare state Britain, 1920–1970* (Cambridge: Cambridge University Press, 2006).

Eichengreen B J, 'Keynes and protection', *Journal of Economic History*, vol. 44, no. 2 (1984).

Elbaum B, 'Why apprenticeship persisted in Britain but not in the United States', *Journal of Economic History*, vol. 49, no. 2 (1989).

Elbaum B and Lazonick W, 'The decline of the British economy: An Institutional Perspective', *Journal of Economic History*, vol. 44, no. 2 (1984).

Elbaum B and Lazonick W (eds.), *The decline of the British economy* (Oxford: Clarendon, 1986).

Evans H, *Vickers: against the odds 1956–1977* (London: Hodder and Stoughton, 1978).

Falkus M, *The Blue Funnel Legend: A history of the Ocean Steam Ship Company, 1865–1973* (London: MacMillan, 1990).

Fayle C E, *A short history of the world's shipping industry* (London: George Allen & Unwin Ltd, 1933).

Fenton Roy, 'Refining the Steam Coaster: Scotland's contribution', *The Mariner's Mirror*, vol. 102, no. 1, (2016).

Fink L, 'Global sea or national backwater? The international labour organisation and the quixotic quest for maritime standards, 1919–1945', in *Working across the Americas*,

- The transnational turn in labour history*, ed. L Fink (Oxford: Oxford University Press, 2011).
- Flagg A C, *Notes on the history of shipbuilding in South Shields 1746–1946 (with appendices)* (South Shields: South Tyneside Borough Council Library Service, 1979).
- French R and Smith K, *Lost shipyards of the Tyne* (Newcastle upon Tyne: Tyne Bridge Publishing, 2004).
- Gardiner R (ed.), *The golden age of shipping: The classic merchant ship 1900–1960* (London: Conway Maritime Press, 1994).
- Gardiner R (ed.), *All the Worlds Fighting Ships, Vols. 1, 2 & 3*, (London: Conway Maritime Press, 1979, 1985 and 1980)
- Garside W R, *British unemployment 1919–1939* (Cambridge: Cambridge University Press, 1990).
- Garside W R and Greaves J I, ‘The Bank of England and industrial intervention in interwar Britain’, *Financial History Review*, vol. 3, no. 1 (1996).
- Geary F, ‘The emergence of mass unemployment: wages and employment in shipbuilding between the wars’, *Cambridge Journal of Economics*, vol. 21, no. 3 (1997).
- George D L, *The truth about the peace treaties* (London: V Gollancz, 1938).
- Gilbert B B, *British social policy 1914–1939* (London: Batsford, 1970).
- Gordon A, ‘Naval procurement and shipbuilding capacity, 1918–1939’, in *Exploiting the sea, aspects of Britain’s maritime economy since 1870*, ed. D J Starkey and A G Jamieson (Exeter: University of Exeter Press, 1998).
- Grammenos Costas Th. (ed.), *The Handbook of Maritime Economics and Business* (London: Informa Professional, 2002).
- Grant, Sir Alan, *Steel & Ships: The history of John Brown’s* (London, Joseph, 1950).

Greaves Julian, *Industrial Re-organisation and Government Policy in Interwar Britain*

(Aldershot: Ashgate, 2005).

Green E and Moss M, *A Business of National Importance: The Royal Mail Shipping Group*

1902–1937 (London: Methuen, 1982).

Greenway Ambrose, 'Coastal and Short-Sea Shipping', in Robert Gardiner (Ed), *The Golden*

Age of Shipping, The Classic Merchant Ship, 1900-1960, (London: Conway Maritime

Press 1994).

Griffiths Denis, 'British Maritime Industry and the Diesel Engine', *Northern Mariner*,

vol. VII, no. 3, (1997).

Griffiths D, *Power of the great liners: A history of Atlantic Marine Engineering* (Yeovil:

Patrick Stephens, 1990).

Griffiths D, 'British shipping and the diesel engine: The early years', *Mariner's Mirror*,

vol. 81, no. 3 (1995).

Gripaios H, *Tramp shipping* (London: Thomas Nelson and Sons Ltd, 1959).

Groundwater K, *Newcastle and the River Tyne* (Kettering: Silver Link, 1998).

