

UNIVERSITY OF CALGARY

**Blitzkrieg under Fire: German Rearmament, Total Economic Mobilization, and  
the Myth of the “Blitzkrieg Strategy”, 1933-1942**

by

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## **ABSTRACT**

The “Blitzkrieg Strategy” as an historical theory has framed the debate for the last five decades concerning the nature, extent, and purpose of German rearmament during the 1930s, and the performance of the Third Reich’s military forces and war economy between 1939 and 1941. It argues that Germany deliberately planned for a series of short, predatory wars requiring only limited military and economic mobilization; conversion to full-war production came only after the first German defeats in late-1941. Documentary evidence and the work of revisionist historians, however, demonstrates that pre-war rearmament and economic mobilization in wartime were as extensive as possible given the Reich’s economic and financial limitations. Furthermore, Germany planned to fight a large war in the mid-1940s once its major rearmament programs and heavy industrial and raw material projects had been completed.

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## CHAPTER ONE Introduction: An Historiographical Discussion of the *Blitzkrieg* Topic

Much research and discussion has occurred since the end of the Second World War concerning the military and economic motivations of Nazi Germany's *Blitzkrieg* or lightning-war campaigns between 1939 and 1941. The lively and vigorous historical debate which has resulted has focussed mainly on such key areas as the extent and composition of Germany's rearmament programmes throughout the 1930s; the evolution of the German economy and the nature of German economic policy under National Socialist control; the regime's diplomatic and strategic goals, or lack thereof; the type of war planned for by the political and military leadership; the adequacy of military and economic preparations given the type of war which resulted after 1939; and the performance of the German military and economy during the first two years of war. All these factors must be taken into account when considering the nature and existence of a "*Blitzkrieg* strategy".

The first attempts to analyse the German economy and German rearmament under National Socialist direction were spearheaded primarily by economists, some of whom were Marxist-Leninists. Economic and political studies of pre-war Germany were conducted by the American economists Maxine Sweezy, Otto Nathan, and Milton Fried, as well as by East German Marxists like Jürgen Kuczynski.<sup>1</sup> These studies nearly all agreed that, beginning in 1933, the National Socialist regime tailored its large public works projects to

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<sup>1</sup> See Maxine Sweezy, "Germanicus," Germany, the Last Four Years (Boston: Eyre and Spottiswoode, 1937); idem, The Structure of the Nazi Economy (Cambridge: Harvard University Press, 1941); Otto Nathan, Nazi War Finance and Banking (New York: Financial Research Program, National Bureau of Economic Research, 1944); Otto Nathan and Milton Fried, The Nazi Economic System: Germany's Mobilization for War (Durham, N. C.: Duke University Press, 1944); Jürgen Kuczynski, Germany: Economic and Labour Conditions under Fascism (New York: International Publishers, 1945); Jürgen Kuczynski and M. Witt, The Economics of Barbarism: Hitler's New Economic Order in Europe (Toronto: Progress Books, 1942).

Other studies not mentioned include Henri Lichtenberger's The Third Reich (New York: Greystone Press, 1937), and Gustav Stolper's German Economy, 1870-1940 (New York: Reynal & Hitchcock, 1940).

benefit rearmament, restricted civilian consumption and production, and funnelled all available economic resources into massive war preparations. While orthodox Marxist research stressed that the NSDAP was merely a tool of organized capital, Marxist and non-Marxist economists alike agreed that the Nazi state had developed into a centralized and efficient war machine, which was prepared for an offensive conflict at such time as Adolf Hitler's diplomacy called for one. As Nathan suggests:

With the Nazis in power in Germany a unifying principle was brought to bear on the economic system. They had a predetermined purpose: the creation of a war machine. In subordinating the economic system to that objective they substituted conscious over-all direction for the autonomy of the market-mechanism[:] a totalitarian system of government control within the framework of private property and private profit.... A vast network of organizations was erected to embrace... every factor of production, distribution and consumption in the country. By dominating this organizational structure, through which orders could be issued to every businessman... and by insisting on strict obedience from all, the government obtained complete control over the economy without actually owning the means of production.<sup>2</sup>

Based on very limited and incomplete data, these studies inadvertently emulated Nazi propaganda of the 1930s, in that they helped reinforce the image of the National Socialist regime as a totalitarian economic system fully geared towards war preparations. This characterization is understandable, however, given Germany's initial military victories during the first two years of war.

Franz Neumann's 1942 work Behemoth: The Structure and Practice of National Socialism was the first war-time study to question this strictly monolithic image of the Nazi state. Neumann argued that while a command economy was in place in Germany by 1938, due to the implementation of a whole package of inter-dependent state controls after 1936, the Nazi state was no more than a disorganized conglomeration of competing interests and departments. He characterized it as "a non-state, a chaos, a rule of lawlessness and

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<sup>2</sup> Otto Nathan, The Nazi Economic System: Germany's Mobilization for War, 5f, cited in Avraham Barkai, Nazi Economics: Ideology, Theory, and Policy (New Haven/London: Yale University Press, 1990), 3-4.

anarchy”<sup>3</sup>, in other words, “a monster of indeterminate shape, a Behemoth.”<sup>4</sup> The Nazi dictator, in Neumann’s view, was an inept leader, incapable of making decisions, and lacking coherent goals or policies.

With the collapse of the Third Reich, a tremendous amount of previously unobtainable documentary material became available, and much of it supported Neumann’s claim that the Nazi state in general, and the German economy in particular, were far from monolithic. Early post-war studies of the Third Reich by historians such as Alan Bullock and Hugh Trevor-Roper also tended to confirm Neumann’s characterization of Hitler and the Nazi regime.<sup>5</sup> Burton Klein’s first post-war study contradicted previous war-time findings, maintaining instead that there were no plans for a long war. The German economy was instead found to be highly inefficient and unprepared for the type of war which took shape after 1939.<sup>6</sup> New theories emerged which maintained that the regime had purposely failed to mobilize at a high rate throughout the 1930s; it could defeat its enemies one at a time through a series of short, economically limited wars without committing all its economic resources to war, or endangering civilian living standards. These new arguments formed the foundation for a new interpretation of Nazi military and economic policies, one based upon the more accurate and reliable data provided by captured German documents, the Nuremberg Trial records, and the United States Strategic Bombing Survey.

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<sup>3</sup> Franz Neumann, Behemoth: The Structure and Practice of National Socialism, 1933-1934 (New York: Oxford University Press, 1942), xii, cited in Peter Hayes, “Polycracy and Policy in the Third Reich: The Case of the Economy,” Reevaluating the Third Reich, eds. Thomas Childers and Jane Caplan, (London/New York: Holmes & Meier, 1993), 191.

<sup>4</sup> Ibid.

<sup>5</sup> See Alan Bullock, Hitler: A Study in Tyranny (London: Odhams Press, 1952); Hugh Trevor-Roper, “Hitlers Kriegziele,” Vierteljahrshefte für Zeitgeschichte 8 (1960), 121-33; idem, “A.J.P. Taylor, Hitler and the War,” Encounter, 17 (1961), 88-96; idem, The Last Days of Hitler 3<sup>rd</sup> ed. (London: Macmillan Press, 1956).

<sup>6</sup> See Burton H. Klein, “Germany’s Preparations for War, a Re-examination,” American Economic Review 38, no. 1 (March 1948), 69-72, 75-77.

The statistical basis for this new assessment came primarily from the United States Strategic Bombing Survey (USSBS) of October 1945, which attempted to answer how the German economy, despite the massive Allied bombing effort begun in 1943, was able to achieve a far greater increase in productivity in the last three years of war than had been possible during the first two years. It reported that prior to 1943, Germany's economy was very badly run, with only a minimal amount of national resources dedicated to war production. Low productivity and weapons output between 1939 and 1941 suggested to historians, economists, and military analysts that there was no heavy German rearmament, no massive transfer of resources from the civilian to the military sector, and thus no total mobilization for war either prior to 1939 or during the first two years of hostilities. The USSBS concluded that the Nazi regime was only forced to implement total mobilization, utilizing excess capacity previously devoted to civilian production, once Allied bombing had begun, and once German hopes of a speedy end to the Russian campaign had been dashed at Stalingrad.<sup>7</sup>

The survey relied greatly on the work of General Georg Thomas, a key figure in rearmament and war-time production as head of the Wehrmacht's Defence Economy and Weapons Office; his unpublished manuscript "Grundlage für eine Geschichte der deutschen Wehr- und Rüstungswirtschaft" was an invaluable source of information on the intricacies of German armaments production and allocation.<sup>8</sup> A large amount of data and input into the formulation of the USSBS was also provided by Rolf Wagenführ, the former chief economist of Albert Speer's *Planungsamt* or *Statistische Reichsamt* (Statistical Planning Department). With the aid of captured economic statistics and production figures, he concluded that the German economy between 1939 and 1941 was essentially a "peace-like

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<sup>7</sup> See United States Strategic Bombing Survey, The United States Strategic Bombing Survey: Over-all Report (European War) (Washington, D.C.: United States Government Printing Office, 1945), 1-2.

<sup>8</sup> Thomas' unpublished manuscript "Grundlage für eine Geschichte der deutschen Wehr- und Rüstungswirtschaft" was to form the basis for his later published work, Geschichte der deutschen Wehr- und Rüstungswirtschaft, 1918 - 1943/45 (Boppard am Rhein: Boldt, 1966).

war economy”.<sup>9</sup> Reaching similar conclusions to those of Wagenführ, Klein stressed that long before 1939, the Nazi regime had formulated a *Blitzkrieg* strategy which purposely dictated low mobilization levels.<sup>10</sup> After having direct input into the creation of the USSBS, Klein went on to publish a major English-language work in 1959 whose arguments, together with Wagenführ’s archetypal concepts, helped frame the entire debate about the nature of Germany’s rearmament and war effort for the next twenty years.

Germany’s Economic Preparations for War sought once and for all to destroy the out-dated and inaccurate stereotype of Nazi Germany as an efficient, monolithic war machine. Using data drawn from captured German documents, the USSBS, and the Nuremberg Trial records<sup>11</sup>, Klein argued that nothing could be farther from the truth. By contrasting the German economy’s pre-war and war-time production levels, and by analysing the output of the civilian economy, Klein maintained that there was no extensive rearmament before 1939: “Inspection of Germany’s pre-war pattern of investment shows

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<sup>9</sup> Rolf Wagenführ. “The Rise and Fall of the German War Economy.” manuscript, 1945 (The Rand Corporation Library), 9, cited in Burton H. Klein, Germany’s Economic Preparations for War (Cambridge, Mass.: Harvard University Press, 1959), 187.

Wagenführ’s 1945 manuscript “The Rise and Fall of the German War Economy” (Aufstieg und Niedergang der deutschen Wirtschaft) was written during his time at Speer’s *Plannungsamt* (Armaments Ministry). This primary source was later edited and published by the Deutsches Institut für Wirtschaftsforschung under the title Die deutsche Industrie im Kriege 1939-1945 (Berlin: Duncker & Humblot, 1954).

<sup>10</sup> These arguments can be found in Klein. “Germany’s Preparations for War, a Re-examination”. This article was the basis for Klein’s later work, Germany’s Economic Preparations for War, op. cit.

<sup>11</sup> The Nuremberg Trial records include: International Military Tribunal, The Trial of the Major War Criminals before the International Military Tribunal: Nuremberg, 14 November 1945 - 1 October 1946 (Nuremberg: International Military Tribunal, 1947-1949), 42 vols.; International Military Tribunal, Trials of the War Criminals before the Nuremberg Military Tribunals under Control Council Law No. 10: Nuremberg, October 1946 - April 1949 (Washington, D.C. : Microcard Editions, 1971, 1949), 12 vols; U.S. Chief of Counsel for the Prosecution of Axis Criminality, International Military Tribunal, Nazi Conspiracy and Aggression/ Office of United States Chief of Counsel for Prosecution of Axis Criminality (Washington, D.C.: United States Government Printing Office, 1946), 8 vols .

that there was no pronounced concentration of investment in those activities associated with economic preparations for war."<sup>12</sup> While government construction projects and large employment initiatives created an infrastructure which may have been used by the military at a future date, rearmament prior to the reoccupation of the Rhineland in Spring 1936, Klein argued, was "largely a myth."<sup>13</sup> These low expenditures on war material led Klein to conclude that the civilian economy had remained relatively intact. He insisted there was no massive transfer of material or labour resources from the civilian to the military economy throughout the 1930s.<sup>14</sup> Nor was civilian production cut dramatically or redirected towards war preparations, as so many of his predecessors had claimed: "In the pre-war period, the German economy produced both 'butter' and 'guns' - much more of the former and much less of the latter than has been commonly assumed."<sup>15</sup> Klein explained that Hitler's plans did not involve large war preparations, and therefore did not require rearmament *en masse* or huge cuts in civilian production. Instead, the German leader hoped to fight a series of short *Blitzkrieg* wars with the smaller states surrounding the Reich, while at the same time avoiding conflict with one or both of the Western democracies:

A basic reason why the Germans did not have a rearmament on the scale popularly assumed is simply that their war plans did not require such a large war effort. As we have emphasized, Hitler hoped to satisfy his territorial ambitions in a piecemeal fashion: he hoped to conquer each enemy so speedily that the democracies would not have time to intervene, and to have a breathing space after each conquest during which preparations could be made for the next. There is no doubt that this type of strategy called for less massive preparations than one involving prolonged struggle against a coalition of powers.<sup>16</sup>

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<sup>12</sup> Klein, Germany's Economic Preparations, 15.

<sup>13</sup> *Ibid.*, 17.

<sup>14</sup> *Ibid.*, 21. Klein claims that civilian consumption and investment had returned to 1928-29 levels by 1938, and while they were not allowed to rise above this peak level, they were maintained throughout the decade.

<sup>15</sup> *Ibid.*, 76.

<sup>16</sup> *Ibid.*, 78.

Klein noted that while German rearmament could have been much greater, had the regime been willing to incur larger deficits, cut civilian consumption, and subordinate all private interests to its military aims, this was unnecessary, for German economic and military preparations were completely in line with Hitler's strategic goals. Only after the German defeat at Stalingrad and the beginning of large-scale air raids over German cities did the nation begin full-scale mobilization.

Klein's book was a ground-breaking work which not only dispelled many myths about the organization and efficiency of the Nazi regime, but also gave an explanation for the Reich's apparently low mobilization levels during the first years of war. In addition, it firmly established the *Blitzkrieg* strategy theory as the framework around which much contemporary research and analysis on the topic would take place. Klein was not without his critics, however. He was harshly criticized for overemphasizing the regime's maintenance of civilian consumption and production, for downplaying the extent of German rearmament throughout the 1930s, and for making the pre-war armament effort look slight by using war-time production figures as the basis of comparison.<sup>17</sup> Furthermore, Klein's critics noted the limited nature of his source base, and the lack of familiarity with other contemporary works, especially that of René Erbe.<sup>18</sup> Despite these criticisms,

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<sup>17</sup> Tim W. Mason, "Some Origins of the Second World War," Past & Present 29 (December 1964), 77, 79, 79-81, 82.

Mason argues that while gross consumer expenditure levels of 1939 had reached those of 1929, Klein ignores the decade-long growth in population and employed labour force, the 20% rise in the index of industrial production, and the almost 40% increase in gross national product.

<sup>18</sup> Klein included only two works published after 1948 in his bibliography. He also ignored René Erbe's 1958 work, Die nationalsozialistische Wirtschaftspolitik im Lichte der modernen Theorie (Zürich: Polygraphischer Verlag, 1958). This comprehensive analysis of the German economy under Nazi control maintains that from 1934 onward, the German economy was "a war economy in peacetime." (Barkai, Nazi Economics, 6.)

Tim Mason, in his article "Some Origins," (1964) states that Klein shows no knowledge of the work done by British and German economic historians; he makes judgements about Schacht's policies without having read either of Schacht's autobiographies; he does not mention the Mefo-bill issue; and his statistics are "inscrutable and occasionally contradictory." (p.77).

Germany's Economic Preparations for War left a strong and lasting influence on the historical debate of the day, and on the work of future historians.

One of these scholars was the British historian Alan S. Milward, whose writings expanded on the concept of the *Blitzkrieg* strategy. Milward's first work, "The End of Blitzkrieg" (1964), examined the collapse of *Blitzkrieg* campaigns and economics in late 1941, and the impossibility of maintaining this type of conflict once a two-front war of attrition against economically-superior enemies had begun. Milward agreed with Klein that Führer directive *Rüstung 1942* of 10 January 1942, which established production priorities and implemented large-scale rationalization measures to facilitate mass production, marked the 'official' abandonment of *Blitzkrieg*.<sup>19</sup> But he maintained that Hitler's change of heart concerning *Blitzkrieg* economics took place not after the German defeat at Stalingrad, but with the first serious German losses against the Russian forces in December 1941.<sup>20</sup> In addition, he pointed out that administrative changes had begun as early as March 1940 with the appointment of Fritz Todt as Armaments and Munitions Minister.

Milward's larger work, The German Economy at War (1965) undertook a far more thorough and systematic analysis of the concept and functioning of Nazi Germany's *Blitzkrieg*. Like Klein, Milward argued that the regime's economic and military preparations for war were deliberately modest, for Germany was planning specifically to fight a series of short, *Blitzkrieg*-style wars:

German strategic and economic thinking before the war revolved around the concept of the *Blitzkrieg*. It was a method of avoiding the total economic commitment of 'total war'. It was the *Blitzkrieg* in its profoundest sense for which Germany and Hitler were preparing in 1939. For such a policy 'armament in width' rather than 'armament in depth' was necessary.<sup>21</sup>

Unlike Klein, however, Milward saw the Reich's limited mobilization in wartime as an

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<sup>19</sup> Alan S. Milward, "The End of the Blitzkrieg," Economic History Review, 16 (1964), 509.

<sup>20</sup> *Ibid.*, 503, 507.

<sup>21</sup> Alan S. Milward, The German Economy at War (London: The Althone Press, University of London, 1965), 7-8.

advantage, not a handicap, for it provided the economic flexibility needed for the conduct of these *Blitzkrieg* wars.<sup>22</sup> The rapid defeat of both Poland and France was proof of the great adaptability and pliancy of the *Blitzkrieg* strategy.

