

**The London School of Economics and Political Science**

Whitehall, Industrial Mobilisation and the Private Manufacture  
of Armaments: British State-Industry Relations, 1918-1936

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of the London School of Economics for the degree of Doctor  
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## **Declaration**

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## **Abstract**

This thesis presents a comprehensive account of the complex relationship between the British government and the domestic military-naval arms industry from the armistice in 1918 until the period of rearmament in the 1930s. Challenging traditional ‘declinist’ assumptions, it offers a multifaceted interpretation of the industry’s strengths and weaknesses and its place in national security. In this regard, British governments always prioritised national interests over the private armament manufacturers’ particular concerns and never formulated a specific policy to help them adjust to peacetime conditions. Indeed, the wartime experience of industrial mobilisation – the mass production of war material by ordinary firms – made specialist arms producers appear less important in supply planning: a view that proved more important than disarmament and retrenchment in damaging state-industry relations and, together with Britain’s liberal economic traditions, helped to foster an enduring but exaggerated sense of relative weakness. Faced with the government’s apparent indifference, the overextended arms industry underwent comprehensive internal reorganisation, led by Vickers and supported hesitantly by the Bank of England. This reduced the overall number of manufacturers but it also brought modernisation and a comparatively efficient nucleus for emergency expansion. Internationally, British firms retained a large share of the global arms market despite rising competition. Policymakers rarely accepted widespread public criticism that private armaments manufacture and trading were immoral but believed that the League of Nations’ ambition to enforce all-encompassing international controls posed a far greater risk to British security. Although the government imposed unilateral arms trade regulations to facilitate political objectives, and was forced to address outraged popular opinion, neither seriously damaged the manufacturers’ fortunes as the country moved towards rearmament. Indeed, the arms industry was never simply a victim of government policy but instead pursued an independent and ultimately successful peacetime strategy, before rearmament led to a cautious renewal of state-industry relations.

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I dedicate this thesis to my grandmother, Norah May Burgess (1917-2004). Although she passed away before I began this work, my memories of her unconditional love and unwavering faith enabled me to finish it.

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## Abbreviations

BA	Baring Archive (London)
BoE	Bank of England Archive (London)
BSA	Birmingham Small Arms Company
BT	Board of Trade
CID	Committee of Imperial Defence
CTM	Committee for the Regulation of the Trade in, and Private and State Manufacture of, Arms and Implements of War (Disarmament Conference)
CUL	Cambridge University Library
DCI	Interdepartmental Disarmament Conference (Cabinet Committee)
DCTA	Interdepartmental Committee on Trading in Arms (Subcommittee of the Ministerial Committee on the Disarmament Conference)
ESC	English Steel Corporation
FCI	Foreign Countries Industrial Intelligence (Committee)
FO	Foreign Office
GUAS	Glasgow University Archive Services
HC	House of Commons
HL	House of Lords
IIC	Industrial Intelligence Centre
LN	League of Nations
MGO	Master General of the Ordnance (War Office)
MRC	Modern Records Centre (University of Warwick Library)
PAC	Permanent Advisory Committee (League of Nations)
PDC	Permanent Disarmament Commission (League of Nations)
PSOC	Principal Supply Officers Committee (of the CID)
RC	Royal Commission on the Private Manufacture and Trading in Arms (1935-6)
RLA	Reduction and Limitation of Armaments (Subcommittee of the CID)
ROFs	Royal Ordnance Factories
SB	Supply Board
SCPM	Special Commission for the Preparation of a Draft Convention on the Private Manufacture of Arms and Ammunition and of Implements of War (League of Nations)
SMT	Securities Management Trust
TMC	Temporary Mixed Commission on Armaments (League of Nations)
TNA	The National Archives (Kew)
TWAS	Tyne and Wear Archive Service (Newcastle upon Tyne)
UDC	Union of Democratic Control
VMF	Vickers Archives Microfilm
WO	War Office

## Introduction

At the start of the twentieth century the British armaments industry consisted of a small number of huge undertakings that produced bespoke items for governments, including massive guns, colossal gun-mountings and exceptionally hard armour plate. Such manufacture required the capacity to create and forge complex alloys combined with the dedicated plant and skilled labour to engineer these metals and other component parts into finished products. In terms of harnessing available technological potential, Clive Trebilcock has suggested that the ability to manufacture gun-mountings in 1910 was roughly comparable to the production of spacecraft in the 1980s.<sup>1</sup> The government could not afford to maintain such advanced facilities on the basis of its own defence requirements but instead relied on private industry, which was able to supplement its income by selling weapons to other countries' armed forces. As a result of their unique specialist capacity, the firms viewed themselves as vital components of Britain's maritime supremacy and imperial defence.<sup>2</sup> Yet although the manufacturers flourished before and during the Great War, the conflict also brought about major changes to their subsequent fortunes, structure and peacetime relationship with the state.

In contrast to the arms industry's focus on complex heavy military-naval products, the Great War demanded vast quantities of relatively simple items, such as shells, which the general engineering industry could mass produce with unskilled labour and some adaptation of plant. As a result, the McKinnon Wood committee, as part of its investigation of the state-owned Royal Ordnance Factories at Woolwich, ominously reported on 22 November 1918 that private arms manufacture would likely disappear as a speciality given that wartime needs could be met by 'the whole of the manufacturing power of the country, which has been educated in the supply of armaments.'<sup>3</sup> Furthermore, the committee suggested that public opinion would probably insist on the restriction of

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<sup>1</sup> Clive Trebilcock, 'Science, Technology and the Armaments Industry in the UK and Europe, with Special Reference to the Period 1880-1914', *Journal of European Economic History*, vol. 22, no. 3 (1993), 569-70.

<sup>2</sup> Arthur J. Marder, 'The English Armament Industry and Navalism in the Nineties', *Pacific Historical Review*, vol. 7, no. 3 (Sep., 1938), 251.

<sup>3</sup> Cmd 229 (1919), *Committee of Enquiry into the Royal Ordnance Factories, Woolwich: Reports to the Minister of Munitions* (March 1919), p.8.

peacetime arms production to government factories. Indeed, the League of Nations' Covenant, signed on 28 June 1919, suggested that the manufacture of armaments by private enterprise was open to 'grave objections' and 'evil effects'.<sup>4</sup> Unpopular and apparently outdated, the industry's future appeared especially bleak after 'the war to end all wars'. Despite this, the specialist arms firms dramatically reappeared in the public and political debates of the 1930s, against the background of mounting European and Far Eastern tensions. In September 1936 the Royal Commission on the Private Manufacture of and Trading in Arms rejected renewed calls for the arms industry's nationalisation and concluded that

the necessities of imperial defence cannot be effectively met, in existing conditions, except by the maintenance in peace-time of a system of collaboration between the Government and the private industry of the country in the supply of arms and munitions.<sup>5</sup>

However, from 1918 until the onset of rearmament in the 1930s, this 'system of collaboration' was characterised by struggle and stagnation rather than closeness and cooperation. Although the McKinnon Wood committee's predictions did not come to pass, the government offered little help while the arms firms adjusted to post-war conditions. In response, the manufacturers came to believe that officials cared little about their important specialist capacity or the question of 'industrial mobilisation' for a future war. Indeed, when the government began to plan for rearmament in the early 1930s, ministers feared that the arms industry had become critically weak.

This thesis argues that the divergent paths pursued by the government and the domestic arms industry between the armistice and rearmament caused each side to misinterpret the other's position. The state certainly did not neglect the question of industrial mobilisation for a future war, while the private armaments industry did not decline to a dangerous level. Instead, the perceptions of weakness arose from the fragmented nature of their inter-war relationship, particularly the government's failure to fully integrate the specialist arms manufacturers into

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<sup>4</sup> Article Eight quoted in F. P. Walters, *A History of the League of Nations* (one vol. edn., Oxford, 1960 [first published in two vols., 1952]), p.48.

<sup>5</sup> Cmd 5292 (1935-36), *Report of the Royal Commission on the Private Manufacture of and Trading in Arms* (October, 1936), p.53.

wider national defence planning. Although the resultant images of decline weakened Britain's response to the international crises of the 1930s, the state actually possessed significant organisational and industrial resources with which to meet these challenges.

For the purpose of this investigation, the 'arms industry' is defined as the limited number of private 'arms firms' which maintained expensive manufacturing resources with little or no wider commercial application in order to produce advanced military-naval weapons systems for governments, particularly heavy ordnance, gun-mountings and armour. These manufacturers were especially sensitive to changes in their relationship with the state and possessed the most pronounced contemporary reputations and corporate identities as armament manufacturers. Indeed, the chairman of Vickers Limited, one of the country's biggest industrial concerns, declared to the company's shareholders in April 1927 that 'we are an armament firm, dependent very largely on armament orders'.<sup>6</sup> Moreover, Vickers' merger with Sir W. G. Armstrong Whitworth and Company later in that year was specifically designed to amalgamate the two companies' arms-producing plant into one unit, Vickers-Armstrongs.

The definition adopted does not include the small arms industry, which adapted more easily to peacetime manufacture and had an obvious commercial outlet in sporting rifles. Neither does it include the chemical industry, which had a considerable civil utility and entirely separate character.<sup>7</sup> The exclusion of aircraft manufacture is perhaps more controversial, as David Edgerton has convincingly demonstrated how the British aviation industry during this period was essentially an arms-based business.<sup>8</sup> Nonetheless, aircraft manufacture had a clearly distinct identity from traditional forms of armament production. First, it was a new and growing industry, composed of a comparatively large number of smaller undertakings across the south of England, whereas the predominantly northern military-naval firms were at a much later stage of concentrated development. Second, the private aircraft manufacturers had virtually no competition from

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<sup>6</sup> *The Times*, 30 April 1927.

<sup>7</sup> See W. J. Reader, *Imperial Chemical Industries: A History*, 2 vols. (Oxford, 1970-1975); Robert Harris and Jeremy Paxman, *A Higher Form of Killing: The Secret Story of Gas and Germ Warfare* (London, 1982); Kim Coleman, *IG Farben and ICI, 1925-53: Strategies for Growth and Survival* (Basingstoke, 2006).

<sup>8</sup> David Edgerton, *England and the Aeroplane: An Essay on a Militant and Technological Nation* (Basingstoke, 1991), pp.18-58.

government factories, while firms like Vickers-Armstrongs had to compete with the Royal Dockyards and Ordnance Factories. Third, although the traditional arms firms produced aeroplanes they kept this activity distinct from their military-naval business. For example, Armstrong's aircraft interests did not form part of its armaments merger with Vickers in 1927; while Vickers' air subsidiaries were not placed under the aegis of Vickers-Armstrongs until the Second World War. Finally, the Air Ministry at least had the option of investing more widely in civil aviation during the 1920s, an alternative with no equivalent for the Admiralty or War Office. Nonetheless, the aircraft firms' transition to peacetime conditions after 1918 had certain parallels with the traditional arms companies' own experiences. In this regard, Edgerton's essay *England and the Aeroplane*, by shattering some of the enduring myths about Britain's alleged backwardness and decline in a different sector of defence production, complements the present study.

A tight definition also avoids the semantic controversies which plagued contemporary actors. For example, a League of Nations subcommittee came up with three competing replies to the question 'What is to be understood by the expression 'armaments'?'<sup>9</sup> Describing the 'arms industry' proved equally problematic given that, in the era of total war, a definition could feasibly cover a country's entire productive resources. On 8 November 1933 Sir John E. Thornycroft, whose company manufactured gunboats and destroyers, proposed to the editor of *The Times* that 'every factory is a potential armament works, however peaceful its products appear'.<sup>10</sup> On the other hand, Sir Maurice Hankey, the influential Secretary to both the Cabinet and Committee of Imperial Defence (CID), suggested in 1936: 'There are no armaments firms in this country – not purely armaments firms.'<sup>11</sup> Admittedly, no undertaking dedicated its entire productive resources to arms production but this comment overlooks the manufacturers' well-defined self-image, while Hankey and others certainly believed in the existence of a distinct armaments industry.

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<sup>9</sup> Andrew Webster, 'The Transnational Dream: Politicians, Diplomats and Soldiers in the League of Nations' Pursuit of International Disarmament, 1920-1938', *Contemporary European History*, vol. 14, no. 4 (2005), 511.

<sup>10</sup> *The Times*, 8 November 1933.

<sup>11</sup> Royal Commission on the Private Manufacture of and Trading in Arms (hereafter RC), *Minutes of Evidence* (London, 1935-6), p.586.

References in the text to ‘specialist’ firms designate those companies which formed the ‘arms industry’ in contrast to ‘general’ industrial undertakings, which were almost exclusively non-armament factories and certainly could not produce larger and more complex weapons. The terms ‘military-industrial’ and ‘naval-industrial’ are used to refer to the arms industry’s relationship with the War Office and Admiralty respectively. ‘State-industry’ describes the wider connections between the government and the armament firms. The word ‘supply’, when used in the context of military-naval planning, is used to denote procurement from industrial sources, rather than arrangements for logistical support. ‘Arms’ and ‘armaments’ are used interchangeably, while ‘munitions’ is generally avoided unless the context is clear, as contemporaries often understood the term to mean all military stores.<sup>12</sup>

The historical relationship between the state and the production of weapons technology has lent itself to sweeping chronological and geographical narratives.<sup>13</sup> More specific analyses of Britain’s inter-war arms industry have fallen into three broad types. First, contemporary accounts published in the 1930s adopted a populist and highly critical tone, accusing the ‘merchants of death’ of manipulating governments and fostering war. Second, scholars since the 1950s have largely described how post-armistice defence cuts and disarmament virtually obliterated the specialist arms industry and left the country with a poor industrial base for rearmament. Finally, a smaller number of historians have recently begun to challenge and revise the dominant paradigm of inter-war decline. The following review of these differing approaches not only provides context for the present study but also conveys a further sense of the private armament industry’s unique place in domestic and international affairs.

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<sup>12</sup> Some of these definitions are drawn from G. A. H. Gordon, *British Seapower and Procurement between the Wars: A Reappraisal of Rearmament* (Annapolis, 1988), pp.8-9.

<sup>13</sup> The classic study remains William H. McNeill, *The Pursuit of Power: Technology, Armed Force and Society since A.D. 1000* (Chicago, 1982). See also: Maurice Pearton, *The Knowledgeable State: Diplomacy, War and Technology since 1830* (London, 1982); Mary Kaldor, *The Baroque Arsenal* (New York, 1981). For broader analyses of the military’s use and misuse of technology throughout history, see: Geoffrey Parker, *The Military Revolution: Military Innovation and the Rise of the West 1500-1800* (2nd edn., Cambridge, 1996); Robert L. O’Connell, *Of Arms and Men: A History of War, Weapons, and Aggression* (Oxford, 1989); MacGregor Knox and Williamson Murray (eds.), *The Dynamics of Military Revolution 1300-2050* (Cambridge, 2001).

## Slings and Arrows: Contemporary Critics and the ‘Merchants of Death’

During the first half of the 1930s a significant body of critical opinion mobilised against the private manufacturers of arms. The arguments put forward not only became significant factors in the contemporary political and public debates surrounding the arms industry but also collectively represent the earliest significant published analyses of the inter-war relationship between the British government and the specialist firms. The controversy had its roots in the decade before 1914, when various liberals, pacifists, radicals and socialists argued that the arms industry was dangerously belligerent and exploitative.<sup>14</sup> For example, George Bernard Shaw’s 1905 satirical play *Major Barbara* notoriously depicted Andrew Undershaft, an amoral millionaire armaments manufacturer who repeatedly boasted of his political influence and espoused the ‘true faith of an Armourer’:

To give arms to all men who offer an honest price for them, without respect of persons or principles: to aristocrat and republican, to Nihilist and Tsar, to Capitalist and Socialist, to Protestant and Catholic, to burglar and policeman, to black man, white man and yellow man, to all sorts and conditions, all nationalities, all faiths, all follies, all causes and all crimes.<sup>15</sup>

The Union of Democratic Control (UDC), a broad leftist coalition which called for parliamentary control over foreign policy, warned during the Great War that if private arms-producing enterprise was left alone in the future, ‘one of the most sinister activities in Europe will be left to cajole, manipulate and corrupt the nations into further wars.’<sup>16</sup> Therefore, it demanded the nationalisation of the armaments industry and control over the international arms trade as part of the

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<sup>14</sup> Clive Trebilcock, ‘Legends of the British Armament Industry 1890-1914: A Revision’, *Journal of Contemporary History*, vol. 5, no. 4 (1970), 3; and ‘Radicalism and the Armament Trust’, in A. J. A. Morris (ed.), *Edwardian Radicalism, 1900-1914: Some Aspects of British Radicalism* (London, 1974), pp.180-81.

<sup>15</sup> George Bernard Shaw, *Major Barbara* (London, 2000 [first published 1907]), p.138.

<sup>16</sup> UDC, *The International Industry of War* (London, n.d. [c.1915]), p.14.

peace settlement.<sup>17</sup> However, in September 1933 the Union observed that the faith of the armourer as described by Shaw remained ‘substantially unimpaired’.<sup>18</sup>

While the UDC’s call for nationalisation ultimately failed, its warning about the dangers of excessive armaments resonated in the post-war world. Many statesmen involved in the July crisis subsequently sought to diminish any personal responsibility for the outbreak of the war by blaming a range of ‘great impersonal forces’, such as the naval and land arms races that had occupied the European great powers in the years preceding the conflict.<sup>19</sup> Sir Edward Grey, the Foreign Secretary in 1914, famously wrote in his memoirs that ‘the enormous growth of armaments in Europe, the sense of insecurity and fear caused by them – it was these that made war inevitable.’<sup>20</sup> Such arguments helped shift the human factor away from politicians and towards the private arms manufacturers. These mysterious figures, with a pecuniary interest in weapons sales, provided a ready scapegoat for a population struggling to find an explanation for over four years of industrial slaughter.<sup>21</sup> Nonetheless, public attention generally drifted away from the arms industry during the 1920s, perhaps owing to the big firms’ financial difficulties and the relative sense of calm in international affairs.

Although the private manufacturers’ profits improved as Britain moved towards rearmament, they also faced renewed and unprecedented levels of public criticism. In March 1933 the *Confederation Internationale des Associations de Mutiles et des Anciens Combattants* (which included the British Legion) and the *Federation Internationale des Anciens Combattants*, which together represented over eight million ex-soldiers, called for the Conference for the Reduction and Limitation of Armaments at Geneva (also known as the Disarmament Conference) to suppress private arms manufacture and trade.<sup>22</sup> In the United States, domestic pressure forced the Senate to establish the Special Committee Investigating the Munitions Industry, which met between 1934 and 1936 under the chairmanship of

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<sup>17</sup> Ibid., p.1.

<sup>18</sup> UDC, *Patriotism Ltd: an Exposure of the War Machine* (London, Sep., 1933), p.49.

<sup>19</sup> Marc Trachtenberg, ‘The Meaning of Mobilization in 1914’, *International Security*, vol. 15, no. 3 (Winter, 1990-1991), 148-49.

<sup>20</sup> Viscount Grey of Fallodon, *Twenty-Five Years 1892-1916, Volume I* (London, 1925), p.90.

<sup>21</sup> J. D. Scott, *Vickers: A History* (London, 1962), p.241; Trebilcock, ‘Legends’, 3; Anthony Sampson, *The Arms Bazaar in the Nineties: From Krupp to Saddam* (London, 1991), p.72.

<sup>22</sup> Philip Noel-Baker, *The Private Manufacture of Armaments: Volume I* (London, 1936), pp.82-83.

Senator Gerald P. Nye, a progressive Midwestern Republican.<sup>23</sup> The Nye Committee hearings, which were connected to rising American isolationist sentiment, turned up several personal and carelessly phrased letters, which had recently passed between Sir Charles Craven, a director of Vickers, and Lawrence Spear, a vice president of the Electric Boat Company, an American shipyard with which Vickers had a long-standing submarine production agreement. This correspondence appeared to suggest that the firms had fixed prices, bribed and deceived their governments, and had tried to play countries off against each other to secure larger orders. Regardless of Craven's actual intentions, his letters caused a transatlantic scandal, but he had to wait until his appearance at the Royal Commission in January 1936 to give his side of the story.<sup>24</sup>

The fourth question of the Peace Ballot (1934-35) asked the British public 'Should the manufacture and sale of armaments for private profit be prohibited by international agreement?' Although the guided nature of the ballot's line of questioning is open to criticism, 90 percent of the 11.6 million participants answered 'yes'.<sup>25</sup> Indeed, Martin Ceadel has affirmed that 'the arms traders were at the pinnacle of their long career as the peace movement's leading bogeymen.'<sup>26</sup> Political and popular pressure forced the government to announce the formation of the Royal Commission on the Private Manufacture of and Trading in Arms in late 1934, and nearly fifty major organisations representing over two million people, including the Trades Unions Congress, National Union of Teachers, various church leaders and a large number of peace groups, subsequently sent appeals calling for the abolition of private manufacture.<sup>27</sup>

The large number of condemnatory books and pamphlets published between 1932 and 1936 represent an enduring legacy of this controversy.<sup>28</sup> Many

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<sup>23</sup> John E. Wiltz, *In Search of Peace: The Senate Munitions Inquiry, 1934-36* (Baton Rouge, 1963).

<sup>24</sup> Scott, *Vickers*, pp.241-45.

<sup>25</sup> Martin Ceadel, 'The First British Referendum: The Peace Ballot, 1934-5', *English Historical Review*, vol. 95, no. 377 (Oct., 1980), 810-39.

<sup>26</sup> *Ibid.*, 820.

<sup>27</sup> David G. Anderson, 'British Rearmament and the 'Merchants of Death': The 1935-36 Royal Commission on the Manufacture of and Trade in Armaments', *Journal of Contemporary History*, vol. 29, no. 1 (Jan., 1994), 11-12, 15.

<sup>28</sup> For example: UDC, *The Secret International: Armament Firms at Work* (London, 1932); Fenner Brockway, *The Bloody Traffic* (London, 1933); Beverley Nichols, *Cry Havoc!* (London, 1933); League of Nations Union, *The Private Manufacture of Arms* (London, 1933); George A. Drew, *Salesmen of Death: The Truth About War Makers* (3rd edn., Toronto, April 1933); UDC, *Patriotism Ltd*; Fortune, *Arms and the Men* (New York, 1934); League of Nations Union, *The*

of these works, with titles such as *The Bloody Traffic*, adopted a sensationalist tone and most reflected a strong moral objection to making profits from war. In 1936 Philip Noel-Baker, a Labour politician who had served as personal assistant to the president of the Disarmament Conference, published a comparatively measured, yet still highly critical, systemic analysis of private armaments manufacture, which drew upon the evidence he had prepared for his appearance at the Royal Commission the previous year.<sup>29</sup> Notably, he eschewed a moralistic tone in order to explain more dispassionately his thesis that the manufacture of arms for private profit inevitably led to ‘evil effects’.<sup>30</sup> All the critics’ arguments were largely based on publicly available information, including memoirs, League of Nations documents and press reports, as well as personal experiences and anecdotes. The authors often referred to the activities of foreign firms and governments, or to events occurring prior to 1914, but they also provided enough material to form a general critique of the inter-war British arms industry.

The literature described a suspiciously close relationship between the manufacturers and Whitehall, and noted how private firms regularly recruited directors who had retired from political or service careers.<sup>31</sup> The authors argued that this cosy arrangement resulted in valuable domestic orders and other forms of direct and indirect assistance which meant that the British arms industry trailed only France in terms of overall output, and included Vickers-Armstrongs, probably the largest single armaments concern in the world. The connections of certain Vickers directors with various domestic and international banking interests provoked some interest, although the critics made no concrete allegations. The Union of Democratic Control reported that Vickers’ 80,000 shareholders came from all walks of life and included Lord Hailsham, the Secretary of State for War,

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*Manufacture of Arms and Profits in Arms* (London, 1934); H. C. Engelbrecht and F. C. Hanighen, *Merchants of Death: A Study of the International Armament Industry* (corr. edn., London, 1935 [first published 1934]); Noel-Baker, *Private Manufacture*.

<sup>29</sup> Disillusioned by the state of international relations, Noel-Baker withheld publication of the second volume of *The Private Manufacture of Armaments*: the fragmentary manuscript can be consulted at the League of Nations Archive in the Library of the United Nations Office at Geneva.

<sup>30</sup> For Noel-Baker’s appearance before the Royal Commission on 3 October 1935 and his memorandum of evidence, see: RC, *Evidence*, pp.229-308.

<sup>31</sup> Except where directly attributed, the following paragraphs are based on arguments which occurred in at least two of the works cited in note 28 above.

alongside ‘a noticeably high proportion of clergymen.’<sup>32</sup> Nonetheless, the UDC charitably imagined that ‘most of these persons must be quite innocent of any desire to slaughter their neighbours’, even though the shareholders stood to gain from increased arms sales.<sup>33</sup> No evidence emerged that British manufacturers had purchased control of any newspapers but Noel-Baker pointed out that the firms advertised on a considerable scale and also took advantage of a number of influential ‘patriotic’ societies, such as the Navy League, to press for greater national defence spending.<sup>34</sup> He also suggested that ‘all men’, both journalists and their readers, endowed armaments with a glamour that the peace movement could not match.<sup>35</sup>

The critics alleged that British firms faced few legislative obstacles to their overseas trading activities but did receive considerable diplomatic assistance from the government. Moreover, Noel-Baker argued that the manufacturers employed methods such as bribery to both obtain and increase the number of arms ordered by foreign governments and that they had no qualms about selling to Britain’s potential enemies.<sup>36</sup> To facilitate these dubious activities, the critics contended that the firms maintained various international connections, including interests in overseas companies. Vickers’ long-standing connection with Sir Basil Zaharoff, the notorious international arms dealer, prompted further suspicion. The literature also provided direct examples of how British manufacturers had supplied belligerents in the Far East and South America during the early 1930s, thereby flouting the League of Nations’ efforts to resolve conflict in these regions.

From rather meagre empirical foundations, the critics conjectured that the arms industry’s natural desire to make profits, coupled with its close political and economic connections, represented a dangerous and sinister factor in both domestic politics and international relations. For example, Noel-Baker described the ‘major evil’ of the system as

the steady pressure of an elaborately organised and  
financially powerful vested interest against policies

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<sup>32</sup> UDC, *Secret International*, p.43. The Labour Research Department subsequently prepared a detailed pamphlet outlining shareholdings in major arms and shipbuilding firms, as well as the aircraft and chemical industries: W. H. Williams, *Who’s Who in Arms* (London, 1935).

<sup>33</sup> UDC, *Secret International*, p.44.

<sup>34</sup> Noel-Baker, *Private Manufacture*, pp.246, 268, 290-307, 341-45.

<sup>35</sup> *Ibid.*, p.229.

<sup>36</sup> *Ibid.*, pp.132-34, 142, 158-59, 162-63, 195.

which make for peace and in favour of the increase of armaments, whether there is political justification for such an increase or not.<sup>37</sup>

Therefore, he did not doubt that the arms firms' activities were among the causes of Britain's rearmament programme in the mid-1930s.<sup>38</sup>

Noel-Baker also drew attention to the 1935 biography of the late Lord Wester Wemyss, a former First Sea Lord. This claimed that the admiral had placed a memorandum before the Admiralty in December 1918 which had condemned the arms industry's activities as 'a subterranean conspiracy against peace'.<sup>39</sup> At the Royal Commission in May 1936, Sir Maurice Hankey and Sir Oswyn Murray, the Admiralty's Permanent Secretary, played down this document's significance. Hankey, who had known Wemyss since 1908, suggested that his colleague had never demonstrated any strong feelings on the subject. Moreover, the admiral had neither authored nor initialled the memorandum in question, which had merely represented one of several circulating points of view. Murray admitted that Wemyss had initially supported calls to nationalise the arms industry in late 1918, but had made no subsequent representations to the War Cabinet on the issue and had even signed a service memorandum in February 1919 which strongly objected to nationalisation. Therefore, Hankey and Murray argued that this latter document represented his considered and final view.<sup>40</sup> Conversely, Lady Wemyss suggested that the Admiralty had pressed her husband to abandon his true feelings and that he had subsequently regretted his capitulation.<sup>41</sup>

Whether Wemyss had believed it or not, the critics maintained that events since 1918 confirmed the existence of 'a subterranean conspiracy against peace'. In particular, they highlighted the case of William Shearer, a lobbyist for American shipbuilders between 1926 and 1929. A subsequent senatorial enquiry heard that Shearer, largely funded by William Randolph Hearst to spread 'Big Navy' propaganda, had conversed with members of the American delegation at

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<sup>37</sup> Ibid., pp.93-94.

<sup>38</sup> Ibid., p.558.

<sup>39</sup> Lady Victoria Wester Wemyss, *The Life and Letters of Lord Wester Wemyss, Admiral of the Fleet* (London, 1935), pp.405-408; RC, *Evidence*, p.230; Noel-Baker, *Private Manufacture*, pp.96-97.

<sup>40</sup> RC, *Evidence*, pp.691, 717, 741-42.

<sup>41</sup> Lady Wemyss, *Life and Letters*, p.409.

the unsuccessful Geneva Naval Conference in 1927.<sup>42</sup> However, while lobbyists undoubtedly soured the atmosphere and contributed to distorted American press reports, historians have concluded that a lack of preparation by the participants and political disagreement over the limitation of cruisers proved central to failure at Geneva.<sup>43</sup> Yet, regardless of Shearer's actual impact, contemporary critics seized upon the self-styled 'man who wrecked the conference'. For example, Richard Lewinsohn, an émigré German journalist and political scientist, alleged that the armament firms 'sent their emissaries to Geneva to fight disarmament tooth and nail', but could cite only Shearer as a definite example.<sup>44</sup>

Although the industry's opponents uncovered little to suggest that the manufacturers had directly acted against disarmament and found virtually nothing to implicate British firms, they simply claimed that this lack of evidence was itself proof of a vast and sinister network of connections, which provided many opportunities for 'unostentatious persuasion and propaganda.'<sup>45</sup> Indeed, Noel-Baker believed the firms kept their anti-disarmament work as secret as possible, and imagined their agents were acting with greater subtlety in light of the Shearer experience.<sup>46</sup> He contended the League of Nations' ambitions – international cooperation, security and disarmament – inevitably increased the 'sales resistance' faced by the manufacturers and made it unlikely that they would merely act as neutral observers.<sup>47</sup> Based on his personal experience at Geneva, he argued the international arms industry's 'gigantic combinations' and 'close cartels' had worked against not only the Disarmament Conference, but also the League's efforts to resolve peacefully both the Manchurian crisis after 1931 and Italy's invasion of Ethiopia in 1935.<sup>48</sup>

Noel-Baker concluded that Britain 'with perhaps the highest standards of democracy in the world' had not avoided the 'evils' of private manufacture and

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<sup>42</sup> Wiltz, *In Search of Peace*, pp.8-12; Christopher Hall, *Britain, America and Arms Control 1921-37* (Basingstoke, 1987), pp.75-76.

<sup>43</sup> Stephen Roskill, *Naval Policy between the Wars, I: The Period of Anglo-American Antagonism, 1919-1929* (London, 1968), pp.506, 508, 514-15; B. J. C. McKercher, *The Second Baldwin Government and the United States, 1924-1929: Attitudes and Diplomacy* (Cambridge, 1984), pp.69, 75; Hall, *Britain, America and Arms Control*, pp.47, 51-2. For a British delegate's broad agreement with this interpretation, see Viscount Cecil, *A Great Experiment: An Autobiography* (London, 1941), pp.186-87, but also see his testimony in RC, *Evidence*, pp.4-5.

<sup>44</sup> Richard Lewinsohn, *The Profits of War Through the Ages* (London, 1936), pp.188-89.

<sup>45</sup> UDC, *Secret International*, pp.36-37.

<sup>46</sup> Noel-Baker, *Private Manufacture*, pp.354, 365.

<sup>47</sup> *Ibid.*, pp.102, 118.

<sup>48</sup> *Ibid.*, pp.11, 364-69; 530-31, 536-37. See also: UDC, *Secret International*, pp.4-6.

called upon the government to nationalise armaments production as an example to other states.<sup>49</sup> Moreover, the UDC contended that if the various governments did not demonstrate their sincerity towards international cooperation by abandoning their ‘unholy alliance’ with the arms industry, it might lead to revolution.<sup>50</sup> Other authors believed that only the replacement of the entire capitalist system would enable permanent peace and disarmament. For example, H. C. Engelbrecht and F. C. Hanighen, the American authors of *Merchants of Death*, contended that: ‘If the arms industry is a cancer on the body of modern civilisation, it is not an extraneous growth; it is the result of the unhealthy condition of the body itself.’<sup>51</sup> Consequently, they suggested that only a fundamental shift in the basic elements of civilisation would enable disarmament and end the domination of aggressive forces, such as nationalism, capitalism and imperialism, in international politics.<sup>52</sup> Fenner Brockway, the socialist author of *The Bloody Traffic*, called for revolution and argued that nationalisation would merely concentrate arms production in the hands of wealthy governments and would not address the issue of other groups profiting from war.<sup>53</sup> Along similar lines, Richard Lewinsohn noted how public opinion had mobilised against the arms firms, yet had paid scant attention to the wartime producers of raw materials and other goods such as ‘corned beef, military cloth, boots, oil and petrol and the thousand other things required by a modern army’, despite the enormous potential for these groups to have a vested financial interest in war.<sup>54</sup>

In September 1933, Sir Mark Webster Jenkinson, Vickers’ financial director, sent General Sir Herbert Lawrence, the company’s chairman, a copy of *The Bloody Traffic*, with the note:

You will see that he dishes up again in new phraseology the old lies about Vickers and Vickers-Armstrongs. Anyway, it may amuse you. Please do not trouble to return the book. If the weather turns colder, it will make good material for your fire!<sup>55</sup>

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<sup>49</sup> Noel-Baker, *Private Manufacture*, p.559.

<sup>50</sup> UDC, *Secret International*, pp.46, 48.

<sup>51</sup> Engelbrecht and Hanighen, *Merchants of Death*, pp.7-8, 10.

<sup>52</sup> *Ibid.*, pp.274-75.

<sup>53</sup> Brockway, *Bloody Traffic*, pp.271-72, 284-8.

<sup>54</sup> Lewinsohn, *Profits*, pp.195-245.

<sup>55</sup> University Library, Cambridge (hereafter CUL), Vickers Archives Microfilm (hereafter VMF) R323, Jenkinson to Lawrence, 7 September 1933.

However, Lawrence felt compelled to address the critics' arguments more constructively. In April 1935 he refuted claims that the firm wished to foster war and declared at its annual meeting that

the Directors and shareholders know to their cost the sorrow and suffering which War entails; the waste of human life and material; the financial loss which posterity has to bear; and the damage which is done to the economic structure of the world.<sup>56</sup>

Noel-Baker admitted the manufacturers might sincerely detest war, but suggested that war nonetheless brought great prosperity to their business.<sup>57</sup> Conversely, Lewinsohn argued that the increase of wartime state controls and threat of nationalisation had decreased the desirability of large-scale conflict for the arms industry. He suggested the manufacturers now preferred to make profits from warlike preparations and manoeuvres, and through technical innovations. Rather than actual war, he contended the firms wished to maintain the fear of war, or a 'precarious peace', which caused them to suspect international disarmament or any other process that aimed to bring about 'a really stable peace'.<sup>58</sup>

The manufacturers were given a chance to defend themselves publicly at the Royal Commission in early 1936.<sup>59</sup> However, their responses under questioning were frequently cynical, evasive or flippant and did little to endear them to the commissioners. For example, Sir Charles Craven suggested, during an exchange with Sir Philip Gibbs, the famous author and journalist, that Vickers' business was no more dangerous than any other and claimed that he had never been injured by a gun but had nearly lost an eye to a Christmas cracker. John Alfred Spender, another commissioner, later wrote that he had taken 'a much lighter view' of the industry's alleged misconduct before he had heard the evidence for the defence!<sup>60</sup>

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<sup>56</sup> *The Times*, 3 April 1935.

<sup>57</sup> Noel-Baker, *Private Manufacture*, p.53.

<sup>58</sup> Lewinsohn, *Profits*, pp.194, 283.

<sup>59</sup> Between January and February 1936, representatives of Vickers, Imperial Chemical Industries, Beardmore, Hadfield, Firth and Brown, Birmingham Small Arms and the Soley Armament Company appeared before the Commission. RC, *Evidence*, pp.345-506.

<sup>60</sup> Anderson, 'British Rearmament', 19-22.

Until Hankey appeared before the Commission in May 1936, pro-manufacturer opinion had not articulated itself with anywhere near the same force or conviction as the opposing argument. Indeed, Hankey mused that he had ‘never seen the other case really put in full.’ As a result, he suggested that the eleven million people who had expressed their willingness to abolish private manufacture via the Peace Ballot had merely acted on ‘instinct’ based upon the critics’ ‘terrific propaganda’.<sup>61</sup> Believing abolition would have disastrous consequences for national security and rearmament, Hankey presented the Commission with a wide-ranging defence of the arms industry on 8 May. He suggested that private firms were indispensable in wartime and provided vital peacetime commercial and defence benefits which far outweighed any alleged dangers.<sup>62</sup> In this latter regard, Hankey dedicated an enormously detailed memorandum and a further sitting of the Royal Commission to a relentless attack on the critics’ key contentions, which he based on a wide range of official and historical documents. He particularly condemned the prejudice and vagueness of the case against the manufacturers, and suggested the scope for any sinister influence was negligible.<sup>63</sup> Hankey succeeded in convincing the Commission that the case against the British arms industry had not been proved, although the commissioners’ report criticised the practice of bribery by the firms’ overseas agents.<sup>64</sup> Similarly, the Nye Committee in the United States also proved that the arguments against the ‘merchants of death’ only had a limited validity.<sup>65</sup>

During the Second World War, Vickers’ production of the iconic Spitfire fighter and the Wellington bomber helped to restore the company’s reputation and also reflected how developments in aircraft technology had supplanted the traditional military-naval industries.<sup>66</sup> In this context, and considering the Royal Commission’s relatively unspectacular verdict, the 1930s outcry became somewhat ephemeral and has subsequently received only sporadic historical treatment. In 1970 Clive Trebilcock, having taken advantage of newly-opened state papers and business archives, presented a revisionist account of the ‘legends and myths’ which ‘shrill’ 1930s critics had propagated about the pre-1914 arms

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<sup>61</sup> RC, *Evidence*, p.603.

<sup>62</sup> *Ibid.*, pp.585-648; Anderson, ‘British Rearmament’, 25-26.

<sup>63</sup> RC, *Evidence*, pp.689-756; Anderson, ‘British Rearmament’, 23, 26-27.

<sup>64</sup> Cmd 5292, *Trading in Arms*, pp.23-39.

<sup>65</sup> Wiltz, *In Search of Peace*, p.231.

<sup>66</sup> Sampson, *Arms Bazaar*, pp.97-99.

industry. He concluded that any scandals merely resulted from a 'group of problem-ridden businessmen reacting pragmatically – and sometimes mistakenly – to the complex difficulties of their markets.'<sup>67</sup> In 1979 Richard Davenport-Hines, under Trebilcock's supervision, extended this analysis to cover the specific allegations relating to the inter-war years. Drawing upon Hankey's evidence, Davenport-Hines suggested that the 1930 anti-manufacturer campaign represented nothing more than escapism from the deteriorating international situation.<sup>68</sup> Moreover, his research into company papers suggested that the firms employed bribery only in certain overseas contexts when the application of 'grease' was an established practice of the customer. Such lubrication was never used at home, and Davenport-Hines suggested that the manufacturers must have found this foreign custom an 'intolerable nuisance', with no appreciable effect on the quantity of arms sold.<sup>69</sup>

Although Trebilcock and Davenport-Hines have stripped away much of the caricature and hyperbole of the pamphlet literature, their own relentlessly revisionist zeal has consequently presented the arms industry as an almost helpless victim of both government policy and the ebb and flow of international affairs. Conversely, David G. Anderson has pointed out that, while the Royal Commission threw out the most serious charges, it found sufficient evidence in the industry's testimony to conclude that the system of private armaments manufacture did offer considerable scope for abuse. Therefore, the commissioners recommended closer governmental oversight of the industry's affairs, although they rejected nationalisation. Their report steered a middle course between the two extremes of opinion, but Anderson has suggested that their relatively limited powers of investigation meant they convinced neither side.<sup>70</sup> Nonetheless, the Commission's extensive minutes of evidence remain an invaluable resource for historians, providing examples of a wide variety of critical, industrial and departmental opinions. Moreover, although the 1930s outcry was based on a vastly exaggerated notion of dangerously intertwined state-industry relations, it at least began a process of enquiry into the realities behind the allegations.

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<sup>67</sup> Trebilcock, 'Legends'. See also: Scott, *Vickers*, pp.238-56.

<sup>68</sup> R. P. T. Davenport-Hines, 'The British Armaments Industry during Disarmament, 1918-36' (University of Cambridge Ph.D. thesis, 1979), pp.33-84.

<sup>69</sup> *Ibid.*, pp.57-66.

<sup>70</sup> Anderson, 'British Rearmament', 27-28.

## Decay and Decline: Post-1945 Interpretations of Inter-War Arms Production

In an ironic parallel to the public clamour against the private manufacturers, the government became increasingly concerned about the domestic arms industry's ability to produce the weapons required by the armed forces. The Chiefs of Staff annual review for 1932 described how the 'decay of our armament industry' had contributed to Britain's inability to fulfil its substantial overseas commitments.<sup>71</sup> Hankey wrote on 4 March 1933 that the arms industry was 'the weakest point in Imperial Defence'.<sup>72</sup> On 31 March another report described how the shipbuilding and armaments industries had drastically declined in terms of available plant and skilled labour, and blamed disarmament, the existence of large surplus stocks, the government's restrictive arms trade policy and a lack of foreign orders.<sup>73</sup> As a result, Walter Runciman, the President of the Board of Trade, told his colleagues on the CID that 'our armament firms are now weaker than they have been for three generations', while James Ramsay MacDonald, the Prime Minister, admitted that the situation was 'very serious'.<sup>74</sup> These contemporary images of decline and weakness have pervaded subsequent historical accounts of the inter-war arms industry, often as part of explanations as to why Britain appeased Nazi Germany.<sup>75</sup>

The authors of the civil history of the Second World War were granted access to relevant official documents and adopted an unsurprisingly gloomy view of the arms industry in their summaries of the inter-war period. In 1952 Michael Postan, a Cambridge professor of economic history who had worked for the Ministry of Economic Warfare, wrote in his volume on *British War Production* that financial stringency and disarmament in the 'lean years' prior to rearmament had not only seriously lowered the armed forces' equipment but also caused a considerable reduction in the industrial capacity at the services' disposal.<sup>76</sup>

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<sup>71</sup> Quoted in Correlli Barnett, *The Collapse of British Power* (Stroud, 1997 [first published 1972]), p.343.

<sup>72</sup> Quoted in Stephen Roskill, *Hankey, Man of Secrets, Volume III: 1931-1963* (London, 1974), p.72.

<sup>73</sup> The National Archives, Kew (hereafter TNA), CAB 4/22/1109-B, Principal Supply Officers Committee (hereafter PSOC) Report: Armaments Industry, 31 March 1933.

<sup>74</sup> TNA, CAB 2/5, Committee of Imperial Deference (hereafter CID) Minutes, 6 April 1933.

<sup>75</sup> For example: F. Coghlan, 'Armaments, Economic Policy and Appeasement: Background to British Foreign Policy, 1931-7', *History*, vol. 57, no. 190 (Jun., 1972), 214-15; Paul M. Kennedy, *The Rise and Fall of British Naval Mastery* (London, 1983 [first published 1976]), pp.287-88.

<sup>76</sup> Michael M. Postan, *British War Production* (London, 1952), pp.1-4, 6-8, 47-48.

Nonetheless, Postan recognised Vickers' dominance amongst the specialist producers and suggested that the firm enjoyed a near-monopolistic relationship with the Admiralty for design and production.<sup>77</sup> William Hornby's 1958 volume on *Factories and Plant* referred to the arms industry's 'serious decline', the 'persistent deterioration' of shipbuilding resources and the 'general deterioration' of armament productive capacity.<sup>78</sup> Hornby argued that the specialist arms manufacturers, unable to find either a satisfactory basis for their peacetime existence or to modernise their plant, suffered from limited domestic and foreign orders and reached 'the verge of extinction.'<sup>79</sup> Such views swiftly became historiographical orthodoxy although subsequent accounts tended to criticise the government more overtly for its adherence to orthodox finance, retrenchment and disarmament.<sup>80</sup>

J. D. Scott, who had worked for the Ministry of Aircraft Production during the Second World War and subsequently wrote part of the civil history, published the official history of Vickers in 1962. Granted access to the firm's records, Scott demonstrated that internal business troubles and the general trade depression played an important part in its post-1918 misfortunes although he reiterated the debilitating effects of defence cuts. Despite these problems, he suggested that Vickers possessed a distinct advantage over its rivals in terms of labour availability, industrial capacity and overall market dominance.<sup>81</sup> Richard Davenport-Hines, as part of his wide-ranging analysis of the arms industry's fortunes between 1918 and 1936, subsequently argued that this virtual monopoly ultimately damaged Vickers' efficiency.<sup>82</sup> In a largely gloomy account, Davenport-Hines' assessment of the armament industry's position reflected the 1930s service departmental views and repeated, albeit in some detail, the usual litany of retrenchment, disarmament and ruinously stringent export controls. As a result, he concluded that these policies killed off many of the specialist firms and consequently limited Britain's flexibility in international affairs.<sup>83</sup> Nonetheless, his study remains particularly valuable for its examination of the industry's

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<sup>77</sup> *Ibid.*, p.441.

<sup>78</sup> William Hornby, *Factories and Plant* (London, 1958), pp.21, 23.

<sup>79</sup> *Ibid.*, p.25.

<sup>80</sup> For example: Robin Higham, *Armed Forces in Peacetime: Britain, 1918-1940, A Case Study* (London, 1962), pp.191-242.

<sup>81</sup> Scott, *Vickers*, pp.137-264.

<sup>82</sup> Davenport-Hines, 'Armaments Industry', p.265.

<sup>83</sup> *Ibid.*, Chs. 1, 5-6.

managerial transformation and its illuminating portraits of the boardroom character and wider organisation of Vickers, Armstrong and the Birmingham Small Arms Company.<sup>84</sup>

Although business historians have rarely gone beyond the standard narrative of decline or investigated the motives behind the government's allegedly devastating policies towards the arms industry, they have provided a great deal of useful information on the characters, structures and daily operations of individual firms. Business history has also shed greater light on the industry's unusual relationship with the financial community. Following themes developed in R.S. Sayers' 1976 history of the Bank of England, John Hume and Michael Moss explored how the rising debts of large armament firms like Beardmore helped prompt the Bank's wider interventions into British industry in the inter-war period.<sup>85</sup> Kenneth Warren investigated similar themes in his subsequent 'life history' of Armstrong although he explicitly excluded 'the military-political-industrial complex' from his account, as a 'distraction' from purely business history.<sup>86</sup> Nonetheless, his later work on Cammell Laird interestingly suggested that post-1918 governments were more interested in maintaining their relationship with Armstrong and Vickers than with the other comparatively smaller arms firms.<sup>87</sup> In 1987 Steven Tolliday's comprehensive institutional analysis of the British steel industry between the wars described both cooperation and conflicting interests amongst the business, banking and political communities.<sup>88</sup> In particular, he argued that Montagu Norman, the Governor of the Bank of England, was cautious and unrealistic in his dealings with the arms industry, and Vickers was therefore able to seize the initiative through a stronger and more pragmatic grasp of the situation.<sup>89</sup> Nonetheless, Tolliday focused on the implications of this partnership for the wider steel industry and therefore offered limited analysis of

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<sup>84</sup> Ibid., Chs. 3-4.

<sup>85</sup> R. S. Sayers, *The Bank of England 1891-1944*, 3 vols. (Cambridge 1976), esp. pp.314-327; John R. Hume and Michael S. Moss, *Beardmore: The History of a Scottish Industrial Giant* (London, 1979), Chs. 6-7.

<sup>86</sup> Kenneth Warren, *Armstrong's of Elswick: Growth in Engineering and Armaments to the Merger with Vickers* (London, 1989), p.255.

<sup>87</sup> Kenneth Warren, *Steel, Ships and Men: Cammell Laird, 1824-1993* (Liverpool, 1998), pp. 173-209 218-232, 243-259.

<sup>88</sup> Steven Tolliday, *Business, Banking and Politics: The Case of British Steel, 1918-1939* (Cambridge, Mass., 1987).

<sup>89</sup> Ibid., pp.191-97.

the political and strategic implications of this unique financial-industrial relationship for the specific circumstances of armaments production.

In contrast to the economic and industrial focus of individual business histories, Correlli Barnett has located the arms firms' struggles within a wider panorama of national decline. His 1972 book on *The Collapse of British Power* painted a familiarly depressing picture of the inter-war period: disastrous adherence to disarmament, widespread pacifism, and a penny-pinching Treasury with a vested interest in defence cuts.<sup>90</sup> However, although he referred to the arms industry's 'crippling inadequacy' and 'partial decrepitude', he also recognised that the specialist firms represented only a small part of the wider production of war equipment, which required the state to harness the country's general industrial resources. In this regard, he argued that Britain's lack of advanced engineering resources, including skilled labour and machine tools, was mainly responsible for impeding rearmament.<sup>91</sup> In seeking to explain this wretched situation, Barnett did not blame the government as much as the entire nation and its liberal traditions. Indeed, he suggested that this fundamental malaise in the British national character made the country's decline and its appeasement of Nazi Germany virtually inevitable.<sup>92</sup> In particular, he asserted that entrenched liberalism, with its emphasis on individualism and a suspicion of the state, had left Britain with a backward industrial structure and a deep-rooted antipathy to organisation. Barnett contended that the Great War's enormous demands had forced a 'second industrial revolution', which had brought British industry into the modern era with a previously unthinkable relationship between the government and private enterprise.<sup>93</sup> However, this change was purely temporary: after 11 November 1918 the 'brilliant coach' of collective reorganisation reverted to the 'dried-up pumpkin' of laissez-faire individualism; the country's politicians and industrialists swiftly returned to their distinct spheres; and the relative erosion of British industrial strength continued apace.<sup>94</sup> Contemporary interest in 'de-industrialisation' and the fate of Britain's general manufacturing industries during

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<sup>90</sup> Barnett, *Collapse*, pp.269-72, 287-91, 294-96, 419-24.

<sup>91</sup> *Ibid.*, pp.476-78, 482-85.

<sup>92</sup> *Ibid.*, pp.438-39, 451-3.

<sup>93</sup> *Ibid.*, pp.84-95, 112-17.

<sup>94</sup> *Ibid.*, pp.485-86. See also: Higham, *Armed Forces*, pp.208-13. For other arguments connecting economic orthodoxy to appeasement, see Robert Paul Shay, Jr., *British Rearmament in the Thirties: Politics and Profits* (Princeton, 1977) and Scott Newton, *Profits of Peace: The Political Economy of Anglo-German Appeasement* (Oxford, 1996).

the 1970s and 1980s provided Barnett's wide theory of decline with a receptive audience and its implications informed political, scholarly and public debate.<sup>95</sup> Several historians challenged the overall basis, as well as particular aspects, of Barnett's argument, and David Edgerton has particularly criticised its skewed assessment of the character of Britain's liberal elite and its erroneous conceptualisation and comparisons of relative industrial strength.<sup>96</sup>

Like the McKinnon Wood committee in 1918, Barnett correctly recognised that the armaments industry formed only part of the country's overall capacity for the production of war material. Nonetheless, the question of how the government intended to harness and mobilise the 'war potential' of general industry has received only intermittent scholarly attention. From the mid-1920s responsibility for the planning of industrial mobilisation fell upon the Principal Supply Officers Committee (PSOC) of the CID, which included representatives from the service departments and the Board of Trade. In the 1950s the relevant volumes of the civil history of the Second World War praised the administrative and theoretical strength of the PSOC's embryonic supply organisation and noted how it obtained the cooperation of a small number of industrialists. However, these works also drew attention to the committee's focus on paper planning and its lack of practical application in the absence of a firm and durable hypothesis concerning requirements.<sup>97</sup> Nonetheless, in the official military history of rearmament policy, which appeared in 1976, N. H. Gibbs suggested that Britain had never been better prepared for a major war at the level of administrative planning than in September 1939 and he highlighted the rapidity of British mobilisation for total war.<sup>98</sup>

By concentrating on the period of rearmament and outbreak of the Second World War, historians have tended to neglect earlier developments in the government's supply planning and the impact these had on its relationship with

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<sup>95</sup> The theory was most popularly expressed in Correlli Barnett, *The Audit of War: The Illusion and Reality of Britain as a Great Nation* (London, 1986).

<sup>96</sup> See the argument in David Edgerton, 'The Prophet Militant and Industrial: The Peculiarities of Correlli Barnett', *Twentieth Century British History*, vol. 2, no. 3 (1991), 360-79; and the summary in David Edgerton, 'The Decline of Declinism', *Business History Review*, vol. 71, no. 2 (Summer, 1997), 201-206.

<sup>97</sup> Postan, *War Production*, pp.34-52; J. D. Scott and Richard Hughes, *The Administration of War Production* (London, 1955), pp.53-65. See also F. A. Johnson, *Defence by Committee: The British Committee of Imperial Defence 1885-1959* (Oxford, 1960), pp.246, 254-55.

<sup>98</sup> N. H. Gibbs, *Grand Strategy, Volume I: Rearmament Policy* (London, 1976), p.782.

the arms industry. Davenport-Hines briefly suggested that industrial mobilisation theory reduced the number of private armament firms after 1918 although he offered little analysis of the PSOC's activities.<sup>99</sup> In 1988 G. A. H. Gordon praised the paper strength and light touch of Britain's inter-war supply preparations, but nonetheless reiterated that the naval arms industry became critically weak after the armistice, owing to a combination of defence cuts, depression, disarmament, and popular hostility towards armaments manufacture.<sup>100</sup> Rearmament unsurprisingly forced major changes to Britain's supply organisation and G. C. Peden has argued that the lack of suitable manufacturing facilities acted as a greater brake on defence expansion in the 1930s than the availability or otherwise of financial resources.<sup>101</sup> He also pointed out that the Treasury began to recognise the PSOC's importance in 1935 and subsequently used the committee as a mechanism for prioritising funds for rearmament. Yet although Peden's interpretation showed for the first time how the Treasury identified the importance of industrial capacity from the mid-1930s, his analysis of the earlier period was more traditional, blaming the Treasury and retrenchment for leaving the specialist arms industry in a skeletal condition by 1933.<sup>102</sup> Therefore, although historians have tended to praise Britain's supply organisation, they have also repeated the pre-existing narrative of industrial weakness regarding armaments production, and have drawn only limited connections between these crucial elements of defence planning prior to rearmament.

Much of the post-1945 historiography has criticised the arms firms' performance during rearmament, a period of *unusual* demand. Others have unfairly compared the industry's activity in the 1920s with the levels of production achieved between 1913 and 1918. In other words, historians have argued that armaments and the arms industry should have been maintained at levels unconnected to normal peacetime conditions.<sup>103</sup> Therefore, it is hardly surprising that a different picture emerges when the actions of officials and businessmen are assessed in the light of their contemporary circumstances, rather

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<sup>99</sup> Davenport-Hines, 'Armaments Industry', pp.6, 30.

<sup>100</sup> For example: Gordon, *Seapower*, pp.69-81, 131, 148, 282.

<sup>101</sup> G. C. Peden, *British Rearmament and the Treasury: 1932-1939* (Edinburgh, 1979); cf. Shay, *British Rearmament*.

<sup>102</sup> Peden, *British Rearmament*, pp.30-31, 46-47, 108-109, 179.

<sup>103</sup> David Edgerton has particularly criticised such comparisons (i.e. *Warfare State: Britain, 1920-1970* (Cambridge, 2006), p.20).

than judging them by completely different and, to some extent, artificial standards.

Over the past two decades David Edgerton has challenged the dominant historiographical image of British military and industrial weakness and offered a comprehensive ‘post-declinetist’ explanation of the state’s relationship with industry, science and technology in the twentieth century.<sup>104</sup> He has described Britain as a ‘liberal militarist’ state that actively sought to harness the country’s economic, industrial and commercial power for the development of technologically advanced weapons and thereby remove the need to mobilise mass conscript armies. As part of his wider argument, Edgerton has disputed long-held historiographical orthodoxies about inter-war armaments by fusing together a number of revisionist accounts. First, he has drawn upon articles by John Ferris and others which have argued that Britain retained considerable relative strength after 1918 and remained a great power.<sup>105</sup> Second, he has cited Ferris’ assertion that, in absolute terms, Britain had spent at least as much as any other power on defence during the 1920s.<sup>106</sup> Third, he has referred to Dick Richardson’s argument that many British politicians viewed international disarmament with scepticism or hostility.<sup>107</sup> Fourth, he suggested that liberal internationalist public opinion was not suffused with idealistic pacifism but was militantly anti-fascist: for example, more than 58 percent of respondents to the Peace Ballot agreed on the use of international military measures against an aggressor state, compared to barely over 20 percent definitely against.<sup>108</sup> Fifth, he pointed out that British firms held a large share of the global arms trade, although he has not assessed the motivations or impact of the government’s regulatory policies towards arms exports. In this regard, Donald J. Stoker’s recent case study has demonstrated how Britain unsuccessfully attempted to use its control of weapons transactions to achieve

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<sup>104</sup> Unless otherwise indicated, this paragraph is based on David Edgerton, ‘Liberal Militarism and the British State’, *New Left Review*, no. 185 (January-February, 1991), 138-169; and *Warfare State*, pp.1-58.

<sup>105</sup> John R. Ferris, ‘“The Greatest Power on Earth”: Great Britain in the 1920s’, and B. J. C. McKercher, ‘“Our Most Dangerous Enemy”: Great Britain Pre-eminent in the 1930s’, both in *International History Review*, vol. 13, no. 4 (1991), 726-83.

<sup>106</sup> John Ferris, ‘Treasury Control, the Ten Year Rule and British Service Policies, 1919-1924’, *Historical Journal*, vol. 30, no. 4 (Dec., 1987), 865.

<sup>107</sup> Dick Richardson, *The Evolution of British Disarmament Policy in the 1920s* (London, 1989). See also Carolyn Kitching, *Britain and the Problem of International Disarmament 1919-1934* (London, 1999).

<sup>108</sup> Ceadel, ‘First British Referendum’, 828.

wider political and strategic objectives in the Baltic between 1918 and 1936.<sup>109</sup> Ultimately, Edgerton has concluded that the British inter-war armaments industry was at least as large as any other in the world and continued to produce technologically advanced defence equipment. In the light of this, G. C. Peden has recently revised his previously negative view of Britain's naval-industrial strength before rearmament.<sup>110</sup>

Overall, the majority of post-1945 historians have echoed the complaints of contemporary officials and have propagated descriptions of exaggerated decline in the inter-war British armaments industry. These remain potent images, inevitably connected to the argument that Britain fell behind the revisionist powers by delaying its entry into the 1930s rearmament race.<sup>111</sup> Conversely, several recent historians have pointed out that Britain possessed considerable defence and industrial capabilities. Building on these foundations, this thesis demonstrates how the arms industry, largely represented by Vickers Limited, developed and maintained a large degree of peacetime strength. Nonetheless, the government undoubtedly came to believe that the armaments industry had declined and this opinion affected its response to the challenge of the revisionist powers in the 1930s. Perceptions are extremely important in policymaking and this particular representation of backwardness was a crucial factor in the subsequent course of rearmament, appeasement and industrial mobilisation for the Second World War. The present study demonstrates that this dangerous gap between image and reality mainly arose from the turbulent nature of the state's post-1918 relationship with the private armament manufacturers and, to an extent, was encouraged by the industry itself.

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<sup>109</sup> Donald J. Stoker Jr., *Britain, France and the Naval Arms Trade in the Baltic, 1919-1939: Grand Strategy and Failure* (London, 2003). See also: Donald J. Stoker Jr. and Jonathan A. Grant (eds.), *Girding for Battle: The Arms Trade in a Global Perspective, 1815-1940* (Westport, 2003). For developments after 1936, see Glyn Stone, 'The British Government and the Sale of Arms to the Lesser European Powers, 1936-39', *Diplomacy and Statecraft*, vol. 14, no. 2 (Jun., 2003), 237-70

<sup>110</sup> G. C. Peden, *Arms, Economics and British Strategy: From Dreadnoughts to Hydrogen Bombs* (Cambridge, 2007), p.140.

<sup>111</sup> For the 1930s arms race, see Joseph A. Maiolo, 'Armaments Competition', in Robert Boyce and Joseph A. Maiolo (eds.), *The Origins of World War II: The Debate Continues* (Basingstoke, 2003), pp.286-308.

## **Arms and the Businessmen: British State-Industry Relations, 1918-1936**

Despite the recent revisionist turn, Davenport-Hines' 1979 thesis remains the only dedicated full-length analysis of the arms industry's affairs between 1918 and 1936. The present study, while identical in chronological span and overall subject matter, challenges this previous work in several important ways. First, Davenport-Hines was primarily concerned with industrial history and treated the arms industry's political linkages as a secondary albeit decisive 'external influence'.<sup>112</sup> Moreover, he largely confined his examination of these connections to the service departments' association with the private manufacturers. Conversely, this thesis places state-industry relations at the centre of its analysis, and presents a more balanced and comprehensive assessment of the specific determinants, nature and results of this relationship. Crucially, it incorporates a wider investigation of interdepartmental policymaking throughout Whitehall and demonstrates how other ministries, notably the Foreign Office and Board of Trade, were deeply involved and responsible for specific elements of the industry's affairs. It also deals more thoroughly with the arms industry's important and unusual links with the City of London, which in some ways supplanted traditional state-industry relations. Second, Davenport-Hines contended that the arms business was 'commercially dead' during this period, owing to the government's adherence to the League of Nations, its parsimony and its pursuit of disarmament.<sup>113</sup> Yet he undoubtedly exaggerated the impact of these policies: in fact, British policymakers viewed the League's efforts to control armaments and arms production with considerable scepticism, while the domestic government and overseas customers continued to purchase privately-sourced weapons in a competitive market. Indeed, this thesis argues that British policy was more realistic than implied in Davenport-Hines' work and included a large degree of forward planning through the PSOC, even though this did not effectively incorporate the private arms industry.

To recreate the multifaceted and frequently antagonistic inter-war relationship between post-war British governments and the arms industry, this thesis draws upon government documents held by the National Archives at Kew

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<sup>112</sup> Davenport-Hines, 'Armaments Industry', v.

<sup>113</sup> *Ibid.*, esp. Ch. 1.

alongside material located in business and banking archives throughout the United Kingdom. The Cabinet and Committee of Imperial Defence papers include the reports and correspondence of various subcommittees on issues pertaining to arms production: these reveal the lack of a unified arms industry policy at the Cabinet level; the tendency to address individual problems through interdepartmental subcommittees; and the strong influence of industrial mobilisation theory on official attitudes, most notably through the Principal Supply Officers Committee. At the international level, the Foreign Office Arms Traffic Department files provide valuable insights into the fundamental realism that underpinned British policy, particularly at Geneva. On the industrial side, the Vickers Archives at Cambridge University give a sense of the firm's character, drive and mounting frustration with the government. The Armstrong papers at Newcastle and the Beardmore records at Glasgow show how these companies struggled next to Vickers. The personal papers of Sir James Lithgow and Lord Weir, also at Glasgow, offer an interpretation of the PSOC's activities from these industrialists' point of view. The Bank of England Archive contains a great deal of useful material pertaining to the big arms firms, which sheds light on the balance of power between finance, industry and government. Few historians of the armaments industry have made use of the Baring Archive although its papers fill some of the gaps in the Bank of England records and offer a different perspective from within the City of London. In terms of published primary sources, the minutes of the Royal Commission on the Private Manufacture of and Trading in Arms remain invaluable, while the League of Nations' publications provide a comprehensive, if often dry, account of the interminable proceedings at Geneva.

The focus of this study is the relationship between the state and the arms industry, particularly the way in which successive governments failed to create a proactive strategy for dealing with the private manufacturers, and the industry's response to this perceived rejection. To maintain this focus, public opinion, whether real or imagined, is generally examined only when it affected the behaviour of the key actors in this relationship. Similarly, labour relations and unemployment are only discussed when they formed a part of state-industry dialogue.

In examining the nature of the government's relationship with the arms industry between 1918 and 1936, this thesis divides the subject into three broad

headings. First, it addresses the dynamics of state-industry relations at the domestic level. Chapter 1 reviews the arms industry's origins and its relationship with the state before and during the Great War, and assesses the post-1918 impact of retrenchment and disarmament on this arrangement. This chapter also investigates the competition for national defence contracts between private firms and government factories. It concludes that post-war developments undoubtedly caused tensions in the state-industry relationship and fostered a sense of abandonment amongst the concerned firms, but they did not terminally weaken the arms industry. Chapter 2 examines the critical impact of industrial mobilisation theory and planning on the private manufacturers' place in national defence. Influenced by the experience of 1914-1918, the government's peacetime supply organisation, centred on the PSOC, aimed to locate adequate arms-producing capacity for a vaguely-defined future conflict within the resources of general industry. As a result, policymakers placed relatively little importance on the specialist firms' ability to act as a nucleus for expansion until rearmament forced a rapid reconstitution of state-industry relations. Influenced by liberal non-interventionist tradition, the government's under-funded and under-staffed investigations into the country's total industrial capacity were barely able to scratch the surface of national potential. Together with alarming intelligence about other countries' preparations, Britain's supply organisation ultimately generated an enduring and exaggerated sense of relative weakness and further alienated the specialist arms industry. Ironically, defence planning rather than disarmament proved the most fundamental source of inter-war tension between the manufacturers and the government.

The second part of the thesis investigates the reality behind the image of the arms industry's inter-war decline and focuses on its largely independent reorganisation against the background of government indifference. Chapter 3 examines the specialist firms' initially painful adjustment to peacetime conditions and explains that, while the total number of individual concerns certainly declined, the survivors were compelled to address their many internal structural weaknesses. In the mid-1920s Vickers independently reorganised its business operations, while the more heavily indebted companies required impetus from their bankers. Crucially, these experiences, including an initial failure to diversify into 'civilian' product lines, forged a much greater industrial identity for the arms

manufacturers. Chapter 4 explores the relationship between Vickers, the leading armaments firm, and the Bank of England, which had a dual role as Armstrong's commercial banker and the central bank. This unusual financial-industrial relationship not only helped Vickers to dominate the British arms industry by the 1930s but also created modernised plant for peacetime needs and a reasonably efficient nucleus for emergency expansion. In particular, Vickers took advantage of the Bank's cautious naïveté to push forward a much clearer and ruthless programme of reconstruction: this strategy ultimately resulted in a world-leading and fiercely independent private arms firm. Therefore, limitations in the state-industry relationship should not be confused with fundamental weaknesses in the specialist industrial resources available to the government.

The final chapters examine official policy towards armament exports and investigate the international aspects of the state's relationship with the arms industry. Chapter 5 demonstrates that the government's implementation of various export controls had little success in achieving wider political and strategic goals. Moreover, these measures did not destroy Britain's share of the global arms market, which remained large despite fears about growing international competition. Although the government offered some diplomatic assistance, for the most part the firms were again forced to adjust independently to post-1918 trading conditions, which they achieved with reasonable success. Chapter 6 provides the first comprehensive account of Britain's inter-war participation in various multilateral efforts to secure international regulation of both the armaments trade and private arms manufacture. While the government certainly approved of limited regional agreements, particularly to prevent smuggling of surplus rifles throughout the British Empire, it strongly resisted the League of Nations' attempts to impose all-encompassing regulations on transactions between private firms and sovereign states. Although policymakers and officials rarely accepted contemporary public criticism that private arms manufacture and trading were immoral and dangerous, their policy at Geneva was primarily motivated by wider security considerations: in particular, they did not wish to compromise Britain's ability to buy from neutral states during wartime, or put off general industrial firms from undertaking weapons manufacture. In other words, British policy was heavily influenced by industrial mobilisation planning rather than the interests of

the specialist firms although, in the case of international business, they frequently appeared synonymous.

The ever-shifting and complex inter-war relationship between Whitehall and the private armament manufacturers was marked by varying combinations of antagonism, cooperation and misunderstanding, and was also subject to a range of external domestic and international pressures. The parties involved pursued differing ambitions, indulged in deliberate obfuscation, and at least one side felt frequent pangs of jealousy and betrayal. More dangerously, all of these elements simultaneously existed in the international relations of the period, and the rise of the revisionist powers led the private manufacturers to assume renewed importance in national security planning prior to the Second World War. However, to explain why state-industry relations had weakened between the armistice and rearmament, it is first necessary to survey the historical development of Britain's private armament industry, from its origins in the Crimean War to the immense changes wrought by the Great War.

## **1. Struggles and Stagnation in British State-Industry Relations after 1918**

When President Dwight Eisenhower famously used the term ‘military-industrial complex’ in 1961, he suggested that it referred to a relatively new development in American history. However, the ‘conjunction of an immense military establishment and a large arms industry’ was not without historical precedent.<sup>1</sup> In Britain, the private armaments industry and the state could look back on a century of contacts and contracts. Indeed, Clive Trebilcock has suggested that the period from the 1860s until the late nineteenth century represented ‘the birth-pangs of the modern military-industrial complex’.<sup>2</sup> On the face of it, the manufacture of weapons by private enterprise served the interests of all concerned, providing innovative defence products for the government while generating profits for entrepreneurs and creating tens of thousands of jobs in some of the poorest areas of the country. Yet the relationship between arms producers and governments was not always close and state-industry relations came under extraordinary pressure during the inter-war period.

The experience of the Great War raised questions about the role and efficiency of private armaments manufacture both in peacetime and war, while the Paris Peace Conference placed disarmament firmly on the international agenda, together with the idea that making arms for profit was morally objectionable and liable to abuse. Nonetheless, no British government seriously considered outlawing private manufacture and the service departments continued to purchase a significant percentage of their armaments from the ‘trade’. Yet this was actually part of the main problem affecting state-industry relations after 1918: while the war had brought about considerable international and domestic changes, the government and the arms industry did little to adapt their relationship to meet these new challenges. As a result, individual private manufacturers faced an uphill battle which proved too much for several firms. The industry’s parallel struggle to adjust to post-war conditions without official assistance has a significant bearing

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<sup>1</sup> Eisenhower made these statements during his farewell address on 17 January 1961 (Public Papers of the Presidents, Dwight D. Eisenhower (Washington D.C., 1960), pp.1035-40).

<sup>2</sup> Trebilcock, ‘Science’, 567.

on wider industrial and strategic issues, which are examined in subsequent chapters, but it is first necessary to explain how and why the arms manufacturers came to feel cast out by the state.

### **The Origins of the Private Military-Naval Industries and the Impact of Total War**

The Crimean War (1854-6) provoked a revolution in armaments technology by inspiring William Armstrong, a Newcastle engineer, to develop a more powerful, accurate and manoeuvrable field gun. When this artillery was modified for use on warships it drove further technological advances, in an ongoing contest between the penetrative force of the projectile and ever-increasing thicknesses of armour plate.<sup>3</sup> Following Armstrong's lead, other private firms, such as Beardmore (Glasgow) and Vickers (Sheffield), moved from the general engineering and steel sectors to manufacturing military-naval armaments for the government. The entry of large-scale private enterprise into armaments production not only fostered innovation but also marked a major shift in the way the state obtained its arms and ammunition. The Admiralty, recognising that the state-owned Royal Dockyards could not keep up with rapid technological change or maintain adequate facilities for emergency production, attached great importance to strengthening and protecting the private warship industry, which was able to supplement its income through overseas sales.<sup>4</sup> Indeed, before 1914 Britain possessed the world's leading warship designers and its firms dominated the global naval arms trade.<sup>5</sup> The military-industrial relationship for land armament production, which experienced comparatively less rapid technological change, was not as balanced and the War Office favoured the Royal Ordnance Factories (ROFs) at Woolwich, Waltham Abbey and Enfield, leaving only 'crumbs' for the private manufacturers.<sup>6</sup> For example, between 1910 and 1914 Vickers alone received annual Admiralty orders

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<sup>3</sup> Scott, *Vickers*, pp.23-27; McNeill, *Pursuit of Power*, pp.237-41.

<sup>4</sup> David Stevenson, *Armaments and the Coming of War, Europe, 1904-1914* (Oxford, 1996), pp.27-28; S. Pollard, 'Laissez-Faire and Shipbuilding', *Economic History Review*, New Series, vol. 5, no. 1 (1952), 105-106; Hornby, *Factories*, pp.3-4.

<sup>5</sup> Peden, *Arms*, p.27.

<sup>6</sup> Stevenson, *Armaments*, p.27. See also: Clive Trebilcock, 'War and the Failure of Industrial Mobilisation: 1899 and 1914' in J. M. Winter (ed.) *War and Economic Development: Essays in Memory of David Joslin* (Cambridge, 1975), pp.152-54; McNeill, *Pursuit of Power*, pp.272-73.

worth £3 million, while its yearly contracts with the War Office only averaged £55,000.<sup>7</sup>

In the two decades before the Great War, armaments manufacture became big business. During the 1890s no global competitor matched or bettered Armstrong, except for Krupp in Germany.<sup>8</sup> By 1905 Vickers' rapid growth had left it with a capital value of £7.4 million which made it the sixth largest British company, while Armstrong ranked eleventh with £5.3 million.<sup>9</sup> Armstrong, with 25,000 workers, was the twelfth largest employer in the country, while Vickers was fourteenth with 22,500 employees.<sup>10</sup> However, this was not a golden age of unbroken prosperity for the arms firms, since the market was volatile and subject to frequent slumps.<sup>11</sup> Although the relationship between the state and the private arms manufacturers appeared mutually beneficial, the government held most of the cards. It decided what to spend – and with whom – based upon its own conception of defence requirements. As a result, there was less scope for corruption than critics later assumed.<sup>12</sup>

Individual firms cooperated to protect themselves against the government's power and began to form large-scale combinations at the turn of the century.<sup>13</sup> Vickers' amalgamation with the Naval Construction and Armament Company at Barrow-in-Furness in 1897 made it the first British company that could supply a warship complete with engines, guns and machinery.<sup>14</sup> That same year, Armstrong merged with its old rival, Joseph Whitworth of Openshaw (Manchester) which provided the firm with facilities for armour plate production.<sup>15</sup> John Brown forged a closer association with a fellow Sheffield firm, the gun-makers Thomas Firth, and in 1899 took over the Clydebank Engineering and Shipbuilding Company.<sup>16</sup> Charles Cammell (Sheffield), who had manufactured armour plate since the 1860s, merged with Laird shipbuilders in

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<sup>7</sup> RC, *Evidence*, p.358.

<sup>8</sup> Warren, *Armstrongs*, p.45.

<sup>9</sup> *Ibid.*, p.51.

<sup>10</sup> 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 (Jan., 1991), 96.

<sup>11</sup> Clive Trebilcock, *The Vickers Brothers: Armaments and Enterprise 1854-1914* (London, 1977), pp.11-14.

<sup>12</sup> Trebilcock, 'Legends', 11-12.

<sup>13</sup> *Ibid.*, 14.

<sup>14</sup> Scott, *Vickers*, pp.44, 48.

<sup>15</sup> *Ibid.*, p.46; Warren, *Armstrongs*, p.61.

<sup>16</sup> Hume and Moss, *Beardmore*, p.56.

1903-4, and in October 1905 bought half of the ordinary share capital of Fairfield shipbuilders and engineers (Glasgow).<sup>17</sup> To obtain capacity for ordnance production, Cammell Laird and Fairfield, in association with John Brown, took over the Coventry Ordnance Works in 1905.<sup>18</sup> Beardmore, inspired by increasing armour plate sales and the example of others, undertook massive extensions to its Parkhead works in 1898-1900.<sup>19</sup> The Glaswegian firm also took over Robert Napier's shipbuilding and marine engineering business at Govan, bought land at Dalmuir to lay out a shipyard, and acquired a stake in Thornycroft, which built destroyers at Chiswick and subsequently Woolston, Southampton.<sup>20</sup> In this manner, the geography of British arms production became increasingly concentrated in the north and was predominantly naval.