Grove Eric J, 'A service vindicated, 1939–1946', in *The Oxford illustrated history of the*

Royal Navy, ed. J R Hill (Oxford: Oxford University Press, 2002).

Grove J W, *Government and industry in Britain* (London: Longmans, 1962).

Guthrie John, *A History of Marine Engineering*, (London, Hutchinson Education Ltd 1971).

Habakkuk J, 'Family structure and economic change in nineteenth century Europe', *Journal*

of Economic History, vol. 15, no. 1 (1955).

Hannah L, 'Managerial innovation and the rise of the large-scale company in interwar

Britain', *Economic History Review*, vol. 27, no. 2 (1974).

Hannah L, 'Takeover bids in Britain before 1950: an exercise in business pre-history',

Business History, vol. 16, no. 1 (1974).

- Hannah L, *The Rise of the Corporate Economy*, 2nd edition (London: Methuen, 1983).
- Harding Richard Ed, *The Royal Navy, 1930-2000, Innovation and Defence* (London, Frank Cass, 2005).
- Hardy A C and Tyrrell E, *Shipbuilding: Background to a great industry* (London: Pitman, 1964).
- Hardy A C, *History of Motorshipping, The story of Fifty years of Progress which have had a Profound Influence upon the Development of Sea Transport during the Twentieth Century* (London, Whitehall Technical Press 1955).
- Hardy A C, *Motorships, An investigation into the characteristics of mercantile vessels propelled by internal combustion engines* (London, Chapman & Hall Limited 1925).
- Harlaftis G and Theotokas J, 'Maritime Business during the 20th Century: continuity and change', in *The Handbook of Maritime Economics and Business*, ed. C T Grammenos (London: Informa Professional, 2002).
- Heim C E, 'Interwar Responses to Regional Decline', in *The decline of the British economy*, ed. B Elbaum and W Lazonick (Oxford: Clarendon, 1986).
- Henning G R and Trace K, 'Britain and the motorship: a case of the delayed adoption of new technology?' *Journal of Economic History*, vol. 35, no. 2 (1975).
- Hill J R (ed.), *The Oxford illustrated history of the Royal Navy* (Oxford: Oxford University Press, 2002).
- Hincock K (ed.), *History of the SWW* (London: HMSO, 1955).
- Hogwood B W, *Government and shipbuilding: The politics of industrial change* (Farnborough: Saxon House, 1979).
- Hope Ronald, *A new history of British shipping* (London: John Murray, 1990).
- Hume John R and Moss Michael S, *Beardmore The History of a Scottish Industrial Giant*, (London, Heinemann, 1979).

- Hyde F E, *Cunard and the North Atlantic 1840–1973* (London: MacMillan, 1975).
- Irving R J, ‘New industries for old? Some investment decisions of Sir W G Armstrong Whitworth & Co Ltd, 1900–1914’, *Business History*, vol. 17, no. 2 (1975).
- Isserlis L, ‘Tramp Shipping Cargoes, and Freights’, *Journal of the Royal Statistical Society*, vol. 101, no. 1 (1938).
- Jaeger H, ‘Business in the Great Depression’, in *The Great Depression revisited: essays on the Economics of the Thirties*, ed. H V D Wee (The Hague: Nijhoff, 1972).
- Jamieson Alan G, *Ebb Tide in the British Maritime Industries, Change and Adaption, 1918-1990*, (Exeter, University of Exeter Press, 2003).
- Jeremy D J, ‘The hundred largest employers in the United Kingdom, in manufacturing and non-manufacturing industries in 1907, 1935 and 1955’, *Business History*, vol. 33, no. 1 (1991).
- John Readhead & Sons Limited South Shields 1865–1965* (South Shields: John Readheads, 1982).
- Johnman Lewis, ‘The largest manufacturing companies of 1935’, *Business History*, vol. 28 no. 2 (1986).
- Johnman Lewis and Murphy Hugh, *Scott Lithgow: Déjà vu all over again! The rise and fall of a shipbuilding company* (St John’s Newfoundland 2005)
- Johnman Lewis and Murphy Hugh, ‘A very British institution! A study in under-capitalisation: the role of the Ship Mortgage Finance Company in post-delivery credit financing within shipbuilding, 1951–67’, *Financial History Review*, vol. 6, no. 2 (1999).
- Johnman Lewis and Murphy Hugh, *British Shipbuilding and the State since 1918* (Exeter: University of Exeter Press, 2002).