Why did the National Socialists pursue such a policy? Milward posited three significant reasons. First, a short war would avoid disrupting the civilian economy, and would guard against massive economic commitment to war. Domestic political considerations and fear of civilian unrest thus played an important role in determining the formulation of the *Blitzkrieg* strategy, and the low levels of military and economic mobilization. The result of this, Milward claims, was little or no civilian deprivation during the years 1939-41.<sup>23</sup> Second, *Blitzkrieg* would best serve the needs of the regime's diplomatic situation. A peace economy would not only ensure a stable home front, but could also be brought to bear quickly and effectively against a weaker enemy as a powerful diplomatic tool. *Blitzkrieg* was therefore a very suitable complement to Hitler's aggressive diplomacy.<sup>24</sup> Third, there existed a perfect match between the *Blitzkrieg* strategy and Germany's unique political-economic system. A long-war effort required centralization and rationalization which was against the whole spirit of the National Socialist administration, with its tangled maze of competing departments. And finally, *Blitzkrieg*-style wars could exploit the industrial, raw material, and labour resources of newly-conquered territories, thereby neutralizing the Reich's inherent economic weaknesses. There would be no need for military production to tie up large sectors of the national economy, since armaments production could be shifted or adjusted to suit each unique campaign.<sup>25</sup> Central to these arguments, however, was the implicit assumption that Hitler and the military leadership planned to launch their war in 1939, and that all preparations were specifically geared toward this goal.

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<sup>22</sup> Ibid., 16.

<sup>23</sup> Ibid., 7, 9.

<sup>24</sup> Ibid., 13.

<sup>25</sup> Ibid., 10, 9, 16.

War, Economy, and Society, 1939-1945 (1977), Milward's later work, attempted a comparative examination of the economic plans and performance of all the belligerent nations of the Second World War. It placed the Reich's military and economic performance within a much broader context, but reached no new conclusions with regard to the regime's *Blitzkrieg* strategy. There was little need for revision on Milward's part, for his conclusions received widespread acceptance from the historical community with the publishing of The German Economy at War in 1965.

Another scholar to espouse the notion of a planned *Blitzkrieg* was the American historian Berenice Carroll. Her work, Design for Total War: Arms and Economics in the Third Reich (1968), fundamentally agreed with Klein and Milward's assertion that a *Blitzkrieg* strategy was at the heart of Hitler's war plans. Using General Thomas' leadership of the Defence Economy and Weapons Office as a chronological guide, Carroll traced the course of German rearmament and Germany's failed war effort. She differed from Klein in claiming that military expenditure surpassed civilian expenditure as early as 1934, but she did acknowledge that there was no real drop in civilian consumption until 1942.<sup>26</sup> Design for Total War maintained that Hitler initially hoped to achieve his goals using bluff, intrigue, or threats of violence. If this proved unsuccessful, then he would employ his *Blitzkrieg* strategy. Hitler avoided total mobilization of Germany's resources, believing instead that a series of short wars would be sufficient to defeat Germany's enemies and achieve his main goal, *Lebensraum* (living space).<sup>27</sup> Whereas Klein underestimated the extent of German rearmament, and Milward believed there to be only partial mobilization until the abandonment of *Blitzkrieg* in 1942, Carroll arbitrarily demarcated the entire Third Reich era, describing the period 1936 to 1942 as a war economy directed heavily to the production of war goods, and 1942 to 1945 as a total war

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<sup>26</sup> Berenice Carroll, Design for Total War: Arms and Economics in the Third Reich (The Hague: Mouton & Co. N.V., 1968), 185.

<sup>27</sup> *Ibid.*, 47.

economy.<sup>28</sup> She also differed from Klein and Milward in her assertion that a developing economic crisis in 1939 forced Hitler to accelerate his timetable of conquest, and launch a war sooner than later before an economic collapse could occur.<sup>29</sup> Like Milward, however, she argued that the unco-ordinated war effort, with its terrible inefficiency and waste, doomed the *Blitzkrieg* to failure, and forced the regime to mobilize for a long war of attrition.

Carroll's Design for Total War was a comprehensive analysis which sought a balanced approach to the work done by both Klein and Milward. While it could not generally be regarded as a major contribution of new research to the historical debate, it reflected the ever-evolving nature of the *Blitzkrieg* strategy theory. Carroll's unique claim, that conversion to a war economy had begun in 1934 and was in place by 1938, however, proved unconvincing to fellow supporters of the *Blitzkrieg* theory, for she could not reconcile it with her earlier insistence that civilian consumption was largely unaffected until 1942. Although she drew upon a wide selection of research from the Nuremberg Trial records, the USSBS, and the papers of the Defence Economy and Weapons Office (*Wirtschafts- und Rüstungsamt*), Carroll was criticized for having too limited a selection of primary source documents. Scholars also claimed that she employed outdated economic statistics, thus creating the impression that the British economy, not the German, was the most highly mobilized for war.<sup>30</sup> In any case, her work attempted to expand the limits of the *Blitzkrieg* theory to include the notion of a quasi-war economy in peacetime and during

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<sup>28</sup> Ibid., 189.

<sup>29</sup> Ibid., 104.

<sup>30</sup> Mark Harrison. "Resource Mobilization for World War II: the U.S.A., U.K., U.S.S.R., and Germany, 1938-1945," Economic History Review 2<sup>nd</sup> series, 41, no. 2 (1988), 183.

Harrison states: "Carroll's conclusion that Germany matched the U.K. peak of national income mobilization for war only in 1944 is mistaken; it is based on comparing German military spending with 'total available output' (GNP plus net imports, not GNP as claimed), which significantly understates German war expenditures in proportion to national income. Removal of this distortion shows that, by national income share, Germany was the most highly mobilized of the powers." (183)

the first years of *Blitzkrieg*.

Amongst the publishing of Klein, Milward, and Carroll's works came A.J.P. Taylor's The Origins of the Second World War in 1961. This new piece of revisionist historiography set off an immediate controversy, for it rejected previously-held assumptions about Hitler, his strategy, and his goals. Taylor argued that Hitler's expansionist foreign policy was in keeping with the tradition of previous German statesmen, whose desire it was to expand the Reich's influence and power. Hitler had no plans for a major war, Taylor claimed, and certainly no grand design for world conquest; Germany's failure to mobilize for total war was proof of this. What Hitler really desired, in Taylor's view, was merely a revision of the Treaty of Versailles. Taylor also showed Hitler to be the ultimate opportunist who very often reacted to the moves and decisions of others rather than take the initiative himself.<sup>31</sup> In this way, the Nazi leader sought diplomatic means as a way of achieving his expansionist goals, using modest rearmament solely as a diplomatic tool with which he could apply pressure to Germany's neighbours.<sup>32</sup> Regarding the outbreak of war in September 1939, Taylor blamed the Western democracies in general, and Neville Chamberlain in particular, for leading Hitler to believe that German expansion into eastern and south-eastern Europe would go unopposed by Britain and France.<sup>33</sup> This all amounted to a rejection of the entire "Nuremberg thesis". Hitler's personal responsibility for the war, and was not well-received by the historical community at large.

The Origins of the Second World War was harshly criticized for what many referred to as its outlandish conclusions. Fellow historians accused Taylor of racism, and of downplaying and even dismissing Hitler's unique search for *Lebensraum*, the very factor which differentiated his foreign policy from that of his predecessors. They charged that Taylor had relieved Hitler and the Nazi regime of responsibility for the war by portraying

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<sup>31</sup> A.J.P. Taylor, The Origins of the Second World War (London: Hamish Hamilton, 1961), 192.

<sup>32</sup> *Ibid.*, 218-19.

<sup>33</sup> *Ibid.*, 245.

the dictator as merely reacting to events, and by overemphasizing the significance of British and French diplomacy.<sup>34</sup> Furthermore, Hugh Trevor-Roper, Taylor's most ardent critic, accused the author of wilfully misusing documents, and condemned him for basing his work primarily on diplomatic documents, which treated foreign policy in a vacuum with no consideration of military, social, or economic factors.<sup>35</sup> Taylor thus gained the unenviable reputation as the *enfant terrible* of British historiography.<sup>36</sup> The Origins of the Second World War, however, was the first work to consciously step away from the previously Hitler-centric explanation of events which had dominated this debate since the end of the war. Taylor removed Hitler from the center of the argument, and thus showed him to be not just a pro-active, but also a reactive figure in the determination of historical events. In this way, Taylor's work stood as a harbinger of the approach which many future historians would employ when analysing this period.

Beginning in the 1960s and extending throughout the 1970s, new research and writing emerged which, while not completely displacing then currently-held theories, challenged the very foundations of the established post-war debate. Research until now had relied primarily on a limited number of key documents from the Nuremberg Trial collection. Chosen solely for their legal significance, these individual documents served the prosecutors well during the Nuremberg trials, but distorted the view for historians, since they had been removed from their original context:

This made it easier [for historians] to interpret the foreign and domestic policy of the Third Reich against the background of certain ideological premises, and to impose an essentially deductive system on it, one that appeared to be consistent with the decisive processes and to provide a plausible picture of an otherwise confusing and contradictory wealth of events. At times the more fundamental rules of primary source analysis were violated.... Since the relevant documents were usually missing, events were connected by the hypothetical inference that in some way the articulated

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<sup>34</sup> See Mason, "Some Origins", 67-87.

<sup>35</sup> See Hugh R. Trevor-Roper, "A.J.P. Taylor, Hitler and the War," Encounter 17 (1961), 88-96.

<sup>36</sup> Louis L. Snyder, ed., The Third Reich, 1933-1945: A Bibliographical Guide to German National Socialism (New York/London: Garland Publishing Inc., 1987), 11.

will of the dictator underlay them.<sup>37</sup>

As these documents were gradually returned to the West German Federal Archives to be reassembled and catalogued, scholars were able to evaluate the comprehensive sets of sources as a whole. They proved extremely valuable, offering historians the opportunity to closely examine and reconstruct the institutional structure of the Third Reich. The resulting research over the next ten to fifteen years centered around this effort; in the process, it not only destroyed the notion of a monolithic Nazi Germany, but, as Hans Mommsen notes, also helped displace the decidedly Hitler-centric viewpoint which had previously dominated the historical debate:

The ruling system, which previously appeared to be monolithic, now dissolved into a host of subsystems that were poorly, or not at all co-ordinated. Hitler now appeared to be removed from the sphere of quotidian events, implementing his obsolete priorities only reluctantly, if at all, and, as a rule, too late.<sup>38</sup>

New research, stimulated by the opening of new archival sources, thus facilitated an entirely new approach to the many analyses of the entire Third Reich.

German historians K.D. Bracher, W. Sauer, and G. Schulz were the first scholars to trace the process of intention and decision-making within the Third Reich, and their 1960 work Die nationalsozialistische Machtergreifung helped expose the regime's many administrative inadequacies and its leader's fallibility.<sup>39</sup> Andreas Hillgruber's thorough work Hitlers Strategie, Politik und Kriegführung 1940-41 (1965) closely examined German decision-making from the collapse of France in June 1940 to the beginning of war with the Soviet Union in June 1941. It was a pioneering work, for Hillgruber argued that Hitler's strategy was not only the culmination of political factors, strategic considerations, and his

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<sup>37</sup> Hans Mommsen, "Reflections on the Position of Hitler and Göring in the Third Reich," Reevaluating the Third Reich, eds. Childers and Caplan, 87-88.

<sup>38</sup> *Ibid.*, 88.

<sup>39</sup> See K.D. Bracher, W. Sauer, G. Schulz, Die nationalsozialistische Machtergreifung: Studien zur Errichtung des totalitären Herrschaftssystems in Deutschland 1933/34 (Köln: Westdeutscher Verlag, 1960).

own ideological convictions and racial delusions, but also, in part, a reaction to the policies and strategy of the other great powers. “We must consider both his [Hitler’s] ideological and political ‘program’ and his political and strategic concept as they emerged in several stages during the decisive months of July to December 1940. Any isolated analysis of one aspect of the question... must lead to misinterpretation.”<sup>40</sup> The author also explained that despite the Reich’s relative unpreparedness, political and strategic developments, such as the deadlock with England in the West, encouraged Hitler to launch prematurely a war against the U.S.S.R. Hans Mommsen, Martin Broszat, Klaus Hildebrand, and Ludolf Herbst, five distinguished German scholars, also went on to publish important studies throughout the 1970s and early 1980s which strove to more fully understand the inner workings of the Nazi regime, its economy, and its political objectives.<sup>41</sup> One of the most important historians to begin publishing during this period, however, was the British historian Timothy Mason, whose studies, despite having been harshly criticised, have become landmarks within the historiography of the Third Reich.

Timothy Mason had a relatively brief career, lasting from 1964 until his death in 1990, but his writings have had a tremendous impact upon various areas of study of the Third Reich. He approached his work from a critical Marxist perspective, and as fellow historian and friend Jane Caplan has noted, “Mason’s career... remain[ed] pivoted on the axis of a few insistent, overriding themes: the relationship between politics and class, the sources and limits of individual and collective agency, the ferocity and destructiveness of

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<sup>40</sup> Andreas Hillgruber, Hitlers Strategie, Politik und Kriegführung 1940-41 (Frankfurt am Main: Bernard & Graefe Verlag für Wehrwesen, 1965), 586.

<sup>41</sup> See notes 46 and 47 for a listing of Bracher, Hildebrand, Mommsen and Broszat’s relevant works.

For Ludolf Herbst’s works see “Die Krise der nationalsozialistischen Regimes am Vorabend des Zweiten Weltkrieges und die forcierte Aufrüstung,” Vierteljahrshefte für Zeitgeschichte, 26, no. 3 (July 1978), 347-92; idem, “Die Mobilmachung der Wirtschaft 1938/39 als Problem des nationalsozialistischen Herrschaftssystems,” in Sommer 1939: Die Grossmächte und der europäische Krieg, eds. Wolfgang Benz and Hermann Graml, (Stuttgart: Deutsche Verlags-Anstalt, 1979).

Nazi power, and, most controversially, the domestic sources of Nazi aggression in 1939.”<sup>42</sup> While Mason wrote two books and more than twelve articles, only those works which discuss the origins, timing, and nature of war in 1939 need concern us here. These include his first published work, “Some Origins of the Second World War” (1964); his original doctoral dissertation, “Internal Crisis and War of Aggression” (originally “Innere Krise und Angriffskrieg 1938/39,” 1975); his revised doctoral dissertation, Social Policy in the Third Reich: The Working Class and the National Community (1993) (originally Sozialpolitik im Dritten Reich: Arbeiterklasse und Volksgemeinschaft, 1977); his critique of Richard Overy’s work in “Debate: Germany, ‘Domestic Crisis’ and War in 1939” (1989); and his final reassessment, “The Domestic Dynamics of Nazi Conquests: A Response to Critics,” (1993). Like many other scholars, Mason did not get into a detailed discussion of the notion of *Blitzkrieg*; nor did he attempt to define or clarify the term itself, to trace the decision-making process which opted specifically for a series of *Blitzkrieg*-style wars, or to prove that war-time strategy was determined solely by this military-economic plan. But in explaining the specific character of the war, Mason argued that it was a *Blitzkrieg*, and that despite Hitler’s original intention to launch a large war around 1943, a series of economically unobtrusive wars fit well within Nazi plans for territorial and economic expansion. In this way, Mason’s conclusions bore some resemblance to those of his colleagues Klein, Milward, and Carroll, despite the fact that the reasoning behind them differed greatly. For Mason was the first to suggest that domestic political, economic, and social factors limited Hitler and the regime’s options, and eventually culminated in a massive crisis which encouraged the Reich to solve its internal problems through a war of plunder.

*Blitzkrieg*, therefore, was as much a product of the Reich’s internal difficulties as it was a predetermined strategy which invariably helped determine armament levels during the last years of peace.<sup>43</sup> In one of his final works, Mason theorized that because war was

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<sup>42</sup> Jane Caplan, “Introduction,” in Nazism, Fascism and the Working Class: Essays by Tim Mason, ed. Jane Caplan (Cambridge: Cambridge University Press, 1995), 6.

<sup>43</sup> Mason, “Some Origins”, 86.

necessary for the regime to continue arming at a high level, Hitler chose in 1939 to abandon his long-term strategic goals and start a war “so that it could be continued”<sup>44</sup>, thereby safeguarding the regime’s rearmament programmes: “Plunder provides the long-term perspective that tends to validate this approach to Nazi policy-making in 1938-39 – above all, the plunder of people. This was not a long-nurtured goal or policy, but rather an ineluctable necessity, given Nazi economic policy and aims.”<sup>45</sup> In this sense, Mason argues, war became an end in itself for the regime.

Mason’s hypothesis of systemic crisis was subjected to heavy scrutiny, especially by fellow historians Ludolf Herbst and Richard Overy. With every new work on the subject, however, Mason addressed the criticisms levelled at him by others, and very often incorporated their compelling evidence into his later works. For example, when Jost Dülffer and Joachim Fest charged that Mason had ignored certain aspects of Hitler’s strategic-thinking when discussing German foreign policy during the late-1930s, Mason reviewed their arguments, and by the time of his final work, had conceded that Hitler’s miscalculation of British strategic interests, his fears for his own health and ability to govern, and his anxiety that Germany would lose its edge in the international arms race were indeed important factors which contributed to his opting for war in 1939. Nevertheless, it is Mason’s ever evolving theory of domestic economic crisis which is crucial to any debate about *Blitzkrieg*, for it helps explain in part why Hitler and the regime were forced to abandon their plans for a long war, and risk war with Poland in the hopes that it would remain limited.

During the late 1970s and early 1980s, a whole multitude of scholars produced both evolutionary and revisionist works which all attempted to better understand the institutional structure of the Third Reich and Hitler’s role within it. It was during this period that the influential ‘intentionalist-functional’ debate emerged. This focussed upon whether the ever more radical Nazi policies after 1936 were the intentional result of Hitler and the

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<sup>44</sup> Tim W. Mason, “The Domestic Dynamics of Nazi Conquests: A Response to Critics,” in *Reevaluating the Third Reich*, eds. Childers and Caplan, 180.

<sup>45</sup> *Ibid.*

regime's ideological program, or whether they were an unpredictable consequence of the structure and nature of the dictatorship. Whereas scholars such as K.D. Bracher and Klaus Hildebrand argued the former<sup>46</sup>, others, including Hans Mommsen and Martin Broszat, insisted that the regime's political and administrative structures had a far more important role in the formulation of policy than previously thought.<sup>47</sup> Like Taylor's work some fifteen to twenty years earlier, their interpretation emphasized the decentralized or polycratic nature of the Nazi system; it had a wide-reaching effect on all areas of research in this field, but became especially significant in the field of economic history. For it was at this time that previously-held conclusions and assumptions concerning Nazi economic policy, the role of big business in Hitler's rise to power, and German preparedness for war began to be reexamined by contemporary historians. This was certainly the case with regards to the *Blitzkrieg* debate, as earlier models of a monocratic Nazi state began to appear more and more obsolete. Whether their theories were revisionist or more traditionally oriented, most scholars in this field eventually acknowledged the significance of the functionalist approach and its application to the study of the *Blitzkrieg*.