Although these big combinations were responsible for some of the most advanced naval technology in the world, they could not immediately produce large quantities of arms and ammunition for land warfare. The escalating costs and production shortfalls experienced during the Boer War (1899-1902) gave a foretaste of the problems this could cause over an extended period of fighting, yet the government subsequently failed to organise the arms industry to ensure large-scale production in future emergencies or conflicts.<sup>21</sup> This meant that the country was, in the words of David Lloyd George, the first Minister of Munitions, 'totally unprepared for land hostilities on a Continental scale' in 1914.<sup>22</sup> In fairness, all combatants suffered from the simple circumstance that static trench warfare encouraged an enormous rate of artillery fire which greatly exceeded the existing rate of shell production.<sup>23</sup> In the early stages of the war, the ROFs could not expand to meet demand and the state turned to the private manufacturers. This faith in the arms industry was irrational because although the firms were highly skilled and specialised engineers of heavy armament, they had no great superiority or experience of manufacturing small items in quantity and shell production

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<sup>17</sup> Warren, *Steel*, pp.106-7, 139.

<sup>18</sup> For the rather unsuccessful Coventry Ordnance Works, see: *Ibid.*, pp.140-55.

<sup>19</sup> Hume and Moss, *Beardmore*, p.47.

<sup>20</sup> *Ibid.*, pp.49-51; K. C. Barnaby, *100 Years of Specialized Shipbuilding and Engineering: John I. Thornycroft Centenary* (London, 1964), Chs. 2-3.

<sup>21</sup> Trebilcock, 'The Failure of Industrial Mobilisation', pp.139-64.

<sup>22</sup> David Lloyd George, *War Memoirs of David Lloyd George, Volume I* (London, 1933), p.124.

<sup>23</sup> Hew Strachan, *The First World War, Vol. I: To Arms* (Oxford, 2001), pp.993-99.

continued to fall short.<sup>24</sup> The resultant scandal contributed to the fall of Herbert Asquith's Liberal government in May 1915, and the subsequent coalition quickly established the Ministry of Munitions to address the fundamental problem that not enough factories were producing shells.<sup>25</sup> The Ministry centralised the control of production and supply; coordinated the resources of firms with no previous experience of armament work; and encouraged the direct involvement of businessmen in organising the national war effort.<sup>26</sup> This departure from liberal tradition also reflected a growing sense that the previously dominant ideology of 'business as usual' was unsuited to the demands of total war, which required the state to assume greater command over the economy.<sup>27</sup>

Besides improving efficiency, the imposition of government control over industry was also intended to manage wartime prices and prevent profiteering.<sup>28</sup> This involved some compromise in the overall direction of supply planning, as in March 1915 when the government agreed not to interfere with the actual direction or management of individual arms firms in exchange for their cooperation.<sup>29</sup> Yet although state control was mainly indirect, businessmen, including arms manufacturers, became involved in the work of the Ministry to an unprecedented extent.<sup>30</sup> Crucially, supply was no longer conceived purely in terms of specialist manufacture, but more on the ability to mobilise ordinary industry for the mass production of war material.<sup>31</sup> Indeed, one of the Ministry's first tasks was a survey of 65,000 industrial workshops across the country to ascertain their potential capacity.<sup>32</sup>

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<sup>24</sup> Scott, *Vickers*, pp.97-103; David French, 'The Military Background to the 'Shell Crisis' of May 1915', *Journal of Strategic Studies*, vol. 2, no. 2 (1979), 192-205.

<sup>25</sup> Scott, *Vickers*, pp.103-106; A. J. P. Taylor, *English History 1914-1945* (Oxford, 2001), pp.25-34.

<sup>26</sup> To some extent, the establishment of the Ministry institutionalised measures already begun by Lord Kitchener, the Secretary of State for War. See: Scott and Hughes, *Administration*, p.5; Strachan, *To Arms*, 1067-74; Chris Wrigley, 'The Ministry of Munitions: An Innovative Department', in Kathleen Burk (ed.), *War and the State: The Transformation of British Government, 1914-1919* (London, 1982), pp.32-56.

<sup>27</sup> David French, 'The Rise and Fall of 'Business as Usual'', in Burk (ed.) *War and the State*, pp.7-28.

<sup>28</sup> Scott, *Vickers*, pp.126-27; A. J. Arnold, 'Profitability and Capital Accumulation in British Industry during the Transwar Period, 1913-1924', *Economic History Review*, New Series, vol. 52, no. 1 (Feb., 1999), 47.

<sup>29</sup> Scott, *Vickers*, pp.129-30; Hume and Moss, *Beardmore*, p.111.

<sup>30</sup> Wrigley, 'Ministry of Munitions', pp.40-2.

<sup>31</sup> See Ch. 2.

<sup>32</sup> R. J. Q. Adams, 'Delivering the Goods: Reappraising the Ministry of Munitions: 1915-1916', *Albion*, vol. 7, no. 3 (Autumn, 1975), 236.

For their part, the specialist arms firms farmed out their skilled men and designs to help educate ‘civilian’ companies in munitions production. John Meade Falkner, the novelist, poet and chairman of Armstrong, told his shareholders in 1916 that ‘in doing this we have, of course, created a crowd of potential competitors’, but he trusted that ‘such things should not be left out of account when the final balance has to be struck.’<sup>33</sup> Falkner repeated these words in September 1918 and expressed his hope that the state would recognise the firm’s ‘special service’ once the war was over.<sup>34</sup> Amongst other items, Armstrong’s wartime output included 47 warships, 1,062 aeroplanes, 13,000 guns and carriages, and 14.5 million shells. It also fitted 62 warships with armaments and repaired and refitted a further 521 warships.<sup>35</sup> Yet, on 22 November 1918 the McKinnon Wood committee, investigating the Woolwich Arsenal for the Ministry of Munitions, advised that ‘the arguments in favour of the retention of a Government arsenal in peace time are overwhelming’ and proposed that private manufacture ‘will not improbably disappear as a speciality.’<sup>36</sup> Although the report did not advocate the closure of private arms-producing concerns, these comments set the tone for nearly two decades of strained relations between the state and the arms firms.<sup>37</sup>

### **Defence Spending After ‘the War to End All War’**

The Great War caused enormous physical, social and economic damage and re-drew the political map of Europe. Unsurprisingly, the British government wished to restore a semblance of normality after the armistice and quickly retreated from its wartime economic interventionism. Similarly, the private arms industry appeared to revert to its pre-1914 concentration on naval production and close Admiralty links. However, both the government and the specialist manufacturers were profoundly changed by their wartime experience. On a structural level the armaments firms were much larger than before, having dramatically increased

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<sup>33</sup> Tyne and Wear Archive Service (hereafter TWAS), 130/1452, Armstrong AGM minutes, 14 December 1916.

<sup>34</sup> *The Statist*, 21 September 1918, p.463.

<sup>35</sup> Anon., *The War Work of Sir W. G. Armstrong Whitworth & Company Limited* (n.d., [c.1919-20]), p.50.

<sup>36</sup> Cmd 229, *Ordnance Factories: Woolwich*, p.8. See also: Hornby, *Factories*, pp.26-27, 83.

<sup>37</sup> Cmd 5292, *Trading in Arms*, p.52; Davenport-Hines, ‘Armaments Industry’, pp.17-18.

their plant, buildings and machinery at the government's behest.<sup>38</sup> Yet the government no longer required the vast quantities of arms and ammunition demanded by total war and it also needed to provide work for the state factories.

In dealing with the service departments, several of the firms' directors were retired servicemen who maintained cordial relationships with their ex-employers. Nonetheless, neither the War Office nor Admiralty allowed their full-time staff to take up employment with private armament manufacturers.<sup>39</sup> Moreover, the industry tended to recruit individuals who had expert technical knowledge of specific product lines, rather than officials who had worked in the contracts departments.<sup>40</sup> While this policy was undoubtedly useful in designing weapons to meet the services' specific needs, these close service-industry ties offered little chance of influencing armaments expenditure. In any case, defence spending was not dictated by the services, but instead resulted from a thorough process of investigation and review which involved all the concerned government departments. Each year the Chiefs of Staff reviewed the position of imperial defence, based on a broad range of sources. The Committee of Imperial Defence then commented on their report before submitting it to the Cabinet for its consideration. This first stage was undertaken in complete secrecy, although it involved a large number of ministers and officials. Subsequently, the service departments submitted their financial estimates to the Treasury, which also kept itself completely informed on all aspects of defence policy through the Cabinet, CID and representation on various subcommittees. This stage was also kept secret.<sup>41</sup> Therefore, even before the service estimates reached the final stage of parliamentary debate, this system provided a series of checks and balances against malpractices and corruption and essentially differed little from pre-war practice.<sup>42</sup>

The Treasury, as the guardian of the government's finances, was committed to balancing the budget and careful control of public spending. However, it had lost command over the armed forces' expenditure during the Great War and had no way of ensuring that departments did not inflate prices by

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<sup>38</sup> Hume and Moss, *Beardmore*, p.152.

<sup>39</sup> For the services' policy on employment, see: TNA, CAB 27/513/DC(I)(32)11, Admiralty to Board of Trade (hereafter BT), 21 November 1932; *Ibid.*, DC(I)(32)12, War Office (hereafter WO) Memorandum, 24 November 1932.

<sup>40</sup> Davenport-Hines, 'Armaments Industry', p.58.

<sup>41</sup> RC, *Evidence*, p.727.

<sup>42</sup> Trebilcock, 'Legends', 11-12.

competing for the same resources or offering over-generous contracts.<sup>43</sup> After the war, it sought to re-assert its control and to scale down the armed forces, although it was not opposed to the purchase of modern weapons if they reduced overall spending. A reduction in defence expenditure also appeared to complement the Cabinet's decision of August 1919 that 'the British Empire will not be engaged in any great war during the next ten years'.<sup>44</sup>

Several historians have suggested that the position of Britain's armed forces and, by extension, its strategic options up until the early 1930s were dominated and weakened by the parsimonious Treasury and 'the ten-year rule', although opinion is divided as to whether this was an understandable development under the circumstances or an unforgivable dereliction of duty.<sup>45</sup> However, John Ferris has demonstrated that the ten-year rule was ambiguous and open to interpretation and did not result in the ostrich mentality amongst British strategists that has traditionally been portrayed. He has also emphasised that the Treasury only possessed limited control over defence spending in the first half of the 1920s, and did not obtain full control until 1928. According to Ferris, 'throughout the 1920s Britain spent absolutely at least as much money on its armed forces as did any other state on earth.'<sup>46</sup> Indeed, inter-war spending on the armed forces, while naturally much lower than during wartime, was higher than it had been in the 1890s and was roughly similar in terms of constant prices to the figures for the years just before 1914.<sup>47</sup>

By itself the total level of defence spending does not indicate how much was actually spent on armaments, let alone how much ended up going to the private firms. In fact, most of the money was spent on items such as wages, clothing, victualling, medical services and accommodation. Moreover, the emergence of air power meant that some money was diverted away from the military-naval industries, although several of the traditional firms had developed

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<sup>43</sup> Peden, *Arms*, p.55.

<sup>44</sup> Ferris, 'Treasury Control', 861, 863, 867-8.

<sup>45</sup> For a selection of views see: Higham, *Armed Forces*, esp. pp.278-83; Shay, *British Rearmament*, pp.19-20; Barnett, *Collapse*, pp.277-8; Brian Bond, *British Military Policy between the Two World Wars* (Oxford, 1980), pp.23-7, 94-7; Gibbs, *Grand Strategy*, pp.3-6, 44-64; Gordon, *Seapower*, pp.96-100; Roskill, *Naval Policy I*, esp. pp.215, 396-97; Peden, *British Rearmament*, pp.5-9.

<sup>46</sup> Ferris, 'Treasury Control', 863-65, 871-74; cf. TNA, CAB 2/5, CID Minutes, 29 September 1930.

<sup>47</sup> Edgerton, *Warfare State*, pp.21-3.

their own aircraft sections, or could manufacture the armament for aeroplanes.<sup>48</sup> Although the air force generally received much less funding than the other two services during the 1920s, it devoted a much higher percentage towards technological procurement: for example, in 1930 its total expenditure was £17.8 million, of which £7.9 million (44 percent) was spent on new equipment.<sup>49</sup>

Table 1 shows naval expenditure between 1923/4 and 1932/3, next to the amount spent on shipbuilding and repairs (column B) and how much of this went towards new construction (column C). New construction averaged around 12 percent of total spending and was then further divided between the state dockyards and private yards: the latter manufactured 250,273 tons of new warship construction between 1925 and 1934 compared to 129,886 tons built in the Royal Dockyards.<sup>50</sup> A number of private shipyards could build hulls for naval vessels, although few were able to construct the specialist armament or equipment required to complete a warship. Moreover, although British shipbuilding capacity had increased massively during the war, only a handful of yards (Cammell Laird, John Brown, Swan Hunter, Vickers and Harland and Wolff) possessed the facilities to build hulls for the largest battleships and aircraft carriers.<sup>51</sup> Nonetheless, when regular post-war naval building commenced in 1924, it became clear that the available work would not occupy all of the existing yards. Therefore, in 1925 the private naval firms agreed to distribute shipbuilding contracts at prices which would allow a reasonable return and enable them retain as many technical staff and as much plant as possible. Even so, Beardmore and Palmer (Jarrow) proved unable to continue in this field and closed their yards.<sup>52</sup>

Table 2 shows the amount spent annually on new naval armaments (as distinct from naval shipbuilding) and the percentages allocated to government factories and the trade. This indicates that the small number of private naval ordnance manufacturers, with occasional exceptions, could count on around one million pounds of orders per year. As for land armaments, the Army annually received about £10-15 million less than the Navy between 1923/4 and 1932/3. It spent between £1.5-2.6 million per year on armaments, and usually spent about a

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<sup>48</sup> For examples, see Scott, *Vickers*, Ch. 16; Edgerton, *England and the Aeroplane*, pp.22-23.

<sup>49</sup> Higham, *Armed Forces*, p.326; Postan, *War Production*, p.2.

<sup>50</sup> RC, *Evidence*, p.437.

<sup>51</sup> Hornby, *Factories*, p.44.

<sup>52</sup> RC, *Evidence*, p.436.

third of this with private manufacturers.<sup>53</sup> In sum, the private manufacturers could usually expect to obtain from a third to a half of post-war expenditure for new naval and land armaments, a roughly similar percentage as it had received in the period 1905-1912.<sup>54</sup>

Ultimately, defence spending proved unable to sustain the post-war private armaments industry in its initial form. As a result of wartime expansion and subsequent reduced demand, each firm possessed excessively large productive facilities which peacetime government orders could not fill. Vickers and Armstrong, the two biggest manufacturers, complained in 1927 that they were operating at less than 40 percent of capacity.<sup>55</sup> The following year Lord Invernairn, Beardmore's chairman, told shareholders that the company had taken on wartime plant extensions at prices far above market value, and possessed heavy armament capacity 'far in excess of the possibilities of the market to absorb to-day.'<sup>56</sup> Moreover, the types of armaments ordered were not always the right kind to keep specialist plant, such as for armour plate, in full working order. By itself, government spending did little to protect individual firms from the slump conditions which affected the heavy industries after a short post-war boom. Vickers had to cut back its expert staff and pared down its research and development department while birds nested in the shipyard cranes at Barrow during the spring of 1922.<sup>57</sup> Cammell Laird's Coventry Ordnance Works closed down in 1925, while at the company's other factories, according to Kenneth Warren, '[t]he hopefulness of the early post-war period then passed over into contraction, to stagnation and eventually to blank despair.'<sup>58</sup> The arms industry eventually and painfully adjusted to the changed market conditions and the number of firms fell away through amalgamation or liquidation.<sup>59</sup> In the meantime, according to Vickers' historian, the company faced 'an anxious, uneasy, constant struggle.'<sup>60</sup> This was true for all arms manufacturers and a prime cause of uncertainty came from developments in post-war international affairs, particularly the quest to achieve global disarmament.

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<sup>53</sup> Higham, *Armed Forces*, p.326; Postan, *War Production*, p.2; RC, *Evidence*, p.625.

<sup>54</sup> *Ibid.*, pp.624-25.

<sup>55</sup> TNA, T 161/656/S.33094, Plender Memorandum, 22 June 1927.

<sup>56</sup> *The Times*, 26 October 1928.

<sup>57</sup> Scott, *Vickers*, pp.143-44.

<sup>58</sup> Warren, *Steel*, pp.180-82.

<sup>59</sup> See Chs. 3-4 and Appendix I.

<sup>60</sup> Scott, *Vickers*, p.145.

**Table 1: Expenditure on Warship Construction 1923/4-1932/3 (£millions)**

	<i>A: Naval Expenditure (In Current Terms)</i>	<i>B: Expenditure on New Shipbuilding Construction, Re-equipment and Repairs</i>	<i>C: Expenditure on New Shipbuilding Construction</i>
1923-4	54.064	11.8 (21.83%)	5 (9.25%)
1924-5	55.694	13 (23.34%)	6 (10.77%)
1925-6	60.005	14.1 (23.50%)	5.4 (9%)
1926-7	57.143	16 (28%)	8.3 (14.52%)
1927-8	58.123	16.3 (28.04%)	9 (15.48%)
1928-9	57.139	15 (26.25%)	8.5 (14.88%)
1929-30	55.988	14.4 (25.72%)	7.7 (13.75%)
1930-1	52.274	10.7 (20.47%)	5 (9.56%)
1931-2	51.015	10.3 (20.19%)	4.8 (9.41%)
1932-3	50.164	10.7 (21.33%)	6 (11.96%)

Sources: Postan, *British War Production*, p.2; Roskill, *Naval Policy I*, p.586.

**Table 2: Expenditure on Naval Armaments 1920-1936 (£)**

<i>Year</i>	<i>Total Expenditure on Vote 9 (Naval Armaments)</i>	<i>Spent in Government Factories</i>	<i>Spent with Trade</i>
1920-21	6,049,000	1,833,000 (30%)	4,216,000 (70%)
1921-22	4,009,000	1,723,000 (43%)	2,286,000 (57%)
1922-23	2,406,000	1,281,000 (53%)	1,125,000 (47%)
1923-24	2,680,000	1,321,000 (49%)	1,359,000 (51%)
1924-25	2,668,000	1,432,000 (54%)	1,236,000 (46%)
1925-26	2,649,000	1,483,000 (56%)	1,166,000 (44%)
1926	2,235,000	1,124,000 (50%)	1,111,000 (50%)
1927	3,070,000	1,366,000 (44%)	1,704,000 (56%)
1928	2,911,000	1,689,000 (58%)	1,222,000 (42%)
1929	2,606,000	1,568,000 (60%)	1,038,000 (40%)
1930	2,336,000	1,502,000 (64%)	834,000 (36%)
1931	2,160,000	1,283,000 (59%)	877,000 (41%)
1932	2,039,000	1,176,000 (58%)	863,000 (42%)
1933	2,520,000	1,333,000 (53%)	1,187,000 (47%)
1934	2,773,000	1,481,000 (53%)	1,292,000 (47%)
1935 (forecast)	4,126,000	2,140,000 (52%)	1,986,000 (48%)
1936 (estimate)	7,511,000	2,700,000 (36%)	4,811,000 (64%)

Source: RC, *Evidence*, p.624.

**Table 3: British Naval Building 1919-1930**

Battleships	2
Cruisers	17
Destroyers	34
Submarines	23
Sloops/Minelayers	15

Source: Roskill, *Naval Policy I*, pp.580-2.

### **The Disarmament Dilemma and the Naval Industries**

Disarmament – meaning the reduction and limitation of armaments by international agreement – was a major ambition of the newly-created League of Nations and became a popular theme in inter-war international relations. Many people blamed the pre-1914 arms race for the outbreak of the war and public opinion forced statesmen to pay lip service to the idea that arms control would prevent future conflicts. At the same time, many governments accepted that qualified disarmament might result in political and economic benefits. Therefore, a series of largely abortive multilateral efforts to limit or reduce ‘national armaments’ took place during this period.<sup>61</sup> Mirroring the opinions of contemporary critics, such as Philip Noel-Baker and Lord Robert Cecil, who served in both of Stanley Baldwin’s Cabinets in the 1920s and was the President of the League of Nations Union, some historians have questioned the extent to which inter-war British governments were committed to, or even understood, the concept of disarmament.<sup>62</sup> Certainly the results did not match the time and energy invested in the question. After seven years of painstaking preparation, the Disarmament Conference met in 1932 to negotiate the terms of a general convention, to bind all states and cover every type of land, sea and air weapon.

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<sup>61</sup> For a summary, see Andrew Webster, ‘From Versailles to Geneva: The Many Forms of Interwar Disarmament’, *Journal of Strategic Studies*, vol. 29, no. 2 (April, 2006), 225-46.

<sup>62</sup> Richardson, *Evolution of British Disarmament Policy*; Kitching, *Britain and the Problem of International Disarmament*.

This ambition came to an end with the German delegation's withdrawal in October 1933.<sup>63</sup> Yet, despite the absence of agreement, the disarmament *process* had a number of harmful effects on the British armaments industry, especially in the naval sphere. It also made official policy appear ambiguous or even duplicitous, as successive governments wrestled with the dilemma of trying to appear committed to disarmament while simultaneously retaining adequate arms-producing capacity to safeguard the empire's vital sea communications.<sup>64</sup> This not only impacted on Britain's international reputation, but also eroded the state's relationship with the armaments industry, by causing firms to feel increasingly undervalued at a time when many of them were struggling to stay afloat.

In late 1921 Sir Eustace Tennyson d'Eyncourt, the Director of Naval Construction and former Armstrong ship designer, and Lord Beatty, the First Sea Lord, warned that a complete cessation of capital ship-building would result in a serious deficiency in skilled labourers, while a lengthy construction 'holiday' would 'kill all thought and development in capital ship design'. Instead they unsuccessfully recommended a policy of gradual construction, which would also obviate the need to pay a large subsidy to keep private industry in an adequate state of readiness. Beatty also suggested that gradual construction programmes would act as a natural 'cap' on the number of arms firms, and would also prevent the recrudescence of expensive and potentially dangerous naval competition after the holiday period had expired.<sup>65</sup> Moreover, the Admiralty had drawn up an ambitious post-war naval programme including the production of capital ships armed with enormous 16-inch guns.<sup>66</sup> Armstrong, Cammell Laird, John Brown and Vickers were led to expect substantial naval work for their extensive iron, steel, engineering and shipbuilding works, and Armstrong even invested in new armour-producing plant, despite national overcapacity.<sup>67</sup> This programme augured well for the post-war naval-industrial relationship because capital ships, as the largest warships afloat, required huge quantities of armour, the biggest guns and

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<sup>63</sup> For the League and disarmament, see F. S. Northedge, *The League of Nations: Its Life and Times 1920-1946* (Leicester, 1986), p.113-36; Zara Steiner, *The Lights That Failed: European International History 1919-1933* (Oxford, 2005), pp.372-83, 565-97, 755-96.

<sup>64</sup> See Philip Towle, 'British Security and Disarmament Policy in Europe in the 1920s', in R. Ahmann, A. M. Birke and M. Howard (eds.), *The Quest for Stability: Problems of West European Security, 1918-1957* (Oxford, 1993), pp.127-153.

<sup>65</sup> TNA, CAB 2/3, CID Minutes, 14 November, 1 and 12 December 1921.

<sup>66</sup> Kennedy, *Naval Mastery*, p.274; Gordon, *Seapower*, p.69.

<sup>67</sup> Warren, *Armstrongs*, p.200.

turrets, and the most powerful engines. These items required highly specialised plant and skilled labour, which were mainly found in the private sector, while the process of designing and producing a new ship involved several years of close cooperation between the Admiralty and the manufacturer.

However, on 6 February 1922 Britain, France, Italy, Japan and the United States signed the non-League Washington naval treaty, one of the few successful instances of disarmament in modern times. The treaty was linked to political agreements in the Pacific and Far East, and reflected the mutual Anglo-American desire to avoid a costly armaments race. It was also based upon a level of mutual agreement and sympathy of objectives which was absent from the other inter-war disarmament negotiations. By the terms laid down at Washington, Britain, the United States, Japan, France and Italy agreed to limit their capital ships in the ratio 5:5:3:1.75:1.75, and restrict the size of each vessel to 35,000 tons. Moreover, the terms of the treaty imposed a ten-year holiday on new construction.<sup>68</sup> The existing Admiralty procurement programme was subsequently shelved, and the government cancelled four capital ship contracts.<sup>69</sup> It also abrogated its pre-treaty armour plate contracts and, although it subsequently reimbursed Armstrong £121,000, it could not compensate for the lack of work. Over the next fifteen years, British yards only built three capital ships: one battle-cruiser (HMS *Hood*) and two 'treaty' battleships (HMS *Nelson* and HMS *Rodney*).<sup>70</sup>

The dangers Tennyson and Beattie had warned of were arguably realised, but, in some ways, the limitation of capital ships made sound strategic and economic sense. The enormous unit cost and building time of these colossal structures resulted in an understandable caution about risking them in combat, as the war at sea had demonstrated.<sup>71</sup> In any case, the Board of Trade, after consulting Vickers, Armstrong and Cammell Laird, suggested that the temptation of a 'period of active building' after a long moratorium would likely compel the arms industry to maintain sufficient plant and even undertake some experimental work, if provided with a 'comparatively small subsidy' during the holiday period.

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<sup>68</sup> Roskill, *Naval Policy I*, Ch. 8; Hall, *Britain, America and Arms Control*, pp.26-32.

<sup>69</sup> TNA, CAB 4/8/337-B, Extract from a Conference of Ministers, 10 February 1922.

<sup>70</sup> Scott, *Vickers*, pp.144-45; Kennedy, *Naval Mastery*, p.275; Warren, *Armstrongs*, pp.200-1. The work was divided between the firms in late 1922: for example, Armstrong obtained the contract to build the *Nelson* and supply the *Rodney's* armament. Cammell Laird built the *Rodney*.

<sup>71</sup> Hall, *Britain, America and Arms Control*, p.6; Edgerton, *Warfare State*, pp.26-27.

Nonetheless, the Board admitted that the cessation of construction would have a ‘considerable’ impact on the arms firms.<sup>72</sup>

The Washington treaty placed no limits on the naval powers’ ability to build smaller vessels, beyond restricting the size of cruisers to 10,000 tons and the calibre of their guns to eight inches. Cruisers, the next stage down from capital ships (a light cruiser was approximately one-quarter the displacement of a capital ship, a heavy cruiser roughly one-third), were arguably more valuable in protecting the British Isles’ insular strategic position and imperial communications. These vessels could be used either as support for the main battle fleet or, crucially, to impose or break blockades.<sup>73</sup> As Brian McKercher has noted, this latter quality ‘meant trade protection in wartime and that to a nation which had nearly starved to death only ten years earlier was a very real issue.’<sup>74</sup> Unsurprisingly, the leading naval powers found it difficult to reach agreement on limiting cruiser strength. At the Geneva Naval Conference in 1927 the United States, Britain and Japan failed to extend the principle of the Washington treaty to other classes of vessel, when Britain resisted American calls to compromise on its ‘absolute’ needs for patrolling 80,000 miles of trade routes and communications.<sup>75</sup> The failure to conclude an agreement, combined with revelations over secretive Anglo-French negotiations in 1928, threatened to provoke an Anglo-American naval race.<sup>76</sup>

By the end of the 1920s, the disarmament process had only caused the cancellation of a small number of, admittedly lucrative, capital ship contracts. The Admiralty continued to order comparatively smaller vessels, the bulk of which were constructed in the latter half of the decade (Table 3). The two battleships cost an estimated £14 million, while individual cruisers cost between £1-1.5 million, destroyers just over £0.5 million and submarines approximately £0.25 million each.<sup>77</sup> Along with cruisers, the submarine and destroyer were key weapons in trade warfare. The submarine’s ability to wreak havoc on merchant

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<sup>72</sup> TNA, BT 65/9, Baldwin to Llewellyn Smith, 18 November 1921.

<sup>73</sup> Hall, *Britain, America and Arms Control*, p.8.

<sup>74</sup> McKercher, *Second Baldwin Government*, p.69.

<sup>75</sup> See the contrasting accounts of the conference in: John W. Wheeler-Bennett, *Disarmament and Security since Locarno, Being the Political and Technical Background of the General Disarmament Conference, 1932* (London, 1932), pp.113-24, and McKercher, *Second Baldwin Government*, pp.70-76.

<sup>76</sup> Webster, ‘From Versailles to Geneva’, 232.

<sup>77</sup> Hansard, HC Debs. (series five) vol. 170, col. 2565 (13 Mar. 1924); RC, *Evidence*, p.668.

shipping prompted Britain and the United States to call for its abolition, but the smaller naval powers viewed the submarine as an equalising weapon which enabled them to defend themselves against countries with larger surface fleets. To meet the submarine threat, navies invested in destroyers, which were used to escort convoys of merchant ships as well as provide protection for the main battle fleet.<sup>78</sup> Though the unit costs were smaller than for capital ships, the demand for such ‘auxiliary’ vessels was greater – and this kind of work was ideally suited for Vickers’ shipyard at Barrow.<sup>79</sup> Whereas the majority of destroyers were more economically constructed in private yards, the Royal Dockyards were better suited to cruiser construction, and the Admiralty divided this work more evenly.<sup>80</sup> Between 1925 and 1934 the Royal Dockyards built 98,200 tons of cruisers compared to 86,220 in private yards. The respective figures for destroyers were 2,750 and 51,700 tons.<sup>81</sup> Moreover, sales of submarine mines, depth charges and paravanes formed a small but ‘exceedingly profitable’ part of Vickers’ overseas sales in the 1920s.<sup>82</sup>

The capital ship holiday forced the government to make certain arrangements with the private arms industry to help maintain specialist naval-orientated plant in peacetime. Armour plate was used extensively to protect large warships and required dedicated steel works incorporating enormous rolling mills alongside massive bending and forging presses. At the end of the war, the five armour firms (Armstrong, Beardmore, John Brown, Cammell Laird and Vickers) could manufacture 60,000 tons annually, which was greatly in excess of peacetime needs.<sup>83</sup> Indeed, following the Washington treaty, the maximum annual armour requirement stood at 3,000 tons, and in 1926 Douglas Vickers stated that government orders could not keep one armour workshop more than half-employed, let alone sustain five plants.<sup>84</sup> However, after the expiration of the construction holiday, the Admiralty anticipated it would require between 18-23,000 tons annually. If the country’s existing plant and personnel disappeared during this time, the government would face a hefty bill and a long wait before

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<sup>78</sup> Hall, *Britain, America and Arms Control*, pp.6-7, 10-11.

<sup>79</sup> *The Times*, 16 April 1925.

<sup>80</sup> RC, *Evidence*, p.667.

<sup>81</sup> *Ibid.*, p.437.

<sup>82</sup> CUL, VMF R314, Craven Memorandum, March 1927.

<sup>83</sup> Postan, *War Production*, p.50.

<sup>84</sup> *The Times*, 16 April 1926.

this capacity could be rebuilt from scratch and it would also lose a decade in potential innovation.

The armourers and the Admiralty realised some kind of assistance was required, but nothing was resolved until the mid-1920s, when Colville, a Scottish steel firm, threatened to undercut the five existing armour producers. The traditional firms, which claimed to be spending £424,075 a year on maintaining idle armour plant, were outraged, and to prevent further controversy the Admiralty reached an exclusive suppliers' arrangement with them.<sup>85</sup> Subsequently, prices for armour plate included an 'element of contribution' which varied depending on how many orders were placed in a given year.<sup>86</sup> This assistance was not concealed from the public, although at first the wording attempted to obscure the fact that the government was subsidising the armour producers. William Bridgeman, the First Lord of the Admiralty, told Parliament on 17 November 1926 that:

The inducement offered to the manufacturers of armour plate to maintain their existing plants and technical staffs is that each manufacturer has been given a share of the orders for armour plate at prices which take into account the higher cost necessarily involved in producing small quantities.<sup>87</sup>

Vickers, Armstrong and Cammell Laird, which together produced less than 2,500 tons of armour plate in 1927, combined their armour producing plant in 1928 to form the English Steel Corporation (ESC).<sup>88</sup> Between 1927 and 1932, the armour industry received a total of £366,328 in declared financial assistance from the government.<sup>89</sup> Some embarrassment ensued in 1929 when, in the absence of any armour orders, the government could no longer disguise the subsidy paid to the firms.<sup>90</sup> However, neither this support nor cartelisation proved enough to halt the reduction in capacity. Indeed, the formation of the ESC meant that plant was

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<sup>85</sup> For the negotiations and controversy, see: Davenport-Hines, 'Armaments Industry', pp.226-29.

<sup>86</sup> Gordon, *Seapower*, p.83.

<sup>87</sup> Hansard, HC Debs. (series five) vol. 199, col.1833 (17 Nov. 1926); see also volume 204, cols.1232-3, 30 March 1927.

<sup>88</sup> Warren, *Steel*, p.222.

<sup>89</sup> Hansard, HC Debs. (series five), vol. 239, cols 1481-2 (29 May 1930); *Ibid.*, vol. 239, cols 319-20 (9 Nov. 1933); *Ibid.*, vol. 298, cols 954-5 (26 Feb. 1935).

<sup>90</sup> Gordon, *Seapower*, p.84.

closed down in order to centralise production at the River Don works at Sheffield.<sup>91</sup> In 1932 the Admiralty renewed the armour pool agreement in the hope that the remaining firms would share their technical knowledge.<sup>92</sup> Certainly, British manufacturers remained world-leaders in qualitative development: for example, in 1938 Sir Reginald Henderson, the Controller of the Navy, suggested that no country exceeded the quality of British-made hard cemented armour plate. Therefore, he refused to buy foreign-made cemented armour, although the Admiralty subsequently purchased 10 percent by weight of Britain's non-cemented armour needs for 1938-39 from Czechoslovakia. Although British quality remained high, the private firms were unable to meet unusually large demand with their existing plant. With the onset of rearmament, the Admiralty ordered 34,361 tons of armour in 1936, compared to 8,550 the previous year. Yet the amount delivered in 1936 was only 7,500 tons, and the figure only rose to 12,500 tons in 1937. However, the Admiralty refused to blame the firms for this shortfall and suggested that it had conceptualised its future requirements on the basis of thick armour, whereas rearmament involved the production of thinner plates. In this regard, the same quantity of plant and labour could provide 4,000 tons of thin plates annually compared to 9,000 thick plates. Therefore, it appeared that the most important unit for measurement was the number of plates delivered, rather than the total weight.<sup>93</sup>

As with armour plate, the highly specialised manufacture of heavy naval gun-mountings required the Admiralty to take measures to preserve capacity. Each mounting was an enormous and technically advanced piece of machinery, and constituted one of the most expensive individual parts of a warship. Vickers correctly anticipated a decline in such work after the war, and had initially experimented with general engineering at its Barrow works. This not only proved financially disastrous but also reduced the quality of skilled labour. Therefore, when orders picked up in the mid-1920s, it proved difficult to get the men back to the exceptionally high standard of workmanship required on ordnance work.<sup>94</sup> To retard further decline, the Admiralty allowed Vickers and Armstrong to

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<sup>91</sup> Warren, *Steel*, p.230.

<sup>92</sup> Hume and Moss, *Beardmore*, pp.231-32.

<sup>93</sup> Gordon, *Seapower*, pp.212-13, 216-19. For the difference between cemented and non-cemented armour, see *Ibid*, p.93, note 51.

<sup>94</sup> Bank of England Archive, London (hereafter BoE), SMT 2/127, Craven to Lawrence, 4 January 1929.

monopolise gun-mounting production, a policy also intended to prevent these firms demanding a subsidy if orders were subsequently reduced. However, this meant that Beardmore was shut out.<sup>95</sup> The Coventry Ordnance Works was also told not to expect any gun-mounting work or a subsidy to preserve its capacity.<sup>96</sup> By the end of the 1920s, it no longer existed as an armaments concern while Beardmore faced bankruptcy.

To assist Vickers and Armstrong in covering their heavy outlays on gun-mounting contracts, in 1926 the Admiralty adopted the simple expedient of issuing blank contracts, thereby circumventing a 1905 parliamentary rule, which stated that advance payments were not to be made until contracts were signed.<sup>97</sup> Gun-mountings represented a large proportion of total expenditure on naval armaments in private yards: for example, in 1926 the Admiralty settled the price with Armstrong for eight-inch mountings for three cruisers at £460,000 per ship.<sup>98</sup> According to Sir Charles Craven, an ex-submarine officer and the general manager of Vickers-Armstrongs' works and shipyards, such business remained the firm's 'most profitable industry' in 1932.<sup>99</sup> Faced with stiff home competition and limited orders for warship construction, the ability to undertake naval ordnance manufacture was an advantage which enabled Vickers to reduce its establishment charges and make competitive tenders for occasional non-naval shipbuilding work. It was, however, a disadvantage in obtaining hull and machinery orders, which were usually spread amongst firms which did not possess an ordnance capacity.<sup>100</sup>

The Admiralty clearly wished to help its main suppliers and continued to place a large amount of trust in the private armaments industry or, at least, certain key firms. To some extent, this demonstrated the endurance, or even a strengthening, of the naval-industrial complex in the inter-war years. The 'special relationship' whereby the government provided guarantees or assurances in order to preserve a small group of high-quality specialist producers was not a new

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<sup>95</sup> Hornby, *Factories*, p.58; Davenport-Hines, 'Armaments Industry', p.69.

<sup>96</sup> Warren, *Steel*, pp.178-80.

<sup>97</sup> Higham, *Armed Forces*, p.196.

<sup>98</sup> TWAS, 130/1303, Armstrong Management Committee Minutes, 21 July; *Ibid.*, 18 August 1927; *Ibid.*, 17 November 1927.

<sup>99</sup> Scott, *Vickers*, p.187.

<sup>100</sup> CUL, VMF R314, Craven to Trevor Dawson, 23 September 1927; *Ibid.*, Craven Memorandum, March 1927.

development, and had roots in the late nineteenth-century.<sup>101</sup> Yet the Admiralty's willingness to provide support in the 1920s did not represent a long-term solution to the arms industry's underlying problems which were caused by its over-capacity for peacetime production.

The Labour Party was returned to power in 1929 and its manifesto pledged a further reduction of armaments and cuts in defence spending.<sup>102</sup> The new government particularly sought to mend Anglo-American relations and prevent a naval race. In July, as a gesture of goodwill, James Ramsay MacDonald, the Prime Minister, announced the suspension of work on two cruisers, and the cancellation of two submarines and a submarine depôt ship, stating that 'the Navy as it is left after this announcement is perfectly capable of doing its duty.'<sup>103</sup> Most of the cutbacks affected the Royal Dockyards, rather than private shipbuilders, but this was not the end of MacDonald's naval activities. Through highly personal diplomacy, the Prime Minister sought and achieved a rapprochement with Herbert Hoover, the US President.<sup>104</sup> The result of their discussions, the London Naval Conference of 1930, has been described by Christopher Hall as 'the high watermark of inter-war naval limitation'.<sup>105</sup> It produced an agreement between Britain, Japan and the United States which extended the capital ship construction holiday for a further five years and also imposed a limit on cruisers, with Britain reducing its stated absolute requirement from seventy to fifty.<sup>106</sup> The continuation of the capital ship holiday was disappointing for the country's shipyards and workshops but the cruiser agreement was hardly fatal: Britain built twelve cruisers between 1930 and 1933, which compared favourably with the fourteen cruisers built during the whole of the 1920s.<sup>107</sup>

Sir Charles Craven was not unduly pessimistic. The announcement of the 1930 naval programme enabled him to estimate how many orders Vickers-Armstrongs would obtain and he observed this programme was below the

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<sup>101</sup> Trebilcock, *Vickers Brothers*, pp.15-17, 54-55.

<sup>102</sup> Labour Party, *Labour and the Nation* (1928; rev. edn., London, 1929).

<sup>103</sup> Hansard, HC Debs. (series five) vol. 230, cols 1304-11 (24 Jul. 1929).

<sup>104</sup> Hall, *Britain, America and Arms Control*, Ch. 3.

<sup>105</sup> *Ibid.*, p.88.

<sup>106</sup> *Ibid.*, Ch. 4.

<sup>107</sup> Roskill, *Naval Policy I*, pp.580-82. For a highly negative view of the conference's impact on Britain's naval industries, see John Ferris, 'It is our Business in the Navy to Command the Seas': The Last Decade of British Maritime Supremacy, 1919-1929', in Greg Kennedy and Keith Neilson (eds.), *Far-Flung Lines: Essays on Imperial Defence in Honour of Donald Mackenzie Schurman* (London, 1996), pp.124-170.

minimum required to replace wastage in the fleet in order to preserve the standard accepted at the London Naval Conference. Indeed, Craven wrote of the possibility, in the event of a change of government, of an increase in naval work. Nonetheless, Vickers-Armstrongs' northern works required an annual turnover of £7.5 million, of which less than half could be expected from government work. Factoring in £500,000 of foreign armament work, Craven anticipated a depressing quest for £3.6 million of scarce merchant ship orders.<sup>108</sup> General Sir James Noel Birch, Vickers-Armstrongs' head of land sales, was more disturbed: 'Ramsay will ruin the country. We shall not have a single man left who knows how to make a gun if this sort of thing goes on.'<sup>109</sup>

In the midst of financial crisis, the Labour government resigned in August 1931 and was replaced by a National coalition. Naval expenditure reached the inter-war low figure of £50.1 million in 1932-3 before steadily rising as rearmament got underway.<sup>110</sup> By March 1935, 60 ships were under construction or on order, with 48 of these going to private yards.<sup>111</sup> A further naval conference met in London between December 1935 and March 1936, resulting in a treaty which further improved Anglo-American relations. However, with Japan abrogating the Washington treaty in December 1934, and the Anglo-German Naval Agreement of June 1935 legitimising Germany's naval rearmament, this did not prevent a naval building race between the increasingly suspicious powers.<sup>112</sup> In April 1936 Vickers-Armstrongs' shipyards and ordnance works were bustling and the firm was also manufacturing a large proportion of the armament for the warships under construction in the Royal Dockyards.<sup>113</sup>

While naval disarmament produced significant, albeit limited and short-lived, results, an international agreement covering land weapons proved more elusive. French insecurity about Germany's potential for future aggression and British unwillingness to provide a guarantee to France helped to create

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<sup>108</sup> CUL, VMF K613 and K615, Craven to Vickers-Armstrongs' Chairman and Directors, 30 June 1930.

<sup>109</sup> *Ibid.*, K618, Birch to Peck, 26 July 1929.

<sup>110</sup> Roskill, *Naval Policy I*, p.586.

<sup>111</sup> RC, *Evidence*, p.609.

<sup>112</sup> Stephen Roskill, *Naval Policy between the Wars, II: The Period of Reluctant Rearmament, 1930-1939* (London, 1976), Ch. 10; Hall, *Britain, America and Arms Control*, Ch. 7.

<sup>113</sup> *The Times*, 4 April 1936.

deadlock.<sup>114</sup> Moreover, while the successful naval negotiations dwelt on a few types of warship, land armaments were always treated as part of the wider quest for general disarmament. This vast endeavour failed in part because of the complex technical issues of establishing equivalents between different types of arms, in part because of hostility and suspicion among the participating powers.<sup>115</sup> Yet although the Disarmament Conference failed to reach an agreement, it nonetheless had a negative impact on the arms industry's already limited land business owing to what Lieutenant-General Sir Webb Gillman, the Master General of the Ordnance (MGO), called 'the atmosphere of disarmament which is supposed to exist'.<sup>116</sup> In March 1931, Lieutenant-General Sir J.R.E. Charles, Gillman's successor, wrote to Birch:

1932 is going to be a critical year. There is a big drive on the part of men like Lord Cecil, who are going to leave no stone unturned to bring about at least a reduction of armaments and expenditure thereon at Geneva next year. I cannot, of course, give away such official secrets as I know, but considerable energies are being directed towards achieving this very laudable end. In these circumstances you will realise how impossible it is for the Army Council to put forward any scheme involving large expenditure on armaments on the very eve of the Geneva Conference, whose sole and only object is for their reduction.<sup>117</sup>

The conference also affected overseas business and one of Vickers' travelling representatives wrote that, while proceedings continued, military authorities seemed reluctant to place any orders.<sup>118</sup>

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<sup>114</sup> Andrew Webster, 'An Argument Without End: Britain, France and the Disarmament Process, 1925-34' in Martin S. Alexander and William J. Philpott (eds.), *Anglo-French Defence Relations between the Wars* (Basingstoke, 2002), pp.49-71.

<sup>115</sup> For discussion of such problems, see B. J. C. McKercher, 'Of Horns and Teeth: The Preparatory Commission and the World Disarmament Conference, 1926-1934' in B. J. C. McKercher (ed.), *Arms Limitation and Disarmament: Restraints on War, 1899-1939* (Westport, 1992), pp.173-202. For a detailed survey of the disarmament process, see Steiner, *Lights That Failed*, Chs. 7, 11 and 14.

<sup>116</sup> CUL, VMF K619, Gillman to Birch, 6 February 1931.

<sup>117</sup> Ibid., J.R.E. Charles to Birch, 25 March 1931.

<sup>118</sup> Ibid., K617, Ryan (Switzerland) to Birch and Yapp, 10 February 1932; Ibid., K635, Ryan (Bangkok) to Birch, 14 June 1932.

The pursuit of disarmament did not decisively cripple the British arms industry but it did strain individual firms and state-industry relations. For a start, it reduced the amount of work available to British firms. It also increased the need for the government to subsidise certain key firms while simultaneously increasing the government's reluctance to be seen to support them. After all, Britain was a leading member of the League of Nations, whose covenant suggested that the private manufacture of arms was 'open to grave objections' and 'evil effects'.<sup>119</sup> Even though the League's disarmament efforts were largely unsuccessful, they strengthened opposition to arms expenditure and the arms industry, placing the latter on the defensive. These issues also created a further problem for the government in balancing its relations with private enterprise and the state-owned factories and dockyards.

### **A Civil Service Conspiracy? State Manufacture and Unemployment**

Some of the most revealing evidence as to the post-war tensions affecting military-industrial relations in the late 1920s and early 1930s appears in the official and private correspondence between General Sir James Noel Birch, a Vickers director, and senior figures at the War Office, including Field-Marshal George Milne, the Chief of the Imperial General Staff; Sir Herbert Creedy, the Permanent Undersecretary of State at the War Office; General Sir Webb Gillman, the Master General of the Ordnance; and Lieutenant-General Sydney Peck, the Director of Mechanisation.<sup>120</sup> Birch himself had been MGO from 1923 until his retirement in 1927, after which he took up a directorship at Vickers and became head of land sales under the Vickers-Armstrongs arrangement. He wrote in January 1928 that Vickers' contracts from the War Office since 1918 were 'trifling'.<sup>121</sup> Matters scarcely improved afterwards: orders placed with Vickers-Armstrongs totalled £411,094 in 1928, £228,410 in 1929, and a mere £115,705 in 1930.<sup>122</sup> To some extent, these problems were self-inflicted. Shortly after arriving at Vickers, Birch noted that 'We are not on the good terms we ought to be with

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<sup>119</sup> See pp.221-23 below.

<sup>120</sup> The bulk of this is in CUL, VMF K618-19.

<sup>121</sup> *Ibid.*, K609, Birch to Lawrence, 9 January 1928.

<sup>122</sup> *Ibid.*, K619, Birch to Gillman, 7 January 1931.

the War Office and as we are the sellers, it is up to us to put it right.’<sup>123</sup> Peck revealed in June 1928 that the War Office had lost faith in the firm’s Sheffield works’ pricing, while the Director of Artillery expressed bitterness against the company in February 1929 because it had evaded a question about delays which had cost the War Office money.<sup>124</sup> Birch was eager to correct these problems, but also felt that the War Office should improve its own methods.

Although Birch suspected his old service colleagues now considered him ‘a prejudiced bloated manufacturer, out to squeeze my Country in every way I can’, he was undoubtedly patriotic, fervently pro-mechanisation and genuinely perplexed by what he viewed as the War Office’s retrograde attitude towards tank production.<sup>125</sup> For their part, Birch’s friends at the War Office were often helpful although not always hopeful.<sup>126</sup> Surprisingly, Birch did not consider that the League’s disarmament efforts were particularly dangerous, stating in 1932:

I cannot think the Dis-Armament Conference [*sic*] will come to much. The Empire’s serious danger is not, I believe, from these conferences, but from the growing strength of the Civil Servants and the way they have percolated into every class of undertaking.<sup>127</sup>

Birch believed the War Office’s ‘numberless civil servants’ had a vested interest in keeping the Woolwich Arsenal well-employed, a commitment that worked against Vickers-Armstrongs’ interests. He viewed Sir Herbert Creedy, the top civil servant at the War Office, as the leader of this conspiracy and proposed that the bureaucrats should undertake a stint in the Army, arguing that ‘[a] few casualties would make a great difference.’<sup>128</sup> Birch feared that Gillman, his friend and successor as MGO, was no match for Creedy, whom he alleged cared only for the ‘Arsenal preserve’ and nothing for military efficiency.<sup>129</sup>

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<sup>123</sup> Ibid., K609, Birch Memorandum, 10 October 1927. See also: Ibid., Birch to Lawrence, 3 October 1928.

<sup>124</sup> Ibid., K618, Birch Memorandum, 4 June 1928; Ibid., WO Meeting Notes, 8 February 1929.

<sup>125</sup> The quotation is from Ibid., Birch to Gillman, 6 December 1927.

<sup>126</sup> For example: Ibid., Gillman to Birch, 29 April 1929; Ibid., Bridge to Birch, 23 October 1929; Ibid., K619, Birch Memorandum, 6 February 1930.

<sup>127</sup> Ibid., Birch to Milne, 8 February 1932.

<sup>128</sup> Ibid., K618, Birch to Peck, 27 March 1929. Also: Ibid., Birch to Milne, 11 February 1929.

<sup>129</sup> Ibid., K609, Birch to Lawrence, 3 February 1930.

Meeting Birch at the Carlton Club in July 1928, Sir Laming Worthington-Evans, the Secretary of State for War, apparently expressed his support for equal treatment between Vickers-Armstrongs and the Royal Ordnance Factories. However, this issue remained unresolved and prominent in the firm's dealings with the War Office over the next few years.<sup>130</sup> The crux of the matter was Vickers-Armstrongs' expensive drawing office, which produced experimental designs for items including tanks, guns and carriages. The firm argued it did not receive adequate recompense for these facilities, either for the cost of the 'test' models or in terms of subsequent bulk orders.<sup>131</sup> Moreover, its designers attracted the attention of American manufacturers and required financial inducements to convince them to stay in England.<sup>132</sup> Therefore, the company repeatedly demanded a fixed percentage of work if its models were officially adopted, or that it should receive payments if the Arsenal built its designs.<sup>133</sup> The former arrangement was considered far preferable, since it would keep as much plant and as many workers employed as possible.<sup>134</sup> The explicitly-stated alternative was that Vickers-Armstrongs would be forced to withdraw from unprofitable land armaments manufacture to concentrate on naval and civil work.<sup>135</sup> However, given that the mechanisation of the Army was at experimental stage, the War Office felt unable to place bulk orders for any one type of vehicle.<sup>136</sup>

Consistent work, rather than piecemeal orders, was crucial if Vickers-Armstrongs was to maintain continuity of employment and avoid losing skilled men who would otherwise be tempted to seek less precarious jobs.<sup>137</sup> Birch felt either credit or a loan for this purpose was essential, but the War Office did not allow any credit system.<sup>138</sup> As for a loan towards military expenditure, Sir Otto Niemeyer, an ex-Treasury official and Bank of England director who subsequently joined Vickers-Armstrongs' board, agreed with Creedy that it was

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<sup>130</sup> *Ibid.*, R285, Birch to Peck, 20 July 1928.

<sup>131</sup> *Ibid.*, K618, WO Interview Note, n.d. [c.June-July 1928]; TNA, CAB 24/211/CP149(30), Committee on Alternative Work: Report, 22 April 1930.

<sup>132</sup> CUL, VMF K618, Birch to Gillman and Birch to Creedy, 16 May 1929; *Ibid.*, K619 Birch to Gillman, 12 May 1930.

<sup>133</sup> *Ibid.*, K618, Lawrence to Worthington-Evans, 2 November 1927; *Ibid.*, Birch to Creedy, 22 January 1929.

<sup>134</sup> *Ibid.*, K619, Notes for Chairman, 11 February 1930.

<sup>135</sup> *Ibid.*, K618, Birch to Peck, 15 December 1927; *Ibid.*, Birch to Gillman, 15 February 1928.

<sup>136</sup> *Ibid.*, Gillman to Birch, 9 November 1927.

<sup>137</sup> *Ibid.*, Birch to Gillman, 6 December 1928.

<sup>138</sup> *Ibid.*, Birch to Peck, 11 October 1927; *Ibid.*, Birch to Milne, Hankey and Gillman, 2 November 1927.

out of the question, both as a matter of financial principle and also because of the Treasury's immense existing loan commitments.<sup>139</sup> Moreover, the War Office argued it had given the firm fair treatment. Creedy pointed out that in the first bulk tank order, made in 1923, Vickers had received 30 tanks against 28 for the Arsenal and, in total, Vickers and Armstrong had received 43 percent of tank and 98 percent of 'dragon' artillery tractor orders.<sup>140</sup> Birch strongly disagreed. As Vickers-Armstrongs was not guaranteed similar orders in the future, he suggested that Creedy should take a longer view and, in friendly spirit, mocked his bureaucratic position:

if you had been as much frightened as I was during the first two years of the war [...] instead of sitting comfortably in Whitehall with an occasional bomb over you, which did your health nothing but good by shaking up your liver, you would agree with me that when Vickers-Armstrong bring out something absolutely new they should be kept alive by getting a certain proportion of the orders for it [...] Mark you, once let the armament firms go down, they will never recover, and if you believe that there is never going to be another war, then you are a very wicked man for taking your present high salary!<sup>141</sup>

Creedy responded that Birch was a 'rascal' as he knew the financial and political conditions from his own time as MGO.<sup>142</sup> Nonetheless, Birch continued to criticise Creedy and his band of civil servants.<sup>143</sup>

Until these controversies were resolved, Birch argued that there would 'never be a good feeling between the trade and the War Office', and Vickers-Armstrongs could scarcely be a 'willing servant [...] and a national asset under present conditions.'<sup>144</sup> Tensions were unsurprising in the difficult conditions of the late 1920s and early 1930s, and Birch's persistence may have done more harm than good as each side tried to make the other realise it was not a 'charitable

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<sup>139</sup> Ibid., Niemeyer to Birch, 1 December 1927.

<sup>140</sup> Ibid., Creedy to Birch, 9 April 1929.

<sup>141</sup> Ibid., Birch to Creedy, 19 April 1929.

<sup>142</sup> Ibid., Creedy to Birch, 22 April 1929.

<sup>143</sup> Ibid., Birch to Gillman, 26 April 1929.

<sup>144</sup> Ibid., K619, Birch to Gillman, 27 January 1930.

institution'.<sup>145</sup> On 1 August 1930 Peck, who had supported Vickers-Armstrongs at the War Office, wrote to Birch to express regret at 'the apparently increasing antipathy of your department against my own. I cannot see that it can be of any advantage to anybody.'<sup>146</sup> Although much of Birch's correspondence was jocular and light-hearted, he scrawled on a letter to Vickers' chairman that Creedy was a 'pedantic ass'.<sup>147</sup> Nonetheless, he tried not to give the impression of a vendetta, and explained his frustration was down to his patriotism and worries that current British arrangements for emergency production were even worse than the 'futile' arrangements of 1914.<sup>148</sup> Moreover, from a pecuniary standpoint Birch claimed Vickers' directors were not antagonistic to the War Office but disliked making no profits and felt concern for the shareholders.<sup>149</sup>

Birch's opinions regarding the role of the civil service should probably be taken with a pinch of salt: some years later, one of his colleagues described how the General 'liked to be in the swim of affairs in Whitehall', but scarcely 'carried all the weight in the Company or in Whitehall that he thought he carried.'<sup>150</sup> Nonetheless, Birch's letters reveal that military-industrial relations spanned a range of sentiments, from warmth and cooperation, to belligerence and irritation. Putting aside the design controversy and the civil servants, Birch felt that Vickers-Armstrongs' relationship with the War Office was close and satisfactory, although he suggested that the Admiralty and Air Ministry were more sympathetic to the firm.<sup>151</sup> The Admiralty certainly maintained its traditionally cordial relations with the surviving naval constructors. For example, at the launch of the fleet repair vessel HMS *Resource* in November 1928, Craven spoke of the 'wonderful encouragement' that Vickers-Armstrongs had received from the Admiralty 'to help us keep our plant in the industry [...] in which we are specialists'.<sup>152</sup> Colonel Headlam, the Admiralty's Financial Secretary, attended the launch, thanked the company for its wartime contribution, and emphasised that the country had to

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<sup>145</sup> Ibid., K618, Milne to Birch, 23 May 1929; Ibid., Note for Jenkinson, 9 June 1928.

<sup>146</sup> Ibid., K619, Peck to Birch, 1 August 1930.

<sup>147</sup> Ibid., R286, Birch Note on Creedy to Lawrence, 7 February 1928.

<sup>148</sup> Ibid., K618, Birch to Milne, 13 May 1929.

<sup>149</sup> Ibid., Birch to Milne, 17 May 1929.

<sup>150</sup> CUL, Vickers Archives Volume 772, J.D. Scott Interview with Colonel Maxwell, 23 July 1959.

<sup>151</sup> CUL, VMF K605, Birch to Higgins, 8 May 1930; Ibid., K618, Birch to Gillman, 6 December 1927.

<sup>152</sup> Ibid., R323, Craven Speech, November 1928.

look to firms like Vickers-Armstrongs so long as the possibility of war remained.<sup>153</sup> Earlier in the year Headlam had drawn the House of Commons' attention to the necessity of keeping both government and private naval building establishments in use.<sup>154</sup> Yet the state's manufacturing establishments were rapidly becoming political issues beyond their arms-producing function.

With the emergence of a large private naval industry in the latter half of the nineteenth century, the primary role of the Royal Dockyards had largely changed from new construction to the equally important task of repairing, refitting and converting existing vessels.<sup>155</sup> By 1918, Britain possessed seven Royal Dockyards of which only Portsmouth, Devonport and Chatham undertook new construction during the inter-war years.<sup>156</sup> The state's shipyard at Rosyth was mainly equipped for capital ship construction and was not required in the post-Washington era, while the less modern works at Chatham were more suitable for cruiser and destroyer construction. In September 1925 the Admiralty announced its decision to reduce Rosyth and Pembroke, another building yard, to a 'care and maintenance' basis.<sup>157</sup> This provoked a lengthy parliamentary debate on whether the government had given due regard to the municipalities concerned and workmen affected.<sup>158</sup> Indeed, employment levels at the Royal Dockyards slumped from 38,485 in November 1924 to 30,071 in October 1928 (although both figures remained higher than the 25,580 individuals employed in 1907).<sup>159</sup> When the Labour government demanded the reduction of at least £1.25 million from the naval programme in 1929, it therefore requested that the burden would not only fall on the dockyards.<sup>160</sup>

Labour's stated disarmament policy not only raised questions about national security but also confronted it with an acute doctrinal and political dilemma, since reductions in naval construction had to be shouldered by either the

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<sup>153</sup> Ibid., Headlam Speech, November 1928.

<sup>154</sup> Noel-Baker, *Private Manufacture*, p.64.

<sup>155</sup> Hornby, *Factories*, pp.25, 64-65. For the importance of refits, see Edgerton, *Warfare State*, pp.27-29.

<sup>156</sup> Hornby, *Factories*, p.66. The other yards were at Sheerness, Pembroke, Rosyth and Haulbowline.

<sup>157</sup> TNA, CAB 24/175/CP422(25), Bridgeman to Baldwin, 16 September 1925. Pembroke lost out to the better repair facilities at Sheerness.

<sup>158</sup> Hansard, HC Debs. (series five) vol. 189, cols 854-938 (11 Dec. 1925).

<sup>159</sup> TNA, CAB 24/198/CP319(28), Bridgeman Memorandum, 25 October 1928; Jeremy, 'Hundred Largest Employers', 96.

<sup>160</sup> TNA, CAB 24/204/CP195(29), Fighting Services Committee Report, 5 July 1929.

public or the private yards, and meant further unemployment and possible labour unrest in the already depressed shipbuilding industry. In November 1929 a joint committee of the Parliamentary Labour Party, the General Council of the Trades Union Congress and the Executive Committee of the National Labour Party submitted a memorandum on the 'Economic Consequences of Disarmament' to the government. Though supportive of disarmament as a tenet of foreign policy, the committee argued that the domestic cost should not be borne exclusively by workers. It considered the claims of Royal Dockyard employees as more significant in this regard, because private shipyards could theoretically offset a decline in naval work by undertaking general industrial and foreign armament work. Nonetheless, the committee recognised that transferring existing naval work would merely shift unemployment from one area to another, and suggested alternative methods of employment for the yards. In the last resort it argued that retroactive compensation be paid to depressed districts, including Barrow, Newcastle, Sheffield, Rosyth and Pembroke.<sup>161</sup>

The Treasury consulted with various departments, including the Admiralty, and suggested that the committee appeared to have a wildly optimistic vision of how much disarmament was actually going to take place. In fact, it described disarmament as 'a difficult ideal which is not yet attained' and pointed out defence expenditure for 1930 was not much below the previous year. The interdepartmental report suggested that 'the effect, spread over such a vast employment area, of the variations in new construction expenditure, is too small to justify such Government action as is proposed.' It compared the effect of the decision to cancel a relatively small amount of naval construction to

the effect liable to be produced in individual industries by many possible decisions of policy lying within the sphere of Government or by the progress of invention, the change of fashion, or general changes in the character of trade.<sup>162</sup>

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<sup>161</sup> TNA, CAB 24/210/CP55(30), Economic Consequences of Disarmament Memorandum, 22 November 1929. For the Trade Unions Congress papers on this subject see: Modern Records Centre, University of Warwick Library (hereafter MRC), MSS.292/135/91/4-6.

<sup>162</sup> TNA, CAB 24/210/CP55(30), Economic Consequences of Disarmament Report, 10 February 1930.

The report objected to all of the committee's ideas for stimulating employment; and rejected as 'fundamentally unsound' its plea for compensation since it would discriminate between dockyard workers and other government employees, as well as between state and private workers.<sup>163</sup> As Tom Shaw, the Secretary of State for War and a former trade unionist, subsequently argued: 'Why should compensation be paid to armament workers and not to miners, transport workers and other indirectly affected classes of workpeople?'<sup>164</sup>

On the land armament side, Creedy parodied the government's standpoint over lunch with Birch in December 1929:

The workmen in the Arsenal are specially Labour servants, and they must be taken every care of and we must not discharge one of them. Further, there are to be no more wars, and we do not see use of supplementing our supplies by the upkeep of a firm of the nature of Vickers-Armstrongs.<sup>165</sup>

Creedy also mentioned that Henry Snell, Labour's MP for Woolwich East, was pushing hard to make good on his election pledge to increase work at the Arsenal at the expense of private firms.<sup>166</sup> Nonetheless, in April 1930 a Cabinet committee confirmed that the private firms operated under less equitable terms than the Royal Ordnance Factories. For example, the latter recouped the actual cost of work, while the private arms manufacturers quoted a firm price, and were subject to penalties in the event of delays and other problems. Moreover, the ROFs received a special annual subsidy, worth £133,000 in 1930, to maintain emergency plant: therefore, transferring further arms work to the state factories raised the question of subsidising the country's private capacity.<sup>167</sup> However, these conclusions did not result in any form of proactive assistance. Somewhat dramatically, Gillman told Birch in February 1931 that: 'Nothing less than a change of Government will help your firm!'<sup>168</sup> However, although the ROFs

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<sup>163</sup> Ibid.

<sup>164</sup> TNA, CAB 27/416/ECD(30), Economic Consequences of Disarmament Committee Meeting, 20 November 1930.

<sup>165</sup> CUL, VMF K618, Birch Note, 17 December 1929.

<sup>166</sup> Ibid. For an earlier example of Snell's views, see Hansard, HC Debs. (series five) vol. 159, col. 1040 (30 Nov. 1922).

<sup>167</sup> TNA, CAB 24/211/CP149(30), Committee on Alternative Work: Report, 22 April 1930. For more on the ROFs subsidy see: RC, *Evidence*, pp.668-69.

<sup>168</sup> CUL, VMF K619, Gillman to Birch, 18 February 1931.

received more favourable treatment, their orders received were still relatively small until 1935.<sup>169</sup> Meanwhile, Vickers-Armstrongs' land armaments branch persevered and survived, and the Army possessed a 'very considerable' reliance on private manufacture for a range of armaments.<sup>170</sup> With the decline of other firms, Vickers-Armstrongs built up a dominant position as the War Office's principal private supplier of guns, carriages, mountings, tanks, tractors, machine guns and gun ammunition.<sup>171</sup>

The twin issues of disarmament and unemployment meant that decisions pertaining to the reduction or increase of armaments were highly controversial. In the extremely competitive market for arms manufacture after 1918, the government was always engaged in a balancing act between the state's own manufacturing facilities and private industry, yet at the same time it avoided directly confronting the latter's well-publicised troubles. The 1930s critics offered an extreme solution: the complete nationalisation of the arms industry in order to remove the vested financial interest in preparations for war.<sup>172</sup> However, in 1936 the Royal Commission rejected this suggestion, partly because it feared that a state monopoly would necessitate a much larger quantity of labour to be permanently allotted to arms production. As a result, the commissioners suggested that nationalisation itself could create a dangerous vested interest:

Experience in all countries suggests that the resistance to the reduction of expenditure on armaments increases in proportion as a government increases its direct employment of labour in the manufacture of arms. The extent to which governments are using the manufacture of arms as a means of employing labour or curing unemployment, and their fear of the consequences if they demobilise this labour, is, we believe, a new and very serious obstacle to the reduction of armaments, and it seems to us an advantage that this country should not be more deeply committed than is necessary in this respect.<sup>173</sup>

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<sup>169</sup> Hornby, *Factories*, p.84.

<sup>170</sup> Cmd 5292, *Trading in Arms*, p.28.

<sup>171</sup> RC, *Evidence*, p.674.

<sup>172</sup> Cmd 5292, *Trading in Arms*, p.56.

<sup>173</sup> *Ibid.*, p.33.

Nonetheless, the Commission recommended that the government's factories be fully equipped for the production of all types of naval, military and air armaments.<sup>174</sup> In 1937 an interdepartmental committee rejected this proposal, owing to the vast costs and other difficulties involved.<sup>175</sup> Moreover, rearmament was underway and the government could not afford to antagonise private industry any further.

## **Conclusion**

General Birch, in one of his many letters to the War Office, neatly encapsulated the essence of traditional state-industry relations. He wrote in May 1929: 'we all have the same end in view, and that is the greatest production in war time and the very best possible killing machines, and we should never produce these as well apart.'<sup>176</sup> In many ways, the relationship between government and manufacturer after 1918 resembled a harsher version of pre-war arrangements. In particular, the Admiralty still viewed the arms firms as an important part of national defence and maintained cordial relations with key suppliers. However, new external pressures also affected the state-industry relations and although the overall impact of disarmament has been exaggerated, it undoubtedly had an important effect upon naval-industrial relations. It reduced work in an industry which was already suffering from overcapacity and fostered uncertainty about the future. Many yards went out of business, while specialist plant was left in limbo, assisted and subsidised to a limited extent by the service departments, but never fully supported financially or with orders. The pursuit of disarmament thus aggravated the already severe impact of Britain's reversion to peacetime defence spending. The 1920s experienced no international tensions comparable to the decade before the war, yet the arms firms were attempting to fill works which were much greater in size and more costly to operate. Disarmament and ongoing depression also had an impact on the state-owned factories and dockyards. Unemployment in 'government areas' became a political issue, dividing the state's loyalty and causing further animosity with the private arms industry.

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<sup>174</sup> Ibid., p.53.

<sup>175</sup> TNA, CAB 4/25/1299-B, Interdepartmental Committee Report, 22 January 1937.

<sup>176</sup> CUL, VMF K618, Birch to Creedy, 16 May 1929.

Aside from the physical decline of the arms firms in the aftermath of the war – the decay of their plant and loss of skilled workers – the manufacturers also felt psychologically beleaguered. James Frater Taylor, Armstrong's deputy chairman, felt that the lack of orders not only damaged the balance sheets but also contributed to a lack of 'driving force' in the company's works.<sup>177</sup> Even if the service departments remained helpful on the whole, successive governments chose not to confront the industry's underlying problems. It is not fair to say that the state completely abandoned the manufacturers in the inter-war period, but neither did it offer a constructive means for them to adjust to post-1918 conditions. Thus, state-industry relations stagnated and the government did little beyond watching and noting the struggles of the armament firms. Meanwhile, a sense of dejection settled over the industry.

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<sup>177</sup> Baring Archive, London (hereafter BA), 200279, Taylor Memorandum, December 1926.

## 2. An Inadequate Insurance: Industrial Mobilisation Planning between the Armistice and Rearmament

From every source we are told that the new German infantry formations are in many cases inferior to our own, but that their artillery is good and lavishly supplied. If we equal the enemy in this respect our cause is won. British soldiers died in vain on the Aubers Ridge on Sunday because more shells were needed. The Government, who have so seriously failed to organise adequately our national resources, must bear their share of the grave responsibility.

- 'Shells and the Great Battle' (editorial), *The Times*, 14 May 1915.

The deterioration of the relationship between the state and the arms industry after 1918 cannot be explained simply in terms of disarmament and depression. It also resulted from a major shift in the way the state conceptualised defence planning after the first great industrial war. Although the arms manufacturers achieved enormous feats of wartime production, politicians and civil servants doubted or ignored the future utility of specialist firms. The unprecedented scale of fighting on the Western Front had strained the country's administrative and manufacturing resources to the limit and demonstrated that its existing specialist facilities were not well-suited for rapid mass production. In particular, the 'shells scandal' of May 1915 publicly exposed the government's supply arrangements, which chiefly relied on the private arms manufacturers, as inadequate for meeting the demands of total war.<sup>1</sup> In response, the Ministry of Munitions was quickly established to mobilise the productive resources of thousands of general industrial firms with no previous experience of armament work. Britain's capacity for arms production was subsequently visualised on a very broad basis, a point made clearly in the McKinnon Wood committee's November 1918 report:

The magnitude of present-day war operations is such that the reserve of manufacture in peace time for war development cannot be looked on as being concentrated in the Government arsenal and two or three particular firms. The real reserve for war is the whole of the manufacturing power of the country

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<sup>1</sup> However, the scandal was probably influenced by the desire of Sir John French, the commander of the British Expeditionary Force, to disguise his own errors (Taylor, *English History*, p.26). See: French, 'Military Background to the 'Shell Crisis'', 192-205.

which has been educated in the supply of armaments.<sup>2</sup>

Unsurprisingly, this theory of 'industrial mobilisation' had a profound effect on the government's relationship with the specialist manufacturers. It also demanded a fundamental change in the state's relations with the general industrial community and required a carefully planned organisation that could not simply be improvised in an emergency. The official historian of factories and plant during the Second World War described it as 'the ultimate industrial problem', and turning theory into practice certainly proved difficult.<sup>3</sup> Potential sources of supply had to be investigated by casting a wide net over the country's industrial resources, followed by the allocation of this 'located' manufacturing capacity to the relevant service department. The capacity of British industry for the manufacture of armaments and other products required assessment and industrialists had to be made aware of the specific challenges of war production. As one official put it, the ideal plan would 'employ every suitable existing and installed machine from the very outset of the war.'<sup>4</sup>

In his 1988 study of British sea power, procurement and rearmament, G. A. H. Gordon highlighted the remarkable lack of scholarly attention directed towards the inter-war preoccupation with production resources in the context of defence policy.<sup>5</sup> In addressing this gap, his work provided insights into the contemporary debates on supply issues, the perennial issue of inter-service tensions and the organisational structure of procurement. Gordon also described the evolution of a subtle and systematic British supply organisation against a background of 'decline' in the naval industries.<sup>6</sup> In fact, as this chapter demonstrates, the fundamentally unrealistic basis of Britain's supply organisation, particularly its ideological limitations, actually helped to generate these exaggerated and oft-repeated contemporary images of relative British industrial weakness.

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<sup>2</sup> Cmd 229, *Ordnance Factories: Woolwich*, p.8.

<sup>3</sup> Hornby, *Factories*, p.2.

<sup>4</sup> Glasgow University Archive Service (hereafter GUAS), DC 35/31, Whitham Note, 30 January 1934.

<sup>5</sup> Gordon, *Seapower*, pp.3-5.

<sup>6</sup> *Ibid.*, esp. Chs. 6, 8 and 14.

The dramatic shift in peacetime state-industry relations required for the preparation of a successful scheme for wartime industrial mobilisation sat uncomfortably with Britain's non-interventionist liberal traditions. Nearly two decades after the armistice, Desmond Morton, an intelligence officer, launched a scathing attack on the government's apparent failure to learn the basic lesson of the Great War: that 'you must plan economic mobilisation before you put it into action.'<sup>7</sup> He particularly condemned the government's policy of leaving 'manufacture to the manufacturers' and contrasted it with the centralised direction evident not only under the dictatorships but also in other democracies. However, Neville Chamberlain, the Prime Minister, informed the Cabinet that it was inconceivable that a democratic state like Britain could intervene in labour, raw materials and finance to the same extent as Nazi Germany. This reflected the widespread attitude that Britain could only emulate German industrial mobilisation if it was led by a Hitler and, moreover, if the British public accepted such leadership.<sup>8</sup>

A closer look at the widening gap between industrial mobilisation theory and practice in inter-war Britain demonstrates that while successive governments did not ignore the question of arms production in a future war, their attempts to solve the problem were over-ambitious and misguided. Although they created a range of organisations to advise on domestic policy and observe overseas developments, these lacked the necessary means and freedom of action to effectively prepare a scheme for industrial mobilisation. Their investigations produced a number of useful results but the main consequence was the impression that British preparations lagged behind those of other countries. Moreover, by pinning its hopes on the competence of Britain's general industrial resources, the state neglected the expertise of the private arms industry as part of its wider defence planning.

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<sup>7</sup> Quoted in Wesley K. Wark, *The Ultimate Enemy: British Intelligence and Nazi Germany, 1933-1939* (Oxford, 1986), p.169. See also Gill Bennett, *Churchill's Man of Mystery: Desmond Morton and the World of Intelligence* (London, 2007), p.135.

<sup>8</sup> Wark, *Ultimate Enemy*, pp.169-72.

## Domestic Supply Organisation: The Principal Supply Officers Committee

The idea for what eventually became the official history of the Ministry of Munitions was first mooted in March 1916, with the intention that it would be useful in preparing supply arrangements for a future war.<sup>9</sup> However, this project absorbed an increasing amount of time and money, and in March 1921 questions arose in the House of Commons over its usefulness as a planning aid (although it subsequently became an important reference work, particularly for the Board of Trade, War Office and Ministry of Labour).<sup>10</sup> Indeed, the government only gradually attempted to create a more comprehensive peacetime organisation for coordinating supply in an emergency.<sup>11</sup> In 1920 the CID appointed a munitions subcommittee to investigate the issue, but it struggled with the definition of its task and made slow progress.<sup>12</sup> In early 1923 the Mond-Weir committee rejected any amalgamation of the three individual service departments, although it encouraged them to coordinate their supply arrangements.<sup>13</sup> As a result of these findings, the munitions subcommittee requested a fresh start.<sup>14</sup> Following another CID subcommittee report, the establishment of the Principal Supply Officers Committee in 1924 was a more promising step. The new committee was given a definite and deceptively simple problem to address: to establish the predicted wartime requirements of raw materials and warlike stores, and to locate sources of supply to meet these requirements. Crucially, the PSOC's terms of reference instructed it to discover manufacturing sources *beyond* the specialist arms industry, and to maintain a list of contractors who could divert their peacetime machinery to war work.<sup>15</sup> These principles, and the committee's organisation, subsequently formed the basis of British industrial mobilisation planning.

Consisting of the service departments' supply officers and a Board of Trade representative, the PSOC drew up preliminary plans covering peacetime

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<sup>9</sup> Denys Hay, 'The Official History of the Ministry of Munitions 1915-1919', *Economic History Review*, vol. 14, no. 2 (1944), 185-86.

<sup>10</sup> *Ibid.*, 189-90.

<sup>11</sup> Gordon, *Seapower*, pp.19-37.

<sup>12</sup> TNA, CAB 2/3, CID Minutes, 14 December 1920; TNA, CAB 34/1/SS7, Wilson Note, 3 June 1921; *Ibid.*, SS8, Wilson Note, 6 June 1921.

<sup>13</sup> Cmd 2649 (1926), *Report of the Committee on the Amalgamation of Services Common to the Navy, Army and Air Force* (2 January 1923), pp.10-12. For this report's place in the perennial debate over whether the services should be united in a 'Ministry of Defence', see Gordon, *Seapower*, pp.38-45.