Johnman Lewis and Murphy Hugh, 'The Norwegian Market for British Shipbuilding, 1945-1967', *Scandinavian Economic History Review*, vol. XLVI, no. 2, 1998.

Johnman Lewis and Murphy Hugh, 'An Overview of the Economic and Social Effects of the Interwar Depression on Clydeside Shipbuilding Communities', *International Journal of Maritime History*, Vol. XVIII, No.1 (June 2006).

Johnman Lewis and Murphy Hugh, 'Maritime and Business History in Britain: Past, Present and Future?' *International Journal of Maritime History*, Vol. XIX, No.1 (June 2007).

Johnman Lewis and Murphy Hugh, 'The Rationalisation of Slow Speed Marine Diesel Engine Building in the UK, 1912-1990' in David John Starkey and Hugh Murphy (eds.), *Beyond shipping and shipbuilding: Britain's ancillary maritime interests in the twentieth century* (Hull: Maritime Historical Studies Centre, 2007).

Johnman Lewis and Murphy Hugh, 'The Development of the British Ship Repair Industry, 1945-1985: An Overview' in Starkey and Murphy (eds.), *Beyond shipping and shipbuilding: Britain's ancillary maritime interests in the twentieth century* (Hull: Maritime Historical Studies Centre, 2007).

Johnman Lewis and Murphy Hugh, 'Welding and the British Shipbuilding Industry, A major constraint?', Richard Harding Ed, *The Royal Navy, 1930-2000, Innovation and Defence* (London, Frank Cass, 2005).

Johnman Lewis and Murphy Hugh, 'Subsidy and Treasury: The Trade Facilities Act and the UK shipbuilding industry in the 1920s', *Contemporary British History*, vol. 22, no. 1 (2007).

Johnson H, *The Cunard Story* (London: Whittet, 1987).

Johnston I, *Beardmore Built: The Rise and fall of a Clydeside Shipyard* (Clydebank: Clydebank District Libraries & Museums Dept., 1993).

- Johnston I, *Ships for a nation: John Brown & Company, Clydebank, 1847–1971* (Glasgow: West Dunbartonshire Libraries & Museums, 2000).
- Jones L, *Shipbuilding in Britain, mainly between the two World Wars* (Cardiff: University of Wales Press, 1957).
- Kennedy Greg C, 'Great Britain's Maritime Strength and the British Merchant Marine, 1922–1935', *The Mariner's Mirror*, Vol. 80, No. 1, 1994.
- Kennedy P, *The rise and fall of British naval mastery*, 3rd edition (London: Fontana, 1991).
- Kindleberger C P, *The world in depression 1929–1939* (London: Penguin, 1973).
- Kirby M W, *The decline of British economic power since 1870* (London: George Allen & Unwin, 1981).
- Kirby M W, 'Institutional rigidities and economical decline: reflections on the British experience', *Economic History Review*, vol. 45, no. 4 (1992).
- Landes D S, *The unbound Prometheus: Technological change and industrial development in Western Europe from 1750 to the present* (Cambridge: Cambridge University Press, 1972).
- Lewis W A, *The theory of economic growth* (London: George Allen & Unwin Limited, 1955).
- Lloyd George D, *The truth about the peace-treaties* (London: Victor Gollancz, 1938).
- Lorenz Edward H, *Towards a theory of British economic decline: The case of shipbuilding, 1890–1970*, Working Paper no. 148, Helen Kellogg Institute, November 1990.
- Lorenz Edward H, *Economic decline in Britain, The shipbuilding industry, 1890–1970* (Oxford: Clarendon Press, 1991).
- Lorenz Edward H, 'An Evolutionary Explanation for Competitive Decline: The British Shipbuilding Industry, 1890–1970', *Journal of Economic History*, vol. 51, no. 4 (1991).