In the midst of this all-encompassing and often heated debate came the release of West Germany's first official history of the Second World War. Das Deutsche Reich und der Zweite Weltkrieg was to be an exhaustive study of the Second World War, in time to

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<sup>46</sup> See K.D. Bracher, "Tradition und Revolution im Nationalsozialismus," in Hitler, Deutschland und die Mächte, ed. Manfred Funke, (Düsseldorf: Droste, 1977); Klaus Hildebrand, "Hitler's War Aims," Journal of Modern History 48, no. 3 (1976); idem, "Monokratie oder Polykratie? Hitlers Herrschaft und das Dritte Reich," in The 'Führer State': Myth and Reality - Studies on the Politics and Structure of the Third Reich, eds. G. Hirschfeld and L. Kettenacker (Stuttgart: Klett-Cotta, 1981).

<sup>47</sup> See Hans Mommsen, Beamtenum im Dritten Reich (Stuttgart: Deutsche Verlags-Anstalt, 1966); idem, "National Socialism: Continuity and Change," in Fascism: A Reader's Guide, ed. Walter Laquer (Berkeley: University of California Press, 1976), 151-92; Martin Broszat, Der Staat Hitlers: Grundlegung und Entwicklung seiner inneren Verfassung (München: Deutscher Taschenbuch Verlag, 1969) [The Hitler State: The Foundation and Development of the Internal Structure of the Third Reich (London: Longman, 1981)]; idem, "Soziale Motivation und Führerbindung des Nationalsozialismus," Vierteljahrshefte für Zeitgeschichte 18, no. 4 (1970), 329-65.

number ten volumes. Volume I, "The Build-up of German Aggression", was released in German in 1979, and featured contributions from the leading German scholars in this field. Most important to our discussion of Germany's military and economic preparations for war are the works of Wilhelm Deist and Hans-Erich Volkmann. Deist's extensive chapter, "The Rearmament of the Wehrmacht", focussed exclusively on the German military's preparations for war throughout the 1930s, and examined not only the armament programmes of each of the individual services, but also the rearmament of the Wehrmacht as a whole. Unlike earlier scholars who had characterized German rearmament as an efficient and well-organized undertaking, Deist found the entire process to be an uncontrolled and unco-ordinated expansion of the individual services. Each service introduced its own armament programme in complete isolation, generating great inter-service rivalry for scarce raw materials, labour, and industrial capacity.<sup>48</sup> The unwillingness of the independent services to subordinate their rearmament programmes to overall Wehrmacht control, Deist argues, resulted in a tremendous amount of inefficiency and waste which caused raw material and labour shortages, bottlenecks, production delays, and overall stagnation. In the end, it was these economic difficulties which convinced the regime's leadership that plunder was no longer an option, but a necessity. While Deist did not attempt a detailed discussion of the formulation or implementation of the regime's supposed *Blitzkrieg* strategy, he nevertheless argued that one did exist. In a later work entitled The Wehrmacht and German Rearmament (1981), he noted that the strategy took shape once Germany's economic conditions worsened:

When from 1936-7 onwards the concept of 'armament in breadth' had reached the limits of economic possibility, the most acceptable solution to the problem seemed to be short predatory wars for the benefit of the economy. It was no longer only necessary to rearm in order to wage wars but also necessary to have war in order to continue rearming.<sup>49</sup>

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<sup>48</sup> Wilhelm Deist, "The Rearmament of the Wehrmacht," in Germany and the Second World War, Vol. 1, ed. Research Institute for Military History, Freiburg im Breisgau, (Oxford: Clarendon Press, 1990), 505-6.

<sup>49</sup> Deist, The Wehrmacht and German Rearmament (Toronto: University of Toronto Press, 1981), 111.

Deist's contribution to the *Blitzkrieg* debate, while important, must be seen as evolutionary in nature. While his research shed light upon the Wehrmacht's unco-ordinated rearmament effort and the resulting economic consequences, it still employed the *Blitzkrieg* strategy theory as the frame of reference through which all analysis took place. As such, Deist's writings can be regarded as a further contribution, albeit a far more rigorous and exacting one, to the evolving school of thought which Klein and the Strategic Bombing Survey had begun nearly thirty years earlier.

Hans-Erich Volkmann's contribution to Das Deutsche Reich und der Zweite Weltkrieg was entitled "The National Socialist Economy in Preparation for War", a work which is still regarded as one of the best studies of Germany's economic preparations for war during the 1930s. Like other scholars at the time, Volkmann had access to new sets of documents as archives were being opened, and his work complemented that of Deist as it examined the economic aspects of Nazi rearmament. As in his earlier work, "Außenhandel und Aufrüstung in Deutschland 1933 bis 1939" (1975), Volkmann examined Germany's economic preparations for war, and its two-pronged policy of massive rearmament and high civilian standards which comprised the concept of *Wehrwirtschaft* (war economy in peacetime). He found that a series of limited military operations designed to enlarge the Reich's political and economic sphere lay at the heart of Germany's effort to rearm as quickly and as extensively as possible. Hitler purposely *chose* to create a large army capable of limited campaigns, Volkmann argues, since this allowed him to alternate his foreign policy between diplomatic pressure and military aggression. In order for this to take place, the rearmament economy was guided by the requirements of *Blitzkrieg* as early as 1936. The author insisted that no realistic in-depth, long-term rearmament plans were ever put into practice, and that the real goal was to continue rearming until the economy became exhausted, in the hopes of repairing it later through the plunder and exploitation of conquered territories.<sup>50</sup> Like Mason and Deist, Volkmann discovered that the result of this policy was severe domestic

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<sup>50</sup> Hans-Erich Volkmann, "The National Socialist Economy in Preparation for War," in Germany and the Second World War, Vol. 1, 365-71.

economic difficulties which were causing the slow crumbling of the whole rearmament network. He argued that on the eve of war, an economic crisis had formed which, if not averted, would soon have slowed the entire rearmament effort to a grinding halt. This fact, he concluded, contributed greatly to Hitler's decision to launch a war in September 1939.<sup>51</sup>

Taking all of Volkmann's arguments together, his work on this topic has much in common with Deist's, and even Mason's work. They all agree that a pre-determined *Blitzkrieg* strategy existed, and that it was overwhelmingly a product of the Reich's economic difficulties. They also agree that these dire economic conditions contributed to the coming of war in 1939, and that a series of short predatory wars was the only option to economic collapse (given that a slow-down of rearmament was politically out of the question). In discussing the historiographical evolution of the *Blitzkrieg* debate, the works of Mason, Deist, and Volkmann represent the resultant development of a mature *Blitzkrieg* strategy theory, one which has been founded upon solid research and rigorous analysis. Nevertheless, there were those scholars who, at the same time, rejected this entire argument. These revisionist historians have, since the mid-1970s, attempted to disprove the whole notion of a *Blitzkrieg* strategy or *Blitzkrieg*-inspired economy, and have approached this discussion from a completely different perspective.

Richard Overy has become the most well-known of those historians who have rejected the entire concept of a planned *Blitzkrieg*. His career began in the late 1970s, and his writings, while diverse, have since tended to focus on such issues as the development of the Luftwaffe, German rearmament throughout the 1930s, and National Socialist economic policy in both the pre-war and war time periods. It is his works dealing with the nature of the German economy and Nazi war aims which have generated the most historical debate, for their arguments challenge many of the long-held conclusions of the historical community. Overy has consistently argued over the past twenty years that a long war of conquest was at the heart of Hitler's plans, and that German rearmament throughout the 1930s was designed and executed with this long-term goal in mind. He maintains that the

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<sup>51</sup> Ibid., 371.

regime's strategy had always been founded on total economic mobilization accompanied by an in-depth rearmament of the nation's military forces. This obviously required great sacrifices by the German population, and contrary to the established claim that civilian consumption remained at relatively high levels as late as 1941, Overy notes that the production of civilian goods was indeed capped after 1936, and then severely curtailed or diverted for military purposes once the war began. He also points to the Four-Year Plan, synthetic fuel and rubber programmes, economic incursions into south-east Europe, and the navy's Z-Plan as evidence of long-term intent.<sup>52</sup>

Overy's later work "Mobilization for Total War in Germany, 1939-41" (1988) acknowledges the incongruity between Germany's low mobilization and production levels and its massive commitment of resources to war production by September 1939. But the author explains that Germany's low production and mobilization figures, both before and during the first years of conflict, could be attributed in part to the incomplete status of most of the regime's major industrial and military projects on the eve of war. What historians mistook for a purposely restrained military and economic mobilization in 1939, Overy argued, was in reality a partially mobilized economy caught off guard by the premature outbreak of war.<sup>53</sup> Later, the Wehrmacht's easy victories over Poland and France not only helped overshadow a whole host of economic inadequacies, but also created an atmosphere in which efforts to prepare for a protracted conflict appeared either inappropriate or wrong-headed. This, Overy claimed, compromised the integrity of the regime's long-term planning, and resulted in two years of stagnant production. These decidedly controversial arguments all helped to reinvigorate the debate over Nazi economic policy and the causes of war, and this had a direct impact on the discourse concerning *Blitzkrieg*.

Overy tackled the question of *Blitzkrieg* head-on, arguing that plans for a series of short wars and for a *Blitzkrieg*-inspired economy did not exist, and would have required

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<sup>52</sup> R. J. Overy, "Hitler's War and the German Economy: A Reinterpretation," The Economic History Review 35, no. 2, (1982), 281.

<sup>53</sup> R. J. Overy, "Mobilization for Total War in Germany, 1939-1941," English Historical Review 103, no. 408 (1988), 616.

some degree of political and economic realism, a commodity greatly lacking within the Nazi leadership.<sup>54</sup> The author not only insisted that Hitler was planning a long war in the mid-1940s after rearmament had been largely completed, but also dismissed his colleagues' assertions that an economic crisis drove Hitler to war in 1939. Overy's 1987 article "Germany, 'Domestic Crisis' and War in 1939" attacked Mason's findings, instead arguing that there was no proof of a 'conventional' domestic economic crisis which threatened to derail the whole rearmament process. Production delays, foreign currency shortfalls, and labour shortages were side-effects of the transition from rearmament to war economy, but Overy regarded these as frictional problems, not structural weaknesses.<sup>55</sup> While he later admitted that too little is known about the growing balance of payments crisis in early 1938 (not mid-1939 as Volkmann, Deist, and Mason have argued), he maintained that the government was well aware of it and had taken the necessary steps to remedy it.<sup>56</sup> This unwillingness to accept the notion of a growing economic crisis stemmed from Overy's belief that international and military considerations, not domestic economic or social factors, were the main determinants behind Hitler's decision to attack Poland. Sensing what was an apparent collapse of international resolve in the late 1930s, Hitler risked war with Poland in the hopes of it remaining limited, and in so doing, Overy suggested, made a grave miscalculation of both Britain and France's intent on halting German expansionism.

Overy's findings did much to debunk the notion of a planned *Blitzkrieg*, and his latest work War and Economy in the Third Reich (1994) for the most part reiterates the arguments which he had made in previous works. It was in this work, however, that he challenged his fellow historians to finally put aside the ideas of a *Blitzkrieg* strategy and a limited economy, and replace them with the concept of a German economy geared towards total mobilization, a mobilization which went terribly wrong during the early stages of the

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<sup>54</sup> Overy, "Hitler's War," 277.

<sup>55</sup> R. J. Overy, "Germany, 'Domestic Crisis' and War in 1939," Past & Present 116 (August 1987), 148.

<sup>56</sup> David Kaiser, Tim Mason, R. J. Overy, "Debate: Germany, 'Domestic Crisis' and War in 1939," Past & Present 122 (February 1989), 223.

war.<sup>57</sup>

Williamson Murray, like Overy, has maintained that it is time for historians to abandon the purely contrived notion of a planned *Blitzkrieg* strategy. His works over the past fifteen years have closely examined German military doctrine and Nazi grand strategy in an attempt to replace the discredited *Blitzkrieg* strategy theory with a more accurate and credible explanation of events.<sup>58</sup> Murray insists that a clear distinction must be made between the strictly tactical doctrine of *Blitzkrieg* and the concept of short wars and limited economic mobilization known as the *Blitzkrieg* strategy. He regards the former as an ingenious but nevertheless *ad hoc* creation of the Wehrmacht. Although the military possessed a force structure which was still dominated overwhelmingly by traditional infantry divisions, its leadership had grudgingly allowed for the development of modern and varied tactical doctrines and the creation of a limited number of mobilized infantry and panzer tank divisions during the pre-war period. The fact that these winning operational and tactical innovations happened to best suit the strategic needs of the German economy, however, was sheer coincidence.<sup>59</sup>

Similarly, the periods of calm which followed the Polish and French campaigns were, in Murray's words, "the result of immediate military requirements, not deep-laid plans, as Hitler's initial insistence on attacking the West prematurely in the fall of 1939

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<sup>57</sup> R.J. Overy, War and Economy in the Third Reich (Oxford: Clarendon Press, 1994), 313.

<sup>58</sup> See Williamson Murray, The Change in the European Balance of Power, 1938-1939: The Path to Ruin (Princeton, NJ: Princeton University Press, 1984); idem, "German Army Doctrine, 1918-1939, and the Post-1945 Theory of 'Blitzkrieg Strategy'," in German Nationalism and the European Response, 1890-1945, ed. Carole Fink, Isabel V. Hull, and MacGregor Knox. (Norman & London: University of Oklahoma Press, 1985); idem, Luftwaffe (Baltimore, MD: The Nautical & Aviation Publishing Company of America, 1985); idem, German Military Effectiveness (Baltimore, MD: The Nautical & Aviation Publishing Company of America, 1992).

<sup>59</sup> Murray, "German Army Doctrine, 1918-1939, and the Post-1945 Theory of 'Blitzkrieg Strategy'", 91.

demonstrates.”<sup>90</sup> With regards to the latter, the author points to economic statistics and production figures to disprove the *Blitzkrieg* strategy theory. Low pre-war tank production figures as well as the Luftwaffe’s focus on strategic bomber fleet development demonstrate the absence of a plan for short campaigns undertaken by highly mobile ground forces with close air support. Like Overy, Murray found that consumer production was indeed reduced in favour of capital goods production after 1936; but unlike Overy, he regards Germany’s severe lack of foreign exchange after 1936 as a key economic weakness which eventually contributed to Hitler’s willingness to risk war prematurely, as in the case of the Czechoslovakian crisis in late 1938. In general, Murray views German strategy as too muddled and unco-ordinated to have planned such a complex and intricate scheme. Rather, he charges that the entire *Blitzkrieg* theory as it stands today is, in fact, a convenient invention by scholars: “Historians, in a desire to inject order and clarity into a confused and disorderly process, recognized relationships between certain factors and policy decisions that simply did not exist.”<sup>91</sup> Murray has demanded a complete reassessment of the historical community’s long-held assumptions, and a reinterpretation of factors, causes, and events surrounding German rearmament and the Reich’s war effort.

Having discussed the major scholars and their contributions to the study of the *Blitzkrieg* phenomenon, how can we now characterize the present state of this historiographical debate? First, it is important to note that there has been a general shift in research interests over the past fifteen to twenty years: the 1980s signalled the collapse of the Marxist perspective, the use of class as a model for historical study, and the study of fascism as a larger entity. Instead, there developed a growing interest in the social history of the Third Reich, as well as new analyses of Nazi genocide and the role of ideology in Nazi political, economic, military, and racial policy. Nevertheless, the intentionalist-functional debate provided historians with a new method for interpreting or reevaluating older areas of study, and this has been especially evident in the field of economic history

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<sup>90</sup> Ibid.

<sup>91</sup> Murray, German Military Effectiveness, 217-18.

where a series of new debates has emerged. Scholars such as Peter Hayes, Mark Harrison, David Kaiser, Ludolf Herbst, Bernhard Kroener, and Avraham Barkai have all written on such varied economic issues as the role of big business in Hitler's rise to power, Germany's economic incursions into South-East Europe, and the ideological determinants of Nazi economic policy.<sup>22</sup> But with the exception of Kroener's brief, thought-provoking article<sup>23</sup>, and the pivotal revisionist works of Overy and Murray, little has been written over the past fifteen years which focusses exclusively on the heretofore unresolved question of *Blitzkrieg*. The inquiry into the existence of a purposeful *Blitzkrieg* strategy has, in recent scholarship, become a mere aside to larger or perhaps more fashionable questions. One consequence of this trend is the development of an "agree to disagree" attitude amongst historians on both sides of the *Blitzkrieg* theory debate. When reference to *Blitzkrieg* or lack thereof is necessary, contemporary scholars have often blindly adopted either the traditional or the revisionist paradigm, and then used this as the foundation upon which to base all their other

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<sup>22</sup> See Peter Hayes, Industry and Ideology: I.G. Farben in the Nazi Era (New York: Cambridge University Press, 1987); idem, "Polycracy and Policy in the Third Reich: The Case of the Economy," in Reevaluating the Third Reich (1993); Harrison, "Resource Mobilization for World War II," 171-192; David E. Kaiser, Economic Diplomacy and the Origins of the Second World War: Germany, Britain, France, and Eastern Europe, 1930-39 (Princeton, NJ: Princeton University Press, 1980); Ludolf Herbst, "Die Krise des nationalsozialistischen Regimes am Vorabend," (op.cit. footnote no. 41); idem, "Die Mobilmachung der Wirtschaft 1938/39," (op. cit. footnote no. 41); idem, Der totale Krieg und die Ordnung der Wirtschaft: Die Kriegswirtschaft im Spannungsfeld von Politik, Ideologie und Propaganda, 1939-1945 (Stuttgart: Deutsche Verlags-Anstalt, 1982); idem, Die deutschen Eliten und der Weg in den Zweiten Weltkrieg (München: Beck, 1989); idem, Das nationalsozialistische Deutschland 1933-1945: Die Entfesselung der Gewalt- Rassismus und Krieg (Frankfurt am Main: Suhrkamp, 1996); Bernhard Kroener, "Squaring the Circle: Blitzkrieg Strategy and Manpower Shortage, 1939-1942," in The Germany Military in the Age of Total War, ed. Wilhelm Deist, (Warwickshire, U.K.: Berg Publishers Ltd., 1985); Avraham Barkai, Nazi Economics: Ideology, Theory, and Policy (New Haven/London: Yale University Press, 1990).

<sup>23</sup> Kroener uses labour deployment and military personnel policy to prove the nonexistence of a functioning *Blitzkrieg* strategy, or the administrative capacity to carry out such a plan.

arguments.<sup>64</sup> In other words, the highly controversial and still unresolved debate over *Blitzkrieg* is no longer of key interest to researchers, and as a result is being simplified or understated in the rush by historians to move on to other uncharted areas of study.