<sup>14</sup> TNA, CAB 4/9/401-B, Hankey Memorandum, 2 March 1923.

<sup>15</sup> TNA, CAB 2/4, CID Minutes, 14 January 1924.

preparations and wartime mobilisation, although its recommendations only dealt with the initial transition from peace to war and only predicted what would be required after the first few months of fighting. Nonetheless, General Birch, in his pre-Vickers role as the PSOC's chairman and Master General of the Ordnance, reported in late 1926 that the committee was an 'eminently suitable' standing body to direct further investigations in respect of all matters concerned with wartime supply 'in the widest sense'.<sup>16</sup> At a CID meeting in March 1927, he pointed out that the supply question was more complex than in 1914-18, owing to the emergence of air power and a vast increase in mechanisation. The PSOC was therefore reconstituted the following month with the addition of Home Office and Board of Customs representatives. Most significantly, and because the committee's terms of reference covered a wide range of national resources and requirements, a Cabinet minister, Sir Philip Cunliffe-Lister, the President of the Board of Trade, was called upon to chair it.<sup>17</sup> In this manner the Principal Supply Officers Committee became the primary architect of British industrial mobilisation strategy, although it was purely an advisory body to the CID and lacked permanent representation from influential and potentially crucial departments, especially the Treasury and Foreign Office.

The appointment of the President of the Board of Trade as the PSOC's chairman provided an early indication that the committee would adopt a cautious approach toward armaments, given that the Board of Trade's traditional goal in defence planning was to maintain a healthy export market, rather than endorse elaborate schemes for war production.<sup>18</sup> Indeed, besides armaments, a major war effort also required the manufacture of a certain number of ordinary products for both the services and the civilian market, and some of these goods were intended for export to help pay for imports of essential raw materials.<sup>19</sup> However, this simply reinforced the need for more effective administration of war production and allocation of resources, in order to prevent overlapping and conflicts of interest.

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<sup>16</sup> TNA, CAB 4/16/763-B, PSOC Report, 29 December 1926

<sup>17</sup> TNA, CAB 2/5, CID Minutes, 4 March 1927. This resulted from a suggestion by Warren Fisher, the head of the civil service and Permanent Secretary at the Treasury.

<sup>18</sup> For the latter point see Peden, *Arms*, p.14.

<sup>19</sup> GUAS, DC 35/31, Whitham Note, 30 January 1934.

The PSOC met annually to consider and report on the findings of its subordinate bodies. These consisted of the Board of Trade Supply Organisation, which was primarily concerned with raw materials, and the Supply Board, which prepared and maintained estimates of war requirements and attempted to trace untapped sources of supply. The Supply Board established seven supply committees to investigate different categories of stores, such as armaments (Supply Committee I), shipbuilding (III) and aircraft and fighting vehicles (VI), but also including items ranging from general stores (IV) to foodstuffs and veterinary supplies (VII).<sup>20</sup> The Supply Board also absorbed the Contracts Coordinating Committee, which comprised the service departments' directors of contracts and had been set up in 1920 to avoid interdepartmental competition for stores.<sup>21</sup> Additionally, the PSOC monitored relevant developments across the British Empire.<sup>22</sup> By 1927 an Indian version of the committee had made 'substantial progress', while New Zealand had also set up a small supply organisation and South Africa and Ireland were considering the matter.<sup>23</sup> However, the PSOC admitted in 1929 that it would be some years before it could accurately estimate the aggregate requirements for India, the Dominions and the Colonies.<sup>24</sup> One well-informed industrialist commented as late as 1936 that the government did not appear to 'have any well worked policy in regard to the degree and manner in which the Dominions can best help.'<sup>25</sup>

After considering the reconstituted PSOC's initial report in late 1927, Stanley Baldwin, the Prime Minister, described Britain's existing supply organisation as 'backward'.<sup>26</sup> To improve matters, the committee undertook 'preliminary exploration' and 'useful spade work' over the course of 1928, which focused on the broad outlines and procedure for its subsequent work. The committee also proposed that it should base its future investigations on the hypothetical contingency of a

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<sup>20</sup> TNA, CAB 4/17/843-B, PSOC Report, 31 July 1927. The chairmen of the various supply committees made up the majority of the Supply Board.

<sup>21</sup> Scott and Hughes, *Administration*, pp.54-55.

<sup>22</sup> TNA, CAB 2/5, CID Minutes, 16 December 1926; TNA, CAB 4/15/741-B, Birch Note, 26 November 1926.

<sup>23</sup> TNA, CAB 4/17, 843-B, PSOC Report, 31 July 1927.

<sup>24</sup> TNA, CAB 4/19, 968-B, PSOC Report, 2 December 1929.

<sup>25</sup> GUAS, DC 96/21/4, Weir to R. Brand (Lazards), 8 December 1936.

<sup>26</sup> TNA, CAB 2/5, CID Minutes, 19 December 1927.

possible war, which, while likely to make substantial demands distributed over all three Services, would not require either maximum or 100 per cent expansion for all three Fighting Services during the first twelve months of war.<sup>27</sup>

However, unable to visualise even this comparatively limited scenario in the prevailing peaceful state of international relations, the Chiefs of Staff provided a different ‘artificial hypothesis’ of estimates, and supplied a list of predicted requirements covering the first year of a war in an extra-European theatre, with the provision that this could be changed according to circumstances.<sup>28</sup> Both the Admiralty and Air Ministry subsequently revised their statements, and the PSOC had to request no further changes in the basis of its enquiry unless absolutely vital, because such alterations ‘complicated an already complicated problem.’<sup>29</sup>

Wartime experience profoundly changed the way in which policymakers visualised the supply question, and the establishment of the Principal Supply Officers Committee meant the government possessed a forum to discuss procurement issues which it had lacked before 1914. The committee’s existence indicated that the government felt compelled to take some form of action, even though the ultimate goal was often not fully understood. For example, one naval member responded to an enquiry as to how the PSOC should monitor the existence of supplies with the retort: ‘It seems to me to be a whole-time job; we should have to sit here and remain in session.’<sup>30</sup> Certainly, this remark reflected the immensity of the committee’s task, which went far beyond its available resources. Moreover, intelligence from overseas soon extended its watchfulness beyond domestic boundaries.

### **Foreign Supply Organisations and Industrial Intelligence**

The official history of the administration of Second World War production praised the strength and expertise of the inter-war Principal Supply Officers Committee and contended that it was ‘ready to apply itself to problems which

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<sup>27</sup> TNA, CAB 4/18/925-B, PSOC Report, 31 July 1928.

<sup>28</sup> *Ibid.*, Chiefs of Staff Subcommittee Memorandum, 11 June 1928. See also W. K. Hancock and M. M. Gowing, *British War Economy* (London, 1949), p.46.

<sup>29</sup> TNA, CAB 4/19/968-B, PSOC Report, 2 December 1929; TNA, CAB 4/20/1020-B, PSOC Report, 21 November 1930.

<sup>30</sup> TNA, CAB 60/1, PSOC Meeting, 12 December 1924.

provided the widest scope for bold and resolute action.<sup>31</sup> Yet, at the time, mounting evidence suggested that other countries were rapidly outpacing Britain in their plans for industrial mobilisation. For example, the PSOC's 1927 report quoted an unnamed military authority who suggested that

Japan has long been trying to unify her industry, and in the near future the industrial mobilisation will become so thorough that in case of war, even benches in a park, any old pieces of iron and rubber soles will be converted to munitions, celluloid works to explosives factories, iron works to arsenals, and so on.<sup>32</sup>

The report also contained details of American, French, Belgian and Spanish supply preparations and the PSOC's service representatives subsequently requested the fullest possible information from their overseas attachés on these matters.<sup>33</sup> As intelligence regarding overseas developments mounted, this ad hoc procedure was replaced by a more thorough organisation which caused growing apprehension amongst officials and, eventually, influenced Britain's own supply arrangements.

The prospect of a successful international disarmament treaty made the industrial war potential of a country all the more important as an indicator of national strength. For example, Germany retained formidable latent power, despite the disarmament provisions of the Versailles treaty. Therefore, the Inter-Allied Military Control Commission, appointed in 1919 to observe German fulfilment of the treaty's military restrictions, also kept an eye on economic developments. The Control Commission wound up its work in 1928 and Field-Marshal Sir George Milne, the Chief of the Imperial General Staff, recommended that the CID appoint a dedicated subcommittee to deal with intelligence on Germany and beyond, because 'knowledge of a country's plans for industrial mobilisation will [...] become as important as the knowledge of her plans for

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<sup>31</sup> Scott and Hughes, *Administration*, p.53.

<sup>32</sup> TNA, CAB 4/17/843-B, PSOC Report: Appendix C, 31 July 1927. See Michael A. Barnhart, *Japan Prepares for Total War: The Search for Economic Security, 1919-1941* (Ithaca, 1987), pp.22-27.

<sup>33</sup> TNA, CAB 4/18/925-B, PSOC Report, 31 July 1928.

military mobilisation.<sup>34</sup> The Air Staff agreed and suggested that such information would help it to locate potential economic and industrial targets.<sup>35</sup>

Milne also suggested establishing links with trade organisations, such as the Federation of British Industries, and also with leading armament companies to assist in the study of industrial mobilisation abroad. Before the Great War, arms firms had been a useful source of foreign naval and military intelligence and this continued after 1918.<sup>36</sup> Moreover, in December 1927 General Birch, now at Vickers, wrote to both Milne and General Sir Webb Gillman, his successor as Master General of the Ordnance, drawing attention to overseas industrial preparations. In his letter to Gillman he revealed an alarming perspective from his new desk:

From this end a thing stares me hourly in the face which never crossed my mind at the W[ar].O[ffice], and that is the battle of industrial mobilisation which is going on practically all over the world. Every nation that can is out to strengthen its mobilisation position at other nations' expense.<sup>37</sup>

In fact, Birch had drawn the CID's attention to foreign industrial mobilisation plans three years previously when he was still MGO.<sup>38</sup> Nonetheless, no formal liaison was established with the arms industry, although representatives of the armament firms continued to communicate with the relevant government departments, often on topics related to industrial mobilisation.

Cunliffe-Lister agreed that the investigation of overseas industrial intelligence would complement the PSOC's study of domestic resources and he informed the CID in November 1928 that a mass of potentially useful information on the subject already existed, which simply required collation and presentation.<sup>39</sup> At a meeting the following month, the departments concerned advised that relevant intelligence be exchanged between the Board of Trade and the service

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<sup>34</sup> Ibid., 906-B, Milne Memorandum, 9 August 1928.

<sup>35</sup> Ibid., 909-B, Air Staff Note, 31 August 1928.

<sup>36</sup> Christopher Andrew, *Secret Service: The Making of the British Intelligence Community* (London, 1985), p.356.

<sup>37</sup> CUL, VMF K618, Birch to Gillman, 8 December 1927; Ibid., Birch to Milne, 8 December 1927.

<sup>38</sup> TNA, CAB 2/4, CID Minutes, 11 December 1924.

<sup>39</sup> TNA, CAB 2/5, CID Minutes, 8 November 1928. Following Labour's return to power in 1929, A. V. Alexander, the First Lord of the Admiralty, expressed similar sentiments: Ibid., 5 December 1929.

departments, with a new CID subcommittee to deal with any matters arising from this arrangement. Cunliffe-Lister agreed, subject to the condition that British commercial representatives abroad would not carry out espionage, and on the understanding that the civil departments, already burdened with defence work, could not produce elaborate reports for the service departments on the general economic condition of foreign countries.<sup>40</sup> The CID initially doubted the desirability of appointing yet another subcommittee, but approved of the suggested arrangement on 2 May 1929. The liaison was subsequently institutionalised by the establishment of the Foreign Countries Industrial Intelligence (FCI) committee, although the CID did not ask the Secret Intelligence Service to participate, and the Foreign Office was notably absent from these discussions.<sup>41</sup>

After the FCI committee's prolonged birth, it did not actually meet until 20 March 1930, when its members expressed apprehension about their remit and wondered who held overall responsibility.<sup>42</sup> Moreover, the civil servants who collated the material for the committee on top of their normal work soon complained that their workload had reached a 'practical limit'.<sup>43</sup> A more effective liaison was required to break through the labyrinthine subdivisions of inter-war Britain's parochial intelligence community.<sup>44</sup> Sir Edward Crowe, the Controller of the Department of Overseas Trade and chairman of the FCI committee, suggested using the USSR as a test case to work out different methods of obtaining information. In making this proposal, Crowe presumably had Desmond Morton in mind. Morton, an artillery officer during the war, joined the Secret Intelligence Service in 1919 where he collected reports on potentially valuable foreign industrial and scientific developments, including weapons technology. At some point during 1926 and 1927, the Secret Intelligence Service formed Section VI to enable Morton, virtually single-handedly, to examine the industrial and military strength of possible enemies, such as the Soviet Union. His reports caught the attention of Sir Maurice Hankey, who felt that Morton, with his wide range of

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<sup>40</sup> TNA, CAB 4/18/932-B, Cunliffe-Lister Memorandum, 21 February 1929.

<sup>41</sup> TNA, CAB 2/5, CID Minutes, 2 May 1929. See also: TNA, CAB 4/22/1139-B, FCI Report: Appendix, 22 February 1934; Bennett, *Man of Mystery*, p.144.

<sup>42</sup> *Ibid.*, pp.144-45. The committee only held eight meetings during the first three years of its existence.

<sup>43</sup> TNA, CAB 4/22/1139-B, FCI Report: Appendix, 22 February 1934.

<sup>44</sup> For this point see Wark, *Ultimate Enemy*, p.20; Andrew, *Secret Service*, p.409; Bennett, *Man of Mystery*, p.144.

business contacts, was the ideal person to assist the FCI committee.<sup>45</sup> Therefore, the Industrial Intelligence Centre (IIC) was established in March 1931 with Morton as its director. The centre was designed to act

as a clearing house for the Defence Departments by receiving and disseminating, *de die in diem*, enquiries on economic and industrial matters relating to national defence in foreign countries.<sup>46</sup>

In November 1931 G. S. Whitham, a member of the Armament Supply Committee and Assistant Director of Ordnance Factories, was appointed technical consultant to the Industrial Intelligence Centre, which, crucially, brought it into the PSOC's orbit.<sup>47</sup> Subsequently, however, the PSOC merely appended the FCI committee and IIC's findings to its own annual reports while re-stating the importance of overseas developments and recommending further surveillance.

The gathered intelligence reinforced the idea of a global quest for industrial mobilisation and indicated that, besides the major powers, Spain, Belgium, Bulgaria, Czechoslovakia, Yugoslavia, Hungary and Poland had all begun to address the question. Although the methods adopted differed by country, the principle remained the same: to frame plans and take measures to extract the greatest possible war value from local industry, cooperating with industrialists where relevant.<sup>48</sup> In pursuit of these tasks, those countries that possessed centralised control over their industries were reportedly able to undertake comprehensive preparations with the advantage of maximum secrecy.<sup>49</sup> The Soviet Union, isolated and insecure, provided the clearest example of central planning and, as the IIC's initial test case, formed the subject of an important 1931 memorandum, based on secret and open sources.<sup>50</sup> This paper, subsequently circulated to the CID and PSOC, described how the Soviet authorities had begun to appreciate the importance of industrial mobilisation in 1925 and had since

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<sup>45</sup> Bennett, *Man of Mystery*, pp.136, 139-40, 144-6; Andrew, *Secret Service*, p.354; Wark, *Ultimate Enemy*, p.160.

<sup>46</sup> For the IIC's origins, see TNA, CAB 4/22/1139-B, FCI Report: Appendix, 22 February 1934. Also: TNA, CAB 4/23/1178-B, FCI Report, 18 June 1935.

<sup>47</sup> Bennett, *Man of Mystery*, p.154.

<sup>48</sup> TNA, CAB 4/22/1104-B, Industrial Mobilisation in Foreign Countries: Memorandum, 20 July 1932.

<sup>49</sup> *Ibid.*, PSOC Report, 16 March 1933.

<sup>50</sup> Bennett, *Man of Mystery*, pp.147-8.

established a comprehensive executive organisation. This was designed to enable the rapid conversion of, for example, tractor factories to the manufacture of fighting vehicles. Moreover, the Five Year Plan, introduced in 1928, was judged not only by its achievements in domestic industrialisation but also as to the wartime value of these developments.<sup>51</sup>

While Soviet policy was largely a defensive reaction to a hostile world, Fascist Italy's preparations appeared more aggressive, although Mussolini's expansionist ambitions and rhetoric about producing aircraft to blot out the sun and an army comprising eight million bayonets were balanced in the 1920s by his outwardly normal behaviour as a European statesman and limited in practice by the Italian economy.<sup>52</sup> However, by March 1933 the FCI committee reported that fascist industrial policy was planning to create a centralised domestic armaments industry capable of satisfying the estimated requirements for total war. Meanwhile, the French government and the *Comité des forges* (the steel manufacturers' association) had reportedly formulated a plan which, given the necessary skilled labour and raw materials, could maintain an initial force of 75 divisions in the field.<sup>53</sup>

In October 1933 the FCI committee summarised its intelligence on the state of overseas industrial mobilisation. It pointed out how many countries, totalitarian and democratic, were actively strengthening their industry purely for the purpose of national defence. Moreover, industrial mobilisation was treated as a first-rank national problem rather than a purely military question, and it was invariably directed centrally by a cabinet committee or other executive council of state.<sup>54</sup> By contrast, British preparations relied on the PSOC, a purely advisory body, which reported to the similarly non-executive, albeit influential, Committee of Imperial Defence.

Ominously, the deteriorating state of international relations meant that some countries began to put their plans into operation. Intelligence suggested that Germany possessed a large and active staff drafting plans for industrial

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<sup>51</sup> TNA, CAB 4/21/1057-B, FCI Memorandum, 15 July 1931; *Ibid.*, Crowe Note, 16 July 1931.

<sup>52</sup> MacGregor Knox, *Common Destiny: Dictatorship, Foreign Policy, and War in Fascist Italy and Nazi Germany* (Cambridge, 2000), pp.117-130.

<sup>53</sup> TNA, CAB 4/22/1106-B, FCI Report, 13 March 1933.

<sup>54</sup> *Ibid.*, 1120-B, FCI Memorandum, 18 October 1933.

mobilisation even before Hitler became Chancellor in January 1933.<sup>55</sup> In March 1934 the FCI committee reported that the Nazi government had activated many of these pre-existing schemes, resulting in a considerable expansion of the German armaments industry.<sup>56</sup> Meanwhile, Japan partially mobilised its industry during 1933 and 1934 to replenish reserves depleted by the Manchurian crisis and subsequent fighting against China. As a result, the Soviet Union placed its industry on alert, while Italy used its invasion of Ethiopia in 1935 as an opportunity to test its plans.<sup>57</sup> Keeping up with these developments placed the IIC's personnel under enormous pressure.<sup>58</sup> The centre obtained more staff in 1935 but the demands on its time continued to multiply, and it was subsequently removed from the Secret Intelligence Service and transferred, partly for financial reasons, to the Department of Overseas Trade.<sup>59</sup> Nonetheless, a year later, the staff question remained urgent.<sup>60</sup>

Britain theoretically possessed a mutually reinforcing system of committees to prepare domestic industrial mobilisation while monitoring developments overseas. Indeed, the Industrial Intelligence Centre was an innovative organisation with no comparable body existing in either the United States or France.<sup>61</sup> However, in practice it had little influence until 1934, when the government began to recognise the threats posed by Nazi Germany and revisionist Japan.<sup>62</sup> At the end of 1936, intelligence warned that delays in planning had left France in a serious position, whereas Germany, Japan and the Soviet Union had all implemented their preparations more efficiently.<sup>63</sup> To some extent, this reflected the IIC's exaggerated belief in the over-arching power of totalitarian regimes.<sup>64</sup> Nonetheless, it also demonstrated how peacetime preparations for industrial mobilisation had ceased to be an option and that the only question was the level of energy with which this goal was pursued. Moreover, while intelligence on overseas developments was not intended to provide a precise

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<sup>55</sup> TNA, CAB 4/22/1104-B, Industrial Mobilisation in Foreign Countries: Memorandum, 20 July 1932.

<sup>56</sup> Ibid., 1134-B, FCI Report, 22 March 1934.

<sup>57</sup> TNA, CAB 4/24/1200-B, FCI Memorandum, 30 July 1935.

<sup>58</sup> TNA, CAB 4/23/1178-B, FCI Report, 19 June 1935.

<sup>59</sup> Wark, *Ultimate Enemy*, p.161; Bennett, *Man of Mystery*, pp.158-59.

<sup>60</sup> TNA, CAB 4/24/1248-B, FCI Report, 22 July 1936.

<sup>61</sup> Wark, *Ultimate Enemy*, p.160.

<sup>62</sup> Bennett, *Man of Mystery*, p.163.

<sup>63</sup> TNA, CAB 4/25/1275-B, FCI Memorandum, 27 October 1936.

<sup>64</sup> Wark, *Ultimate Enemy*, pp.166-67.

blueprint for emulation, it sounded an increasingly urgent warning that Britain's system should be able to stand comparison.

### **Arms Production and the Economic Consequences of Industrial Mobilisation**

Although the Principal Supply Officers Committee had none of the over-arching executive power of the Soviet *Gosplan* organisation, its investigations did result in some positive conclusions about the potential wartime capacity of British industry. In 1930 the Shipbuilding Supply Committee concluded that the number of building slips was just sufficient to meet the combined needs of the projected wartime naval and mercantile programmes, although there were signs that the shipbuilding industry would contract owing to the depression and overcapacity.<sup>65</sup> Indeed, the National Shipbuilders Security Company, a cooperative sponsored by the Bank of England, was registered the same year and, to reduce overheads, it closed down many yards deemed essential for emergency expansion, including Beardmore's Dalmuir shipyard.<sup>66</sup> Nonetheless, the Supply Board suggested that the modernisation of the remaining establishments would help offset these losses and that many of the mothballed yards could be reopened in an emergency, although the availability of skilled labour remained an 'increasingly serious' issue.<sup>67</sup> Specialist items such as guns, mountings and armour plate for warships could only be manufactured by private armaments firms, and the provision of turret gun-mountings, monopolised by Vickers-Armstrongs, emerged as the key factor limiting the emergency production of war vessels, reflecting a similar pre-1914 bottleneck. Despite these worries, the committee nonetheless considered that its suggestions for naval and mercantile marine industrial mobilisation could stand comparison with any other country.<sup>68</sup>

Based on the findings of the other supply committees, the PSOC reported in March 1933 that the country's existing facilities were sufficient to meet predicted requirements for most stores. It also suggested that Britain possessed an advantage over the majority of continental states in obtaining raw materials, so long as it maintained its sea power and kept its communications open. However,

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<sup>65</sup> TNA, CAB 4/20/1020-B, Supply Board (hereafter SB) Report, 16 September 1930.

<sup>66</sup> Hume and Moss, *Beardmore*, pp.215-16.

<sup>67</sup> TNA, CAB 4/23/1158-B, SB Report, 10 October 1934.

<sup>68</sup> TNA, CAB 4/22, 1104-B, PSOC Report, 16 March 1933; *Ibid.*, SB Report, 11 October 1932. For pre-1914 naval bottlenecks, see Stevenson, *Armaments*, p.228.

the committee worried that its overall preparations for industrial mobilisation lagged behind the other major powers.<sup>69</sup> Crucially and perhaps surprisingly, given the desire to avoid another ‘shells scandal’, the production of land armament equipment, and especially ammunition, emerged as the weakest link in the supply chain.

Whereas naval procurement involved the gradual and relatively constant build-up of enormous and individually expensive warships over long periods, land armaments and ammunition were required in very small amounts during peacetime but in great quantities following the outbreak of war (although, of course, the navy also required much larger quantities of ammunition during wartime).<sup>70</sup> In 1932 the Supply Board reported that the normal annual output of empty shell was 250,000, which was under two percent of its anticipated requirement for 19.5 million shell bodies during the first year of war. Furthermore only two specialist arms companies (Firths and Hadfield) produced shells for the government after 1925, compared to five in 1914: Vickers had stopped manufacturing shells largely owing to the perceived ease with which commercial undertakings could convert to this field of work in an emergency.<sup>71</sup> The armaments firms and Royal Ordnance Factories could increase their production to some extent in an emergency, but this left a considerable deficit to be made up by non-specialist firms. Manufacturing shortfalls were also anticipated for other items besides shells on a corresponding or even greater scale not least because most non-armament factories had scrapped the specialist machinery that had been installed during the Great War.<sup>72</sup> The Supply Board also located deficiencies in productive capacity for larger land armament items: for example, it reported in late 1930 that Vickers-Armstrongs and the ROFs could only produce 600 of the service’s estimated requirement of 1,700 gun carriages for the first year of fighting. Therefore it proposed a division of labour, allowing the arms firms to keep the more complex operations, and farming the remainder out to general non-specialist undertakings.<sup>73</sup> Theoretically, this was a sound philosophy, reflecting experience gained during the Great War. In practice, policymakers had to address

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<sup>69</sup> TNA, CAB 4/22/1104-B, PSOC Report, 16 March 1933.

<sup>70</sup> Trebilcock, ‘The Failure of Industrial Mobilisation’, p.160.

<sup>71</sup> Gordon, *Seapower*, p.87.

<sup>72</sup> TNA, CAB 4/22/1104-B, PSOC Report, 16 March 1933; *Ibid.*, SB Report, 11 October 1932.

<sup>73</sup> TNA, CAB 4/20/1020-B, SB Report, 16 September 1930.

fundamental difficulties in their relations with both the specialist and non-armament industrial sectors.

Expanding the country's industrial base for emergency armaments production involved a tricky dilemma. It was desirable for the service departments to distribute developmental and construction contracts over as wide a field as possible, because concentrating orders with a few firms worked against quick expansion. On the other hand, the PSOC recognised there was insufficient work to go around, particularly in the case of the private arms industry. Following the Supply Board's first report in July 1928, it warned the CID 'of the danger of a *serious* diminution in the armament-producing capacity of the country and of the skilled operatives and designers on which it mainly depends.'<sup>74</sup> Arms firms were usually simultaneously engaged on work for two or even all three services, which worked against specialisation and narrowed the field of supply, although it was not financially practicable to allow any individual service a peacetime monopoly over any single firm. The Supply Board's response to these problems betrayed its uncertainty. On the one hand it again suggested enlisting the cooperation of suitable non-specialist general firms to help attain the required output. However, given the dwindling number of arms manufacturers, the Directors of Contracts (who, as members of the Board, were fully aware of the problem), were advised to deal with different needs on a case by case basis.<sup>75</sup>

Although these reports implied that the private armaments firms would have an important role to play in industrial mobilisation, no significant attempt was made to bring them more directly under the PSOC's umbrella. Instead, the committee concentrated on the ability of general industry to convert to arms production. One of the biggest problems it faced in this direction was determining the scale of its enquiry and the attendant level of publicity. In 1930 the Supply Board pointed out foreign companies were openly cooperating with their governments and drew attention to the eventual need to similarly divulge the PSOC's purpose to the British industrial community at large.<sup>76</sup> The following year it suggested that 'taking the nation into partnership for war preparation is part of the price we pay for small Defence Forces.' However, such a wide-ranging policy

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<sup>74</sup> Emphasis in original. TNA, CAB 4/18/925-B, PSOC Report, 31 July 1928; *Ibid.*, SB Report, 29 July 1928.

<sup>75</sup> TNA, CAB 4/22/1104-B, SB Report, 11 October 1932.

<sup>76</sup> TNA, CAB 4/20/1020-B, SB Report, 1 August 1930.

involved major political and economic implications and the Supply Board worried that it would lead to misrepresentation and distortion in view of the ongoing negotiations for international peace and disarmament. Its work therefore remained secret, though it recommended that the government gradually prepare public opinion to

the idea that well thought-out schemes of preparation for war production are an essential corollary to reduced Defence Forces, so that the mind of the country will become familiarised to the principle and will learn to place confidence in it.

This was also intended to make any acceleration of activity ‘less noticeable’ and the PSOC concurred in these views.<sup>77</sup> Yet policymakers remained wary of implementing any serious measures in these directions.

British trepidation contrasted with intelligence reports from across the Atlantic, which indicated that the United States had managed to give an anti-militaristic veneer to its industrial mobilisation planning. The British Military Attaché at Washington reported in 1927 that ‘the resources of the country in power, material and facilities are being thoroughly analysed and tabulated.’<sup>78</sup> The Kellogg-Briand Pact, signed on 27 August 1928, renounced war as an instrument of national policy, but, at the same time, the United States was allegedly making plans for its industry to arm six million men in an emergency.<sup>79</sup> The National Defence Act of 1920 provided the basis for these policies. It had established the Assistant Secretary of War as the industrial head of the War Department and, according to Benedict Crowell, an architect of the Act, provided an organisation enabling American industry to proceed effectively ‘from the first minute of our belligerency.’ Significantly, Crowell also believed that industrial preparedness was the ‘antithesis of militarism’, reflecting the small American regular army, backed up by the reserve corps and National Guard.<sup>80</sup>

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<sup>77</sup> TNA, CAB 4/21/1076-B, SB Report, 15 September 193; *Ibid.*, PSOC Report, 17 February 1932.

<sup>78</sup> TNA, CAB 4/17/843-B, Extract from US Army Annual Report for 1926 by Military Attaché at Washington.

<sup>79</sup> TNA, CAB 4/19/968-B, Whitham Report, 6 December 1928.

<sup>80</sup> *Ibid.*, Extract from Article in *Army Ordnance* (September-October 1928).

If industrial mobilisation could be portrayed as anti-militarist, it raised the possibility of a more thorough implementation of the concept in Britain. Yet Whitham suggested that the 'exuberance of the war spirit' had endured in the United States, perhaps as a result of its delayed entry into the war, and this had allowed Washington to take much more public steps than he considered would be possible in Britain. He felt British popular opinion would probably not even accept a series of press articles on the question, whereas the American public, after ten years of propaganda, seemed not only to support industrial mobilisation voluntarily but also appeared to believe it was necessary to maintain world peace. Moreover, to get the best brains working on the problem, the United States' system incorporated trade organisations and learned societies. Washington also ordered trial 'war emergencies' at works such as the sprawling Bethlehem Steel Corporation in Pennsylvania.<sup>81</sup> In 1931 Congress appointed a special War Policies Commission to examine the whole question of preparation for war and hear the evidence of leading industrialists.<sup>82</sup> All of this left a general impression amongst British supply officers that a thorough and integrated organisation existed across the Atlantic, based on conditions which they believed were unobtainable in Britain.

Yet, in some ways, the early 1930s were perhaps not an unfavourable time to consider a reconfiguration of British state-industry relations in the context of defence planning, given various other long-standing practices and principles were also being challenged. As a result of the war, politicians and businessmen had become more open-minded about the idea of limited state intervention in peacetime, although this had not achieved many tangible results.<sup>83</sup> In the midst of financial crisis in late 1931 the government abandoned its commitment to free trade and adopted imperial protectionism.<sup>84</sup> In 1932 the National Government decided that limited intervention in the steel industry was required to help recovery and reorganisation.<sup>85</sup> Scott Newton has suggested that these measures

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<sup>81</sup> Ibid., Whitham Report, 6 December 1928. This was based on American publications, PSOC papers and conversations with Americans, including industrialists, educators, and chemists – he did not approach the War Department.

<sup>82</sup> TNA, CAB 4/22/1104-B, Industrial Mobilisation in Foreign Countries: Memorandum, 20 July 1932.

<sup>83</sup> Tolliday, *British Steel*, p.292.

<sup>84</sup> Robert W. D. Boyce, *British Capitalism at the Crossroads, 1919-1932: A Study in Politics, Economics and International Relations* (Cambridge, 1987), pp. 2, 368-69.

<sup>85</sup> Tolliday, *British Steel*, p.335.

represented a modification of Britain's liberal traditions, rather than their outright abandonment, and were based on the government's desire to retain the support of industrialists and preserve the financial system at a time of extraordinary pressure.<sup>86</sup> Yet while these policies could be explained as necessary palliatives to counter the depression, the announcement of a widespread scheme for wartime armaments production would likely have been viewed as needless and potentially dangerous. The ongoing disarmament negotiations were a handicap to more overt action, but policymakers and industrialists also feared the potentially disruptive economic and political consequences of industrial mobilisation and were inclined to proceed on a strictly limited basis, with as little deviation from normal practice as possible.

To avoid controversy or criticism from the public in general and industry in particular, the PSOC continued to operate in conditions of near secrecy. Enquiries to the general trade were not undertaken by the supply committees in the name of the CID, but rather were camouflaged within normal correspondence between the services' contracts departments and individual companies. This prevented the committee from making broad-based enquiries of non-specialist firms and its initial approaches to industrialists were tentative and limited to specific questions, although these were often useful in terms of conceptualising the wider problem. For example, the Supply Board noted in 1929 that Sir Harry McGowan of Imperial Chemical Industries had been helpful, and ICI also cooperated in a small subcommittee on the wartime production of chemicals and explosives.<sup>87</sup>

Although the PSOC was not qualified to take direct action, it did think on a larger scale. For example, the Board of Trade's quinquennial census of production facilitated the preparation of a register of businesses with potential value in a war emergency.<sup>88</sup> The Supply Board also considered the establishment of local area organisations, which were intended to tap unknown manufacturing resources. They were also designed to avoid potential problems arising from the imposition of official control on commercial firms and were analogous to the regional Boards of Management that had operated during the Great War.

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<sup>86</sup> Newton, *Profits of Peace*, pp.5, 36-45.

<sup>87</sup> TNA, CAB 4/19/968-B, PSOC Report, 2 December 1929; *Ibid.*, SB Report, 3 October 1929.

<sup>88</sup> *Ibid.*, BT Supply Organisation Report, 10 July 1929.

However, the enormous scope of this proposal meant that the matter was suspended, pending further data collection and a clearer statement of the problem. Therefore, the Supply Board continued its more limited policy of taking individual representatives from specific industrial concerns, producing items such as gauges and machine tools, into its confidence.<sup>89</sup>

This mixture of ambition and caution meant that the PSOC's task became a balancing act between maintaining 'business as usual' while simultaneously building up an organisation that would involve virtually the entire economic structure of the country and be able to produce, for example, 800,000 shell cases per week after the eighth month of a conflict. Perhaps realising this contradiction, Whitham wrote in February 1934 that a solution could not be reached through isolated attacks on one or two items of war stores but should 'be dealt with nationally, that is to say by utilising the nation's resources for preparing plans in peace for war production.' Presumably based on his observations of American preparations, his ideal plan for industrial mobilisation demanded an all-encompassing approach:

The utilisation of brains, experience and resources of industry, forms a critical and fundamental principle in this scheme, coupled with the gathering together of the maximum number of individuals who will give time and study to this very important and complex subject.<sup>90</sup>

One problem in this regard was that by the 1930s, many of the men with first-hand experience of the challenges of industrial mobilisation during the Great War had retired or passed away. It was therefore important to harness those who remained for their 'special knowledge on specific stores.'<sup>91</sup> Sir Henry Fowler and Sir Glynn West, both of whom possessed wide-ranging experience of the Ministry of Munitions and who had a particular understanding of the problems of shell production, were consulted in 1934, and the Supply Board proposed to seek further advice from other retired civil servants and government officials.<sup>92</sup>

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<sup>89</sup> TNA, CAB 4/21/1076-B, SB Report, 15 September 1931. See also: TNA, CAB 4/22/1120-B, SB Report, 28 July 1933.

<sup>90</sup> GUAS, DC 35/31, Whitham Memorandum, 3 February 1934.

<sup>91</sup> *Ibid.*

<sup>92</sup> TNA, CAB 4/23/1158-B, SB Report, 10 October 1934.

Approving of the PSOC's approach, West, who was also Armstrong's chairman in the early 1920s, drew attention to a decline in private arms manufacturing capacity but also noted that Britain possessed many sources of potential supply, including a greatly increased capacity for engineering, which simply required harnessing under a central organisation.<sup>93</sup>

Most significant amongst the PSOC's external contacts was a small advisory panel of three prominent industrialists who had been specially selected by the committee to help investigate emergency arms production.<sup>94</sup> Lord Weir was a Glasgow engineer with extensive experience of wartime munitions production and administration, including a period as Director-General of Aircraft Production. Although he abhorred publicity, he chaired various advisory committees in the post-war era, including the committee that rejected the amalgamation of the services in 1923. Weir was already aware of the PSOC's existence, having given evidence before it in July 1925.<sup>95</sup> Sir Arthur Balfour, who shared the name of the contemporary politician, was a Sheffield steelmaker who had sat on wartime advisory committees concerning munitions and industrial affairs. Sir James Lithgow, a Glasgow shipbuilder, had served on the Western Front and had gained the Military Cross before taking up the newly-created position of Director of Merchant Shipbuilding in 1917, through which he formed a lasting professional relationship with Weir. Amongst his many other commitments, Lithgow was also the chairman of the National Shipbuilders Security Company.

Introducing this eminent trio to the PSOC on 19 December 1933, Lieutenant-General Sir Ronald Charles, the Master General of the Ordnance, warned that Britain could not win a war without the cooperation of industrialists. Weir admitted that the country's industrial structure appeared in many respects weaker than in 1914 and, echoing the PSOC's earlier recommendations, called for

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<sup>93</sup> GUAS, DC 35/31, West Memorandum, n.d. [c.Spring-Summer 1934], distributed 27 March 1935. Sir William Alexander expressed similar sentiments in a letter to Whitham: *Ibid.*, 9 July 1934.

<sup>94</sup> This paragraph is primarily based on Mary Walton, 'Balfour, Arthur, first Baron Riverdale (1873-1957)', rev. Geoffrey Tweedale; R. P. T. Davenport-Hines, 'Weir, William Douglas, first Viscount Weir (1877-1959)'; and Anthony Slaven, 'Lithgow Family (*per. c.*1870-1952)', all in *Oxford Dictionary of National Biography* (Oxford, 2004).

<sup>95</sup> TNA, CAB 60/1, PSOC Meeting, 9 July 1925; Neil Rollings, 'Whitehall and the Control of Prices and Profits in a Major War, 1919-1939', *Historical Journal*, vol. 44, no. 2 (Jun., 2001), 522; Gordon, *Seapower*, pp.53-6.

armaments supply to be visualised as part of a bigger picture, encompassing the entire engineering sector.<sup>96</sup> Certainly, the PSOC agreed with this approach but had done little thus far except make paper plans. In February 1934, Balfour, Lithgow and Weir suggested that the committee's work to date was 'an inadequate insurance' which could not compare to

the foreign situation represented by strong permanent peacetime armament industry allied with elaborate planning for war expansion and associated with centralised control of industry, and the whole animated with a war spirit and atmosphere.<sup>97</sup>

Subsequently, the Weir committee became the PSOC's most important and influential channel of contact with industry. However, the three industrialists viewed their close involvement with 'personal distaste' and justified their participation on the importance of national security and defence alone.<sup>98</sup> The PSOC's wide ambition and comparatively limited contacts with industry undoubtedly gave it plenty to think about, although putting its ideas into practice proved much more difficult.

### **Calling the *Matériel* Reserves to the Colours: Plans and Problems**

By the early 1930s the Principal Supply Officers Committee possessed a reasonably solid organisational structure and its strategy to locate potential capacity for armaments production through a broad assessment of Britain's industrial resources seemed a wise policy, which met with approval from the limited number of industrialists that the committee contacted. Indeed, in March 1933 the PSOC expressed satisfaction that it had achieved 'maximum progress' with the means at its disposal.<sup>99</sup> However, in light of increasingly alarming intelligence about overseas developments, the committee believed the time was ripe for more active steps. Yet its ability to undertake more practical measures was limited by a range of structural restraints, including the perceived dangers of state intervention, as well as its financial and human resources. These limitations

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<sup>96</sup> GUAS, DC 35/31, PSOC Meeting, 19 December 1933.

<sup>97</sup> TNA, CAB 4/22/1138-B, Weir, Lithgow and Balfour Notes, 13 February 1934.

<sup>98</sup> *Ibid.*

<sup>99</sup> TNA, CAB 4/22/1104-B, PSOC Report, 16 March 1933.

forestalled a more dynamic approach, which meant that the committee's planning lacked teeth, while its reports fostered a debilitating sense of relative industrial and organisational weakness.

The central thrust of the PSOC's strategy to widen Britain's capacity for producing armaments involved providing general firms with 'process specifications', which included comprehensive instructions for the manufacture of specific war stores. For example, the process specification for a 4.5-inch howitzer carriage listed 4,250 details of operations, 126 types of machine, nineteen types of skilled tradesmen, and 2,500 drawings of tools, jigs, gauges and fixtures. Discreet enquiries to ordinary commercial firms revealed that such information would have saved months of hard work and expenditure had it been available in 1914. After visiting several firms between 1930-1, the Director of Ordnance Factories commented how industrialists showed 'the greatest willingness' to assist in developing process specifications.<sup>100</sup> He reported in 1932 that those who were approached seemed to take an interest in the question of industrial mobilisation, with the heads of various firms rendering voluntary assistance.<sup>101</sup>

Yet the number of industrialists approached was strictly limited. The technical experts of the Directorate of Ordnance Factories, in conjunction with the Director of Army Contracts, visited 60 non-specialist firms between 1929 and 1932, which paled in comparison with the 14,000 individual companies which had helped to produce munitions during the Great War. This was partly due to the PSOC's staff limitations and reflected its inferiority compared to other countries: the Supply Board's small technical staff compared unfavourably with the United States' better-funded organisation, which was reportedly inspecting over 40,000 factories.<sup>102</sup> Another part of the problem was that any increase of technical personnel represented an increase in the War Office's staff and therefore ate into its stringent departmental budget, even though the work assisted all three services.<sup>103</sup> Moreover, the officials engaged on the PSOC's work did so in addition to their normal departmental duties.<sup>104</sup>

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<sup>100</sup> TNA, CAB 4/21/1076-B, PSOC Report, 17 February 1932; *Ibid.*, SB Report, 30 June 1931; *Ibid.*, Director of Ordnance Factories Report, 22 April 1931.

<sup>101</sup> TNA, CAB 4/22/1104-B, Director of Ordnance Factories Report, 25 April 1932.

<sup>102</sup> *Ibid.*, PSOC Report, 16 March 1933. For the American figure see: TNA, CAB 4/19/968-B, Whitham Report, 6 December 1928.

<sup>103</sup> TNA, CAB 2/5, CID Minutes, 6 April 1933.

<sup>104</sup> *Ibid.*, 19 December 1927.

The fluidity of general industry caused further difficulties: the War Office noted in 1935 that several of the firms it had investigated three years previously had since changed their products and virtually all of them had changed their machine tools or methods. While this invalidated the earlier investigations, the War Office concluded that these changes would probably increase productive capacity.<sup>105</sup> Similarly, military technology was not a fixed variable and few designs remained unchanged for more than a couple of years. This made it difficult to plan effective schemes for mass production. In fact, the PSOC admitted that the changing character and continuous development of weapons technology meant that the Armament Supply Committee could never truly complete its work.<sup>106</sup> By June 1934, a 'formidable' number of process specifications were yet to be commenced, while those that had been completed were liable to obsolescence and required periodic revision.<sup>107</sup>

In late 1936 the Supply Board reported that, although the stability of armaments design was probably an unobtainable goal, there were definite planning advantages if changes in component and equipment design were limited to the essential, rather than the desirable. It also recommended that the service departments make use of normal commercial specifications and types of machinery where possible. After experimenting with the simplification of shell production, the Supply Board advised that the design of other articles required in large quantities during war be reconsidered with a view to mass production, with a consultation process to foster closer working relationships between the services and contractors.<sup>108</sup> In this regard, the ROFs and various firms, including Vickers, obtained details of special machine tools developed in Germany and elsewhere for the mass production of shells.<sup>109</sup> However, this attitude challenged one of the key tenets of the traditional relationship between the government and the arms industry, insofar as the state had previously approved of the competition of private enterprise as a catalyst for innovation. Now, the government looked more towards simplification and standardisation of armaments design as an important means of

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<sup>105</sup> TNA, CAB 4/24/1200-B, Director of Ordnance Factories Report, 14 June 1935.

<sup>106</sup> TNA, CAB 4/22/1120-B, PSOC Report, 6 December 1933.

<sup>107</sup> TNA, CAB 4/23/1158-B, Director of Ordnance Factories Report, 30 June 1934. Process specifications were subsequently renamed 'process manuals' as they were intended as guides rather than strict specifications.

<sup>108</sup> TNA, CAB 4/25, 1275-B, SB Report, 30 September 1936.

<sup>109</sup> *Ibid.*, Directorate of Ordnance Factories and SB Technical Establishment Report, 5 August 1936.

reducing the time lag between outbreak of a major war and the conversion of general industry to significant levels of munitions output.

The Principal Supply Officers Committee had possessed a certain luxury of time during the early stages of its work, with no realistic threat to prepare against. However, following the emergence of Nazi Germany as a potential enemy after 1933, the CID imposed a hypothetical time limit of five years for the PSOC to complete its work and instructed that the estimates of land forces should include the Dominions and India, even though their requirements had still not been received.<sup>110</sup> The PSOC stated that this target would require radical measures to accelerate progress in respect to locating sources of armaments production, which remained its 'chief source of anxiety'.<sup>111</sup> Otherwise, it suggested that the Armaments Supply Committee's task would take twenty years, and that much of its work would become redundant during this period. In response, Whitham was appointed full-time chairman of the Armaments Supply Committee, while the War Office technical staff investigating the capacity of firms was increased from 17 to 29 individuals.<sup>112</sup>

Nonetheless, the PSOC continued with what essentially amounted to a piecemeal attack on the problem. At a Supply Board meeting in March 1934, F. C. Bovenschen, the War Office Director of Contracts, observed that no contractual machinery existed to translate paper planning into action in time of emergency, though he doubted the lengths it would be practicable to carry such arrangements in peacetime. Similarly, the meeting felt it was premature to bring civilian experts more generally into the various supply committees, despite the increased urgency and widespread acceptance of the principle of industrial cooperation. The Contracts Coordinating Committee expressed concern that the presence of businessmen in high-level planning discussions would provoke embarrassment and upset their trade competitors. Moreover, it did not fully approve of cooperating with trade associations, given their tendency to protect the least efficient member's interests.<sup>113</sup> Subsequently the Supply Board approached certain potentially useful organisations (for example, the British Chemical Plant Manufacturers Association and the Cable Manufacturers' Association) and

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<sup>110</sup> TNA, CAB 2/6, CID Minutes, 9 November 1933.

<sup>111</sup> TNA, CAB 4/22/1120-B, PSOC Report, 6 December 1933.

<sup>112</sup> TNA, CAB 4/23/1158-B, PSOC Report, 7 January 1935.

<sup>113</sup> GUAS, DC 96/21/9, PSOC(SB) Meeting, 21 March 1934.

solicited help through a selected individual, for instance the chairman or secretary.<sup>114</sup>

The PSOC was simultaneously forced to pay more attention to the private arms industry as part of national defence planning. Following a question raised by David Lloyd George in view of the forthcoming Disarmament Conference, the committee admitted in February 1932 that it would probably take Britain a *minimum* of two years to transfer from peacetime production to the output required for a major expansion of the armed forces equivalent to the Great War.<sup>115</sup> Over a decade since the Armistice, this was an admission that the implementation of industrial mobilisation would still be subject to considerable delay and that Britain's supply organisation had failed to integrate general and specialist industry. It also reflected the belief of General Lawrence, who had told Vickers' shareholders in 1930 that no government could afford to neglect the important 'potential reserve' represented by the firm's unique plant, labour and design facilities. He also recalled how Vickers' men 'were loaned to non-armament firms and national factories to supervise production' during the Great War.<sup>116</sup> Indeed, in 1933 the PSOC reported that it expected the specialist private armaments industry to shoulder much of the burden of production during the initial transition from peacetime to war production because it represented the 'only hope of extra capacity which can be maintained in peace [...] on a business footing'. The specialist firms, far from being considered archaic irrelevancies, were now deemed of 'vital importance' in tiding over the critical phase while Britain developed its full naval and land strength.<sup>117</sup> However, the committee also brought the 'serious' decline of the armaments industry to the CID's notice.<sup>118</sup>

The PSOC drew attention to the arms industry's difficulties in February 1932 but it took until March 1933 before Ramsay MacDonald, the Prime Minister, requested a fuller statement of the situation. The resultant paper, also produced by the PSOC, significantly concluded that 'a stable shipbuilding and armaments industry, which maintains an adequate output of naval craft and warlike stores as part of its normal peace-time programme is an essential element in our scheme of

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<sup>114</sup> TNA, CAB 4/23/1158-B, SB Report, 10 October 1934.

<sup>115</sup> TNA, CAB 4/21/1076-B, PSOC Report, 17 February 1932.

<sup>116</sup> *The Times*, 1 April 1930.

<sup>117</sup> TNA, CAB 4/22/1109-B, PSOC Report: Armaments Industry, 31 March 1933.

<sup>118</sup> TNA, CAB 4/22/1104-B, PSOC Report, 16 March 1933.

Imperial Defence.’ The committee noted how Britain had possessed several private arms firms in 1914, but even these had proved insufficient to meet wartime demands and the country had ‘suffered [...] for want of munitions.’ By 1933 many companies had gone out of business. Only Vickers-Armstrongs remained for the manufacture of the heavier types of armaments and its capacity had declined in tandem with orders (for the fate of the others, see Appendix I, although the small arms firms were not strictly comparable to the industrial giants).<sup>119</sup> MacDonald informed the CID on 6 April that the situation was ‘very serious’ but seemed unclear as to what more could be done from the civil-industrial perspective to improve national capacity for arms production.<sup>120</sup>

As the private armaments industry apparently could not be relied upon and in the absence of any state-sponsored rescue scheme, Whitham wrote that it seemed necessary to accumulate adequate reserve stocks to meet requirements for the early stages of a war.<sup>121</sup> Yet maintaining vast quantities of warlike stores in peacetime was financially impossible and politically undesirable, and the state continued to place its faith in the potential capacity of general industry. In this regard, MacDonald asked the PSOC in February 1934 to investigate arrangements to speed up post-mobilisation output by non-specialist firms, with a view to reducing the reserve stocks held by the War Office. In January 1935 the Supply Board predicted that the interval before production in quantity could be expected after the outbreak of war varied from six to twelve months depending on the item, although these estimates were based on as yet unattained optimal conditions, which required the placing of peacetime educational orders.<sup>122</sup>

Overseas intelligence suggested that educational orders placed by the state had allowed a large number of foreign firms to gain experience of manufacturing arms stores and had automatically ‘balanced’ their plant for armament production, thereby reducing the time they needed to turnover to war production, while also building up a reserve of finished components.<sup>123</sup> By contrast, the firms that informally cooperated with the PSOC were told there was no guarantee of extra

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<sup>119</sup> TNA, CAB 4/22/1109-B, PSOC Report: Armaments Industry, 31 March 1933.

<sup>120</sup> TNA, CAB 2/5, CID Minutes, 6 April 1933.

<sup>121</sup> GUAS, DC 35/31, Whitham Note, 30 January 1934.

<sup>122</sup> TNA, CAB 4/23/1158-B, PSOC Report, 7 January 1935.

<sup>123</sup> TNA, CAB 4/24/1200-B, FCI Memorandum, 30 July 1935.

work as a result.<sup>124</sup> Moreover, the committee recommended that any additional orders for warlike stores and ancillary equipment be placed, in the first instance, to prevent specialist firms from disposing of existing plant. Only then could any further orders be placed with non-armament firms to create new facilities and provide education in arms production.<sup>125</sup> In February 1935 the CID approved the placing of additional orders, though little was done to implement these measures and the Supply Board reported in October 1935 that the optimal conditions for turnover from peace to war production remained far from realisation.<sup>126</sup>

Educational orders were also intended to create extra jobs and alleviate the problem of locating sufficient skilled labour, which the PSOC felt was 'likely to be one of the most potent factors to militate against increased production, not only of ships but of armament and engineering stores.'<sup>127</sup> For example, the manufacture of shells needed 17,000 skilled workers to meet estimated requirements, alongside 115,000 semi-skilled workers and 18,000 unskilled and juvenile workers.<sup>128</sup> The committee's investigations showed that the available skilled labour was insufficient for the hypothesised armaments and shipbuilding programmes: for example, the number of men employed in the shipbuilding and related industries in June 1935 was only 49 percent of the total number required for a war programme, although this rose to 70 percent with the inclusion of insured unemployed workpeople.<sup>129</sup>

The worsening international situation had considerably increased the scope of the PSOC's already difficult task. After considering a report by the Chiefs of Staff, the CID declared in November 1934 that national defence planning should proceed not only on the basis that arrangements be completed by 1939 in respect of a 'possible conflict with Germany' but also that plans should take account of requirements for the defence of Britain's vital Far Eastern interests.<sup>130</sup> Therefore, the PSOC requested that the services provide revised statements showing their

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<sup>124</sup> GUAS, DC 96/21/9, PSOC(SB) Meeting, 21 March 1934.

<sup>125</sup> TNA, CAB 4/23/1158-B, PSOC Report, 7 January 1935.

<sup>126</sup> TNA, CAB 2/6, CID Minutes, 25 February 1935; TNA, CAB 4/24/1200-B, SB Report, 9 October 1935.

<sup>127</sup> TNA, CAB 4/23/1158-B, PSOC Report, 7 January 1935.

<sup>128</sup> TNA, CAB 4/25/1275-B, Directorate of Ordnance Factories and SB Technical Establishment Report, 5 August 1936.

<sup>129</sup> *Ibid.*, PSOC Report, 12 November 1936; *Ibid.*, SB Report, 30 September 1936.

<sup>130</sup> TNA, CAB 2/6, CID Minutes, 22 November 1934.

requirements for the first twelve months of a war in the Far East, and also for a war with Germany in 1939.<sup>131</sup>

The Shipbuilding Supply Committee remarked that the new naval hypothesis exacerbated the skilled labour situation, and suggested that it would be difficult to meet the services' requirements for bullet-proof plating with existing productive capacity.<sup>132</sup> Nonetheless, in September 1936 the committee reported that the majority of its requirements could be met. Where possible, the Admiralty placed 'educational orders' with firms for potentially problematic articles including destroyer and submarine torpedo tubes, high pressure air storage cylinders for submarines and ships, destroyer gun-mountings, cruiser mountings and gun sights.<sup>133</sup> Again, the situation was more acute for land weapons and ammunition and the changed estimates created fresh difficulties: for example, the Supply Board had to re-calculate how much of the capacity already located for 2,200 light tanks could be used for the new requirement of 2,325 bigger and heavier 'I' tanks.<sup>134</sup> The Board reported in 1936 that it would take eighteen months to reach the required output of smaller calibre guns, if the necessary plant was erected at the outbreak of an emergency, while the ammunition position remained seriously unsatisfactory, particularly in empty gun ammunition and components (see Appendix II). More capacity was also required for small arms production, as existing rifle stocks were expected to last only until the second year of fighting. When the Supply Board finally obtained full possession of the new service hypotheses in late 1936, it was forced to admit that the revised estimates 'rendered valueless' much of its previous work.<sup>135</sup>

The worsening international situation drew wider political attention to the issue of Britain's defence preparations. In early February 1936, Sir Austen Chamberlain, the former Chancellor of the Exchequer and Foreign Secretary, publicly criticised the government's existing machinery for planning national defence, and particularly questioned its ability to harness its industrial resources. Walter Runciman, the President of the Board of Trade and chairman of the PSOC, complained to Stanley Baldwin, the Prime Minister, on 17 February that

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<sup>131</sup> TNA, CAB 4/24/1200-B, PSOC Report, 9 December 1935; *Ibid.*, SB Report, 9 October 1935.

<sup>132</sup> *Ibid.*

<sup>133</sup> TNA, CAB 4/25/1275-B, SB Report, 30 September 1936.

<sup>134</sup> TNA, CAB 4/24/1200-B, SB Report, 9 October 1935.

<sup>135</sup> TNA, CAB 4/25/1275-B, SB Report, 30 September 1936.

Chamberlain's criticisms were misplaced but had made a 'most profound impact on the public mind'. Moreover, Runciman claimed that the government had made 'such progress in the last six months as had not been made during the last six years', largely owing to Weir's involvement both as an industrial advisor and, more importantly, as a member of the ministerial Defence Policy and Requirements subcommittee of the CID.<sup>136</sup> While this was hardly a glowing endorsement of the PSOC's previous work, Weir undoubtedly helped to invigorate industrial planning.<sup>137</sup>

Sir James Lithgow was less sanguine than Runciman about the state of industrial planning. Moreover, he had become increasingly involved with Beardmore's affairs and he worried this would compromise his position on the industrial advisory committee, which he felt, in any case, was 'rather a farce'.<sup>138</sup> The PSOC's thirteenth annual report, produced in November 1936, strengthened Lithgow's belief and he suggested that the public lacked confidence in the government's handling of the industrial problems connected to defence matters. He wrote to Weir:

It is perfectly obvious that little or nothing is being done in the way of making arrangements for future supplies until every I is dotted and T is stroked in the specifications for the individual requirements. [...] I am filled with alarm at the dreadful state of affairs which the Report discloses, and am completely opposed to the whole method of the organisation and the lack of breadth which seems to circumscribe the outlook of those actually doing the preparatory work.<sup>139</sup>

Later that month, Lithgow met with Weir and expressed his belief that their committee was not 'consulted sufficiently', while Weir explained that, although the conversion to war production was currently under review, the committee's

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<sup>136</sup> Robinson Library Special Collections, Newcastle University, WR 282, Runciman to Baldwin, 17 February 1936.

<sup>137</sup> Weir's biographer touches briefly on Weir's PSOC work, as a prelude to his subsequent work in air rearmament: W. J. Reader, *Architect of Air Power: The Life of the First Viscount Weir of Eastwood, 1877-1959* (London, 1968), pp.189-98.

<sup>138</sup> GUAS, DC 96/21/3, Lithgow to Weir, 22 February 1936. See also p.173 below.

<sup>139</sup> GUAS, DC 96/21/4, Lithgow to Weir, 10 December 1936.

slow-moving and hypothetical work on supply deficiencies had to give way to the more immediate problem of rearmament.<sup>140</sup>

### **The Impact of Rearmament**

Tensions in the Far East led the Cabinet to abandon the ten-year rule in March 1932. This, together with the growing German threat and Italian aggression, prompted a gradual shift in the government's strategic outlook, from a belief in the possibility of further disarmament towards admitting the need for some degree of rearmament. Between 1934 and 1935 various Cabinet and CID committees reviewed the standard of Britain's armed forces and uncovered an alarming number of weaknesses. The most important body in this process was the Defence Policy and Requirements Committee which, unlike the PSOC, included Treasury and Foreign Office representation. The prescribed solution was all-round defence expansion, in the form of a series of deficiency programmes.<sup>141</sup> After years of relative torpor, the activity and debates surrounding rearmament threw the inadequacies of Britain's existing supply organisation into sharp focus and helped reconstruct the government's relationship with the private armaments industry.

On 14 October 1935, Cunliffe-Lister, who was now Air Minister, declared that Britain would be 'criminally negligent' if it did not immediately improve its own war organisation, especially in light of reported French weaknesses. The CID lamented that it had been working on plans for many years, but had never had the money to implement concrete measures. On the other hand, the deficiency programmes were expected to make funds available for additional plant and tools.<sup>142</sup> Significantly, the blame for previous inaction was blamed on financial, rather than political or ideological obstacles. Indeed, General Sir Hugh Elles, the Master General of the Ordnance (1934-38), hopefully wrote to Weir that 'at long last, we shall get some money to get the process going'.<sup>143</sup> This could not disguise the fact that a considerable gulf still existed between the government and industrial sector even though the deficiency work fostered a closer relationship between wider industry and the service departments for the first time since

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<sup>140</sup> Ibid., Weir to Inskip, 25 December 1936.

<sup>141</sup> Hancock and Gowing, *British War Economy*, pp.62-63. Postan, *War Production*, pp.9, 24-25, 30-31, 41.

<sup>142</sup> TNA, CAB 2/6, CID Minutes, 14 October 1935.

<sup>143</sup> GUAS, DC 96/21/3, Sir Hugh Elles to Weir, 4 October 1935.

1918.<sup>144</sup> On 23 October 1935 the Grand Council of the Federation of British Industries resolved to assist in meeting the government's requirements at a reasonable cost, but it also suggested this object would be achieved most economically and efficiently if the government took British industry into its confidence and charged it with the task of setting up any required organisations.<sup>145</sup>

After years of relative government indifference, rearmament signalled a resumption of the private arms industry's traditional role in national defence. Even though the effects were not immediately felt in the private factories and yards – for example, Vickers-Armstrongs' Barrow yard was only half-occupied at the end of 1935 – rearmament brought a renewed sense of optimism to their boardrooms.<sup>146</sup> In March 1936 came the welcome news that the government wished to encourage and increase private armaments manufacture during the period of rearmament.<sup>147</sup> For its part, Vickers publicly indicated its willingness to accept, under certain conditions, a temporary degree of government control in another major war.<sup>148</sup> While perhaps not entirely sincere, given that its comments were made as part of the company's evidence to the Royal Commission in January 1936, when it had to fend off calls for the industry's permanent nationalisation, the relations between private arms manufacturers and the government for defence purposes were traditionally closer than those between the state and the non-specialist types of industry, even if this had been in a hiatus during the PSOC's work.

Yet the lack of any meaningful post-1918 dialogue between the government and arms industry concerning the latter's adjustment to peacetime conditions left an indelible impression on state-industry relations during rearmament. For example, in their negotiations with the Admiralty about the expansion of armour plate production, the concerned firms (Beardmore, English Steel Corporation and Firth Brown) were mindful of the trouble caused by their previous wartime extensions and adopted a cautious attitude. This resulted in some conflict and it took several months before agreement was reached in

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<sup>144</sup> TNA, CAB 4/25/1275-B, SB Report, 30 September 1936.

<sup>145</sup> TNA, CAB 4/24/1197-B, Joseph to Baldwin, 23 October 1935. For the origins of this statement, and later developments, see MRC, MSS.200/F/3/S1/23/16-17.

<sup>146</sup> Scott, *Vickers*, p.221; Hume and Moss, *Beardmore*, p.235.

<sup>147</sup> Cmd 5107 (1935-6), *Statement Relating to Defence* (3 March 1936).

<sup>148</sup> RC, *Evidence*, pp.356-57.

December 1936.<sup>149</sup> In another sign that lessons had been learned from 1914-18, Vickers-Armstrongs, while expanding its specialist capacity, did not build facilities for the manufacture of shells, given the suitability of general industry for this work. Therefore, the firm concentrated on heavier work, such as its share of the programme for five capital ships which materialised after the Washington and London naval restrictions lapsed at the end of 1936.<sup>150</sup>

While it is unsurprising that the government turned to the proven specialism of the private arms firms during rearmament, it is arguably the case that an opportunity was missed to incorporate them more comprehensively and at an earlier date into a practical scheme for industrial mobilisation, integrating rather than separating the specialist and more general sectors. At the same time, intelligence appeared to validate the government's deep-rooted resistance to a more intrusive industrial policy. In October 1936 the FCI committee suggested that

should a country decide for no matter what reason, to mobilise her industry for armament production, she is liable to incur acute economic difficulties and a pressing unemployment problem upon a return to normal manufacture and trade.

Specifically, the 'unprecedented' level of industrial mobilisation in Nazi Germany had reportedly reached a saturation point and had starved normal industry of the expenditure necessary for efficiency. Reports from elsewhere highlighted other potential dangers: Czechoslovakia, Finland, France and Japan had all made legal enactments conferring greater powers on their governments to encroach upon private enterprise in peace and to control national wealth, property and the activity of their citizens. The democratic countries had attempted to reconcile this degree of state control with the right of private ownership, fearing that, otherwise, the establishment of a controlled defence economy would assist extremist political thought and impede the return to democracy at the cessation of hostilities. Some

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<sup>149</sup> Hume and Moss, *Beardmore*, pp.239-41. For Lithgow's firm line in negotiations with the government concerning Beardmore's plant extensions in 1936, see also the papers in GUAS, UGD 100/16/1-2.

<sup>150</sup> Scott, *Vickers*, pp.221-23.

governments had avoided this controversy by postponing the more drastic regulations until faced with an actual threat to peace.<sup>151</sup>

Arguably Britain could have developed a more effective industrial mobilisation strategy without emulating Nazi Germany or implementing sweeping legislation. For example, the Weir advisory committee suggested the possibility of developing a 'shadow' armaments industry. One of the most practical suggestions made to the PSOC, this was offered in February 1934 as a potential solution to the specialist firms' inability to meet predicted wartime demand, while also scaling down the over-ambitious scope of the committee's work to date. It involved selecting between 250 and 400 engineering firms which, owing to their peacetime scale of output, maintained a strong administrative and executive structure, employed suitable technical personnel, and possessed tool-room strength, metallurgical knowledge and experimental facilities. The Weir committee suggested that these concerns, together with Vickers and the Woolwich Arsenal, provided an ideal nucleus for emergency expansion, and therefore recommended placing any educational orders with them and not with a larger number of 'weak and inefficient units'.<sup>152</sup> The CID approved Weir's recommendations in May 1934 and 91 large engineering firms had been investigated by the end of the following year, with a view to creating a shadow arms industry.<sup>153</sup> In a dovetailing of industrial mobilisation strategy and rearmament policy, the shadow system, originally intended for war production, was put into much wider operation in early 1936 as the demands of the deficiency programmes filled up the private arms industry's existing capacity.<sup>154</sup>

Weir told the government in January 1936 that the orders placed under the deficiency programmes would 'vastly facilitate' British industry's ability to turn from peace to war production.<sup>155</sup> Rearmament provided an enormous fillip to industry and employment, and thereby created a certain amount of 'war potential', yet how far this contributed towards the service departments' estimated emergency requirements, especially in regard to armaments, still caused concern. Enquiries to the War Office revealed that even if its deficiency programme met its

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<sup>151</sup> TNA, CAB 4/25/1275-B, FCI Memorandum, 27 October 1936.

<sup>152</sup> TNA, CAB 4/22/1138-B, Weir, Lithgow and Balfour Notes, 13 February 1934.

<sup>153</sup> TNA, CAB 2/6, CID Minutes, 31 May 1934; CAB 4/23/1158-B, PSOC Report, 7 January 1935; TNA, CAB 4/24/1200-B, PSOC Report, 9 December 1935.

<sup>154</sup> Hornby, *Factories*, p.24; Gordon, *Seapower*, pp.145-46.

<sup>155</sup> Quoted in *Ibid.*, p.145.

targets by 1939, this would still leave shortages in estimated wartime capacity, ranging from 45 to 61 percent for various types of shell casing, 60 percent in fuses, 47 percent for two-pounder cartridge cases and 52 percent for 25-pounders. In September 1936, the Supply Board optimistically suggested that where the service's hypothetical requirements were greater than the actual orders placed under the deficiency programme, the larger figure be taken as the basis.<sup>156</sup> While this did not become official policy, it did encourage the War Office to spend more on educational orders.<sup>157</sup> It also served to highlight the enormous implications of industrial mobilisation: taken in isolation, rearmament was a major undertaking with important political and economic consequences, yet it still did not create enough capacity to meet predicted emergency requirements.

Rearmament wrought significant changes to the existing supply organisation. The Supply Board's bureaucratic machinery was used to allocate firms to the relevant service department for the purposes of the deficiency programmes and it also determined questions of priority.<sup>158</sup> Therefore, its immediate focus shifted away from industrial mobilisation planning and towards the government's short-term needs. As a result, the Board moved from its previously advisory capacity to a more executive role during 1935. To meet the extra workload Sir Arthur Robinson became its full-time chairman. In 1936 a Treasury representative attended Supply Board meetings for the first time 'to learn more of the real needs and methods of the defence departments', although the Treasury avoided sitting on the PSOC until summer 1937.<sup>159</sup> Despite frequent suggestions as to the likely function of the Supply Board in a future war, whether it would form the nucleus of a Ministry of Supply or continue to act as a judicial and advisory body, the Board ultimately disintegrated in 1938, as the civil departments, with no experience of the PSOC's apparatus, indulged in panic buying, and the services went beyond their allocated capacity. Moreover, the majority of the Supply Board's staff simply disappeared back to their respective departments to deal with the growing crisis.<sup>160</sup>

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<sup>156</sup> TNA, CAB 4/25/1275-B, SB Report, 30 September 1936.

<sup>157</sup> Postan, *War Production*, p.45.

<sup>158</sup> TNA, CAB 4/25/1275-B, SB Report, 30 September 1936. For more on priority, see Scott and Hughes, *Administration*, pp.58-59.

<sup>159</sup> Peden, *British Rearmament*, p.30.

<sup>160</sup> Scott and Hughes, *Administration*, p.56. Robinson, the Secretary to the Ministry of Health, also became the PSOC's vice-chairman.

In terms of overall direction, Sir Thomas Inskip, a lawyer, was appointed Minister for Coordination of Defence in February 1936. This newly-created position was designed to consider defence problems as a whole and facilitate the execution of rearmament through effective use of industry and manpower. To this end, Inskip replaced Runciman as chairman of the PSOC.<sup>161</sup> Subsequent difficulties in fulfilling the deficiency programmes and criticism of Inskip in late October 1936 led to a resurrection of the controversy over the desirability of a Ministry of Supply. While rejecting this as an unnecessary diversion, internal debates on this question further strengthened the Cabinet's opposition to industrial compulsion during rearmament, which it considered politically and uneconomically unacceptable at this stage.<sup>162</sup>

While rearmament was related to the concept of industrial mobilisation, they were also different in several respects: rearmament was an attempt to build armaments up to a perceived safe level in a relatively short space of time, while industrial mobilisation represented a much longer-term effort to create an organisation for wartime supply, encompassing the greater part of British industrial capacity. An effective industrial mobilisation scheme would have theoretically assisted with rearmament yet in Britain they were distinct policies, perhaps because industrial mobilisation involved definite preparations for a future war, while rearmament was more easily presented as a deterrent. Rearmament fitted in with the status quo, as the government tended to appease or negotiate with business and labour to meet its requirements, rather than crudely imposing its will.<sup>163</sup> It was a temporary policy to meet a specific threat, whereas industrial mobilisation involved a larger and unpalatable shift in state-industry relations. For businessmen, preparations for industrial mobilisation meant government interference with no guarantee of extra work while rearmament brought tangible advantages in the form of orders. For politicians, their attention in 1936 was focused much more on the immediate future rather than long-term planning. Nonetheless, the informal links with industry and the development of a shadow armaments industry which had resulted from the PSOC's work undoubtedly

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<sup>161</sup> Ibid., p.57.

<sup>162</sup> Shay, *British Rearmament*, pp.130-33.

<sup>163</sup> Rollings, 'Whitehall and the Control of Prices', 520, 531-32.

proved useful, even if British officials were unable to fully mobilise industry to meet the German threat in the mid-1930s.

## **Conclusion**

The Great War irrevocably changed attitudes towards war production and subsequent national defence planning incorporated a significant industrial dimension. Faced with mounting evidence that other countries, especially Germany, Japan, the Soviet Union and the United States, were actively pursuing measures to facilitate industrial mobilisation, British policymakers accepted the need to prepare similar schemes and launched an ambitious survey of peacetime industrial capacity together with a limited number of industrialists. Yet the fundamentally liberal basis of state-industry relations meant that officials were ideologically reluctant to probe too far into industrial affairs, while businessmen remained suspicious of the state's intentions. Together with prevailing currents of pro-disarmament public opinion, little was done to break down the structural and psychological barriers to closer cooperation and nothing replaced or built upon the defunct Ministry of Munitions as a means for communicating and collaborating with industry.

Working in near-secrecy, the Principal Supply Officers Committee's over-worked staff and under-funded organisation only managed to investigate a small number of non-specialist firms and inevitably reached similarly limited conclusions. Yet the reported deficiencies in arms producing capacity were perhaps not as alarming as the PSOC suggested. First, they were based on scenarios which envisaged the use of certain types of weapon. In this regard, the Weir committee advised 'elasticity in supply arrangements' in the event of alternative scenarios, such as if artillery was not as predominant as expected.<sup>164</sup> Developments in tanks and aircraft suggested that a future war would involve greater mobility, and in these areas the PSOC expressed cautious optimism.<sup>165</sup> Second, even when deficiencies were reported they were not usually based on an assessment of the full capacity of British industry but on a limited sample of firms. The Supply Board seemed generally hopeful that, given time and extra staff, it could uncover further resources. But it needed the authority to act

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<sup>164</sup> TNA, CAB 4/22/1138-B, Weir, Lithgow and Balfour Notes, 13 February 1934.

<sup>165</sup> TNA, CAB 4/25/1275-B, SB Report, 30 September 1936.

decisively and this resolve was not present. If anything was found wanting in the 1930s, it was Britain's attitude towards arms manufacture and wartime supply, rather than its potential industrial strength. Certainly, had the British economy been entirely subordinated to defence planning, the country risked becoming the kind of totalitarian state that it was trying to defend itself against. However, the problem lay more in the PSOC's continued conceptualisation of industrial mobilisation on a grand, almost totalitarian scale, despite having neither the resources nor the will to make this policy into reality. When it addressed the issue on a more practical level through the shadow armaments scheme and the development of 'process specifications', it had greater success.

One of the more surprising aspects of the PSOC's annual reports was the virtual absence of the private armaments industry as part of its wider industrial mobilisation planning, beyond periodic surveys of specialist capacity. Given that the committee was the main organisation investigating arms production, it is therefore unsurprising that the private manufacturers felt increasingly abandoned by the state after 1918. The PSOC certainly fretted about the declining number of specialist firms, but the quantity of units did not matter so much as the actual strength of the individual companies and, crucially, the manner in which they were integrated into a broader scheme for expansion. The firms envisaged their future wartime role as providing guidance for non-specialist manufacturers, but there was little evidence of the PSOC working towards this end. Instead, by advocating standardisation and haunted by the 1915 shells crisis, the committee attempted to diminish the need for specialist assistance. It did acknowledge the arms industry's important research and design function but the committee ultimately spent too much time on the Sisyphean task of assessing the potential arms-producing capacity of general industry. Therefore it neglected the possibilities offered by the armament firms' unique knowledge and resources.

The government certainly could not rely on the private arms firms for all of its stores in a major war, but it was increasingly clear that an enfeebled arms industry would cause serious problems in the initial adjustment from peace to war production and, moreover, several important items could not be produced by non-specialist concerns. The PSOC's failure to locate sufficient capacity in non-specialist industry meant that, from 1933, the arms firms were again viewed as vital cogs in the turnover from peace to war production, but even this did not

result in immediately perceptible benefits. Rearmament changed the situation and, when faced with the short-term need to correct deficiencies and meet the German threat, the government began to resurrect its traditional relationship with the private arms manufacturers to meet these requirements. Fortunately for British security, reports of the industry's decline were greatly exaggerated.

### 3. From Diversification to Rationalisation: The Arms Industry's Identity Crisis, 1918-27

After a short post-war boom, the British heavy industrial sector suffered from overcapacity, unemployment, an inability to match global competitors and a consequent contraction in its export markets. At the end of 1926, Sir Edwin Cornwall, a London coal dealer and ex-Liberal MP for Bethnal Green, told the beleaguered holders of Armstrong's stocks, notes and shares that

of all business the armament business has had to face the greatest vicissitudes since the war, largely through forces of circumstances. First of all there is the extraordinarily unfortunate position in which the iron and steel industry in this country finds itself, and it is a matter of grave national concern to see this vitally basic industry in such a plight. Add, therefore, to the difficulties of the iron and steel situation the difficulties of those who manufacture armaments out of iron and steel, and it will be readily appreciated that the problem is not an easy one for those responsible for its solution.<sup>1</sup>

Successive governments refused to accept any share of this responsibility after 1918. The state had encouraged and helped the arms firms to expand during the Great War, but absolved itself of any liability for the industry's subsequent problems. As demonstrated by the PSOC's industrial mobilisation planning, state intervention in industrial affairs was always a sensitive issue, while the strictly orthodox Treasury refused to subsidise the steel industry, believing handouts would simply postpone reorganisation measures or lead to similar demands from other sectors.<sup>2</sup> Unfavourable industrial conditions, together with the deterioration of the government's relationship with the arms manufacturers, left the latter feeling isolated and abandoned, while retrenchment and naval disarmament contributed to their poor results.

Faced with such an overwhelming combination of external problems, it is possible to overlook the arms firms' own internal failures and misjudgements. In

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<sup>1</sup> BoE, G 14/64, Armstrong Meeting, 22 December 1926.