- Lorenz Edward and Wilkinson F, 'The shipbuilding industry 1880–1965', in *The decline of the British economy*, ed. B Elbaum and W Lazonick (Oxford: Clarendon, 1986).
- Lowe R, 'The ministry of labour, 1916–19: a still, small voice?' in *War and the state, the transformation of British government, 1914–1919*, ed. K Burk (London: George Allen & Unwin, 1982).
- Lyon H, 'The relations between the Admiralty and private industry in the development of warships', in *Technical change and British naval policy 1860–1939*, ed. B Ranft (London: Hodder and Stoughton, 1977).
- Macdonald J R, 'The London Naval Conference 1930', *Journal of the Royal Institute of International Affairs*, vol. 9, no. 4 (1930).
- MacIntyre M A, 'Criminal provisions of the Securities Act and analogies to similar criminal statutes', *Yale Law Journal*, vol. 43, no. 2 (1933).
- Maddison A, *The World Economy, A Millennial Perspective* (Paris: Development Centre of the Organisation for Economic Co-operation and Development, 2001).
- Manley P S, 'Clarence Hatry', *Abacus*, vol. 12, no. 1 (1976).
- Marsh E J, *British Destroyers*, (Seeley, Services & Co, 1966).
- McBride W, 'The Unstable Dynamics of a Strategic Technology: Disarmament, Unemployment, and the Interwar Battleship', *Technology and Culture*, vol. 38, no. 2 (1997).
- McCloskey D N, 'Did Victorian Britain fail?' *Economic History Review*, vol. 23, no. 3 (1970).
- McDonald A, 'The Geddes Committee and the Formulation of Public Expenditure Policy, 1921–1922', *Historical Journal*, vol. 32, no. 3 (1989).
- McKeown D, 'Welding – The quiet revolution', in *European Shipbuilding, One Hundred Years of Change*, ed. F M Walker and A Slaven (London: Marine Publications, 1983).

- McKercher B J C, 'The politics of naval arms limitation in Britain in the 1920s', *Diplomacy and Statecraft*, vol. 4, no. 3 (1993).
- McOwat Peter, 'The *King Edward* and the Development of the Mercantile Marine Steam Turbine', *The Mariner's Mirror*, vol. 88, issue 3, 2002.
- Middlemiss N L, *British shipbuilding yards, vol. 1: North-East Coast* (Newcastle upon Tyne: Shield Press, 1993).
- Moggridge D E, *British Monetary Policy 1924–1931: The Norman Conquest of \$4.86* (Cambridge: Cambridge University Press, 1972).
- Mohammed Saif I Shah and Williamson Jefferey G, 'Freight rates and productivity gains in British tramp shipping 1869-1950', *Explorations in Economic History*, vol. 41, issue 2, 2004.
- More C, *Britain in the twentieth century* (Harlow: Pearson, 2007).
- Mortimer J E, *History of the boilermakers' society, volume 2: 1906–1939* (London: George Allen & Unwin, 1982).
- Moss M S and Hume J R, *Workshop of the British Empire, engineering and shipbuilding in the West of Scotland* (London: Heinemann, 1977).
- Mowat C L, *Britain between the Wars 1918–1940* (London: Methuen, 1955).
- Murphy Hugh, 'Déjà vu all over again! The reluctant rise and protracted demise of Scott Lithgow Limited', PhD Thesis, University of Westminster (2001).
- Murphy Hugh, 'The Health of Electric Arc Welders and the Adoption of Arc Welding in the British Shipbuilding Industry, 1930-1951', *International Journal of Maritime History*, Vol. XVII, No.1 (June 2005).
- Murphy Hugh, 'The British Shipbuilding Industry during the Great War: A Contextual Overview Incorporating Standardization and the National Shipyards', *International Journal of Maritime History*, Vol. 22, No. 2, December 2012.