We must once again place the focus on the existence or non-existence of what is regarded as the *Blitzkrieg* strategy. But before we can do this, it is important to clarify the term *Blitzkrieg*, which has taken on a multitude of meanings throughout the scholarship of the past sixty years. Historians such as Klein regarded Germany's *Blitzkrieg*-style campaigns as military operations specifically designed to mitigate the structural limitations of the German economy. At the heart of this view is the deliberate limiting of Germany's economic and military mobilization, the maintenance of civilian production and consumption, and a plan to launch a series of short, limited *Blitzkrieg* wars against the Reich's weaker neighbours. Succeeding scholars who acknowledge the existence of a *Blitzkrieg* strategy – Milward, Volkman, Deist, Mason, and Barkai to name a few – have expanded on Klein's definition, and see it in its perfect state as a well-planned, precisely calculated military, economic, and political strategy: an ideal model, they argue, which the Third Reich tried, often unsuccessfully, to emulate. Finally, Overy, Murray, Mommsen, and other revisionist historians, in their desire to deny the existence of any planned strategy, define *Blitzkrieg* solely as a series of tactical and operational doctrines which were employed by the Wehrmacht on the battlefield during the Polish, French, and early Russian campaigns. The term *Blitzkrieg* thus has at least two completely distinct but valid meanings: one refers to the planned strategy as argued by Klein, Milward, and Volkman; the other refers exclusively to the military doctrine and tactics definition of the term.

The purpose of this thesis is to reexamine this entire debate, with the goal of putting forward a slightly more evolved revisionist interpretation which accepts the presence of a serious economic crisis in 1939, but which still rejects the notion of a planned *Blitzkrieg*

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<sup>64</sup> This is especially evident in the previously mentioned works of Barkai (who wholeheartedly accepts the existence of a planned and purposeful *Blitzkrieg* strategy), and Hayes (who, like Murray, argues the *Blitzkrieg* military strategy coincidentally suited Germany's economic capacity, and whose works rely heavily on Overy's research).

strategy. Chapter 2 examines the armament programmes of the individual services throughout the 1930s, and demonstrates not only how the rapid and unco-ordinated rearmament of the individual services brought about a severe economic crisis by 1938-39, but also how little effort was put into constructing a highly mobile force structure capable of undertaking swift military strikes across Europe. Chapter Three looks at the economic mobilization of the Third Reich, and details how National Socialist economic policy became the most important determinant of the nature and extent of German rearmament. The Four-Year Plan, whose goal it was to develop as thorough a war economy as possible, is found to have imposed such a heavy economic burden upon the economy, that the entire rearmament programme was in danger of collapse by 1938. Finally, Chapter Four addresses the larger issues of the *Blitzkrieg* debate: the growing economic crisis in 1938-39 and its part in contributing to the outbreak of war; the nature and specific character of the resulting conflict; the structure and performance of the military forces in wartime; and the degree of mobilization for war within the Reich economy from 1939-41.

## CHAPTER TWO German Military Rearmament, 1933-1939

A critical discussion of *Blitzkrieg* must begin with an examination of German rearmament throughout the 1930s, for the armament of the military services not only contributed to the premature outbreak of war in 1939, but also helped determine the nature and scope of the conflict. Contrary to the popular myth that the German military of 1939 was the product of methodical, efficient planning in an economy totally mobilized for war, the development of the Wehrmacht was a most inefficient undertaking characterized by a lack of co-ordination and co-operation. This is clearly evident with regard to the military's armament programmes of the 1930s. A close analysis of the content of these plans and the manner in which they were implemented suggests not only that the process of German rearmament was piecemeal and disorganized, but also that its magnitude was determined solely by the demands of the individual services. In turn, the armament programmes of the services, developed and instituted in complete isolation from one another, constituted the physical causes of the regime's growing economic difficulties after 1936. These difficulties were an inevitable consequence of the swift growth of the military and the massive expansion of the armaments industry over such a short period of time. The individual armament programmes also reveal what little in-depth thought and preparation went into the development of a military force supposedly designed solely for a series of rapid campaigns across Europe. In other words, German military leaders had no plans to construct a force structure composed primarily of armour and mechanized forces capable of rapid *Blitzkrieg* campaigns, nor was their aerial strategy centred specifically around support for the Reich's ground forces. Preparations, instead, were for a ground force composed primarily of traditional infantry divisions, and for an air force possessing a significant component of medium bombers. German military preparations under National Socialist direction from 1933 to 1939 were both disorganized and haphazard, with no specific designs for *Blitzkrieg*.

Limited and covert rearmament throughout the Weimar period had left the German

nation with a small but relatively capable defensive force by the time the National Socialists took over in January 1933. The Versailles Peace Treaty of 1919 had imposed punitive disarmament provisions on a people who felt little or no sense of war-guilt: the Reichswehr was limited to just 100,000 men; no tanks, military aircraft, or offensive weaponry of any kind was permitted; and the navy was reduced to a token fleet of defensive surface vessels under 10,000 tons. It was out of this environment that there emerged a commitment by Germany's political and military leaders to rebuild the nation's armed forces once domestic and international circumstances became more favourable. Military leaders such as General Hans von Seeckt, head of the Reichswehr from 1920 to 1926, moulded the Reichswehr into a highly efficient and professional force by placing special emphasis on modern technical and weapons training, effective communication systems, and tactical and strategic improvements.<sup>1</sup> He preserved the integrity of Germany's military administrative network by hiding staff officers and members of the old General Staff within various civilian departments of the government. Seeckt also fashioned a new *Wehramt* (Economic Mobilization Office) out of the former General Staff's economic department, to determine the total weaponry, raw material, and transport requirements of the military's service branches.<sup>2</sup> Finally, he encouraged military and industrial co-operation with Soviet Russia, which led to the establishment of covert German air and tank training schools, aircraft factories, and chemical plants in return for German technical assistance. As James Corum points out, Seeckt's efforts throughout this period helped the Reichswehr develop into a modern and élite fighting force:

By the mid-1920s the Reichswehr had become what von Seeckt wanted it to be: a superb cadre force with which to build a large, modern army. When von Seeckt resigned as army commander in 1926, the Reichswehr was a mature military force. Much of the old system, such as the General Staff, had been retained, but the army had undergone a comprehensive reform. The tactical doctrine of the air and ground

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<sup>1</sup> James S. Corum, *The Roots of Blitzkrieg: Hans von Seeckt and German Military Reform* (Lawrence, Kansas: University Press of Kansas, 1992), 49-50, 74-6, 94-6, 100-3, 107-11, 132-4, 169

<sup>2</sup> *Ibid.*, 37.

forces had been analysed, and a modern doctrine created. Enlisted and officer training programs had been established that were much more thorough than the old army's, and they effectively prepared the Reichswehr to employ its new tactics. The army had become more technically oriented and had begun an armaments program to build weapons that were tailored to its tactical doctrine.<sup>3</sup>

The general, and his successor Lieutenant-General Wilhelm von Heye, however, could not pursue their goal of a modernized Reichswehr in isolation. Co-operation from Germany's civilian political leaders was a necessary component in the rebuilding of the nation's military might.

Various politicians within the Weimar Republic supported a limited rearmament and assisted the Reichswehr's leaders in achieving this goal. Gustav Stresemann, Chancellor in 1923 and Foreign Minister from 1923 to 1929, helped foster a favourable political and diplomatic environment in which limited rearmament could take place. Viewing the army as a potentially stabilizing force in the nation, Stresemann tacitly encouraged the Reichswehr's co-operation with Soviet Russia, and conveniently overlooked the military's failure to fully disarm according to the provisions of Versailles. By including Germany in both the Locarno Pact of 1925 and the League of Nations in 1926, Stresemann was able to argue for general disarmament, or equality of armament among the powers, thereby easing the pressure on Germany to disarm. Unless it threatened his foreign policy goals, Stresemann was unwilling to oppose the military in its endeavours.

Otto Gessler, Minister of Defence from 1920 to 1928, was another Weimar politician who supported the general's plans to construct a small but capable military. He did everything in his power to ensure that neither Cabinet nor parliament hindered Seeckt's work, and he successfully shielded the Reichswehr and its leadership from parliamentary control or interference, thus providing the military with a large degree of independence:

To say that Gessler 'confined himself to signing the decisions of General von Seeckt' is rather unfair to the Minister; but he did secure Seeckt against attacks in press and parliament, and it was under the cover of his name and authority that

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<sup>3</sup> Ibid., 169.

Seeckt was able to carry out his work of reorganization.<sup>4</sup>

The sudden replacement of Gessler with Wilhelm Groener in 1928 marked a decisive turning point in the history of the Reichswehr, for Groener actively fostered closer ties between the political executive and the military. Viewing the army as an instrument of political leadership, the new Defence Minister sought to secure the implementation of future rearmament measures: he incorporated the cost of armament within the national budget, asserted political control over the deployment of the Reichswehr through his 1930 directive 'Tasks of the Wehrmacht', and helped develop two medium-term plans for rearmament.<sup>5</sup> As a result of these initiatives, Groener and the Reichswehr leadership were able to improve the quality of the army, expand its size and operational capacity, and implement its first comprehensive rearmament programmes.

The efforts made by Germany's political and military leaders throughout the 1920s and early 1930s resulted in the formation of an embryonic army with tremendous potential, an army upon which Adolf Hitler was able to build his massive war machine. To put it simply, rearmament during the Weimar period laid the groundwork for the ultimate expansion of the Reichswehr to the Wehrmacht: the change from a small defence-oriented fighting force to a large offensive army. It also enabled the National Socialist regime to expand the military at a much faster rate than would have been normally possible. Hitler and the NSDAP invariably profited from the work of Weimar's leaders. Thus, the post-war foundation for the German army, air force, and navy was laid not by the National Socialists in 1933, but by the leaders of the Weimar Republic.

Coming to a consensus on military and political goals early in 1933, National Socialist and Reichswehr leaders began the process of building a powerful army. The appointment of General Werner von Blomberg as *Reichsminister* of Defence in January

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<sup>4</sup> Gordon A. Craig, The Politics of the Prussian Army, 1640-1945 (Oxford: Clarendon Press, 1955), 385.

<sup>5</sup> Wilhelm Deist, The Wehrmacht and German Rearmament (Toronto: University of Toronto Press, 1981), 10-11.

1933 was the product of an alliance formed between Hitler and Germany's military leadership. Because Hitler considered a formidable army essential to his foreign policy goals, he assured the military that the nation's resources would be used to fulfill the Reichswehr's plans for expansion. Few of Germany's military leaders believed, however, that co-operation with the NSDAP would eventually compromise the autonomy of the army. Nevertheless, Hitler's commitment to the military was exemplified on 14 October 1933, when he withdrew Germany from both the League of Nations and the disarmament conference in which it was participating. Wilhelm Deist notes the effects of these decisions:

In effect, the withdrawal of Germany from the disarmament conference and the League of Nations... marked the final departure from Groener's policy of national defence, the main features of which had been its incorporation of political factors and its basis in the collective security system. The adventure of unrestricted rearmament had begun.<sup>6</sup>

Both the military and political will now existed for rebuilding Germany's military might.

The Reichswehr, having been freed from foreign-imposed military restrictions and disarmament commitments, was quick to implement its plans for rearmament. On 4 April 1933, defence planning, which had been previously managed solely by the Reichswehr ministry, was made the responsibility of the newly created Reich Defence Council. The Council, composed of the Ministries of the Interior, Foreign Affairs, Finance, Propaganda, and Defence, assumed control over all aspects of defence co-ordination and planning, and, as Matthew Cooper states, "had the effect of bringing the Armed Forces more closely under the control of the government, and, therefore, of Hitler, while at the same time ending the traditional position of the military as the sole advisers to the Head of State on such matters."<sup>7</sup> The decision to proceed with a large-scale rearmament plan came seven months later. The armaments programme of December 1933, which was an updated version of the

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<sup>6</sup> Ibid., 25.

<sup>7</sup> Matthew Cooper, The German Army, 1933-1945: Its Political and Military Failure (Lanham, MD: Scarborough House, 1978), 15.

second armaments programme of 1932, called for an expansion of the army to 300,000 men over a four year period. This peace-time army of twenty-one divisions, completed by March 1938, would form the basis of a future sixty-three division field army. Its military goal, according to an Organizational Department memorandum, was to build a peacetime, then field army which would be "capable of conducting a defensive war on several fronts with a good chance of success."<sup>8</sup> It soon became apparent, however, that while the plan provided enough resources for the construction of a peace-time army, it failed to supply sufficient resources for the planned field army.

The rapidity with which Germany's political and military leaders pursued rearmament after 1933 was demonstrated by the acceleration of the 'December Programme'. As early as May 1934, political pressure from both the Chancellor and from the Chief of the General Army Office, Colonel Fritz Fromm, was brought to bear upon the Chief of the *Truppenamt* (Troop Department), Lieutenant-General Ludwig Beck, to deploy the Programme's twenty-one divisions by October 1934. While Beck worried briefly that this move would compromise the military effectiveness of the understaffed and under-supplied units, he brushed this aside as well as warnings from the *Heereswaffenamt* (Army Ordnance Office) not to ignore the material requirements of such a decision. Beck went on to support what was basically an unco-ordinated, *ad hoc* intensification of the 'December Programme's' goals. This illustrated right from the beginning of the rearmament process, the High Command's unwillingness to systematically co-ordinate their rearmament measures or to take economic factors into account:

For Beck the armaments economy aspects of the build-up were certainly interesting and could be used to support military demands, but they played no role in his thinking and actions in his own area. This example shows that even the army leaders were not able to understand and evaluate the importance for warfare of the individual components of the armament programmes in the broad sense.... Now that the programme was being carried out, there was no co-ordination among the organizers of material rearmament, the personnel build-up, and the plans to actually use the army.... Because of this, and not only because of Hitler's interference, decisions affecting the whole rearmament of the army acquired the character of

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<sup>8</sup> Deist, The Wehrmacht, 30.

temporary, partial solutions.<sup>9</sup>

Rearmament thus proceeded with such great haste throughout 1934 that by February 1935, the army already numbered 280,000 men. Therefore, the *Truppenamt* quickly submitted a plan in March 1935 which called for a five-fold expansion of the peace-time army to thirty-six divisions, with the formation of a 700,000 man army by 1939.<sup>10</sup> It became apparent to Hitler and his military advisors, however, that this new programme could not be implemented without first overhauling restrictions on recruitment, and securing the Reich's vast industrial heartland in the West. General conscription had, by 1935, become a prerequisite for any further expansion of the army; consequently, it was introduced by Hitler on 19 March 1935. Similarly, Hitler argued that regaining control of the Rhineland was necessary to safeguard Germany's western border. Believing it to be the opportune time for such a daring foreign policy undertaking, Hitler sent troops into the Rhineland on 7 March 1936 against his generals' advice, and re-occupied the demilitarized territory. This not only provided the Reich with greater strategic security, but also strengthened the nation's economic capacity, ensuring the continuation and indeed hastening of rearmament. Just as the army's size and structure were changing, so too was its role as a fighting force.

The German army gradually evolved after 1935 from a purely defensive force to one which employed increasingly offensive tactics and formations. There is little doubt that the shift from Reichswehr to Wehrmacht was a long-term rearmament goal of Germany's political and military leaders stretching back to Stresemann and Seeckt. In the winter of 1935-36, Army High Command and the General Staff (formerly the *Truppenamt*) debated the merits of increasing the offensive capacity of the army. Central to this debate was the issue of mobility. During the Weimar years, the circumscribed size of the Reichswehr necessarily brought mobility to the forefront of military planning. Seeckt thus concentrated

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<sup>9</sup> Wilhelm Deist, "The Rearmament of the Wehrmacht," in Germany and the Second World War, Vol. 1, ed. Research Institute for Military History, Freiburg im Breisgau, (Oxford: Clarendon Press, 1990), 420.

<sup>10</sup> Corum, The Roots of Blitzkrieg, 200; Deist, The Wehrmacht, 37-8.

on building a small, but nonetheless manoeuvrable force out of the old Imperial tradition.

Corum states:

The economic problems Germany had in the early 1920s made any long-term motorization planning by the Reichswehr impractical. However, the growth of the German economy after 1923 coupled with an improvement in the motor industry's position and the lifting of Allied controls on the building of civilian tracked vehicles in late 1923 made the consideration of army motorization possible by 1925. Hans von Seeckt was not a tank tactician or armoured theorist, but from 1924 on, as the German Army was stabilized and the daily situation was no longer one of constant crisis, he pushed strongly for tank training and tactical development.<sup>11</sup>

Deist adds that the economic and military restrictions of the Versailles Treaty helped make the concept of mobility a central tenet of Reichswehr strategic doctrine, for they "led to the demand for a high level of mobility since quick successes only seemed possible if surprise tactics were used."<sup>12</sup> This was not a revolutionary concept, however, nor was it new to German strategic planning of the past. Germany's tenuous geographical location had led former military leaders such as Chiefs of the General Staff Helmuth von Moltke and Alfred von Schlieffen to argue for the exact same strategy in order to defeat Germany's enemies as rapidly and completely as possible before they could destroy her in a two-front war. Whereas Schlieffen described this as *Vernichtungsgedanke*, the idea of annihilation, Williamson Murray characterizes it as *blitzschnell* (quick, lightning-like), and notes that while its application to mechanized warfare marked a "revolutionary change in military operations", its role in the development and employment of armoured tactics was minimal.<sup>13</sup>

Chief of the General Staff Beck and other leading commanders had called for a similar focus on mobility in the Reichswehr's official statement of strategic doctrine, *Die Truppenführung* (1933). As Cooper notes, the work competently laid out the army's

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<sup>11</sup> Corum, *The Roots of Blitzkrieg*, 120, 132.

<sup>12</sup> Deist, *The Wehrmacht*, 41.

<sup>13</sup> Williamson Murray, *The Change in the European Balance of Power, 1938-1939: The Path to Ruin* (Princeton, NJ: Princeton University Press, 1984), 37.

tactical and strategic foundation for the next twelve years:

Initiative, decisive manoeuvre, and envelopment were the keynotes of the German tactical doctrine, and its success in the war years was to prove immeasurably superior to the methods of its enemies. Strategically, too, Die Truppenführung was far from reactionary, not only advocating the use of tanks and motorized transport to achieve the decisive destruction of the enemy, but doing so in a manner which contrasted with prevalent foreign doctrine.<sup>14</sup>

The basic strategies laid out in Die Truppenführung, however, differed very little in substance from those expressed by Beck's predecessors. While armoured divisions and mechanized units were now factored into the equation of 'modern' warfare, their role would be forever secondary to that of more traditional military formations:

The official strategic doctrine of the German Army as expressed in Die Truppenführung contained nothing that departed from the train of thought initiated by the first Chief of the Army General Staff some seventy years earlier. Infantry divisions, with their marching troops, horse-drawn guns, and wagons, would remain the deciding factor of the strategy of decisive encirclement, and the motorized infantry and armour would be subordinated to their needs. The new formations would serve as the 'cutting edge' of the infantry's flanking thrusts, using their superior speed, flexibility, and striking-power to penetrate the enemy's front line, destroy his artillery positions, rout his nearby reserves, and, finally, close the pincers around the opposing forces. But the emphasis would still lie on the infantry as the 'mass of decision', the means by which the ring round the enemy would be drawn tight and consolidated, and his resistance overcome. This is a theme continually expressed in the Army training manuals.<sup>15</sup>

In opposition to this limited and uninventive use of armour stood General Heinz Guderian and his small group of devoted officers. Guderian, who had been lecturing and writing on the subject since the mid-1920s, supported a more active and independent role for armour. Drawing much inspiration and knowledge from the works of British military writers Basil Liddell Hart and Major-General J.F.C. Fuller, Guderian developed a novel strategy, the armoured idea, based on the potential offered by these new weapons to revolutionize warfare. The two pillars of Guderian's theory, and later implementation in war, were

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<sup>14</sup> Cooper, 137.