<sup>2</sup> For the latter point, see Tolliday, *British Steel*, pp.294-95.

particular many of them attempted to diversify into non-armament 'civilian' lines of production after the war, with mostly disastrous consequences. By the mid-1920s all of the big companies were facing serious financial problems and subsequent investigations revealed defective business cores that had long been masked by Edwardian prosperity. As a result of this and in the absence of meaningful government assistance, the financial community and especially the Bank of England forged closer links with indebted firms. Indeed, the growing presence of accountants and financial experts holding important roles in industry was not unusual in the inter-war period, as large firms sought better methods of financial oversight.<sup>3</sup> Their involvement in the armament business encouraged the wider restructuring of the industry and the first shoots of recovery began to emerge in the mid-1920s.

In adjusting to the post-war world, the specialist arms manufacturers underwent an identity crisis, uncertain if they were an anachronism in a world of internationalism, retrenchment and mass production. Meanwhile, their bankers faced the choice of cutting their losses or to trying to revive their ailing customers. The Bank of England also had to reconcile its responsibilities as the central bank with its position as Armstrong's commercial banker. In the face of continued government indifference, the manner in which these dilemmas played themselves out led to a fundamental transformation of the structure and outlook of the British armaments industry. This not only enabled it to survive during a period of extraordinarily difficult trading conditions, but also allowed it to look more hopefully towards the future.

### **Peacetime Hopes and the Failure of Diversification**

At first, the private armaments industry optimistically faced the post-war world, satisfied with its contribution to the national war effort. The individual firms correctly anticipated that peacetime arms orders were unlikely to fully occupy their massively extended plant and this led them to explore new and unfamiliar directions. John Meade Falkner, Armstrong's chairman, informed the shareholders in September 1918 that the company would expand into 'civil' lines

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<sup>3</sup> Leslie Hannah, 'Managerial Innovation and the Rise of the Large-Scale Company in Interwar Britain', *Economic History Review*, New Series, vol. 27, no. 2. (May, 1974), 259.

of production when the war ended.<sup>4</sup> The following month Vickers announced its intention to develop its 'peace resources' for the production of ships, railway materials, automobiles, turbines, various electrical goods, gas engines, wood products and sewing machines, although it admitted that it would remain an armaments firm to an extent.<sup>5</sup> Beardmore anticipated work in locomotives, launched a risky automobile venture and made a rash decision to continue in the aircraft business, despite its lack of success designing aeroplanes during the war.<sup>6</sup> Cammell Laird, a comparatively smaller company with a pedigree in commercial steel work, did not worry as much as the bigger firms about post-war reconstruction and intended to dispose of its gun-making interests, which were concentrated in the Coventry Ordnance Works.<sup>7</sup> Overall, armaments were not the focus of the firms' post-war plans.

Commercial shipbuilding offered early hopes for steady work, and naval shipyards were readily adaptable for mercantile purposes.<sup>8</sup> However, despite the loss of fifteen million tons of merchant shipping during the war, worldwide construction capacity had also increased and a short boom left the global fleet 8.4 percent larger in June 1919 than in June 1913.<sup>9</sup> Moreover, while British capacity had increased by 40 percent, its market share contracted by a third.<sup>10</sup> Compounding matters, the increase in freight capacity was not matched by a parallel increase in freight.<sup>11</sup> To obtain work, British shipbuilders accepted deferred payments and undertook contracts with no chance of profit.<sup>12</sup> By mid-June 1921 Armstrong had nearly £3 million worth of merchant shipbuilding cancellations and suspensions.<sup>13</sup> With its mainly foreign customers struggling to make payments, the company tied up increasing amounts of its money in

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<sup>4</sup> *The Statist*, 21 September 1918, p.463.

<sup>5</sup> *Ibid.*, 12 October 1918, p.578.

<sup>6</sup> Hume and Moss, *Beardmore*, pp.152-174.

<sup>7</sup> Warren, *Steel*, pp.178-79, 210.

<sup>8</sup> For pre-1914 shipbuilding, see Warren, *Armstrongs*, pp.21-25 and Scott, *Vickers*, pp.35, 81. Cammell Laird was not a major pre-1914 mercantile player (Warren, *Steel*, pp.97-8, 161-63). Beardmore was also comparatively unsuccessful at obtaining shipbuilding orders before 1914, although it possessed suitable plant (Hume and Moss, *Beardmore*, pp.87-88).

<sup>9</sup> Warren, *Steel*, pp.184-93 summarises the bleak state of post-war British shipbuilding.

<sup>10</sup> Anthony Slaven, 'British Shipbuilders: Market Trends and Order Book Patterns Between the Wars', *Journal of Transport History*, Third Series, vol. 3, no. 2 (Sep., 1982), 37-38.

<sup>11</sup> Sir Henry Clay, *Lord Norman* (London, 1957), p.339.

<sup>12</sup> Scott, *Vickers*, p.144.

<sup>13</sup> TWAS, 130/1269, Armstrong Directors' Minute Book, 16 June 1921.

unsaleable ships and unrealisable mortgages.<sup>14</sup> These experiences further promoted diversification into less traditional areas.

The Birmingham Small Arms Company (BSA) was comparatively fortunate with its post-war projects, largely owing to its existing pedigree of commercial production, particularly motorcycles, bicycles and machine tools. Although BSA continued to manufacture sporting rifles, it had virtually ceased to produce armaments for warlike purposes by the mid-1920s.<sup>15</sup> BSA's rifle-making equipment and processes were well-suited for the manufacture of bicycle frames but the problem for firms like Vickers and Armstrong was that their heavy specialist plant was not as easily adaptable for general commercial applications.<sup>16</sup> For example, when Armstrong built its first locomotives to the extremely close tolerances it used in armament production, they seized up in testing.<sup>17</sup> Moreover, when the firm attempted to make non-armament items alongside gun-mountings, this contaminated its precision ordnance equipment with dust and grit, much to the Admiralty's displeasure.<sup>18</sup>

For the heavy armament companies, expanding into unfamiliar areas not only proved unremunerative but also incurred serious liabilities. Wartime earnings helped to pay for ambitious projects, although the funds available for diversification were apparently limited by excess profits tax.<sup>19</sup> In fact, the firms had used a number of inventive accounting practices, including secret reserve accounting, to deflate their profit returns during the war years.<sup>20</sup> Indeed, renewed concerns over profiteering during rearmament in the 1930s led some critics to suggest that it had been easy for industry to evade excess profits duty.<sup>21</sup> Nonetheless, Douglas Vickers, the chairman of Vickers, publicly stated in 1925

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<sup>14</sup> Clay, *Norman*, p.319.

<sup>15</sup> For BSA's inter-war fortunes see Davenport-Hines, 'Armaments Industry', pp.168-78. For a sense of BSA's inter-war dissatisfaction with the government, see also the correspondence in MRC, MSS.19A.3.3.

<sup>16</sup> For bicycles, see Trebilcock, 'Science', 575.

<sup>17</sup> Scott, *Vickers*, p.138.

<sup>18</sup> BA, 200279, Baddeley to Peacock, 29 June 1927.

<sup>19</sup> Clay, *Norman*, p.275; Warren, *Armstrongs*, p.198.

<sup>20</sup> A. J. Arnold, "'In the Service of the State?'" Profitability in the British Armaments Industry, 1914-1924', *Journal of European Economic History*, vol. 28, no. 2 (Fall, 1998), 302-303, 310. For the nature of excess profits duty and revenues it generated, see M. J. Daunton, 'How to Pay for the War: State, Society and Taxation in Britain, 1917-24', *English Historical Review*, vol. 111, no. 443 (Sep., 1996), 896.

<sup>21</sup> *News Chronicle*, 10 April 1938.

that the government's close watch over costing during the war had severely restricted the company's ability to make profits, and

when the company had made profits, excess profits [tax] and one thing and another took away practically everything but what was left in the shape of bricks and mortar. That was really the reason why they were not enormously rich after the war.<sup>22</sup>

Vickers' financial shortcomings also resulted from its chaotic internal accounting system, and were exacerbated in March 1919 when it purchased the Metropolitan Carriage, Wagon and Finance Company for approximately £3 million in excess of its true worth, largely due to a misplaced faith in forecasts provided by Frank Dudley Docker, a dynamic Birmingham industrialist and the Metropolitan's chairman.<sup>23</sup> Although the Metropolitan Company had manufactured 80 percent of Britain's tanks between 1916 and 1918, Vickers intended to use this acquisition to develop its interest in commercial rolling stock and electro-technology and, consequently, Dudley Docker joined its board. Although he personally did well out of the deal, Docker submitted a critical memorandum to his fellow directors in November 1919 which drew attention to the negative public impression 'that Vickers are inclined to "take up anything"' and suggested that a more systematic approach to new initiatives would help to restore the company's reputation.<sup>24</sup>

Vickers' works certainly produced a disparate range of objects in 1919, ranging from wooden toys to gas meters, with the bolder acquisition of the Metropolitan Company standing alongside these less spectacular manufactures.<sup>25</sup> Mark Webster Jenkinson, an accountant who later became the company's financial director, reviewed this situation between 1921 and 1922 and criticised the scale of Vickers' post-war ambitions. He held that 'combinations or trusts can only be successful if confined to one trade or class of trade, that is to say one type of production or its subsidiaries.'<sup>26</sup> The figures backed him up: in 1897 Vickers

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<sup>22</sup> *The Times*, 16 April 1925.

<sup>23</sup> R. P. T. Davenport-Hines, *Dudley Docker: The Life and Times of a Trade Warrior* (Cambridge, 1984), pp.164-65, 168-69.

<sup>24</sup> Quoted in *Ibid.*, pp.170-71 (see also pp.156-61). For Metropolitan tanks, see Davenport-Hines, 'Armaments Industry', p.251.

<sup>25</sup> Scott, *Vickers*, p.140: For Vickers' diversification projects, see pp.137-52. See also Davenport-Hines, *Dudley Docker*, pp.166-68.

<sup>26</sup> Quoted in Scott, *Vickers*, p.157.

made £216,000 profits off assets worth £4 million (5.4 percent), while in 1922 the firm's diverse and expanded assets, worth £35 million, only yielded £680,000 profits (under two percent).<sup>27</sup>

At Armstrong, Sir Glynn West replaced Falkner as chairman in 1920. West, an imperious man with little financial experience, told his first annual general meeting that the company's conversion to peacetime production was proving difficult, owing to raw material and wage costs.<sup>28</sup> Five years later, Armstrong failed to earn the interest on its debentures by nearly £300,000 and its yearly report blamed not only the 'continuance of adverse conditions', but also the failure of diversification which was 'not giving the results which were expected.'<sup>29</sup> Its foray into motor car construction had fared reasonably well but Walter Layton, the editor of the *Economist*, argued this minor success was merely 'a bagatelle compared to the magnitude of Armstrong's [other] undertakings', most of which had resulted in substantial losses.<sup>30</sup>

Armstrong's problems had increased dramatically in 1922, owing to its involvement in the construction of a hydroelectric power plant and newsprint factory at Corner Brook, Newfoundland. Historians have universally condemned this overambitious scheme, describing it as the 'nadir of West's judgement' and 'the project which contributed most to [Armstrong's] financial collapse.'<sup>31</sup> Even if the investment appeared a logical step for Armstrong's directors, Kenneth Warren has suggested that 'in retrospect it may well be seen that they misread the sign of the times.'<sup>32</sup> J. D. Scott has succinctly summarised the principal cause of failure: 'Between the Armstrong Board and this desolate sub-arctic hamlet there soon developed a mutual lack of comprehension.'<sup>33</sup> Nearly 54 percent of Armstrong's subsidiary holdings were in Newfoundland by 1925 and, less than three years later, after a variety of organisational and environmental problems, it represented 42.4 percent of its losses on investments. When Armstrong, which made only £3.4

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<sup>27</sup> Warren, *Armstrongs*, p.224.

<sup>28</sup> *Ibid.*, p.226. See pp.197-99, 202-204 for Armstrong's diversification projects.

<sup>29</sup> *The Economist*, 5 June 1926, pp.1082-1083.

<sup>30</sup> *Manchester Guardian*, 14 June 1926. Several arms firms achieved some success with cars before 1914, so this was less of an unknown quantity (Scott, *Vickers*, pp.83, 93). For Armstrong's post-war interest in car manufacture see Warren, *Armstrongs*, pp.144-58. For Beardmore's unsuccessful venture into automobiles see Hume and Moss, *Beardmore*, pp.186-9.

<sup>31</sup> Davenport-Hines, 'Armaments Industry', p.191; Warren, *Armstrongs*, p.214.

<sup>32</sup> *Ibid.*, p.216.

<sup>33</sup> Scott, *Vickers*, p.154.

million total profits from its entire range of activities for the seven years prior to 1926, finally disposed of Corner Brook in 1927, it had lost £2.8 million from an outlay of £5 million.<sup>34</sup>

Diversification also negatively affected the firms' more traditional overseas subsidiaries. For example, Armstrong had developed an Italian offshoot in the 1890s, the Pozzuoli works near Naples, which had also branched into commercial work when faced with reduced armament demand after 1918. However, it was poorly placed to compete with more modern and better positioned Italian factories. As a result, its turnover was poor and it ultimately ended up spending more than it was earning.<sup>35</sup> Pozzuoli went into liquidation in 1927.<sup>36</sup>

Faced with mounting debts and possible ruin, the arms firms began to survey the wreckage of their diversification policies in an attempt to salvage any remaining profitable enterprises. In June 1925 Vickers' board invited a committee to review the company's position. Significantly, the committee was mainly composed of financial experts. It included Docker, who had retired as a director in 1920 but maintained influence through his nominees to the board; Reginald McKenna, the chairman of the Midland Bank since 1919 and former Chancellor of the Exchequer; and Sir William Plender, a prominent accountant. Jenkinson undertook the committee's detailed research.<sup>37</sup> Their report of 4 December 1925 described how Vickers had lost a 'considerable portion' of its capital through the general trade depression and depreciation in foreign exchanges, while its earning power had been affected by a rise in overseas competition, the domestic production of armaments in foreign countries, the shipbuilding slump, and general financial stringency and unrest throughout Europe. Moreover, Vickers' management had proved unable to direct its vast range of new interests.

While Vickers could do little about domestic financial constraints or external trading conditions, it was willing and able to address its own internal faults. Jenkinson prescribed sweeping administrative changes, particularly the establishment of three management boards to coordinate the firm's activities: an

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<sup>34</sup> For Newfoundland, see Warren, *Armstrongs*, pp.214-221.

<sup>35</sup> BoE, SMT 8/10, Loria Report, November 1926.

<sup>36</sup> Warren, *Armstrongs*, p.213.

<sup>37</sup> Scott, *Vickers*, p.156. For the possible motivations behind the committee's appointment, see Davenport-Hines, *Dudley Docker*, p.174.

industrial board, a financial board and, to concentrate on Vickers' traditional business, an armament and shipbuilding board.<sup>38</sup> A thorough re-organisation along these lines followed, accompanied by a writing down of capital by the tremendous sum of £12.5 million.<sup>39</sup> In April 1927 General Sir Herbert Lawrence, who had replaced Douglas Vickers as chairman the previous year, informed the shareholders that 'considerable economies' had been made. Docker, McKenna and Plender commented the following month that Vickers had achieved a 'satisfactory position'.<sup>40</sup> Indeed, Vickers now commanded nearly £1.8 million of liquid resources and appeared to be in control of its internal affairs, from the management down to the factory floor.<sup>41</sup> On 15 March 1928, the directors announced the firm would pay a dividend on its ordinary shares for the first time since 1922.<sup>42</sup> Vickers' relatively early recognition of its problems, its willingness to seek outside expertise, and its ruthlessness in implementing reorganisation placed it in a strong position compared to its rivals.

At the time, most of Vickers' directors blamed the failure of the firm's post-war diversification strategy on the lack of institutional mechanisms to inject finance into industry.<sup>43</sup> Yet Armstrong ironically endured a much greater crisis because it was more easily able to fund its peacetime expansion through its commercial account with Newcastle branch of the Bank of England, which it had opened in 1857. The firm successfully appealed for an increased overdraft in March 1918: Sir Alan G. Anderson, the Controller of the Navy and a newly-elected director of the Bank of England, had questioned this request on the assumption that the company had made sufficient wartime profits, but was reassured by an anonymous friend in a large firm, which he described as similar to Armstrong, that an amount of up to £2.5 million would be quite reasonable.<sup>44</sup> Sir Brien Cokayne, the Governor of the Bank, was anxious not to upset the company

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<sup>38</sup> CUL, Vickers Archives Volume 1368, Docker, McKenna and Plender Report, 4 December 1925. See also Scott, *Vickers*, p.159.

<sup>39</sup> *Ibid.*, p.158.

<sup>40</sup> CUL, Vickers Archives Volume 1368, Lawrence to Shareholders, 20 April 1927; *Ibid.*, Vickers Board Minutes, 27 June 1927.

<sup>41</sup> *The Times*, 30 April 1927.

<sup>42</sup> *Ibid.*, 16 March 1928.

<sup>43</sup> For Vickers' thwarted efforts to obtain finance, see Davenport-Hines, *Dudley Docker*, p.169. See also Davenport-Hines: 'Armaments industry', p.118.

<sup>44</sup> BoE, SMT 8/2, Anderson to Norman, 27 March 1918.

by adopting an excessively rigid stance towards its apparently sensible plans, and agreed to extend the required assistance.<sup>45</sup>

Little thought was given to the eventual repayment of the sum borrowed in the prevailing mood of enthusiastic expansionism.<sup>46</sup> Sir Henry Clay, an economist and advisor to the Bank in the 1930s, subsequently suggested that the Bank's financing of Armstrong's post-war activities was simply a 'matter of course'.<sup>47</sup> Nonetheless, at the time, the Bank noted that it possessed 'no definite arrangement determining the limit of advances' provided to Armstrong, which had reached £1.4 million by May 1921, on top of a wages account overdraft of £200,000.<sup>48</sup> Such assistance was exceptionally large, especially given the unfamiliarity of Armstrong's new enterprises. It also became virtually impossible to withdraw this support even when these projects contributed to the firm's mounting losses.<sup>49</sup> As a result, the Bank and other important figures in the City of London became increasingly involved in Armstrong's affairs and eventually found themselves more deeply drawn into the arms industry than they perhaps intended.

In February 1924 Armstrong requested a further increase in its overdraft to meet expenses incurred in Newfoundland. The Bank agreed but stated that future advances would require further justification.<sup>50</sup> Crucially, it also instructed Armstrong to consult with Baring Brothers' merchant bank on the progress of its contracts with Newfoundland. This brought Edward Peacock, a partner in Barings and a former Bank of England director, into Armstrong's affairs.<sup>51</sup> In the spring of 1925, Peacock and Montagu Norman, who had replaced Cokayne as the Governor of the Bank of England in 1920, observed that West was over-worked and 'had more to deal with than he could properly manage.'<sup>52</sup> Indeed, at Armstrong's general meeting the following month, West could only suggest that 'our only hope of regaining the proud position we once held is to work harder and produce

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<sup>45</sup> Sayers, *Bank of England I*, p.315.

<sup>46</sup> Warren, *Armstrongs*, p.198.

<sup>47</sup> Clay, *Norman*, p.318.

<sup>48</sup> BoE, SMT 8/2, Memorandum for Norman, 14 May 1921. See also: *Ibid.*, Proposed Draft Agreement, [June] 1918, and *Ibid.*, Freshfields Opinion, 5 July 1918.

<sup>49</sup> Clay, *Norman*, pp.318-9. Excessive post-war lending was also widespread in the cotton and steel industries (Thomas Balogh, *Studies in Financial Organisation* (Cambridge, 1947), p.77).

<sup>50</sup> BoE, SMT 8/2, Harrison Interview with Deputy Governor, 8 February 1924.

<sup>51</sup> Warren, *Armstrongs*, p.227. Peacock stated in 1958 that many papers relating to this period were subsequently destroyed: the remaining correspondence is mainly in the Bank of England and Baring archives.

<sup>52</sup> BoE, SMT 8/1, Peacock Conversation with Norman, 30 March 1925; *Ibid.*, West Visit Notes, 24 April 1925.

more.<sup>53</sup> That the company required a much more comprehensive and urgent strategy was underlined in mid-June when its liabilities to the Bank reached £2.6 million, a larger figure than anticipated.<sup>54</sup> By 28 August 1925 Armstrong's demands had reached £3.5 million, as far as the firm could be sure of its financial position. Faced with this escalating debt, the Bank decided to continue providing assistance but requested that the company make no further commitments without its prior approval.<sup>55</sup>

Armstrong's deteriorating position caused its worried bankers to undermine the firm's existing management. By contrast, Vickers had no major commitments to banks and, after its reorganisation, possessed large liquid resources.<sup>56</sup> Vickers had retained its independence throughout, while Armstrong required the necessary dynamism to be imposed by external figures such as Peacock, whose observations and range of contacts, including his close relationship with Norman, made him an important figure in the company's subsequent history. The contrasting fortunes of Vickers and Armstrong, Britain's two largest arms firms, proved extremely important in the subsequent direction and strength of the armaments industry. However, before any major reorganisation could take place, the bankers needed to uncover the true state of Armstrong's position in order to establish precisely what had gone wrong and what could be rescued.

### **The Armstrong Prognosis**

Armstrong's considerable financial and organisational problems involved a lengthier and more painful reconstruction than Vickers and, from summer 1925, most of the burden devolved upon James Frater Taylor, a Scottish chartered accountant with an uncanny ability to get 'to the bottom of things'.<sup>57</sup> Peacock recommended Taylor to Norman based on his reputation as a doctor of sick companies, while Norman dealt with the imposition of Taylor upon West's chairmanship as Peacock felt the Governor could broach the matter without giving

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<sup>53</sup> BoE, SMT 8/2, Armstrong General Meeting, 21 May 1925.

<sup>54</sup> BoE, G 14/64, Committee of Treasury Minutes, 17 June 1925. For the security held by the Bank, see: SMT 8/3, Branch Banks Office Memorandum, 17 June 1925.

<sup>55</sup> BoE, G 14/64, Committee of Treasury Minutes, 28 August 1925; BoE, SMT 8/3, Murray to Norman, 2 September 1925.

<sup>56</sup> BA, 200279, Peacock to Hankey, 8 April 1927.

<sup>57</sup> BoE, SMT 8/1, F. Williams Taylor to Peacock, 16 February 1925.

offence.<sup>58</sup> Taylor ostensibly acted as Threadneedle Street's nominee on Armstrong's board although he did not always agree with the Bank's policy. For example, he criticised its decision to impose an increased interest charge on Armstrong's excess total liability from 1 March 1926, arguing that this was counterproductive when the firm was trying to effect economies, a fact which the Bank was well aware of.<sup>59</sup> Nonetheless, his presence and his growing importance reflected the Armstrong board's decreasing control over the company.

Taylor's investigations helped diagnose Armstrong's underlying administrative problems, which mainly stemmed from the inadequacies of its accounting system when confronted with the firm's diverse range of post-war activities.<sup>60</sup> Armstrong had no monthly balance sheet, leading to discrepancies in working costs, notably in the 'very hungry' contracting department, which had invested larger amounts in projects than it had indicated to Barings.<sup>61</sup> Shortcomings in the finance committee's personnel, headed by Sir George Murray, a former Treasury Permanent Secretary, matched the inefficient accounting machinery. Now an 'old man' and apparently ignorant of the company's financial situation, Murray was not up to the colossal task of reorganisation.<sup>62</sup>

To unscramble Armstrong's tangled finances, the accountancy firm Price Waterhouse carried out an audit based on the 1925 balance sheet. The subsequent report made alarming reading and revealed that even Armstrong's traditional armament work was making losses. For example, it had spent £66,455 to complete a £44,740 contract to build mines for Turkey. Furthermore, when the mines were shipped, Turkey refused to accept them and, although Armstrong anticipated disposing of them elsewhere, the amount realisable was of 'considerable doubt'. Further losses were expected on various other Admiralty and War Office contracts and even the £1.2 million contract to build the hull for

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<sup>58</sup> Ibid., Peacock Conversation with Norman, 30 March 1925; Ibid., West Visit Notes, 24 April 1925.

<sup>59</sup> For Taylor joining Armstrong's board: TWAS, 130/1269, Armstrong Board Minutes, 23 July; Ibid., 20 August 1925. For the Bank's decision to increase interest charges, see: BoE, SMT 8/4, Meeting of Deputy Governor, Leese and Travers, 15 February 1926; Ibid., Travers Memorandum, 22 February 1926; Ibid., Travers to Harrison, 24 February 1926; Ibid., Taylor to Travers, 26 February 1926; Ibid., Sandiford to Travers, 18 March 1926.

<sup>60</sup> Ibid., Taylor to Peacock, 22 January 1926.

<sup>61</sup> BoE, SMT 8/3, Peacock to Travers, 18 November 1925.

<sup>62</sup> Ibid., Deputy Governor, Peacock and Travers Meeting, 27 October 1925; Ibid., Deputy Governor, West and Travers Meeting, 29 October 1925.

HMS *Nelson*, one of the two capital ships under construction, ultimately incurred a £40,000 loss. Substantial losses were also anticipated on non-armament contracts, including commercial shipbuilding.<sup>63</sup> At the end of 1925, Armstrong's debts to the Bank totalled £4.8 million.<sup>64</sup> The firm's accounting system, balance sheets and wages account subsequently received a much-needed overhaul to try and plug the gaps, and explanations were requested from the contracting department for discrepancies between the estimated and actual costs of jobs.<sup>65</sup>

Taylor presented his initial report on Armstrong's position, which he had produced in conjunction with Sir Gilbert Garnsey of Price Waterhouse, on 30 March 1926.<sup>66</sup> It painted a bleak picture and demonstrated the extent of the firm's reliance on the Bank of England: work-in-progress worth £5 million was more than offset by £6.8 million of liabilities and there appeared little prospect of Armstrong meeting its fixed charges for 1926 and 1927. Moreover, other banks were involved in Armstrong's subsidiaries, raising further questions about the firm's future stability. The Pearson Knowles steel company, acquired in 1920 in mistaken anticipation of a shipbuilding boom was a 'distinct menace'.<sup>67</sup> It was in a 'perilous state' and Armstrong had provided it with over half of a £1.5 million bank guarantee. Another unsuccessful post-war acquisition, the Partington Steel and Iron Company, was described as an 'incubus' and owed a restive Westminster Bank £1.3 million, of which Armstrong had guaranteed £300,000.<sup>68</sup> However, Peacock considered it unlikely that the Westminster would jeopardise the situation and he promised to talk to its general manager who, by the end of 1926, had promised to act in a 'spirit of friendly cooperation' towards Armstrong.<sup>69</sup> The

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<sup>63</sup> BoE, SMT 8/4, Price Waterhouse Report, n.d. [c.March 1926]; Warren, *Armstrongs*, p.238. For estimated losses in various departments, see: BoE, SMT 8/5, Cash Requirements Forecast, 9 April 1926. Armstrong later appealed to the Admiralty for special consideration on losses incurred building HMS *Nelson* (TWAS 130/1462, Armstrong General Meeting, 11 May 1928).

<sup>64</sup> Warren, *Armstrongs*, p.232; BoE, SMT 8/3, Peacock to Travers, 14 December 1925.

<sup>65</sup> BoE, SMT 8/4, Taylor to Peacock, 22 January 1926. For wages account see: BoE, SMT 8/3, Peacock to Travers, 18 November 1925; *Ibid.*, Deputy Governor, Leese, Taylor and Travers Meeting, 18 December 1925; BoE, SMT 8/4, Travers to Harrison, 1 February 1926; *Ibid.*, Harrison to Travers, 5 February 1926. For contracting department instructions: BoE, SMT 8/4, Travers to Harrison, 10 February 1926.

<sup>66</sup> BA, 204565, Taylor and Garnsey Report, 30 March 1926. To ensure secrecy, a hand-picked staff printed this report (BoE, SMT 8/7, Travers to Taylor, 4 August 1926).

<sup>67</sup> BoE, SMT 8/6, Taylor and Garnsey Report Precis, 6 April 1926.

<sup>68</sup> BoE, SMT 8/5, Meeting at Bank, 14 April 1926. For the Pearson Knowles and Partington acquisitions, see Warren, *Armstrongs*, p.198.

<sup>69</sup> BoE, SMT 8/6, Meeting at Bank, 28 April 1926; BoE, SMT 8/10, Ingall to Peacock, 17 December 1926. For later Pearson and Partington developments, see: Tolliday, *British Steel*, pp.211-21.

Bank of England, meanwhile, was able to convince the Commercial Bank of Scotland not to force the repayment of its £189,000 debt from Armstrong's construction subsidiary.<sup>70</sup> Taylor believed that no other banks were likely to cause major trouble over guarantees and unsecured loans, but, according to Peacock, 'he guards himself by saying that he never feels quite sure that he has got to the bottom of things and is constantly having unpleasant surprises.'<sup>71</sup> This was potentially embarrassing for the Bank of England. In its role as the central bank it told other banks not to prop up failing firms, instead suggesting that such enterprises should either reorganise themselves or go bankrupt.<sup>72</sup> Yet the Bank ignored its own advice in an effort to protect its investment and increasingly intervened to help Armstrong, its commercial banking customer, fight off receivership.

Taylor's revelations caused considerable surprise at the Bank of England and forced it to take an increasingly dictatorial line towards its ailing customer. On 3 April 1926 Anderson, now deputy governor at the Bank, wrote that Armstrong was 'in about as bad a mess as it is possible to conceive' and that it should 'face the music' and undergo 'complete reconstruction'.<sup>73</sup> From the outset, Taylor had recommended an infusion of new blood into the jaded Armstrong board.<sup>74</sup> He now wrote to Peacock that 'for some time the "sins" of the Management, or mis-management, must bear fruit. The seed has been sown and the crop is inevitable.'<sup>75</sup> Peacock duly told the Bank that a change of Armstrong's executive was imperative.<sup>76</sup> Subsequently, the firm's directors, with the exception of Taylor, were usually left out of high-level discussions concerning the company's future direction.

From mid-April to mid-May, with a two-week delay owing to the General Strike, the Bank of England and Barings, with input from Taylor and Garnsey, made several critical decisions about Armstrong's future.<sup>77</sup> In terms of personnel,

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<sup>70</sup> BoE, SMT 8/7, Meeting at Barings, 24 June 1926.

<sup>71</sup> BoE, SMT 2/126, Peacock to Norman, 8 November 1926.

<sup>72</sup> For an idea of this, see Tolliday, *British Steel*, p.182.

<sup>73</sup> BoE, SMT 8/5, Deputy Governor Memorandum, 3 April 1926.

<sup>74</sup> BoE, SMT 8/3, Norman Meeting with Taylor (Draft), 28 September 1925 (this was Norman's first meeting with Taylor).

<sup>75</sup> BoE, SMT 8/5, Taylor to Peacock, 1 April 1926.

<sup>76</sup> BoE, SMT 8/5, Meeting at the Bank, 14 April 1926.

<sup>77</sup> Unless otherwise specified, this paragraph is based on: BoE, SMT 8/5, Meeting at the Bank, 14 April 1926; SMT 8/6, Taylor and Garnsey to Barings, 23 April 1926; Meeting at the Bank, 28

they decided Taylor would continue to act behind the scenes as the company's chairman of finance while West should step down as chairman. West concurred in this decision although he suggested that Taylor's prognosis was 'over gloomy'. Norman asked Lord Southborough, an Armstrong director and formerly the Permanent Secretary of the Board of Trade, to replace West, as he was considered better equipped to handle the shareholders. Southborough had also sat on the Board of the Admiralty at the outbreak of war in 1914 and apparently remained 'hand in glove' with his former employers, which had a possible utility for Armstrong's armaments business.<sup>78</sup> In terms of further assistance, the Bank crucially decided to continue supporting Armstrong until 1 April 1927, to give it a chance at reconstruction. The alternative was receivership, which would almost certainly have resulted in the loss of all government naval contracts, which remained Armstrong's primary source of income.

The General Strike and ongoing coal dispute reduced Armstrong's profitability for 1926 and early 1927 and, while it was hard to measure the exact damage, fuel and power alone cost an extra £70,000.<sup>79</sup> It also meant that insufficient steel was available to begin shipbuilding contracts.<sup>80</sup> In October 1926 Alfred Cochrane at the Openshaw works wrote that the 'general effect of the Dispute is now disastrous to us, as our orders are falling off on all sides, and our work everywhere is held up.'<sup>81</sup> The ongoing problems worried Taylor, who had 'excepted major contingencies in the nature of strikes' when making predictions about Armstrong's future prospects.<sup>82</sup>

The Bank of England and its advisers had engineered West's departure and had stated their commitment to keeping Armstrong afloat for another year. To ensure the company used this period of grace to implement reconstruction, the Bank demanded the immediate appointment of an advisory committee of eminent men from the commercial and financial world, to oversee the resignation of the disillusioned and elderly directors and the transition to a reorganised Board, while the specialists, such as Taylor, continued to investigate the possibilities of

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April 1926; *Ibid.*, Norman Notes for Southborough Meeting, 30 April 1926; *Ibid.*, Meeting at Barings: Revelstoke, Peacock and West, 14 May 1926.

<sup>78</sup> BoE, SMT 8/3, Meeting: Deputy Governor, Peacock and Travers, 27 October 1925.

<sup>79</sup> TWAS, 130/1461, Armstrong General Meeting, 9 June 1927.

<sup>80</sup> BoE, SMT 8/8, Taylor to Peacock, 25 August 1926.

<sup>81</sup> BoE, SMT 8/9, Cochrane to Taylor, 8 October 1926.

<sup>82</sup> *Ibid.*, Taylor to Peacock, 9 October 1926.

reconstruction.<sup>83</sup> Sir George May, the secretary of the Prudential Assurance Company, chaired the advisory committee, which met between November 1926 and December 1928.<sup>84</sup> Norman also approached Lord Weir, who, despite some initial misgivings, rendered ‘excellent assistance’ to Taylor, although this occurred ‘behind the scenes’ owing to Weir’s dislike of publicity.<sup>85</sup>

Armstrong’s experience with its bankers was not unique amongst the big arms companies. Beardmore’s post-war investments and expansions, guaranteed by Lloyds Bank, had also proved extremely unprofitable during the prolonged post-war depression. The Scottish firm’s liquidity deteriorated rapidly, and it was forced to obtain a £500,000 overdraft from Lloyds. This covered matters until 1926 but anticipated profits failed to materialise and its liabilities totalled £300,000 more than its assets. The National Bank of Scotland and the Royal Bank of Scotland were also involved, and the three banks decided to make no further money available until the company took steps to reconstruct its management and finances. Therefore, Beardmore’s board appointed Sir William McLintock, an accountant, as the chairman of a committee to examine the position. In October 1926 McLintock reported that the firm’s overvalued assets were only worth about £900,000 in reality, and were completely offset by £4 million of outstanding current liabilities.<sup>86</sup> Besides the Scottish banks and Lloyds, its creditors also included the War Office and Treasury.<sup>87</sup> This was the ‘worst crisis’ in Beardmore’s history and, after unsuccessfully applying for government aid at the end of 1926, the banks appointed an investigative committee, headed by Frederick Szarvasy, the chairman of the British Foreign and Colonial Corporation. The committee also comprised Sir Gilbert Garnsey, William Paine, the joint general manager of Lloyds Bank, and P. E. Marmian, an engineer and director of the Burmah Corporation. Through this process, the banks seized the initiative from Beardmore’s directors.<sup>88</sup>

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<sup>83</sup> BoE, SMT 8/6, Barings to Armstrong, 14 May 1926; *Ibid.*, Bank Note, 18 May 1926. For a sense of the torpor of Armstrong’s board, see: *Ibid.*, Southborough to Peacock, 19 May 1926.

<sup>84</sup> BA, 204565, May Committee Minute Book, 26 November 1926-18 December 1928. The Committee comprised Sir George May, A. H. Campbell, J. H. Clifford-Johnston, R. P. Sloan, J. Proctor Green and J. Frater Taylor.

<sup>85</sup> BoE, SMT 8/6, Weir to Norman, 19 May 1926 and 24 May 1926; TWAS, 130/1269, Armstrong Board Minutes, 4 June 1926; BoE, SMT 2/126, Peacock to Norman, 8 November 1926.

<sup>86</sup> Hume and Moss, *Beardmore*, pp.172-99.

<sup>87</sup> BoE, SMT 3/121, Memorandum on Beardmore, n.d. [c. early 1930].

<sup>88</sup> Hume and Moss, *Beardmore*, pp.200-202.

The failure of diversification and poor trading conditions of the early 1920s helped expose the internal shortcomings of individual arms companies. The firms were subsequently forced to reject their outdated administrative structures, clear out their old boards of directors, and adopt modern and efficient managerial methods under the guidance of forward-thinking individuals with backgrounds in accounting and finance. Diversification had contributed towards enormous losses and debts, which led to various banks playing a more active role in their customers' affairs. As a result, virtual control of Armstrong and Beardmore, two of Britain's largest arms manufacturers, had passed into the hands of their bankers by the end of 1926. In Armstrong's case, this was especially significant because it held a commercial account with the central bank, which had a great deal more influence than normal clearing banks but was also subject to much greater domestic and international scrutiny. To prevent its customer collapsing, the Bank of England was initially content to simply dictate the pace and general direction of Armstrong's reorganisation but, faced with fierce competition in the arms market, the Bank soon found itself taking more of an active interest in the firm's business.

**Table 4: Armstrong's Labour Force, December 1923 – March 1925**

	<i>31 Dec. 1923</i>	<i>31 Dec. 1924</i>	<i>31 Mar. 1925</i>
Elswick & Close works (ordnance, other heavy engineering)	5,513	8,705	10,157
Scotswood (locomotives, shells, fuses)	1,359	2,857	3,107
Shipyards	3,299	5,497	5,470
Openshaw (armour plate, ordnance, other heavy engineering)	2,658	2,624	2,738
<b>Total</b>	<b>12,829</b>	<b>19,683</b>	<b>21,472</b>

Source: BoE, SMT 8/1, Numbers of Personnel Employed by Armstrong Whitworth, n.d. (Figures of the Civil Engineering Contracting and Hydro-Electric Departments and the London Office are excluded from totals.)

## A Return to Arms

By the mid-1920s it was clear that armament factories were not readily adaptable to successful commercial applications and the *Financial Times* concluded that the failure to convert to peacetime production ‘far from being surprising, was inevitable.’<sup>89</sup> A subsequent article in *The Banker* suggested one difficulty was that while ‘Admiralty work [...] requires the greatest precision of workmanship, commercial work demands intense swiftness of output to meet competition, and such chopping and changing reacts unfavourably on workmen’.<sup>90</sup> In mitigation, the government’s stated policy of demobilisation and disarmament had indicated that the move away from armaments was a sensible route, while the post-war economic slump had also made life more difficult. In December 1926 Sir Edwin Cornwall admitted Armstrong’s board had clearly lacked foresight and judgement when confronting the post-war situation, but still suggested that the directors had ‘embarked on a bold, far-reaching policy which, if the world recuperation of trade had been rapid, might have resulted differently.’<sup>91</sup> However, rather than pondering what might have been, each firm had to face up to the consequences of their failing businesses and devise recovery strategies.

Armstrong’s managerial changes during the spring and summer of 1926 signalled the end for its diversification projects, and the firm subsequently refocused on armaments and engineering. The widespread belief that armaments were not going to be a profitable source of post-war income had initiated the rush for diversification. Ironically, armaments now seemed to offer a way out of Armstrong’s troubles. A certain amount of arms work was available and, in the mid-1920s, Armstrong’s traditional works showed an improving level of employment (Table 4). By way of comparison, Armstrong employed a total of 25,561 workers in November 1913, 47,583 in July 1915 and 78,000 in November 1918.<sup>92</sup> In March 1925, its traditional business was employing only 4,000 fewer workers than in the winter before the war. Nonetheless, the firm’s internal problems meant that much of this work was unprofitable and its position remained far from secure.

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<sup>89</sup> *Financial Times*, 9 June 1926.

<sup>90</sup> Quoted in BoE, SMT 8/8, Stewart to Taylor, 30 August 1926. Both agreed with the article.

<sup>91</sup> BoE, G 14/64, Armstrong Meeting, 22 December 1926.

<sup>92</sup> Warren, *Armstrongs*, pp.191-92.

Taylor requested that the firm avoid any new or unfamiliar business and he called for an intensive management of the core works at Newcastle, using existing plant as far as possible. He reflected that the arms industry's 'special nature' meant that practical advice could only be obtained from rival companies.<sup>93</sup> In particular, Vickers provided a comparatively successful example of a firm which had shifted its focus away from a diverse range of subsidiary interests and back towards arms production.<sup>94</sup> General Lawrence made this volte-face clear, in his guarded speech to Vickers' 1927 annual meeting: 'it is no good disguising the fact that we are an armament firm, dependent very largely on armament orders'.<sup>95</sup> Similarly, Southborough had informed Armstrong's shareholders in December 1926 that the board aimed to dispose of the company's subsidiary interests, which had proved such a 'strain and drain', and would henceforth concentrate on the promising signs for its armament business.<sup>96</sup> Taylor, in a letter to Peacock, put it more bluntly: 'Without armament work, more particularly gun-mountings, Armstrongs cannot exist.'<sup>97</sup>

Although Taylor believed in the possibility of Armstrong's recovery, the company's increasingly public difficulties threatened its armament business. Southborough outlined the firm's troubles at its well-attended and widely-reported annual meeting on 8 June 1926. Although he briefly mentioned the Bank's continued support, several shareholders criticised the departing directors as 'rats getting away from a sinking ship'.<sup>98</sup> Armstrong's share price, as high as 12 shillings earlier in the year, fell by a further sixpence to 5s 6d.<sup>99</sup> The Admiralty, Armstrong's biggest customer for armaments, subsequently made concerned enquiries about the firm's ability to fulfil its contracts. In particular, it wanted definite guarantees that its orders would be carried out. However, Norman felt that it was unreasonable for the Bank of England, which had provided more limited guarantees in the past, to commit itself any further.<sup>100</sup>

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<sup>93</sup> BoE, SMT 8/6, Taylor Memorandum, 20 April 1926.

<sup>94</sup> See: Scott, *Vickers*, pp.160-61; Davenport-Hines, *Dudley Docker*, p.174.

<sup>95</sup> *Vickers News* (Jun. 1927), p.348. He also recognised such orders were scarce.

<sup>96</sup> BoE, G 14/64, Armstrong Meeting, 22 December 1926. For Armstrong's desire to concentrate on 'manufactures which truly fall within the Company's scope and capacity' see: TWAS 130/1303, Armstrong Management Committee: Memorandum, 17 August 1926.

<sup>97</sup> BoE, SMT 2/126, Taylor to Peacock, 27 December 1926.

<sup>98</sup> *Daily Mail*, 9 June 1926; TWAS, 130/1460, Armstrong General Meeting, 8 June 1926.

<sup>99</sup> *Manchester Guardian*, 10 June 1926.

<sup>100</sup> BoE, SMT 8/8, Meeting at the Bank, 16 September 1926.

To address these issues Southborough met with William Bridgeman, the First Lord of the Admiralty; Admiral Sir Ernle Chatfield, the Third Sea Lord; and Sir Vincent Baddeley, the First Principal Assistant Secretary to the Admiralty, while Garnsey subsequently met with Chatfield and Baddeley. The naval members of the Admiralty, represented by Chatfield, appeared genuinely concerned about the possibility of Armstrong's armament works shutting down, and Garnsey attempted to reassure them that, even under the worst possible conditions, these would be the last parts of the business to close. On the other hand, the civil service side, represented by Baddeley, wanted full protection in order to avoid awkward questions in the House of Commons if contracts were awarded to a company that subsequently went into receivership. Garnsey pointed out that if future work was contingent on guarantees, it would mark the end of Armstrong. Although this statement apparently made a 'deep impression', Garnsey felt that Baddeley's attitude would not change unless some extra influence was brought to bear.<sup>101</sup> Baddeley raised the question again in August, and the Bank of England noted that the kind of guarantee he sought, if underwritten by Lloyds of London, would swamp Armstrong's profits: on the other hand, Beardmore and the Thames Ammunition Works (a Vickers subsidiary) had provided the Admiralty with guarantees, either personal or underwritten by Lloyds.<sup>102</sup> Peacock, apparently as a result of his 'good offices' with Baddeley, eventually staved off the Admiralty's need for immediate guarantees on a contract worth £800,000, but the whole affair riled Armstrong and added to the sense that the private arms industry was handicapped by apathetic civil servants.<sup>103</sup> More controversially, Armstrong subsequently pursued the idea that its bankers could use their political influence more overtly in the firm's favour.

In August 1926 Taylor asked Peacock directly about the possibility of concerted action to obtain prospective government work. Armstrong particularly hoped to obtain an Admiralty contract for a floating dock, and Taylor wondered if it was 'possible through our various friends, including the Bank, to get the

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<sup>101</sup> BoE, SMT 8/7, Taylor to Barings, 29 June 1926; BoE, SMT 8/8, Garnsey to Taylor, 24 June 1926; *Ibid.*, Southborough Memorandum, 25 August 1926.

<sup>102</sup> *Ibid.*, Branch Banks Office Notes on Southborough Memorandum, 28 August 1926.

<sup>103</sup> BoE, SMT 8/9, Meeting at Bank of England, 28 October 1926.

Government to assist our situation deliberately.’<sup>104</sup> Peacock was receptive to this idea and subsequently told a meeting at the Bank that he wanted to see the government adopt a different approach towards Armstrong because it and Vickers were the only firms able to complete the biggest armament contracts. He suggested that the Bank of England and Barings should attempt to bring about this change of attitude, especially given Armstrong’s efforts to reorganise itself.<sup>105</sup> Southborough pointed out that Winston Churchill, the Chancellor of the Exchequer, possessed a deep knowledge of Admiralty procedure and suggested that this would be an advantage, given how closely the Admiralty’s civil servants were connected to the Treasury.<sup>106</sup> Norman was aware of these developments and generally agreed with the idea of approaching the government.<sup>107</sup> Taylor believed that the firm’s previous experience in dock building, combined with the authority of Norman and Peacock, would negate the fact that Armstrong’s tender for the floating dock was £20,000 higher than other quotations and on 16 September this trio agreed to consider the ‘exercise of concerted action with a view to procuring Government contracts for Armstrongs.’<sup>108</sup> Although the Bank was motivated neither by altruism nor concerns over national defence, this was only the beginning of Threadneedle Street’s unorthodox, unprecedented and, to some extent, unintended involvement in the wider fortunes of the arms industry, a development with potentially awkward and scandalous consequences for the central bank. Yet the greater Armstrong’s difficulties became, the harder it was for the Bank to contemplate abandoning the company.

The Bank’s primary motivation remained its desire to salvage some of its losses. Taylor, by this point, admitted that he had witnessed many company troubles, but had ‘never seen anything approximating the condition of affairs in Armstrongs.’<sup>109</sup> Armaments were now the predominant hope and Taylor felt that approaching the government in this regard was in the Bank’s own interest. He suggested Norman should put the matter before the Prime Minister without delay,

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<sup>104</sup> BoE, SMT 8/8, Taylor to Peacock, 24 August 1926. For further pleas, see: *Ibid.*, Taylor to Peacock, 26 August 1926, 8 and 10 September 1926.

<sup>105</sup> *Ibid.*, Meeting at the Bank, 25 August 1926.

<sup>106</sup> *Ibid.*, Southborough Memorandum, 25 August 1926.

<sup>107</sup> *Ibid.*, Travers Memorandum, 30 August 1926; *Ibid.*, Travers to Peacock, 3 September 1926.

<sup>108</sup> *Ibid.*, Meeting at the Bank, 16 September 1926.

<sup>109</sup> *Ibid.*, Taylor to Peacock, 10 September 1926.

emphasising the national importance of the business.<sup>110</sup> Norman and Peacock decided that the Prime Minister should not be approached at this stage, though Norman agreed to call on the Treasury.<sup>111</sup> On 21 September he had a long talk with George Barstow, the Treasury Controller of Supply, and bluntly informed him that if Armstrong stood no chance of obtaining profitable work, he would recommend that the firm close its yards and workshops. As a result, Barstow promised to make discreet enquiries.<sup>112</sup> Meanwhile, Southborough wrote to Bridgeman about his 'vain delusion' that his connections to the Admiralty might have been of some use. Both Norman and Southborough tried to make the government appreciate the political and economic consequences if the firm collapsed: that the state would presumably have to establish replacement facilities in its place; that other industrial concerns would also be seriously affected; that both Newcastle and the shareholders would face hardship; and that Armstrong's enormous liabilities to other banks would create difficulties. Despite these pleas, 'not a finger' was lifted in response.<sup>113</sup> When it emerged that Armstrong had not obtained the floating dock contract, Taylor wrote that the government clearly did not appreciate the situation.<sup>114</sup> Indeed, this experience only reinforced the sense that the state was uninterested in the fate of the specialist manufacturers.

In the face of the government's apparent indifference, Armstrong's financial situation grew increasingly urgent. Taylor, now the firm's acting deputy chairman, produced a second report with Garnsey in November, which gloomily stated that 'some matters have turned out to be worse than we expected.'<sup>115</sup> Armstrong could not offer further securities and its subsidiary interests continued to leak money. To meet its predicted losses, the company required up to £500,000 in further financial assistance. In December it declared a five-year moratorium on its debentures and notes, which suspended some of its debt and provided some breathing space.<sup>116</sup> Yet, in spite of Armstrong's poor position, the Bank was forced to keep it going and Norman promised Southborough that it would

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<sup>110</sup> Ibid., Taylor to Peacock, 17 September 1926.

<sup>111</sup> Ibid., Note on Norman Meeting with Peacock, 20 September 1926.

<sup>112</sup> Ibid., Norman to Peacock, 21 September 1926.

<sup>113</sup> BoE, SMT 8/9, Southborough to Bridgeman, 8 October 1926.

<sup>114</sup> Ibid., Taylor to Peacock, 11 October 1926. He again suggested approaching the Prime Minister.

<sup>115</sup> BA, 204565, Taylor and Garnsey: Final Report, 27 November 1926.

<sup>116</sup> Scott, *Vickers*, p.163; BoE, G14/64, Armstrong Meeting, 22 December 1926.

continue to look after its 'old friends'.<sup>117</sup> Meanwhile, important contracts were in hand, not least for the Admiralty; and Newfoundland, despite its losses, was worth far too much to simply abandon.<sup>118</sup> Armstrong therefore still required further assistance, even though its total commitments stood at £6.5 million.<sup>119</sup> There were few positives although, following the passage of the moratorium, Armstrong's credit improved and the Bank began to reconsider the matter of guarantees for arms contracts.<sup>120</sup>

Armstrong and its bankers viewed 1927 as a crucial test of the firm's viability and it therefore needed a certain amount of work to tide it over. To obtain orders, the Bank of England was willing to put the case before various civil servants and other officials as an issue of national importance, although it held back from ministerial enquiries at this point. Admittedly, it was not trying to create unnecessary armament orders but was attempting to ensure that contracts went to the company in which the Bank had a vested interest. However, these efforts did little except reveal Whitehall's lack of concern towards Armstrong's plight and Taylor lamented that there appeared to be 'a cross current' against Armstrong at the Admiralty.<sup>121</sup> More fundamentally, although arms firms were undergoing individual reorganisation, it was increasingly clear that the existing structure of the industry was unsuited for post-war conditions.

### **Rationalisation and the Arms Industry I: Theory, Enquiries and Technicalities**

Armstrong's survival hinged on its ability to remain an armaments manufacturer, but it faced a powerful competitor in Vickers, whose reorganisation had already begun to take effect. In searching for ways of reducing the intense competition of the arms market, the two firms encountered the concept of 'rationalisation'. Borrowed from the economic phraseology of post-war Germany (*Rationalisierung*), the term described a method of reorganisation designed to reduce unnecessary costs. The war left many industries with vast surplus capacity

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<sup>117</sup> BoE, SMT 8/10, Norman to Southborough, 23 December 1926. Also: *Ibid.*, Mahon to Armstrong, 9 December 1926.

<sup>118</sup> Clay, *Norman*, p.320.

<sup>119</sup> BoE, G14/64, Committee of Treasury Minutes, 30 December 1926.

<sup>120</sup> BoE, SMT 8/10, Meeting at the Bank, 17 March 1927; *Ibid.*, Travers to Hawson, 12 and 28 April 1927.

<sup>121</sup> BA, 200279, Taylor to Peacock, 9 March 1927.

and the subsequent market contraction caused a desperate scramble for orders. This resulted in depressed prices, increased costs and losses or low profits. It also prevented the replacement of obsolescent plant, which further decreased competitiveness. Rationalisation, by means of horizontal amalgamations and the formation of cartels to regulate production, aimed to eliminate unnecessary and wasteful competition and encourage wide-ranging economies.<sup>122</sup> This appeared an appropriate solution for British industry, which had generally endured a painful readjustment to peacetime conditions, and it seemed almost ideal for the over-expanded arms manufacturers in particular. For example, much of their extra wartime capacity had simply been ‘tacked on’ to existing plant, which worked against the formation of large-scale modern productive units.<sup>123</sup> Rationalisation also complemented the tendency amongst individual arms firms, particularly evident prior to 1914, towards forming ‘rings’ and combinations in order to defend themselves against unpredictable demand.<sup>124</sup> Moreover, the bankers and industrialists involved in the project mistakenly believed that the government, in its desire to find a solution for the country’s wider industrial problems, would actively support their efforts to rationalise an important sector of the economy.

In April 1926 Taylor suggested that Armstrong and Vickers should pool their ordnance work, as both firms faced several years of insufficient orders.<sup>125</sup> He subsequently asked Jenkinson, during a lengthy conversation on 18 June, whether a complete fusion of Vickers and Armstrong was feasible. Jenkinson replied that it was out of the question although he agreed with the possibility of an armaments agreement. Taylor perhaps displayed too much eagerness, as Jenkinson wrote to Docker that ‘it will pay us [Vickers] better not to hurry negotiations, as it is very evident that he would like to get something settled very quickly.’<sup>126</sup>

In August Peacock wondered if and when Vickers and Armstrong should approach the government with the suggestion of an arms pooling agreement. Lawrence was apparently receptive to the idea and, in passing, Peacock also mentioned that there ‘had always been an agreement’ between the two firms although this was not generally known and risked prejudicing both companies in

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<sup>122</sup> *The Times*, 12 May 1930; Clay, *Norman*, pp.356-57.

<sup>123</sup> Wrigley, ‘Ministry of Munitions’, p.47.

<sup>124</sup> See Trebilcock, ‘Legends’, 13-15.

<sup>125</sup> BoE, SMT 8/5, Meeting at Bank, 14 April 1926.

<sup>126</sup> CUL, VMF R321, Jenkinson to Docker, 18 June 1926.

the government's eyes.<sup>127</sup> It is unclear which particular arrangement he meant: certainly, the two companies had exchanged weapons designs since 1902 and had formulated a global market-sharing agreement in 1906.<sup>128</sup> Peacock arranged further talks between Taylor and Jenkinson in late 1926 during which they crucially agreed that a merger of Vickers' and Armstrong's armament works could set the arms business on a more rational footing.<sup>129</sup> However, the working out of the detailed arrangements and actually coming to a firm agreement took a further year of negotiations.

Norman, Peacock and Taylor all felt that the preliminary discussions contained 'too much Vickers' although they believed that this could be dealt with.<sup>130</sup> Nonetheless, at the end of December 1926, Taylor recognised that Vickers had the resources to 'stand a prolonged siege' while Armstrong, faced with receivership, did not. To avoid selling Armstrong's birthright 'for a mess of pottage', he mooted the idea of establishing a new company to take over both firms' armaments business.<sup>131</sup> Lawrence initially thought this plan was 'quite unfeasible' but intimated his agreement in January after consulting his experts.<sup>132</sup> The task of reconciliation subsequently proved an immense burden and even the normally indefatigable Taylor complained of overwork by the end of January. With Jenkinson falling ill, Taylor worried that 'the human machine may break down.'<sup>133</sup>

While the technical negotiations provoked a range of disagreements, both sides agreed that the government's attitude was critical. On 11 January Lawrence suggested approaching the government as soon as possible, as any merger agreement would require its concurrence and assistance.<sup>134</sup> Revelstoke at Barings subsequently wrote to Southborough that 'it might be necessary to ask the

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<sup>127</sup> BoE, SMT 8/8, Meeting at Bank, 25 August 1926.

<sup>128</sup> For pre-1914 agreements, see Trebilcock, 'Legends', 13.

<sup>129</sup> BoE, SMT 2/126, Jenkinson to Taylor, 16 November 1926; Peacock to Norman, 10 December 1926. Also: *Ibid.*, Revelstoke to Southborough, 12 January 1927.

<sup>130</sup> BA, 200279, Norman to Peacock, 11 December 1926; BoE, SMT 2/126, Peacock to Norman, (enclosing Taylor to Peacock), 16 December 1926.

<sup>131</sup> *Ibid.*, Taylor to Peacock (and attached Norman Note), 27 December 1926. To preserve secrecy, Taylor's daughter wrote this letter.

<sup>132</sup> BA, 200279, Peacock to Revelstoke, 22 December 1926; BoE, SMT 2/126, Lawrence to Barings, 11 January 1927.

<sup>133</sup> BoE, SMT 2/126, Taylor to Peacock, 25 January 1927.

<sup>134</sup> *Ibid.*, Lawrence to Barings, 11 January 1927.

Government to become a party to the scheme.’<sup>135</sup> Yet, even though the arms industry possessed a unique historical relationship with the state, the decision to make government support a precondition risked endangering the entire project. Although the Great War and post-1918 changes in the world economy had helped to redefine the relationship between industry and the state, most politicians, particularly Conservatives, generally adhered to the Treasury’s orthodox line and remained reluctant to subsidise failing industries.<sup>136</sup>

Southborough was apprehensive of the possible reaction and attendant publicity if the government was asked to provide assistance, and he worried that any attempt to proceed by Bill would ‘give opportunity for endless discussion on all sorts of delicate subjects, involving peace and war, armament, finance, labour, wages, and in fact everything most embarrassing to the Parliamentary mind.’<sup>137</sup> Norman, Revelstoke, Peacock, Southborough, Lawrence, Taylor and Jenkinson subsequently formed a committee to decide the best way to approach the government.<sup>138</sup> When rumours about the merger began to appear in the press at the start of March, the group agreed that Norman and Revelstoke should see the Prime Minister and Lord Balfour, the Lord President of the Council, as soon as possible, while Sir Arthur Trevor Dawson of Vickers, and Tennyson d’Eyncourt, who had joined Armstrong’s board after leaving the Admiralty in 1924, should approach Bridgeman and Worthington-Evans. The idea was to make the government aware that conversations between the two companies were in progress, but to avoid anything resembling a formal approach and, most importantly, not to mention the question of assistance.<sup>139</sup> These overtures were made without difficulty and Peacock wrote on 10 March that ‘the first round has been completed, I think not unfavourably.’<sup>140</sup>

Meanwhile, a joint committee, composed of technical and financial representatives from each firm and chaired by Sir William Plender, was formed in January 1927 to inspect and calculate the respective values of the works proposed

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<sup>135</sup> Ibid., Revelstoke to Southborough, 12 January 1927.

<sup>136</sup> Tolliday, *British Steel*, Ch. 12, esp. p.294.

<sup>137</sup> BA, 200279, Southborough to Taylor, 14 January 1927.

<sup>138</sup> BoE, SMT 2/126, Joint Technical Committee Meeting, 17-18 February 1927.

<sup>139</sup> Ibid., Special Committee Meeting at the Bank, 4 March 1927. For press speculation, see: *Daily Express*, 2 March 1927; *Westminster Gazette*, 2 March 1927. For a rebuttal, see *The Times*, 3 March 1927.

<sup>140</sup> BoE, SMT 2/126, Peacock to Norman, 10 March 1927. See also Ibid., Peacock to Norman, 7 and 8 March, with Norman’s pencil notes.

for fusion.<sup>141</sup> To try and improve Armstrong's standing, Taylor appealed to the company's managers to show 'increased energy'.<sup>142</sup> Nonetheless, the inspections highlighted the gulf between the two parties. Vickers had already successfully applied some of the principles of rationalisation to its own works, most notably demonstrated by Craven's reorganisation at Barrow-in-Furness. This process, begun in 1924, had centralised and concentrated Barrow's operations. It had involved initial drastic staff reductions but, by reducing the cost of production and consequently obtaining more foreign orders, the ultimate result was a rise in the workforce from 5,000 in 1923 to 12,500 by 1929, although Craven estimated the works could reasonably employ 15,000 and noted the prospects for government work remained uncertain. Nonetheless, he proudly wrote: 'the fact we have obtained orders in a very competitive market and have built some of the finest passenger ships since the War shows that considerable reorganisation must have taken place.'<sup>143</sup> Indeed, during the technical inspections in February 1927, James Stewart, the head of Armstrong's shipyard, noted Barrow's superiority in plant and organisation, and enviously described it as 'one of the most valuable and best laid out 100 acres that you can find in the engineering world.'<sup>144</sup> Norman understandably wished to stifle such views, and recommended an anaesthetic for Stewart.<sup>145</sup>

More seriously, Taylor shared Stewart's view that, in comparison, Armstrong's core works at Elswick were inefficient, that Openshaw was 'pathetic' and that 'Vickers' men' were of a higher calibre.<sup>146</sup> On the other hand, Tennyson d'Eyncourt wrote several months later that he had 'often heard Vickers directors say that they had made a great mistake when they chose Barrow as their site', owing to its inadequate depth of water for the construction of big ships. He further stated that Armstrong, along with Harland and Wolff at Belfast were the most capable yards for constructing bigger hulls, and pointed out that Tyneside was considerably less isolated than Barrow which meant Armstrong could more

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<sup>141</sup> Ibid., Revelstoke to Southborough, 12 January 1927; Ibid., Trotter Secret Memorandum, 13 January 1927; BA, 200279, Memorandum for the Joint Committee, n.d. [c. January 1927].

<sup>142</sup> Ibid., Taylor to Hadcock, d'Eyncourt, Hitchins and Davison, 24 January 1927.

<sup>143</sup> BoE, SMT 2/127, Craven to Lawrence, 4 January 1929.

<sup>144</sup> BoE, SMT 2/126, Stewart to Davison, 15 February 1927.

<sup>145</sup> Ibid., Norman to Peacock, 24 February 1927.

<sup>146</sup> BA, 200279, Taylor to Peacock, 12 February 1927; Ibid., Taylor Confidential Memorandum, 28 February 1927.

easily discharge and re-engage men during fluctuations of work.<sup>147</sup> Of course, this did not change the fact that Barrow was particularly well adapted for the kinds of ships that the government actually ordered in the 1920s. In April 1927 Taylor believed that Vickers knew it only had to wait patiently to achieve its goals and feared that it was cutting its prices to bring the time of reckoning closer. He therefore hoped that the ‘notoriously slow’ Plender would be ‘seized with the importance of speed insofar as Armstrong are concerned.’<sup>148</sup> There is an interesting parallel here with the 1911 observation of Stuart Rendel, a pre-war Armstrong director who feared the firm was ‘being slowly starved and boiled down, so that Vickers can better swallow and digest us.’<sup>149</sup>

The initial technical investigations were completed quickly and the joint committee’s report was forwarded to Plender on 18 February 1927. This outlined Armstrong’s and Vickers’ main activities (see Appendix III), recognised that both companies were dependent on ordnance work and naval shipbuilding, and stated that their combined capacity in these areas far exceeded current demand. For purposes of reorganisation, the report suggested that ‘it is both possible to close certain Works and to effect certain concentrations with consequent substantial savings in view.’ The benefit from such measures would not be instantaneous but would ‘probably extend over a number of years in a gradually increasing ratio.’ Armstrong’s works at Scotswood, Gateshead and the commercial Walker shipyard were not considered, owing to their predominantly non-armament character.<sup>150</sup> The two firms agreed that if terms could be arranged, fusion was desirable, and would, after three years of adjustment, save £500,000 annually under existing trade conditions.<sup>151</sup> There appeared plenty of scope for a successful rationalisation project.

### **Rationalisation and the Arms Industry II: A National and Rational Scheme?**

Sir William Plender’s preliminary report was not ready until the beginning of June, much to Taylor’s frustration. The delay resulted from unforeseen difficulties in unravelling the two firms’ accounts, during which time Travers had to reassure

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<sup>147</sup> Quoted in Davenport-Hines, ‘Armaments Industry’, p.18.

<sup>148</sup> BoE, SMT 8/36, Taylor to Peacock, 8 April 1927.

<sup>149</sup> Quoted in Warren, *Armstrongs*, p.100.

<sup>150</sup> BoE, SMT 2/126, Joint Technical Committee to Plender, 18 February 1927.

<sup>151</sup> *Ibid.*, Committee Minutes, 17-18 February 1927.

Peacock that Vickers remained as keen for the fusion as Armstrong.<sup>152</sup> Nonetheless, Taylor was uneasy that Armstrong was qualitatively slipping behind and fretted the end would not be ‘difficult to guess’ if this caused the firm to lose the Admiralty’s support.<sup>153</sup> Indeed, at the end of June, Baddeley supplied Peacock with an unofficial and confidential Admiralty note criticising the management, delays and quality of Elswick’s gun-mounting department.<sup>154</sup> Therefore, a great deal rested on Plender’s report and the government’s response. Southborough observed that Plender’s calculations were ‘unflattering to Armstrong’, but he admitted the firm had little choice but to go along with the scheme or risk a fatal campaign of competition against Vickers. He also noted that ‘if we stand out of the policy of fusion, which is favoured by the Financial Powers, we shall lose a great deal of the friendly interest we have with the big people in the City.’<sup>155</sup> All of this amounted to a peculiar convergence of the military, financial and industrial worlds and also meant that the Armstrong’s fate now rested on decisions made in Whitehall, the City of London and the boardroom of its old rival, Vickers. The question remained to what extent the government wished to become involved in the future of the arms industry.

Plender discussed his findings with Lawrence, Jenkinson, Taylor and Peacock, and finalised a memorandum which Norman formally distributed to the Prime Minister’s office, the Treasury, the Board of Trade and Sir Maurice Hankey on 22 June 1927.<sup>156</sup> In his accompanying letters to Churchill and Sir Philip Cunliffe-Lister, the President of the Board of Trade, Norman emphasised the principle of rationalisation. Meanwhile, Lawrence and Peacock discussed the proposals in person with Sir Laming Worthington-Evans, the Secretary of State for War, and Sir Samuel Hoare, the Air Minister. However, William Bridgeman’s participation in the Geneva Naval Conference meant they only saw an Admiralty representative.<sup>157</sup> Norman appears to have believed in the possibility of state assistance and told Peacock that it was essentially a matter of tactics. Moreover, Peacock and Lawrence had faith in Norman’s ability to influence both the Prime Minister and Treasury, with whom the Governor had held ‘entirely unofficial’

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<sup>152</sup> BA, 200279, Travers to Peacock, 21 May 1927.

<sup>153</sup> BoE, SMT 2/126, Taylor to Peacock, 1 June 1927.

<sup>154</sup> BA, 200279, Baddeley to Peacock, 29 June 1927.

<sup>155</sup> Ibid., Southborough to Taylor, 21 June 1927.

<sup>156</sup> BoE, SMT 2/126, Peacock to Norman, 1 June 1927; Ibid., Norman Letter, 22 June 1927.

<sup>157</sup> Ibid. Peacock to Norman, 22 June 1927.

interviews before he officially presented them with the merger proposal.<sup>158</sup> Norman also received advice on preliminary drafts of Plender's memorandum from an unnamed 'friend at the Treasury', who was presumably Sir Otto Niemeyer, the Controller of Finance, who subsequently left the Treasury in August to become a director of the Bank.<sup>159</sup> Intriguingly, Niemeyer's departure from the Treasury followed increasing resentment by Churchill about the inflexible attitude of certain individuals at the Bank and on the permanent staff of the Treasury: in particular, Churchill regretted his decision to restore sterling to the Gold Standard on the advice of Norman and Niemeyer.<sup>160</sup>

It is worth looking more closely at the argument of the memorandum handed to the government. It not only offers an insight into the self-identity of two major arms firms after a tumultuous period of reflection and reorganisation, but it also put forward a definite case for the retention of private manufacture, nearly eight years before the Royal Commission's public hearings. Therefore, the government's response to the memorandum was invested with great significance, not just for British industry in general, but also for the relationship between the arms manufacturers and the state.

The memorandum stated that the merger's purpose was 'an attempt to rationalise industry [...] in harmony with the latest recommendation on such subjects, namely the Economic Conference at Geneva. To rationalise industry is surely to maintain it.'<sup>161</sup> It invoked the success of similar policies in the United States and Germany, and suggested the scheme would complement the government's efforts to encourage coal amalgamations. Therefore, Vickers and Armstrong hoped the government would extend the principle of the Trade Facilities Act, which had helped maintain other industries and employment, to meet their needs. To this extent, the scheme appeared to conform to existing thinking and policy regarding industrial reorganisation.

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<sup>158</sup> BA, 200279, Peacock to Taylor, 10 June and 16 June 1927.

<sup>159</sup> Ibid., Peacock to Lawrence, 17 June 1927.

<sup>160</sup> Boyce, *British Capitalism*, pp.137-39.

<sup>161</sup> TNA, T 161/656/S.33094, Plender Memorandum, 22 June 1927. However, Robert Boyce has pointed out that the Industry Committee of the World Economic Conference (May 1927) only 'dealt inconclusively' with rationalisation. (*British Capitalism*, p.121). Indeed, W. Leslie Runciman wrote at the time that the industrial committee was 'on the whole disappointing', resulting in a series of resolutions 'which really amount to very little more than saying that if cartels behave themselves, they may be, in the comparatively limited field where their application is practicable, a good thing.' ('The World Economic Conference at Geneva', *Economic Journal*, vol. 37, no. 147 (Sep., 1927), 468).

More contentiously, the whole approach to the government was based on the ‘thoroughly logical’ argument that it was impossible and unfair to expect Vickers and Armstrong to exist as a ‘National reserve’ in the event of war without reasonable compensation, and that the ‘National character of the new Company must be recognised’.<sup>162</sup> Lawrence had commented in January that, although the amount of armament business was ‘not sufficient to occupy profitably the capacity of either Company’, it was ‘essential that such capacity should be available in the national interests in case of emergency.’<sup>163</sup> Although non-specialist ‘commercial’ factories had manufactured smaller items like shells and cartridge cases in bulk during the war, they could not easily or cheaply convert to the manufacture of larger armaments, such as heavy guns and mountings. Similarly, most commercial shipyards could not be ‘readily adapted’ for warship building. The two firms therefore sought the government’s ‘active cooperation in bringing about what is desirable in the interests of the country and of the Companies alike’. Yet the idea of maintaining uneconomic capacity for national defence purposes conflicted with the pursuit of rationalisation. Indeed, the memorandum recognised that the ‘greatest economy would be effected if certain of the works were shut down and dismantled’ but indicated the new company’s willingness, if assistance was provided, to maintain otherwise unnecessary plant and skeleton staffs ‘in such condition that production could be restarted at any time should the Government require an increased output of armaments’. The memorandum further suggested that, without such assistance, the existing works would be dismantled and the government could eventually find itself compelled to spend several million pounds on the extension of its own works and dockyards in the event of emergency.<sup>164</sup> Therefore, this was not strictly ‘rationalisation’, but rather a hybrid concept, designed to achieve a certain level of reorganisation while reflecting the arms industry’s view of how its specialist capabilities fitted into industrial mobilisation.

The new company, Vickers-Armstrongs, hoped to earn £1.25 million annual profits for dividend off share capital of £18 million (nearly 7 percent).

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<sup>162</sup> BoE, SMT 2/126, Memorandum for Special Committee, 22 February 1927. An earlier memorandum, passed to Lord Balfour to intimate discussions were taking place, used similar reasoning: BoE, SMT 2/126, Memorandum for Balfour, 10 March 1927.

<sup>163</sup> BoE, SMT 2/126, Lawrence to Barings, 11 January 1927.

<sup>164</sup> TNA, T 161/656/S.33094, Plender Memorandum, 22 June 1927.

Plender's memorandum requested the government's help in reaching this figure during the initial transitional period and suggested these predicted earnings were reasonable given the 'special nature' of the arms industry.<sup>165</sup> Norman and Peacock felt that asking for a direct subsidy would 'consolidate opposition' to the merger, owing to the Treasury's cost-cutting, the probable unpopularity of additional expenditure on armaments, and the likely outcry from other armaments firms.<sup>166</sup> A 'rental' scheme, Norman noted, would likely prove more satisfactory to the service departments, particularly the Admiralty: it would give them the feeling they had certain rights in the armament business; it would be easier for the government to appear to be doing something for the Admiralty's benefit, rather than to be making up the profits of an arms company; and it would differentiate the new company from others that might ask the state for help.<sup>167</sup> Alternatively, the government was offered the opportunity to purchase or guarantee profit notes to make up the difference if the new company's annual profits fell below £1.25 million, which appeared likely in spite of various foreign orders already booked. This contribution would not exceed £300,000 per annum for the first five years after the merger and would be repaid, with interest, through subsequent profits over a ten year period after the last note was taken up on the condition that a sufficient number of profitable orders were obtained.<sup>168</sup>

To protect the new company's domestic position, the memorandum asked the services to provide 'definite guarantees' that they would provide the same proportion of armament contracts to the amalgamated works as they had given to Vickers and Armstrong separately, including those for finished guns, armour plate and naval gun-mountings.<sup>169</sup> It also requested that, for a specified number of years, no orders for these products would be placed with any other company other than those presently supplying, and that the Barrow and Newcastle naval yards be treated as distinct for allocation of work.<sup>170</sup> Therefore, the government would not

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<sup>165</sup> Ibid.

<sup>166</sup> BoE, SMT 2/126, Peacock Conversation with Norman, 22 February 1927; Ibid., Norman to Peacock, 24 February 1927.

<sup>167</sup> Ibid., Norman Note on Draft Plender Memorandum, n.d. [c.15 June 1927]; BA, 200279, Peacock to Taylor, 16 June 1927.

<sup>168</sup> TNA, T 161/656/S.33094, Plender Memorandum, 22 June 1927.

<sup>169</sup> This idea recurred in earlier drafts of the scheme: BoE, SMT 2/126 Proposed Amalgamation Scheme, 16 November 1926; Ibid., Draft Scheme 2 (Amended), n.d., [c.November 1926-January 1927]; Ibid., Joint Technical Committee to Plender, 18 February 1927; Ibid., Memorandum for the Special Committee, 22 February 1927.

<sup>170</sup> TNA, T 161/656/S.33094, Plender Memorandum, 22 June 1927.

only have to provide monetary assistance, but also reduce competition and maintain a certain level of armament orders. In the prevailing political and economic climate, these requests raised controversial issues. First, the Geneva Naval Conference had opened on 20 June and forced the government to take a cautious line on matters concerning armaments. Second, the government was increasingly divided on the question of safeguarding for the iron and steel industry, which limited the government's ability to formulate a cohesive industrial policy and reflected a wider bickering in the Cabinet between free traders, of whom Churchill was amongst the most vocal, and protectionists such as Cunliffe-Lister, Leopold Amery, the Colonial Secretary, and William Joynson-Hicks, the Home Secretary.<sup>171</sup> Finally, industrialists were increasingly critical of the City of London's influence on official policy, especially the government's decision to return to the Gold Standard, which had handicapped the country's export trade and further exacerbated the divisions within the government.<sup>172</sup>

Montagu Norman's personal support for the merger scheme was related to this milieu of criticism and represented a dramatic change in his attitude towards state assistance for industry. When Beardmore had applied for government aid in late 1926, Norman strongly advised against supporting the ailing Scottish firm. He had argued that the Exchequer could not afford it and state help would only hinder the introduction of 'new blood and economy' through a receivership.<sup>173</sup> Niemeyer shared Norman's orthodox view and feared that assistance would have the same disruptive effect as the subsidies given to the coal industry in the months before the General Strike.<sup>174</sup> While the government considered Beardmore's plight, Cunliffe-Lister took the opportunity to raise the possibility of 'some wider scheme of Government assistance with a view to the reconstruction of the iron and steel industry as a whole', involving state guarantees for £10-15 millions of fresh capital. Yet Churchill was already set against subsidising the steel industry, probably on Norman's advice, and discontinued the Trade Facilities Act in the 1926 budget to demonstrate his disapproval.<sup>175</sup>

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<sup>171</sup> Robert C. Self, *Tories and Tariffs: The Conservative Party and the Politics of Tariff Reform, 1922-1932* (London, 1986), pp.425-98.