- Murphy Hugh, “‘No Longer Competitive with Continental Shipbuilders:’ British Shipbuilding and International Competition, 1930-1960’, *International Journal of Maritime History*, Vol. XXV, No. 2 (December 2013).
- Murphy Hugh, ‘Shipbuilding and the International Journal of Maritime History’, *International Journal of Maritime History*, Vol. 26, No. 1, (2014).
- Murphy Hugh, draft, ‘Research Organisations in British Shipbuilding, 1944-1977’, work in progress.
- Mutch Alistair, ‘The construction of a ‘traditional’ occupation: welding 1900-1960’, *Labour History Review*, Vol. 66, Issue 1, (2001).
- Nelson RR and Winter SG, *An Evolutionary Theory of Economic Growth* (Harvard, Massachusetts: Belknap Press of Harvard University Press, 1982).
- Newton S and Porter D, *Modernization frustrated: The politics of industrial decline in Britain since 1900* (London: Unwin Hyman Ltd, 1988).
- O’Connor G R, ‘The yardstick and naval disarmament in the 1920s’, *Mississippi Valley Historical Review*, vol. 45, no. 3 (1958).
- Orsagh T J, ‘Progress in iron and steel, 1870–1913’, *Comparative studies in society and history*, vol. 3 no. 2 (1961).
- Palmer S and Williams G (eds.), *Chartered and Unchartered Waters* (Greenwich: Trustees of the National Maritime Museum, 1981).
- Parker T J, ‘Harland & Wolff: Towards 125 years of shipbuilding’, in *European Shipbuilding, One Hundred Years of Change*, ed. F M Walker and A Slaven (London: Marine Publications International, 1983).
- Parkes Oscar, *British Battleships*, (Seeley, Services & Co, 1966).
- Parkinson J R, *The economics of shipbuilding in the United Kingdom* (Cambridge: Cambridge University Press, 1960).

Parkinson J R, 'Shipbuilding', in *British industry between the wars: Instability and industrial development 1919–1939*, ed. N K Buxton and D H Aldcroft (London: Scolar Press, 1979).

Paterson Alan J S, *The Golden Years of the Clyde Steamers (1889-1914)*, (New York: Augustus M Kelley Publishers 1969).

Payne P L, 'The emergence of the large-scale company in Great Britain, 1870–1914', *Economic History Review*, vol. 20, no. 3 (1967).

Peden G C, *British Rearmament and the Treasury: 1932–1939* (Edinburgh: Scottish Academic Press, 1979).

Peden G C, *Keynes, The Treasury and British economic policy – studies in economic and social history* (Basingstoke: MacMillan, 1988).

Peden G C, *British economics and social policy, Lloyd George to Margaret Thatcher*, 2nd edition (Oxford: Philip Allen, 1990).

Peebles Hugh B, *Warshipbuilding on the Clyde. Naval Orders and the Prosperity of the Clyde Shipbuilding Industry, 1889-1939*, (Edinburgh, John Donald Publishers Limited, 1987).

Peebles Hugh B, 'Shipbuilding Between the Wars – An Accountant's View of the Experience of the Fairfield Company', in *European Shipbuilding, One Hundred Years of Change*, ed. F M Walker and A Slaven (London: Marine Publications International, 1983).

Perry M, *Bread and work: The experience of unemployment, 1918–39* (London: Pluto Press, 2000).

Perry M, *The Jarrow crusade: protest and legend* (Sunderland: University of Sunderland Press, 2005).

- Pollard Sidney, 'Laissez-faire and shipbuilding', *Economic History Review*, vol. 5, no. 1 (1952).
- Pollard Sidney, 'British and World Shipbuilding, 1890–1914: A study of comparative costs', *Journal of Economic History*, vol. 17, no. 3 (1957).
- Pollard Sidney, *Peaceful conquest: The Industrialization of Europe 1760–1970* (London: Oxford University Press, 1981).
- Pollard Sidney, *The wasting of the British economy: British economic policy 1945 to the present* (London: Croom Helm, 1982).
- Pollard Sidney, *The Development of the British Economy 1914–1980*, 3rd edition (London: Edward Arnold, 1983).
- Pollard Sidney, *The Development of the British Economy 1914–1990*, 4th edition (London: E Arnold, 1992).
- Pollard Sidney, 'Shipping and the British economy since 1870: A retrospective view', in *Exploiting the sea, aspects of Britain's maritime economy since 1870*, ed. D J Starkey and A G Jamieson (Exeter: University of Exeter Press, 1998).
- Pollard Sidney and Robertson Paul, *The British Shipbuilding Industry 1870–1914* (Cambridge, Massachusetts and London: Harvard University Press, 1979).
- Ranft B (ed.), *Technical change and British naval policy 1860–1939* (London: Hodder and Stoughton, 1977).
- Reid J M, *James Lithgow, master of work* (London: Hutchinson, 1964).
- Richardson H W, *Economic Recovery in Britain, 1932–9* (London: Weidenfeld & Nicolson, 1967).
- Ritchie L A, *Modern British shipbuilding, a guide to historical records* (Greenwich: Trustees of the National Maritime Museum, 1980).