<sup>15</sup> *Ibid.*, 137-8.

breakthrough, in which the armoured force focussed on the enemy's weakest point in a surprise attack, and penetration, in which the armoured and mechanized units alone drove deep into the enemy's rear. The result of these actions would result in "the unpredictability and momentum of the force now becom[ing] its primary weapon, for they [would] not only cause considerable disarray in the opposing command, but [would] also prevent the enemy from concentrating sufficient formations to put up an effective opposition."<sup>16</sup> While Guderian's revolutionary strategy, like the more traditional *Vernichtungsgedanke* strategy of armour deployment, required a versatile and manoeuvrable tank force, it violated the most basic and orthodox rules of warfare upon which German military strategy to this point had been founded:

The two concepts found themselves in direct conflict one with another. Physical destruction in one was supplanted by paralysis in the other as the primary aim; well-coordinated flanking and encirclement movements were replaced by unsupported thrusts deep into the enemy's rear areas as the method; guarded flanks and unbroken, if strained, supply lines gave way to velocity and unpredictability as the basic rules of operation; centralization of control was superceded by independence of action as the first condition of command; and the mass infantry armies, whether or not supported by tanks and aircraft, made way for the relatively small power-houses of the armoured divisions as the primary instrument of victory.<sup>17</sup>

Not surprisingly, Guderian's armoured concept proved to be too radical a strategy for the army's top leadership, a group of competent generals open to new ideas but unable to completely abandon their Imperial mind set. And their resistance to Guderian's new armoured strategy solidified at the very point when the army was preparing to develop its first armoured divisions. As will be seen, this new and effective force was welcomed by the Third Reich's political and military leaders alike, but its role was carefully delimited and its development closely monitored by the army's senior generals.

It was in the midst of this ongoing debate that the Chief of the General Staff released 'Considerations on Increasing the Offensive Capacity of the Army' at the end of

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<sup>16</sup> Ibid., 147.

<sup>17</sup> Ibid., 148.

1935. General Beck's memorandum outlined his conditional support for a motorization programme and an independent, operative armoured division. While the establishment of three armoured divisions was already underway by late 1935, his plan called for the development of twelve more armoured brigades to be ready by 1939. Questions regarding the financial implications of such a plan were dismissed outright by Beck, who, as Deist states, "Let it be known that neither financial nor economic difficulties would prevent him from pursuing the right military planning objectives."<sup>18</sup> More will be said of the Army High Command's disregard for the economic consequences of unrestricted rearmament in a later section. Beck's memorandum served to accelerate the rearmament process, and the remilitarization of the Rhineland only helped ensure the implementation of his plans. A new programme became a necessity by 1936, however, as the army swelled to 520,000 men, derailing the medium-term build up of 1935. The High Command's most ambitious armament programme to date was thus announced in August 1936.

The Army Armament Programme of August 1936 planned for a peace-time army of forty-six divisions numbering 793,410 men, of which 33,943 were officers, and a field army of seventy-eight divisions with a complement of twenty-one reserve divisions.<sup>19</sup> In total, field army and reserve personnel strength were to number 3,612,673 men. Provided the necessary materials and supplies were available, the formation of the peace-time army was to be completed by autumn 1939, and that of the field army by 1941.<sup>20</sup> The August Plan was not proof of a deliberate plan for war in 1939-40, however, for there is no evidence to suggest that serious, in-depth war plans had begun to be formulated at this time. Rather, it signalled a further acceleration and intensification of German rearmament.

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<sup>18</sup> Deist, "The Rearmament of the Wehrmacht," 436.

<sup>19</sup> The peace-time army's 44 divisions were to be composed of 32 infantry divisions, four motorized infantry divisions, three armoured divisions, three light divisions, one mountain division, and one cavalry brigade.

The field army's 78 divisions were to be composed of 72 infantry divisions, three armoured divisions, and three light divisions. The 21 reserve divisions were to be supplemented with seven armoured, one cavalry, and two mountain brigades.

<sup>20</sup> Deist, The Wehrmacht, 44-45.

Hitler's political will proved to be the most important motivating factor behind the increasingly rapid pace of rearmament; his political objectives, namely the restoration of German influence on the Continent, and the construction of a powerful military which could later be used to further his expansionist foreign policy, took precedence above all else. While there was growing consternation within the Army Ordnance Office, the General Staff, and the Wehrmacht's War Economy Staff over the apparently overwhelming financial requirements of such a plan - double those of the 1935 plan and four times those of the 1933 armament programme - the army leadership chose to ignore the economic repercussions of the August Plan, and proceeded with the uninterrupted and unregulated expansion of their service. Commander-in-Chief of the Army Werner von Fritsch's refusal to extend the length of the August Plan, and later his submission of build-up plans to Blomberg on 12 October 1936 clearly demonstrated this reality, as all economic concerns and matters of procurement were off-loaded onto other, more 'suitable' departments:

The economic consequences of rearmament, the enormous, continuous financial burden and possible effects on society, were of only very secondary importance for the military leadership. Surely there are few documents that so clearly express the reluctance or refusal of the military leaders at that time to face the consequences of their actions for the armed forces that were their responsibility. They concerned themselves primarily with the great goal of military policy, the build-up of an army capable of a 'strategic-defence' as an instrument of great-power policy in Europe. Fritsch avoided facing the effects of this objective in his own area of responsibility and simply claimed that it was not his province.<sup>21</sup>

After the army's last major peacetime armament programme was implemented in December 1936, economic difficulties began to be felt as early as mid-1937, when raw material shortages slowed the entire pace of rearmament, requiring an unending yet ineffective series of revisions to the plan. Shortages of copper, steel, and other industrial raw materials beginning in 1937 caused delivery delays, production bottlenecks, and severe shortages of military equipment and ammunition which plagued the planning departments of the army and Wehrmacht, and threatened to extend the completion time of the

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<sup>21</sup> Deist, "The Rearmament of the Wehrmacht," 443-4.

programme to 1943.<sup>22</sup> The programme also caused logistical problems for the military, as the army's rapid growth meant a shortage of well-trained officers and reservists. In the Reich Defence Committee's minutes of 21 April 1937, Colonel Georg Thomas, head of the Wehrmacht's War Economy Staff, warned that both the offensive and defensive capabilities of the armed forces were dependent on the overall health of the economy.<sup>23</sup> Colonel Alfred Jodl also noted that economic conditions now determined the pace of rearmament:

The speed [of rearmament] is dependent on the situation of the officer corps, the financial strength of the Reich, the supply of raw materials, and the performance of the armament industry. Unbelievable things have been accomplished in a short while, but the ultimate goal with regards to overall strength, weaponry, and stocks of materials and supplies has not yet been reached.<sup>24</sup>

Lieutenant-General Wilhelm Keitel, Chief of the Wehrmacht Office, spoke even more favourably about economic co-ordination and the importance of economic considerations: "The economy forms the prime, indivisible unit during wartime, and therefore must also be led as a unit in order to secure the weapons for the Wehrmacht and the livelihood of the people."<sup>25</sup> These warnings were not heeded by Army High Command, however, for unrestricted rearmament continued and inter-service rivalry for raw materials and labour increased. Twenty months later in December 1938, Keitel was forced to order drastic cuts in armament expenditure for the 1938-39 fiscal year. In addition, new projects were delayed, current project times were extended, and raw material quotas for each of the

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<sup>22</sup> University of Alberta Archives. Records of Headquarters, German Armed Forces High Command (Oberkommando der Wehrmacht/ OKW ), Wehrwirtschafts- und Rüstungsamt, National Archives and Records Administration, T-77. GOV DOC GC 01 0008, Reel 131. (Washington, D.C.: American Historical Association, American Committee for the Study of War Documents, 1956), Wi/ I F 5.560, "Sitzungsbericht zur 14. Sitzung des Reichsverteidigungsausschusses". Minutes and Preparatory Materials for 14<sup>th</sup> Session of Committee on Reich Defense, 21 April 1937. frames 863495-509.

<sup>23</sup> Ibid., 863472.

<sup>24</sup> Ibid., 863481.

<sup>25</sup> Ibid., 863509.

services were slashed, effective 1 January 1939.<sup>26</sup> The enormous and long-term economic burden imposed by the August Armament Programme coupled with the High Command's inability and unwillingness to take comprehensive economic planning seriously left the German army in a precarious state of readiness once Hitler undertook his plans for conquest.

What was the German army's state of readiness on the eve of war in September 1939? We must first acknowledge that the rearmament of the army throughout the 1930s had been a monumental and relatively successful undertaking both militarily and politically. Between 1933 and late 1939, the army experienced a 500 percent increase in active formations, a thousand percent increase in mobilized strength, and an expansion of the force to eighteen times its original size.<sup>27</sup> Once fully mobilized, it numbered some 3,706,104 men. The Austrian *Anschluss* had added six divisions to the German force, and the occupation of Czechoslovakia supplied enough vehicles and material to equip three German armoured units in the upcoming battles.<sup>28</sup> The August Programme's targets for personnel and active units had also been met and even exceeded by September 1939; the field army had planned for 102 divisions, and now comprised 103 divisions. Furthermore, Germany possessed Europe's most modern and potentially most powerful military force, a force of immeasurable importance to its Chancellor and to his plans for territorial expansion. In this sense, the growth of the German army from a limited defence force to an influential mass army capable of large-scale offensive operations over such a short period

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<sup>26</sup> U.S. Chief Counsel for the Prosecution of Axis Criminality, International Military Tribunal, Nazi Conspiracy and Aggression / Office of United States Chief of Counsel for Prosecution of Axis Criminality, vol. 3, (Washington, D.C.: United States Government Printing Office, 1946), doc. 1301- PS, 7 December 1938, 907.

Keitel's Order of 7 December 1938 reduced steel allocation by 30%, copper by 20%, aluminum by 47%, rubber by 30%, and cement allocation by 25-45%. From Jost Dülffer, Weimar, Hitler und die Marine, Reichspolitik und Flottenbau 1920-1939 (Düsseldorf, 1973), cited in Williamson Murray, German Military Effectiveness (Baltimore, MD: The Nautical & Aviation Publishing Company of America, 1992), 219.

<sup>27</sup> Cooper, 131.

<sup>28</sup> Deist, "The Rearmament of the Wehrmacht," 451.

of time was an unparalleled success.

There were bound to be difficulties with such rapid and uninterrupted rearmament, however, and the army's impressive mobilization and division statistics camouflaged some gross deficiencies. As has been mentioned before, there developed throughout the rearmament period a severe shortage of both commissioned and non-commissioned officers, and this reached critical levels by 1939. Three quarters of the Reichswehr's 4000-man officer corps formed the foundation for the new force, which experienced an expansion to over 100,000 in just six years. This invariably had a detrimental effect on quality, and as Cooper notes, "By September 1939, only about one in six officers was a fully trained professional. Standards inevitably deteriorated, for five-sixths of the officer corps had neither the knowledge nor, more importantly, the experience required."<sup>29</sup> Second, the army found it extremely difficult to provide adequate training for all of its servicemen or for those men eligible for service: thus, only 38 percent of eligible conscripts were fully trained by September 1939. This created a situation in which the peacetime army's 730,000 men and only 1.1 million from the field army had received sufficient training. Upon mobilization, the peacetime army was absorbed into the field army and reserve units were detached from the field army, leaving a Replacement Army of 958,040 men with little or no training.<sup>30</sup> But the army's problems were not limited solely to personnel shortages and training deficiencies.

The army's material readiness for war was in just as precarious a state as its manpower and personnel situation. Calls from Thomas and his staff in 1937 for a temporary moratorium on further motorization and the development of new troop divisions or reserve units due to continued shortages of steel and other necessary raw materials were ignored by the army's top leadership.<sup>31</sup> The High Command's failure to factor economic

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<sup>29</sup> Cooper, 160.

<sup>30</sup> Ibid., 161.

<sup>31</sup> OKW, NARA T-77/14, W/IF 5.114, "Vortrag über die wirtschaftliche Rüstungslage beim Führer," 18 August 1937, frames 724789-91, 724796-800.

concerns into their armament programmes, coupled with the generally unco-ordinated and inefficient organization of the German economy, thus resulted in chronic shortages of military equipment, motorized transport, and ammunition stocks, reaching a critical point by 1939. Military supplies and equipment from Austria and Czechoslovakia did much to temporarily improve the army's supply woes, but the continual introduction of new armament targets and civilian building projects had soon reversed this progress:

Hitler's demands for even more armament... resulted in a situation in which the field army was without supplies of weapons and equipment, thirty-four infantry divisions were only partially [equipped]..., the replacement army only had ten percent of the necessary guns, and total stocks of ammunition fell to a level sufficient for fifteen days of fighting.<sup>32</sup>

As of September 1939, fifty infantry divisions lacked sufficient small arms, most of which were of an outdated or obsolete design, and thirty-four divisions had no armoured cars. Anti-tank guns, light and medium mortars, and anti-aircraft (flak) guns were also in extremely short supply. Two months later, an internal monthly report admitted that the supply of munitions, especially artillery and heavy bombs, had been insufficient because no armament priorities had been established before the war.<sup>33</sup>

The most telling deficiencies, however, centred around the lack of motorization and the weaknesses within the panzer armoured divisions. Of the army's ninety infantry divisions, only four were completely motorized, while the remaining eighty-six had less than twenty-five percent of the vehicles needed for their transport.<sup>34</sup> After mobilization, just one in ten of the field army's divisions was motorized, and a mere one in twenty were panzer divisions. Although the army possessed a total of 3195 tanks in 1939, only 1944 tanks numbering twenty-six battalions comprised the armoured divisions. Against the advice of Guderian, the General Staff had placed the remaining nine battalions of 1251

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<sup>32</sup> Deist, "The Rearmament of the Wehrmacht," 454.

<sup>33</sup> OKW, NARA T-77/429, Wi/ I F 5.3575, "Interne Monatsberichte zur deutschen Rüstungswirtschaft," November 1939, frame 1291997.

<sup>34</sup> Cooper, 162.

tanks outside the realm of the armoured divisions, within various infantry units to form motorized infantry divisions and light divisions in 1938.<sup>35</sup> Furthermore, the six panzer divisions in existence by late-1939 were composed overwhelmingly of obsolete tanks with inadequate weaponry. Prototypes of the new PzKw III and PzKw IV battle tanks had been completed by 1936, but production of these heavier, better equipped units proceeded slowly, and by September 1939, the new models formed only a fraction of the total number of units:

Such was the state of the panzer arm at the time of the campaign against Poland that its main battle tank, the PzKw III, which was intended to provide three quarters of Germany's total tank strength, in reality composed only one thirty-second. Of a total of 3195 machines on 1 September 1939... only 98 were PzKw IIIs and 211 PzKw IVs. Germany's panzer force was committed to battle equipped mainly with training tanks.<sup>36</sup>

These figures demonstrate what Cooper describes as the "neglect and misunderstanding"<sup>37</sup> experienced by the army's panzer force. Not only did development of the force take place in a slow and piecemeal fashion resulting in a shortage of capable modern vehicles, but the organization of the force's small number of units into large, independent entities, as advocated by Guderian and his allies, was also resisted by the General Staff, in favour of a more decentralized approach. In this sense, the army's state of readiness on the eve of war in September 1939 was partial at best, with glaring inadequacies which would plague the German army throughout the wartime period.

The force structure of the German army, the small number of motorized and armoured divisions, and the ill-equipped status of the panzer divisions in 1939 all suggest the distinct absence of a *Blitzkrieg* plan. The nature of the German army in September 1939 was that of a mass army, consisting primarily of infantry divisions highlighted by token motorized and armoured divisions, whose doctrinal and strategic foundation rested

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<sup>35</sup> Ibid., 154.

<sup>36</sup> Ibid., 155.

<sup>37</sup> Ibid., 154.

squarely on the concept of *Vernichtungsgedanke*: well-co-ordinated encirclement, guarded flanks, and secure supply lines. It possessed 89 traditional infantry divisions which differed little from their Imperial predecessors, and a mere 14 motorized divisions, six of which were panzer.

Hitler did not understand the details surrounding the new mechanized tactical doctrine, and thus failed to recognize the awesome potential of such an innovative strategy. Furthermore, his constant demands for a large and powerful army and his obsession with the number of front-line units not only caused great economic and organizational difficulties for the military, but also influenced Army High Command's choices with regard to the size and character of its armed force. Nevertheless, Hitler had no direct involvement in the formulation of the army's strategic doctrine, nor did he interfere personally in the determination of rearmament measures prior to 1939.<sup>38</sup> These were left in their entirety to the army leadership and to those civilian and military figures guiding the rearmament economy. Surely, had the army been planning all along to fight a series of short, economically-limited *Blitzkrieg* wars, it would have favoured armoured and motorized divisions over infantry divisions, and would have concentrated its tanks into large, independent units in accordance with Guderian's armoured principle. This was a force which was neither designed for *Blitzkrieg*, nor adequately equipped for such a strategy:

It is on the military side of the argument that the *Blitzkrieg* strategy theory collapses. On the army side, the generals in charge of expansion emphasized a conventional army that in terms of its force structure differed only slightly from the French army across the Rhine. Consequently, the emphasis in pre-war German rearmament remained on World War I-style infantry divisions and not on the mechanized forces that B.H. Liddell Hart and other theorists had been advocating.... German infantry divisions marched on foot supported by horse drawn supplies and artillery. In terms of resources, German armoured forces received no more than their French equivalents.<sup>39</sup>

If nothing else, the army's motorization figures help prove that the development of an

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<sup>38</sup> Williamson Murray, German Military Effectiveness, 220; Cooper, The German Army, 84.

<sup>39</sup> Murray, German Military Effectiveness, 220.

armoured force was not *the* main concern for Germany's military leaders. While Army High Command and the German General Staff granted Guderian and his followers the freedom to develop and test new tactical doctrines, and permitted the formation of armoured brigades and divisions, they consistently restricted its role within the new Wehrmacht and overlooked many of its needs and concerns:

At no time was the German panzer arm given the status and the special attention by the military establishment that indicated they had accepted it as the most important component of a new form of warfare. Until the outbreak of war, as well as after, the men who dominated the Army High Command kept strict control over the development of the mobile arm and took steps to ensure that the tenets of the armoured idea found no expression in the composition and employment of the panzer troops. Revolutionary reorganization had no place in the German Army. Instead, the Third Reich's mechanized force was subordinated to the requirements of the traditional strategy of decisive manoeuvre by a mass army....<sup>40</sup>

The German army of 1939 was the farthest thing from a custom-designed force built specifically for *Blitzkrieg*. That it was so successful in rapidly defeating its enemies had more to do with the initiative of individual commanders under the doctrinal guidance of Guderian's armoured idea than with any force structure tailored around a *Blitzkrieg* strategy.