<sup>172</sup> Boyce, *British Capitalism*, pp.137-39.

<sup>173</sup> BoE, G 14/240, Committee of Treasury Minute, 8 December 1926.

<sup>174</sup> Tolliday, *British Steel*, p.237.

<sup>175</sup> Hume and Moss, *Beardmore*, pp.200-201.

Yet just a few months later, Norman sent Niemeyer a copy of Plender's memorandum on the Vickers-Armstrongs scheme and asked 'I hope you will somehow give support to these proposals'.<sup>176</sup> Norman's change of heart seems to have arisen from his feeling that Armstrong, unlike Beardmore, was already on the path to reorganisation, and the knowledge that receivership would cause the firm's armament contracts to dry up with fatal consequences. If Armstrong collapsed, it not only meant embarrassment for the Bank, but would also mean no chance of it recouping any of its losses, and it would have wider implications on the banking and industrial sectors owing to Armstrong's intricate web of subsidiaries, guarantees and debts. The traditional relationship between the government and the armaments industry offered the Bank a chance to free itself from these increasingly awkward obligations. Moreover, despite the proposal's 'national' rhetoric, the state would not obtain any direct control over Vickers-Armstrongs, even if it agreed to provide assistance.

On 13 July the Cabinet appointed Churchill as chairman of a committee to analyse the merger proposals.<sup>177</sup> The committee never actually met, but Churchill considered the written views of the services and his own department. Although Cunliffe-Lister was part of the committee, the Board of Trade appears to have submitted no memorandum. Tellingly, the heavy steel industry had renewed its application for safeguarding in July 1927: Cunliffe-Lister, favouring protection, appealed for an early decision, but the Cabinet rejected the application, adhering to its previous decision of December 1925.<sup>178</sup> Meanwhile, Niemeyer took the opportunity to clarify his orthodox opposition to the Vickers-Armstrongs scheme. He supported the fusion in principle, as a lead for other firms in the steel trade, although he was unprepared to keep works open if it was not 'economically right' to do so. He rejected the guarantee of profit notes, as this would require ad hoc legislation, carried the danger of further demands from the steel industry and other interests such as coal or agriculture, and went against the policy of reducing the government's claims on the investing public. The purchase of profit notes involved the same drawbacks and raised the difficulty of the government holding securities issued by a private firm that undertook business with government

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<sup>176</sup> TNA, T 161/656/S.33094, Norman to Niemeyer, 22 June 1927.

<sup>177</sup> TNA, CAB 27/353/AFC(27)1, Armament Firms Committee: Composition, 18 July 1927.

<sup>178</sup> Self, *Tories and Tariffs*, p.456.

departments in competition with other firms. Niemeyer accepted that the rental scheme provided a certain 'insurance benefit' with regard to national arms producing capacity and suggested that it was up to the service department to decide whether they would pay the premium, although he affirmed that this would be hard to defend while the Geneva Naval Conference was taking place.<sup>179</sup>

The service departments' response was equivocal. Neither the Admiralty, despite its traditional sympathy towards the private arms industry, nor the War Office was willing to defend what was essentially a subsidy (the Air Ministry was not really concerned with the merger because it did not significantly affect the branches of the two companies that dealt in aircraft).<sup>180</sup> The War Office questioned the specifics of the rationalisation scheme and pointed out that, before the question of government assistance arose, the new firm needed to prove its efficiency, give definite proof of its emergency capacity and show how it would provide value for money. Like Niemeyer, the service departments believed that other companies would perceive government assistance to one armament firm as unfair and that it would set an awkward precedent.

In terms of wider thinking about industrial mobilisation, the War Office particularly disliked the suggestion to limit competition in favour of the new firm, because its policy was to encourage 'new firms' and general engineers to manufacture deficient stores and increase capacity. Moreover, it argued that a programme of continuous orders, if combined with internal rationalisation measures, would enable the firms to carry on without direct government assistance.

The services believed only certain parts of Armstrong's design department and manufacturing capacity were indispensable. The Admiralty admitted the vital importance of Elswick's gun-making and gun-mounting plant, but also compared Armstrong unfavourably with Vickers, whose 'more judicious management' of resources meant that its continued existence did not require 'extraneous help'. It argued that Vickers had gone a long way towards reorganisation without assistance and they wondered why Armstrong could not do the same. Indeed, the services believed that even if Armstrong was forced into liquidation, 'Vickers, or

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<sup>179</sup> TNA, T 161/656/S.33094, Niemeyer to Churchill and Barstow, 27 June 1927

<sup>180</sup> The following paragraphs are based on: TNA, CAB 27/353/AFC(27)2, WO Memorandum, 18 July 1927; *Ibid.*, AFC(27)3, Admiralty Memorandum, 21 July 1927; *Ibid.*, AFC(27)4, Air Ministry Memorandum, 25 July 1927.

possibly some other firm' might snap up some of Armstrong's resources for arms production. The War Office pragmatically suggested that if Armstrong went out of business, other firms could supply the same material and would also be able to produce items, such as the 'dragon' tank and Browning gun, for which Armstrong currently held an exclusive licence. Moreover, the Admiralty felt the remaining members of the armour pool were 'quite capable' of producing all the armour plate it required, even if Armstrong disappeared.

The War Office based its estimation of the firms' importance to national defence upon the Principal Supply Officers Committee's findings to date, although it admitted that these investigations were not advanced enough to make any definite statements and that in some cases the PSOC was working on exaggerated requirements for war stores. Indeed, the War Office pointed out that the question of the two firms' importance for national defence would require a great deal more time and investigation than was available. Given Vickers was clearly the stronger party, Barstow at the Treasury commented that the foundation of the whole problem was whether Armstrong was indispensable, either for current peace requirements, for a minor war, or for a war of national effort in which all three Fighting Services were simultaneously engaged to the maximum extent. Barstow suggested that this latter postulate be further developed by the government giving directions to the services, and not the other way round:

That the nations of the world should, with 1914-18 fresh in their minds, be so misguided as to embark on another such war seems unthinkable, but whether the Government would be justified in framing their defence policy on the basis of the impossibility of a war of maximum effort is another.<sup>181</sup>

The opportunity for further discussion along these interesting lines was curtailed on 25 July, when Niemeyer seized Churchill with the urgency of giving Norman an answer to prevent the merger scheme dying of 'boredom and inanition.' Niemeyer recognised that Armstrong faced a 'very large collapse', but thought that even if the government refused to help, the merger would probably still go ahead, albeit in a different form.<sup>182</sup> Therefore, on 29 July Churchill informed

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<sup>181</sup> TNA, T 161/656/S.33094, Barstow Memorandum, July 1927.

<sup>182</sup> Ibid., Niemeyer to Churchill, 25 July 1927.

Norman that, although the government was anxious to encourage amalgamations, it could not agree to support the proposals financially.<sup>183</sup>

Given the constraints acting upon politicians in the summer of 1927, this rejection was hardly surprising. The significance stemmed more from the nonchalant manner with which the scheme was dismissed and the government's apparent confidence that the arms industry, and Britain's overall arms-producing capacity, would not be significantly affected by its decision. This resulted from a combination of orthodox economic theory, the relative infancy of industrial mobilisation planning and probably a degree of strategic complacency. Continuing to suspect a civil service conspiracy, Taylor heard rumours that junior Admiralty officials, as opposed to the 'higher ups' were against the merger.<sup>184</sup> In fact, officials assumed that Vickers' stronger position gave it the ability to promote reorganisation from within the industry, a much more palatable and orthodox solution for the government than the alternatives offered in Plender's memorandum. Yet this did not solve Armstrong or the Bank's particular problems, while Beardmore remained outside of the scheme and in serious trouble.

## **Conclusion**

Despite the government's refusal to invest in the Vickers-Armstrongs scheme and after nearly a decade of failure and upheaval, the arms industry had a number of reasons to be optimistic in the summer of 1927. Many of its problems since 1918 were caused less by the availability of money and more by the way finance was handled: a lack of careful accounting, combined with a paucity of vision on the ageing boards of the individual companies meant that funds were not channelled in productive directions. Through their pursuit of costly and disastrous diversification projects in slump conditions, the firms were forced to realise that their pre-war managerial structures and personnel could no longer cope. As the *Daily Herald* put it, the relative lack of arms orders exposed their 'incompetent boards of directors'.<sup>185</sup> Therefore, it was unsurprising that so many accountants

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<sup>183</sup> TNA, CAB 23/55/40(27), Cabinet Conclusions, 13 July 1927; CAB 24/188/CP233(27), Churchill to Norman, 29 July 1927.

<sup>184</sup> BA, 200279, Taylor to Peacock, 27 July 1927.

<sup>185</sup> *Daily Herald*, 18 June 1926.

and bankers became involved in what practically amounted to a revolution in the management of the arms industry. *The Times* even suggested that many of its troubles could have been avoided had the directors included competent financial experts from the beginning.<sup>186</sup> In a harsh but necessary lesson, diversification unintentionally cut away the dead wood, prompted a series of internal enquiries, and ultimately enabled the stronger units to survive.

Successive governments, mired in the general difficulties facing industry and labour, appeared to ignore the arms manufacturers' struggles. Instead, the financial community, and particularly the Bank of England, became increasingly involved and it is not far-fetched to refer to an active financial-industrial relationship supplanting the state's own comparatively stagnant relationship with the arms industry, although the bankers obviously could not provide the firms with arms contracts. The Bank's importance was not just monetary but also psychological, for even though the Bank acted largely in its own interests, it was at least doing something in the face of a succession of apparently indifferent governments. For instance, the Bank provided a new channel of communication with the all-important Treasury, although continued civil service antipathy forestalled a more active collaboration.

The Vickers-Armstrongs rationalisation project was the centrepiece of the unusual collaboration between the armourers and bankers. Nonetheless, the government rejected the scheme, not only because it went against its orthodox economic instincts, but also from the industrial mobilisation perspective. The Principal Supply Officers Committee was not yet fully operational as a means of gauging a particular firm's importance and the services did not see any immediate need either to maintain Armstrong individually or to ensure the retention of its capacity, especially in the face of Vickers' apparent health. Crucially, the services concluded that the arms industry as it stood was sufficient to meet the country's short-term needs or any realistic contingencies. It is perhaps unfair to criticise the government too harshly for this, given the difficult conditions of domestic finance and relatively peaceful state of international relations, but its rejection of the scheme further confirmed the suspicion that it did not much care about the fate of the private armament manufacturers.

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<sup>186</sup> *The Times*, 9 June 1926.

Despite this, and perhaps most importantly given its identity crisis in the immediate post-war years, the arms industry gained a much stronger sense of direction and purpose from its struggles. From the mid-1920s firms were increasingly prepared to admit that they were primarily armament manufacturers, rather than wide-ranging commercial concerns with a sideline in armaments. Crucially, this meant the industry would sink or swim by making guns and warships, rather than sewing machines and toys. With Vickers keen to take advantage of its rivals' weaknesses, and the Bank of England fearing the consequences of inaction, the stage was set for a comprehensive restructuring of the British armaments industry.

#### 4. Reorganisation and Renaissance: Vickers and the Bank of England, 1927-36

It must now be clear to the minds of all concerned, that the Industries in this Country engaged in the manufacture of Heavy and Special Steel, of Armaments, Naval Shipbuilding and the industries allied to these undertakings, if it had been practicable, should have been dealt with by some method of amalgamation or cooperation after the close of the War.

- Sir Edwin Cornwall, at a meeting of Armstrong stockholders, London, 28 November 1927.<sup>1</sup>

Most inter-war British industrialists were largely indifferent to reorganisation and preferred to believe their troubles were primarily external, blaming high wage costs, high taxation, restrictive practices and, by the end of the 1920s, free trade.<sup>2</sup> Vickers Limited was a dynamic exception: having restructured itself in the mid-1920s, it now sought to consolidate and improve its position as Britain's pre-eminent armament manufacturer. At the same time, the Bank of England continued its unusual relationship with the arms industry. Montagu Norman, the Bank's idiosyncratic Governor, has frequently been credited with 'rescuing' the arms industry; and this has been viewed as a precursor to his more ambitious involvement in wider industrial regeneration projects.<sup>3</sup> His interventions have also drawn the attention of historians who have sought to explain this deviation from the Bank's usual policy of standing aloof from industrial affairs.<sup>4</sup> In fact, Norman's primary motivation remained his desire to cover up the Bank's over-generous loans and ill-advised investments. Certainly, in the absence of government assistance he offered valuable support but he also shied away from a more active role. Although he subsequently had grandiose visions of 'rescuing' British heavy industry more generally, he rarely addressed the specific issues of armaments production.

Norman's caution left the door open for more visionary leadership and Vickers was able to use the Bank's involvement to its own advantage. In his study

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<sup>1</sup> BA, 200280.

<sup>2</sup> W.R. Garside and J. I. Greaves, 'The Bank of England and Industrial Intervention in Interwar Britain', *Financial History Review*, vol.3, no.1 (April 1996), 85.

<sup>3</sup> Clay, *Norman*, pp.318-323, 359; Scott, *Vickers*, pp.153, 155, 161-66; Andrew Boyle, *Montagu Norman: A Biography* (London, 1967), pp.202-204, 208-11; Sayers, *Bank of England I*, pp.314-18; Boyce, *British Capitalism*, p.137; Kenneth Warren, *Armstrongs*, pp.226-48, 253.

<sup>4</sup> For example: Garside and Greaves, 'The Bank of England', 69-86.

of the inter-war steel industry Steven Tolliday has argued that the Bank ended up as Vickers' 'unwilling accomplice'.<sup>5</sup> This idea rewards further exploration in the context of armaments manufacture. The Bank displayed little understanding of the political aspect of arms production and tended to view the problem from a rather one-dimensional economic perspective. The potentially disastrous consequences of this attitude were graphically revealed when the Bank became involved in the faltering reorganisation of Beardmore, a company which possessed little in the way of vitality. By contrast, Vickers actively pursued its vision of a modern, streamlined and competitive armaments industry, able to cope with the prevailing economic conditions as well as political developments. It emerged as the dominant force in an unequal partnership with Armstrong and weathered both depression and disarmament to become a powerful and competitive holding company. Under its guidance, the British arms industry was kept in a much healthier state than the contemporary ministers and policymakers assumed, and Vickers was well-placed to take advantage of rearmament.

### **The Bank of England Steps in: Montagu Norman's Involvement and Motives**

A merger with Armstrong was always going to be unattractive from Vickers' perspective unless the savings from the amalgamation proved substantial and direct help was obtained to cover the cost of maintaining reserve plant.<sup>6</sup> Indeed, Vickers appeared to make government assistance an 'absolute condition' of the scheme.<sup>7</sup> Even before the official approach to the government in summer 1927, Peacock observed how Vickers was worried 'particularly about the income to be received for the next two years, because they see a substantial amount in sight in their own business, and fear they may not get it out of the merger.'<sup>8</sup> Indeed, an 'intensely disappointed' Vickers interpreted Churchill's negative reply 'to mean that the Government can afford to be indifferent and that there will be little armament business going over, say, the next 10 years.' Taylor responded that this gave a 'stronger reason than ever for fusion', although he also felt that, if the

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<sup>5</sup> Tolliday, *British Steel*, p.197.

<sup>6</sup> BA, 200279, Deloitte Report, 7 June 1927.

<sup>7</sup> BA, 204565, Armstrong Advisory Committee Meeting, 30 June 1927.

<sup>8</sup> BA, 200279, Peacock to Taylor, 10 June 1927.

scheme fell through, Armstrong could be ‘rejuvenated’ by ‘suitable mergers in other directions.’<sup>9</sup>

At the Bank of England, Norman was determined for the merger to go ahead. On 20 June, two days before he delivered the proposals to the government, he had written that the Bank should conditionally provide the required financial assistance in the event of rejection, describing the scheme as ‘desirable’ from Vickers standpoint, but ‘essential’ for Armstrong, the Bank and the country.<sup>10</sup> Therefore, after receiving Churchill’s negative reply, he asked Taylor and Peacock to consider the lines on which progress could be made. Surprisingly, Norman hoped the merger could be ‘turned the other way’ and made entirely rational under peace conditions. He stated: ‘It is important that the new Company detach itself openly from the armament business to the extent that that business will not be remunerative.’<sup>11</sup> This meant no skeleton staffs or reserves for national emergency, but only the retention of economical industrial units.<sup>12</sup> Indeed, Norman had been concerned about the ‘physical difficulties of separating armament from commercial works’ from the outset of the merger negotiations.<sup>13</sup>

Norman’s attitude worried Frater Taylor, who wanted to forget the word ‘commercial’ altogether, given the supplementary nature of the non-armament business undertaken by the works proposed for fusion. For example, Vickers did not want Armstrong’s Scotswood locomotive plant included in the merger because of its predominantly ‘commercial’ character, whereas Armstrong did want it included, suggesting it was essentially an ammunition factory with capacity for shell production.<sup>14</sup> Norman was presumably confused, and was likely referring to the works that would remain with Armstrong after the fusion. These were purely ‘commercial’ undertakings, involving shipbuilding, marine engineering, locomotives, iron castings and various other light and heavy engineering products. Taylor believed he could turn these into an effective profit-

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<sup>9</sup> Presumably with Beardmore. BoE, SMT 2/126, Taylor to Peacock, 16 August 1927.

<sup>10</sup> Ibid., Norman Memorandum, 20 June 1927.

<sup>11</sup> BoE, G 14/64, Norman to Peacock, 30 July 1927.

<sup>12</sup> BA 200279, Peacock to Taylor, 2 August 1927.

<sup>13</sup> BoE, SMT 2/126, Norman to Peacock, 22 December 1926. Also: Ibid., Peacock Memorandum, 22 February 1927.

<sup>14</sup> Ibid., Taylor to Peacock, 28 February 1927. Also: Ibid., Peacock to Norman, 16 June 1927.

making enterprise, although he admitted he was possibly ‘seeing visions and dreaming dreams’.<sup>15</sup>

The Bank of England’s involvement with the Vickers-Armstrongs merger was one of its earliest interventions into inter-war industrial affairs and represented a controversial break from Norman’s traditional views. His motivations therefore require closer examination although, as with many of his dealings, his actions are often hard to fathom. He certainly gave the impression he was undertaking a national burden. In May 1926 he had described the Armstrong question to Lord Weir as ‘important from the industrial and perhaps from the national standpoint’.<sup>16</sup> The following November, he wrote how ‘the future of these huge armament or iron and steel concerns should really be treated as national questions.’<sup>17</sup> He considered the best way forward for the merger was an altered version of the profit note scheme, for which he obtained the consent of the Bank’s Committee of Treasury on 3 August 1927.<sup>18</sup> Such support was an unusual step for the Bank of England and Norman elaborated his motives at a meeting on 23 August, explaining how he was less concerned with Armstrong or Vickers individually, but that ‘it was absolutely vital to the Country to rationalise industry, and unless a leader could be found, this seemed likely to be long delayed’. Norman also hoped to maintain employment and provide a ‘worthy example to follow.’<sup>19</sup> He warmed to this theme the following day, while addressing the Bank’s Committee of Treasury:

The object of the Bank’s contribution might be explained as an endeavour to bring about the rationalisation of the iron and steel industry and to avoid the increase of unemployment and disturbance of labour which would be involved by the closing of works by the Receivership of Armstrong Whitworth and Co.<sup>20</sup>

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<sup>15</sup> Ibid., Peacock to Norman, 26 July 1927 (also: Ibid., Memorandum C, 8 July 1927; Ibid., Memorandum B, 20 July 1927); BoE, SMT 2/127, Taylor to Leese, 17 November 1927. A year later Taylor was contemplating Armstrong’s final reorganisation: BoE, SMT 8/38, Taylor to Lawrence, 6 November 1928.

<sup>16</sup> BoE, SMT 2/126, Norman to Weir, 14 May 1926.

<sup>17</sup> Ibid., Norman to Campbell, 10 November 1926. See also: Ibid., Harvey to Lidderdale, 16 November 1926.

<sup>18</sup> BoE, G 14/245, Committee of Treasury Minutes, 3 August 1927; BoE, SMT 2/126, Norman to Peacock, 4 August 1927.

<sup>19</sup> BoE, SMT 8/36, Meeting at the Bank, 23 August 1927.

<sup>20</sup> BoE, G 14/245, Committee of Treasury Minutes, 24 August 1927.

However, Norman's support for the merger did not meet with wholehearted approval within the Bank. E. N. Travers, of the Bank's Branch Office, held the personal view that the 'accounts of huge trading and industrial concerns who in the aftermath of Wars are bound to be affected to their very depths are not accounts which should be accepted by the Bank of England at all.'<sup>21</sup> Not only was such business gravely affected by industrial, political and international disturbances but Travers also feared that direct support could be construed as Bank approval of the company's general policy.<sup>22</sup> Indeed, the Bank's simultaneous existence as an orthodox central bank and Armstrong's commercial banker, posed a tricky dilemma.<sup>23</sup> Walter Layton observed how Armstrong's account, probably the largest of the Bank's industrial customers, was something of a historical oddity, and 'would certainly not be on its books at all if the Bank of England were starting afresh.'<sup>24</sup>

Certainly Norman and others within the Bank were unhappy at the appearance of the huge loans they had granted showing up on Armstrong's balance sheets.<sup>25</sup> In the aftermath of Taylor's initial report in April 1926, Anderson, the deputy governor, suggested that

it would be wise to clear up the mess while the recent Vickers enquiry is fresh in everyone's mind and while it is common knowledge that, even with the best and most prudent management, an Armament Company, a Shipbuilder, a Steel and Iron concern, are all of them bound to have had serious trade losses, still more a concern like A[rmstrong].W[hitworth]. which had by the divine will of Providence combined all the most losing businesses. It seems to be that the spring cleaning has got to be public – the Armstrong Board must ask for it *and the less we figure in it the better*.<sup>26</sup>

Yet although the Bank wished to distance itself from Armstrong, it could not simply walk away in view of its huge financial commitments and those of certain

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<sup>21</sup> BoE, SMT 8/37, Travers to Lidderdale, 17 December 1927.

<sup>22</sup> Ibid., Travers Note, 17 December 1927.

<sup>23</sup> For a sense of this, see Tolliday, *British Steel*, pp.270-1.

<sup>24</sup> *Manchester Guardian*, 14 June 1926.

<sup>25</sup> BoE, SMT 8/5, Ballantyne to Leese, 8 April 1926.

<sup>26</sup> Emphasis added. Ibid., Deputy Governor Memorandum, 3 April 1926.

clearing banks, and therefore continued to play an important behind-the-scenes role in the company's affairs. Nonetheless, the assistance it provided to the new armaments company remained hidden from the public until 1936.<sup>27</sup> For example, when the merger scheme was publicly announced, the *Financial News* on 4 November 1927 referred to the Bank's 'generous assistance' to Armstrong, but only in the context of the 1926 moratorium scheme.

The unique nature of the Bank's support meant that it possessed no machinery through which to transfer money to Vickers-Armstrongs and it therefore improvised a rather convoluted arrangement. Norman 'wished the help he was prepared to give arranged by an outside party, and not as coming from the Bank of England' although the Bank would fully safeguard the guarantor.<sup>28</sup> He suggested the Sun Insurance Company could act as guarantor, trustee 'or whatever the lawyers may wish to call it', because using a bank like Barings would imply Norman's involvement. Lawrence approved of the idea and Norman noted: 'From the public standpoint such an Insurance Company would seem an obvious concern to give the required guarantee and from our standpoint the camouflage should be complete.'<sup>29</sup> For the insurance premium, Vickers-Armstrongs paid £400 per annum.<sup>30</sup> Although the circulars asking the two companies' shareholders to consent to the fusion referred to the Sun contract, the Bank's involvement remained 'absolutely secret.'<sup>31</sup> This was a strange attitude in view of Norman's previous declarations that he had hoped to provide national leadership to promote further reorganisation!

Through the Sun Insurance arrangement, the Bank offered to provide up to £200,000 annually to bring Vickers-Armstrongs profits, if required, up to £900,000 for the year in question. This assistance would last for five years, with repayment coming out of profits over a period of fifteen years from the date of the last profit note taken up.<sup>32</sup> The accountants Deloitte, Plender, Griffiths and

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<sup>27</sup> Although at least one individual made the connection: BoE, SMT 8/37, Thorburn to Barings, 2 December 1927.

<sup>28</sup> BoE, SMT 8/36, Meeting at the Bank, 23 August 1927.

<sup>29</sup> BoE, SMT 2/126, Norman to Peacock, 26 August 1927. See also: *Ibid.*, Draft Agreement, 29 August 1927; *Ibid.*, Otter Barry to Norman, 9 September 1927; BoE, SMT 8/37, Chief Cashier to Sun Insurance, 16 February 1928.

<sup>30</sup> BoE, C 45/44, Contract of Insurance Memorandum, 16 March 1936.

<sup>31</sup> BoE, G 14/64, Travers to Skinner, 31 May 1930.

<sup>32</sup> BoE, SMT 2/126, Norman Note, 19 August 1927; BoE, SMT 8/36, Guarantee Proposals Memorandum, 23 August 1927.

Company would certify the amount payable to the new company under the guarantee, or the amount payable to the guarantor, in each financial year.<sup>33</sup> At a meeting of the involved parties on 23 August, Norman, on ‘his best form’, outlined the help he was prepared to give.<sup>34</sup> Taylor and Lawrence expressed their gratitude, although the latter grumbled that fifteen years was too lengthy a period of repayment. However, the Bank did not want its generosity to end in further losses.<sup>35</sup> Although the final agreement was less satisfactory than had been hoped for by the Bank and Armstrong, it was also considered the only course affording ‘immediate relief’ and ‘in all probability some eventual means of recovery.’<sup>36</sup>

Despite Norman’s enthusiasm, his ability to provide leadership for the Vickers-Armstrongs merger was limited by his innate caution, and desire for the Bank to cover up its involvement as much as possible, combined with his lack of understanding of the armaments business. Taylor’s reports had exposed the embarrassing and potentially disastrous extent of Armstrong’s difficulties, and the Bank, through its function as a commercial bank, had helped fund the company’s road to virtual ruin. Unsurprisingly, it wished to maintain a low public profile during reconstruction, leaving the door open for more visionary leadership.

### **The Vickers-Armstrongs Merger and the Arms Industry’s New Structure**

The negotiations to finalise the merger arrangements naturally involved a certain amount of give and take and Vickers took a much larger share than Armstrong. Based on Plender’s calculations, Webster Jenkinson argued that Vickers could earn £600,000 annual profits for the next few years and predicted that Armstrong would make only half that amount. Taylor responded that Armstrong’s reconstruction needed time to come into effect and that Jenkinson’s appraisal did not take into account the goodwill attached to the Armstrong name. Nonetheless, in mid-August Vickers increased its demands and requested a 2.55:1 profit sharing ratio in its favour, compared to the previous, tentative arrangement for 1.65:1. Unsurprisingly, Taylor rejected these terms.<sup>37</sup> Norman wondered if ‘breaking point’ had been reached but Plender brought the key individuals to the

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<sup>33</sup> Ibid.

<sup>34</sup> BA, 200279, Peacock to Revelstoke, 23 August 1927.

<sup>35</sup> BoE, SMT 8/36, Meeting at the Bank, 23 August 1927.

<sup>36</sup> BoE, G 14/245, Committee of Treasury Minutes, 24 August 1927.

<sup>37</sup> BoE, SMT 2/126, Taylor to Peacock, 16 August 1927.

table on 17 and 18 August and, after lengthy negotiations, they agreed to split the dividend 2:1 in Vickers' favour.<sup>38</sup>

Armstrong's representatives gloomily accepted this agreement. Taylor pointed out the alternative to the terms 'imposed' by Vickers was 'war to the knife' between the two companies.<sup>39</sup> Peacock commented that though the outcome was less favourable to Armstrong, it was still the best way out.<sup>40</sup> Norman bluntly described it as 'suicide for the [Armstrong] shareholders: suicide of course which merely translates the implicit into an explicit position!'<sup>41</sup> On 25 August, the Armstrong advisory committee unanimously agreed to recommend acceptance of these terms, while Vickers' board had expressed its approval the previous week albeit with a certain amount of opposition.<sup>42</sup> Taylor described it as 'the least of two evils' and later reflected that, had it not been for some uncertainty on existing contracts, he would have stood up for better terms from Vickers. He also criticised Plender's evaluation for its emphasis on the past and failure to account for future possibilities.<sup>43</sup>

As a result of the merger, Vickers-Armstrongs would obtain a monopoly over gun-mounting manufacture. At the end of August, Sir Charles Craven and Taylor worried that the government might attempt to break its hold over this 'very special and profitable' field, by giving contracts for such work to Beardmore. They therefore suggested that Vickers-Armstrongs should acquire a measure of control over the Scottish firm, although Peacock did not quite see how to bring this about, and a subsequent talk with Jenkinson apparently calmed Taylor down.<sup>44</sup> Their suggestion was not without precedent: an earlier draft of the merger scheme had suggested that the formation of the new armaments company would facilitate the acquisition of the corresponding interests of Beardmore, although this idea vanished from later revisions.<sup>45</sup> Interestingly, Lord Weir, who felt the

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<sup>38</sup> Ibid., Norman to Plender, 16 August 1927; Ibid., Plender to Norman, 17 August 1927; Ibid., Deloitte to Norman, 17 August 1927; Ibid., Peacock to Norman, 18 August 1927; also: Ibid., Plender to Norman, 18 August 1927.

<sup>39</sup> BA, 200279, Taylor Memorandum, 18 August 1927.

<sup>40</sup> BoE, G 14/245, Peacock to Norman, 19 August 1927.

<sup>41</sup> BA, 200279, Norman to Peacock, 19 August 1927.

<sup>42</sup> Ibid., Peacock to Revelstoke, 26 August 1927.

<sup>43</sup> BoE, SMT 8/36, Taylor to Peacock, 26 September 1927; Ibid., Taylor to Roney, 31 October 1927.

<sup>44</sup> BoE, SMT 2/126, Taylor to Peacock, 31 August 1927; Ibid. Peacock to Norman, 1 September 1927.

<sup>45</sup> Ibid., Alternative Scheme Draft 2, 4 January 1927.

government 'ought to' help Vickers and Armstrong, suggested he could be of some use after the scheme was officially turned down: Armstrong's representatives felt Weir's close connection to Lord Invernairn implied a desire to help Beardmore at the same time.<sup>46</sup>

Beardmore's advisory committee admitted the firm was 'in a bad way' and in need of rationalisation. Therefore it approached Norman to see if the Vickers-Armstrongs scheme could admit a third party.<sup>47</sup> Lawrence wrote to Norman on 7 October that the scheme was undoubtedly elastic enough to include Beardmore although he wondered whether it was worth further delaying the merger to accommodate the Glaswegian firm. Instead, he suggested that Sir Gilbert Garnsey, who was a member of the Beardmore committee and well-versed in Armstrong's problems, should hold preliminary discussions with Jenkinson.<sup>48</sup> Garnsey subsequently informed Taylor that Vickers seemed entirely averse to any arrangement with Beardmore in the immediate future.<sup>49</sup> For his part, Taylor was more interested in tactfully using Beardmore as a 'Club' against Vickers.<sup>50</sup> Therefore, Beardmore was left out of the fusion and Vickers-Armstrongs' executive committee decided to continue this policy in spring 1928: Taylor personally concluded that the new company should get its 'own house into good going order' first.<sup>51</sup>

On 1 November 1927 Armstrong's board of directors affixed the company's seal to the agreement with Vickers. Lord Southborough suggested the agreement 'may become famous or infamous, but the former I hope'.<sup>52</sup> Many of the initial press reactions were positive: *The Times* stated that it 'would be hard to name an amalgamation in industry equal in importance', but affirmed that its impact lay more in the economic significance to general industry, rather than the advantages to the individual companies. The *Manchester Guardian* similarly viewed it as an 'important step' in the much-needed reorganisation of the British

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<sup>46</sup> BA, 200280, Taylor to Peacock, 5 September 1927.

<sup>47</sup> BoE, SMT2/126, Norman to Lawrence, 4 October 1927.

<sup>48</sup> Ibid., Lawrence to Norman, 7 October 1927. Norman subsequently forwarded this to Paine.

<sup>49</sup> TWAS, 130/1270, Armstrong Board Minutes, 1 November 1927.

<sup>50</sup> BA, 200280, Taylor to Revelstoke, 12 October 1927. For Revelstoke's views see: Ibid., Barings Memorandum, 11 October 1927.

<sup>51</sup> BoE, SMT 8/37, Taylor to Peacock, 4 April 1928.

<sup>52</sup> BoE, SMT 2/127, Southborough to Norman, 1 November 1927. The Bank's Court of Directors approved the arrangement on 10 November: BoE, G 14/245, Extract from Court of Directors Minutes, 10 November 1927.

iron and steel industry. The *Daily Telegraph* remarked that the merger was symbolic of general confidence that the engineering world would emerge strengthened from depression by a process of amalgamations. The *Financial News* singled out Vickers' own prior reconstruction for praise.<sup>53</sup> The press attention therefore focused more on the economic impact of the fusion, and its wider significance for the heavy engineering and iron and steel sectors, rather than the specific consequences for armaments production.

On 28 November Armstrong's beleaguered stock and shareholders were told that the company needed to write down £11 million of capital and that the amalgamation was a matter of urgent necessity. Taylor informed the shareholders that 65 percent of Armstrong's loss resulted from poor investments, and described the failure of Newfoundland and firm's civil engineering projects. The only hope for the shareholders remained in the company's commercial non-armament operations, which remained outside the merger.<sup>54</sup> Sir Edwin Cornwall told the debenture holders that the amalgamation would release these works from the 'heavy financial drain of the Armament business', and pointed out that the new arms company, once rationalisation had taken effect, should yield £350,000 annually to Armstrong.<sup>55</sup> The audience voiced a great deal of criticism about the firm's past mismanagement, in contrast to the relatively sanguine atmosphere at Vickers' meetings.<sup>56</sup> Nonetheless, both companies' stock and shareholders sanctioned the merger at the end of November.<sup>57</sup>

After a year of hard work and bargaining, Vickers-Armstrongs was incorporated as a new company on 31 December 1927 with a share capital limited to £21 million. Of the issued share capital, Vickers held approximately £8.5 million to Armstrong's £4.5 million and Vickers also held the bulk of the seven percent preference shares.<sup>58</sup> Taylor, feeling Vickers' had 'driven too hard a bargain', managed to re-negotiate the capital division in October, so that Armstrong's shareholders were more assured of dividends.<sup>59</sup> Even so, Vickers

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<sup>53</sup> All newspapers quoted in this paragraph are 4 November 1927 editions.

<sup>54</sup> BA, 200280, Armstrong Shareholders Meeting, 28 November 1927.

<sup>55</sup> Ibid., Armstrong Meeting, 28 November 1927.

<sup>56</sup> *The Times*, 29 November 1927.

<sup>57</sup> *The Economist*, 3 December 1927, p.980. See also: BoE, SMT 8/37, Travers Memorandum for Norman, 19 November 1927.

<sup>58</sup> Scott, *Vickers*, p.166.

<sup>59</sup> BA, 200280, Taylor Memorandum, 11 October 1927; Ibid., Taylor to Revelstoke, 12 October 1927 (2 letters).

‘scored heavily at the expense of its rival’, but this was neither surprising nor unfair given its much stronger financial position.<sup>60</sup> It now used its strength to provide a clear direction for Vickers-Armstrongs’ operations during a period of continued external difficulty for the armaments business.

The process of reorganisation began immediately. At the start of 1928 Craven, drawing upon his earlier success at Barrow, set to work at Elswick. A year later he had attained significant economies, although the works were only employing 5,000 men out of a capacity of 12,000 and desperately required more armament work. At Sheffield, the gun and tank department also needed more work, but was helped by a Spanish order for fifteen-inch guns. Erith and Dartford, employing 2,800 and 800 individuals respectively, undertook smaller scale armament work, and were in a generally satisfactory position. The Naval Yard at Newcastle, with an employment capacity of 5,000 people, was closed and could not be economically re-opened unless the Barrow yard became fully occupied, or an order for a ‘huge vessel beyond the capacity of Barrow’ was received.<sup>61</sup>

One of the merger’s explicit purposes was to retain arms-producing capacity, but this did not stop some of Vickers’ directors questioning how Vickers-Armstrongs could flourish on current orders. In February 1928 General Birch informed Lawrence that ‘it will be impossible to pay a reasonable dividend to the shareholders if we continue to make armaments our principal source of revenue.’ Birch suggested that the firm should look to industrial and commercial products to earn its profits, given that land orders only covered working costs and to cover any slackening of naval contracts. He was not advocating a return to diversification, but rather suggesting that the firm use its plant in a pragmatic fashion, such as employing its tank producing facilities to make commercial tractors. He argued that this policy would enable the firm to gather any ‘windfall’ that arose from an exceptional increase in arms orders, owing to a revised military programme or a war.<sup>62</sup> George Vickers, a special director at the Sheffield works, expressed similar views a few days later and emphasised the necessity of improving the company’s steelworks.<sup>63</sup> On 17 March, George Buckham, a Vickers director, countered that Vickers was primarily an armament firms rather

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<sup>60</sup> *The Statist*, 24 March 1927, p.497.

<sup>61</sup> BoE, SMT 2/127, Craven to Lawrence, 4 January 1929.

<sup>62</sup> CUL, VMF K609, Birch to Lawrence, 10 February 1928.

<sup>63</sup> BA 200281, G. Vickers Memorandum, 16 February 1928.

than a general industrial firm, and put forward his own answer to the question ‘Are Armaments dead?’

In these days we hear much about the restriction of armaments, and if all we read is correct, then they are certainly dying, but I think in spite of all arguments, that the only way to prevent war is to be ready for war, and if this is true, then armaments will always be required.<sup>64</sup>

Buckham suggested that the worldwide mechanisation of armies and continued international disturbances improved the prospects for arms work, and urged the firm to modernise its plant so that it could manufacture steel as economically as its overseas rivals.<sup>65</sup> The net result of this internal debate was that Vickers should remain predominantly identified with arms production, although it would not put all of its eggs into the one basket.<sup>66</sup>

George Taylor, Buckham’s colleague at Sheffield, believed that Vickers-Armstrongs was only a starting point for rationalisation, although Frater Taylor, Peacock and Norman suspected him of being a ‘crook’ up to ‘hanky panky’.<sup>67</sup> Vickers had worried for some time about its ability to produce steel and its representatives visited Germany, Belgium and the United States for inspiration. After the merger, it became clear that Armstrong’s Openshaw steelworks was even more outdated. Therefore Vickers-Armstrongs possessed two steelmaking plants neither of which was efficient or able to compete globally. George Taylor believed that the new firm’s survival depended on its ability to supply heavy industrial products competitively and that this required the construction of a world-class steelworks and forge: the alternative was ‘oblivion’.<sup>68</sup>

These ideas formed the basis of George Taylor’s proposal of September 1928 that Vickers-Armstrongs should amalgamate with other armament steel producers to reduce obsolete and uneconomic plant and improve efficiency, including in armour plate manufacture.<sup>69</sup> The resultant English Steel Corporation, formed by agreement on 17 December 1928, fused the steelmaking plant of

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<sup>64</sup> Ibid., Buckham Memorandum, 17 March 1928.

<sup>65</sup> Ibid.

<sup>66</sup> Davenport-Hines, ‘Armaments Industry’, p.152.

<sup>67</sup> BoE, SMT 2/127, Peacock to Norman, 4 December 1928.

<sup>68</sup> BA, 200281, G. Taylor Report, 9 March 1928.

<sup>69</sup> BoE, SMT 8/38, G. Taylor Confidential Report, September 1928.

Vickers, Vickers-Armstrongs and Cammell Laird, although it did not include Beardmore, John Brown and Thomas Firth.<sup>70</sup> The agreement covered the manufacture of armour plate, bullet-proof plate and forgings for guns, although the ESC was forbidden to produce warships, ordnance or other kinds of armaments.<sup>71</sup> With its armour plant included in the ESC, and the previous closure of its Coventry Ordnance Works in 1925, Cammell Laird's activities were subsequently confined to shipbuilding and repair work.<sup>72</sup>

As 1928 drew to a close, it marked the end of a tumultuous decade for the British private armaments industry. The arms-producing elements of Vickers, Armstrong and Cammell Laird were now reorganised into Vickers-Armstrongs and the English Steel Corporation, both of which primarily came under the umbrella of Vickers Limited. Yet amidst the optimism surrounding these developments, Beardmore remained in great difficulty. It had only just presented its own reorganisation proposals to its shareholders and noteholders, which involved the writing down of nearly £3 million of share capital. Despite this, Lord Invernairn, the firm's chairman, hoped that news of its reconstruction would bring in much-needed orders. Beardmore's representatives also pointed out this reorganisation contained 'special provisions [...] enabling the company to sell to, or amalgamate any part of its undertaking with, others having objects similar to its own'.<sup>73</sup>

Frederick Szarvasy, the chairman of Beardmore's advisory committee, continued to believe that Beardmore should ultimately end up in the Vickers-Armstrongs group. In late 1928 he asked Frater Taylor to join Beardmore's board and keep the matter warm until the appropriate time. However, Taylor, supported by Norman, did not wish to join the board, while Peacock felt that Paine, who was already on the Beardmore committee, could play the role anticipated for Taylor.<sup>74</sup> Subsequently, Sir William McLintock agreed to talk to Beardmore from Vickers' standpoint. Norman said nothing beyond warning that if more water were allowed to run under the bridge, Beardmore would be reduced simply to a nuisance

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<sup>70</sup> Clay, *Norman*, p.324; Warren, *Steel*, pp.222-25.

<sup>71</sup> BoE, SMT 8/39, Vickers, Vickers-Armstrongs, Cammell Laird Agreement, 17 December 1928; *Ibid.*, Freshfields to Travers, 6 December 1930.

<sup>72</sup> Warren, *Steel*, pp, 180-81, 193, 199.

<sup>73</sup> *The Times*, 18 and 26 October 1928.

<sup>74</sup> BoE, SMT 8/38, Peacock to Norman, 15 November 1928.

value.<sup>75</sup> It appeared that another of Vickers' old rivals faced absorption or obliteration.

### **Beardmore and the Bank**

Montagu Norman, rather than Vickers, ultimately took on responsibility for Beardmore. The Bank of England had refused to assist the Scottish firm with a £1 million mortgage scheme in October 1928, but Norman panicked the following summer when the new Labour government seemed ready to intervene in Beardmore's affairs. Fearing a socialist solution, he pre-emptively stepped in himself. The Bank aimed to place the company on a self-standing basis, with a fully reorganised management, although it concentrated more on the liquidation and retrenchment of Beardmore's assets rather than full-blown rationalisation. Frater Taylor was reluctantly persuaded to help in the reorganisation but he grew increasingly tired of the City of London's 'ultra-conservative' attitude and left the project in early 1930.<sup>76</sup>

The Bank's involvement with Beardmore was quite different from its experience with Armstrong. The latter case had been an ad hoc response to an ailing customer's problems but, partly as a result of this, the Bank subsequently became interested in the structured reorganisation of entire industries, including steel and cotton. Beardmore fitted, somewhat awkwardly, into this ambition. While the Vickers-Armstrongs merger was surreptitiously financed under the Sun Insurance 'camouflage', the Bank required more permanent and visible machinery to sustain its new projects. To this end, it created the Securities Management Trust (SMT) in November 1929, to look after its holdings of industrial securities, which included Armstrong and Beardmore, and to scrutinise future reorganisation projects. It also formed the Banker's Industrial Development Company in 1930, which arranged finance for reconstruction schemes and sponsored the formation of the National Shipbuilders Security Company.<sup>77</sup> Davenport-Hines has suggested that had such a financial trust existed in 1918, it might have helped Vickers adjust

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<sup>75</sup> BoE, SMT 2/127, Norman to Peacock, 20 December 1928.

<sup>76</sup> BoE, G 14/240, Committee of Treasury Minute, 19 June 1929; Hume and Moss, *Beardmore*, pp.212-5; Tolliday, *British Steel*, pp.236, 238-9.

<sup>77</sup> Clay, *Norman*, pp.318-59; Sayers, *Bank of England I*, pp.314-330; Garside and Greaves, 'The Bank of England', 69-86.

more effectively to post-war conditions.<sup>78</sup> Clearly the same is applicable, if not more so, to Armstrong, which definitely lacked sensible financial direction in the immediate post-war era.

Frank Hodges, a director of Securities Management Trust and a former leader of the Miners' Federation of Great Britain, suggested that Norman's motives towards Beardmore were twofold: to prevent social unrest in Glasgow and to provide enough money to maintain the company during an 'orderly liquidation' of its assets. The Bank advanced £750,000 for these purposes, which was secured by debenture stock. In 1931 Hodges lamented that this money had not been applied towards Norman's objectives but that instead virtually all of it had been used to pay off outstanding liabilities to other banks, creditors and debenture holders. Therefore, Beardmore was left in an impossible situation: it had to pay the interest and charges on the £750,000 advance, but hardly any cash was coming into the business to fund the improvements that would allow an efficient liquidation. Hodges suggested that the Bank had been wrongly advised in putting its money forward and wrote that 'No scheme more calculated to thwart the attainment of the Governor's two objectives could have been devised than the one which came into operation.'<sup>79</sup>

Beardmore's problems were not limited to financial matters. In June 1930, a report on the company's administration painted a bleak picture: Beardmore possessed a poor costing system and selling organisation while it had no centralised control or independent inspection arrangements. Overall, the firm's lack of drive was symbolically reflected in its inefficient and run-down works, where tattered corrugated roofing let in the rain and damaged the valuable plant beneath. Some optimism remained, based on the reserves of loyalty and enthusiasm amongst the workforce, but the value of this was contingent on the firm's leadership.<sup>80</sup>

The Bank of England, having emerged from the lengthy process of recovering Armstrong's armament business, now found itself in a similar situation with Beardmore. Hans Reincke, formerly the senior manager of John Brown, became Beardmore's chairman in February 1930. He wrote in July 1931 that the

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<sup>78</sup> Davenport-Hines, 'Armaments Industry', p.119.

<sup>79</sup> BoE, SMT 3/121, Hodges Memorandum, 11 November 1931.

<sup>80</sup> *Ibid.*, Rose Report to Reincke, 8 June 1930.

outside ‘talk’ about the firm’s difficulties contributed to its internal problems, which included poor management, the dilapidated condition of the works and the resultant inevitable losses. Reincke also reported that Norman had made representations to the Admiralty regarding Beardmore’s ability to carry out a contract for destroyer machinery.<sup>81</sup> As with Armstrong before, Beardmore required Admiralty orders to remain afloat, but it could not provide the required guarantees. A large contract in 1932 placed Norman in a dilemma: as the government’s banker he could not advise that it should place the contract with a firm whose continued existence was uncertain, but at the same time, if Beardmore did not get the order, the firm’s demise would be inevitable. He was therefore forced to make another exceptional arrangement and relented Beardmore the interest it had paid on its previous loans so that it could undertake the contract.<sup>82</sup>

Reincke’s overall vision was for a wider scheme of rationalisation between Parkhead, the most competitive and promising of Beardmore’s works, and the Sheffield armament grouping of the English Steel Corporation and John Brown. However, he feared that certain personalities stood in the way of this, and hoped the bankers or even the government would set up a committee to force it through. He also hoped that the government could be prevailed upon to give industry a protective tariff for the period of reorganisation.<sup>83</sup> In the meantime, Beardmore continued to struggle. Sir James Lithgow wrote in November 1932 that Parkhead’s personnel were below par and lacked a first-class manager. As a result, Beardmore was looked upon locally as ‘a kind of ragtime crew’. Lithgow suggested that A. G. MacFarlane, a director at Parkhead, was a ‘tower of strength’, but with limitations: he was ‘suffering from boils in an awkward place and generally seems to be badly run down.’<sup>84</sup> MacFarlane rather personified the firm’s problems in general and, overall, Beardmore’s plight perhaps represented what Armstrong could have expected had it not merged with Vickers. The Bank of England simply did not have the independent knowledge or will to save an individual arms firm: moreover, as Tolliday has pointed out, the Bank proved

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<sup>81</sup> Ibid., Reincke Memorandum to Gardner, 6 July 1931.

<sup>82</sup> Tolliday, *British Steel*, p.242.

<sup>83</sup> BoE, SMT 3/121, Reincke Memorandum, 9 November 1931.

<sup>84</sup> Ibid., Lithgow to Duncan, 15 November 1932.

unable to resolve the dilemma of being both an orthodox central bank and a dynamic industrial bank.<sup>85</sup>

### **Vickers' Ascendancy**

In stark contrast to Beardmore's lethargy, Vickers possessed a range of dynamic individuals, who reflected its forward-thinking ethos. In its drawing office it had Sir John Carden, the gifted tank designer who, between his arrival in 1928 and premature death in 1935, helped to bring in £3 million of tank and tractor orders.<sup>86</sup> The firm's financial affairs were directed by Jenkinson, a man with clear views on industrial organisation and who believed that industry needed men 'with a future' rather than individuals who got by on name alone.<sup>87</sup> In charge of the works were unique individuals like Craven, who was as adept at handling people as he was at reorganising the plant.<sup>88</sup> At the head of this talented group stood the enigmatic character of General Lawrence. After talking with Lawrence in December 1926, Norman was puzzled, 'partly because the principle involved in this armament question is so vast and national and difficult, and partly because the General was so honest that his intention to gobble the rest is now clear.'<sup>89</sup> Much more than Norman, Lawrence personified and understood the unique connections between heavy industry, the City of London and national defence that characterised the inter-war armaments business. Besides his chairmanship of Vickers, Lawrence was also a director of Glyn Mills, the Army's bank, and he had served in the Boer War and as General Haig's Chief of Staff in the Great War.<sup>90</sup> Crucially, he provided clear leadership which, combined with the other firms' weaknesses and the Bank of England's caution, enabled Vickers to emerge as both the dominant force in both Vickers-Armstrongs and the British armaments industry more generally.

Vickers' attitude and policies towards the new company nonetheless provoked antagonism with Armstrong's representatives. Frater Taylor vocally criticised the bureaucratic 'management by theorists' that he felt prevailed at

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<sup>85</sup> Tolliday, *British Steel*, pp.238-46.

<sup>86</sup> Scott, *Vickers*, p.320.

<sup>87</sup> *The Times*, 6 November 1935 (Jenkinson's obituary).

<sup>88</sup> Scott, *Vickers*, p.160.

<sup>89</sup> BoE, SMT 2/126, Norman to Peacock, 22 December 1926. For Norman's close relationship with Lawrence, see Sayers, *Bank of England I*, p.252.

<sup>90</sup> For more on Lawrence, see Scott, *Vickers*, pp.159-60; *Vickers News* (Jun. 1927), p.343.

Vickers-Armstrongs. He even made the ‘wild’ suggestion to Peacock that those involved in Armstrong’s affairs should acquire a big block of Vickers’ shares, to gain ‘a measure of control in the Company which really matters.’<sup>91</sup> More realistically, Taylor felt Vickers-Armstrongs needed a ‘first class fellow at the top who, if necessary, will knock a lot of those Directors heads together.’ He did not desire this position himself but did feel that Armstrong’s organisation was superior to Vickers-Armstrongs, perhaps reflecting his frustration at being unable to implement his own theories within the new company.<sup>92</sup> At the end of May 1928 he unhappily suggested to Lawrence that Vickers-Armstrongs was carrying on in much the same way as the individual companies had done before: ‘When the merger was contemplated, everyone agreed that there should be reasonable compression – in other words, that one Works should be used where prior to the merger there were two in use.’ He argued that without a definite policy, ‘we are groping and shall continue to grope.’<sup>93</sup> He later predicted that ‘unless a policy of compression and rationalisation is pursued to the bitter end as was the intent of the merger, the expected results will not be forthcoming.’<sup>94</sup>

In June 1928 Lawrence outlined Vickers-Armstrongs’ future management from Vickers’ head office in London. George Taylor continued as deputy chairman; George Sim, Vickers’ secretary since 1926, was appointed a director and given responsibility for administration in London; Jenkinson was made financial director; Trevor Dawson and Craven were given responsibility for naval sales and shipbuilding; Birch was appointed sales director for army and cognate work; and Sir George Hadcock, Armstrong’s artillery expert, was appointed as a technical adviser. This Vickers-dominated board met on a weekly basis, to ensure that it exercised proper control with a general awareness of what the company was up to, and it also held monthly board meetings.<sup>95</sup> Nonetheless, Frater Taylor felt this organisation meant that the directors were still ‘sailing off on their own account’, and he urged Lawrence to implement stronger central direction.<sup>96</sup>

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<sup>91</sup> BA, 200281, Taylor to Peacock, 16 and 28 April, 2 May 1928.

<sup>92</sup> Ibid., Taylor to Peacock, 14 May 1928.

<sup>93</sup> BoE, SMT 2/127, Taylor to Lawrence, 31 May 1928. He pointedly added: ‘The success of Vickers-Armstrongs means a great deal to this Company as well as Vickers Limited.’

<sup>94</sup> BoE, SMT 8/38, Taylor to Peacock; Ibid., Taylor Confidential Memorandum for Cooper, 22 April 1929. Peacock forwarded this to Norman, who agreed with the sentiment.

<sup>95</sup> BA, 200281, Lawrence Memorandum, 13 June 1928.

<sup>96</sup> Ibid., Taylor to Lawrence, 13 June 1928.

Partly because of tensions surrounding the formation of the English Steel Corporation, Frater Taylor had become thoroughly 'fed up' with Vickers by late 1928 and wished to concentrate his diminishing energies on Armstrong's commercial projects: otherwise, his doctor had warned he was 'courting disaster'.<sup>97</sup> The bickering continued into 1929 and Norman could only suggest the advisability of keeping Vickers-Armstrongs' directors away from Armstrong's directors.<sup>98</sup> Armstrong initially had four directors on the Vickers-Armstrongs board: Peacock, Hadcock, Frater Taylor and Niemeyer.<sup>99</sup> When Taylor and Niemeyer retired from the board in early 1929, they were replaced by just one man, Sir James Cooper, an accountant and SMT director with experience of the Ministry of Munitions.<sup>100</sup> In all probability, Taylor was the only man who could have imposed the Bank's will to any significant extent on Vickers-Armstrongs: his departure removed this possibility. Even Norman admitted Lawrence's directorial shake-up was part of a strategic reorganisation 'about which I know nothing.'<sup>101</sup> By 1934, six of Vickers-Armstrongs' board were appointed by Vickers and held executive directorships (Armstrong had no executive directors) and five were also directors of Vickers. Therefore, Vickers-Armstrongs was essentially controlled by Vickers. Sir James Cooper suggested that the policies adopted by the Vickers-dominated board had accentuated Armstrong's relative weakness and in 1934 concluded that 'Vickers began as the stronger party: to-day they are the dominant party.'<sup>102</sup>

Vickers' ascendancy did not immediately translate into positive economic results. The full benefits of rationalisation required time to emerge and Lawrence anticipated that Vickers-Armstrongs would only give a moderate showing during its first year of operations.<sup>103</sup> Between 1928 and 1933 it made nearly £1.3 million net profits, but £1 million of this came from the Sun guarantee, which represented the maximum assistance possible (Table 5). In 1929 the firm bore a loss of £200,000 from its involvement in the English Steel Corporation and paid

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<sup>97</sup> BoE, SMT 2/127, Taylor to Peacock 15 and 30 November 1928. See also: *Ibid.*, Taylor to Peacock, 28 September 1928; BoE, SMT 8/38, Peacock to Norman, 2 October 1928.

<sup>98</sup> BoE, SMT 2/127, Norman to Peacock, 18 May 1929.

<sup>99</sup> BoE, G 14/245, Taylor to Revelstoke, 3 November 1927; *Ibid.*, Committee of Treasury Minutes, 4 November 1927.

<sup>100</sup> BoE, SMT 8/38, Peacock to Norman, 11 January 1929.

<sup>101</sup> *Ibid.*, Norman to Peacock, 9 January 1929.

<sup>102</sup> BoE, SMT 2/127, Cooper Secret Memorandum, 4 October 1934.

<sup>103</sup> BoE, SMT 8/38, Lawrence to Taylor, 6 November 1928.

£150,000 to clear up an outstanding liability on old Turkish contracts.<sup>104</sup> Profits earned on pre-merger contracts were retained by Vickers and Armstrong individually, which precluded the payment of dividends in 1928 and 1929. The new company was £2.5 million in debt to its shareholders by the end of 1933, and, when it was able to pay, the dividends went primarily to Vickers' preference shareholders.<sup>105</sup> Moreover, any early repayments under the Sun Insurance policy seemed unlikely.<sup>106</sup> Armstrong bore the worst of the unsatisfactory results because continued depression and several years of bad trade weakened its junior shareholdings far more than Vickers' preferential holdings. Moreover, Vickers-Armstrongs borrowed money from Vickers to pay a dividend, which made Vickers a creditor for the amount borrowed and the interest on the loan became a charge on the new company's future profits.<sup>107</sup>

The English Steel Corporation also had little initial success and its constituent works soon required further investment and reconstruction. In 1929, Vickers-Armstrongs' profits were reduced by the Corporation's £200,000 losses.<sup>108</sup> The Bank of England, unhappy with the ESC's direction, refused to undertake any further investment in this direction. Meanwhile, the Bank's existing influence, exerted through the profit guarantee to Vickers-Armstrongs, was steadily eroded by Vickers' independent ability to finance its subsidiaries. For example, Vickers provided a loan to the ESC when it needed cash to buy the Darlington Forge Company in 1929 and, subsequently converted its loans to debentures in the Corporation, strengthening its control.<sup>109</sup> Therefore, in both Vickers-Armstrongs and the ESC, Vickers' dominance came at Armstrong's expense.

Vickers Limited was now essentially a holding and financing company, and practically performed the functions of an industrial bank in relation to its subsidiaries, which included Vickers-Armstrongs.<sup>110</sup> Nonetheless, General Lawrence recognised that the armament and shipbuilding industries, upon which Vickers' interests were so predominantly dependent, were not in good health. In

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<sup>104</sup> BoE, SMT 2/127, Note on Vickers-Armstrongs Profits, 11 March 1930.

<sup>105</sup> Ibid., Cooper Secret Memorandum, 4 October 1934.

<sup>106</sup> BoE, SMT 8/39, Travers to Niemeyer, 9 March 1934.

<sup>107</sup> BoE, SMT 2/127, Cooper Secret Memorandum, 4 October 1934.

<sup>108</sup> Ibid., Cooper to Skinner, 7 February 1930; Ibid., Note on Profits, 11 March 1930.

<sup>109</sup> Tolliday, *British Steel*, pp.195-96.

<sup>110</sup> *The Times*, 22 March 1930. See also *The Statist*, 28 March 1931, pp.513-4. For Vickers Limited's extensive holdings in 1936, see RC, *Evidence*, p.350.

1930 he predicted ‘a difficult period’ ahead but was not pessimistic, telling shareholders: ‘Your great strength lies in your financial position. That enables you, with comparative equanimity to pass through even a prolonged period of bad trade and to be ready on the first sign of revival to make the most of the opportunities which may occur.’<sup>111</sup> In March 1931, in the midst of the ‘abnormal depression’ which had especially affected heavy industry, *The Times* commented on Vickers’ financial strength and the ‘gratifying exhibit’ of its annual report.<sup>112</sup> As a measure of its success, since Vickers’ internal reorganisation in 1926, its main competitors in the armaments business had either been integrated (Armstrong and Cammell Laird) or were in serious financial difficulties (Beardmore). That Vickers managed to weather the storm in the prevailing conditions was an impressive achievement.

Vickers-Armstrongs, through a combination of rationalisation, the Sun guarantee and Vickers’ financial power was able to surmount depression and disarmament and enjoyed its best annual trading profits during 1933, the first year without Bank assistance.<sup>113</sup> Orders increased by £3 million and the company obtained a large share of Admiralty work, enabling part of the Elswick Naval Yard to re-open. Niemeyer felt that Vickers-Armstrongs, based on its accounts for 1933, remained in a fundamentally unsound position, as nearly £5 million of its investments had not been written down to anything approaching their actual worth, and the English Steel Corporation’s true value caused him particular concern.<sup>114</sup> Yet the ESC made a profit for the first time in 1933, partly owing to Craven’s oversight of the firm’s reconstruction and rationalisation.<sup>115</sup> The impact of trade recovery, internal reorganisation and the beginning of rearmament meant that, according to *The Statist*, the ESC’s accounts for 1935 exceeded ‘even the most optimistic expectations’ and as the 1930s wore on, the Corporation contributed decent profits.<sup>116</sup>

Vickers, Vickers-Armstrongs and the ESC were all well-placed to take advantage of rearmament, not least because Vickers possessed considerable

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<sup>111</sup> *The Times*, 1 April 1930.

<sup>112</sup> *Ibid.*, 21 March 1931.

<sup>113</sup> BoE, SMT 2/127, Cooper Secret Memorandum, 4 October 1934.

<sup>114</sup> BoE, SMT 8/39, Niemeyer Memorandum, 8 March 1934.

<sup>115</sup> *The Statist*, 31 March 1934, p.477; Warren, *Steel*, p.243.

<sup>116</sup> *The Statist*, 29 February 1936, p.340; *Ibid.*, 28 March 1936, p.513; Warren, *Steel*, pp.247-49.

floating assets to finance large construction projects such as battleships.<sup>117</sup> With the population fearing air attack, Lawrence commented in March 1934 that land armament orders had increased, partly due to sales of anti-aircraft equipment. The darkening international situation certainly impacted favourably upon Vickers-Armstrongs' profits (Table 5). Nonetheless, Lawrence told the shareholders in March 1934 that 'the inflated profits of private Armament firms exist only in the imagination of ill-informed critics', and, the following year, he pointed out that the overall returns on the heavy capital outlay involved in arms manufacture had been 'meagre' for the past fifteen years.<sup>118</sup> Yet Vickers-Armstrongs' prospects were undoubtedly rising, and the 'ill-informed critics' forced the government to appoint the Royal Commission to investigate the armament industry's alleged malpractices. Although the Commission was inconvenient for Vickers it also helped the firm to consolidate its position, by shaking off the remnants of the Bank of England's influence.

**Table 5: Vickers-Armstrongs' Net Profits 1928-1936**

<i>1928</i>	<i>1929</i>	<i>1930</i>	<i>1931</i>	<i>1932</i>
£169,800*	£135,000*	£337,400*	£282,200*	£160,700*
<hr/>				
<i>1933</i>	<i>1934</i>	<i>1935</i>	<i>1936</i>	
£188,400	£357,534	£609,374	£768,267	

\* Figure includes £200,000 from the Sun Insurance Company guarantee.

Sources: *The Statist*, 23 March 1929, p.506; 2 April 1932, p.527; 1 April 1933, p.489; 24 March 1934, p.450; 30 March 1935, p.529; 28 March 1936, p.512; 27 March 1937, p.487. The 1929 figure is from BoE, SMT 2/127, Note on Profits, 11 March 1930.

### **The Royal Commission and the Bank's withdrawal**

In mid-1935 Vickers was summoned to appear at the Royal Commission and Norman fretted that the Bank's secret role in the Sun transaction would come out during the hearings. Therefore, he wanted the reasons for the Bank's involvement in the Vickers-Armstrongs merger to be rightly understood and to avoid 'any

<sup>117</sup> *The Times*, 21 March 1936.

<sup>118</sup> *Ibid.*, 27 March 1934 and 3 April 1935.

attitude which could be represented as an attempt to resist enquiry.’<sup>119</sup> The Treasury advised Norman to call Plender as a witness and to justify the Bank’s actions ‘not so much on grounds of national defence but on the fact that this was the first of a great series of rationalisation schemes’, which, after all, had been Norman’s stated motive all along.<sup>120</sup> The Sun had no objections to any revelations and Leese pointed out that, without mentioning the Bank, Lawrence could not otherwise explain the Sun contract.<sup>121</sup> Therefore, Lawrence was briefed to emphasise the transaction’s national importance if, as seemed likely, the question was raised at the Commission.<sup>122</sup>

In April 1935 Lawrence publicly stated that Vickers’ board welcomed the Royal Commission as ‘an opportunity to dispel misconceptions’ about the behaviour of arms firms.<sup>123</sup> On 6 January 1936, he informed the Bank that, in view of the attacks made upon him in earlier Royal Commission sittings owing to his chairmanship of banking as well as armament interests, he intended to raise himself the question of ‘several delicate financial transactions’ including the Sun contract.<sup>124</sup> In the event, this revelation occurred without much publicity when Vickers appeared before the Commission on 8 and 9 January 1936.<sup>125</sup>

The Commission also enquired asked about close financial directorial connections between the Bank and Vickers, and whether a large Bank loan was made to foster German armaments and if Vickers had benefited from it. Craven replied he had never heard of such a loan and the only director associated with the Bank had been Niemeyer and that Vickers had received no benefit as a result of Niemeyer’s visits to the Dominions.<sup>126</sup> Even so, Niemeyer was subsequently compelled to write to Sir John Eldon Bankes, the head of the Commission, denying that trips he had made to Australia and South America had anything to do with armaments.<sup>127</sup>

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<sup>119</sup> BoE, G 14/245, Norman to Plender, 4 June 1935; *Ibid.*, Norman to Hopkins, 4 June 1935.

<sup>120</sup> TNA, T 161/656/S.33094, Norman Draft Note, 3 June 1935; *Ibid.*, Hopkins Minute, 7 June 1935.

<sup>121</sup> BoE, G 14/245, Otter Barry to Norman, 5 June 1935; *Ibid.*, Leese to Norman, 5 June 1935.

<sup>122</sup> *Ibid.*, Memorandum on Vickers-Armstrongs, 19 June 1935; SMT 2/130, Harvey to Plender, 24 June 1935.

<sup>123</sup> *The Times*, 3 April 1935.

<sup>124</sup> BoE, G 14/245, Memorandum on Arms Commission, 6 January 1936.

<sup>125</sup> RC, *Evidence*, p.352; BoE, SMT 2/130, Note on Extract, 10 January 1936.

<sup>126</sup> RC, *Evidence*, pp.398-99.

<sup>127</sup> BoE, OV 102/6, Niemeyer to Bankes, 20 April 1936.

In any case, the Bank was eager to end its involvement in the armament industry and Vickers was equally keen to consolidate its position. In summer 1935 Vickers moved to purchase the balance of shares in Vickers-Armstrongs. Though inclined to sell, the Bank made agreement contingent on a satisfactory settlement of the Sun contract and whether such a transaction was desirable during the Royal Commission hearings.<sup>128</sup> The existing terms of repayment under the Sun agreement lasted until 31 December 1947, and if the Bank was to recover its money, Vickers-Armstrongs would have to earn total profits of £14.2 million.<sup>129</sup> Outweighing this consideration, Norman wanted ‘the Bank to take the opportunity of freeing themselves from the connection with armaments’ and the Committee of Treasury decided to accept £200,000 for the shares, and hoped Vickers would make an early offer on the Sun debt.<sup>130</sup> Therefore, in July 1935 Vickers Limited obtained possession of Vickers-Armstrongs’ entire £17.5 million share capital.<sup>131</sup> In March 1936 the Bank’s Committee of Treasury agreed to accept Vickers offer to pay back the money provided by the Sun with simple interest of 3 percent per annum, which was half of what was specified in the original contract.<sup>132</sup> Norman expressed gladness that this ‘peculiar transaction’ was over, while Lawrence expressed his ‘real satisfaction [...] that we have not let you down in this matter.’<sup>133</sup> On 31 March Vickers paid £1,116,135 and discharged its obligation.<sup>134</sup>

The conclusion of the Bank’s formal association with Vickers-Armstrongs did not mark the end of its involvement in the arms industry. As a consequence of the Vickers-Armstrongs merger, the Bank was left with an 80 percent controlling interest in the Armstrong Whitworth Securities Company, which it had created to deal with Armstrong’s non-armament assets. However, these remaining works were easily adaptable to arms production, although this was forbidden under the terms of the merger. The Scotswood works particularly suffered from an enormous overcapacity for locomotive production despite the fact many of its

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<sup>128</sup> BoE, G 14/64, Secret Meeting, 2 July 1935; Committee of Treasury Minutes, 3 July 1935.

<sup>129</sup> BoE, C 45/44, Memorandum on Vickers-Armstrongs and Sun Insurance, 12 April 1935.

<sup>130</sup> BoE, G 14/64, Meeting at the Bank, 11 July 1935; *Ibid.*, Committee of Treasury Minutes, 17 July 1935.

<sup>131</sup> *The Economist*, 20 July 1935, p.157.

<sup>132</sup> BoE, C 45/44, Memorandum on Contingent Interest, 16 March 1936; *Ibid.*, Sun Insurance Memorandum, 16 March 1936; BoE, G14/64, Committee of Treasury Minutes, 18 March 1936.

<sup>133</sup> BoE, SMT 2/128, Norman to Lawrence, 18 March 1936; *Ibid.*, Lawrence to Norman, 19 March 1936.

<sup>134</sup> BoE, G 14/245, Court of Directors Minutes, 2 April 1936.

workshops were ‘eminently suitable for the manufacture of certain classes of munitions’, particularly shells. As the government moved towards rearmament, Vickers-Armstrongs temporarily waived the embargo on arms production at Scotswood and Armstrong received large orders from the Admiralty and War Office.<sup>135</sup> Reviewing its investment in June 1936, the Bank of England recognised that Armstrong’s future was likely to rest increasingly on armament orders and, ironically, this could fill the gap left by insufficient ‘commercial’ work. The chief problem was

that the Bank of England might in future, through their holding which carries control of the Company, be more closely connected with the manufacture of Armaments than is desirable on general grounds: while their true aim would continue to be the promotion of employment they would automatically expose themselves to the slings and arrows of the critics aimed at private Armament firms.<sup>136</sup>

The Bank wished to dispose of its interests to a firm that could maintain Armstrong as a going concern, and Vickers-Armstrongs, now owned completely by Vickers, seemed an obvious choice.<sup>137</sup> Subsequently, by purchasing the Scotswood works, Vickers finally gobbled up its traditional rival. On 31 December 1938 the Bank’s Newcastle branch closed its remaining Vickers-Armstrongs accounts.<sup>138</sup>

Rearmament also thwarted the Bank’s planned liquidation of Beardmore’s assets as the government’s needs meant the firm required a more dynamic chairman, rather than a liquidator. In the interests of coordinated industrial policy on the west coast of Scotland, Sir James Lithgow relieved the Bank of its main financial commitments.<sup>139</sup> By the end of 1936, Beardmore’s fortunes had rapidly turned around and the reorganised Parkhead works were expanding to produce armour plate and howitzers for the rearmament programme. Yet the Bank’s involvement only finally came to an end after protracted and acrimonious

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<sup>135</sup> *Times Company Meetings: Armstrong Whitworth Securities Company Limited*, 31 July 1937.

<sup>136</sup> BoE, G 14/64, Committee of Treasury Memorandum and Minutes, 17 June 1936.

<sup>137</sup> *Ibid.*

<sup>138</sup> BoE, SMT 2/127, Stevenson Memorandum, 23 November 1938

<sup>139</sup> BoE, G 14/240, Memorandum on Beardmore, 2 June 1938.

negotiations, which ended with Lithgow taking sole control in mid-1938.<sup>140</sup> This relieved Norman of the ‘moral responsibility’ for Beardmore.<sup>141</sup> Therefore, before the Second World War broke out, the Bank of England had ended its direct association in the private armaments industry, leaving behind a considerably different entity to the one it had become involved with nearly two decades previously.

## **Conclusion**

In 1933 Fenner Brockway wrote that he was unable ‘to penetrate fully behind the veil which hides the intimacy of the relationship of the Money Trust and the Munitions Trust.’<sup>142</sup> Certainly, the government’s orthodox refusal to help the Vickers-Armstrongs scheme resulted in the Bank of England taking further unorthodox steps into the industry’s affairs. At times Montagu Norman held the fate of a significant portion of Britain’s private arms manufacturing capacity in his hands. Yet he rarely, if ever, viewed this as important from a strategic or national defence viewpoint. Instead, he considered the arms business through much the same prism of economic viability as he did with more commercial undertakings. As a result, the Bank could not provide a clear direction beyond a vaguely expressed ideal of ‘rationalisation’ that was in some ways inappropriate for the armament industry. Instead, Vickers emerged as the real master of the new relationship, either absorbing the capacity of its rivals or simply standing by as they withered away. By contrast, Armstrong’s interest and influence in Vickers-Armstrongs fell away, while Beardmore would likely have been liquidated if not for the rearmament programme, while it lacked suitable leadership until Sir James Lithgow took over.

To cope with peaks and troughs in demand, a successful armaments firm required industrial and financial strength, the capacity to design and produce advanced weapons and, more intangibly, possess strength of character and vision. In each of these areas Vickers-Armstrongs excelled, under the guidance of its gigantic parent company, Vickers Limited. In 1937 General Lawrence hailed the

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<sup>140</sup> Hume and Moss, *Beardmore*, pp.226-47.

<sup>141</sup> BoE, G 14/240, Informal Court Records, June 1938. The Bank did not fully dispose of its interest until mid-1939: *Ibid.*, Committee of Treasury Minute, 5 July 1939.

<sup>142</sup> Brockway, *Bloody Traffic*, p.208.

double success of Vickers' policy, which had not only given good financial results but had also helped provide the government with the arms it required for the national defence programme.<sup>143</sup> Under modernised management and with up-to-date financial advice, Vickers-Armstrongs offered the government a vital nucleus for wartime expansion. Meanwhile, as armaments became an increasingly controversial political issue, the Bank of England ended its long and remarkable association with the industry. In the context of arms production, it is hard to agree with Sir Henry Clay's assertion that Norman, in pursuit of his industrial policy, could act without delay and 'never lacked courage'.<sup>144</sup> Conversely, Vickers' amalgamations and ruthless tactics made the British armaments industry more efficient, cutting its costs while maintaining important reserve capacity. Obviously some firms disappeared, and much wartime capacity was lost while, perhaps most worryingly, Vickers-Armstrongs began to assume a virtually monopolistic position. But had Vickers not taken this course, it seems certain that an even greater amount of plant would have been unavailable when the government decided to rearm.

The profits earned by armament manufacturers provide a crude barometer of international tensions and, as the world lurched towards another total war, Vickers-Armstrongs' and Beardmore's fortunes duly improved.<sup>145</sup> Both showed that they had learned from their past mistakes and prudently used some of their increased profits to make financial preparations for a contraction in work, to help avoid another calamitous adjustment to 'normal' conditions.<sup>146</sup> The firms clearly realised that while the government depended on their specialist facilities during emergencies, they could not themselves rely on the state to help them during more peaceful periods. In this regard, the private manufacturers were traditionally able to supplement their income during periods of relatively low demand by selling their wares overseas. Yet post-1918 state-industry relations in the matter of arms exports were undermined by familiar problems: the government placed the industry's considerations beneath its wider strategic planning, while the firms felt increasingly marginalised and were forced to adjust independently. Moreover, the arms trade was more politically controversial than domestic manufacture.

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<sup>143</sup> *The Economist*, 10 April 1937, p.110.

<sup>144</sup> Clay, *Norman*, p.359.

<sup>145</sup> For example, see *The Economist*, 10 April 1937, p.110; Hume and Moss, *Beardmore*, p.248.

<sup>146</sup> *The Times*, 3 April 1937 and 4 April 1939; *Financial News*, 24 June 1937.

Nonetheless, the following chapters demonstrate that these antagonistic relations did not represent an official desire to end the international arms trade, and neither did they lead to a terminal decline in Britain's exports.

## 5. International Rivalry and Unilateral Regulation: Britain and the Global Arms Trade

A Nation like the United Kingdom which is a small military Power in peace, but may need to become a large one in war – a position in which we differ from every other great Power in the world – except possibly the United States of America – must foster an export trade in armaments (subject to proper supervision) in order to maintain its productive capacity: for productive capacity cannot be equated with idle plant. This is the fundamental fact which must govern our arms export policy so long as armaments are unrestricted and war a possibility.

- *Report of an Interdepartmental Committee on the Report of the Royal Commission, 22 January 1937.*<sup>1</sup>

Overseas sales held an important, well-established and controversial place in the private armaments industry's activities. Unpredictable home government orders did not cover the vast overheads incurred in the development and production of cutting edge weaponry, so manufacturers sought foreign markets as a vital means of boosting their income.<sup>2</sup> By the end of the nineteenth century British firms exported more armaments than any other power and possessed an outstanding global reputation for heavy guns and warships.<sup>3</sup> After the Great War the market became more competitive and the relatively small number of large-scale private armament companies, particularly in Britain, Czechoslovakia, France and Italy, vied to attract the custom of newly-independent states and other emerging powers. Although the traditional economic motive behind overseas sales remained the same, the trade became increasingly associated with official policy. Indeed, recent scholarship has demonstrated that while the pre-1914 arms market was marked by a pioneering laissez-faire spirit, inter-war governments sought to obtain political advantages by exercising greater control over arms transactions.<sup>4</sup> Moreover, states which helped their firms to attract orders could potentially gain an edge over their rivals in terms of capacity for wartime industrial expansion. In this regard, the international arms trade offered the British government an opportunity, which it

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<sup>1</sup> TNA, CAB 4/25/1299-B.