- Roberts I P, *Craft, class and control: The sociology of a shipbuilding community* (Edinburgh: Edinburgh University Press, 1993).
- Robertson Paul L, 'Technical education in the British shipbuilding and the marine engineering industries, 1863–1914', *Economic History Review*, vol. 27, no. 2 (1974).
- Robins Nick, *Turbine Steamers of the British Isles*, (Newtownards, Colourpoint 1999).
- Rodgers T, 'Sir Allan Smith, the industrial group and the politics of unemployment 1919–1924', *Business History*, vol. 28, no. 1 (1986).
- Roskill S, *Naval Policy between the Wars: The period of Anglo-American Antagonism 1919–1929* (London: George Allen and Unwin Ltd, 1968).
- Sayers R S, 'The springs of technical progress in Britain, 1919–39', *Economic Journal*, vol. 60, no. 238 (1950).
- Sayers R S, *The Bank of England 1891–1944, Volume 1* (Cambridge: Cambridge University Press, 1976).
- Scott J D, *Vickers, A History* (London: Weidenfeld and Nicolson, 1962).
- Scott J D and Hughes R, 'The Administration of War Production', in *History of the SWW*, ed. K Hincecock (London: HMSO, 1955).
- Shonfield A, *British economic policy since the war* (Harmondsworth: Penguin, 1958).
- Skidelsky R, *Politicians and the slump, The Labour Government of 1929–1931* (London: MacMillan, 1967).
- Slaven Anthony, *The Development of the West of Scotland 1750–1960* (London: Routledge & Kegan Paul, 1975).
- Slaven Anthony, 'A Shipyard in Depression: John Browns of Clydebank 1919–1938', *Business History*, vol. 19, no. 2 (1977).

- Slaven Anthony, 'Self-liquidation: The National Shipbuilders Security Limited and British shipbuilding in the 1930s', in *Chartered and Unchartered Waters*, ed. S Palmer and G Williams (Greenwich: Trustees of the National Maritime Museum, 1981).
- Slaven Anthony, 'Management Policy and the Eclipse of British Shipbuilding', in *European Shipbuilding, One Hundred Years of Change*, ed. F M Walker and A Slaven (London: Marine Publications International, 1983).
- Slaven Anthony, *British Shipbuilding, 1500–2010* (Lancaster: Crucible, 2013).
- Smith J W and Holden T S, *Where Ships are Born* (Sunderland: Thomas Reed, 1953).
- Smith K and Rae I, *Swans of the Tyne* (Newcastle upon Tyne: Newcastle upon Tyne City Libraries & Arts and North Tyneside Libraries, 1994).
- Spender J A, *Great Britain, Empire and commonwealth, 1886–1935* (London: Cassell, 1936).
- Starkey David J and Jamieson Alan G (eds.), *Exploiting the sea, aspects of Britain's maritime economy since 1870* (Exeter: University of Exeter Press, 1998).
- Starkey David J and Murphy Hugh (eds.), *Beyond shipping and shipbuilding: Britain's ancillary maritime interests in the twentieth century* (Hull: Maritime Historical Studies Centre, 2007).
- Stevenson J, *British society 1914–45* (London: Penguin, 1984).
- Stevenson J and Cook C, *The slump, society and politics during the depression* (London: Jonathan Cape, 1977).
- Stopford Martin, *Maritime Economics, Second Edition*, (Oxon, Routledge, 1997).
- Strang John, 'On the Progress, Extent, and Value of Steamboat Building and Marine Engine Making on the Clyde', *Journal of the Statistical Society of London*, vol. 16, no. 1, (1853).
- Sturmey S G, *British Shipping and World Competition* (London: University of London, Athlone Press, 1962).