While the armament of the German Luftwaffe appears to be less significant in our discussion of *Blitzkrieg* than the rearmament of the army, it is by no means irrelevant. For the co-operation and co-ordination of both ground and air forces in battle formed a primary component of *Blitzkrieg* tactical doctrine as practised during the early campaigns of the war. Post-war scholars have also used air armament to support their *Blitzkrieg* strategy theory, arguing that the make-up of the air force, like that of the army, was constructed specifically for use in a series of short, limited wars against the Reich's weaker neighbours. The air force's armament effort, however, shows the opposite to be true. Like the army, the Luftwaffe was unable to settle on a clear strategic foundation around which to prosecute its plans for expansion. Instead, it was torn between two visions. This was in turn reflected in the service's increasingly unrealistic armament programmes after 1936, and in its force

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<sup>40</sup> Cooper, 158.

structure, which by 1939, lacked the capability to undertake either strategy. Finally, Luftwaffe High Command's inability to grasp the significance of close air support for ground forces, together with stagnating aircraft production due to economic limitations and technical failures, all indicate that air armament was far too muddled an undertaking to have been part of a consciously devised *Blitzkrieg* plan. Germany's Luftwaffe performed well during the early battles of the Second World War, but was under-equipped and ill-suited for a prolonged struggle.

The idea of a German air force began to take shape one year before the Nazi rise to power, but it was Hitler's appointment as chancellor in January 1933 which secured the future of the new service. Much to the chagrin of those in the army and navy aviation offices who had sought to prevent the organization of an independent Luftwaffe service, the new Reich Aviation Ministry (*Reichsluftfahrtministerium* or RLM) was established in April 1933. The formation of a separate and autonomous Aviation Ministry ensured that a future air force would not fall under army or naval control:

The setting up of the Ministry of Aviation in May 1933 had decided once and for all the question of the Luftwaffe as an independent and separate service within the armed forces. It almost goes without saying that the Luftwaffe's changed status opened up new perspectives both in armament objectives and in armament planning.<sup>41</sup>

It was to be led by the well-known World War I pilot and Nazi leader, Hermann Göring, as *Reichskommissar* for Aviation, with Erhard Milch serving as State Secretary of the *Reichskommissariat*. Both Hitler and Göring had been committed to the idea of constructing a large German air force long before 1933, but once in power, they were faced with the difficulty of building a fleet whose existence so clearly violated the terms of the Versailles Peace Treaty. The solution to this dilemma was supplied by Dr. Robert Knauss, director of the state-owned airline Lufthansa and former colleague of Milch's. His secret memo to Milch in May 1933 argued, first, that air power would be of decisive importance in any future conflict, and secondly, that a fleet of large heavy bombers could be used to

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<sup>41</sup> Deist, *The Wehrmacht*, 54; Williamson Murray, *Luftwaffe* (Baltimore, MD: The Nautical & Aviation Publishing Company of America, 1985), 6.

protect the Reich against pre-emptive strikes from France or Poland during the vulnerable period of army and naval rearmament. As Edward Homze notes, “The plan was a ‘risk’ strategy *à la* Tirpitz’s pre-1914 plan, but this time the risk fleet would be bombers instead of battleships.”<sup>42</sup>

This concept of a ‘risk air force’ met with the approval of both Aviation Ministry and State leaders alike, since it “offered a solution to the problem of how armament could be effected despite the risk of serious international developments.”<sup>43</sup> Based on preliminary studies from 1932<sup>44</sup>, Milch’s 1000-Aircraft Program was submitted in May 1933, and was soon rejected for being too overwhelming an endeavour for Germany’s tiny aircraft industry. His reworked programme of June, basically an improvised plan designed to prepare the industry for large-scale production, was approved, and a directive was issued on 12 July for the first phase of the build-up. A total of twenty-six squadrons, including ten bomber, seven reconnaissance, and seven fighter squadrons, were to be established as independent airborne units. The second phase of the plan, initiated in August, called for an additional twenty-nine combat units to be in service by October 1935.<sup>45</sup> The cost of these programmes was carefully hidden within the budgets of various unemployment work projects, and it was decided by Colonel Wilhelm Wimmer, chief of the Air Ministry’s Technical Office, that only one-fifth of any future funding would be recorded in the official public budget.<sup>46</sup> By late summer, however, military planning, which had paralleled that of the Aviation Ministry, found the 1000-Aircraft Programme to be inadequate; an interim

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<sup>42</sup> Edward L. Homze, Arming the Luftwaffe: The Reich Air Ministry and the German Aircraft Industry, 1919-39 (Lincoln and London: University of Nebraska Press, 1976), 55.

<sup>43</sup> Deist, The Wehrmacht, 55.

<sup>44</sup> These two studies or memoranda were each prepared by Lieutenant-Colonel Hellmuth Felmy and Captain Hans Jeschonnek of the Reichswehr in 1932.

<sup>45</sup> Homze, 74-5. These units would include 17 bomber, 8 reconnaissance, and 4 fighter squadrons.

<sup>46</sup> *Ibid.*, 75.

plan nearly twice the size of the old programme was subsequently introduced in September 1933. This new plan, based roughly upon the aircraft industry's capacity, was the last in a series of short-term arms programmes, for the rapid pace of rearmament and the burgeoning size of the Reich's military forces revealed the need for an expanded air force.

The first comprehensive procurement programme for the aircraft industry, the Rhineland Programme, was developed in January 1934 with plans to produce 3715 and later 4021 aircraft over the next nineteen months. It represented "the first attempt by the Air Ministry to co-ordinate all aspects of the production of aircraft."<sup>47</sup> The Luftwaffe's Air Acquisition Programme was attached to Rhineland just seven months later, and was the service's first long-term armament plan. It called for the building of 17, 015 combat- and training aircraft by 31 March 1938. Funding for the expansion of the aircraft industry came from Reichsbank President Hjalmar Schacht's new 'Mefo' bills<sup>48</sup>, and the aircraft industry's large and rapid growth was made further possible through the co-operation of aircraft and parts manufacturers, the Ministry of Aviation, and other military departments. By 1935, the Air Ministry's accomplishments were impressive. The creation of an efficient industrial base had meant a quadrupling of output in a mere eighteen months, and planning schedules corresponded almost perfectly to industry's production capability.<sup>49</sup> In early 1933, a total of 3988 employees worked for eight airframe and seven engine firms, most on the verge of bankruptcy. By late 1934, this had expanded to 53, 865 workers at fifteen profitable airframe and seven successful engine companies. Over the same period, there was a five-fold increase in the value of airframe production, and a 350 percent increase in the value of engine plant production. Employment in the aircraft industry had, by mid-

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<sup>47</sup> Ibid., 79.

<sup>48</sup> Mefo bills (Mefowechsel) were used as a form of exchange secured on a fictitious metallurgical research company, as a camouflaged means of financing rearmament. They had a six month life with a three month extension, but many were in circulation for up to four years. The program was cancelled by Hitler in March 1938.

<sup>49</sup> Deist, The Wehrmacht, 60-2.

1935, reached over 70,000, and annual aircraft production reached 5500 that same year.<sup>50</sup> Delays and shortages were, for the most part, successfully avoided, but difficulties arose with regard to technical possibilities. Because technological innovation was much more advanced than productive capacity, production had to be slowed to prevent a surplus of obsolete equipment. Nevertheless, the aircraft industry underwent unprecedented growth, and rearmament of the service proceeded relatively smoothly and efficiently:

The Luftwaffe build-up in the years 1933-6 was a period of comprehensive and cautious planning in which the Luftwaffe leaders tried to take into account the political, military, and technical-industrial factors involved in armaments programmes, although the difficulties and weaknesses, above all in personnel build-up and training, were obvious. These very energetic and successful efforts... differed strikingly from the narrow perspectives under which the armament programmes of the other two branches of the Wehrmacht were carried out.<sup>51</sup>

The success of this massive undertaking must be attributed in great part to the leaders who organized the development of the aircraft industry and the construction of the air force.

More so than in any other service of the armed forces, the Luftwaffe was blessed with exceptional leaders who were largely responsible for the well-organized build-up of the German air force throughout its early years. Homze writes:

The original team that Göring gathered around him worked smoothly and effectively during the first three years. The adroit placement of competent officers in key positions by [Hans-Jürgen] Stumpff, [Chief of the Personnel Office] insulated the Luftwaffe from the pernicious influence of enthusiastic but amateurish Nazis. Beneath Göring, the Luftwaffe was well led by Milch, the capable and energetic secretary of the ministry; Wever, the brilliant theorist and chief of staff; Wimmer, reliable and steady in the Technical Office, and his two assistants, Loeb in production and Richthofen in development; Kesselring in administration; Stumpff in personnel; and Fisch in general aviation. The party hacks and personal cronies of Göring had been relegated to prestigious but less important posts where they were isolated from the development of the Luftwaffe.<sup>52</sup>

Notwithstanding his role as Chief of Staff of the Aviation Ministry, Walther Wever proved

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<sup>50</sup> Homze, 78-9, 92-3, 98.

<sup>51</sup> Deist, "The Rearmament of the Wehrmacht," 494.

<sup>52</sup> Homze, 99.

to be a leader of particular significance, for he tried to bring about a revision or reorientation of the Luftwaffe's strategic goals and functional purpose. Wever's 1936 directive 'Aerial Warfare' argued that the Luftwaffe had outgrown its original role as a 'risk fleet', and must now be considered an offensive force. This new force should be prepared to battle other enemy air forces, provide operational support for the army and navy, and undertake aerial bombardment of the enemy's population and industrial base.<sup>53</sup> Wever thus proposed a new and innovative role for the service, and his directive of 1936, as Deist contends, "brought together all the ingredients of modern air warfare."<sup>54</sup> The synergistic relationship which had existed amongst the leadership of the Aviation Ministry and Luftwaffe came to an abrupt end, however, after the accidental death of Lieutenant-General Wever on 3 June 1936. It signalled an end to the period of efficiency and co-operation within the Air Ministry and foreshadowed a drastic turning point in the history of the service.

The process of arming the Luftwaffe became increasingly difficult and less successful after 1936. Having been appointed Commander-in-Chief of the Luftwaffe in 1935, Göring began to involve himself more directly in armament planning immediately after Wever's death. He appointed General Albert Kesselring to succeed Wever as Chief of Staff of the Luftwaffe, and, under pressure from Hitler, named the famed World War I ace General Ernst Udet to replace Wimmer as Head of the Technical Office.<sup>55</sup> These personnel changes proved to be disastrous, for they placed these men in positions unsuited to their expertise, created unnecessary rivalries within the service's top leadership, and eventually helped destroy the Luftwaffe's organized and unified structure.

Over the next three years, between November 1936 and March 1939, eight aircraft production programmes were introduced, each nullifying its predecessor, which called for

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<sup>53</sup> K.-H. Völker, "Dokument und Dokumentarfotos zur Geschichte der deutschen Luftwaffe," Beiträge zur Militär- und Kriegsgeschichte, 9 (Stuttgart, 1968) cited in Deist, The Wehrmacht, 64-5.

<sup>54</sup> Deist, The Wehrmacht, 65.

<sup>55</sup> Homze, 103.

large production increases of advanced combat aircraft. By 1937, however, aircraft production began to level out, and production soon stagnated rather than increased, as plans had predicted: "...as planning continued through 1937 it became clear that the *Umrüstung* (re-equipping) period would see a significant reduction in the number of types produced for a number of months in late 1937 and early 1938, as well as a lower overall production figure for 1938 than for 1937."<sup>56</sup> Production only increased slightly in late 1938 due to the implementation of Plan 8. Plan 8 was Hitler's response to the increasingly tense international situation which had developed around Czechoslovakia; it set higher production targets, calling for a five-fold increase in the size of the Luftwaffe by 1942, and attempted to increase output by specifying production priorities, especially medium bombers. The programme did facilitate a rise in monthly production to 750 and later 850 after June 1939, and while Richard Overy acknowledges it was "a leap forward", he concludes that "This proved to be too much for the available planning organization and industry to cope with... and [the plan] was subject to a successive series of reductions and modifications. The industrial goals set by the programme were unrealistic."<sup>57</sup> Inevitably, planning figures from 1938 had to be reduced by 20 percent in order to more accurately reflect real production levels within the aircraft industry. Twenty-one groups of 302 squadrons, a total of 4093 aircraft, were eventually amassed by September 1939. This force was composed of 613 reconnaissance aircraft, 771 fighters, 313 heavily-armed fighters, and 1542 bombers, 366 of which were dive bombers.<sup>58</sup> While the Luftwaffe was admittedly the largest and most modern air force in Europe by the summer of 1939, Great Britain's monthly aircraft production was just slightly less than that of the Reich, and continued deficiencies with regard to training and industrial co-ordination meant that the German Luftwaffe possessed only a short-term advantage. It was inadequately prepared for a

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<sup>56</sup> R.J. Overy, "The German Pre-War Aircraft Production Plans: November 1936 - April 1939." *English Historical Review* vol. 90, 357 (Oct 1975), 780-1.

<sup>57</sup> *Ibid.*, 782.

<sup>58</sup> Deist, "The Rearmament of the Wehrmacht," 503.

sustained conflict.

How was it, then, that the well-organized, competent Aviation Ministry and aircraft industry of 1933-6 had reached a point by late 1938-1939 where production targets and planning figures had hit utopian levels, and where aircraft production had stagnated and stalled at a time when the diplomatic situation was becoming more desperate? This state of affairs can be attributed largely to a combination of factors which came together to undermine the air force's rearmament effort. In addition to general economic problems like raw material, skilled labour, and foreign currency shortages which plagued the German economy throughout the latter years of rearmament, competition grew amongst the leaders of the Aviation Ministry, creating a multitude of authorities and a general state of disarray which, as Homze stresses, disrupted the entire armament process:

Udet's Technical Office, the general staff, Göring, Milch, and the aircraft designers vied with one another for control of the aviation program, but in the long run none of them managed to gain the control that Milch had had up to 1936. ...there was no authority, but many. Instead of a uniform, consistent policy toward the aircraft industry, there was confusion and chaos. Each firm tried to build everything from single-engined trainers to multi-engined bombers, and every effort to squeeze them into specialization was successfully countered.<sup>59</sup>

Second, this obvious lack of centralized leadership within the Ministry precluded the formation, let alone the implementation, of coherent production priorities. The General Staff and Technical Office not only set unattainable demands for the rapid design, engineering, and manufacture of aircraft, but also routinely shifted aircraft specifications and production targets, leading to a massive waste of time, materials, industrial capacity, and engineering skill.<sup>60</sup> Third, there was little or no guidance given by top commanders like Göring and Hitler as to the composition and strategic purpose of the new air force. This situation helped form a vacuum in strategic planning in which no one knew how large the air force should be, what it would be used for, and, thus, what types of aircraft were needed: "Long-range planning and strategic thinking went by the boards, and the Luftwaffe

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<sup>59</sup> Homze, 262.

<sup>60</sup> Murray, Luftwaffe, 13-14; Homze, Arming the Luftwaffe, 262-3.

increasingly became a force that reacted to day-to-day political and operational pressures."<sup>61</sup> Important design and production decisions had to be made by junior officers and low-level managers who were in turn under pressure to base their choices on the availability of scarce raw material and financial resources.<sup>62</sup> Finally, the switch in production from older aircraft to newly redesigned models began in late-1936, at the very same time that the Reich's economic and financial difficulties were intensifying. Consequently, aircraft output contracted sharply, and stagnated over the next two years, so much so that overall production was lower in 1938 than it had been in 1937.<sup>63</sup> Fierce antagonisms and a mass resistance to specialization throughout the industry only exacerbated the problem of low productivity during this period. In the end, each of these factors contributed to the increasingly incoherent and inefficient process that was air armament after 1936: taken together, they were responsible for the large discrepancy between planning figures and actual output which had reached critical levels by 1939.

Time was an essential, but scarce element in air armament. Hitler's continual demand for a large, modern air force and his increasingly radical diplomacy by the late 1930s meant that neither the Luftwaffe nor the aircraft industry was allowed to undergo the slow and evolutionary organizational development which is so necessary to the establishment of an effective military-industrial complex. As Overy suggests, the trouble with Germany's air armament was the extremely short period of time allowed for the development of a highly complex and technical industry:

There was... one industrial problem that the Nazis could do very little about. This was the general problem of building up an industrial sector geared to the requirements of a large-scale air force. This was a matter of time. It took years to train the workforce, to perfect tooling, and production methods, to dovetail research in aeronautics with design in the factory. It took an unpredictable amount of time to solve technical and developmental problems, and during the 1930's a span of four

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<sup>61</sup> Murray, *Luftwaffe*, 13; Overy, "The German Pre-War Aircraft," 788-9.

<sup>62</sup> Overy, "The German Pre-War Aircraft," 789-91.

<sup>63</sup> *Ibid.*, 781.

to five years for the development of one aircraft was the norm.<sup>84</sup>

Political pressure from a leader anxious to use the new Luftwaffe as an intimidating diplomatic tool or powerful new force in battle only served to intensify the service's already numerous growing pains. Hitler and Göring's decision to cease model development in favour of mass production in mid-1938<sup>85</sup>, followed by their late-1938 plan (Plan 8) for the quintupling of the Luftwaffe by 1942, both exemplify the time pressures and unrealistic expectations which were placed upon the aircraft industry and the civilian and military air administrations. They also indicate that the Reich's leaders now saw some sort of conflict as inevitable, and were preparing the service for that eventual reality by placing it squarely on a war footing. This persistent political interference along with the insufficient amount of time available for the consolidation of the aircraft industry severely hindered the Luftwaffe's pre-war armament effort.

The fact that the Luftwaffe's strategic vision was also in great disarray does much to disprove the argument that air force armament was tailored specifically to suit the requirements of a pre-determined *Blitzkrieg* strategy. Wever's 1936 directive had argued for the formation of a multi-purpose air force, capable of assuming a variety of roles, the most significant of which was air support for both the army and navy. But a popular aerial doctrine within the German Luftwaffe as well as in other Western air forces by the mid-1930s was the concept of strategic bombing. Murray notes that "Virtually every air force article in the major German military journals of the 1930s stressed 'strategic' bombing as the *raison d'être* of the Luftwaffe. As in other air forces of the time, Luftwaffe officers were intrigued with the possibility of 'strategic' bombing in all its various aspects."<sup>86</sup> Air force leaders thus faced two options: build either a 'strategic' bomber fleet of medium and

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<sup>84</sup> From the collection of Erhard Milch's files, l.iii. 805, "Denkschrift über Entwicklung und Entwicklungsplanung in der deutschen Lufrüstung" Imperial War Museum, London, cited in Overy, "The German Pre-War Aircraft," 792.