<sup>2</sup> See: McNeill, *Pursuit of Power*, pp.240-41, 262-63; Scott, *Vickers*, pp.30-33.

<sup>3</sup> Clive Trebilcock, 'British Armaments and European Industrialization', *Economic History Review*, New Series, vol. 26, no. 2 (1973), 256-57.

<sup>4</sup> Stoker and Grant (eds.), *Girding for Battle*, particularly Grant, 'The Arms Trade in a Global Perspective', xii-xiv.

repeatedly turned down, to rebuild its stagnant relationship with the private manufacturers and enhance its dubious industrial mobilisation credentials.

In January 1936 Lord Weir, after studying some figures on arms exports supplied by Sir Hugh Elles, the Master General of the Ordnance, wrote that Britain had become 'deplorably weak'.<sup>5</sup> Similarly, some historians have argued that the government's lack of initiative in this regard weakened the arms industry and, as a consequence, reduced British national strength.<sup>6</sup> In particular, Richard Davenport-Hines has suggested that other countries provided much greater support to their firms and possessed more effective state-industry coordination, whereas British companies suffered from 'negative discrimination' in the form of restrictive policies.<sup>7</sup> Certainly, every consignment of armaments from the British Isles was subject to a comprehensive system of regulations and had to carry a licence. Moreover, the government staunchly refused to guarantee long-term credit for exports of weapons and warships. Yet these policies were not intended to prevent or reduce the trade in armaments. Instead, officials simply wished to monitor such transactions and ensure that they conformed to Britain's overall economic, foreign and strategic policies. The government admittedly had little success with its unilateral attempts to control the arms trade and became increasingly concerned by the extent to which its efforts unintentionally disadvantaged British firms. Even so, the negative impact of its regulatory measures was undoubtedly overstated, in part through over-reliance on the manufacturers' own exaggerated complaints. In reality, as David Edgerton has pointed out, Britain remained a major exporter of arms even though orders were harder to come by.<sup>8</sup> Indeed, the arms industry's performance on the international market mirrored its domestic experience in several ways: although it had to adjust to difficult post-war conditions with little positive help from the government, it maintained a stronger position than was admitted at the time.

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<sup>5</sup> GUAS, DC 96/21/1, Weir to Elles, 25 January 1936.

<sup>6</sup> For example: Gordon, *Seapower*, pp.90-91.

<sup>7</sup> Davenport-Hines, 'Armaments Industry', Ch. 6, esp. p.284.

<sup>8</sup> Edgerton, *Warfare State*, pp.46-47.

## **A Self-Denying Ordinance on Ordnance: The Export Licensing System**

During the Great War, the British government introduced export licensing to prevent all kinds of strategic goods from reaching enemy states and as a means of influencing neutral powers. The post-war retention and adaptation of licences specifically to keep armaments out of the hands of ‘native races, subversive elements and disarmed ex-enemy countries’ indicated official recognition that unregulated arms exports posed a potential risk to national interests.<sup>9</sup> These measures were initially intended to administer the safe disposal of wartime surplus small arms and ammunition, but they were also used to supervise and control the wider trade in privately manufactured weapons.<sup>10</sup> The system incorporated domestic law, international treaty provisions and ad hoc procedures: it imposed certain all-encompassing regulations but also allowed for the pragmatic consideration of individual cases. The subject concerned officials from a range of departments and a combination of economic, political and strategic considerations dictated what was allowed to be exported and to which states. However, licensing also provoked some controversy as to whether such unilateral measures actually had any real effect on regulating the global arms trade or if they simply made the British arms industry a less attractive proposition for potential customers.

The Arms Export Prohibition Order (1921, revised in 1931) required all arms, ammunition and various other potentially warlike items to bear a licence issued by the Board of Trade (for the items covered see Appendix IV). An open general licence was issued for certain materials, including smooth bore shotguns and industrial explosives, which effectively made these items freely exportable except to certain prohibited areas in Africa and Asia.<sup>11</sup> A licence application took two to seven days to process although urgent cases could be dealt with in 48 hours. Once issued, licences normally lasted for three months and were revocable at any time, although this rarely occurred.<sup>12</sup> In 1925 the Board of Trade described how it normally received between 200 and 300 applications per week, which

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<sup>9</sup> RC, *Evidence*, pp.332, 335.

<sup>10</sup> Elton Atwater, ‘British Control Over the Export of War Materials’ *American Journal of International Law*, vol. 33, no. 2 (Apr., 1939), 300.

<sup>11</sup> TNA, CAB 24/171/CP65(25), BT Memorandum, 4 February 1925; Atwater, ‘British Control’, 299.

<sup>12</sup> TNA, CAB 27/551/PA(33)2, PSOC Subcommittee Report: Export Licensing, 23 June 1933, (esp. Appendices E-F). The service departments did not need a licence to export arms and only had to supply Customs with a certificate in lieu.

mostly consisted of personal luggage cases, small trade requests and colonial government transactions (see Appendix V for licenses granted and refused between 1929 and 1935). The large arms manufacturers submitted relatively fewer applications although these involved significant and valuable quantities of specialist war material. In these cases, the Board of Trade consulted the Foreign Office and service departments, a process which arose from custom rather than statutory obligation. The Foreign Office weighed up various factors, including the nature of the consignee and consignment (the general practice was to deliver only to governments or their accredited agents), the internal conditions in the export's destination, any relevant treaty provisions or special circumstances, and a general assessment of the international situation. The services based their decisions largely on whether the proposed export should be kept within the British Isles for national needs or if it was of a secret nature.<sup>13</sup> This interdepartmental consultation ensured that sales of domestically produced armaments conformed to Britain's overall defence and foreign policies. Moreover, although the granting of an export licence did not necessarily mean that the contract would be fulfilled, the application procedure enabled the government to keep an eye on general trends in the arms trade and to monitor any unusual developments.<sup>14</sup>

Unlike land armaments and aircraft, the construction and export of warships was subject to the Admiralty's independent licensing authority and was governed by the Treaties of Washington Act (1922) and London Naval Treaty Act (1930). These prevented the Admiralty from refusing a licence unless the ship in question violated these treaties, although naval armaments sold separately still required a normal licence from the Board of Trade. Additionally, the Foreign Enlistment Act (1870) forbade any warship exports to a belligerent power when Britain remained neutral. Of course, it would have been virtually impossible to surreptitiously construct and export a warship and the Admiralty's overseers, in cooperation with Customs officers, monitored activity in the country's various shipbuilding centres.<sup>15</sup> Nonetheless, when China made enquiries to Vickers about the purchase of a £1.5 million cruiser in late 1929, the government had 'no legal means' of preventing the transaction, even though the Foreign Office drew

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<sup>13</sup> TNA, CAB 24/171/CP65(25), BT Memorandum, 4 February 1925; Atwater, 'British Control', 305-306, 313-15; RC, *Evidence*, pp.333-40.

<sup>14</sup> *Ibid.*, p.334.

<sup>15</sup> *Ibid.*, pp.341-43.

attention to existing unpaid Chinese debts to British creditors, suggested that the cruiser went against the government's disarmament policy, and pointed out that the Anglo-Chinese naval contract of 20 June 1929 provided for police vessels rather than competitive expansion.<sup>16</sup> The Chinese Admiral in charge of naval organisation apparently desired a cruiser to gain 'face' with other powers, but the negotiations were ultimately interrupted by continued unrest in China and its difficulties in securing the necessary finance.<sup>17</sup>

The arms export system's flexibility and multifaceted nature occasionally caused confusion amongst politicians and public opinion. Surprisingly for an architect of the pragmatic Locarno agreement, Sir Austen Chamberlain, the Foreign Secretary, did not fully grasp the methods employed and asked the CID in February 1926 to formulate definite principles for the supply of arms to foreign countries.<sup>18</sup> Lord Robert Cecil, the Chancellor of the Duchy of Lancaster, subsequently consulted the relevant departments and reported that 'a sufficiently definite general policy' already existed.<sup>19</sup> When faced with growing public clamour against the private arms trade in 1934, which Cecil had ironically helped to instigate, the Cabinet regretted public opinion was so 'ill-informed' on the subject and suggested the government's record and system of export regulation provided an unmatched level of regulation compared to other states.<sup>20</sup>

In principle, the licensing system offered the government a range of controls. For example, it could be used to prevent the leakage of secret designs and models to foreign military establishments although, in practice, the services usually relied on their own close arrangements with the manufacturers.<sup>21</sup> Despite this, the secrecy issue occasionally caused friction. The firms naturally wished to increase their competitiveness abroad and sought permission to sell their most modern designs. In 1930 Birch wrote to the War Office:

I think we cannot too often remember that we did not use one single weapon in the Great War that we used in the South African war, and the interval

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<sup>16</sup> TNA, CAB 24/207/324(29) and 324a(29), Foreign Office (hereafter FO) Memoranda, 18 and 22 November 1929.

<sup>17</sup> CUL, VMF K612, Coote Report: China Visit, October 1929-November 1930, n.d.

<sup>18</sup> TNA, CAB 2/4, CID Minutes, 25 February 1926.

<sup>19</sup> *Ibid.*, 22 July 1926.

<sup>20</sup> TNA, CAB 23/80/37(34), Cabinet Conclusions, 29 October 1934.

<sup>21</sup> TNA, CAB 27/551/PA(33)2, PSOC Subcommittee Report: Export Licensing, 23 June 1933.

between them was not very great. All sciences and all engineering progresses so quickly that we can hand everything out to everybody without danger, providing we can get something in return for it.<sup>22</sup>

The War Office did not agree. Tanks were considered a British speciality and the Army was keen to maintain its head start. Birch complained that while the Admiralty had demonstrated a new type of eight-inch naval gun to Chilean representatives, the War Office imposed strict secrecy on the latest light tank models. He contended that the War Office ‘would not go to the Motor Show and stop manufacturers selling improvements.’<sup>23</sup> In response, the War Office suggested Birch had operated a similarly restrictive policy during his previous career as the Master General of Ordnance.<sup>24</sup> Moreover, in spite of Vickers’ complaints, Britain held a 34 percent global market share for tank sales between 1930 and 1934, just behind France (38.8 percent) and in front of the United States (21.7 percent).<sup>25</sup>

Besides monitoring trade flows and protecting secret designs, export licensing enabled the government to enforce arms embargoes, which were occasionally imposed to comply with the

general principle that munitions should not be sent to foreign countries at times when the political horizon is clouded, when there is risk of the outbreak of war foreign or civil, and, of course, above all when there is any danger of the munitions being used against H.M. Forces.<sup>26</sup>

The latter consideration provoked especial moral revulsion. For example, in 1934 James Ramsay MacDonald, the Prime Minister, recalled his shock at discovering ‘a brass label bearing the name of a British armaments firm’ on guns that had

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<sup>22</sup> CUL, VMF K619, Birch to Charles, 15 December 1930. See also: CUL, VMF K609, Birch to Lawrence, 9 January 1928; CUL, VMF K618, Birch to Milne, 8 December 1927.

<sup>23</sup> Ibid., Birch to Peck, 28 October 1929. See also: Ibid., Gillman to Birch, 11 January 1928; Ibid., Birch to Gillman (unsent), 22 October 1929; CUL, VMF K604, Birch Memorandum, 16 October 1929.

<sup>24</sup> CUL, VMF K618, Birch-Gillman Correspondence, 6-8 December 1927.

<sup>25</sup> Robert E. Harkavy, *The Arms Trade and International Systems* (Cambridge, Mass., 1975), p.84.

<sup>26</sup> TNA, CAB 24/214/CP288(30), Graham Memorandum, 7 August 1930.

mown down British Empire troops in the Dardanelles during the Great War.<sup>27</sup> Presenting the opposite case, Sir Maurice Hankey told the Royal Commission in May 1936 that out of 234 guns reportedly used in the Dardanelles, only thirteen had originated in Britain and the rest had been made in Germany. Hankey suggested that German war potential had undoubtedly benefited from manufacturing these guns and that this had made Turkey dependent on Germany for supplies and that this might have influenced its decision to enter the war on the side of the Central Powers.<sup>28</sup> Similarly, the service departments occasionally argued it was preferable for troops to face familiar weapons rather than those of unknown design or suggested that Britain could potentially gain influence via its control of ammunition supplies if a customer purchased guns of a particular specification.<sup>29</sup>

Most inter-war arms embargoes were multilateral and international (see Chapter 6) but the government also enforced unilateral prohibitions, although the only example of this during the 1920s was a sporadic embargo on arms exports to the Soviet Union.<sup>30</sup> In November 1924 the incoming Conservative government adopted this policy as a matter of political principle and its decision was held to include licences already granted. As a result, Vickers and BSA incurred losses of £9,100 and £36,600 respectively on contracts with Moscow for machine guns, Lewis guns and spare parts.<sup>31</sup> Denied compensation, BSA subsequently refused to take a large contract for the supply of rifles and machine guns to Greece and Lithuania unless the government granted a firm licence covering the entire period of manufacture, estimated at up to three years. Sir Philip Cunliffe-Lister, the President of the Board of Trade, suggested that substantial contracts for land armaments be treated like warships in that the licences should cover the period of the contract and warned that British manufacturers would otherwise only take on

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<sup>27</sup> Quoted in Sampson, *Arms Bazaar*, p.73. See also Dalton's speech in Hansard, HC Debs. (series five) vol. 192, col. 2736, (11 Mar. 1926). The 1930s critics jumped on this example: UDC, *Secret International*, p.7; Engelbrecht and Hanighen, *Merchants of Death*, p.4; Brockway, *Bloody Traffic*, pp.74-77.

<sup>28</sup> RC, *Evidence*, p.595.

<sup>29</sup> TNA, CAB 24/198/CP349(28), Admiralty Memorandum, 20 November 1928; TNA, CAB 24/206/CP275(29), WO Memorandum, 5 October 1929.

<sup>30</sup> TNA, CAB 27/551/PA(33)2, PSOC Subcommittee Report: Export Licensing, 23 June 1933.

<sup>31</sup> TNA, CAB 24/171/CP2(25), Cunliffe-Lister Memorandum, 1 January 1925; TNA, CAB 23/49/1(25), Cabinet Conclusions, 5 January 1925; TNA, CAB 27/551/PA(33)2, PSOC Subcommittee Report: Appendix E, 23 June 1933.

‘small jobbing orders’ and refuse more valuable work.<sup>32</sup> The Cabinet agreed and made long-term licences available which did not contain the usual stipulation that they could be modified or revoked at any time, but instead offered the reassurance that ‘they will not be withdrawn save in the event of circumstances of an altogether exceptional nature arising which the Board are at present quite unable to foresee.’<sup>33</sup> Despite this concession, in 1933 the Board of Trade reported it had not issued any firm licences since 1928, with companies apparently preferring to rely on the ordinary three month licences.<sup>34</sup>

The Soviet embargo raised questions about the efficacy of unilateral measures in regulating the global arms trade and the resultant impact on British interests. Although the Conservatives abhorred the communist regime, no international treaty obligations operated on the Soviet Union, allowing it to easily obtain its requirements from other sources. Following an enquiry by Vickers in October 1925, the government subsequently modified its policy to allow exports ‘of a purely defensive character’, such as small coastal defence vessels and submarine mines. Every licence application still underwent the usual checks, along with an assessment of the proposed consignment’s ‘defensiveness’ and of the risk that it posed to national interests, ranging from the turbulent Indian frontier to British fishing boats on the Murman coast.<sup>35</sup> In 1929, following Labour’s return to power, the prohibition was completely removed and in March 1930 the Board of Trade issued a licence for the export of 60 Vickers and Carden-Loyd tanks worth £300,000 to the Soviet Union.<sup>36</sup>

If companies considered the licensing arrangements and the possibility of embargoes too restrictive, or the government unresponsive to their appeals, they could technically circumvent the system by establishing branches abroad.<sup>37</sup> Yet, unless the Foreign Office or services raised particular objections, any firm

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<sup>32</sup> TNA, CAB 24/174/CP384(25), Cunliffe-Lister Memorandum, 4 August 1925.

<sup>33</sup> TNA, CAB 24/175/CP483(25), Cunliffe-Lister Memorandum, 20 November 1925; TNA, CAB 23/51/54(25), Cabinet Conclusions, 25 November 1925.

<sup>34</sup> TNA, CAB 27/551/PA(33)2, PSOC Subcommittee Report: Export Licensing, 23 June 1933.

<sup>35</sup> Relevant Cabinet Conclusions (all TNA): CAB 23/52/1/26, 19 January 1926; CAB 23/54/18(27), 23 March 1927; CAB 23/59/51(28), 14 November 1928; CAB 23/59/54(28), 21 November 1928; CAB 23/60/2(29), 23 January 1929. Relevant papers (all TNA): CAB 24/178/CP3(26), Cunliffe-Lister Memorandum, 4 January 1926; *Ibid.*, CP26(26), Naval, General and Air Staffs Report, 22 January 1926; CAB 24/186/CP139(27), Hoare Memorandum, 29 April 1927; CAB 24/198/CP349(28), Bridgeman Memorandum, 20 November 1928.

<sup>36</sup> TNA, CAB 23/64/30(30), Cabinet Conclusions, 28 May 1930; Hansard, HC Debs. (series five) vol. 239, cols 1272-3, (28 May 1930).

<sup>37</sup> Atwater, ‘British Control’, 316-17.

obtaining a contract to export arms could ‘broadly speaking’ rely on the issue of a licence. In 1930 the Board of Trade claimed that very few orders had been lost owing to the system and stressed that, even if individual licensing was abandoned, some form of restriction was inevitable if demanded by political conditions in other countries.<sup>38</sup> However, this theory was seriously tested after 27 February 1933 by the National Government’s imposition of a unilateral arms embargo on both sides in the Sino-Japanese conflict, a policy which resulted from considerable domestic pressure for Britain to ‘give a lead’ in the matter and demonstrate the efficacy of its unilateral measures.<sup>39</sup> Significantly, this was also the first time licensing was used to try and ‘starve’ a war by withholding armaments although no attempt was made to define the aggressor and, as with the Soviet experience, the policy was little more than a gesture given the continued availability of arms elsewhere.<sup>40</sup> This consideration ended the embargo after two weeks and prompted a lengthy high-level debate on whether export licensing in general was damaging to the domestic arms industry and national defence, and how far it was possible to modify the system to put British manufacturers on an even footing with their overseas rivals.

On 15 March the Principal Supply Officers Committee appointed a subcommittee to examine these questions, while the Cabinet appointed its own interdepartmental committee a month later.<sup>41</sup> The PSOC subcommittee, which represented the Board of Trade and service departments, claimed that the licensing system ‘severely handicapped’ the British arms industry in two ways. First, it meant firms were unable to clinch deals immediately because any contract was contingent on the issue of a licence. Second, it allegedly generated a ‘feeling of uncertainty’ in the minds of both customer and producer, which the Sino-Japanese embargo had exacerbated.<sup>42</sup> The PSOC claimed that fears of future restrictions deterred foreign governments from placing orders and discouraged British companies from taking on business, while manufacturers subsequently found it difficult to recapture customers who had, in the meantime, become reliant

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<sup>38</sup> TNA, CAB 24/214/CP288(30), Graham Memorandum, 7 August 1930.

<sup>39</sup> Christopher Thorne, ‘The Quest for Arms Embargoes: Failure in 1933’, *Journal of Contemporary History*, vol. 5, no. 4 (1970), 132-5, 137.

<sup>40</sup> Atwater, ‘British Control’, 304.

<sup>41</sup> TNA, CAB 4/22/1109-B, PSOC Report: Armaments Industry, 31 March 1933; TNA, CAB 27/551/PA(33)1, Terms of Reference, 13 April 1933.

<sup>42</sup> *Ibid.*, PA(33)2, PSOC Subcommittee Report: Export Licensing, 23 June 1933.

on another country's designs. Certain commercial goods were also apparently affected by the embargo owing to fears that the government might expand the list of forbidden supplies to include items purchased for wartime use, such as jute bags. Indeed, the subcommittee felt that the existing policy had wide impact on general trade because armaments contracts tended to involve a large number of ancillary firms besides the major producers. Therefore, the PSOC reported that the licensing system had caused unemployment, damaged industry and, ultimately, weakened the country's capacity for emergency expansion.<sup>43</sup> Walter Runciman, the President of the Board of Trade and chairman of the PSOC, subsequently suggested that it had reduced British industrial mobilisation potential 'very much below the danger point.'<sup>44</sup>

On 6 April Sir Bolton Eyres Monsell, the First Lord of the Admiralty, compared the number of British firms ceasing armaments production with the apparently thriving continental situation and told the CID:

we had been internationally hoodwinked as this [licensing] system was self-imposed and its existence, though perhaps an example to other countries, had certainly frightened away possible purchasers.

Sir John Simon, the Foreign Secretary, recognised that an effective control of the arms trade required international rather than unilateral measures and believed the only solution was for other countries to adopt a national licensing system along British lines. The difficulty remained that 'unscrupulous governments' would not apply the necessary oversight and British firms would remain disadvantaged. For example, MacDonald complained that while France already had arrangements in place to control its arms exports, it had never actually enforced any prohibition.<sup>45</sup> Indeed, the Foreign Countries Industrial Intelligence committee had previously reported that Sweden was the only country besides Britain in which the arms industry was apprehensive of any government hindrance.<sup>46</sup> Although the Board of Trade and Foreign Office prepared a list demonstrating that most countries possessed export regulations, ministers felt that Britain administered the only truly

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<sup>43</sup> TNA, CAB 4/22/1109-B, PSOC Report: Armaments Industry, 31 March 1933.

<sup>44</sup> TNA, CAB 27/551, Meeting of Ministers, 18 December 1933.

<sup>45</sup> TNA, CAB 2/5, CID Minutes, 6 April 1933.

<sup>46</sup> TNA, CAB 4/22/1106-B, FCI Report, 13 March 1933.

effective domestic arrangement.<sup>47</sup> However, given the perceived detrimental impact of the existing system, the government decided that it required immediate modification.

The PSOC subcommittee suggested issuing an open general licence to the handful of firms who manufactured the bulk of Britain's exported war material. Based on a pre-existing scheme controlling aircraft sales, these firms would then be able to freely export all items covered by the Arms Export Prohibition Order except to regions prohibited by international treaty. To maintain a certain level of supervision, the service departments reserved the right to demand information from the manufacturers regarding overseas business, while all other arms transactions would still require an individual licence.<sup>48</sup> The proposed open licence also contained a qualifying statement indicating that the government had no intention of terminating it, unless the manufacturers broke the conditions under which it was granted, or in the interests of imperial security, or in pursuance of an international agreement. Though sweeping, these recommendations neither rejected the principle of export licensing nor advocated a change in the law. The government retained the right to revoke a licence at any time but the proposed modifications offered slightly more reassurance that this would not happen under normal circumstances, although a similar clause had been available since 1925. The subcommittee maintained that its suggestions adhered to previous international agreements on the subject and were fully compatible with the government's policy at Geneva.<sup>49</sup> In this regard, the British delegation to the Disarmament Conference had consistently opposed proposals to replace the private manufacture of armaments with a strictly controlled international system and had advocated domestic licensing as a more effective and realistic alternative.<sup>50</sup> Nonetheless, the Foreign Office complained in July 1933 that the PSOC's proposed modifications would completely undermine this argument and voiced strong opposition to their implementation.<sup>51</sup> However, on 8 December, the

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<sup>47</sup> For other countries' arrangements: TNA, CAB27/551/PA(33)5, Runciman Note, 14 November 1933. For comments on relative British effectiveness, see: TNA, CAB27/551, PA Conclusions, 7 December 1933.

<sup>48</sup> This included surplus sales, exports to unauthorised governments, and exports by firms not holding an open licence: TNA, CAB 27/551/PA(33)2, PSOC Subcommittee Report: Export Licensing, 23 June 1933.

<sup>49</sup> *Ibid.*

<sup>50</sup> See pp.255-59 below.

<sup>51</sup> TNA, CAB 27/551/PA(33)3, FO to PSOC, 20 July 1933.

Cabinet Committee on the Private Armaments Industry pointed out that no other country had shown the least inclination to follow Britain's lead.<sup>52</sup> With this in mind and, with some ministers arguing that the result of the government's policy to date had been 'to throw British workmen on the streets without stopping other countries from piling up arms', the Cabinet approved the PSOC's recommendations on 13 December.<sup>53</sup>

MacDonald felt the Cabinet had made the right decision, but feared it would be subjected to widespread international and domestic criticism once the news was made public. At a meeting of ministers on 18 December, he suggested writing a circular letter to other powers, inviting them to adopt the British system, and then publishing the responses as a demonstration that the government had done everything possible to secure an international settlement before modifying its policy. The Foreign Office, represented by Sir Robert Vansittart, the Permanent Under-Secretary of State, and Anthony Eden, the Parliamentary Under-Secretary, suggested that this idea would not work because certain states, including major producers such as France and Czechoslovakia, had supported international proposals which went much further than Britain was prepared to accept. To avoid a potentially damaging public announcement, the assembled ministers decided to abandon the PSOC's proposals. Instead, MacDonald recommended supplementing the existing system of individual licences with an informal arrangement whereby the approved group of arms firms would be informed in advance that particular licences would be granted for specific transactions and not revoked except under exceptional circumstances. Monsell and Runciman suggested that this involved more secrecy and less control than the measures originally contemplated.<sup>54</sup> Regardless, MacDonald informed the Cabinet on 20 December that the fresh proposals constituted 'the bare minimum which will be of any value in allaying the uncertainty at present existing in the minds of prospective customers of the British Armament Industry.'<sup>55</sup> Wishing to give as little publicity to the existence of the 'approved' list as possible, the policy's application was limited to informing the relevant firms that they should anticipate

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<sup>52</sup> TNA, CAB 24/245/CP289(33), Committee Report, 8 December 1933.

<sup>53</sup> TNA, CAB 23/77/69(33), Cabinet Conclusions, 13 December 1933.

<sup>54</sup> TNA, CAB 27/551, Meeting of Ministers, 18 December 1933.

<sup>55</sup> TNA, CAB 23/77/70(33), Cabinet Conclusions, 20 December 1933.

few difficulties in gaining export licences for sales to foreign governments.<sup>56</sup> The whole episode had placed the government in an impossible dilemma: the existing system was viewed as damaging to national interests; whereas any modification threatened to provoke an angry response from domestic and international opinion. In one sense, it came down to a debate between the PSOC, which spoke for trading and defence interests, and the Foreign Office, which sought to avoid damaging Britain's diplomatic credibility. In attempting to solve this dilemma unilaterally, the government adopted an informal and secretive policy which further reduced the effectiveness of its licensing system as a means of control.

It is difficult to gauge accurately the financial impact of the licensing system on the arms industry. Until 1933 the Board of Trade recorded £100,000 worth of orders lost as a result of applications turned down or licences subsequently revoked.<sup>57</sup> Yet firms tended not to apply for licences in cases when they knew they would be unsuccessful so this only reveals part of the picture.<sup>58</sup> It is also difficult to assess whether the government's informal change of policy made a positive impact after 1934, not least because of the lack of publicity given to the new measures. At the Royal Commission in late 1935, Major C. S. Napier, a War Office representative, avoided the 'delicate subject' of how many orders Britain had lost owing to its 'superior efficiency' in regulating its exports. Nonetheless, he claimed that the arms industry had undoubtedly 'suffered.'<sup>59</sup> However, the big firms rarely complained about licences. In fact, Vickers gave 'wholehearted support' to licensing and claimed that it allowed 'reputable firms' to do business while preventing 'small mushroom armament firms of doubtful standing' from 'flood[ing] the market with inferior materials to the severe detriment of British industry and prestige.'<sup>60</sup>

The Royal Commission's report criticised the licensing system as 'largely negative' because it did not seek to discourage the arms trade. The commissioners recommended a more positive outlook, which would establish the purchaser's

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<sup>56</sup> TNA, BT 11/239, Interdepartmental Meeting, 29 December 1933. The revised procedure came into operation from 12 February 1934: TNA, CAB 4/22/1132-B, Hankey Note, 13 March 1934.

<sup>57</sup> TNA, CAB 27/551/PA(33)2, PSOC Subcommittee Report: Export Licensing: Appendices E-F, 23 June 1933.

<sup>58</sup> RC, *Evidence*, pp.335, 373.

<sup>59</sup> *Ibid.*, p.328.

<sup>60</sup> *Ibid.*, p.373.

definite need for armaments in each particular case.<sup>61</sup> In response, an interdepartmental committee chaired by Sir Maurice Hankey suggested that a more intrusive policy risked upsetting potential customers and reiterated that the existing procedure afforded the government sufficient and unmatched control over arms exports.<sup>62</sup> However, although export licensing certainly provided a useful monitoring function, it was not a very effective political tool. Although officials took pride in the thoroughness of Britain's arrangements, even the most stringent regime in the world was relatively useless when other countries could evade an embargo simply by purchasing elsewhere. Given that the government only enforced a handful of unilateral prohibitions, much of the debate was confined to a theoretical discussion, which revolved around a series of conflicting departmental interests. Nonetheless, politicians always had one eye on public opinion, at home and abroad, which created a moral barrier towards changing the existing system, regardless of its ineffectiveness. To try and force a change of attitude, the Board of Trade and service departments overstated the impact of the system on the arms industry. In doing so, they contributed to the growing sense that British firms were disadvantaged against their international competitors.

**Table 6: Vickers-Armstrongs' Foreign Sales, 1930-34**

	<i>Total Armaments Turnover (Home and Foreign)</i>	<i>Foreign Military Sales (as % of Total)</i>	<i>Foreign Naval Sales (as % of Total)</i>	<i>Foreign Naval Sales (Warship Hulls and Machinery Only)</i>
1930	£5,811,023	£657,055 (11%)	£1,356,579 (23%)	£506,469
1931	£4,191,408	£982,444 (23%)	£702,071 (17%)	£163,363
1932	£4,241,566	£875,942 (21%)	£427,605 (10%)	£603
1933	£3,832,856	£960,264 (25%)	£511,673 (13%)	£2,533
1934	£5,601,478	£724,048 (13%)	£1,831,925 (33%)	£684,054
Total	£23,678,331	£4,199,753 (18%)	£4,829,853 (20%)	£1,357,022

Source: RC, *Evidence*, p.420.

<sup>61</sup> Cmd 5292, *Trading in Arms*, pp.48-9.

<sup>62</sup> TNA, CAB 4/25/1299-B, Interdepartmental Committee Report, 22 January 1937. See also: CAB 2/6, CID Minutes, 28 January 1937.

## Competition and Official Assistance in the Post-War Arms Market

In spite of generally poor economic conditions, the post-war world offered arms manufacturers many opportunities to sell their wares abroad. The collapse of the Austro-Hungarian, Ottoman and Russian empires left a patchwork of new states that were keen to increase their security and prestige but, in most cases, unable to produce significant quantities of modern armaments. Regional conflicts in the Aegean, Far East and South America generated further demand. Although smaller powers purchased large quantities of relatively cheap ex-government surplus weapons, they also looked to private manufacturers to supply them with warships and more up-to-date military items, such as anti-aircraft guns and tanks.<sup>63</sup> The market covered a wide geographical area and Vickers' important customers included the governments of Argentina, Belgium, Bolivia, Brazil, Chile, China, Denmark, Estonia, Finland, Greece, Holland, India, Japan, Latvia, Lithuania, Nepal, Peru, Poland, Portugal, Romania, Russia, Spain, Thailand and Turkey.<sup>64</sup> The number of major manufacturing countries was comparatively small: nine countries exported almost ninety percent of the world's land armaments and ammunition between 1929 and 1936, while only three powers accounted for over half of foreign naval sales from 1930 to 1934.<sup>65</sup> Vickers, particularly after its merger with Armstrong, was Britain's principal exporter of naval and military weapons systems, and viewed its main international rivals as Bofors (Sweden), Schneider-Creusot (France), Skoda (Czechoslovakia) and Ansaldo (Italy). Along with these firms' desire to boost their profits, their governments also wished to encourage overseas business in order to maintain efficient capacity for industrial mobilisation. However, owing to a perceived gap between British and continental practice, Vickers-Armstrongs frequently gave the impression that, despite its best efforts, it was losing ground in the worldwide battle to secure the largest possible share of available work.

Vickers-Armstrongs dominated British military-naval exports. For example, Firth Brown had a total armament turnover of just under £1 million between 1930 and 1934, of which 15 percent represented foreign business.<sup>66</sup>

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<sup>63</sup> RC, *Evidence*, p.619.

<sup>64</sup> Davenport-Hines, 'Armaments Industry', pp.267-68.

<sup>65</sup> Harkavy, *Arms Trade*, pp.78-9, 84-5.

<sup>66</sup> RC, *Evidence*, p.488.

During the same period, Beardmore only exported £6,865 of boiler equipment.<sup>67</sup> By contrast, nearly 40 percent of Vickers-Armstrongs' total armament turnover of £23.6 million resulted from exports to non-British destinations (Table 6). Foreign naval revenue generated slightly more business overall than land armaments, although the latter provided a steadier source of income. Interestingly, nearly three-quarters of Vickers-Armstrongs' naval exports comprised the armour and armament for warships, rather than the hulls and machinery; which meant that much of the firm's foreign trade helped to maintain specialist gun-mounting and armour plate capacity and skilled labour.

Vickers-Armstrongs maintained a large network of overseas agencies to promote its products to prospective customers. At the time of their merger in late 1927, Vickers and Armstrong together possessed representation in 33 countries throughout Europe, Asia and the Americas.<sup>68</sup> In February 1928 Sir Mark Webster Jenkinson wrote to Sir Basil Zaharoff, the legendary pre-war arms dealer, that the new company would not obtain orders 'by sitting still in the London Office' but should survey the field, streamline its overseas organisation and advertise the Vickers-Armstrongs brand. Jenkinson also wished to ensure that the company's representatives were 'the right people with the necessary influence to obtain orders.'<sup>69</sup> The right person differed depending on local context. In the South American market, 'great gentlemen' were required because the 'good name of Vickers has been brought to the dust by half Sirs.'<sup>70</sup> In the Far East, the influential Jardine Matheson Company advised Vickers-Armstrongs to send out a man who could 'mix with anyone from the most exorbitant general to the lowest coolie.'<sup>71</sup> Regardless of the region, the company's agents had to be politically sound, well-connected and discreet, and Birch observed in September 1928 that: 'The old bad days of wide corruption are, generally speaking, coming to an end.'<sup>72</sup> Nonetheless, it remained in an agent's interest to attract as much work as possible. For example, Birch informed Vickers-Armstrongs' Polish representative in July 1929 that: 'A big order brought off your own initiative will, I trust, mean a

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<sup>67</sup> *Ibid.*, p.480.

<sup>68</sup> CUL, VMF R334, Meeting at Vickers, 21 December 1927.

<sup>69</sup> *Ibid.*, R333, Jenkinson to Zaharoff, 8 February 1928.

<sup>70</sup> *Ibid.*, K637, Birch to Zaharoff, 14 September 1928.

<sup>71</sup> *Ibid.*, K612, Keswick to Antony Vickers, 6 January 1930.

<sup>72</sup> *Ibid.*, K609, Birch to Lawrence, 19 September 1928.

bonus.<sup>73</sup> Yet, although successful agents were paid an average of 3.4 percent commission, the firm vehemently denied that its salesmen made any effort to stimulate or influence levels of demand but would only endeavour to secure a share of available business after a government had explicitly expressed its desire to purchase armaments.<sup>74</sup>

Davenport-Hines has confirmed that bribery took place abroad, although it was small in scale, and based on local custom. Moreover, he has demonstrated that it was used to win contracts against competitors, rather than to generate unnecessary demand for armaments.<sup>75</sup> In trying to promote a cleaner image, Vickers also attempted to distance itself from the legends surrounding Sir Basil Zaharoff, who had become an agent for the firm's overseas business in the late nineteenth century.<sup>76</sup> He was particularly infamous for developing the *systeme Zaharoff*, whereby he would play one country off against another to stimulate demand.<sup>77</sup> At the Royal Commission in 1936, the journalist Sir Philip Gibbs described how in 'the popular imagination of the world there is no doubt that Sir Basil Zaharoff is regarded as a very sinister figure stalking through the Courts of Europe and acting as an agent for the sale of munitions of war.'<sup>78</sup> In response, General Lawrence implied much of this reputation came from Zaharoff's tendency to talk at large although he admitted that Sir Basil had brought in a 'vast amount' of business prior to the 1920s.<sup>79</sup> In any case, the company claimed it had possessed no official connection with Zaharoff since 1924.<sup>80</sup> Nonetheless, Vickers continued to seek his counsel on matters connected to the arms trade until his death in November 1936.

Individual government departments also assisted the arms industry in its efforts to obtain overseas work. The services were particularly helpful and Sir Charles Craven's speech at the launch of HMS *Resource* at Barrow in November 1928 publicly demonstrated Vickers' gratitude to the Admiralty:

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<sup>73</sup> Ibid., K611, Birch to Botterill, 18 July 1929.

<sup>74</sup> RC, *Evidence*, p.370.

<sup>75</sup> Davenport-Hines, 'Armaments Industry', pp.58-66.

<sup>76</sup> Scott, *Vickers*, pp.79-81.

<sup>77</sup> Richard Davenport-Hines, 'Zaharoff, Basil (1849-1936)', *Oxford Dictionary of National Biography*, (Oxford, Sep. 2004).

<sup>78</sup> RC, *Evidence*, p.360.

<sup>79</sup> Ibid.

<sup>80</sup> Ibid, p.352.

I think the presence here to-day of my friend the Chief of the Chilean Naval Commission, for whom we have very important work in hand, is due very largely to the assistance and kindly help the Admiralty have given us in allowing us to use their designs for the vessels we are building for the Chilean Navy. I assure you [...] that we are very grateful for the help we have had, and are still receiving.<sup>81</sup>

Indeed, the Admiralty continued to help British shipbuilders with their designs and supplied them with other pertinent materials to improve their ability to compete with Italy, whose navy apparently released such information as required. It also provided ‘the full weight of Admiralty backing’ by sending Royal Navy ships to visit other countries as floating advertisements, and by allowing foreign officers to see its vessels and equipment.<sup>82</sup> At a conference in February 1931, representatives of the main naval shipbuilders agreed that the Admiralty had done as much as possible to assist the industry and were particularly thankful that it had released confidential material ‘in order that firms could offer what in many cases was practically identical with British Admiralty material.’<sup>83</sup> The War Office was generally less helpful, although Birch acknowledged in early 1930 that it had become more cooperative.<sup>84</sup> Many purchasing states lacked military experience of items such as tanks and machine guns, and Vickers-Armstrongs claimed that the French General Staff included a section specifically to provide tactical education in the use of these weapons to potential customers. The War Office subsequently agreed to ‘consider favourably’ any request to place its own technical experts at the disposal of foreign purchasing missions, but reserved the right to judge each case on its merits.<sup>85</sup>

The service departments and Foreign Office also provided a degree of support via their attachés and diplomats, who acted on the provision that they would not favour one company over another.<sup>86</sup> In 1927 General Sir Webb

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<sup>81</sup> CUL, VMF R323, Craven Speech, November 1928.

<sup>82</sup> TNA, CAB 27/445/WMC(30)2, Alexander Memorandum, 15 January 1931.

<sup>83</sup> Ibid., WMC(30)4, Admiralty Conference with Shipbuilding Representatives (5 February) Report, 11 February 1931.

<sup>84</sup> CUL, VMF K604, Birch Memorandum, 26 February 1930.

<sup>85</sup> Ibid., K618, Vickers-Armstrongs to WO, 26 November 1929; Ibid., K619, WO to Vickers-Armstrongs, 29 January 1930.

<sup>86</sup> Davenport-Hines, ‘Armaments Industry’, p.273.

Gillman, the Master General of Ordnance, warned Birch not to expect too much from these arrangements:

our military attachés are being told to help, but you must realise that they cannot be touts: whatever the French and Germans do in that matter, the British officers will not sink to the level of the bagman.<sup>87</sup>

The Foreign Office implemented a similar policy, which Sir John Simon outlined to concerned Members of Parliament in November 1934:

we never allow our diplomatic or consular representatives abroad to act as travellers or canvassers for armament firms – never. Our diplomatic help is given only when a foreign State has announced its intentions to purchase from abroad. Then our service naturally does its best to secure that the British firms should get a proper opportunity.<sup>88</sup>

These arrangements provided firms with access to a wide range of important contacts and knowledge of local conditions. For example, on a visit to Poland in February 1929, Birch discovered that its General Staff, which was considering a contract for machine guns, was not formally allowed to meet with the trade. To evade this restriction, the British Military Attaché arranged a dinner party for Birch and invited the Polish Chief of Staff and his deputy. On his return to England, Birch commented that the legation in Poland had been ‘most helpful’.<sup>89</sup> More formally, the commercial secretaries of the Athens and Helsinki legations provided the manufacturers with useful advice and information concerning potential Greek and Finnish business in 1931.<sup>90</sup> However, Lancelot Leveson, one of Vickers’ overseas salesmen, suggested that the embassies and legations were too ‘dignified’ compared to their French and Italian counterparts, and far less willing to take advantage of political situations for material gain. He also complained that British military and naval missions tended to adopt an excessively proper and impartial attitude when advising foreign governments,

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<sup>87</sup> CUL, VMF K618, Gillman to Birch, 9 November 1927.

<sup>88</sup> Hansard, HC Debs. (series five) vol. 293, col. 1319 (8 Nov. 1934).

<sup>89</sup> CUL, VMF K611, Birch Polish Visit, 17-23 February 1929, Report, n.d.

<sup>90</sup> See May, June and July 1931 files in TNA, BT 56/18.

often to the detriment of domestic manufacture.<sup>91</sup> Conversely, the Commercial Secretary in Athens recommended that British shipbuilders should put more effort into their tendering arrangements when trying to secure potential Greek naval business, pointing out as an example that ‘the Italian tenders were submitted in the form of a small printed book, stated to be much more complete and in much greater detail than British tenders.’<sup>92</sup> Following a trip to Athens in mid-1931, the British Naval Attaché in Rome reported that Greece, owing to previous satisfaction, was apparently keen for its ships to be built in Britain. However, one Greek official warned that British firms needed to ‘wake up and take a little more trouble in trying to obtain orders and to please their clients’.<sup>93</sup>

Notwithstanding the incentives offered to its agents, regardless of government assistance and despite accusations that it was not trying hard enough, the British arms industry complained that the primary reason for its difficulties was that its foreign rivals received much greater and more blatant state support. For example, Birch wrote to Lawrence in January 1928 that:

Our Government are also helpful, but the nation is very much tied by our activities at Geneva and Sir Austen Chamberlain’s prominent position there. The attitude of our Labour Party is also hostile.<sup>94</sup>

Later in the year he suggested to General Milne at the War Office that ‘if other nations are going to subsidise the armament business, (i.e. the Italians are now doing so) it is going to make our mobilisation for war extraordinarily difficult.’<sup>95</sup> Indeed, on an unsuccessful business trip to Turkey in late 1928, Birch discovered the Italian Foreign Minister paying a visit in connection with a naval order: ‘I may be wrong’, he ruefully observed, ‘but I do not see our Austin [*sic*] doing this!’ On his outbound journey, he also encountered Walter Guinness, the Agriculture Minister. Guinness apparently hoped Birch was not going to sell armaments to Turkey, which provoked a predictably angry response:

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<sup>91</sup> Davenport-Hines, ‘Armaments Industry’, p.274.

<sup>92</sup> TNA, BT 56/18, Department of Overseas Trade to Shipbuilders, 16 May 1931.

<sup>93</sup> Ibid., Department of Overseas Trade to Arms Firms, 23 July 1931.

<sup>94</sup> CUL, VMF K609, Birch to Lawrence, 9 January 1928.

<sup>95</sup> Ibid, K618, Birch to Milne, 31 December 1928.

I told him quite plainly in the most severe language at my command that I hoped to get the munition order that I was going after and that it appeared to be left to the manufacturer and not the Cabinet to look out for our insurance as a nation, and had he any idea of the state of manufacture that Europe is now in as compared with 1914?<sup>96</sup>

The artillery contract in question eventually went to Bofors, and Birch suspected a German subsidy.<sup>97</sup> In January 1929 he informed the Foreign Office:

Any nation abroad possessing an armaments firm is bringing every possible pressure for the increase of their armament work, the French of course being the most active, with, I understand, Briand's concurrence.<sup>98</sup>

In April he wrote to Milne again:

we are being had for fools. Other nations are pushing all they know to get orders for their armament firms for two reasons. One is to produce their own armaments cheaply, and the second is to keep their armament firms alive. Further, they cannot be unmindful that they are reducing the fighting power of the British Empire.<sup>99</sup>

Birch's vociferous complaints on this issue presumably derived from his earlier experience as chairman of the Principal Supply Officers Committee, which had given him high-level experience of Britain's preparations for industrial mobilisation. As Vickers-Armstrongs' director of land armament sales he repeatedly complained, both to his fellow board members and his old comrades at the War Office, about the assistance that foreign governments, especially France and Italy, allegedly granted to their armament firms to secure contracts and of the debilitating effect this had on Britain's relative capacity for emergency expansion.

The Foreign Countries Industrial Intelligence committee supported much of Birch's criticism. It reported in 1933 that in all other arms-producing countries,

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<sup>96</sup> Ibid., Birch to Gillman, 2 January 1929.

<sup>97</sup> Ibid., K617, Birch Report, 25 December 1928; Ibid., Birch to Directors, 31 December 1928.

<sup>98</sup> Ibid., K616, Birch to Bland, 23 January 1929.

<sup>99</sup> Ibid., K618, Birch to Milne, 26 April 1929.

except Sweden, the state either encouraged exports as a source of revenue or, more frequently, provided direct assistance. This took various forms and included subsidies, long-term loans, remissions on import duties for raw materials and armament plant, the imposition of import duties on products likely to compete with the domestic arms industry, and even directly soliciting orders in the course of diplomatic and trade negotiations. In France, Schneider had reportedly lost ground in the export market but had retained connections throughout the world and allegedly received considerable political and financial assistance from the French government. Schneider also exercised influence over the relatively small Romanian, Yugoslav and Polish arms industries and, more significantly, collaborated closely with Skoda to supply the Little Entente with weapons.<sup>100</sup> Davenport-Hines has suggested that Schneider's 'partial colonisation' of Skoda was designed to stave off German penetration and described it as indicative of the French firm's aggressive attitude to overseas sales.<sup>101</sup> For its part, Skoda further boosted its dividends and capacity by selling in markets throughout the world (subject to Schneider's permission), with considerable diplomatic and financial support from the Czechoslovakian government.<sup>102</sup> Intriguingly, even the Bank of England helped to finance loans for Skoda to supply armaments to the 'cordon sanitaire' during the 1920.<sup>103</sup>

The Italian government attached great importance towards developing its war industries and apparently lavished large sums on naval and mercantile shipbuilding.<sup>104</sup> Vickers' directors enviously admired the fascist regime's supportive attitude towards exports, with Birch complaining to the War Office in January 1928:

That devil Mussolini has knocked us right out of Brazil. I knew he would. His diplomatic pressure is absolutely tireless and he gives deferred payments, special railway rates, etc., etc. I wish he and not

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<sup>100</sup> TNA, CAB 4/22/1106-B, FCI Report, 13 March 1933. For Schneider and Skoda, see Alice Teichova, *An Economic Background to Munich: International Business and Czechoslovakia, 1918-1938* (Cambridge, 1974), pp.190-216.

<sup>101</sup> Davenport-Hines, 'Armaments Industry', pp.275-77. See also Teichova, *Economic Background*, p.197.

<sup>102</sup> *Ibid.*, pp.206, 213; TNA, CAB 4/22/1106-B, FCI Report, 27 March 1933.

<sup>103</sup> Teichova, *Economic Background*, p.215.

<sup>104</sup> TNA, CAB 4/22/1106-B, FCI Report, 27 March 1933.

Austen Chamberlain was the leading light at  
Locarno.<sup>105</sup>

Sir Arthur Trevor Dawson, the head of Vickers-Armstrongs' naval sales, prepared a statement which demonstrated that Italian shipbuilders had nearly 30,000 tons of foreign work-in-hand at the end of 1929, including two cruisers for Argentina, which he estimated at £6.8 million based on British costs. This compared to less than 10,000 tons in British yards, worth just over £1 million, although this did not take into account the recent delivery of almost £4 million worth of British-made ships to Chile and Argentina. In November 1930 Dawson argued that, since these figures were prepared, Italy had signed further contracts for overseas destroyer work while Britain had obtained nothing. He perceived a 'great divergence' of orders and blamed Mussolini's encouragement, claiming that the *Duce* had threatened to deflect Italian emigration in other directions if Argentina did not place large naval contracts in Italy. Dawson contended that British firms would prosper on a level playing field, owing to their superior workmanship, and he alleged that the Argentine naval minister had since regretted not placing his orders in Britain, owing to the unsatisfactory quality of the Italian built cruisers and submarines.<sup>106</sup>

In the face of Italian competition and echoing Birch's industrial mobilisation arguments, Dawson urged the 'necessity of England securing the maximum of foreign orders' in order to retain a core naval productive capacity in the face of 'very scanty' home government contracts. Developing his case, he highlighted the 'great extent' to which the Royal Navy had been strengthened at the outbreak of the Great War by requisitioning ships on order for Brazil, Chile, Turkey and Norway.<sup>107</sup> However, this also risked generating serious political controversy. Noel-Baker later pointed out that the requisitioning of the Turkish battleships had

undoubtedly created great resentment in the Turkish  
Empire, and some good judges hold the view that it  
was a most important factor in determining

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<sup>105</sup> CUL, VMF K607, Birch to Gillman, 10 January 1928.

<sup>106</sup> Ibid., R321, Dawson Memorandum, 6 November 1930.

<sup>107</sup> Ibid.

Turkey's decision to take part in the war on the side of the Central Empires.<sup>108</sup>

Turkey also made a post-war claim for compensation which involved Vickers and Armstrong in tiresome legal proceedings and costs, while the British government told the firms not to assume that it would meet any judgement against them.<sup>109</sup> Subsequently, Count Leon Ostrorog, Vickers' foreign legal adviser, suggested that the company's ability to obtain large contracts in Turkey was hampered by the lack of a settlement regarding the *Fatih* warship.<sup>110</sup> Therefore, in December 1929 it paid the Turkish government £150,000 in full and final settlement of outstanding questions.<sup>111</sup>

An international pooling arrangement offered one way to avoid excessive competition, although Sir Charles Craven was sceptical:

If we really did have all Armament Firms in the World in the Combine and we were all honest people, I think it would be a very wonderful affair, but I cannot quite see how it is going to work.<sup>112</sup>

Indeed, a mutual lack of trust proved the key inhibiting factor when representatives of Bofors, Schneider and Vickers-Armstrongs met at Paris in November 1928 to discuss pooling Turkish land armament orders. While Birch, representing Vickers, appreciated that the proposed arrangement offered potential benefits, he trusted neither of the other parties. Moreover, he assumed that the details of the combine would leak out and diminish Vickers' trustworthiness. For example, he feared that if the Turkish government heard of the agreement, it would impair the firm's future opportunities and divert work to companies outside the combine, such as Beardmore or the Italian manufacturers. More significantly, Birch worried about the damaging effect it would have 'on our present excellent

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<sup>108</sup> RC, *Evidence*, p.281.

<sup>109</sup> TWAS, 130/1303, Armstrong Management Committee Minutes, 19 January, 3 March, and 21 April 1927.

<sup>110</sup> CUL, VMF K604, Birch Notes, November 1928.

<sup>111</sup> CUL, Vickers Archives Volume 1368, Board Minutes, 11 December 1929; BoE, SMT 2/127, Note on Profits, 11 March 1930.

<sup>112</sup> CUL, VMF K604, Craven to Birch, 10 November 1928.

arrangements with the Foreign Office, Admiralty and War Office, and our reputation as straight and open dealers.’<sup>113</sup>

Vickers-Armstrongs certainly valued the diplomatic and technical help provided by individual government departments, although the company repeatedly questioned whether this was sufficient for post-war trading conditions. The cut-throat competition of the international arms market was increasingly framed in the language of industrial mobilisation, and armament firms in other countries appeared to enjoy considerably more state support in attracting orders. However, British policymakers refused to emulate French and Italian practice and, as a result, Vickers-Armstrongs complained that it was unable to compete against the big continental manufacturers on an equal basis. Therefore, the government’s comparatively passive attitude fostered a great sense of injustice in the mind of the country’s leading arms manufacturer, and promoted dissent in state-industry relations. Furthermore, it contributed to the widespread sense that other powers were outpacing Britain in their preparations for industrial mobilisation, even though Vickers-Armstrongs still obtained a considerable share of its income from foreign business and maintained a reputation for quality naval products.

### **Prudence, Politics and the Question of Credit**

When contemplating large and expensive armament purchases, customers often demanded long-term credit arrangements. These often formed a crucial part of any deal and Britain’s naval shipbuilders believed their inability to offer suitable terms constituted the principal stumbling block to attracting foreign business.<sup>114</sup> Although the Overseas Trade (Credit and Insurance) Act (1920), Trade Facilities Act and Export Credit Guarantee Scheme offered financial support for the export industries in general, they did not apply to transactions involving armaments.<sup>115</sup> This omission dated from a House of Commons debate on 27 October 1921, when Commander Kenworthy, a Liberal MP, proposed the exclusion of ‘munitions of war’ from the Trade Facilities Bill on the grounds that Britain did ‘not want to bolster up any more wars’.<sup>116</sup> Although the government accepted this amendment

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<sup>113</sup> Ibid., Birch Report, November 1928.

<sup>114</sup> TNA, CAB 27/445/WMC(30)4, Admiralty Conference with Shipbuilders: Report (5 February), 11 February 1931.

<sup>115</sup> TNA, CAB 24/217/CP406(30), FO Memorandum, 2 December 1930.

<sup>116</sup> Hansard, HC Debs. (series five) vol. 147, col. 1119 (27 Oct. 1921)

without Cabinet discussion, subsequent claims that British firms were losing out provoked a long-running debate on the wisdom of the credit prohibition, which approached the problem from a wide range of perspectives including orthodox finance, disarmament, public opinion, industrial mobilisation, trade and unemployment. While these discussions demonstrated a certain degree of sympathy for the arms industry, they revealed that official policy was ultimately determined, and to some extent constrained, by other priorities.

The Treasury argued that credit guarantees for armament purchases would contradict the government's desire to promote European economic reconstruction. For example, in 1924 it criticised the projected defence programmes of the Baltic states as 'fantastically beyond' their economic capabilities:

We may think a country like Lithuania ill-advised to incur heavy expenditure for armaments, but if she has to pay cash down she will not spend enough to ruin herself, the damage is limited to her having spent on arms money which could more profitably have been spent in other directions.

Policymakers feared that borrowing governments would either default on the creditor, or ruin their economies trying to repay the debt, while the British taxpayers' reaction to their money being diverted to assist with foreign armament sales also caused concern. The Treasury considered that the government's credit ban effectively solved the problem, as private lenders were unable to offer reasonable terms on the required scale. Yet a unilateral British prohibition was relatively useless if other governments continued to offer financial incentives. Indeed, France provided armament loans to Poland and Serbia in the early 1920s which prompted strong British protestations.<sup>117</sup> Vickers later complained that it was impossible to obtain orders from Poland until the French loan expired in 1925.<sup>118</sup> In the City of London, Sir Edward Peacock at Barings later supported the Treasury's view that the smaller states had developed bad habits as a result of being 'spoilt' by lavish credit from the other great powers and, despite his

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<sup>117</sup> TNA, CAB 24/166/CP233(24), Treasury Memorandum, 3 April 1924. See also TNA, T 161/737, Niemeyer to Disposals Commission, 1 February 1924.

<sup>118</sup> CUL, VMF K611, Botterill Memorandum, 6 May 1929.

connections to the armaments industry, he agreed that Britain could not possibly offer credit on the same scale.<sup>119</sup>

Vickers-Armstrongs paid little regard to these orthodox concerns and Birch complained to the Board of Trade in June 1929 that ‘the development and expansion of our business is hampered by the difficulties in connection with foreign credits.’<sup>120</sup> The Board responded that there was ‘no hope’ for an extension of the Export Credit Guarantee Scheme to include armaments.<sup>121</sup> Undeterred, Vickers sent a deputation of local Members of Parliament and James Wilson from the firm’s Erith works to the Treasury on 6 November. This group put its case before Sir Oswald Mosley, the Chancellor of the Duchy of Lancaster who, together with J. H. Thomas, the Lord Privy Seal, George Lansbury, the First Commissioner of Works, and Thomas Johnston, the Secretary of State for Scotland, had special ministerial responsibility for addressing the unemployment problem. In particular, Vickers complained that its inability to offer sufficient credit had diverted £3 million worth of armament work to Italy.<sup>122</sup> Sir Maurice Hankey also provided a sympathetic ear and passed details of the ‘terrible’ situation directly to Thomas.<sup>123</sup> From an economic point of view, Hankey recalled that Britain’s pre-war supremacy in naval exports had helped to carry the overhead expenses of the arms industry and ‘was a real factor in enabling us to compete in the heavy industries with foreign countries, notwithstanding our higher standard of living.’<sup>124</sup> Birch felt that the service departments should support Vickers’ plea, but General Milne disagreed:

The services could only urge the importance of the mobilisation aspect, whereas the firms could lay greater emphasis on the standpoint of reducing unemployment and it is on this ground rather than on the other that any government assistance is at all likely.<sup>125</sup>

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<sup>119</sup> TNA, CAB 27/445/WMC(30)4, Backhouse and Wilson Meeting with Peacock (9 February) Report, 11 February 1931.

<sup>120</sup> CUL, VMF K606, Birch to Ashley, 26 June 1929.

<sup>121</sup> Ibid., J. Henderson to Birch, 22 July 1929.

<sup>122</sup> Ibid., K609, Extracts from Deputation Report, 6 November 1929.

<sup>123</sup> Ibid., K618, Birch to Hankey, 25 November 1929; Ibid., K606, Eady to Birch, 10 January 1930.

<sup>124</sup> TNA, BT 56/18, Hankey to Thomas, 9 December 1929.

<sup>125</sup> CUL, VMF K618, Birch to Milne, 12 November 1929; Ibid., Milne to Birch, 20 November 1929.

Therefore, Vickers-Armstrongs provided the government with further details of the work that it believed it had lost in China, Greece and Turkey. It also outlined prospective Chinese and Turkish business, which was heavily contingent on the financial terms offered. For example, Turkey's latest tender for destroyers and submarines, worth an estimated £1.5 million, required the successful manufacturer to accept at least 70 percent of the price on long-term credit. Although Vickers possessed the financial strength and liquid resources to meet these terms, it was unwilling to carry the entire risk in the event of default by the purchasing country. In the company's eyes, this amounted to unfair competition because the Italian government apparently did not flinch from offering the required support to its domestic firms. Vickers also protested that it could not compete effectively with Germany and the United States for non-armament work: in this regard, it wished to secure better credit terms to undertake commercial business with Russia. However, the government was unsurprisingly anxious to keep armaments and possible Russian credit separate.<sup>126</sup>

Vickers also complained about the Little Entente's behaviour. In March 1930 Captain E. G. Boxshall, the firm's influential Romanian representative, reported Bucharest's intention to purchase armaments worth £6 million on ten year credit terms from France and Czechoslovakia. Michael Palarait of the British legation considered it 'strange' that Romania contemplated such expenditure at a time when its financial position demanded strict economies and when it faced no serious danger, while Boxshall blamed a combination of French pressure, Polish insistence, and alarmism about a possible Soviet attack on Bessarabia.<sup>127</sup> Vickers felt particular indignation because it had been involved, since the mid-1920s, in the formation and fortunes of the *Societe Usinele Metalurgica Copsa Mica si Cugir*, a Romanian arms factory. The British firm had agreed to supply equipment and technical assistance and, in return, Bucharest had promised to place its armament orders with the new company.<sup>128</sup> Vickers subsequently protested, but found that it did not possess the legal means to enforce its agreement and, moreover, it was unable to offer the same financial incentives as its rivals. Indeed,

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<sup>126</sup> TNA, BT 56/18, Eady Memorandum, 16 January 1930; *Ibid.*, Eady Minute, 16 January 1930; *Ibid.*, Sim to Eady, 16 January 1930.

<sup>127</sup> *Ibid.*, Palarait to Arthur Henderson, 13 March 1930.

<sup>128</sup> *Ibid.*, Vickers-Armstrongs to Arthur Henderson, 31 March 1930.

Boxshall reported in April 1930 that Schneider had obtained £2 million of state-backed credit to offer the Romanian government for land armament work.<sup>129</sup>

In response to Vickers' evidence, Eady mooted the idea of an international agreement to prevent governments from giving 'direct or indirect financial assistance' to their private armament manufacturers.<sup>130</sup> However, the Department of Overseas Trade considered that this was 'bound to prove ineffective.' First, it was extremely difficult to trace indirect assistance and impossible to do so without generating excessive interference and friction in trade matters. Second, distinguishing between warlike and 'commercial' goods often caused insuperable problems of definition. Third, any prohibition could easily be evaded through an international loan. For example, the French government sponsored such arrangements on the condition that the money was spent in France. Finally, an international agreement threatened to raise potentially awkward questions about the training of foreign officers by the British services, or regarding the supply of war material to the Dominions. Overall, the Department of Overseas Trade suggested that any agreement risked bickering and recrimination and would also foster mistrust amongst those excluded from it.<sup>131</sup> Indeed, later efforts to raise the question at the Disarmament Conference met with 'great opposition' from both manufacturing and purchasing states, and also raised certain legal objections.<sup>132</sup>

J. H. Thomas suggested that Vickers-Armstrongs probably exaggerated the amount of credit granted by foreign governments but agreed that it was strange for the government to stand by and watch other countries take the available contracts. Nonetheless, he conceded that facilitating such transactions was incompatible with the Labour government's stated disarmament policy.<sup>133</sup> Eady also suspected that credit was not always the primary factor and particularly pointed to the evidence of indirect political pressure employed by other countries, and suggested that, in at least one case, British firms had been beaten on the price offered.<sup>134</sup> Yet when the Cabinet met on 30 July 1930, it concluded that a re-examination of the

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<sup>129</sup> Ibid., Eady Minute, 16 April 1930; Ibid., Sim to Eady, 24 April 1930. For a detailed examination of Vickers' inter-war Romanian exploits, see R. P. T. Davenport-Hines, 'Vickers' Balkan Conscience: Aspects of Anglo-Romanian Armaments 1918-39', *Business History*, vol. 25, no. 3, (Nov. 1983), 287-319.

<sup>130</sup> TNA, BT 56/18, Eady to Crowe, 28 April 1930.

<sup>131</sup> Ibid., Department of Overseas Trade to Eady, 20 May 1930.

<sup>132</sup> TNA, CAB 2/6, CID Minutes, 16 April 1935.

<sup>133</sup> TNA, BT 56/18, Thomas to Shaw, 10 April 1930.

<sup>134</sup> Ibid., Eady Minute to Wilson, 16 April 1930.

credit question was justified in view of rising unemployment and mounting evidence that Britain was missing out on potential work.<sup>135</sup>

The Admiralty put forward a strong case which described the negative impact of the credit prohibition on trade, employment and industrial mobilisation and pointed out that if warships were not purchased in Britain, they would simply be obtained elsewhere.<sup>136</sup> A. V. Alexander, the First Lord of the Admiralty, told the Cabinet on 30 September that the fascist government's comparatively energetic policy meant that the current value of warships under construction in Italy was ten times greater than in Britain.<sup>137</sup> The Foreign Office, in conjunction with the Department of Overseas Trade, subsequently produced a review of the global arms trade, which supported the contention that British arms manufacturers were disadvantaged by their inability to offer long credit, particularly when dealing with the smaller European powers. The Foreign Office also corroborated many of the Admiralty's suspicions regarding Italian practice, but nonetheless concluded that the government was

in the forefront of the struggle to secure world wide limitation and reduction of armaments, and it would be totally inconsistent with their principles and their policy to promote legislation permitting them to extend credit facilities to the export of arms.<sup>138</sup>

Therefore, it emphatically urged the Cabinet to reject any extension to the Export Credit Guarantee Scheme, while Margaret Bondfield, the Minister of Labour, also supported this recommendation in spite of the possible effect on employment.<sup>139</sup> Nonetheless, on 17 December the Cabinet concluded that the situation was detrimental to British shipbuilders and appointed a committee to undertake further investigation.<sup>140</sup> Although the Treasury was not represented, the committee included ministers with responsibility for unemployment, disarmament and industrial mobilisation: Vernon Hartshorn, who had replaced Thomas as Lord

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<sup>135</sup> TNA, CAB 23/64/46(30), Cabinet Conclusions, 30 July 1930.

<sup>136</sup> TNA, CAB 24/215/CP314(30), Alexander Memorandum, 22 September 1930.

<sup>137</sup> TNA, CAB 23/65/57(30), Cabinet Conclusions, 30 September 1930.

<sup>138</sup> TNA, CAB 24/217/CP406(30), FO Memorandum, 2 December 1930.

<sup>139</sup> *Ibid.*, CP412(30), Bondfield Note, 9 December 1930.

<sup>140</sup> TNA, CAB 23/65/73(30), Cabinet Conclusions, 17 December 1930.

Privy Seal; Arthur Henderson, the Foreign Secretary; William Graham, the President of the Board of Trade; and the three service ministers.

The committee met during the first quarter of 1931 and faced up to realities. First, it lacked absolute proof that foreign firms received monetary help from their governments, although the available evidence strongly suggested this was the case. Second, the ministers accepted that the Treasury would not commit to any form of armament credit. Finally, the Foreign Office reaffirmed its own opposition, and the committee recognised that arms credit guarantees would encourage criticism in parliament and at Geneva. Conversely, the service departments suggested the supply of weapons to non-manufacturing countries for defensive purposes was not inconsistent with disarmament and Tom Shaw, the Secretary of State for War, even claimed that: 'It was not impossible that by neglecting our own armament firms we might be assisting rather than preventing war.' However, in the face of the Treasury and Foreign Office's emphatic opposition, Alexander proposed approaching the problem from a less controversial angle. He suggested that British firms were, in fact, partly to blame for their own problems owing to excessive individualism and a disinclination to work together to gain orders. Alexander proposed that a grouping of the best companies would help convince commercial bankers or the Bank of England to offer the required financial assistance. Pessimistically supported by the President of the Board of Trade and the Lord Privy Seal, he suggested that the government should therefore apply its influence in this direction.<sup>141</sup> For their part, the shipbuilding firms complained that they could not obtain advances from their bankers to build foreign warships because the banks did not regard such vessels as a marketable security in the event of default by the purchaser.<sup>142</sup> Admiral Roger Backhouse, the Third Sea Lord, and Sir Horace Wilson, the Permanent Secretary of the Ministry of Labour, subsequently pursued the matter with Sir Edward Peacock at Barings, who promised to help as much as possible.<sup>143</sup>

As if to prove Alexander's point about individualism, Vickers-Armstrongs, Thornycroft and Hawthorn Leslie enjoyed some success with a joint

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<sup>141</sup> TNA, CAB 27/445/WMC(30)2, Alexander Memorandum, 15 January 1931; *Ibid.*, WMC (30) Meeting Conclusions, 21 January and 31 March 1931; TNA, CAB 23/66/24(31), Cabinet Conclusions, 22 April 1931.

<sup>142</sup> TNA, CAB 27/445/WMC(30)4, Admiralty Conference (5 February) Report, 11 February 1931.

<sup>143</sup> *Ibid.*, Backhouse and Wilson Meeting with Peacock (9 February) Report, 11 February 1931.

tender for Portuguese naval work in spring 1931. Craven later described this as ‘a miniature attempt to bring the most efficient group together to try and knock out the foreigner.’ The policy worked to an extent, as the grouping obtained orders for naval armament, submarines and sloops, although Yarrow, working alone, secured the order for destroyers.<sup>144</sup> During April, and with some Foreign Office assistance, British firms obtained £1.9 million worth of Portuguese contracts, including four destroyers and two sloops, out of a total expenditure of £3 million, with the remainder going to Italy.<sup>145</sup> Backhouse admitted it ‘might have been better, but it might also have been much worse’ and bemoaned Portugal’s apparent desire for a ‘paper Navy’ rather than quality ships. The British group obtained its finance through insurance companies and underwriters and, given the banks’ continued refusal to secure loans on warships, the Admiralty and Board of Trade decided to take no further action regarding Barings.<sup>146</sup> Later in the year, Britain’s departure from the Gold Standard and the resultant devaluation of sterling convinced Portugal to place further orders with British firms.<sup>147</sup>

Despite the Portuguese business, the lack of government financial assistance continued to exasperate the arms industry. At Vickers’ 1932 meeting Lawrence reiterated that the government’s export credit policy ‘severely prejudiced’ the company’s trading activities and he argued that the resultant diversion of armament work to France and Italy constituted a ‘serious menace’ to British employment and industrial mobilisation.<sup>148</sup> Yet, while the arguments for and against changing the policy remained much the same, the external situation grew more urgent. In April 1933, faced with the PSOC’s alarming reports on the alleged decline of the arms industry and Britain’s consequent shortage of war capacity, the Committee of Imperial Defence pressed the government to take action. Walter Runciman, the President of the Board of Trade and chairman of the PSOC, argued that the comparative lack of foreign orders placed with British firms was a major cause of this dangerous position.<sup>149</sup> He also pointed out that, while the government had implemented a degree of safeguarding for certain vital war industries, including optical glass and chemicals, it refused to actively

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<sup>144</sup> RC, *Evidence*, p.387.

<sup>145</sup> TNA, CAB 23/66/24(31), Cabinet Conclusions, 22 April 1931.

<sup>146</sup> TNA, BT 56/18, Backhouse to Wilson, 20 April 1931; *Ibid.*, Wilson Minute, 25 April 1931.

<sup>147</sup> TNA, CAB 4/22/1109-B, PSOC Report: Armaments Industry, 31 March 1933.

<sup>148</sup> *The Times*, 5 April 1932.

<sup>149</sup> TNA, CAB 2/5, CID Minutes, 6 April 1933.

encourage armament exports. To improve matters, Runciman reported that the Export Credit Guarantee Department would

welcome any widening of the basis of its operations which would secure a greater spread of risks and for this reason would favour the inclusion in the scheme of munitions of war, especially as, according to their information, foreign Governments are normally most reluctant to default in respect of such purchases.

Therefore, Runciman perceived little danger that the government would lose money, although he doubted if it could offer sufficient long credit to guarantee the large sums involved in warship construction. Moreover, the Treasury remained firmly opposed to any such measures.<sup>150</sup>

Conversations between the manager of the Export Credit Guarantee Department and French and Italian officials in May 1933 provided convincing evidence that these powers were using government credits to sponsor their arms manufacturers' overseas trading activities.<sup>151</sup> In December, the Cabinet Committee on the Private Armaments Industry recommended that, from the perspective of industrial mobilisation and national defence, the lifting of the prohibition on export credit for armament.<sup>152</sup> However, against the background of the Disarmament Conference, the Cabinet again decided that the political disadvantages of changing the policy outweighed the alleged negative impact of maintaining it.<sup>153</sup> Subsequently, the government turned down a Turkish enquiry about warship construction because the proposed contract was contingent on the granting of adequate credit facilities. The CID remained concerned that Britain's defence preparations were affected 'very considerably' by the lack of work, but rather helplessly could only recommend that the FCI committee maintain its watch on overseas developments.<sup>154</sup>

The intensification of rearmament in the mid-1930s unsurprisingly changed the parameters of the armament credit debate. Patrick Kyba has shown how British pro-rearmament opinion intensified between 1934 and 1935, before

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<sup>150</sup> TNA, CAB 24/239/CP99(33), Runciman Memorandum, 8 April 1933.

<sup>151</sup> TNA, CAB 27/551/PA(33)5, BT Memorandum, 14 November 1933.

<sup>152</sup> TNA, CAB 24/245/CP289(33), Committee Report, 8 December 1933.

<sup>153</sup> TNA, CAB 23/77/69(33), Cabinet Conclusions, 13 December 1933.

<sup>154</sup> TNA, CAB 2/6, CID Minutes, 16 April 1935.

overtaking the previously dominant attitude of ‘peace through disarmament’ after Mussolini’s invasion of Ethiopia in October 1935.<sup>155</sup> No longer shackled by the need to appease pro-disarmament opinion, the Foreign Office subsequently viewed arms exports as a means to prevent the smaller European powers from falling under German influence. Therefore, it pressured the Exchequer to provide as much assistance as possible. Although the Treasury remained opposed to excessive credit, it now framed its argument in the context of preserving Britain’s financial strength in the event of a long war. Meanwhile, the service departments wished to limit the transfer of essential military hardware out of the British Isles. Overall, the government became much more willing to accept the idea that credit could be used to purchase potential political-strategic benefits although, as Glyn Stone has recently demonstrated, its endeavours met with limited success.<sup>156</sup>

Until rearmament the armaments industry undoubtedly felt disadvantaged by the government’s refusal to provide credit guarantees and vocally expressed its dissatisfaction. In support of the firms, Davenport-Hines has described official policy as ‘hypocritical’ and ‘inconsistent’ because, while ministers admitted the vital importance of the arms trade for industrial mobilisation, they feared the electoral repercussions of providing assistance.<sup>157</sup> This is an unfair assessment: British policy resulted from an ongoing and thorough debate, during which both sides presented consistent albeit irreconcilable arguments. On the one hand, the Board of Trade and service departments unsuccessfully suggested that providing credit guarantees would improve Britain’s potential and relative industrial capacity for war, while improving trade and employment in the short-term. In presenting the opposing case, the Treasury and Foreign Office approached the problem from different angles, but both implied that refusing to guarantee credit for armaments would help to preserve peace and thereby diminish the need for future industrial mobilisation. These arguments were far from hypocritical: the Treasury not only considered excessive arms expenditure by non-producing states as wasteful but genuinely believed that facilitating such purchases went against international economic reconstruction and stability. Rising unemployment and protectionism challenged standard financial orthodoxies during the depression but

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<sup>155</sup> Patrick Kyba, *Covenants Without the Sword: Public Opinion and British Defence Policy 1931-1935* (Waterloo, 1983), Chs. 9-11.

<sup>156</sup> Stone, ‘The Sale of Arms to the Lesser European Powers’, 237-70.

<sup>157</sup> Davenport-Hines, ‘Vickers’ Balkan Conscience’, 306.

the credit prohibition remained, not least because foreign policy and public opinion also heavily influenced policymakers. This was especially obvious before and during the Disarmament Conference, when the government wished to maintain the appearance of commitment towards the conference's goal. Fearing accusations of bad faith, it refused to change its arms credit policy, despite mounting evidence that other states were not following such a principled line.

### **Quantifying the Arms Trade: Problems and Patterns**

When lobbying the government to change its attitude towards armament exports, the industry and its supporters consistently presented evidence to demonstrate that British firms were losing out to their continental rivals. Conversely, the League of Nations produced an annual compendium of statistics which suggested that Britain retained a major share of the international arms market, particularly in military goods. This provoked some partly justified dissent from the government, not least because of irregularities in the League's methods of data collection. Unfortunately it remains impossible to assess the scale of the inter-war arms trade with any certainty, let alone gauge market allocations on an accurate country-by-country basis. However, the available evidence does enable some general observations on whether Britain really did slip behind the other major exporting powers. It also helps to explain the government's perennially cautious attitude towards the arms trade, and illuminates the way in which statistics were used by contemporaries to support differing interpretations.

The League of Nations strongly believed that publicity, particularly concerning armaments, would promote greater confidence and trust in international relations.<sup>158</sup> In pursuit of this ambition, in 1924 it published the first volume of its yearbook of statistics concerning the arms trade, which presented information on the imports and exports of 23 countries. The League harvested the material for this and subsequent editions from published official documents, which meant that the level of accuracy and detail reflected the specific procedures of each participating country.<sup>159</sup> Of course, the lack of an international standard

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<sup>158</sup> Andrew Webster, 'Making Disarmament Work: The Implementation of the International Disarmament Provisions in the League of Nations Covenant, 1919-1925', *Diplomacy and Statecraft*, vol. 16, no. 3 (2005), 560.