- Supple Barry, 'Fear of failing: economic history and the decline of Britain', *Economic History Review*, vol. 47, no. 3 (1994).
- Swing R G, 'British experiments in state intervention', *Foreign Affairs*, vol. 15, no. 1 (1937).
- Tenold Stig, 'Norway's Interwar Tanker Expansion – A Reappraisal', *Scandinavian Economic History Review*, Vol. 55, Issue 3, 2007.
- Thornton R H, *British shipping*, second edition (Cambridge: Cambridge University Press, 1959).
- Till G, 'Retrenchment, rethinking, revival, 1919–1939', in *The Oxford illustrated history of the Royal Navy*, ed. J R Hill (Oxford: Oxford University Press, 2002).
- Todd D, 'Regional variations in naval construction: the British experience, 1895–1966', *Regional Studies*, vol. 15, no. 2 (1981), 123–142.
- Todd D, 'Industrial inertia versus relocation: a shipbuilding illustration', *Professional Geographer*, vol. 35, no. 3 (1983), 286–298.
- Todd D, 'Strategies of growth, diversification and rationalisation in the evolution of concentration in British shipbuilding', *Regional studies*, vol. 18, no. 1 (1984), 55–67.
- Todd D, *The world shipbuilding industry* (New York: St Martin's Press, 1985).
- Tolliday S, *Business, Banking and Politics, The case of British Steel, 1918–1939* (Cambridge, Massachusetts: Harvard University Press, 1987).
- Tomlinson J, 'Inventing decline: the falling behind of the British economy in the post-war years', *Economic History Review*, vol. 39, no. 4 (1996), 731–757.
- Tomlinson J, 'Thrice denied: "Declinism" as a recurrent theme in British history in the long twentieth century', *Twentieth Century British History*, vol. 20 no. 2 (2009), 227–251.
- Walker Fred M, *Songs of the Clyde, A History of Clyde Shipbuilding*, (Edinburgh: John Donald Publishers, 1984).

- Walker F M and Slaven A (eds.), *European Shipbuilding, One Hundred Years of Change* (London: Marine Publications International, 1983).
- Walker R G, 'The Hatry affair', *Abacus*, vol. 13, no. 1 (1977).
- Ward S V, 'The Geography of Interwar Britain: the state and uneven development', in *Historical Geography Series*, ed. R A Butlin (London: Routledge, 1988).
- Ware C, 'In search of subsidy: shipowners, government and the British tramp shipping crisis, 1930–1938', in *Beyond shipping and shipbuilding: Britain's ancillary maritime interests in the twentieth century*, ed. D J Starkey and H Murphy (Hull: Maritime Historical Studies Centre, 2007).
- Warren Kenneth, *Armstrongs of Elswick: Growth in Engineering and Armaments to the Merger with Vickers* (London: MacMillan, 1989).
- Warren Kenneth, *Consett Iron 1840 to 1980: A study in industrial location* (Oxford: Clarendon, 1990).
- Warren Kenneth, *Jarrow: Victorian industrialisation and afterwards* (Berwick on Tweed: Martins the Printers, 2013).
- Watt DC, 'The Anglo-German Naval Agreement of 1935: An Interim Judgement', *Journal of Modern History*, vol. 28, no. 2 (1956), 155–175.
- Wee H V D (ed.), *The Great Depression, revisited essays on the Economics of the Thirties* (The Hague: Nijhoff, 1972).
- Who was who 1916–1928*, Volume II (London: Adam & Charles Black, 1931).
- Who was who 1929–1940*, Volume III (London: Adam & Charles Black, 1941).
- Who was who 1941–1950*, Volume IV (London: Adam & Charles Black, 1951).
- Who was who 1951–1960*, Volume V (London: Adam & Charles Black, 1961).
- Wilkinson E, *The town that was murdered, the life-story of Jarrow* (London: Victor Gollancz, 1939).

Yamamura K, 'Success ill gotten? The role of Meiji Militarism in Japan's technological progress', *Journal of Economic History*, vol. 37, no. 1 (1977), 113–135.

Newspapers and periodicals

Hood A G (ed.), *The Shipbuilder, The Journal of Shipbuilding, Marine Engineering and Allied Industries* vol. I, 1906–1907 (Manchester 1907).

Hood A G (ed.), *The Shipbuilder*, vol. XXVII, July 1917 (Manchester 1917).

Hood A G (ed.), *The Shipbuilder*, vol. XXI, December 1919 (Newcastle upon Tyne 1919).