<sup>85</sup> Homze, 264-5.

<sup>86</sup> Murray, German Military Effectiveness, 220-1.

dive bombers, or a multi-purpose force composed of various aircraft types. The absence of clear directives from either Hitler or Göring concerning the Luftwaffe's strategic role, however, meant that both approaches were implemented, since those in direct control of the armament programmes had little idea what force was required, what type of war would be fought, and thus what types of aircraft were needed.

The result was an air force which evolved to a great extent not according to any well-defined strategic programme developed by the Air Ministry, but rather in response to the difficulties posed by raw material shortages and problems with bomber development. These difficulties helped bolster fighter production after 1937, and guided succeeding armament programmes towards greater fighter output: "The bomber became relatively much less important as the rearmament drive continued... [and] fighter production had increased over these three years [1937-39] at the expense of other types."<sup>7</sup> Thus by September 1939, the Luftwaffe possessed a slight numerical advantage in fighters over bombers (1697 to 1542). Air armament had by now become very much an ad hoc process and could hardly be considered part of a pre-determined strategy designed to provide maximum air support for German ground forces. Instead, the theory of close air support had been developed not by the air force's top leadership, but by Luftwaffe personnel fighting in the Spanish Civil War. In fact, "...no one in the Luftwaffe high command saw the need for such a capability... and only a small percentage of the Luftwaffe's budget went into the support of the army mission."<sup>8</sup> As in the case of the army, the Luftwaffe was inadequately prepared, both organizationally and materially, for the type of war which occurred. It adapted quickly to the unique conditions of the ensuing campaigns, however, employing previously tested operational and tactical concepts which ultimately contributed to the German victories in Poland, the Lowlands, France, and the Balkans.

Naval rearmament by its very nature has very little to do with *Blitzkrieg*, but it is somewhat significant to our discussion, for naval rearmament, like that of the army and

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<sup>7</sup> Overy, "The German Pre-War Aircraft," 784.

<sup>8</sup> Murray, German Military Effectiveness, 221.

Luftwaffe, placed enormous financial strains upon the national economy, thereby affecting both the timing and nature of the upcoming war. Minimal rearmament had taken place during the Weimar period because of restrictions governed by the Treaty of Versailles, and a lack of financial resources. Nor was naval rearmament a priority for the new German chancellor in 1933, and only after much persuasion by Admiral Erich Raeder, chief of the Naval High Command (SkI), was Hitler convinced that a strong fleet would be a formidable political instrument.<sup>66</sup> This led to the Replacement Shipbuilding Programme of March 1934 which disregarded foreign restrictions on tonnage, and planned for the construction of some 149 vessels of varying types by 1949.<sup>67</sup> The most important advance in naval rearmament, however, came in June 1935 with the signing of the Anglo-German Naval Agreement, which, as a precondition to any further naval development, linked the growth of the German fleet to 35 percent of British tonnage, and provided a diplomatic shield under which German naval rearmament could continue. It was in reality merely a temporary measure designed to assuage England's fears and pave the way for further naval armament: "In this respect the agreement of 1935 was only a form of camouflage, a diplomatic deception, and thus reflected Hitler's foreign-policy programme and Raeder's ideas about the future of the navy."<sup>68</sup>

German naval planning after 1935 focussed on the development of a 'balanced fleet' of fast, long-range surface vessels designed to sever an enemy's lines of communication. Partly the result of a renewed interest in the Mahanian principles of naval warfare<sup>69</sup>, and of the recognition of England as a potential threat after the partial

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<sup>66</sup> Deist, The Wehrmacht, 72-3.

<sup>67</sup> The Programme called for 8 battleships, 3 aircraft carriers, 18 cruisers, 48 destroyers, and 72 submarines to be built by 1949. (Deist, The Wehrmacht, 73.)

<sup>68</sup> M. Salewski, "Marineleitung und politische Führung 1931-35," cited in Deist, "The Rearmament of the Wehrmacht," 465.

<sup>69</sup> Mahanian concepts such as 'the decisiveness of big battles' and 'command of the sea' necessitated a powerful surface fleet.

mobilization of Czech forces in May 1938<sup>73</sup>, the decision in favour of a large surface force seems also to have been an inevitable product of Hitler's intervention; he actively encouraged the construction of a formidable surface fleet which could eventually challenge the British and American navies. Furthermore, Hitler insisted to Raeder and the Naval High Command (Skl) in 1939 that the navy would have five years of peace during which it could continue rearming. Raeder recounts these promises in his memoirs:

Hitler himself had repeatedly reassured me that the fleet would not be needed before 1944 at the earliest.... He again assured me emphatically that... political developments were in the making which would give us ample time for an unhurried, peaceful naval expansion. Not once in this time [January 1939] did he direct that we drop our long-range plan and take up the quicker short-term construction plan instead. I, and all the rest of the Navy, had to take it for granted, then, that Hitler's knowledge of our inferior naval position compared to England's for years to come, would induce him to talk very cautiously when dealing with that country.<sup>74</sup>

Political and diplomatic developments throughout 1939, however, soon helped nullify the navy's fleet-building plans.

Hitler's *Führer Directive* of 10 May 1939 laid out the regime's new priorities with regard to naval warfare, and directed the navy to begin preparations for a *guerre de course* (commerce) war against British and French merchant shipping.<sup>75</sup> By this point, Naval command appeared to be in a state of disorder as it was forced to reconcile its long-term Tirpitzian plans with the reality that war with England had arrived. After Britain's declaration of war on 3 September 1939, construction of all large surface vessels except battleships was suspended, and a plan to complete 272 U-boats by 1943, the 'Large U-boat Programme', was adopted on 6 October 1939 in order to facilitate a war against British

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<sup>73</sup> The consideration of a naval war with England was outlined in the *Heye Denkschrift* (August 1938), a memorandum authored by Commander Hellmuth Heye of the Operational Division, Navy High Command, at Admiral Raeder's request.

<sup>74</sup> Admiral Erich Raeder, *My Life*, trans. Henry W. Drexel, (Annapolis: United States Naval Institute Press, 1960), 269-70, 274.

<sup>75</sup> Enclosure to "Directive for the Uniform Preparation of War by the Armed Forces, 1939/40, Berlin, 10 May 1939" in *Führer Conferences on Naval Affairs, 1939-45* (Annapolis: United States Naval Institute Press, 1990), 30.

commerce. Considering the lack of pre-war preparations and the more pressing material and labour requirements of the army, the programme was completely unrealistic, and had to be postponed, and finally cancelled in favour of a limited plan in July 1940.<sup>76</sup> In less than eight months, the navy's pre-war planning was completely overturned due to its inability and unwillingness to take a realistic and cautious approach to its own rearmament.

Economic difficulties brought about by the military's rapid and unregulated rearmament eventually helped determine the nature and scope of the navy's pre-war build-up. Despite Hitler's frequent calls for further rearmament, the navy could not escape the reality that shortages of raw materials, labour, and foreign currency reserves continually hampered its rearmament effort as early as 1935, and caused production delays of up to twelve months by 1937. Similar to the case of increased fighter output in the Luftwaffe after 1936, shortfalls in steel and non-ferrous metals<sup>77</sup>, in addition to technical difficulties with the development of large diesel engines, compelled the navy to shift production priorities toward increased submarine construction. Despite the obvious limiting influence of economic factors on naval rearmament, the navy's planning figures and forecasts progressively became more economically unrealistic as the gap widened between planned output and actual output. Deist contends that "The planning of the navy high command for the coming years [after 1936] gives one the impression that all restrictions had been deliberately pushed aside."<sup>78</sup> Raeder's construction plan of December 1937 along with the massive Z-Plan of January 1939<sup>79</sup> only served to exacerbate the nation's economic and

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<sup>76</sup> Eberhard Rössler, "U-boat Development and Building," in The Battle of the Atlantic 1939-1945: The 50<sup>th</sup> Anniversary International Naval Conference, eds. Stephen Howarth and Derek Law, (London/Annapolis: Greenhill Books/Naval Institute Press, 1994), 125-6.

<sup>77</sup> OKW, NARA T-77/14, Wi/IF 5.114, "Vortrag über die wirtschaftliche Rüstungslage beim Führer." 18 August 1937. frames 724790-91.

<sup>78</sup> Deist, "The Rearmament of the Wehrmacht," 468.

<sup>79</sup> The programme focussed priority on the building of 10 battleships, 3 battle cruisers, and 4 heavy cruisers, despite growing fuel shortages, shortfalls in labour and materials, and complex technical difficulties with weapons systems. See William Carr, Arms, Autarky, and Aggression: A Study of German Foreign Policy 1933-39 (London: Edward

financial woes, and distort further the High Command's surreal planning expectations.

The navy's pre-war rearmament effort was a relative failure; on the eve of war, the Reich possessed forty-four surface ships and fifty-seven submarines, only twenty-six vessels of which were operational on 3 September. Furthermore, the navy was the least prepared of the three services for a protracted conflict, and the rapid neutralization of its surface fleet once hostilities began served as proof of this. Overall naval rearmament was characterized by an inefficient use of scarce material and labour resources which, together with the army and air force's armament programmes, precipitated a series of economic crises throughout the Reich after 1936. These crises in turn endangered not only the navy's rearmament plans, but also those of the entire German military.

The armament efforts of the army, Luftwaffe, and navy all demonstrate that German rearmament, rather than being a well-planned and centralized process, amounted to nothing more than a collection of independent armament programmes initiated not by the Wehrmacht leadership, but by the individual services. There appears to have been little if any consideration of the Wehrmacht's needs as a whole, and no evidence of even the most basic co-ordination of armament initiatives. Instead, the programmes were developed and implemented by the services in complete isolation of each other and of their economic and financial ramifications. The result was a rapid and uninterrupted expansion of the service branches:

Hitler's expansion of the Wehrmacht amounted rather to a fundamentally unco-ordinated expansion of its individual services. An overall rearmament programme for the Wehrmacht did not exist. Decisions on the basic programmes of each of the individual services were made without consulting or taking advice from the other two. The Wehrmacht was thus little more than the sum of its three distinct parts.<sup>80</sup>

Why did this occur? Most importantly, each of the services jealously guarded its independence and refused to submit to overall Wehrmacht authority. Field-Marshal von Blomberg, War Minister and Commander-in-Chief of the Wehrmacht until his dismissal in

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Arnold, 1972), 113.

<sup>80</sup> Deist, The Wehrmacht, 91.

1938, had been given the responsibility of uniting these separate services under Wehrmacht control, and of keeping the services' rearmament programmes economically viable and politically acceptable.<sup>81</sup> But all of the services, especially the Luftwaffe and navy, fought bitterly against any attempt to subordinate their independence. At the heart of these actions was the military leadership's refusal to recognize or deal with the economic and financial limits of rearmament: "The expansion of the individual services was a result not only of unsolved organizational problems but also of the inability of the military leaders to comprehend adequately the radically changed relationship between armaments and the economy ever since the First World War."<sup>82</sup> Any pressure to co-ordinate armament plans which had existed during the Weimar period disappeared after 1933 once the National Socialists made rearmament their main priority. Consequently, none of the Wehrmacht's three services was adequately prepared for the protracted conflict which began in 1939. While Blomberg was ultimately unable to centralize control under Wehrmacht command, Hitler must ultimately be held accountable for the failings of the Wehrmacht.

Hitler made little or no effort as both leader of the Reich and Commander-in-Chief of the Wehrmacht after 1938 to encourage co-operation amongst the individual services, or basic co-ordination of their rearmament measures. As we have seen, Hitler in fact encouraged competition between the services by hastening rearmament and allowing the proliferation of departments responsible for armament measures. Not once throughout the pre-war period did he force the three services to co-operate, nor did he issue any orders calling for the co-ordination of their armament programmes or the establishment of a central agency responsible for the Reich's entire rearmament programme.<sup>83</sup> Furthermore, Hitler refused to give Blomberg and the Wehrmacht the authority necessary to centralize, organize, and rationalize German rearmament, since this could pose a potential threat to his own position: "Hitler had no intention of allowing a subordinate such a concentration of

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<sup>81</sup> Ibid., 93.

<sup>82</sup> Deist, "The Rearmament of the Wehrmacht," 505-6.

<sup>83</sup> Ibid., 506.

power. Thus, rearmament programs proceeded in the late 1930s independently of each other, with increasing clashes over scarce resources, and with a darkening economic outlook that made it doubtful whether any one program could succeed, much less all three."<sup>84</sup> Hitler's actions, or lack thereof, thus resulted in a waste of precious resources, a lack of industrial and military efficiency, and increased pressure on German industry to satisfy the inflated needs of the three competing services with very limited resources and industrial capacity.

The only department which consistently supported a unified rearmament plan for the entire German military was the Wehrmacht's Defence Economy Staff or *Wehrwirtschaftsstab* (W-Staff)<sup>85</sup>, headed by Major-General Georg Thomas. Established in 1924 as the Economic Staff of the Reichswehr, the office was reorganized in 1934 under the new title *Wehrwirtschafts- und Waffenwesen* (Defence Economy and Weapons Affairs). Its responsibilities included determining the allocation of strategic raw materials, expanding plant capacity, and distributing military contracts; preparing the economy for mobilization and conversion to war production; planning for armament production in wartime; and serving as the Wehrmacht's agency for foreign economic intelligence, and main representative with state and party offices on economic affairs.<sup>86</sup> The W-Staff sought to bring control of the three services' rearmament programmes under Wehrmacht command so that these armament plans could be co-ordinated and resource allocation could be rationalized. But Thomas' department in the end had very limited influence on the direction or scope of pre-war rearmament, for it was given no authority over the individual services' armament programmes. The W-Staff therefore played only an advisory role, particularly concerning relations between the Wehrmacht and industry:

The war-economy staff was limited from the very beginning to a consulting and, as

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<sup>84</sup> Murray, The Change in the European Balance, 29.

<sup>85</sup> Thomas' department was later known as the Defence Economy and Weapons Office (*Wehrwirtschafts- und Rüstungsamt*).

<sup>86</sup> Berenice A. Carroll, Design for Total War: Arms and Economics in the Third Reich (The Hague: Mouton & Co. N.V., 1968), 110.

far as possible, mediating function; it was never able to exercise any important influence on key decisions. As a result the influence on development of the only agency that attempted to achieve a co-ordination of Wehrmacht armament programmes must be described as very limited.<sup>87</sup>

At the height of its power from 1940 to 1942, Thomas' *Wehrwirtschafts- und Rüstungsamt* ran hundreds of military-economic agencies across Europe<sup>88</sup>, but its power quickly waned once it was absorbed into Albert Speer's administrative network in 1942. Despite his office's limited influence, Thomas lectured widely and regularly advised the Reich's top political and military leaders, all in support of greater co-operation amongst the services and of a greater awareness of the economic consequences of their rearmament measures. More will be said of his role in German rearmament in the following chapters.

To conclude, this examination of the three military services' rearmament programmes during the pre-war period indicates the total absence of precise building plans for a pre-determined *Blitzkrieg* strategy, and identifies these armament plans as the main cause of the regime's desperate economic state by 1939. Neither the army leadership nor that of the Luftwaffe had any clear conception as to what type of force would be required in a future conflict, ergo each service's ambiguous, incoherent strategic vision torn between two diametrically opposed doctrines: the traditional *Vernichtungsgedanke* versus the innovative armoured idea in case of the army, and the Luftwaffe's strategic bombing strategy versus the deployment of a multi-purpose air force. Consequently, both the army and air force constructed hybrid forces in a chaotic and disorderly manner which managed through the brief, limited campaigns, but ultimately collapsed under the weight of a war of attrition. Even success in the Polish and French campaigns would have been far less certain had it not been for the implementation of the military's novel tactical and operational theories. Furthermore, the economic and financial burden placed upon the German economy by the services' rearmament programmes after 1936 became the main determinant of the character and tempo of these very programmes. As we will see, the

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<sup>87</sup> Deist, "The Rearmament of the Wehrmacht," 507.

<sup>88</sup> Carroll, 39.

Reich's bleak domestic economic situation in 1939 was a crucial factor in Hitler's decision to risk a limited confrontation in order to continue rearming.

### CHAPTER THREE    **Large-scale Economic Mobilization as an Indicator of Total War Preparations**

The National Socialists came to power in January 1933, at a time when Germany was in the midst of the most severe economy crisis of the century, the Great Depression. Determined to rebuild the German military, Adolf Hitler and the party leadership sought to implement economic and financial measures which would make large-scale rearmament the foundation for Germany's economic recovery and expansion. The New Plan of 1934, created by Reichsbank President Hjalmar Schacht, was designed to improve Germany's balance of payments through state regulation of imports and exports, and ensure that Germany's foreign trade would serve the needs of its rearmament economy. However, the temporary nature of the plan, and its inability to fulfill all of its intended goals, led to the implementation of the Four-Year Plan in 1936. Designed to maintain the military's extensive rearmament programmes and further the rapid pace of rearmament, the Four-Year Plan also sought to establish the economic foundation upon which expanded armaments production could eventually take place. One goal of the plan, the implementation of a limited degree of self-sufficiency, was made possible by first extending the Reich's political, then economic influence into south-east Europe in the hopes of forging a *Großraumwirtschaft* (large-area economy) from the nations of south-east Europe, and acquiring the region's raw materials and foodstuffs which were essential for German rearmament. The Four-Year Plan's in-depth preparations and long-range enterprises stand as proof of the regime's plans to fight not a series of *Blitzkrieg* wars in 1939, but a total war sometime in the early 1940s.

Immediately after coming to power in 1933, Hitler and his government implemented a series of economic initiatives in an effort to reduce crushing unemployment, kick start the depressed German economy, and pave the way for economic recovery and military expansion. In February 1933, the Short-Term Plan was put into effect; it was designed primarily to reflate the economy, stimulate private industry, and lower unemployment through a series of tax concessions, government subsidies, and public works

projects.<sup>1</sup> While the previous governments of Franz von Papen and Kurt von Schleicher<sup>2</sup> had developed the Plan after belatedly recognizing the need for government intervention in the economy, they simply lacked the time to implement it. The Rheinhardt job-creation programmes<sup>3</sup> of June and September 1933 were also attempts to revitalize the economy. Job-creation was the preferred method of government intervention, for it helped stabilize the political and social systems, and, more importantly, directed financial and material resources towards projects which, both directly and indirectly, contributed to the initial stages of military rearmament and the revitalization of Germany's armed forces. Indeed, Hitler had personally argued from the early years of his rule that "Any publicly supported job creation measures must be judged according to whether it is necessary" for the "remilitarization of the German people. This consideration must always and everywhere come first."<sup>4</sup> Besides working in the building and agricultural sectors, Germany's unemployed were set to work improving and expanding the facilities of the armed forces: roads, bridges, and fortifications were constructed for the army; shipyards, ports, and docks were built or expanded for the navy; and anti-aircraft installations were provided for the

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<sup>1</sup> William Carr, Arms, Autarky, and Aggression: A Study of German Foreign Policy 1933-39 (London: Edward Arnold, 1972), 23.