<sup>159</sup> League of Nations (hereafter LN), A.30.1924.IX, *Statistical Information on the Trade in Arms, Ammunition and Material of War* (Geneva, September 1924), pp.4-6.

for recording such information meant the numbers were not strictly comparable and in the 1930s some major producers, such as Germany, Italy and the Soviet Union, were known to have under-reported their figures.<sup>160</sup> More generally, countries used different methods to estimate the value of national arms exports, while the distinction between the trade in armaments and 'normal' business was never the same in any two places. The principles behind international customs systems also varied and some states' figures included goods in transit. In spite of these reservations, the League collated the data into tables to facilitate an international comparison of market shares although it pointed out that this could 'only afford an approximate idea of the relative positions of the various countries'.<sup>161</sup>

The yearbook figures for arms and ammunition exports included guns, machine guns, mountings, rifles, side-arms, shells, torpedoes, bullets, propellants and explosives but excluded warships, naval armaments and aircraft. They revealed a stable demand during the 1920s, which peaked between 1928 and 1930, before a sharp fall (Table 7), although the depression affected arm exports less than general trade (Table 8). Indeed, as Birch of Vickers-Armstrongs admitted in September 1931: 'Everybody is hard up, many countries are disturbed, and yet since the 1st of January of this year we have sold armament to twenty-nine countries, mostly in small quantities.'<sup>162</sup> Between 1923 and 1933 Britain annually obtained over a quarter of reported exports, reaching a height of 38 percent in 1931, although this had a lower monetary value than its 30.6 percent share of the preceding year. No individual state registered more exports of arms and ammunition, and even the combined figures for France and Czechoslovakia only exceeded the British level in 1924, 1932 and 1933.<sup>163</sup>

These revelations only added to the government's caution in matters concerning the arms trade. In December 1933, while ministers debated how to make the export licensing system less restrictive, Sir Robert Vansittart pointed out that other countries were unlikely to accept that the British armaments industry was dying, in view of its alleged 38 percent share of the global market. Although

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<sup>160</sup> Harkavy, *Arms Trade*, p.78.

<sup>161</sup> LN, 1937.IX.4, *Statistical Year-Book of the Trade in Arms and Ammunition* (Geneva, October 1937), p.201.

<sup>162</sup> CUL, VMF K637, Birch to Zaharoff, 3 September 1931.

<sup>163</sup> See also the figures in Harkavy, *Arms Trade*, pp.78-79.

Runciman doubted the accuracy of the League's statistics, Vansittart assured ministers that 'this figure, which purported to be based on material supplied by the United Kingdom, would certainly be used against us.'<sup>164</sup> Indeed, at the Royal Commission in 1935, the Communist Party of Great Britain submitted a memorandum which used the League's data to condemn British 'predominance' and suggest that the 'heaviest responsibility for the evils of the world arms traffic thus rests with Britain.'<sup>165</sup> Yet, given the international controversy surrounding the arms trade in the mid-1930s, David Edgerton has expressed surprise that few other witnesses at the Royal Commission addressed the size of Britain's role.<sup>166</sup> At a later sitting, Sir Maurice Hankey unsurprisingly took a different view from the Communists and criticised the League's portrayal of Britain as the world's largest exporter. Instead, he suggested that

our real share in the world's arms export trade is certainly considerably lower than the percentages here shown, both because the proportion of industrial explosives, etc., in the British total is probably higher than in the case of other countries, and still more because our returns are more comprehensive than those of some foreign countries.<sup>167</sup>

Therefore, the thoroughness of the licensing system, which had previously attracted criticism for allegedly restricting British firms, was now condemned for fostering an inaccurate impression of dominance. Hankey also argued that the League's data was skewed by the inclusion of shipments to India, the Dominions, and the colonies. To prove his point, he presented the Commission with a set of revised export figures, covering 1929 until 1934, which excluded colonial transfers (Table 9). Although the adjusted statistics indicated a more substantial challenge from France and Czechoslovakia after 1932, Britain still retained a large share of the market and was the leading exporter for four out of the six years presented, including the comparatively lucrative period between 1929 and 1930. Moreover, even if Hankey did not consider colonial business as part of the general arms trade, such transactions still generated armament work for British firms and,

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<sup>164</sup> TNA, CAB 27/551, Meeting of Ministers, 18 December 1933.

<sup>165</sup> RC, *Evidence*, p.71.

<sup>166</sup> Edgerton, *Warfare State*, p.46.

<sup>167</sup> RC, *Evidence*, p.594.

therefore, helped to maintain capacity for industrial mobilisation. In this regard, the proportional reduction in Britain's market share when these exports were excluded suggests that inter-imperial trade provided British firms with a definite advantage against their competitors.

In the naval sphere, the available statistics appeared to corroborate British shipbuilders's complaints about Italian competition. The League's figures, though far less comprehensive than its corresponding data for land armaments, indicated that Britain lagged behind Italy, with France in a distant third place (Table 10). However, it is highly unlikely that these values reflected the actual scale of international naval business. For example, the League's figures suggest that Britain exported roughly £3 million of war vessels between 1931 and 1934 but Vickers-Armstrong's foreign naval turnover alone totalled £3.4 million during the same period (Table 6).<sup>168</sup> Similarly, Philip Noel Baker supplied the Royal Commission with figures from *Brassey's Naval Annual*, purporting to show the annual value of British warship exports (Table 11), which also stated lower total figures than Vickers-Armstrong's yearly naval turnover for certain years.

Gaps in the existing data and the different methods employed in recording the value of naval exports means it is more accurate to compare the numbers and types of ships constructed by each country. Between 1923 and 1933, Britain and Italy obtained broadly similar numbers of overseas contracts for destroyers, submarines and other vessels, although Italian yards gained the benefit of two cruisers on foreign account (Table 12). However, Britain's domestic construction programme during this period comprised nine more cruisers than Italy, and twenty more destroyers, so it is hard to argue that it lost much ground in terms of industrial mobilisation.<sup>169</sup> In early 1931 the Board of Trade complained that while Britain had obtained 90 percent of pre-war foreign naval orders, its yards now had just 5,000 tons of overseas work, compared to 30,000 tons in Italy.<sup>170</sup> The PSOC painted a similarly bleak picture by pointing out that British shipyards in August 1914 were filled with 111 warships, including 22 vessels on foreign account, of which four were valuable capital ships. Conversely, only a single ship out of a

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<sup>168</sup> The League's figures have been converted using the same exchange of three gold dollars to the pound as Hankey used at the Royal Commission (see RC, *Evidence*, p.648, Table B, Note 6).

<sup>169</sup> Although Italy's domestic programme did comprise 23 more submarines than Britain during this period. See Roskill, *Naval Policy I*, pp.580-83.

<sup>170</sup> TNA, BT 56/18, Naval Armaments Exports: Summary, 23 January 1931.

total of 38 under construction in August 1930 was destined for another country, while capital ships were forbidden by treaty. Meanwhile, Italy was reportedly building nineteen large ships and four coastal motor boats for its foreign customers.<sup>171</sup> However, comparing 1930 with 1914 was slightly disingenuous, given the vastly different conditions prevailing in international relations and economic affairs. Furthermore, Tables 6, 10 and 11 demonstrate that overseas naval construction was subject to peaks and troughs. Even though larger ships took a long time to build, a particular month taken in isolation did not indicate a general trend. In fact, as Robert Harkavy has demonstrated, Britain exported 76 warships in total during the 1930s. This represented a 58.9 percent market share and was a long way ahead of Italy (17.8 percent) and France (10.1 percent).<sup>172</sup> Britain dominated the market in warships and submarines, although Italy held a much larger share of the market for smaller patrol vessels (Table 13).<sup>173</sup> Therefore, although Britain had lost some of its pre-war supremacy, it remained the world's leading naval exporter.

Politicians, industrialists and critics of private arms manufacture used statistics to reflect their specific concerns and support their contradicting arguments as to the level of Britain's armament exports. The industry and its supporters attempted to project an image of moderation or relative weakness, both to deflect domestic and international criticism, and to try and encourage greater government assistance. Moreover, officials viewed other countries' statistical returns with a degree of scepticism and contrasted foreign data with the accuracy of Britain's licensing system. It was entirely natural for certain interest groups to pressure the government to provide more help in obtaining foreign orders: Vickers-Armstrongs desired an increased turnover, the Board of Trade wished to stimulate commerce, and the services wanted to improve emergency war capacity. However, their complaints should not be taken as evidence that Britain failed to attract orders. Indeed, despite the alleged disadvantages under which British firms allegedly laboured, their products, both military and naval, were still exported in sizeable quantities.

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<sup>171</sup> TNA, CAB 4/22/1109-B, PSOC Report: Armaments Industry, 31 March 1933.

<sup>172</sup> Harkavy, *Arms Trade*, p.74.

<sup>173</sup> *Ibid.*, p.76.

**Table 7: Total Values of World Exports in Arms and Ammunition (Excluding Warships and Aircraft) and Market Shares, 1923-1933**

	<i>Total Value Exported</i>	<i>British %</i>	<i>French %</i>	<i>Czech. %</i>	<i>Swedish %</i>	<i>US %</i>
1923	100 [*]	36.9	20.3	3.3	2.4	23.5
1924	116	28.3	26.8	5.5	3.4	21.7
1925	122	34.3	14.9	1.9	5.5	22.2
1926	130	28.4	11.8	16.2	4.1	20.5
1927	122	31.9	9.6	7.9	6.1	19.6
1928	149	34.0	14.8	3.7	4.7	18.2
1929	165	33.6	14.5	4.9	4.6	16.6
1930	141	30.6	12.5	9.4	7.7	11.6
1931	89	38	7.5	11.1	10.5	11.1
1932	86	29.9	27.5	4.2	11.0	8.7
1933	92	28	23.4	8.8	9.4	9.0

\* = 39.4 million gold dollars.

Sources: LN, 1930.IX.1, *Statistical Year-Book of the Trade in Arms, Ammunition and Implements of War* (Geneva, 1930), p.166, and 1935 edition, 1935.IX.7, p.196.

**Table 8: Index Figures Demonstrating the Impact of the Depression on General Exports Compared to the Global Arms Trade, 1929-1936**

	1929	1930	1931	1932	1933	1934	1935	1936
General Exports	100	80.2	57.3	39	35.5	34.3	35	37.8
Armaments Exports	100	86.1	56.9	52.9	57.2	61.4	60.4	71.5

Source: LN, 1937.IX.4, *Statistical Year-Book of the Trade in Arms and Ammunition* (Geneva, October 1937), p.202.

**Table 9: World Exports in Arms, Ammunition and Explosives: (Percentages Excluding Colonial Transactions), 1929-1934**

	1929	1930	1931	1932	1933	1934
United Kingdom	21.8	19	28.1	21.9	20.9	11.1
Belgium	5.7	4.9	4.8	5.1	4.4	6
Czechoslovakia	6	11.7	13.5	5	10	25.2
Denmark	2.9	2.4	1.4	0.7	2	1.2
France	15.4	12.3	6	29.4	24.9	21.3
Germany (1)	4.7	4.5	5.2	3.5	3.1	2.8
Holland (3)	2.3	3.6	0.3	5.4	2.1	0.9
Italy (2)	6.9	8.2	7.7	1.9	4.4	4.5
Japan (1)	0.1	2.1	0.3	-	0.6	0.4
Norway (3)	1.3	1.2	1	0.6	2.2	1.9
Spain (3)	5.5	3.3	1.2	0.8	0.7	0.4
Sweden	5.6	9.5	12.7	12.8	10.7	10.8
Switzerland (3)	1.4	2.6	4.3	2.7	3.7	2.7
United States (3)	19.4	13.7	12.5	9.2	9.3	9.8
Other Countries (Assumed %)	1	1	1	1	1	1
Value of World Arms Trade (1000s Gold Dollars)	53,143	44,875	29,012	29,088	31,883	34,593

(1) Explosives only declared

(2) Excluding blasting powder

(3) Including sporting arms and ammunition

Source: RC, *Evidence*, p.648.

**Table 10: Exports of War Vessels (in 1000s of Gold Dollars)**

	1931	1932	1933	1934	1935	1936	Total
France		3,980.8					3980.8
Italy	21,720.4	5,602	4,168	1,022	223.9		32,736.2
Great Britain	2,721.9	1,840.2	2,249.4	1,795	2,543.7	350.0	11,500.2

Source: LN, 1937.IX.4, p.204.

**Table 11: Exports of New Ships from the United Kingdom  
(War Vessels including Machinery and Armament), 1925-1933 (£)**

1925	1926	1927
14,354	19,300	45,388
1928	1929	1930
5,143,150	3,820,250	707,400
1931	1932	1933
600,000	525,000	254,928

Source: RC, *Evidence*, p.279.

**Table 12: Major New Naval Construction for Foreign Powers, 1923-1933**

	Cruisers	Destroyers	Sloops	Gunboats	Submarines
Great Britain	-	12	6	5	8
Italy	2	10	2	9	6 [*]

\* = and a portion of submarines sent to Russia for assembly.

Source: TNA, CAB 4/23/1173-B, Admiralty Memorandum, 8 November 1934.

**Table 13: Market Shares for Major Suppliers in Naval Building, 1930-34**

	<i>Submarines</i>	<i>Warships</i>	<i>Patrol Vessels</i>
United Kingdom	26.8	42.7	16.7
United States	9.8	0	1.3
France	12.2	2.4	0
Germany	0	0	10.3
Italy	14.6	19.5	20.5
Japan	0	1.2	0
USSR	0	0	2.6

Source: Harkavy, *Arms Trade*, pp.84-85.

## **Conclusion**

Vickers and Armstrong were two of the world's biggest pre-war arms exporters and, following their merger in 1927, maintained an international reputation for innovation and quality. In promoting specialist products to potential customers across the world, Vickers-Armstrongs refined a comprehensive agency system and made use of its close ties with the service departments. These endeavours brought significant rewards: overseas business comprised a large proportion of the firm's turnover for armaments, while foreign sales of land equipment added some balance to its naval-dominated domestic sales. Fewer contracts were available than before 1914, but Britain still obtained a large share of military and naval work. Nonetheless, Vickers-Armstrongs repeatedly protested that it faced a number of obstacles which reduced its international competitiveness. In particular, it considered that the government's disinclination to guarantee credit on arms contracts was an especial handicap in view of the lavish financial and diplomatic assistance that it assumed to be the norm elsewhere. The government was sympathetic to these complaints and conceded that helping arms firms internationally could boost its preparations for industrial mobilisation. However, mirroring its attitude towards the industry's domestic struggles, it consistently placed the industry's concerns beneath its wider policy considerations.

The arms trade covered a huge variety of transactions, from the sale of a £4 revolver to warship deals worth several millions of pounds, and the government attempted to monitor and regulate the entire range of this business. Officials recognised that this unilateral oversight of international commerce was relatively ineffective, given that other states did not adhere to similar principles, and worried that Britain's export licensing system diverted trade to countries with less restrictive regimes and more generous credit facilities. In reconsidering its self-denying stance, the government never contemplated unrestricted arms trading, but did explore ways to enable British firms to obtain a greater share of the available work. However, its ability to modify existing procedure was seriously limited. The Cabinet was faced with irreconcilable and often contradictory trading, defence and foreign policy interests, and feared the reaction of domestic and international opinion to any action which appeared to give the British arms industry more freedom. Ultimately, and rather negatively, the government concluded that the potential drawbacks of changing its policy outweighed the alleged disadvantages of maintaining it. This attitude added to the disillusionment which marked inter-war state-industry relations. The government's approach towards the arms trade, although intended to protect the national interest, therefore also contributed to the exaggerated sense that Britain's defence preparations lagged behind other countries.

## 6. Statesmen, Smugglers and Sideshows: International Efforts to Control Armaments Manufacture and the Arms Trade

An international agreement to monitor the arms trade offered the government one possible way to maintain or strengthen its existing levels of national control while simultaneously enabling British armament firms to compete more fairly with their overseas rivals. In this regard, the pursuit of an international treaty to regulate arms manufacture and trading formed a subset of the League of Nations' wider ambition to achieve international security and disarmament, and received near-constant attention throughout the inter-war period. Nonetheless, this aspect of the League's work has received remarkably little scholarly consideration. This oversight perhaps reflects the frequently repetitive and tedious nature of the negotiations. For example, A. C. Temperley, a British officer whose 1938 book *The Whispering Gallery of Europe* recounted a decade of experience at Geneva, decided not to 'inflict' the discussions on trade and manufacture upon his readers.<sup>1</sup> Recent scholarship has largely concentrated on the League's initial attempts to address these questions before 1925. In particular, David R. Stone and Andrew Webster have argued that the League made promising early advances in its efforts to control the arms trade, although they have also pointed out that conflicting national interests, especially regarding the regulation of private manufacture, curtailed further success.<sup>2</sup> Webster has also analysed the remainder of the inter-war period and recognised that the fundamental cause of disagreement and failure was the major powers' reluctance to undermine their armament industries or the effectiveness of their armed forces.<sup>3</sup> Gerald Silverlock has severely criticised the British government's negative attitude towards the League's arms trade negotiations until 1925 although he is less damning of its concurrent policy towards the international control of private manufacture.<sup>4</sup> Beyond these assessments, little is known about the specifics of British attitudes

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<sup>1</sup> A. C. Temperley, *The Whispering Gallery of Europe* (London, 1938), pp.268-69.

<sup>2</sup> David R. Stone, 'Imperialism and Sovereignty: the League of Nations' Drive to Control the Global Arms Trade', *Journal of Contemporary History*, vol. 35, no. 2 (Apr., 2000), 213-30; Andrew Webster, 'Making Disarmament Work', 556-59.

<sup>3</sup> *Ibid.*, 563-64 and Webster, 'From Versailles to Geneva', 234-36.

<sup>4</sup> Gerald Anthony Silverlock, 'Issues of Disarmament in British Defence and Foreign Policy, 1918-1925' (Ph.D. thesis, King's College, London, 2000), Chs. 2-3, esp. pp.55, 73-4.

and policy. The years after 1925 have remained virtually unexamined, even though they involved considerable debate on the regulation of arms production and growing public agitation for greater progress in this direction.

Britain actually formulated and pursued a consistent dual policy towards international efforts to control armaments manufacture and the arms trade during the inter-war period. First, it aimed to convince other states to adopt the principles of its own unilateral regulations. Second, it sought to reduce the smuggling of small arms in colonial areas. Indeed, policymakers believed the illicit trafficking of rifles was more dangerous than the trade in modern weapons between recognised governments. Yet Britain often found that its comparatively limited aims stood at odds to Geneva's broader sweep. In the face of unacceptable international proposals and rising public dissatisfaction, officials were forced to develop detailed arguments against the wider control of arms production. Although agreement at Geneva remained unlikely, the government's participation in the negotiations forced it to further clarify the position of the armaments industry in wider strategic thinking, although it had little dialogue with the firms on these matters. The issue essentially boiled down to a choice of protecting British arms-producing capacity or relying on the League of Nations' ability to maintain international security. In view of the government's industrial mobilisation planning and its perpetual mistrust of other states, the League increasingly became an awkward, or even dangerous, diversion from reality.

#### **'Evil Effects' and 'Grave Objections': The League of Nations and Private Manufacture, 1918-1924**

The League of Nations Covenant, signed on 28 June 1919, contained a controversial and wide-ranging reference to the private armaments industry, which subsequently guided international efforts to regulate the manufacturers' activities. Paragraph five of Article Eight stated that:

The Members of the League agree that the manufacture by private enterprise of munitions and implements of war is open to grave objections. The Council shall advise how the evil effects attendant upon such manufacture can be prevented, due regard being had to the necessities of those Members of the League which are not able to

manufacture the munitions and implements of war necessary for their safety.<sup>5</sup>

When drafting the Covenant, President Woodrow Wilson originally suggested a clause to entirely prohibit private armaments manufacture. In December 1918 this idea received some support from General Jan Smuts, the South African statesman, although Smuts' considerations in favour of nationalising arms production received little attention from the British War Cabinet. Although the service departments admitted that ending the vested financial interest in the manufacture of war material held some attraction, they argued that a state monopoly would raise an insuperable problem under current international law, which forbade neutral governments from supplying belligerents in wartime but left private firms within neutral countries free to trade. In this regard, they drew attention to Britain's reliance on American private suppliers prior to the United States' official entry into the war. Therefore, the British delegation to the Paris Peace Conference in early 1919 did not generally agree with Wilson's initiative and, having failed to remove all mention of the subject from the Covenant, secured the wording finally adopted as a compromise.<sup>6</sup>

David Lloyd George, the Prime Minister during the Peace Conference, and Sir Maurice Hankey, who had undertaken important secretarial duties for both the British delegation and the conference more generally, subsequently presented differing interpretations as to the precise origins of paragraph five. At the Royal Commission in May 1936, Lloyd George suggested the conference had taken a strongly unanimous line against the private manufacturers, based upon the popular feeling that Krupp had helped to foster the war spirit in Germany.<sup>7</sup> On the other hand, Hankey described the matter as a 'complete sideshow' which received consideration only on Wilson's insistence. After studying the conference records, Hankey revealed that no national or international authority had investigated the alleged objections or 'evil effects'. Moreover, he described paragraph five of Article Eight as 'one of the vast interconnected complex of subjects' dealt with at Paris and suggested that it had received less attention than it deserved because of the 'fast-moving circumstances and uncertainties' which had marked

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<sup>5</sup> Quoted in Walters, *History of the League*, p.48.

<sup>6</sup> RC, *Evidence*, pp.717, 737-41.

<sup>7</sup> *Ibid.*, p.544.

proceedings.<sup>8</sup> Nonetheless, this single paragraph laid the foundation for fifteen years of frequently awkward and unrewarding international discussions about the armaments industry.

The League initially appointed a Permanent Advisory Committee (PAC) to provide advice on military matters. Composed of service representatives from member states, it unsurprisingly concluded that disarmament was impracticable. In response, the first League Assembly appointed the Temporary Mixed Commission on Armaments (TMC) in late 1920, consisting of a broader group of political and economic experts whose freedom of action was not tied to any particular national policy.<sup>9</sup> The commission subsequently prepared reports and proposals for the execution of Article Eight and appointed a specific subcommittee to address paragraph five.<sup>10</sup> Nonetheless, in February 1921 the PAC concluded that:

- (1) No direct action other than that already provided for by the treaties of peace can be taken in the case of producing states against the right of their private factories to manufacture war materials.
- (2) Even if at some future time measures were contemplated to diminish production, no action should be taken to prevent non-producing states from becoming producers if they had the will and the means.<sup>11</sup>

Conversely, in September 1921 the TMC's first interim report suggested that the regulation of private armaments manufacture was the most important special measure likely to hasten the solution of the general disarmament problem. Although its subcommittee noted that the alleged 'grave objections' were neither defined in the covenant nor extractable from the deliberations of the drafting committee, it also pointed out that the 'public mind' was strongly prejudiced against the arms business because of the 'common belief' that competition between arms manufacturers promoted war. The subcommittee grouped the

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<sup>8</sup> Ibid., pp.704, 717, 736-41.

<sup>9</sup> Steiner, *Lights That Failed*, p.374.

<sup>10</sup> RC, *Evidence*, p.569.

<sup>11</sup> Quoted in United States Department of State, *Papers Relating to the Foreign Relations of the United States, 1927*, vol. I, p.217.

general objections to untrammelled manufacture under six headings, which intimated that armament firms

have been active in fomenting war-scares and in persuading their own countries to adopt warlike policies and to increase their armaments.

[...] have attempted to bribe Government officials both at home and abroad.

[...] have disseminated false reports concerning the military and naval programmes of various countries, in order to stimulate armament expenditure.

[...] have sought to influence public opinion through the control of newspapers in their own and foreign countries.

[...] have organised international armament rings through which the armament race has been accentuated by playing off one country against another.

[...] have organised international armament trusts which have increased the price of armaments sold to Governments.<sup>12</sup>

The report also listed eight difficulties that could arise if arms production was completely nationalised. These included the League's inability to interfere with domestic sovereignty and industrial production; the neutrality question and international law; the risk that countries would stockpile arms or that non-producers would set up their own factories; the impact on employment and labour relations; the problem of firms which produced both peacetime and military-naval products; and the difficulty of defining war industries and how far state ownership should extend, given that a logical interpretation would eventually cover all industrial activity within a country. Therefore, at this early stage, the TMC could only provide a relatively inconclusive survey of conflicting opinions, and admit that it could not 'recommend the abolition of private manufacture or advise upon the particular steps to be taken to control it.'<sup>13</sup>

In June 1922, Rear Admiral John Segrave, a British PAC representative and participant in the TMC's deliberations, pointed that out that every previous

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<sup>12</sup> LN, A.81.1921, *Report of the Temporary Mixed Commission on Armaments* (Geneva, 15 September 1921), p.11.

<sup>13</sup> *Ibid.*, pp.11-12.

consideration of the alleged evils of private manufacture had ‘slurred over’ the question of proof and that the only written evidence against the arms firms had appeared in various pacifist pamphlets, such as *The Six Panics* by Francis Hirst and *The War Traders* by G. H. Perris, both published in 1913. Although Segrave admitted that some elements of these pre-war arguments were ‘plausible’, he also criticised their distortion of facts.<sup>14</sup> Nonetheless, the TMC subsequently postponed a request by Lord Cecil, who sat on the commission in an independent capacity, for an enquiry to determine the extent of the ‘evil effects’.<sup>15</sup>

Despite the lack of proof, the idea that the Temporary Mixed Commission had definitely condemned private manufacture became a key component in the arguments of a new generation of critics in the 1930s, and authors such as Fenner Brockway and Philip Noel-Baker cited the commission’s six headings as ‘conclusions’ and portrayed them as indictments brought by the League upon the manufacturers.<sup>16</sup> The controversy led Sir John Simon, the Foreign Secretary, to make two statements in the House of Commons during 1934, denying that the TMC had made any concrete recommendations on the matter.<sup>17</sup> Nonetheless, at the Royal Commission in 1936, Dame Rachel Crowdy, one of the commissioners and a previous member of the League Secretariat, suggested that the TMC had believed the evils existed and that the six criticisms of private manufacture had taken precedence over the eight points against prohibition.<sup>18</sup> When Hankey appeared before the Commission in May 1936, he expressed his desire to finally dispose of this ‘mischievous misrepresentation’ and presented testimony obtained from British officials who had participated in the drafting of the 1921 report, which revealed that the TMC had not taken outside evidence to support the six points. He argued that the report represented a ‘catalogue of objections’ rather than definite ‘charges’ against the private arms industry, balanced by the eight points referring to the dangers of nationalisation.<sup>19</sup> Based on Hankey’s evidence

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<sup>14</sup> TNA, CAB 16/40, Admiralty to CID, 8 June 1922. See also Trebilcock, ‘Radicalism’, pp.180-201.

<sup>15</sup> LN, A.31.1922, *Report of the Temporary Mixed Commission on Armaments* (Geneva, 7 September 1922), p.22.

<sup>16</sup> Brockway, *Bloody Traffic*, pp.24-25; Noel-Baker, *Private Manufacture*, pp.88-92. See also: UDC, *Secret International*, p.5.

<sup>17</sup> Hansard, HC Debs. (series five) vol. 288, cols 944-5 (18 Apr. 1934); *Ibid.*, vol. 293, col. 1315 (8 Nov. 1934).

<sup>18</sup> RC, *Evidence*, p.704.

<sup>19</sup> *Ibid.*, pp.717, 743-45.

and the wording of the TMC report, the Royal Commission ultimately reported that it was a ‘misconception’ to take the six objections as ‘an authoritative finding after full investigation and inquiry.’<sup>20</sup>

While the critics exaggerated the authority of the 1921 report, it nonetheless proved an important factor in inter-war international relations, reflecting an influential if unsubstantiated belief. Moreover, by making suggestions and raising unanswered questions, it gave momentum to the League’s attempts to regulate arms manufacture. In this direction, the Temporary Mixed Commission made nine suggestions: these included licensing and registration for private firms, combined with the publication of licences granted, account books and lists of shareholders. The commission also suggested that individuals connected with the armament industry be prevented from holding a controlling interest in newspapers.<sup>21</sup> Lord Esher and Sir Hubert Llewellyn Smith, both acting in an independent capacity, used these principles to draft a convention which the TMC adopted in 1922 as the basis for a proposed conference on private manufacture and the arms trade.<sup>22</sup>

Although Llewellyn Smith was also the government’s chief economic adviser in London, his proposal at Geneva carried in the TMC against British votes.<sup>23</sup> Subsequently, the draft convention provoked extensive opposition from the service departments. First, they argued that the scheme would discourage general non-armament firms from manufacturing war material as a sideline, which would weaken British industrial mobilisation and, ironically, give more power to the specialist armament firms. Second, they highlighted the danger that an unfriendly but neutral country could deny licences to its own private firms and prevent vital wartime supplies from reaching Britain. Finally, the services feared the proposed regulations would reduce British overseas sales and encourage non-producing countries to establish their own factories and increase global capacity for arms production.<sup>24</sup>

In reality, the TMC’s efforts to control armaments manufacture met with little success. Crucially, the United States refused to take part in the work, citing

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<sup>20</sup> Cmd 5292, *Trading in Arms*, p.34.

<sup>21</sup> LN, A.81.1921, pp.12-13.

<sup>22</sup> LN, A.31.1922, pp.21-22. This scheme should not be confused with Esher’s more infamous 1922 draft convention to limit land armaments (Silverlock, ‘Issues of Disarmament’, pp.195-221).

<sup>23</sup> TNA, CAB 16/40, Admiralty to CID, 8 June 1922.

<sup>24</sup> TNA, CAB 16/59, Admiralty to FO, 13 February 1923.

its inability to enact legislation penalising arms firms.<sup>25</sup> Within the commission, the majority recommended basing the regulation and supervision of private manufacture on the national implementation of common international principles. The minority, which included Léon Jouhaux, the French labour representative, favoured absolute prohibition and demanded international control over arms production.<sup>26</sup> With the TMC unable to agree on a future direction, the 1924 League Assembly could only instruct it to re-examine the question of private manufacture ‘with an entirely open mind’.<sup>27</sup> Yet the individual governments, particularly the major powers, had grown frustrated with the TMC’s independent spirit and, confident that the League was making sufficient progress in its wider disarmament and security initiatives, managed to ensure that the commission never met again.<sup>28</sup> The task of fulfilling the Assembly’s instructions fell instead to a new Coordination Commission, composed entirely of official representatives.<sup>29</sup>

In early 1925 the Committee of Imperial Defence formed a subcommittee to draft instructions for Ronald McNeill, the Parliamentary Undersecretary for Foreign Affairs, who was appointed as the British representative on the Coordination Commission. The services again raised concerns about the neutrality implications of any control of private manufacture, particularly regarding the importance of retaining Britain’s ability to buy and sell weapons abroad. Nonetheless, given the provisions of Article Eight and the government’s controversial opposition to the Geneva Protocol for the Pacific Settlement of International Disputes, the subcommittee agreed that the British delegate must present some constructive suggestions to the Coordination Commission. Therefore, it recommended that McNeill outline five conditions to ensure British support:

The similar consent of *all* the principal manufacturing countries, and in particular of the United States of America.

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<sup>25</sup> LN, C.758.M.258.1924.IX, *Conference for the Supervision of the International Trade in Arms and Ammunition and in Implements of War: Historical Survey etc.* (Geneva, 1925), p.13.

<sup>26</sup> LN, A.16.1924.IX, *Report of the Temporary Mixed Commission for the Reduction of Armament* (Geneva, 30 July 1924), pp.20-23.

<sup>27</sup> RC, *Evidence*, p.570.

<sup>28</sup> Andrew Webster, “‘Absolutely Irresponsible Amateurs’: The Temporary Mixed Commission on Armaments, 1921-1924”, *Australian Journal of Politics and History*, vol. 54, no. 3 (2008), 386-88.

<sup>29</sup> TNA, CAB 23/49/2(25), Cabinet Conclusions, 15 January 1925.

The previous conclusion of a satisfactory international convention dealing with the traffic in arms.

The scheme must not apply to firms manufacturing solely for their own Government.

The scheme must not operate in time of war.

Control must be *national* and not international.<sup>30</sup>

In this latter regard, the subcommittee held that each country adopt the national regulations imposed by Britain's own Firearms Act (1920), which was designed to limit the production of certain items to registered firms. By pressing for international acceptance of this system, policymakers hoped to subject foreign competitors to the same restrictions as their British counterparts. While the existing Act applied primarily to small arms and ammunition manufacture, the subcommittee argued that it could easily be expanded to incorporate ordnance, while the existing arrangements meant that only registered firms could export the heavier types of weapons.<sup>31</sup> The Home Office suggested that Britain could use the Firearms Act to throw the onus at Geneva onto other states and reported that it had not appreciably injured the service departments' interests during the four years of its operation. Indeed, the control it offered was rather limited: the system was not used to limit the number of manufacturers nor the scope of their operations, while registration could only be refused on a very limited number of grounds. The Act also lacked any provision for regular inspections. Nonetheless, the Home Office regarded it as a good paper scheme, ready for use when needed.<sup>32</sup>

Although the League asked the Coordination Commission to look at the problem with an 'open mind', the CID subcommittee believed that it would probably take the text of the TMC's majority report as the basis for a more comprehensive draft. The principles behind this document raised a number of problems both regarding its practicability, such as whether it would be possible to prevent the arms industry from having contacts with newspapers, and in terms of

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<sup>30</sup> TNA, CAB 24/171/CP50(25), Control of Private Manufacture: Memorandum, 2 February 1925. Emphases in original. The League's Economic Committee had endorsed the first two conditions.

<sup>31</sup> Ibid. The operation of the Firearms Act (1920) was restricted to Great Britain and Northern Ireland.

<sup>32</sup> TNA, CAB 16/59, Locke Note, n.d. [c. January 1925].

national security. In particular, the subcommittee disliked the idea of including firms ‘partially engaged’ in arms manufacture and expressed concern that the publicity provisions would give away secret manufacturing locations and facilitate enemy air raids and saboteurs.<sup>33</sup>

Arthur Steel-Maitland, the Minister of Labour, sounded a further note of warning: his experience of the League’s efforts to regulate working hours had fostered a belief that, while Britain would loyally adhere to its obligations, other states were liable to take a more ‘elastic’ interpretation. In the serious matter of arms manufacture, he questioned whether British national safety could be entrusted to the good faith of foreign powers.<sup>34</sup> On the other hand, the CID subcommittee suspected that the service departments’ many objections applied with similar force to Belgium, France, Italy and, above all, the United States. Indeed, it suspected that the first three were simply waiting for Britain to incur the odium for rejecting the scheme at Geneva. Given that the United States was unlikely to agree to the proposed convention in any case, the subcommittee suggested that Britain should whittle down the objectionable features of the TMC’s text and agree in principle. This tactic was intended to force the other European manufacturing countries to show their true colours and devise their own methods of obstruction.<sup>35</sup>

Between 1919 and 1925 British policymakers were confronted by an inconvenient momentum, emanating from Geneva, which forced them to address the question of international regulation for private armaments manufacture. However, Britain mistrusted other governments more than its arms industry and aimed to protect its firms from excessive international interference by stalling the discussions as much as possible. At most, it could only suggest imposing its own unilateral regulations on other powers. At any rate, policymakers doubtless breathed a sigh of relief when the Coordination Commission met in February 1925 and decided to put the matter on hold while the League focused its attention on the arms trade.<sup>36</sup>

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<sup>33</sup> TNA, CAB 24/171/CP50(25), Control of Private Manufacture: Memorandum, 2 February 1925.

<sup>34</sup> *Ibid.*, CP76(25), Steel-Maitland Memorandum, 10 February 1925.

<sup>35</sup> TNA, CAB 16/59, FO Memorandum, 19 January 1925.

<sup>36</sup> RC, *Evidence*, p.570.

## **‘Decent Weapons’ and ‘Inferior Races’: The International Arms Traffic and the Post-War World**

The initial motivation to secure a post-war international arms trade agreement mainly arose from existing imperial concerns. The rapid innovations of the nineteenth century revolution in armaments technology meant that weapons frequently became obsolete before they wore out.<sup>37</sup> The resultant pre-war trade in second-hand arms, particularly old rifles, was mainly carried on by states rather than private firms and was chiefly motivated by the desire to secure diplomatic advantages.<sup>38</sup> Britain played a comparatively minor role in this activity and believed that French, Italian and Russian eagerness to offload their surplus armaments in areas such as the Balkans and Ethiopia was dangerous and destabilising.<sup>39</sup> However, although most of the global arms trade remained unregulated, the Brussels Convention of 1890, signed by the United States and the European colonial powers, restricted the flow of arms to certain parts of Africa as a means towards the wider object of ending the slave trade.<sup>40</sup> However, the Brussels Convention proved only partially effective in stopping what Sir Mark Sykes, one of the government’s Middle Eastern specialists, later called the problem of ‘decent weapons getting into the hands of the inferior races.’<sup>41</sup> Finding a solution informed much of Britain’s subsequent policy towards the arms trade.

The initial prospects for a reduction in post-war trafficking were not promising. In March 1917 a CID subcommittee, chaired by Lord Islington, the Under-Secretary of State for India, gravely predicted a serious escalation of the government’s difficulties after the war:

The world’s total stocks of destructive weapons will in fact be infinitely greater than at any previous period in history; and the difficulty of preventing these weapons from reaching undesirable hands will be proportionately increased.<sup>42</sup>

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<sup>37</sup> Andrew Moravcsik, ‘Arms and Autarky in Modern European History’, *Daedalus*, vol. 120, no. 4 (Autumn, 1991), 29-30.

<sup>38</sup> Jonathan A. Grant, *Rulers, Guns and Money: The Global Arms Trade in the Age of Imperialism* (Cambridge, Mass., 2007), Ch. 2.

<sup>39</sup> *Ibid.*, p.64.

<sup>40</sup> Stone, ‘Imperialism and Sovereignty’, 215.

<sup>41</sup> CAB 16/44, Sykes Memorandum, 12 January 1917. Sykes was the co-architect, with Charles Georges-Picot of the infamous 1916 agreement to carve up the Ottoman Empire into British and French spheres of influence.

<sup>42</sup> *Ibid.*, Arms Traffic Subcommittee Report, 10 March 1917.

The British Empire's extensive frontiers were particularly vulnerable to the dangers of arms smuggling and the government already possessed various unilateral safeguards against such activity. Besides strengthening these measures, Islington's subcommittee recommended that Britain take the opportunity to secure an international agreement at the peace conference to regulate the arms trade and restrict the indiscriminate distribution of small arms and ammunition.<sup>43</sup> Larger and more modern weapons caused fewer concerns as they were less suitable for illicit trade and use. For example, although machine guns could be smuggled, their high consumption of ammunition made them relatively useless if the source of supply was cut off. Moreover, Sykes suggested that improvements in aircraft, armoured cars and machine guns would give British imperial forces a decisive technological advantage against tribesmen armed with second-hand rifles.<sup>44</sup>

Believing each state's national interests would reduce the scope of any international arrangements, the subcommittee suggested that a more limited agreement would establish the principle of cooperation and foster a community of interests. For example, it proposed that Britain should offer to help France in controlling the illicit arms trade in West Africa, in exchange for similar assistance regarding the traffic from the French protectorate of Djibouti to Ethiopia, which affected neighbouring British and Italian colonial interests.<sup>45</sup> The arms trade with Ethiopia, a sovereign state, was already subject to a 1906 treaty whereby Rome, Paris and London imposed strict control 'to prevent disorder' in bordering territories such as Kenya and the Sudan. During the Great War, this agreement was used to implement a strategic embargo on arms exports to the Ethiopian government.<sup>46</sup> Nonetheless, consignments continued to reach Ethiopia via Djibouti, although French officials professed ignorance of these developments.<sup>47</sup>

Rowland Sperling, the head of the Foreign Office American section, anticipated few difficulties in obtaining the United States' support, given Washington's desire to cut the supply of weapons to the more turbulent Latin

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<sup>43</sup> Ibid.

<sup>44</sup> Ibid., Meeting, 29 January 1917.

<sup>45</sup> Ibid., Report, 10 March 1917.

<sup>46</sup> See Harold G. Marcus, 'The Embargo on Arms Sales to Ethiopia, 1916-1930', *International Journal of African Historical Studies*, vol. 16, no. 2 (1983), 263-65; Grant, *Rulers, Guns and Money*, Ch. 3.

<sup>47</sup> CAB 16/44, Arms Traffic Subcommittee Meeting, 29 January 1917.

American countries. Yet the draft convention under discussion at the Paris Peace Conference in early 1919 was almost entirely imperial in character, placing restrictions on surplus arms disposal and prohibiting the arms trade in troublesome areas of Africa and Asia. Sperling observed that ‘it is not to be supposed that an aeroplane or twelve inch gun would be of much use to an Afridi or Abyssinian raider’, but he also pointed out that such items would be useful, for example, to Chile. While Britain had no objection to Chile purchasing modern weapons, and Italy, Japan and Spain were reportedly discussing possible arms sales to South America, the United States found such transactions strongly distasteful.<sup>48</sup>

As a result of the negotiations at Paris, 23 states signed the Convention for the Control of the Trade in Arms and Ammunition at Saint-Germain-en-laye on 10 September 1919. Significantly, the preamble did not suggest that the arms trade was inherently harmful, although the first chapter established principles of licensing and publicity as methods of regulating the arms trade between signatory powers. However, the majority of the convention aimed to restrict the supply of arms and ammunition to specific prohibited areas in Africa, Asia and ‘any country which refuses to accept the tutelage under which it has been placed’ (see Appendix VI).<sup>49</sup> Indeed, Sperling later observed that the authors of St Germain had distinguished between the trade in weapons such as machine guns and artillery among ‘civilised’ countries which were ‘fit to use them’, and the problem of the traffic in small arms which ‘could easily be procured and misused by barbarous races’.<sup>50</sup>

Few states ratified the 1919 convention and the League particularly blamed the United States for not giving a lead to the other major arms exporting countries.<sup>51</sup> However, although St Germain remained inoperative, its protocol bound its signatories to act within the convention’s articles and spirit.<sup>52</sup> In July 1920 Britain, France, Italy and Japan also made a ‘rather informal agreement’ to implement the prohibited area regime.<sup>53</sup> Therefore, Britain achieved a certain

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<sup>48</sup> CAB 24/75/GT6875, Sperling Memorandum, 22 February 1919.

<sup>49</sup> Cmd 414 (1919), Convention for the Control of the Trade in Arms and Ammunition, and Protocol, 10 September 1919.

<sup>50</sup> TNA, FO 371/10524, W1715/1558/95, Sperling Minute, 29 February 1924.

<sup>51</sup> Stone, ‘Imperialism and Sovereignty’, 219.

<sup>52</sup> Cmd 414, *St Germain Convention*.

<sup>53</sup> LN, C.758.M.1924.IX, p.148. See also: Silverlock, ‘Issues of Disarmament’, p.42.

measure of success in its primary post-war ambition regarding the arms traffic and the Foreign Office suggested in 1924 that the informal arrangement, while not perfect, did at least 'check the supply of arms to turbulent races in Africa and the Middle East.'<sup>54</sup>

Britain also participated in other international agreements to prevent the supply of armaments to specified regions. In May 1919 rampant Chinese factionalism led Britain, the United States, Japan, France, Italy, (non-Soviet) Russia, Spain, Portugal, the Netherlands, Belgium, and Brazil to impose an arms embargo, in an attempt to discourage civil unrest until the establishment of a strong central authority in China. The Foreign Office later claimed that some states had interpreted their obligations very loosely, while certain countries, notably Soviet Russia, Germany, Czechoslovakia and Norway, had freely exported arms to China. Although the existing situation was prejudicial to British industry, the Foreign Office refused to allow a breach of the agreement, fearing that Britain would then incur 'the odium of breaking down an arrangement which, although partially ineffective, has certainly, to some extent prevented a general scramble to supply the Chinese with arms'. It also refused to entertain suggestions from British officials in China that the government could use its control of the arms trade as a 'political weapon' in supplying one or other of the warring factions. Indeed, Sir Austen Chamberlain, the Foreign Secretary, argued in 1927 that the existing policy of neutrality among the factions was eminently correct: 'Nothing else has prevented us at one time or another from backing the wrong horse, and it is still too soon to pick the winner.'<sup>55</sup>

The Allied powers also imposed an embargo on Greece and Turkey, as a result of the conflict which erupted between these states during the post-war partitioning of the Ottoman Empire, although one Foreign Office official suspected that it was 'not very loyally observed' by France and Italy. Furthermore, the creation of the Turkish Republic in 1923 caused a fresh complication for imperial security: the informal agreement arising out of St Germain was specifically designed to prevent arms reaching disturbed territories where 'uncontrolled importation was likely to increase the risk of war and unrest',

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<sup>54</sup> TNA, FO 371/10525, W4767/1558/95, FO Memorandum, 11 June 1924.

<sup>55</sup> TNA, CAB 24/187/CP156(27), FO Memorandum, 16 May 1927.

and the Asiatic portion of Turkey was in close touch with many of these areas.<sup>56</sup> Faced with the laissez-faire attitude of France and Italy, and without the adherence of the United States to the informal agreement, Britain withdrew from the embargo in 1924 to prevent its exporters from losing out in the Aegean. Policymakers remained puzzled as to how to prevent the re-export, via Turkey, of armaments throughout the Middle East, while the Foreign Office recognised that pressing for a restriction on Turkey's arms imports was probably not the best way to induce it to join the League of Nations.<sup>57</sup> In the face of these political realities, Britain allowed arms to go to Turkey 'in practically unlimited quantities' after 1924, although the Foreign Office retained the ability to hold up export licence applications in moments of crisis.<sup>58</sup>

Beyond these limited diplomatic arrangements, arising out of specific local contexts, most of the post-war momentum for controlling the general arms trade came out of Geneva. St Germain was not a League of Nations initiative, although it would have used the League's machinery to promulgate statistical information on licensed exports.<sup>59</sup> Moreover, the League Covenant referred to the arms trade twice. The fifth paragraph of article 22 placed responsibility for the administration of certain territories, especially in central Africa, upon specified mandatory powers. This obligation included the prohibition of various abuses including the arms traffic. Section (d) of article 23 entrusted the League 'with the general supervision of the trade in arms and ammunition with the countries in which the control of the traffic is necessary in the common interest'.<sup>60</sup> Like St Germain, these elements of the Covenant reflected Britain's imperial concerns, lent credence to its paternalistic approach and demonstrated a community of shared interest towards this question, while effectively leaving the general trade in arms between sovereign states untouched.

Yet the Temporary Mixed Commission compelled the League to take its consideration of this issue a step further. It reported in 1921 that the control of the international arms traffic was 'an essential feature' of any scheme to bring the alleged evils of private manufacture under control. In this regard, it viewed St

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<sup>56</sup> TNA, FO 371/10524, A503/98/95, Rendel Minute, 30 January 1924.

<sup>57</sup> TNA, FO 371/10525, W4426/1558/95, Oliphant Minute, 29 May 1924; *Ibid.*, W4767/1558/95, FO Memorandum, 11 June 1924.

<sup>58</sup> TNA, FO 371/11031, W551/86/95, Rendel Minute, 26 January 1925.

<sup>59</sup> Stone, 'Imperialism and Sovereignty', 218.

<sup>60</sup> Quoted in Walters, *History of the League*, pp.56-59.

Germain as a limited step, because its primary aim was not disarmament 'among civilised states' but was rather designed

to prevent arms from getting into the hands of private persons or organisations, or of certain barbarous or semi-civilised peoples, whose possession of those weapons would be a danger to the world.

The TMC suggested that this could act as a starting point for controlling the general trade in all forms of armament and recommended that St Germain be brought into operation at the earliest opportunity. The commission also recognised that the cooperation of the United States was vital, as no state would ratify a convention that simply diverted trade into American hands, while it also predicted complications surrounding the position of the Soviet Union.<sup>61</sup> After receiving another formal rejection of St Germain from Washington in September 1923, the League decided to start afresh. To secure the participation of the American representative in Switzerland, the proposed new convention was separated from the League's overall control and St Germain's ban on sales to non-signatories was removed.<sup>62</sup>

Meanwhile, the United States' refusal to ratify St Germain offered the service departments an opportunity to develop their objections to the convention. For example, the Admiralty felt that the general trade in armaments deserved more consideration than a single chapter in a convention largely designed to deal with gun running.<sup>63</sup> In this latter regard, the services not only suggested an enlargement of the prohibited zones but also advocated a tightening up of international export controls in order to reduce the naval commitment involved in patrolling these areas. More generally, the services reiterated that the government must preserve its freedom to purchase from neutral private sources in wartime, with British firms retaining their ability to supply belligerents when Britain remained neutral.<sup>64</sup>

In January 1924 Lord Curzon, the Foreign Secretary, argued that further action was unnecessary as the informal agreement to restrict arms exports to the

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<sup>61</sup> LN, A.81.1921, pp.14-15.

<sup>62</sup> Stone, 'Imperialism and Sovereignty', 220-21.

<sup>63</sup> TNA, CAB 16/59, Admiralty to Air Ministry and WO, 1 January 1923.

<sup>64</sup> Ibid., Admiralty to FO, 13 February 1923.

prohibited areas had made St Germain ‘practically operative’ and had prevented weapons from reaching ‘turbulent races’ in Africa and the Middle East.<sup>65</sup> However, the system was not watertight and the Admiralty doubted whether the other powers had taken the same strict interpretation of their obligation not to export arms to the prohibited zones.<sup>66</sup> Nonetheless, Curzon warned that the more wide-ranging general convention now suggested by the League would endanger the more limited agreement’s precarious authority. Indeed, owing to these considerations Lord Cecil, representing Britain at the League Council in late 1923, had been instructed to resist reopening the question. However, the maverick internationalist disobeyed his instructions and not only supported the recommendation to invite the United States to participate in the arms trade negotiations but also resisted a French suggestion that the TMC suspend its labours pending the receipt of Washington’s answer.<sup>67</sup>

The Temporary Mixed Commission’s central role in drafting the new convention frustrated British officials. Angered by Cecil’s defiance, Sir Eyre Crowe, the Permanent Undersecretary at the Foreign Office, criticised the commission’s members as ‘absolutely irresponsible amateurs’ who were ill-equipped to deal with this highly complex problem. He feared Britain was being driven into a ‘wrong and dangerous position’ and would have preferred the ‘eminently qualified’ service representatives on the PAC to have undertaken the work. Crowe criticised Cecil for subscribing to the ‘dangerous’ theory that the League represented public opinion rather than government policy, and he worried that Major J. W. Hills, who held no official position in the British government but acted as joint *rapporteur* to the TMC’s drafting subcommittee, would publicise his meetings with various Whitehall officials in order to invest his scheme with unwarranted authority.<sup>68</sup> Indeed, the Foreign Office continued to resist what it perceived as attempts by Hills and Cecil, who both sat on the TMC in purely personal capacities, to make it appear as if they spoke with the voice of the British government.<sup>69</sup>

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<sup>65</sup> TNA, FO 371/10524, A98/98/95, Curzon Note, 3 January 1924.

<sup>66</sup> TNA, CAB 16/59, Admiralty to Air Ministry and WO, 1 January 1923.

<sup>67</sup> TNA, FO 371/10524, A98/98/95, Curzon Note, 3 January 1924.

<sup>68</sup> *Ibid.*, W1715/1558/95, Crowe Minute, 1 March 1924. Lord Parmoor, the government’s League representative, agreed generally with Crowe’s views: *Ibid.*, Cadogan Minute, 7 March 1924.

<sup>69</sup> For example: TNA, FO 371/10525, W3718/1558/95, Orde Minute, 6 May 1924.

Despite these protests, the preparatory work for a new convention began in February 1924, based on the provisions of Articles Eight and 23(d) of the Covenant.<sup>70</sup> At the Foreign Office, the American Department handed responsibility for the arms traffic question to the Western Department, presumably owing to the latter's connection with the League of Nations.<sup>71</sup> On 26 February Major Hills consulted the concerned government departments about the TMC's proposed draft and Sperling, who had emerged as the Foreign Office's arms traffic expert, suggested that the existing informal agreement of 1920 'was doing a small and unostentatious but good work' which was threatened by the discussion of a more ambitious convention.<sup>72</sup> He subsequently argued that St Germain had failed precisely because it was overloaded by more sweeping provisions and predicted that the new convention would similarly fail, 'because practical difficulties are overlooked in the pursuit of unattainable ideals.' While the common factor in the great powers' informal agreement was the definite presence of 'troubled areas' on their frontiers, Sperling suggested that the new convention was too idealistic and that the principle underlying the TMC's work,

however attractive as an ideal, is not one which can be carried out in the present state of the world, because it presupposes that all countries, where any arms can be manufactured, are on an equal footing and equally to be trusted to enforce any self-denying ordinance against a traffic which must become more and more profitable as arms acquire a scarcity value.

Moreover, Sperling even suggested that Hills' rough draft would make it easier for certain states, including Afghanistan, the Central American republics, China, Ethiopia, Russia, Turkey and, eventually, Germany, to acquire arms than under existing arrangements.<sup>73</sup> On a more positive note, the Home Office supported the inclusion of clauses to clarify the accreditation of legitimate government representatives because, at present, 'people continually turned up who were not

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<sup>70</sup> LN, A.16.1924.IX, pp.2-3.

<sup>71</sup> TNA, FO 371/10526, W1642/1642/95, Warner to Wilkinson, 25 February 1925.

<sup>72</sup> TNA, FO 371/10524, W1715/1558/95, Interdepartmental Meeting Minutes, 26 February 1924.

<sup>73</sup> *Ibid.*, Sperling Minute 29 February 1924.

only not accredited representatives but who were often open to the gravest suspicion.<sup>74</sup>

The Permanent Advisory Committee considered the TMC's draft in May 1924 and the British delegation proposed the creation of two separate conventions: one to deal with the general global trade in armaments and another to put the control of the arms traffic in certain parts of Africa and Asia on a more satisfactory and widely recognised basis. Britain argued that the former convention would probably require much discussion and therefore involve considerable delay before it came into force. By contrast, few difficulties were anticipated in negotiating an updated version of the lapsed Brussels Convention.<sup>75</sup> However, in July several members of the TMC, including Cecil, protested that this procedure would militate against the acceptance of a general worldwide convention. As a result, Rear Admiral Aubrey Smith, the official British representative on the Commission, withdrew the suggestion.<sup>76</sup> After the PAC had finished its observations, the draft was completed and the League Council subsequently set the opening of the arms trade conference for the following May.<sup>77</sup>

The draft convention's first chapter categorised and defined various armaments, ammunition and implements of war: category one covered arms and ammunition designed entirely for war; category two incorporated arms that possessed a military capability but were not exclusively designed for that purpose; while category three referred to armaments neither designed for war nor capable of warlike usage, such as cattle killers. The second chapter established the licensing and publicity regime for trade in these articles. Like St Germain, supervision was based upon the establishment of a Central International Office, which would receive and publish details of licences granted. Articles listed in category one were restricted to direct deliveries to recognised governments. Free exportation of category two articles was allowed if the high contracting parties decided that the material was not intended for warlike purposes, otherwise the category one regime applied. Trade in category three goods was uninhibited, except in the case of deliveries to the prohibited maritime and territorial zones

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<sup>74</sup> Ibid., Interdepartmental Meeting, 26 February 1924.

<sup>75</sup> LN, C.758.M.258.1924.IX, pp.147-48.

<sup>76</sup> TNA, FO 371/10525, W6906/1558/95, Smith Report, 18 July 1924.

<sup>77</sup> Stone, 'Imperialism and Sovereignty', 221.

established in the third, fourth and fifth chapters of the convention. None of the material defined in chapter one could be exported to the prohibited zones unless it was a licensed delivery to the government of the country concerned, though the question of what areas should be included was left for discussion by the conference. The final chapter was reserved for general provisions.<sup>78</sup>

Given that Britain already felt it had achieved a decent measure of control through its existing policy, it was highly unlikely that its delegation would play a proactive role at the forthcoming arms trade conference. After the Great War, international regulation of the arms trade only appealed to British policymakers in limited regional contexts, particularly in preventing small arms from falling into undesirable hands. To a certain extent, the League of Nations helped in this regard but Britain was also apprehensive of the League's wider ambition to control all trading in armaments. Like the simultaneous negotiations on private manufacture, this suspicion not only resulted from the government's continued mistrust of other powers but also because it wished to protect its ability to trade modern privately-produced weapons with other states.

### **The Conference for the Supervision of the International Trade in Arms and Ammunition and in Implements of War, 1925**

In May 1925 *Time* magazine hailed the opening of 'the largest conference, after the Paris Peace Conference of 1919, ever to be held in the whole course of known history.'<sup>79</sup> The Conference for the Supervision of the International Trade in Arms and Ammunition and in Implements of War met from 4 May until 17 June 1925, and attracted participants from 44 states alongside observers from Argentina. The president of the conference, Count Henri Carton de Wiart, the former Belgian Prime Minister, stated in his opening speech that 'the present state of international opinion' made it

inadmissible that a trade which has so great an influence on the security of nations and individuals as that in armaments should be regarded as exclusively commercial and should escape all general regulation.

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<sup>78</sup> For the draft convention's text, see: LN, C.758.M.258.1924.IX, pp.17-25.

<sup>79</sup> *Time*, 11 May 1925.

Even so, Carton de Wiart recognised a legitimate trade in armaments because

every State is not only entitled but duty bound to provide for its security within the scope of its international obligations by procuring the necessary armaments, either from its own factories or from foreign factories.

Connected to the desire to protect the ‘good name’ of such trade was the duty to keep armaments out of unsuitable hands by clamping down on ‘illicit and dangerous traffic’.<sup>80</sup>

These aspects of the president’s speech corresponded closely to the British government’s own two-pronged approach to the conference. First, it looked to maintain or enhance the prohibited zone regime. Second, it wished to eliminate any provisions that would unduly interfere with Britain’s general security, trade and manufacture. Indeed, shortly before the conference opened, a committee of departmental representatives again suggested a redraft of the convention to make the section dealing with the prohibited areas into a self-contained whole, arguing that this would facilitate part-ratification if a country agreed to the special regime but not the wider provisions. The committee also recommended that the prohibited areas be renamed ‘special zones’ in an attempt to remove the misconception that governments within them would be unable to secure weapons for legitimate needs, and that the British delegation should make it clear that the only effect of inclusion was

to prevent the internal enemies of the Government from obtaining arms, so that logically a young country governing itself with difficulty should welcome the international support which the special zone regime is intended to give.<sup>81</sup>

Unsurprisingly, this rather patronising attitude won Britain few friends amongst the smaller powers at Geneva.

Initially, it seemed as if the British were not taking the conference seriously at all. Complaining about the oppressive heat, William Beckett, assistant

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<sup>80</sup> LN, A.13.1925.IX, *Proceedings of the Conference for the Supervision of the International Trade in Arms and Ammunition and in Implements of War* (Geneva, September 1925), p.122.

<sup>81</sup> TNA, CAB 24/173/CP218(25), Draft Interdepartmental Report, 23 April 1925.

legal adviser to the Foreign Office and a member of the British delegation, sardonically wrote after the opening ceremonies:

A number of the delegates look as if they certainly ought not to be allowed any arms and should be kept in a prohibited area – notably the Duke of Entotto of Ethiopia, who does his hair with rancid butter and sits just behind us.<sup>82</sup>

Beckett also commented that Heinrich von Eckardt, the president of the large German delegation, ‘was a very able gun runner in Mexico during the war’.<sup>83</sup> However, the British delegation was not without its own critics. On 2 May, *The Economist* noted:

The Americans are coming with a powerful and representative delegation, under the presidency of Senator Burton; the French and Germans will also be strongly represented; Great Britain is contenting herself with sending the Under-Secretary of State for War, the Earl of Onslow. Attached to him as experts are the British officers on the League’s Permanent Advisory Commission on Armaments – experts who hitherto have not been remarkable for a progressive outlook on the whole armaments problem.<sup>84</sup>

Onslow, who possessed a pre-war diplomatic background, was not the government’s first choice as head of delegation, as Ronald McNeill had previously declined to take on the job for personal reasons and a disinclination to grapple with the technicalities of the question.<sup>85</sup> C. W. Orde, a clerk in the Western Department, represented the Foreign Office, as Sperling was now working as a diplomat in Bern.<sup>86</sup> The Labour Party’s observers at the conference, Charles Buxton and Mary Carlin, reported that the apparent inadequacy of the British delegation was ‘much commented upon’ and that its composition

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<sup>82</sup> TNA, FO 371/11036, W4824/86/95, Beckett to Hurst, 5 May 1925.

<sup>83</sup> Ibid. As Germany’s wartime ambassador to Mexico, von Eckardt was the recipient of the Zimmerman telegram in 1917.

<sup>84</sup> *The Economist*, 2 May 1925, p.855.

<sup>85</sup> TNA, FO 371/11032, W3295/86/95, McNeill Minute, 7 April 1925.

<sup>86</sup> Ibid., Villiers Minute, 16 April 1925.

suggested that the government regarded the subject as being ‘purely military, and having no political importance.’<sup>87</sup>

Despite these criticisms, the British attitude towards the convention’s more general provisions was reasonably conciliatory. For example, the Cabinet ceded the inclusion of warships, subject to special conditions, once the Admiralty was reassured that vessels would not be opened up to examination and rummaging by foreign countries and that domestic shipbuilders would not suffer as a result of the regulations.<sup>88</sup> The Air Ministry strongly resisted the inclusion of aircraft, feeling it would deal a ‘death blow’ to the British manufacturers upon whom the Royal Air Force relied. The conference subsequently reached a compromise whereby aeroplanes were excluded from categories one and two, and licensing would only apply to aircraft exported to the special zones (for the final categorisation of armaments decided by the conference, see Appendix VII).<sup>89</sup>

The negotiations on which states should be included in the special zones were more politically charged and provoked greater controversy. However, Britain again demonstrated flexibility in the means by which it attempted to achieve rigid defence objectives and, prior to the conference, the Colonial, Foreign and India Offices all offered insights into the current position of controversial regions.<sup>90</sup> As a result, Britain’s approach to the special zones tended to take into account on the ground realities rather than strict adherence to the draft convention’s constraints.

Historically, Iran and the Persian Gulf provided a channel for illicit weapons to reach tribal areas on the North-West Frontier of India, where their use caused security problems for the Indian government.<sup>91</sup> The India Office noted that if Iran was included in the special zones, the supply from the south would be checked but, given the Soviet Union’s absence from the conference, this would leave considerable infiltration from the north. Therefore, this traffic could only be blocked by the action of the Iranian government itself. The India Office suggested

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<sup>87</sup> Charles Roden Buxton and Mary Carlin, *League of Nations: Arms Traffic Conference: Report to Executive of Labour Party* (n.p., 1925), pp.3-4.

<sup>88</sup> TNA, CAB 23/50/27(25), Cabinet Conclusions, 28 May 1925.

<sup>89</sup> TNA, CAB 27/274/AT(25) Meeting, 25 May 1925; *Ibid.*, 3 June 1925.

<sup>90</sup> TNA, CAB 24/173/CP218(25), Draft Interdepartmental Report, 23 April 1925.

<sup>91</sup> R. M. Burrell, ‘Arms and Afghans in Makrān: an Episode in Anglo-Persian Relations, 1905-1912’, *Bulletin of the School of Oriental and African Studies, University of London*, vol. 49, no. 1 (1986), 8-24; T. R. Moreman, ‘The Arms Trade and the North-West Frontier Pathan Tribes, 1890-1914’, *Journal of Imperial and Commonwealth History*, vol. 22, no. 2 (May 1994), 187-216.

that Tehran, having already objected to the perceived stigma of the prohibited areas, would probably be more willing in this regard if Britain supported its exclusion from the zones.<sup>92</sup> The conference duly exempted Iran from the special regime but further controversy erupted when Britain refused to remove Iranian territorial waters from the maritime zones. Sir Percy Cox, representing the Indian government and with considerable pre-war experience of the Persian Gulf, described these waters as ‘the home of the arms traffic’ and, supported by Onslow, demanded their inclusion in the zones. In response, the incensed Iranian delegation withdrew from the conference.<sup>93</sup> However, despite the failure to resolve this issue at Geneva, subsequent events appeared to justify Britain’s methods. The Admiralty reported in 1932 that its naval vigilance, coupled with the desire of both Iran and Saudi Arabia to restrict the traffic within their territories, had reduced gun running in the Persian Gulf to negligible proportions. Smugglers appeared to think the Royal Navy possessed greater powers than it actually did: in fact, its ships mainly hunted for illicit arms under the cloak of anti-slavery operations, even though it did not have a specific right of search under these conditions. Therefore, the Persian situation was partly resolved through bluff.<sup>94</sup>

Ethiopia posed a similar problem to Iran, in that it was a sovereign state and a member of the League of Nations. Since the end of the war, France had continued to supply the African state with arms via Djibouti, despite British and Italian attempts to block this activity and negotiate a quota system to regulate supplies for the Ethiopian government. When Ethiopia joined the League in 1923, Britain made sure that its membership was tied to an undertaking that it would adhere to the provisions of St Germain, fearing that Addis Ababa would otherwise acquire the right to import unlimited quantities of armaments.<sup>95</sup> In March 1925, Taffari Makonnen, heir to the Ethiopian throne, demanded that his country be removed from the prohibited areas, so that it could properly fulfil its obligations as a sovereign member of the League of Nations.<sup>96</sup> However, Orde considered it preferable that Ethiopia refuse to sign the convention and thereby maintain the

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<sup>92</sup> TNA, FO 371/11033, W3712/86/95, India Office Note, n.d. [c. April 1925].

<sup>93</sup> Stone, ‘Imperialism and Sovereignty’, 224-26.

<sup>94</sup> TNA, CAB 27/512/DC(I)(32) Conclusions, 29 November 1932.

<sup>95</sup> Marcus, ‘Embargo on Arms Sales’, 265-68.

<sup>96</sup> TNA, FO 371/11032, W3252/86/95, Makonnen to League Council, 12 March 1925.

status quo, rather than have it excluded from the special zones.<sup>97</sup> On 30 April Lord Cecil, who had been appointed to the Cabinet as Chancellor of the Duchy of Lancaster in November 1924, suggested that the arms trade conference presented an opportunity to make an ‘outside arrangement’, through the League’s agency, to strengthen international control of the Ethiopian arms traffic.<sup>98</sup>

At the conference, the Ethiopian problem was ultimately resolved through private talks involving the representatives of Britain, France and Italy. On 14 May Count Clauzel, a member of the French delegation, initiated these discussions and expressed his hope for an extension of the existing tripartite agreement, which would prove satisfactory to all parties and exclude Ethiopia from the special zones.<sup>99</sup> These behind-the-scenes negotiations eventually led to an article in the final convention, whereby Ethiopia undertook ‘in the free exercise of her sovereign rights’ to put into force all regulations necessary to fulfil the special zone obligations without the perceived indignity of being included in the zones.<sup>100</sup>

China was a member of the League and attended the conference, but it remained beset by internal power struggles. Indeed, Sydney Waterlow, the head of the Foreign Office’s Far Eastern department, had declared in January 1925 that ‘the increasing flow of munitions to China is a far greater danger to the peace of the world than is the traffic with any of the semi-barbarous countries which it is desired to control.’ Waterlow also suggested that the existing arms embargo was inadequate for this growing problem and that Britain should draw attention to the issue at Geneva.<sup>101</sup> Conversely, the Foreign Office did not want the British delegate to take the initiative in proposing Chinese inclusion in the special zones, fearing that this would cause resentment.<sup>102</sup> However, it was not clear whether the arms trade convention as drafted would supersede or threaten the existing embargo, so Onslow was instructed to obtain a clause safeguarding the right to conclude separate agreements when stricter measures were deemed necessary.<sup>103</sup>

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<sup>97</sup> TNA, FO 371/11033, W3661/86/95, Orde Minute, 29 April 1925.

<sup>98</sup> TNA, CAB 24/173/CP223(25), Arms Traffic Committee Conclusions, 30 April 1925. G. H. Villiers, the Head of the Foreign Office Western Department, expressed similar sentiments: TNA, FO 371/11033, W3871/86/95, Villiers Minute, 2 May 1925.

<sup>99</sup> TNA, FO 371/11034, W4404/86/95, Onslow to Chamberlain, 14 May 1925.

<sup>100</sup> Article 28 of Cmd 3448 (1929), *International Convention for the Supervision of the International Trade in Arms and Ammunition* (17 June 1925).

<sup>101</sup> TNA, FO 371/11031, W551/86/95, Waterlow Minute, 29 January 1925.

<sup>102</sup> TNA, FO 371/11033, W3712/86/95, FO Note, n.d. [c. April 1925].

<sup>103</sup> TNA, CAB 24/173/CP218(25), Chamberlain Minute, 28 April 1925.

This right was ultimately protected by Article 34 of the final convention, which abrogated St Germain but explicitly confirmed that it did not affect other agreements pertaining to the arms trade.<sup>104</sup> Thereafter, the Chinese embargo remained in place until 26 April 1929, when it was lifted owing to widespread international recognition of Chiang Kai-shek's Nationalist government.<sup>105</sup>

Onslow joined most of the other conference delegates in signing the International Convention for the supervision of the International Trade in Arms and Ammunition on 17 June 1925.<sup>106</sup> However, the convention never came into force. Britain demanded simultaneous ratification by the principal manufacturing countries, but the response to enquiries addressed to these states was not hopeful.<sup>107</sup> At Vickers, General Birch sought reassurance from A. C. Temperley, the British military representative at Geneva, that Britain would not ratify alone and therefore drive foreign armament business to countries which had not ratified.<sup>108</sup> In 1930 the government finally deposited its ratification in Paris, albeit with the crippling reservation that it would not come into operation without similar action from the other manufacturing states.<sup>109</sup>

The failure of the 1925 conference did not fundamentally change the government's approach to the arms trade. First, it meant a continuation of the status quo of limited and informal regional agreements, a position which officials generally found satisfactory. Moreover, even though the convention remained inoperative, the Admiralty found that the special zones provisions gave 'a kind of authority' to its naval activities to suppress illicit traffic in these areas.<sup>110</sup> Second, Britain generally followed the convention's licensing procedure for exports in any case.<sup>111</sup> Therefore, even had the convention come into force, the wider activities of British manufacturers would have been unaffected, beyond their international rivals being subjected to the same regulatory provisions. Of greater concern for

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<sup>104</sup> Cmd 3448, *Arms Trade Convention*.

<sup>105</sup> *The Times*, 26 April 1929.

<sup>106</sup> Cmd 3448, *Arms Trade Convention*.

<sup>107</sup> TNA, CAB 2/4, CID Minutes, 26 January 1926; TNA, FO 371/11808, W900/900/95, Chamberlain to British Representatives, 27 February 1926; TNA, FO 371/11809, W1102/900/95, Chamberlain Written Answer to Parliamentary Question, 24 November 1926

<sup>108</sup> CUL, VMF K618, Birch Conversation with Temperley, 7 October 1929.

<sup>109</sup> TNA, CAB 4/19/990-B, FO to Tyrrell, 27 February 1930.

<sup>110</sup> TNA, CAB 24/251/CP235(34), Interdepartmental Committee Report, 29 October 1934.

<sup>111</sup> RC, *Evidence*, p.333.

policymakers was that the conference's uncertain conclusion caused the League to return to the question of private arms manufacture.

### **Private versus State Manufacture: International Negotiations on the Control of Arms Production, 1925-31**

The arms trade conference ultimately failed because it did not take into the account the League Covenant's warning to give due regard to those countries unable to manufacture 'the munitions and implements of war necessary for their safety.' The non-producing states argued that the 1925 convention subjected their purchases to an embarrassing and potentially dangerous level of international publicity, while armaments produced for domestic consumption by the exporting countries remained a secret.<sup>112</sup> To meet this complaint, the conference's Final Act declared the signatories' intention to press for an early consideration of the international aspects of arms manufacture.<sup>113</sup> To an extent this aim was sidetracked by the appointment of the Preparatory Commission for the Disarmament Conference, which met between 1926 and 1931 to draw up a general disarmament convention.<sup>114</sup> Yet the League still held several meetings on the subject of private and (eventually) government manufacture, forcing British policymakers to clarify their objections and prepare further obstructionist tactics.

In December 1925 the League Council despatched a questionnaire to governments, including non-member states, asking each country to outline its existing national control measures, provide observations on any 'grave objections' connected to private arms manufacture, and to offer any suggestions for the proposed international agreement.<sup>115</sup> Over four years after the TMC had published its controversial six points, this was the League's first attempt to survey government opinion on these issues.<sup>116</sup> The newly-appointed Reduction and Limitation of Armaments (RLA) interdepartmental subcommittee of the CID, under Cecil's chairmanship, prepared Britain's response. It reiterated that that the government exercised adequate national control through the Firearms Act and Washington Treaties Act; that the British armaments industry was not open to

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<sup>112</sup> Stone, 'Imperialism and Sovereignty', esp. 223, 228-29.

<sup>113</sup> LN, *Monthly Summary of the League of Nations*, vol. 5, no. 6 (Jun., 1925), p.146.

<sup>114</sup> For an overview of the Preparatory Commission era, see Steiner, *Lights That Failed*, Ch. 11.

<sup>115</sup> TNA, CAB 16/73/RLA(26)15, League Questionnaire, 21 December 1925.

<sup>116</sup> RC, *Evidence*, p.574.

grave objections; and that the international objections to private manufacture were not exclusive to arms production. Furthermore, the subcommittee suggested that the international application of the Firearms Act would provide sufficient control of global manufacture but doubted if other states, which ostensibly possessed similar regulations, would loyally carry out these measures.<sup>117</sup> To demonstrate the efficiency of British control, the Home Office pointed out that only three out of 1,760 people arrested before 16 May 1926 in connection with the General Strike had been found in possession of illicit weapons.<sup>118</sup> Moreover, while the Home Office supplied evidence that private *dealers* in wartime surplus arms had indulged in nefarious practices, it found little proof that the arms manufacturers engaged in such activity.<sup>119</sup> Overseas, the Board of Trade argued that firms had probably held out secret financial inducements to those connected with the placing of government contracts, although it admitted it lacked hard evidence and pointed out that such practices were not confined to arms firms.<sup>120</sup>

Without waiting to receive the answers to its questionnaire, the League of Nations appointed a committee of enquiry, consisting of Eduardo Cobian of Spain, Alberto Guani of Uruguay, and Ferdinand Ververka of Czechoslovakia, who produced a 'Preliminary Draft Convention Concerning the Supervision of the Private Manufacture of Arms and Ammunition and of Implements of War and Concerning the Publicity of Such Manufacture' in April 1926. This drew upon the Temporary Mixed Commission's prior work and recommended a regime of licensing for private manufacture, with publicity for all arms produced, although similar obligations regarding state-owned factories were not clearly defined. The draft also contained an article which forbade parties from purchasing items listed in the first three categories of the 1925 arms trade convention from a non-party (see Appendix VII).<sup>121</sup> The British representatives on the PAC initially suggested that this provision interfered with the government's right to purchase in the cheapest market but the services later agreed that it was necessary to prevent

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<sup>117</sup> TNA, CAB 4/14/684-B, RLA Report, 29 April 1926.

<sup>118</sup> TNA, CAB 16/71/RLA(26), Meeting, 25 June 1926.

<sup>119</sup> TNA, CAB 16/73/RLA(26)36, Home Office Memorandum, n.d. [c.March-April 1926].

<sup>120</sup> *Ibid.*, RLA(26)35, BT Memorandum, 29 March 1926.

<sup>121</sup> *Ibid.*, RLA(26)37, Committee of Enquiry Report, 19 April 1926.

‘international black-legging’ although it also necessitated ratification by all the major manufacturing countries.<sup>122</sup>

The service representatives on the RLA subcommittee suggested that the preliminary draft’s definition of a ‘private manufacturer’ was too wide. Instead, they expressed their desire to only include firms *mainly* engaged in arms production rather than, for example, a pen manufacturing company which occasionally made fuses. In particular, they did not want to discourage ordinarily ‘commercial’ firms from manufacturing parts of secret government weapons, including precision instruments. The assistant director of contracts at the War Office suggested that if such companies were forced to register, it could discourage them from accepting military orders and the country would be forced to rely more upon the ‘Armament Ring’. In response, Arthur Locke, a civil servant at the Home Office, suggested that even Vickers could potentially avoid registration under such a system, as it could incorporate its genuine arms works (Vickers-Armstrongs) with the various commercial business concerns under its general control, thereby reducing the relative percentage of its overall activity dedicated to armament production. Locke also pointed out that many non-specialist firms had undertaken one-off orders for the services and had not previously objected to the existing licensing system.<sup>123</sup>

Locke’s arguments did little to assuage the service departments’ concern that detailed international publicity would result in dangerous revelations about Britain’s strategic position. The British PAC representatives had earlier commented that the proposed publication of deliveries by private manufacturers, and of the stocks held by both private and state manufacturers was a ‘novel and unacceptable’ development, which would cause weaker countries to panic and the world to ‘reverberate with ideas of threats of war.’ In any case, the PAC representatives felt that other countries, particularly in eastern Europe, would never agree to such a provision.<sup>124</sup> The Admiralty concurred that the publications of detailed information risked encouraging arms racing and aggression. Moreover, it suggested that such publicity would reveal changing stock levels which could

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<sup>122</sup> Ibid., RLA(26)40, PAC Representatives Memorandum, n.d. [c. April-May 1926]; TNA, CAB 16/72/RLA(26), Meeting, 7 March 1927.