Hood A G (ed.), *The Shipbuilder*, vol. XXII, January–June 1920 (London 1920).

Hood A G (ed.), *The Shipbuilder*, vol. XXIII, July–December 1920 (London 1921).

Hood A G (ed.), *The Shipbuilder*, vol. XXII, July–December 1920 (London 1920).

Hood A G (ed.), *The Shipbuilder*, vol. XXIV, January–July 1921 (Newcastle upon Tyne 1921).

Hood A G (ed.), *The Shipbuilder*, vol. XXV1, January–June 1922 (London 1922).

Hood A G (ed.), *The Shipbuilder*, vol. XXVII, July–December 1922 (Manchester 1922).

Hood A G (ed.), *The Shipbuilder*, vol. XXX, March 1924 (Manchester 1924).

Hood A G (ed.), *The Shipbuilder*, vol. XXXI (Newcastle upon Tyne 1924).

Hood A G (ed.), *The Shipbuilder*, vol. XXXIII (1926).

Hood A G (ed.), *The Shipbuilder*, vol. XXXIV, January–December 1927 (London 1927).

Hood A G (ed.), *The Shipbuilder*, vol. XXXII, January–December 1930 (London 1930).

Hood A G (ed.), *The Shipbuilder*, vol. XLIII, March 1936 (Newcastle upon Tyne 1936).

Hood A G (ed.), *The Shipbuilder*, vol. XLIV, April 1937 (Manchester 1937).

Hood A G (ed.), *The Shipbuilder*, vol. XLVI, April 1939 (Manchester 1939).

Shipbuilding and Shipping Record, Royal Mail Group Holdings, 17 March 1932).

Daily Express, London.

The Economist, London.

Evening Chronicle, Tyneside.

Evening Standard, London.

Financial Times, London.

Glasgow Herald

Lancaster Evening Post.

The Listener, London.

Manchester Guardian, Manchester.

Picture Post, London.

Shields Gazette.

Shields Daily Gazette and Shipping News.

Shields Daily Gazette and Shipping Telegraph.

Shipbuilding and Shipping Record, Manchester.

Sunday Times, London.

The Sunderland Daily Echo and Shipping Gazette.

The Sunderland Echo and Shipping Gazette.

The Times, London.

Yorkshire Post and Leeds Intelligencer.

Cartoons

Strube S G, *Daily Express*, 27 September 1934.

Unpublished sources

PhD Theses

Cormack W S, (1930), 'An Economic History of Shipbuilding and Marine Engineering',
(University of Glasgow, PhD Thesis).

Murphy H (2001), 'Déjà vu all over again! The reluctant rise and protracted demise of Scott
Lithgow Limited' (University of Westminster, PhD Thesis).

Roberts I P (1988), 'A Question of Construction: capital and labour in Wearside Shipbuilding
since the 1930's', Durham theses, Durham University.

Roberts R G (1986), 'The Board of Trade, 1925–1939' (Oxford University PhD Thesis).

Wallace J (1995), 'The Political Career of Walter Runciman, 1st Viscount of Doxford (1870-
1949)', (University of Newcastle-upon-Tyne, PhD Thesis).

MA Thesis

Paxton W (2007), 'Swan, Hunter & Wigham Richardson Limited, Shipbuilders, 1903 to
1939' (University of Greenwich, Greenwich Maritime Institute, MA Thesis).

Websites

Bagejohn.webspace.virginmedia.com.

British Admiralty Dockbook 1909: <http://www.gwpda.org/naval/dkbp134.jpg>

en.wikipedia.org

jpeg.ctgpublishing.com

www.benjidog.co.uk

www.clydesite.co.uk.

www.douglas-self.com/MUSEUM/POWER/still/still.htm

www.flickr.com

www.geordstoree.com

www.gracesguide.co.uk

www.iancombe.tripod.com

www.jamesott.webspace.virginmedia.com/shipyards/Yards_images/Shipyards_map.jpg

www.newportpast.com

www.norwayheritage.com

www.offshore-radio.de

www.oilpolutionliability.com

www.rdm-archief.nl

www.simplonc.co.uk

www.skyscrapercity.com

www.thegreatoceanliners.com

www.tynebuiltships.co.uk

www.uboat.net/allies/merchants/ships/1328.html