<sup>123</sup> TNA, CAB 16/71/RLA(26), Meeting, 3 May 1926.

<sup>124</sup> TNA, CAB 16/73/RLA(26)40, PAC Representatives Memorandum, n.d. [c. April-May 1926].

enable a prospective enemy to ascertain Britain's war plans.<sup>125</sup> On the other hand, Cecil argued that if Britain could not agree to some level of publicity, it might as well openly state its opposition to the entire convention. In an attempt to reassure the services, Cecil presumed the League would agree to returns showing only the value of the goods under the main headings of the 1925 categories, given that the primary object of publicity was to ascertain an overall sense of the global manufacture of arms, and whether this was subject to annual increases.<sup>126</sup> The Admiralty remained unconvinced and worried that the publication of value would provoke opposition from the arms firms by giving away business details. It also pointed out that Britain was much more dependent on private manufacture than France, Holland, Italy and Japan, and feared it would end up publishing more data than these countries. In an echo of the Foreign Office's attitude to the earlier arms trade negotiations, the Admiralty argued that the League of Nations' wide ambition would preclude success and suggested that, until all countries had joined the League, the most that should be attempted was for governments to tighten up their national arrangements.<sup>127</sup> Interestingly, in November 1932 the Admiralty claimed its reliance on private manufacture had fallen to 50 percent, which made it less concerned about equality of publicity.<sup>128</sup>

During the summer of 1926 the RLA subcommittee, following its earlier negative discussions, suspended its consideration of the Committee of Enquiry's convention to give the League time to incorporate the questionnaire results into the draft.<sup>129</sup> In September the League Assembly gave fresh momentum to the issue by calling for a special conference on private manufacture if the Preparatory Commission had not completed its preparations for the general disarmament conference by the following year.<sup>130</sup> On 16 November Cecil told the RLA subcommittee that opinion at Geneva had inclined towards accepting the Committee of Enquiry's draft as the basis for the proposed conference. As Britain could not simply ignore these developments, he asked the services to prepare a

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<sup>125</sup> Ibid., RLA(26)41, Admiralty to Hankey, 17 May 1926. The Air Ministry concurred: Ibid., RLA(26)42, Air Ministry to Hankey, 1 June 1926.

<sup>126</sup> TNA, CAB 16/71, RLA(26), Meeting, 3 May 1926.

<sup>127</sup> TNA, CAB 16/73/RLA(26)41, Admiralty to Hankey, 17 May 1926.

<sup>128</sup> TNA, CAB 27/512/DC(I)32, Conclusions, 24 November 1932.

<sup>129</sup> TNA, CAB 16/71/RLA(26), Meeting, 25 June 1926.

<sup>130</sup> RC, *Evidence*, p.570.

‘relatively harmless’ convention themselves.<sup>131</sup> Although the resulting document retained the League’s categorisation of arms, the services’ suggested provisions for regulating the manufacture of such items were far more limited: the convention applied only to firms ‘mainly or largely engaged’ in arms manufacture, while aircraft were entirely removed from licensing. Most controversially, the publicity provisions were changed from the League’s quarterly detailed returns on specific items to yearly returns giving only general descriptions of the war material for which licences had been granted, with similar returns for state manufacture.<sup>132</sup> On 1 March 1927 Cecil expressed serious reservations about putting such a document forward at Geneva.<sup>133</sup> The Home Office and Board of Trade subsequently amended the publicity provisions, although the subcommittee continued to debate whether these should give details of quantity, with negative implications for secrecy, or by value, which raised difficulties when applied to state production.<sup>134</sup>

The services’ unconstructive proposals reflected the RLA subcommittee’s general unwillingness to engage in any meaningful way with the negotiations at Geneva. Indeed, the services’ draft was only intended as a precaution in the event that Britain failed to obtain a postponement of the League’s discussions. To this end, Locke suggested that the British delegate press for the inclusion of state manufacture in the convention, thereby generating further disagreement between the countries which relied on government factories and the non-producing states which relied on purchases from private foreign sources.<sup>135</sup> Although the United States, which was heavily reliant on private manufacture, shared Britain’s view regarding the insertion of state factories, the League’s newly appointed Special Commission for the Preparation of a Draft Convention on the Private Manufacture of Arms and Ammunition and of Implements of War (SCPM) was unable to reconcile this dispute when it met for the first time between 14 March and 25 April.<sup>136</sup> Like Britain, the United States had little conviction that an international convention to control private manufacture would succeed, but took part in the

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<sup>131</sup> TNA, CAB 16/71/RLA(26), Meeting, 16 November 1926.

<sup>132</sup> TNA, CAB 4/16/780-B (Revise), Cecil Note and Draft Conventions, 8 and 10 March 1927.

<sup>133</sup> TNA, CAB 16/72/RLA(26), Meeting, 1 March 1927.

<sup>134</sup> *Ibid.*, 7 March 1927.

<sup>135</sup> TNA, CAB 16/71/RLA(26), Meeting, 16 November 1926.

<sup>136</sup> LN, 1927.IX.6, *Special Commission for the Preparation of a Draft Convention on the Private Manufacture of Arms and Ammunition and of Implements of War* (Geneva, 25 April 1927).

League's negotiations to at least show willingness to cooperate in an issue connected to disarmament and because the American delegate had signed the Final Act of the 1925 arms trade conference. However, in a worrying development for the publicity-shy British, Washington also aimed to promote the international collection and publication of arms production statistics, based upon existing American practice.<sup>137</sup>

The 1927 League Assembly's Disarmament Committee suggested that a solution could be found in subjecting private manufacture to full supervision, with publicity extended to state production.<sup>138</sup> The Assembly referred the question back to the Special Commission, which eventually met between 27 and 30 August 1928 and agreed to this principle.<sup>139</sup> In the meantime, Cecil had resigned from the Cabinet in protest at the government's handling of the Geneva Naval Conference in summer 1927.<sup>140</sup> Lord Salisbury, the Lord Privy Seal and Cecil's brother, took over the chair of the RLA subcommittee, while Alexander Cadogan, the First Secretary at the Foreign Office, subsequently represented Britain on the SCPM. Progress remained elusive and the Special Commission's decision to include state manufacture merely provoked renewed argument on the form that publicity should take. In particular, France refused to give anything other than total value by category of state-produced weapons but demanded to know the number, value and weight of privately-made arms.<sup>141</sup> Conversely, Britain only agreed to supply annual returns showing the value of war material produced by both forms of manufacture. Although the French delegate criticised this 'childish' attitude, the Foreign Office argued that it was perfectly acceptable so long as France and Italy maintained the view that private manufacture be subjected to more detailed returns than state production. In this regard, it suggested the British delegate could emphasise that a comparable lack of equality had rendered the 1925 arms trade convention a dead letter. Yet, in reality, Britain championed the principle of equality not from any concern for the plight of the non-producers but more

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<sup>137</sup> Department of State, *Foreign Relations of the United States, 1927* vol. I, pp.219-223.

<sup>138</sup> LN, 1927.IX.10, *Private Manufacture and the Publicity of the Manufacture of Arms and Ammunition and of Implements of War: Report of the Third Committee to the Assembly* (Geneva, 22 September 1927).

<sup>139</sup> LN, 1928.IX.10, *Reduction of Armaments: Supervision of the Private Manufacture and Publicity of the Manufacture of Arms and Ammunition and of Implements of War* (Geneva, 4 September 1928), pp.2-7.

<sup>140</sup> For Cecil's resignation see: Richardson, *Evolution of British Disarmament Policy*, pp.140-44.

<sup>141</sup> TNA, CAB 16/74/RLA(26)87, Cushendun to Lindsay, 31 August 1928.

because it was a convenient argument to support its defence-orientated refusal to give more than the value of the goods produced by the arms industry, particularly in view of its belief that France only manufactured 20 percent of its arms in private factories, compared to 80 percent in Britain.<sup>142</sup> On the other hand, the Treasury, admitting it only had an indirect interest in the matter, suggested that if Britain did reveal more information than advised by the service departments, this concession would be balanced by the information gained about other powers, and it also supported the convention as a step on the road to disarmament.<sup>143</sup>

Lengthy discussions at the SCPM's next meeting in December 1928 revealed that no country had significantly altered its attitude towards state manufacture. Combined with the surprising announcement that Belgium refused to accept the existing categorisation of arms, the Special Commission produced little more than an unwieldy draft, burdened with complexities and reservations. At the close of proceedings, Hugh Wilson, the United States delegate, made an unexpected statement criticising the inadequacy of publicity by value, which contrasted with the views he had expressed to Cadogan in private.<sup>144</sup> The SCPM met again in August 1929, but the British government, anticipating that 'no useful purpose would be served', issued its representative with no fresh instructions. Cadogan described the resultant draft convention as a document 'which does not, honestly, mark any real progress towards a solution of the problem' and conceded that the Special Commission had reached the end of its useful life.<sup>145</sup>

As the RLA subcommittee had earlier implied, the entire matter hinged on the outcome of the wider disarmament negotiations. The arms trade convention could not be made operative until private manufacture was similarly regulated and, for equality's sake, this could not happen until state production was also controlled. However, the Covenant did not specifically mention regulation of government factories and the question of state manufacture also involved problems connected to general disarmament, such as the level of publicity to be

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<sup>142</sup> Ibid., RLA(26)89 and 90, FO Memoranda, 15 and 22 November 1928.

<sup>143</sup> TNA, CAB 16/72/RLA(26), Meeting, 27 November 1928.

<sup>144</sup> TNA, CAB 16/74/RLA(26)95, Cadogan to Chamberlain, 8 December 1928.

<sup>145</sup> TNA, CAB 4/18/960-B, Cadogan to Lindsay, 31 August 1929. See also: LN, 1929.IX.4, *Special Commission for the Preparation of a Draft Convention with Regard to the Supervision of the Private Manufacture and Publicity of the Manufacture of Arms and Ammunition and of Implements of War: Report* (Geneva, 29 August 1929).

accorded to each country's armament levels.<sup>146</sup> As a result, negotiations stalled until they received fresh momentum in December 1930 when the Preparatory Commission finally finished its labours and allowed the Council to subsequently summon the long-awaited disarmament conference.

In January 1931 Philip Noel-Baker, the Parliamentary Private Secretary to the Foreign Secretary, suggested that the government had approached the problem from the wrong angle. He argued that the question was not one of equality, but rather that state production was inherently less liable to corrupt practices in the sale of arms to home and foreign governments.<sup>147</sup> Noel-Baker was right that Britain never based its policy on the assumption that the alleged evils of private manufacture required international attention. Instead, policymakers were primarily motivated by a desire to preserve secrecy and to safeguard British firms, both specialist and general, from excessive interference.

### **Ticklish Questions and Awkward Answers: The Disarmament Conference and the Royal Commission, 1932-36**

The Disarmament Conference opened on 2 February 1932, with most countries represented.<sup>148</sup> Until its broader disarmament negotiations adjourned indefinitely in 1934, the questions of arms production and trade were largely relegated to the sidelines. For example, it took until 22 September for the conference to appoint a Committee for the Regulation of the Trade in, and Private and State Manufacture of, Arms and Implements of War (CTM). This committee only met for the first time in October and produced a preliminary report the following month, which recorded the existing fundamental differences of opinion and divided its work into separate manufacture and trade subcommittees.<sup>149</sup> Despite this slow start, E. H. Carr, Britain's CTM representative and Second Secretary at the Foreign Office, wrote to Charles Howard Smith, the chairman of the Cabinet's Interdepartmental Disarmament Conference (DCI) committee and a Foreign Office Counsellor, that

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<sup>146</sup> RC, *Evidence*, p.571.

<sup>147</sup> TNA, CAB 16/98/RA, Meeting, 30 January 1931. This was the Labour government's equivalent of the RLA committee.

<sup>148</sup> Walters, *History of the League*, pp.500-501.

<sup>149</sup> RC, *Evidence*, p.571; LN, 1932.IX.59, *Conference for the Reduction and Limitation of Armaments: Committee for the Regulation of the Trade in, and Private and State Manufacture of, Arms and Implements of War* (Geneva, 12 November 1932).

he was faced with the ‘ticklish’ questions of the arms trade and private manufacture earlier than he had expected.<sup>150</sup>

The arms trade provoked relatively little discussion. Britain had largely agreed with the terms of the 1925 convention and was satisfied with its existing measures to prevent trafficking.<sup>151</sup> Despite the India Office’s concern over continued rifle smuggling to the North-West Frontier, the DCI committee decided to leave the matter alone and suggested that a successful general disarmament convention could lead to subsequent special agreements similar to the informal application of St Germain.<sup>152</sup> Nonetheless, on 1 March 1933 the Admiralty made some proposals to bring the 1925 convention into line with the Disarmament Conference negotiations. In particular, it suggested new measures to facilitate the imposition of international embargoes.<sup>153</sup> Although Carr questioned the operation of such a clause, he felt the proposal had some value, particularly in view of the controversy surrounding Britain’s ongoing unilateral embargo against China and Japan:

The risks of having such a system seems to me to be infinitely less than the risks of being compelled by public opinion to take sudden decisions without any system at all – which is what has been happening to us during the last week or two.<sup>154</sup>

At a DCI committee meeting on 19 April, Colonel F. G. Drew, the War Office representative, objected to Carr’s remark that embargoes were not a matter for the services, and stated that they had a serious impact on the arms industry and, as a result, imperial defence. Drew also protested against the Admiralty view that Britain could be bound to accept an international embargo ‘agreed’ by an international body acting by majority vote, as this essentially amounted to international licensing.<sup>155</sup>

The negotiations surrounding arms manufacture unsurprisingly caused more controversy, although the discussion of publicity and the limitation of war

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<sup>150</sup> TNA, CAB 27/513/DC(I)(32)8, Carr to Smith, 21 November 1932.

<sup>151</sup> Ibid., DC(I)(32)13, Carr to Smith, 23 November 1932.

<sup>152</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 29 November 1932.

<sup>153</sup> TNA, CAB 27/513/DC(I)(32)33, Admiralty Memorandum, 1 March 1933.

<sup>154</sup> Ibid., DC(I)(32)35, Carr Comments, 6 March 1933.

<sup>155</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 19 April 1933.

material was circumscribed pending the conclusions reached by other committees. Therefore, the bureau of the Disarmament Conference told the CTM to concentrate on supervisory arrangements.<sup>156</sup> Reporting to the DCI committee in November 1932, the services expressed firm opposition to international inspection of both state and private manufacture, fearing that this would reveal secret manufacturing techniques. For example, the Admiralty pointed out that even its inspectors were not presently allowed to see the steel-hardening process used for shell at the Hadfield and Firth works.<sup>157</sup> Furthermore, G. S. Whitham, the Assistant Director of Ordnance Factories and member of the PSOC, feared that the system suggested would facilitate foreign espionage. To meet these complaints, the committee proposed resisting ‘on the spot’ verification until the exact arrangements whereby an investigation could be ordered were ascertained.<sup>158</sup> Yet this overlooked the Cabinet’s earlier support for the conference’s resolution to establish a Permanent Disarmament Commission (PDC) to ensure the faithful execution of the convention’s provisions.<sup>159</sup> This meant that if somebody accused Vickers of building a prohibited gun and the majority in the PDC demanded an inspection, Britain could not refuse to allow a commission to visit the firm’s works to ascertain the truth.<sup>160</sup> The Cabinet’s decision limited the DCI committee’s room for manoeuvre, and its subsequent activity in this direction was mainly concerned with circumscribing the scenarios whereby an inspection could be ordered.<sup>161</sup>

The British representatives also resisted proposals by ‘certain delegations’ for a central international licensing authority, and instead recommended national licences combined with the submission of pertinent data to the PDC.<sup>162</sup> Carr wrote from Geneva on 23 November that, while other countries supported this approach, the company of Italy and Japan was ‘not particularly reputable’ while the United States was acting tentatively owing to domestic public opinion. Therefore, he requested some positive proposals to demonstrate the effectiveness of national

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<sup>156</sup> RC, *Evidence*, p.571.

<sup>157</sup> TNA, CAB 27/513/DC(I)(32)9, Admiralty Memorandum, 23 November 1932.

<sup>158</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 24 November 1932.

<sup>159</sup> TNA, CAB 23/72/49(32), Cabinet Conclusions, 20 September 1932.

<sup>160</sup> TNA, CAB 27/513/DC(I)(32)16, Carr to Smith, 2 December 1932. See also *Ibid.*, DC(I)(32)15, Bartholomew to Hodsoll, 3 December 1932.

<sup>161</sup> *Ibid.*, DC(I)(32)14a, Draft Report, 7 December 1932.

<sup>162</sup> *Ibid.*, DC(I)(32)8, Carr to Smith, 21 November 1932.

licensing to his fellow delegates.<sup>163</sup> Yet the DCI committee could only stress the adequacy of the existing British system (i.e. the registration of manufacturers coupled with a system of export licensing) and rejected anything more extensive as likely to involve highly contentious legislation and a great deal of expense.<sup>164</sup>

The committee's static position on national control ironically led to revelations about the inherent frailties of Britain's existing system. Indeed, as Captain V. H. Danckwerts of the Admiralty Plans Division admitted on 29 November,

we have not really anything like the supervision inside the country which we were actually inclined to make out, but we did keep a very tight hold on anything which was exported.<sup>165</sup>

Further to this, Carr wrote on 2 December that the other delegates at Geneva had revealed the 'nakedness' of the Firearms Act as a means of controlling manufacture:

No licence of any kind is required to build battleships, submarines, tanks or aeroplanes, even when specifically fitted with apparatus for firing or bombing, though the manufacturer of the "firearms" eventually fitted to these engines of war would of course have to have a licence. Indeed, I am told it is very doubtful, though the case has never arisen, whether a licence is required to manufacture artillery, since big guns are not normally included in the term "firearms".<sup>166</sup>

Although the Washington and London Treaty Acts imposed regulations on the production of warships, no other legislation beyond these and the Firearms Act governed arms manufacture in Britain. Moreover, the DCI committee also heard that, beyond the requirement to obtain an export licence, 'no record or control is exercised over the armament trade in any form', because the licences did not record what was actually exported, even though the Board of Customs had agreed

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<sup>163</sup> Ibid., DC(I)(32)13, Carr to Smith, 23 November 1932.

<sup>164</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 29 November 1932.

<sup>165</sup> Ibid.

<sup>166</sup> TNA, CAB 27/513/DC(I)(32)16, Carr to Smith, 2 December 1932.

to obtain this information in future.<sup>167</sup> On 8 December 1932 the government also faced criticism from Lord Marley, a Labour peer, during a House of Lords debate. As part of a general critique of the government's attitude at Geneva, Marley suggested that allowing the export of arms to China and Japan, despite the volatile situation following the Manchurian crisis, was 'hardly a control with which this government should be satisfied.'<sup>168</sup>

The DCI committee recognised that Britain's existing regulations could appear 'rather loose' but contended that they were generally adequate for national needs and accused other countries of lacking the desire to exercise similar restrictions. Nonetheless, the committee recognised that Britain would need to tighten up its system in order to fend off demands for international control at Geneva.<sup>169</sup> However, efforts in this direction were constrained by the service departments' continued desire to exclude commercial firms capable of arms manufacture, estimated at between 10,000 and 12,000 concerns, from the convention's operation.<sup>170</sup> Furthermore, the DCI committee, on the Board of Trade's advice, decided that the only British firms 'chiefly or largely' engaged in the manufacture of arms were sporting arms manufacturers and state factories because even the largest private firms which manufactured armaments only dedicated a portion of their time and output to such work.<sup>171</sup> Noel-Baker subsequently revealed that this attitude had prompted bemusement from a Frenchman who had thought that Vickers-Armstrongs was the largest arms firm in the world. Indeed, the Royal Commission revealed in 1936 that nearly 70 percent of Vickers-Armstrongs' business in 1932 was related to armament production.<sup>172</sup>

The services also attacked the idea that quantitative disarmament should logically lead to quantitative licensing, suggesting that this would lower the value of competitive tendering, render the economical allocation of contracts almost impossible, and harass firms out of the arms business. Warship construction, which was similarly limited under the Treaties of Washington Act, was an apparent exception to this argument. In mitigation, Carr pointed out that the only

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<sup>167</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 16 December 1932.

<sup>168</sup> Hansard, HL Debs. (series five) vol. 86, col. 309 (8 Dec. 1932).

<sup>169</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 9 January 1933.

<sup>170</sup> *Ibid.*, Conclusions, 29 November 1932.

<sup>171</sup> TNA, CAB 27/513/DC(I)(32)17, League Questionnaire: Suggested Answers, 15 December 1932; TNA, CAB 27/512/DC(I)(32), Conclusions, 16 December 1932.

<sup>172</sup> Hansard, HC Debs. (series five) vol. 324, cols 282-83 (26 May 1937).

items so far proposed for quantitative disarmament were tanks, guns and military aircraft and that the idea was simply to prevent a country building beyond the limits set in the disarmament convention. The DCI committee also had difficulties deciding whether to specify definite conditions for refusing licences, which would allow manufacturers to know where they stood such as in the Treaties of Washington Act, or to retain the present flexibility to occasionally refuse arms exports for political reasons. Finally, the Admiralty added a caveat that it did not consider any licensing system necessary.<sup>173</sup> Indeed, its representative commented that the ambitious measures proposed at Geneva would ‘worry the private armament firm off the face of the earth’.<sup>174</sup>

On 23 January 1933, as a result of the DCI committee’s recommendations, the government’s Ministerial Disarmament Committee rejected the licensing of arms manufacture as impracticable and urged tighter export control instead. Sir John Simon subsequently noted that this reversed the government’s long-held policy, which it had reiterated in Parliament on 8 December 1932, that Britain should advocate national licensing in opposition to the French desire for international control. Moreover, Simon argued that the proposed draft convention seemed to apply only to factories producing finished articles and would not cover an excessively large number of manufacturers or a particularly extensive range of arms categories. Rather than reverse previous decisions and risk isolation, he suggested that British policy should aim to simplify the list of armaments involved.<sup>175</sup> In this regard, the question of components was crucial, but posed a tricky dilemma: the inclusion of every part used in arms production would require an impracticable number of licences, unless the definition was confined to one essential and easily-recognisable element. However, if components were left out, it would facilitate the evasion of the convention, annoy the non-producing powers and would likely result in demands for more detailed returns of finished items. Moreover, by April 1933 the services’ traditional resistance to excessive detail

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<sup>173</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 9 January 1933.

<sup>174</sup> TNA, CAB 27/513/DC(I)(32)24, Barnes to Hodsoll, 5 January 1933. See also the Admiralty’s views in TNA, CAB 24/237/CP24(33), Interdepartmental Committee Report, 7 February 1933.

<sup>175</sup> *Ibid.*, Simon Memorandum, 7 February 1933.

had a deeper motivation: the desire to avoid exposing the 'lamentable state' of Britain's reserves.<sup>176</sup>

Faced with a number of dilemmas and a mountain of objections, the DCI committee could not develop a genuinely constructive policy and could only recommend that the British delegate 'aim at securing agreement to some system which, besides being practicable, would not be likely to be detrimental to national security in any way.'<sup>177</sup> Yet a practical agreement was elusive because the assembled powers at Geneva proved unable to resolve the fundamental disagreements that had previously restricted the TMC and Special Commission. Indeed, besides the undecided issues surrounding supervision, quantitative limitation and publicity, the CTM reported in mid-1933 that even the vital question of whether private manufacture should be abolished remained unanswered.<sup>178</sup>

The likelihood of the conference reaching any final answers was greatly diminished as 1933 progressed. In June attention drifted from Geneva to the London Economic Conference, while Nazi Germany's departure from both the Disarmament Conference and the League in October 1933 caused a sense of unreality to settle over subsequent proceedings.<sup>179</sup> Yet the conference still hoped to achieve some positive result and, when its general commission met in May 1934, it highlighted the manufacture and trade in arms for urgent consideration. Whereas these questions had previously occupied a secondary part of the conference's deliberations, they now became a more immediate objective, while general disarmament was relegated to private conversations between governments.<sup>180</sup> Despite (and perhaps because of) the worsening international situation and the tendency to rearmament, the British government also faced mounting domestic criticism of the private armaments industry.<sup>181</sup> Although policymakers had successfully protected the arms firms from undue international attention for most of the post-war era, they now faced intense pressure at a critical juncture to not only provide greater transparency but, if necessary, to take effective action to reign in the manufacturers.

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<sup>176</sup> TNA, CAB 27/512/DC(I)(32), Conclusions, 19 April 1933.

<sup>177</sup> *Ibid.*

<sup>178</sup> RC, *Evidence*, p.571.

<sup>179</sup> Walters, *History of the League*, pp.548-50.

<sup>180</sup> RC, *Evidence*, pp.571-72.

<sup>181</sup> See pp.15-17 above.

Although the general Disarmament Conference disbanded with an air of gloomy finality on 11 June 1934, the question of the manufacture and trade of arms remained a controversial and popular topic. In summer 1934 the Nye senatorial enquiry opened in the United States and accused various British firms, including Vickers, of engaging in questionable behaviour such as bribery, profiteering and creating international trusts. These developments roused American public opinion to the extent that its government declared it was prepared to deal 'drastically' with the problem. On the other hand, France appeared to moderate its previous calls to either entirely prohibit private manufacture or implement international control.<sup>182</sup> The discussions at Geneva restarted in mid-June 1934, when the United States put forward a memorandum proposing a future basis for the CTM's work. Commonly known as the 'Geneva Articles' and optimistically designed to form part of the wider disarmament convention, this document advocated national responsibility for the control of arms manufacture and trade; equality of treatment for state and private production; international supervisory arrangements; and publicity for manufacture and export.<sup>183</sup> General Birch of Vickers-Armstrongs watched these developments with interest, and wrote in September:

Business is looking up a bit, but I fear very much that MacDonal is going to give way at Geneva and we shall have these infernal dagos coming and inspecting our factories and stopping our sale of armaments. We shall only have our own country to blame if it does occur, and it will be a disaster from the point of view of national organisation.<sup>184</sup>

These fears were misplaced. While British ministers recognised the 'considerable volume' of public opinion against private manufacture, they simultaneously wished to protect the armaments industry, which they now generally accepted as 'vital to the maintenance of our security.'<sup>185</sup> Although the Cabinet felt that the 'ill-informed' public criticism was largely based on 'sentimental considerations', it

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<sup>182</sup> RC, *Evidence*, pp.571-2; Walters, *History of the League*, pp.554-55; Anderson, 'British Rearmament', 8-9.

<sup>183</sup> LN, 1934.IX.5, *Conference for the Reduction and Limitation of Armaments: Committee for the Regulation of the Trade in, and Private and State Manufacture of, Arms and Implements of War* (Geneva, 23 July 1934), pp.3-4.

<sup>184</sup> CUL, VMF K635, Birch to Ryan, 13 September 1933.

<sup>185</sup> TNA, CAB 24/251/CP230(34), Disarmament Committee Report, 23 October 1934.

nonetheless admitted that domestic opinion was a ‘real and powerful’ force which required a satisfactory response.<sup>186</sup> Moreover, the government also faced calls from the Labour and Liberal opposition for a parliamentary debate on the growing scandal.<sup>187</sup>

On 23 October 1934 the Ministerial Disarmament Committee suggested that Britain could meet public criticism and seize the international initiative through the preparation of a self-contained convention for the supervision and control of armament manufacture and trading.<sup>188</sup> Anthony Eden, the Lord Privy Seal, subsequently chaired an interdepartmental Committee on Trading in Arms (DCTA) which produced a seriously curtailed version of the Geneva Articles.<sup>189</sup> On 31 October the Cabinet unsurprisingly decided that Britain should not put this suggestion forward at Geneva at the ‘present moment’ and instead finalised its position for the upcoming House of Commons debate. This asserted that the prohibition of private arms manufacture would lead to unacceptable political, security, financial and industrial consequences, and would have a detrimental impact on non-producing states. As a consequence, and given that a general disarmament convention appeared unlikely, the Cabinet viewed the ‘practical line’ as increased international regulation and control of exports to prevent ‘ill effects’ and facilitate embargoes, based upon existing British unilateral practice.<sup>190</sup>

On 7 November, in view of Liberal demands for a ‘special commission’, the Cabinet accepted the principle of an enquiry into the private arms industry, on the condition that this would not be a ‘roving or fishing’ investigation along the lines of the Nye committee.<sup>191</sup> However, Simon, representing the government, failed to make this offer during the crucial 8 November parliamentary debate, causing indignation on the opposition benches and earning rebuke from the press.<sup>192</sup> On 22 November Simon reappeared before the Commons to announce the enquiry, which would investigate whether a state monopoly over arms production and greater export control would provide better regulation than the existing system. Rather ingeniously, he also decided that the enquiry would

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<sup>186</sup> TNA, CAB 23/80/37(34), Cabinet Conclusions, 29 October 1934.

<sup>187</sup> Anderson, ‘British Rearmament’, 11.

<sup>188</sup> TNA, CAB 24/251/CP230(34), Disarmament Committee Report, 23 October 1934.

<sup>189</sup> *Ibid.*, CP235(34), DCTA Report, 29 October 1934.

<sup>190</sup> TNA, CAB 23/80/38(34), Cabinet Conclusions, 31 October 1934.

<sup>191</sup> *Ibid.*, 39(34), Cabinet Conclusions, 7 November 1934.

<sup>192</sup> For the full debate, see: Hansard, HC Debs. (series five) vol. 293, cols 1293-1416 (8 Nov. 1934). For criticism of Simon’s performance, see Anderson, ‘British Rearmament’, 11-12.

investigate specific ways to reduce the ‘evils’ of private manufacture (Simon believed that arms firms undoubtedly engaged in improper business conduct, but that they were not unique in this regard). Although an apparent departure from the government’s previous attitude, this was actually a tactical move to prevent detailed scrutiny of the arms industry’s affairs because, if the existence of potential evils was admitted at the outset, the enquiry therefore possessed no mandate to investigate particular examples. After a further delay, the government officially announced the formation of the Royal Commission on the Private Manufacture and Trading in Arms on 18 February 1935.<sup>193</sup>

At Geneva, the Disarmament Conference continued to fragment into smaller pieces. On 20 November 1934 the conference bureau finally decided to deal with arms manufacture and trade as part of a separate instrument from the disarmament convention. To facilitate the discussion, the United States submitted a composite list of draft articles, based on previous discussions.<sup>194</sup> Eden’s DCTA committee and the Cabinet subsequently examined these articles and, by January 1935, British opposition was condensed to two fundamental points. First, the government, particularly the services and Board of Trade, refused to accept the proposed system of permanent and automatic supervision unless it formed part of a general disarmament convention. For the more limited agreement under discussion, the Cabinet instead suggested a system of documentary supervision. Second, ministers again worried that the level of publicity in the draft articles would reveal the state of Britain’s reserves at a time when such information carried a significant premium. In a rare display of wishful thinking, the DCTA committee pointed out that Britain would also obtain this precious information about other states and that the underlying idea behind the draft convention was to end the secrecy and mutual suspicion surrounding arms production. However, the only positive proposal emanating from Whitehall was for an international prohibition on export credits for arms sales, an idea which had previously

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<sup>193</sup> *Ibid.*, 12. See also: TNA, CAB 23/80/41(34), Cabinet Conclusions, 21 November 1934.

<sup>194</sup> RC, *Evidence*, p.572; LN, 1936.IX.4, *Conference for the Reduction and Limitation of Armaments: Conference Documents: Volume III* (Geneva, April 1936), pp.776-83.

appeared in the DCTA's unused October draft convention and reflected existing British domestic practice.<sup>195</sup>

On 14 February 1935 the CTM began discussing of the United States' composite articles and reached agreement on a number of points. This enabled it to produce a convention in April, which proved acceptable to all its members except Britain, Italy and Japan, who objected to the proposed method of supervision and level of international publicity.<sup>196</sup> Although the committee subsequently adjourned indefinitely, its failure intensified the public's scrutiny of British policy when the Royal Commission began its proceedings at the Middlesex Guildhall in Westminster on 1 May. The Union for Democratic Control, appearing in July, specifically criticised the government for not accepting the April 1935 convention.<sup>197</sup> Subsequently Dame Rachel Crowdy, one of the commissioners, revealed that she had gathered from opinion at Geneva that Britain had 'rather scuppered international cooperation' by leaning away from the CTM's draft.<sup>198</sup> On the other hand, in May 1936 the Foreign Office presented the Royal Commission with a detailed memorandum defending British policy. This criticised the over-complexity of the American and French supervisory proposals and argued that, for current purposes, publicity was only required to indicate general trends of production and movements of war material, rather than providing detailed returns pertaining to types of weapon.<sup>199</sup>

The UDC's case also drew upon contemporary events and contended that greater international publicity and supervision would have exposed the accelerated arming of powers such as China and Japan at an earlier date. It also drew attention to the 'notorious' Chaco war between Bolivia and Paraguay (1933-35), because the combatants lacked indigenous capacity for arms production and had to obtain their war requirements from external sources. As a result, the UDC believed that the activities of private manufacturers had made the war possible.<sup>200</sup> Similarly, the Independent Labour Party suggested that British firms had helped to

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<sup>195</sup> TNA, CAB 24/253/CP2(35), DCTA Report, 18 December 1934; TNA, CAB 23/81/1(35), Cabinet Conclusions, 9 January 1935; *Ibid.*, 4(35), Cabinet Conclusions, 16 January 1935. See also: TNA, CAB 24/253/CP7(35), Simon to Hankey, 9 January 1935.

<sup>196</sup> Arnold J. Toynbee, *Survey of International Affairs 1935: Volume I* (Oxford, 1936), pp.54-57; RC, *Evidence*, p.576; Walters, *History of the League*, p.555.

<sup>197</sup> RC, *Evidence*, p.205.

<sup>198</sup> *Ibid.*, p.563.

<sup>199</sup> *Ibid.*, p.576.

<sup>200</sup> *Ibid.*, p.204.

prolong hostilities by sending arms and ammunition to both sides between January 1932 and June 1933, despite the League 'outlawing' the war.<sup>201</sup> In fact, the League had merely approved the imposition of an international embargo in autumn 1934, after Britain and the United States had imposed their own prohibitions the previous May.<sup>202</sup> Nonetheless, few restrictions had operated on exports to the region before this. Indeed, despite skirmishing between Bolivia and Paraguay over the disputed Chaco region in 1927-28, the British government took no subsequent steps to prevent its domestic firms from supplying large quantities of arms to Bolivia. The United States and, to a lesser extent, the European manufacturers also helped to meet the Bolivian and Paraguayan demand for new weapons.<sup>203</sup>

Some months after the formal outbreak of war in May 1933, a League commission visited the area and described a 'singularly pitiless and horrible war', fed by imports of modern armaments. This had a profound effect on international opinion and Anthony Eden energetically pressed for an embargo agreement at Geneva in May 1934.<sup>204</sup> Although Britain subsequently held up the issue of new export licences for war material destined for Bolivia and Paraguay, it allowed the delivery of war material which had been ordered before the prohibition. In June General Birch grumbled that if Vickers could not provide its foreign customers with replacements, spare parts and ammunition during a war, it would lose its peacetime overseas business. He informed the War Office that France guaranteed wartime supply to its customers, and suggested that the French understood the 'extreme importance of industrial mobilisation', whereas the British Foreign Office did not.<sup>205</sup> Nonetheless, Vickers still exported £424,158 of arms to Bolivia between July 1932 and December 1934, while its exports to Paraguay during the same period comprised just £79. After the imposition of the embargo in May 1934, Vickers received a single export licence for export 500 celluloid protractors ordered by Bolivia: these were hardly the most warlike items produced by the company, but they were undoubtedly useful in view of the large amounts of field

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<sup>201</sup> Ibid., p.156.

<sup>202</sup> Ibid., p.755.

<sup>203</sup> Walters, *History of the League*, pp.527-28.

<sup>204</sup> Ibid., pp.533-34.

<sup>205</sup> CUL, VMF K619, Birch to Montgomery-Massingberd, 9 June 1934.

artillery previously purchased by the Bolivians.<sup>206</sup> Nonetheless, Bolivia's long-term reliance on Vickers' weapons ultimately contributed to its defeat by the Paraguayan army in 1935. Bolivia had concluded a major deal with the British firm in 1926 for the supply of a wide range of items, but this arrangement was subsequently plagued by troubles regarding the poor quality and maintenance of the goods supplied, as well as various issues with delivery and payments.<sup>207</sup> In 1929 Birch rued the damage this had caused the firm's international reputation and resolved to 'get things right'; the following year he wrote that Vickers 'had to go to Bolivia' to learn the lesson that it should not make weapons without first trying out its designs.<sup>208</sup> On the other hand, Paraguay had sourced its armaments from a wide variety of American and European companies, which enabled it to play off different suppliers to get the best weapons at competitive prices, while its superior logistical arrangements enabled it to bring its weapons to bear more easily than the Bolivians.<sup>209</sup>

At the Royal Commission in January 1936 Sir Philip Gibbs suggested that Vickers had helped supply 'these primitive peoples with very modern forms of slaughter'. In response, General Lawrence did not think that the Bolivians and Paraguayans 'would admit that they are very primitive, really.'<sup>210</sup> Like the government, Vickers perceived a clear difference between the civilised trade in modern weapons between recognised governments and the 'uncivilised' illicit arms traffic. In this regard, Lawrence pointed out that Vickers was unconnected to those 'people who are quite immorally providing arms over a period to people like slave raiding countries [*sic*], and countries of that kind.'<sup>211</sup> Indeed, while many people found the firms' willingness to profit from the Chaco war equally immoral, the manufacturers' behaviour was neither illegal nor condemned by the government.

Regardless of morality, the conflict clearly exposed the brutal reality and underlying logic of Britain's policy towards international arms trade control. For example, against Lord Cecil's criticism that selling to both sides in a war was

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<sup>206</sup> RC, *Evidence*, p.426.

<sup>207</sup> Matthew Hughes, 'Logistics and the Chaco War: Bolivia versus Paraguay, 1932-1935', *Journal of Military History*, vol. 69, no. 2 (Apr. 2005), 418-426.

<sup>208</sup> CUL, VMF K613, Birch to Craven, 26 November 1928; *Ibid.*, R286, Birch to Wilson, 4 June 1930.

<sup>209</sup> Hughes, 'Logistics', 429-37.

<sup>210</sup> RC, *Evidence*, p.360.

<sup>211</sup> *Ibid.*, p.359.

‘very repulsive’, Hankey suggested that it was better to buy from somebody than nobody, and pointed out that Britain had purchased vital supplies from Switzerland during the Great War, even though the Swiss had also sold to Germany. Furthermore, he argued that Bolivia and Paraguay were members of the League of Nations, and that the League had to pay due regard to their needs as non-producing states. He admitted that the existing system, which allowed private firms to sell to non-producers but with the possibility of concerted international action to prevent export if necessary, was imperfect; but he also argued that it was preferable to the nationalisation of the arms trade, which he predicted would cause embarrassment for the exporting government and a tendency to autarky amongst the non-producers.<sup>212</sup> Finally, the Foreign Office observed that British firms could not export unlicensed armaments, and that any responsibility for allowing or prohibiting supply to combatant states ultimately rested with the government.<sup>213</sup>

No wide-ranging international publicity arrangement was necessary to ascertain the trend of arms production in most countries by 1936. In March the government’s latest *Statement Relating to Defence* referred to the undeniable ‘fact that the level of national armaments has been rising all over the world’ and proposed a ‘far-reaching’ scheme of improved defences for Britain. This plan was reliant on government factories, the private arms industry, and ‘other firms not normally engaged in armament work’.<sup>214</sup> Wider international developments had by now rendered the Royal Commission, and the last remnants of the Disarmament Conference, anachronistic. As a result, the Commission’s report, despite recommending tighter national control over private manufacture, was subsequently given a quiet burial as the government sought to maintain the vital cooperation of the arms industry during rearmament.<sup>215</sup>

## Conclusion

At the Royal Commission in May 1936, the Foreign Office argued that success in international negotiations could only be achieved ‘by slow degrees’ and ‘modest steps’. To illustrate the point, it compared the unsuccessful and unwieldy instruments on the arms trade and manufacture produced by the League with the

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<sup>212</sup> Ibid., p.732.

<sup>213</sup> Ibid., p.755.

<sup>214</sup> Cmd 5107, *Statement Relating to Defence 1936*, 3 March 1936.

<sup>215</sup> Anderson, ‘British Rearmament’, 27-30.

ratified 1930 Ethiopian Arms Treaty, by which Britain, France and Italy had agreed to cooperate in helping Addis Ababa to obtain legitimate arms and clamp down on illicit trafficking.<sup>216</sup> Yet, during the same month, the Italian occupation of the Ethiopian capital demonstrated that the question of arms trading was only a small piece of the much wider puzzle of inter-war security. Nonetheless, the British attitude was undoubtedly correct in that smaller agreements to regulate smuggling in specific localities were far more likely to succeed than the League's ambitious attempts to regulate all global armament transactions. Beyond its colonial arrangements, Britain actively discouraged efforts to impose rigid limitations on the right of 'civilised' states to buy and sell weapons from private sources, aiming to keep its own channels of supply open and retaining the flexibility to block arms sales for political reasons.

The belief in the adequacy of its existing scheme of unilateral control formed the backbone of British policy whenever the League discussed arms manufacture and trading. Officials believed that any international regulations should be based upon a universal application of the national example set by Britain. Moreover, they raised administrative, defence and foreign policy objections to going beyond the provisions of the Firearms Act and export licensing system. Although subsequent discussions revealed these measures were far from watertight, policymakers argued that they were sufficient given the government's underlying desire to monitor arms flows. Conversely, Britain never trusted other states' good faith in this matter, nullifying any chance at an agreement that would have theoretically imposed the same regulations on foreign firms as applied to British manufacturers. Although such intransigent attitudes caused the League's negotiations to falter, Britain was unwilling to incur the odium of dropping out of the discussions. As a result, its participation was marked by an increasingly unsustainable level of subterfuge, while the ongoing negotiations increased, rather than diminished, international suspicions.

In private correspondence unearthed by the Nye Committee, Sir Charles Craven of Vickers implied that the League of Nations was a 'troublesome organisation' which aimed to produce a 'fancy convention'.<sup>217</sup> Although the 1930s opponents of the private armaments industry viewed such statements with

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<sup>216</sup> RC, *Evidence*, pp.575-76; Marcus, 'Embargo on Arms Sales', 277-78.

<sup>217</sup> Quoted in Noel-Baker, *Private Manufacture*, pp.115-16.

grave suspicion, any ‘subterranean conspiracy’ on the part of the manufacturers was entirely unnecessary, given that most British policymakers appeared to view Geneva in much the same light. With rare exceptions, officials generally rejected the criticism that the private manufacture of armaments was ‘evil’ or any more objectionable than other forms of business. Instead, they argued that calls to provide detailed international publicity of national arms production posed a much greater danger to British security than the alleged ‘merchants of death’. Moreover, officials were concerned not to harass or discourage non-specialist engineering firms, who helped to produce certain types of armament and were a crucial part of wider industrial mobilisation planning: in this regard, British policy aimed at reducing the government’s reliance on companies like Vickers.

Although the League’s negotiations had little direct impact on the arms firms, the suspicions outlined in the Covenant, subsequently expanded by the Temporary Mixed Commission, and eventually espoused by vocal sections of public opinion, generated an awkward backlash against the private manufacturers at precisely the same time as the government was trying to resurrect its relationship with what it now viewed as a vital industry for rearmament purposes. The critics alleged that a mysterious influence had worked against the Geneva negotiations and believed that the arms firms had helped to bring about failure. In the case of the League’s attempts to control armaments manufacture and trade, the seemingly inexplicable force that precluded success was simply the hard realities of national self-interest, clouded by obfuscation and obstructionist tactics. These required no outside encouragement.

## Conclusion

Alarming official reports and gloomy statements about the decline and weakness of Britain's military-naval armament firms in the 1930s reflected neither the actual condition of the industry nor the potential strength available to the government as it moved towards rearmament. Nonetheless, post-1945 scholars continued to repeat these misleading assertions, which often originated in correspondence between the service departments and the arms manufacturers themselves. The present study has undertaken a more comprehensive and multifaceted analysis of state-industry relations between 1918 and 1936, and has provided a new account of relative vitality in the British private armaments industry. It has also offered an original interpretation of the arms industry's position in several related areas, particularly the Bank of England's controversial role in domestic industrial reorganisation; the government's preparation of plans for industrial mobilisation; and the League of Nations' disarmament process. More generally, this thesis represents an important contribution to the wider revisionist historiography concerning the images and reality behind inter-war British power.

Although individual companies undoubtedly faced significant external and self-inflicted challenges after 1918, a more streamlined and successful peacetime armaments industry eventually emerged out of these struggles. In particular, Vickers reorganised itself in the mid-1920s and subsequently experienced considerable success as a domestic and international supplier of defence products, mainly through its Vickers-Armstrongs subsidiary. The size and clear identity of Vickers as a world-class armaments manufacturer made it an obvious target for 1930s critics, who argued that such firms were able to control governments. Yet while these commentators were correct in their assessment of the global strength of Britain's arms industry, Vickers' renewed vigour did not result from any sinister connections with the government. In fact, as demonstrated throughout this thesis, British armament firms were subject to real constraints after 1918 and state-industry relations were frequently marked by tensions rather than cooperation. At the executive level, the Cabinet consistently turned a blind eye to the industry's complaints and struggles, even if ministers did not consciously set

out to abolish or weaken the manufacturers. While individual departments paid more attention to particular aspects of the industry's affairs, the prominent role of civil servants, combined with a perceived lack of constructive help, led the firms to occasionally suspect that they were victims of a Whitehall conspiracy, rather than vice versa.

Of the principally interested ministries, the service departments were usually the most supportive, particularly the Admiralty, although the services' loyalties were divided between private and state-owned manufacturing facilities and their ability to help was limited by the close financial scrutiny imposed upon procurement by the Treasury. The Foreign Office offered some overseas assistance to firms but its primary interest was to safeguard Britain's diplomatic credibility. The Board of Trade had an important role in industrial mobilisation planning alongside the service departments and also administered the arms export licensing system. However, although the Board gathered and disseminated information on arms production and trade flows, it had little direct interest in the specialist firms beyond its general encouragement for legitimate British commerce. The Treasury was largely indifferent to the industry's specific problems although its influence soured state-industry relations. In particular, its adherence to orthodox liberal economics meant that the firms could expect little financial assistance at home, and its concern for European economic reconstruction made it unwilling to supply credit guarantees for overseas arms sales.

Within and beyond Whitehall a number of individuals and smaller groups also investigated or discussed specific aspects of the armament business in the context of wider policymaking. For example, in the immediate post-war years, Rowland Sperling cultivated a specialist interest in arms trade control and applied his expertise in a useful advisory capacity at the Foreign Office. More significantly, Lord Weir, Sir James Lithgow and Sir Arthur Balfour formed a highly experienced and semi-official group of industrial advisors, who understood both the importance and workings of the specialist arms firms and complemented G. S. Whitham's long-term engagement with the broader subject of industrial mobilisation. The shadow factory scheme grew out of this collaboration and ultimately benefited both rearmament and industrial mobilisation for the Second World War. However, without an overarching executive authority, many of the

ideas and proposals that resulted from these kinds of initiative became dispersed across a large number of subcommittees and an ever-growing mountain of papers. Even Sir Maurice Hankey, Whitehall's administrative genius, only began to draw the disparate threads of departmental policy together when preparing evidence for his appearances before the Royal Commission on the Private Manufacture of and Trading in Arms in the mid-1930s.<sup>1</sup>

The government's refusal to assist with the Vickers-Armstrongs merger in 1927 demonstrated its apparent indifference to the struggles of these important specialist firms and even the service departments offered little encouragement for this project. Moreover, the Treasury believed that failing industries should not be artificially sustained but should either reorganise themselves independently or cease trading. The Treasury's liberal philosophy prevailed and, although this caused further damage to state-industry relations, it ultimately allowed Vickers' ruthless and independent vision to guide the arms industry's much-needed restructuring and subsequent renaissance in the late 1920s and early 1930s. Indeed, contrary to existing accounts, the Bank of England did not 'rescue' the British arms industry. Rather, the Bank became involved in Armstrong's affairs in an attempt to cover up its connection to the firm's enormous financial problems, and its cautious intervention eased the way for Vickers' subsequent domination of the sector. The Bank certainly provided a psychological and financial crutch during this process but it proved increasingly unable to grapple with the political implications and intricacies of armaments production. Nonetheless, the City of London provided a number of valuable political, financial and legal connections for the arms industry, not least through Montagu Norman, the Governor of the Bank of England. Yet the Bank's activities, while unorthodox and secretive, were not inherently dubious. Despite this, when the Royal Commission threatened to expose the Bank's actions to public scrutiny, Norman swiftly disposed of his remaining armament interests. By this point, Vickers had been the dominant force in the British arms industry and a major global player for some years, having absorbed or neutralised its main rivals. Admittedly, the total number of armament firms had fallen away since 1918, but the evidence of Vickers' considerable industrial output and financial strength makes it impossible to sustain the

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<sup>1</sup> Anderson, 'British Rearmament', 23.

traditional argument that the British armaments industry faced extinction between the wars.

Although the government refused to help the over-expanded arms firms adjust to post-war demand, it did begin to consider supply preparations for the 'next war' and developed a wide-ranging organisation to investigate and prepare plans for national industrial mobilisation. In this sense, Correlli Barnett's allegation that British officials were fundamentally antipathetic towards large-scale peacetime industrial organisation does not stand up to scrutiny. On the other hand, these investigations perhaps did more harm than good, insofar as they generated and propagated distorted images of Britain's inadequacy compared to other countries. In particular, the Principal Supply Officers' Committee concentrated its limited resources on investigating the mass production capabilities of general industry and tended to overlook the specialist armament firms' unique nucleus capacity. Officials only looked at part of the overall picture and made exaggerated comparisons with the supposed efficiency of other states, particularly totalitarian regimes. As a result, they underestimated Britain's facilities for arms production, even though the PSOC was quietly confident that British industry could expand to meet emergency demand in many important areas such as naval shipbuilding. The committee certainly located some alarming deficiencies in productive capacity for certain land weaponry items, but these were usually based on a limited survey of firms. Moreover, the PSOC's investigations were mainly based on locating capacity for vaguely-defined future wartime requirements and not on whether the arms industry was sufficient to meet the armed forces' peacetime needs. Nonetheless, the committee's portrayal of British weaknesses in arms production was accepted by members of the Committee of Imperial Defence, who advised the Cabinet accordingly. Of course, this analysis only applies to armaments: there remains plenty of scope for further study into how Britain's inter-war supply organisation conceptualised other types of stores and raw materials, and how these affected the state's relationship with different industrial sectors and altered official perceptions of national strength.<sup>2</sup>

The perceived connection between securing overseas defence contracts and increasing domestic capacity for industrial mobilisation meant that the

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<sup>2</sup> In this direction, see Alan F. Wilt, *Food for War: Agriculture and Rearmament in Britain before the Second World War* (Oxford, 2001).

competition between Europe's private armament firms assumed an intense and quasi-national character. In this regard, Vickers' directors and a number of officers regularly suggested to ministers that overseas manufacturers worked hand-in-glove with their governments to secure as much foreign business as possible, in contrast to Britain's comparatively *laissez-faire* attitude. This reflected a more general tendency for officers, and occasionally service ministers, to accept and disseminate Vickers' alarmist depictions of decay and weakness, apparently without considering that such language was used as part of the firm's attempts to secure government orders and assistance. As the present study has shown, the less sensational material contained within business archives and the surviving arms trade statistics clearly demonstrate that Vickers was in a much healthier condition than suggested by the correspondence between the company's directors and the government.

Historians have traditionally overestimated the negative effects of the inter-war quest for disarmament upon the private armaments industry, and have tended to treat 'disarmament' as a homogenous concept. In contrast, this thesis has applied recent scholarship on the different forms of inter-war disarmament and has presented a more nuanced interpretation of its impact. Some forms of disarmament certainly had negative economic consequences for the arms firms, such as the post-1918 reduction in the armed forces from their wartime levels, although this was hardly unanticipated by the manufacturers, and the state continued to order a significant percentage of its peacetime military-naval requirements from private sources. The naval disarmament treaties also caused a number of difficulties, but were not catastrophic for the arms industry. The League of Nations' quest for general disarmament had few tangible results and its most damaging impact was the Covenant's association of the manufacturers' activities with 'grave objections' and 'evil effects'. Although this correlation was never substantiated, the implication that private firms started arms races and promoted conflict left an enduring stain on their reputation. Moreover, Britain's rather ambiguous 'moral' commitment to disarmament occasionally proved problematic for the manufacturers, particularly during Arthur Henderson's pro-League tenure as Foreign Secretary between 1929 and 1931 and throughout the subsequent Disarmament Conference. Yet although Vickers claimed that this

‘atmosphere’ of disarmament damaged its domestic and foreign business, the firm still managed to sell relatively large quantities of armaments at home and abroad.

Even though the League occasionally antagonised Vickers’ directors, they were never unduly worried by the disarmament process, let alone actively engaged in a campaign to undermine it. In fact, the company was sceptical of the League’s ability to conclude a successful general disarmament treaty and believed that governments would purchase Vickers’ products as long as war remained a possibility. Such scepticism was not unusual and many policymakers, including Cabinet ministers, shared similar beliefs. Indeed, ministers and civil servants tended to view foreign governments with more suspicion than they did the domestic armaments industry. Britain’s unilateral regulatory systems for arms manufacture and trading were not watertight, but officials believed that a uniquely British diligence made them effective. Conversely, the government did not trust other countries to fulfil loyally any international obligations connected to armaments. Ironically, such attitudes meant that the League’s continued pursuit of a wide-ranging multilateral agreement exacerbated pre-existing suspicions rather than encouraging cooperation. This reflected both the League’s general inability to reconcile differing national interests and its steadfast refusal to admit defeat: for example, even after the collapse of the general Disarmament Conference in 1934, it still attempted to secure an agreement concerning arms manufacture and trading.

Despite the government’s fear that its unilateral regulations were causing British firms to lose ground to overseas competitors, its attitude to international regulation remained cautious and resulted from a complex range of policy considerations beyond mistrust. This thesis has offered the first full analysis of these underlying motives, and has demonstrated how the interests of the private arms industry played a surprisingly small part in the government’s calculations. To reduce the risk of imperial unrest, policymakers looked to secure multilateral agreements to prevent smuggling and the disposal of surplus rifles amongst ‘backward races’ in Africa and Asia. On the other hand, Britain sought to protect its freedom to privately manufacture and trade arms with ‘civilised’ states and resisted calls for international publicity, which officials perceived as an intolerable strategic threat. In this regard, British policy was less an attempt to safeguard the specialist arms firms than an effort to avoid excessive regulation

and the attendant danger that this would discourage general industry from undertaking occasional armaments work. In other words, this was an attempt to reduce the country's reliance on the private arms manufacturers and thereby improve overall capacity for industrial mobilisation. Britain also recognised that it would need to purchase armaments from foreign sources in the event of another war and did not want to interfere with the right of belligerents to trade with neutrals, although it also wished to retain its own ability to impose embargoes for political and strategic reasons. The hypocrisy of this approach was shamefully revealed by the British government's policy of non-intervention during the Spanish Civil War (1936-39) and its denial of arms exports to the legitimate Spanish republican government. Although Spain was traditionally a good market for new and surplus British armaments, the Conservative-dominated National government adopted this position of 'malevolent neutrality' because it feared the possibility of communist revolution more than the counter-revolutionary military uprising.<sup>3</sup>

The rapid changes in European international relations after 1936 forced the government to build up Britain's defences with equal speed and it purchased large quantities of arms from private firms. The arms industry's opponents, having failed to convince the Royal Commission of the general immorality of private manufacture, changed their approach and accused the firms of profiteering and inefficiency during rearmament.<sup>4</sup> Certainly, ministers made various public statements of their desire to remove profiteering from arms production and the introduction of the National Defence Contribution in 1937 imposed a five percent tax on profits, much to the wider business community's displeasure. Yet the predominant view in Whitehall reflected the Treasury's desire to maintain economic incentives during rearmament, which it believed would encourage the cooperation of industrialists and, to a lesser extent, labour.<sup>5</sup> However, rearmament was hampered by difficulties associated with locating sufficient skilled labour, a matter which the arms firms had periodically warned the government about since

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<sup>3</sup> Glyn Stone, 'Britain, Non-Intervention and the Spanish Civil War', *European Studies Review*, vol. 9 (1979), esp. 133-4, 137; Enrique Moradiellos, 'The Origins of British Non-Intervention in the Spanish Civil War: Anglo-Spanish Relations in Early 1936', *European History Quarterly*, vol. 21 (1991), 339-64.

<sup>4</sup> David Edgerton, 'Public Ownership and the British Arms Industry 1920-1950', in Robert Millward and John Singleton (eds.), *The Political Economy of Nationalisation in Britain, 1920-1950* (Cambridge, 1995), p.172.

<sup>5</sup> Rollings, 'Whitehall and the Control of Prices', 517-540.

the 1920s and which Lord Weir described in early 1936 as the most formidable bottleneck restricting the expansion of industrial output. Officials could theoretically divert skilled workers from the automobile and other industries, although this risked upsetting Britain's export markets and damaging its economic stability. On the other hand, the 'dilution' of skilled labour through a simplification of the processes involved in armament work or by training new workers, threatened to upset trade union leaders who, like the specialist arms manufacturers, viewed rearmament as a potentially risky and ephemeral boom. Moreover, the unions remembered how the government had reneged on its previous promise to reverse wartime dilution after 1918.<sup>6</sup> Interestingly, Sir Charles Craven, who was the chairman of the Engineers Employers' Federation as well as a senior Vickers director, had more success in discussing dilution directly with the company's employees than he did with the 'pig-headed' unions.<sup>7</sup> Certainly, the development of inter-war labour relations within the armaments industry deserves closer consideration in its own right, not least because of the traditional left-wing hostility towards private arms manufacture.

Both rearmament and industrial mobilisation planning were limited by fears about the economic and political consequences of excessive state intervention and a widespread desire to maintain 'business as usual'. On the other hand, the government's failure to help the arms firms adjust to peacetime conditions after 1918 meant that the manufacturers expanded with caution in the mid-1930s. After all, rearmament was initially intended as a temporary deterrent strategy, not a preliminary to general industrial mobilisation.<sup>8</sup> Yet, despite bottlenecks and continued criticism, the arms industry played an active and important role in meeting the demands of rearmament and eventually achieved volumes of output during the Second World War which in many cases equalled or exceeded the height of war production in 1917.<sup>9</sup> Indeed, Britain ultimately produced enough arms and possessed sufficient economic resources to 'stand

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<sup>6</sup> For labour and rearmament, see: R. A. C. Parker, 'British Rearmament 1936-9: Treasury, Trade Unions and Skilled Labour', *English Historical Review*, vol. 96, no. 379 (Apr., 1981), 306-343; Peden, *British Rearmament*, 81-83.

<sup>7</sup> Parker, 'British Rearmament', 332-33. According to J. D. Scott, Craven 'attracted a kind of loyalty in the yards and workshops which no one else in the history of the company had ever achieved.' (*Vickers*, p.160). See also: CUL, Vickers Archive Volume 772, J. D. Scott Interview with Mr Lancaster at Barrow, September 1959.

<sup>8</sup> Edgerton, 'Public Ownership', p.178

<sup>9</sup> Hornby, *Factories*, pp.150-51; Edgerton, *Warfare State*, pp.39-41.

alone' in Europe between 1940 and 1941.<sup>10</sup> Nonetheless, the nature of British rearmament has provoked considerable and enduring controversy. The widely-read 1940 polemic *Guilty Men* argued that Britain's political leaders could and should have rearmed sooner to meet the revisionist threat, reflecting the arguments put forward by Winston Churchill during the 1930s.<sup>11</sup> On the other hand, several historians have since demonstrated that defence expansion was subject to real economic and industrial constraints.<sup>12</sup> More recently, Talbot Imlay has challenged the predominant images of failure, restraint and missed opportunity and has argued that Britain undertook 'notably advanced' economic preparations immediately prior to and after the outbreak of war. The increasing urgency of the international situation after 1938, culminating in war, allowed for a much greater degree of state activism which, combined with increased cooperation between trade unions and industrial organisations, enabled Britain (in contrast to France) to undertake comparatively advanced preparations for a long war.<sup>13</sup>

While the present study has focused on the period prior to 1936, its analysis of state-industry relations in these earlier years has a significant bearing on this wider debate. Crucially, it has demonstrated that while the state began preparations in the 1920s for the mobilisation of national resources in the event of a future war, it made few plans for the peacetime expansion of armaments output until forced to by international events in the 1930s. As a result, the government possessed a certain degree of confidence in its eventual ability to bring Britain's considerable resources to bear during a war, but it had less faith in its short-term ability to rearm. While this apprehension was partly based on an erroneous assessment of Britain's dedicated arms-producing facilities, it nonetheless helps to explain why the government approached the problem with caution. Certainly, the peacetime arms industry did not – and could not be expected to – maintain sufficient capacity to meet the unusual demands of rearmament. Nonetheless, the specialist firms were a strong and important, albeit neglected, nucleus for

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<sup>10</sup> J. P. D. Dunbabin, 'British Rearmament in the 1930s: A Chronology and Review', *Historical Journal*, vol. 18, no. 3 (Sep., 1975), 604.

<sup>11</sup> Cato, *Guilty Men* (London, 1940). See also Shay, *British Rearmament*; Christopher Price, *Britain, America and Rearmament in the 1930s: The Cost of Failure* (Basingstoke, 2001).

<sup>12</sup> For example: Peden, *British Rearmament*; Parker, 'British Rearmament', 306-343.

<sup>13</sup> Talbot C. Imlay, *Facing the Second World War: Strategy, Politics, and Economics in Britain and France, 1938-1940* (Oxford, 2003), Ch.6.

emergency expansion, while the shadow scheme showed how wider industrial mobilisation planning could benefit rearmament in practice.

This thesis has explored the gap between the real strength of the inter-war private armaments industry and the popular images of decay and weakness. Furthermore, it has explained how the fragmentary nature of the state's relationship with the private manufacturers only allowed policymakers to see parts of the whole picture and thereby prevented them from fully illuminating the substantial resources at their disposal. Reporting in September 1936, the Royal Commission offered a possible remedy for this perilous inadequacy in British state-industry relations. Significantly, the commissioners accepted the traditional justification for the existence of the private armaments industry as a source of innovation and reserve productive capacity.<sup>14</sup> However, in view of these important functions, they suggested that the government, upon the conclusion of the rearmament programme and resumption of 'normal' conditions, adopt a more proactive and interventionist role in its relationship with the manufacturers, encompassing both the domestic and international aspects of the question:

We recommend that the Government should assume complete responsibility for the arms industry in the United Kingdom and should organise and regulate *the necessary collaboration between the government and private industry*; that this responsibility should be exercised through a controlling body, presided over by a minister responsible to Parliament, having executive powers in peace-time and war-time, over all matters relating to the supply and manufacture of arms and munitions, costing and the authorisation of orders from abroad.<sup>15</sup>

These measures were partly intended to reduce the scope for any dubious activity on the part of individual firms and reassure the public that the government was keeping an eye on the industry. However, the commissioners also recognised that such collaboration was crucially important for the peacetime planning of industrial mobilisation and the 'rapid and effective' wartime execution of these

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<sup>14</sup> Cmd 5292, *Trading in Arms*, pp.27-28, 31.

<sup>15</sup> Emphasis added. *Ibid.*, p.53.

plans.<sup>16</sup> Yet in January 1937 a CID subcommittee, chaired by Hankey, rejected these recommendations and claimed that the government already possessed adequate machinery through the existing PSOC organisation, which had been strengthened by the appointment of Sir Arthur Robinson as the full-time chairman of the Supply Board in 1935 and Sir Thomas Inskip as the Minister for the Coordination of Defence in 1936. Moreover, the CID was reluctant to radically disrupt the existing system given the ongoing and urgent struggle to fulfil the deficiency programmes.<sup>17</sup> At this stage, officials were rightly focused on the enormous challenges in front of them, but it is hard to escape the conclusion that their task might have been considerably easier had the state more effectively coordinated its relationship with the private armament industry after 1918.

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<sup>16</sup> *Ibid.*, p.31.

<sup>17</sup> TNA, CAB 4/25/1299-B, Interdepartmental Committee Report, 22 January 1937; TNA, CAB 2/6, CID Minutes, 28 January 1937.

## Appendix I

### British Private Armaments Firms in 1914 and 1933

<i>Firm Operating in 1914</i>	<i>Situation in 1933</i>
Vickers Limited	Varied interests, predominantly in Vickers-Armstrongs' armament and shipbuilding works.
Coventry Ordnance Works	Out of business.
Birmingham Small Arms	Not engaged on armament work.
London Small Arms Co.	Out of business.
Armstrong Whitworth	Absorbed by Vickers group. All armament work concentrated with much reduced capacity. Openshaw works dismantled. Erith closed.
Cammell Laird	Absorbed by Vickers group. All armament work concentrated with much reduced capacity.
Beardmore	Reduced to nucleus. Very small orders for naval guns etc.
Firths	Only small orders, mainly for hardened shell. A little other armament work.
Hadfield	Ditto.
Projectile Co. (Limited)	Relatively few orders.
Darlington Forge Co.	In liquidation. Works closed.
John Brown and Co.	No longer manufacture gun forgings.

Source: TNA, CAB 4/22/1109-B, PSOC Report: Private Armaments Industry, 31 March 1933.

## Appendix II

### Proportion of Productive Capacity Located in Relation to Certain Requirements for the First Year of a War (Position in 1935 and 1936)

	<i>31 March 1935</i>	<i>31 March 1936</i>
Unhardened Shell (small)	61%	42%
Unhardened Shell (medium)	9%	12%
Unhardened Shell (large: forging)	20%	17%
Unhardened Shell (large: machining)	14%	12%
Hardened Shell (small)	31.60%	38%
Hardened Shell (medium and large)	92.30%	91%
Shrapnel (forging)	7.50%	20%
Shrapnel (machining)	5.50%	15%
Smoke (shell smoke, star and practice)	0%	2%
Aircraft Bombs (practice)	59%	0%
Aircraft Bombs (fragmentation)	0%	0%
Aircraft Bombs (general purpose casting)	19.50%	18%
Aircraft Bombs (general purpose body machining)	11.30%	17%
Aircraft Bombs (A.S.)	0%	0%
Aircraft Bombs (S.A.P.)	41%	25%
Aircraft Bombs ("B" forging)	n/a	9%
Aircraft Bombs ("B" machining)	n/a	11%
Mortar Bombs (Casting)	4%	5%
Mortar Bombs (Machining)	1%	4%
Fuses (Time)	32.10%	13%
Fuses (Percussion)	21.70%	19%
Fuses (Miscellaneous: small)	4.70%	8%
Fuses (Base, time, mechanical aircraft bombs etc)	19%	10%
Primers	10.60%	11%
Gaines	17.10%	14%
Cartridge Cases (2pdr)	19.80%	54%
Cartridge Cases (6pdr and 3pdr)	19.60%	0%
Cartridge Cases (18 pdr and 3in, 20 cwt)	29.20%	17%
Cartridge Cases (3.7in & 4.5in Howitzer, & 3.7in mortar)	13%	9%
Cartridge Cases (5.1in, 4.7in and 4in)	63.40%	88%

Sources: TNA, CAB 4/24/1200-B, SB Report: Appendix D, 9 October 1935; TNA, CAB 4/25/1275-B, SB Report: Appendix D, 30 September 1936.

### Appendix III

#### Principal Activities and Centres of Armstrong's and Vickers' Operations, 1927

<i>Type of Trade</i>	<i>Armstrong</i>	<i>Vickers</i>
Naval mountings	Elswick	Barrow and Erith
Admiralty and passenger shipbuilding	Armstrong Naval Yard	Barrow
Engineering and large turbines etc.	None	Barrow
Small turbines	Elswick	Barrow
Marine oil engines	Elswick	Barrow
Steel foundry	Elswick	Barrow
Forgings for gun-mountings etc.	Openshaw	Sheffield
Finishing and building guns	Elswick	Sheffield
Armour	Openshaw	Sheffield
Drop stampings	Elswick	Sheffield
Tanks and dragons	Elswick	Sheffield
Special steels	Openshaw	Sheffield
Railway forging	Elswick	Sheffield
Railway tyres, etc	None	Sheffield
Springs	None	Sheffield
Steel tubes	None	Sheffield
Locomotives	Scotswood	None.
Iron castings	Close Foundry	Barrow and Erith
Tramp steamers	Walker Yard	Barrow
Pneumatic tools	Elswick	None

Source: BoE, SMT 2/126, Joint Technical Committee: Draft Report, 18 February 1927.

## **Appendix IV**

### **Articles Prohibited (Without Licence) Under the Arms Export Prohibition Order, 1921**

- i. Cannon and other ordnance and component parts thereof;
- ii. Carriages and mountings for cannon and other ordnance and component parts thereof;
- iii. Cartridges, charges of all kinds, and component parts thereof;
- iv. Explosives, except the following :-
  - Amorces;
  - Blasting Gelatine;
  - Bonbons;
  - Detonators;
  - Dynamite;
  - Electric Detonators;
  - Fireworks;
  - Fog Signals;
  - Gelatine Dynamite;
  - Gelignite;
  - Monobel;
  - Rex Powder;
  - Rockite;
  - Safety Fuses;
  - Super-Cliffite, No. 1;
  - Super-Cliffite, No. 2;
  - Super-Rippite;
  - Tonite or Cotton Powder, No. 1;
  - Viking Powder.
- v. Firearms of every description and component parts thereof;
- vi. Grenades and component parts thereof;
- vii. Machine Guns, interrupter gears, mountings for machine guns and component parts thereof;

- viii. Projectiles of all kinds (except air-gun pellets) and component parts thereof;
- ix. Mines, land or sea, and component parts thereof;
- x. Depth charges and component parts thereof;
- xi. Bombs, bombing apparatus, and component parts thereof;
- xii. Flame-throwers and component parts thereof;
- xiii. Fuses (other than safety fuses) and component parts thereof;
- xiv. Torpedoes and component parts thereof;
- xv. Torpedo tubes, or other apparatus for discharging torpedoes.

In 1931, a new Order made the provisions concerning items (ii) and (iv) more stringent, and added the following items:

- xvi. Fire-control and gun-sighting apparatus and component parts thereof;
- xvii. Appliances for use with arms and apparatus exclusively designed and intended for land, sea or aerial warfare;
- xviii. Bayonets, swords and lances, and component parts thereof;
- xix. Tanks and armoured cars and component parts thereof;
- xx. Aircraft, assembled or dismantled, and aircraft engines.

Sources: HMSO, 1921; RC, *Evidence*, p.336.

## Appendix V

### Arms Export Licences Granted and Refused, 1929-1935

	<i>A: Total Licences Granted [*]</i>	<i>B: Licences Issued for Export of War Material</i>	<i>C: Applications Refused</i>
1929	12,598	325	5
1930	11,314	411	3
1931	10,992	435	1
1932	10,897	410	3
1933	10,539	413	-
1934	10,485	413	7
1935 (until 30 September)	8,289	309	7

\* = includes sporting arms and industrial explosives.

Source: RC, *Evidence*, p.340.

## **Appendix VI**

### **Prohibited Zones Defined By Article Six of the Convention for the Control of the Trade in Arms and Ammunition, 10 September 1919**

1. The whole of the Continent of Africa, with the exception of Algeria, Libya and the Union of South Africa (Within this area are included all islands situated within a hundred nautical miles of the coast, together with Prince's Island, St. Thomas's Island, and the Islands of Annobon and Socotra).

2. Transcaucasia, Persia, Gwadar, the Arabian Peninsula and such Continental parts of Asia as were included in the Turkish Empire on 4th August, 1914.

3. A maritime zone including the Red Sea, the Gulf of Aden, the Persian Gulf, and the Sea of Oman, and bounded by a line drawn from Cape Guardafui, following the latitude of that Cape to its intersection with longitude 57 deg. east of Greenwich, and proceeding thence direct to the Eastern frontier of Persia and the Gulf of Oman.

Source: Cmd 414 (1919), *St Germain Convention*, pp.47-49.

## Appendix VII

### **Categories of Arms, Ammunition and Implements of War Established in the International Convention for the Supervision of the International Trade in Arms and Ammunition, 17 June 1925**

Category I. *Arms, Ammunition and Implements of War exclusively designed and intended for Land, Sea or Aerial Warfare.*

- A. Arms, ammunition and implements exclusively designed and intended for land, sea or aerial warfare, which are or shall be comprised in the armament of the armed forces of any State, or which, if they have been but are no longer comprised in such armament, are capable of military to the exclusion of any other use, except such arms, ammunition and implements which though included in the above definition, are covered by other Categories.

Such arms, ammunition and implements are comprised in the following twelve headings:-

1. Rifles, muskets, carbines.
2.
  - a. Machine-guns, automatic rifles and machine-pistols of all calibres;
  - b. Mountings for machine-guns;
  - c. Interrupter gears.
3. Projectiles and ammunition for the arms enumerated in Nos. 1 and 2 above.
4. Gun-sightings, apparatus, including aerial gun-sights and bomb-sights, and fire-control apparatus.
5.
  - a. Cannon, long or short, and howitzers, of a calibre less than 5.9 inches (15 cm.);
  - b. Cannon, long or short, and howitzers, of a calibre of 5.9 inches (15 cm.) or above;
  - c. Mortars of all kinds;

- d. Gun carriages, mountings, recuperators, accessories for mountings.
- 6. Projectiles and ammunition for the arms enumerated in No. 5 above.
- 7. Apparatus for the discharge of bombs, torpedoes, depth charges and other kinds of projectiles.
- 8.
  - a. Grenades;
  - b. Bombs;
  - c. Land mines, submarine mines, fixed or floating, depth charges;
  - d. Torpedoes.
- 9. Appliances for use with the above arms and apparatus.
- 10. Bayonets.
- 11. Tanks and armoured cars.
- 12. Arms and ammunition not specified in the above enumeration.

B. Component parts, completely finished, of the articles covered by A above, if capable of being utilised only in the assembly or repair of the said articles, or as spare parts.

Category II. *Arms, Ammunition capable of use both for Military and other purposes.*

- A.
  - 1. Pistols and revolvers, automatic or self-loading, and developments of the same, designed for single-handed use or fired from the shoulder, of a calibre greater than 6.5 mm. and length of barrel greater than 10 cm.
  - 2. Fire-arms designed, intended or adapted for non-military purposes, such as sport or personal defence, that will fire cartridges that can be fired from fire-arms in Category I; other rifled fire-arms firing from the shoulder, of a calibre of 6 mm. or above, not included in Category I, with the exception of rifled fire-arms with a “break-down” action.
  - 3. Ammunition for the arms enumerated in the above two headings, with the exception of ammunition covered by Category I.

4. Swords and lances.

- B. Component parts, completely finished, of the articles covered by A above, if capable of being utilised only in the assembly or repair of the said articles, or as spare parts.

Category III. *Vessels of War and their Armament.*

1. Vessels of war of all kinds.
2. Arms, ammunition and implements of war mounted on board vessels of war and forming part of their normal armament.

Category IV.

1. Aircraft, assembled or dismantled.
2. Aircraft engines.

Category V.

1. Gunpowder and explosives, except common black gunpowder.
2. Arms and ammunition other than those covered by Categories I and II, such as pistols and revolvers of all models, rifled weapons with a “break-down” action, other rifled fire-arms of a calibre of less than 6 mm. designed for firing from the shoulder, smooth-bore shot-guns, guns with more than one barrel or which at least one barrel is smooth-bore, fire-arms firing rimfire ammunition, muzzle-loading fire-arms.

Source: Cmd. 3448, *Arms Trade Convention*, pp.4-6.

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