<sup>2</sup> Franz von Papen's government lasted from July to November 1932. Kurt von Schleicher's short-lived government was in office between December 1932 and January 1933.

<sup>3</sup> Fritz Rheinhardt had been appointed State Secretary in the Ministry of Finance in May 1933, and was given the task of developing a job-creation programme to stimulate the national economy. His two plans, which focussed on infrastructure improvement in the building and transportation sectors, provided work for roughly 3 million unemployed over the next 18 months. See Hans-Erich Volkmann, "The National Socialist Economy in Preparation for War," in Germany and the Second World War, Vol. I, ed. Research Institute for Military History, Freiburg im Breisgau, (Oxford: Clarendon Press, 1990), 225.

<sup>4</sup> Excerpt from minutes of ministerial conference, 8 February 1933, cited in Volkmann, "The National Socialist Economy," 222.

fledgling air force.<sup>5</sup> The army's Second Armament Programme, as well as the armament programmes of both the air force and navy, also helped decrease unemployment throughout 1933 and 1934 by stimulating demand for tanks, aircraft, and other war and industrial materials. These direct orders not only provided a tremendous stimulus to the economy, but also helped redirect the orientation of the German economy. The most visible and high profile job-creation programme was, of course, the construction of the *Reichsautobahnen* (national highways), which had the full support of Hitler and the Reichswehr leadership because of their obvious strategic and military benefits. The nature of these early work-creation programmes, however, is a contentious issue amongst historians, especially concerning the extent to which make-work projects were simply rearmament measures in disguise. While R.J. Overy contends that the vast majority of job-creation funds, about eighty-two percent, was spent on civilian infrastructure projects, he acknowledges the great difficulty involved in determining the purpose and effect of such programmes:

...rearmament went well beyond military production. Historians here make a distinction between *direct rearmament* (military output) and *indirect rearmament* (the supply of raw materials, machinery, factory equipment, infrastructure investment, etc. necessary to sustain military output and military capability). The difficult thing is to decide where to draw the line. In the German case any definition is complicated by the fact that Hitler was committed from the outset to remilitarizing the German state and strengthening the economy in ways which would be strategically useful.<sup>6</sup>

Many historians, however, have accepted to a varying degree that the make-work projects of 1933 and 1934 were of strategic value both directly and indirectly to the military. For our part, we cannot ignore the fact that these job-creation schemes reinfused the depressed economy, stabilized the economic and social systems, restored confidence in the government, reconstructed the nation's infrastructure and transportation network, and generally created an environment in which large-scale rearmament could flourish.

A necessary prerequisite of the regime's job-creation and rearmament plans was the

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<sup>5</sup> Volkmann, "The National Socialist Economy," 226.

<sup>6</sup> R.J. Overy, *War and Economy in the Third Reich* (Oxford: Clarendon Press, 1994), 8.

establishment of a stable financial foundation, something which proved to be a challenge in a period of shrinking government revenues and depressed economic activity.

Responsibility for stabilizing the German economy fell to the newly appointed Reichsbank President Hjalmar Schacht, a sympathetic banker who, apart from imparting legitimacy to National Socialist economic plans, favoured providing the government with the necessary economic and financial resources for rearmament.<sup>7</sup> Schacht's first innovation came in 1933 with the introduction of a new form of deficit financing. 'Mefo' bills were a type of short-term credit drawn by the armament contractor and accepted by the *Metallurgische Forschungsgesellschaft*, a dummy corporation for the Reichsbank. Mefo bills were used exclusively for financing rearmament, so that from 1934 to 1936 they accounted for approximately fifty percent of arms expenditures.<sup>8</sup> The primary advantage of the bills was the secrecy which they provided during the early years of rearmament. This secrecy not only prevented fears of rampant inflation from such massive expenditures, but also concealed the regime's efforts to construct a rearmament economy:

Hitler realized that the initial phase of rearmament would be the most difficult and dangerous in terms of foreign policy. The immediate task was to get through the period of impotence that would elapse between staking the claim to remilitarization and securing its acknowledgement or acceptance by the Western powers... in short, to emerge from the zone of real risk during the first stage of rearmament.<sup>9</sup>

The Mefo bills were finally cancelled in 1938 when full production was reached and funds could be obtained from taxation and short-term loans. The economic measures taken in 1933 to stimulate the economy and obtain adequate funding for the military's initial rearmament programmes proved to be very successful; unemployment, which in 1933 had

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<sup>7</sup> Carr, *Arms, Autarky*, 24.

<sup>8</sup> J. Noakes and G. Pridham, eds., *Nazism: A History in Documents and Eyewitness Accounts, 1919-45*, Vol. I. (New York: Schocken Books, 1983), 266-7. Mefo bills had a six month life with a three month extension, but many bills were in circulation for up to four years.

<sup>9</sup> Volkman, "The National Socialist Economy," 223.

been one of the regime's most pressing concerns, was cut in half by March 1934.<sup>10</sup> These basic measures, however, did not adequately address the long-term difficulties surrounding Germany's extensive rearmament plans. Since the government was reluctant to formulate a comprehensive economic strategy, just as it was unwilling to formulate a long-term rearmament plan for the military as a whole, Schacht was soon forced to launch additional short-term policies which would remedy the situation.

Schacht introduced the New Plan in September 1934 in response to the growing concern over Germany's foreign debts and balance of payments throughout 1933 and 1934. Although German reparations had been cancelled at the Lausanne Conference in June 1932, Germany still had to contend with several medium-term foreign loans used to pay for earlier reparations payments. By 1934, Schacht feared that Germany's foreign exchange would have to be diverted away from imports of raw materials necessary for rearmament and redirected to deal with this outstanding debt.<sup>11</sup> In addition, Germany's balance of payments had shifted from a surplus of 667 million RM in 1933 to a deficit of over 284 million RM by 1934. This trade deficit, caused by a decline in the demand for German exports and by the large amounts of raw materials imported for rearmament and work creation programmes, threatened to completely deplete the Reichsbank's reserves of foreign exchange.<sup>12</sup> Schacht was therefore appointed Minister of Economics in July 1934, and given almost dictatorial powers in order to deal with the foreign exchange crisis. His first step was to impose an immediate moratorium on German debt payments "in order to stop the outflow of precious foreign exchange as interest payments."<sup>13</sup> The next step was to introduce an extensive economic programme. Based on the principles of foreign exchange and import regulation, the New Plan was designed to tailor Germany's foreign trade to the

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<sup>10</sup> Ibid., 233.

<sup>11</sup> Nuremberg Document 436-EC, in Noakes and Pridham, Nazism: A History in Documents, I, 268.

<sup>12</sup> Ibid.

<sup>13</sup> Carr, Arms, Autarky, 39.

needs of the new rearmament economy. It provided for state regulation of German imports through the strict supervision and allocation of foreign exchange. Importers now needed to obtain foreign exchange clearance and special permits before they could import their goods.

As a memo to all German embassies stated:

In future, all German imports will be regulated and they will be controlled by Supervisory Offices. Within the framework of a general allocation system the Supervisory Offices will issue foreign currency permits to importers before transactions are concluded .... These foreign currency permits ensure priority for foreign exchange allotments.<sup>14</sup>

Furthermore, imports were strictly limited to vital foodstuffs, raw materials, and semi-manufactured goods. The memo went on: "It is assumed under the New Plan that, in view of the decline in German exports and the consequent decline in foreign exchange receipts, the issue of foreign currency permits will be to a large degree restricted to vital foodstuffs as well as to raw materials and semi-manufactured goods. Even here considerable restrictions will have to be imposed."<sup>15</sup> In this way, the historians J. Noakes and G. Pridham note, "the government [could]... plan ahead for imports and... allocate foreign exchange according to its own priorities rather than those of the individual importers. The Government could determine not only what goods and raw materials should be imported, but also from where they should come."<sup>16</sup> Tight control of foreign trade was also accompanied by the need to boost exports and fulfill the material needs of rearmament by seeking out new trading partners and more beneficial trade relations. Germany's new economic and political relations with the Balkan nations helped fulfill this need.

Schacht's New Plan marked the first phase of German economic and political penetration into south-east Europe. Since the end of the First World War, the Balkans had faced unceasing political and social disunity in which the existing order was constantly

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<sup>14</sup> "Circular of the Foreign Ministry," 20 August 1934. Documents on German Foreign Policy, 1918-1945. Series C, vol. 3. (Washington, D.C.: United States Government Printing Office, 1957), doc. 169, 344.

<sup>15</sup> *Ibid.*

<sup>16</sup> Noakes and Pridham, Nazism: A History in Documents, I, 273.

under threat. By the early 1930s, this instability, coupled with heavy financial debts, limited the political freedom of these states, and made them open to solutions offered by any of the great European powers, including the new Nazi regime in Berlin. Furthermore, the Balkan states were extremely anxious to trade with any nation willing to purchase their relatively expensive agricultural, forestry, and mineral resources. Economic co-operation between Germany and the Balkans initially appeared mutually beneficial, for the region possessed a large surplus of those very resources which were most needed by Germany. The New Plan sought to link the economies of south-east Europe with that of the Reich by means of bilateral clearing agreements which would not only guarantee a secure source of essential agricultural and industrial raw materials, but also provide a new market in which to barter German manufactured goods and other exports. This enabled the Balkan states to reinflate their depressed economies through increased trade, and allowed the ever-expanding process of German rearmament to continue. While Schacht believed the New Plan to be a temporary and imperfect solution to Germany's major economic and trade problems<sup>17</sup>, his political masters hoped it would ultimately chain the states of eastern Europe to the German economy, and therein establish the foundation for a German-dominated economic bloc, a *Großraumwirtschaft* (large-area economy). In essence, the New Plan's foreign trade policy meant to create an economic and political relationship with south-east Europe upon which a German-dominated economic bloc could eventually be established:

The New Plan aimed in the long run to create a large-scale German economic area as far as this was feasible by economic means. Linked with bilateral trade was the intention to force Germany's trade partners into the greatest possible measure of dependence, in order to thus gain possession of more or less extensive 'economic areas'.<sup>18</sup>

Despite the long-term economic possibilities of a German trading bloc, however, political

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<sup>17</sup> David E. Kaiser, Economic Diplomacy and the Origins of the Second World War: Germany, Britain, France and Eastern Europe, 1930-39 (Princeton University Press: Princeton, NJ, 1980), 131.

<sup>18</sup> Volkman, "The National Socialist Economy," 251.

motivations rather than concrete economic benefits remained at the heart of the regime's attempt to expand its influence throughout the Balkan region between 1933 and 1936.

Scholars such as Dietrich Orlow, Gerhard Schreiber, Larry Neal, and David Kaiser agree that during this early period, 1933 to 1936, the extension of German political influence into south-east Europe through the establishment of bilateral trade agreements consistently took priority over the actual economic benefits accruing from these deals.<sup>19</sup> Commercial treaties signed with Hungary and Yugoslavia in 1934 served not only as prototypes for future economic agreements with other Balkan states, but also as instruments to extend the Reich's political influence into south-east Europe. Schreiber argues that "Economic agreements... served as a vehicle for political penetration"<sup>20</sup>, and he describes this process as a steady campaign of incursion and encroachment:

They involved the achievement of control and hegemony, not necessarily by means of aggression, though this was discussed even before the outbreak of war. Initially... the Germans attempted to destabilize international relations. The aim was to play off the individual states against each other; to undermine the collective pact system by means of bilateral treaties; to isolate the states of the region, partly by means of economic penetration; and then to exploit the situation to establish the supremacy of Germany.<sup>21</sup>

Concluding a bilateral commercial treaty with Germany effectively meant signing away a large degree of economic and political sovereignty, for "German trade policy created an interrelation of imports and exports which made it almost impossible for its partners to

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<sup>19</sup> See Dietrich Orlow, The Nazis in the Balkans: A Case Study of Totalitarian Politics (Pittsburgh: University of Pittsburgh Press, 1968), 10; Gerhard Schreiber, "Germany, Italy, and South-East Europe: From Political and Economic Hegemony to Military Aggression," in Germany and the Second World War, Vol. III, 363; Larry Neal, "The Economics and Finance of Bilateral Clearing Agreements: Germany, 1934-8," Economic History Review, vol. 32, 3, (August, 1979), 392; David Kaiser, Economic Diplomacy, 130.

<sup>20</sup> Schreiber, "Germany, Italy, and South-East Europe," 363.

<sup>21</sup> *Ibid.*

trade wherever they wished.”<sup>22</sup> However, Neal has found that Germany deliberately sacrificed its position of economic dominance in the region in order to secure greater political and military influence. While its bilateral agreements provided Germany with much needed raw materials and food supplies without having to exhaust foreign currency stocks, the Reich agreed to purchase these goods at substantially higher prices than could be obtained from overseas suppliers: often 20 to 40 per cent above world market prices for agricultural goods alone.<sup>23</sup> Even when the deliberately overvalued German Reichsmark is taken into account, Germany experienced diminishing terms of trade with south-east Europe under the New Plan: the escalating cost of Balkan imports consistently outpaced the rise in the price of German exports to the region after 1934. In addition, the German government was forced to offer ever greater financial and trade incentives to offset any increase in the price of its own exports. A Foreign Ministry circular dated 18 June 1934 also admits that German financial and commercial concerns had been subordinated to foreign policy interests during negotiations with Hungary and Yugoslavia. It assured the reader, however, that this was not intended to be long-term policy.<sup>24</sup> This clearly demonstrates how the Nazi regime initially placed political and diplomatic factors above short-term economic gain in its dealings with the nations of south-east Europe. That the regime was willing to sacrifice its immediate commercial interests demonstrates its determination to cultivate close relations and foster co-operation both politically and economically with the Balkan states. As Neal puts it, “The conclusion is that under the conditions of rapid economic recovery which characterized Germany in the mid-1930s it was relatively costless, and often politically rewarding, for Germany to forego the advantages of monopoly exploitation.”<sup>25</sup> The extension of German influence and the enhancement of German power within the region was really the first step in a larger

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<sup>22</sup> Ibid., 365.

<sup>23</sup> Neal, “The Economics and Finance,” 394.

<sup>24</sup> “Circular of the Foreign Ministry,” 18 June 1934, DGFP, C, III, doc.13, p. 36.

<sup>25</sup> Neal, “The Economics and Finance,” 392.

process, for German trade relations with southeastern Europe were not intended to be a temporary expedient. Instead the bilateral clearing agreements were the first phase in the establishment of a large, German-dominated economic base, perhaps from which to launch a protracted war some time in the future. It was simply not in Germany's long-term interest to ruthlessly exploit the region, and this fact became more apparent as the Reich's dependence on Balkan resources increased.

The New Plan was quite successful in meeting the short-term financial and material needs of rearmament, but it proved inadequate when confronted with the extensive and long-term requirements of German rearmament. A report written by Colonel Georg Thomas' Defence Economy and Weapons Office in 1935 discussed the New Plan's accomplishments:

In foreign trade, the 'New Plan' [has] made it possible to secure 'the raw materials necessary for the realization of the defence programme, as well as an indispensable additional importation of foodstuffs and animal feed. The rearmament programme... has so far been implemented, albeit with difficulties. In rearmament-economy terms, the principle demands which the forces make of the economy have been met. Unfortunately, however, the Reich's economic readiness for war has not been increased.'<sup>26</sup>

Schacht's economic programme had helped shift Germany's balance of trade to exports, thereby lessening the foreign currency shortage. In addition, it had extended German economic and political influence over the Balkan nations in order to gain access to the agricultural, forestry, and mineral resources of south-east Europe:

By subjecting her foreign trade to strict government control through highly specific foreign exchange regulations and bilateral trade agreements, Germany was able to subordinate foreign trade to her political goals of rearmament and of the economic penetration of south-east Europe for strategic and diplomatic purposes.<sup>27</sup>

The New Plan also allowed for great achievements to be made with regard to the domestic

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<sup>26</sup> "Report by the defence economy and weapons office on the economic situation," 1 Oct. 1935, BA-MA RW 19/82, cited in Volkman, "The National Socialist Economy," 271.

<sup>27</sup> Noakes and Pridham, Nazism: A History in Documents, I, 276.

production of raw materials: between 1933 and 1936, the production of domestic crude oil, hydrogenated oil, iron ore, lead, zinc, and aluminum all increased dramatically.<sup>28</sup> Despite these impressive gains, however, domestic production satisfied only a small part of the nation's rearmament requirements, and Germany still found itself heavily reliant upon foreign imports for the bulk of its raw materials. The development of further economic problems demonstrated the obvious need for structural changes to the way in which Germany rearmed.

Widespread shortages of raw materials, foreign currency, and agricultural products threatened to derail Germany's rearmament programme by early 1936. As import prices rose by nine percent and export prices fell by nine percent late in 1935, fears of a rapidly deteriorating balance of payments situation began to multiply. The growing number of nations purchasing German exports with credit, or in exchange for their own exports, made it increasingly difficult for the Reich to obtain the foreign currency needed for its raw material imports. Furthermore, reserves and stockpiles of industrial raw materials had been depleted to such an extent throughout 1934 and 1935 that acute shortages of these goods in 1936 caused serious production slow-downs and critical delays in Wehrmacht orders. This startled the regime's military and political leaders:

Those in authority began to realize that 'the vigorous revival of the economy, [namely] rearmament and job creation', had been achieved only by eating into raw materials accumulated in the past, and by running up considerable debts with the clearing-account countries, who were able to absorb only a limited volume of German manufactured and production goods. By the end of 1935 the rearmament programme had to be regarded as seriously threatened....<sup>29</sup>

The inability of German agriculture to provide sufficient foodstuffs also created serious

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<sup>28</sup> Domestic crude oil production increased 90 percent; hydrogenated oil increased 300 percent; iron ore grew 167 percent; lead production went up 15 percent; zinc production increased 23 percent; and aluminum production by 416 percent. From Volkman, "The National Socialist Economy," 268.

<sup>29</sup> "Memorandum by the defence economy and weapons office," 18 Feb. 1935, cited in Volkman, "The National Socialist Economy," 254.

economic disruptions. Poor harvests and increasing consumer demand, due to declining unemployment, led to calls for increased agricultural imports. Hermann Göring's decision to ignore Schacht's advice and use Germany's remaining foreign currency reserves for food purchases only exacerbated the situation, making it extremely difficult for Germany to afford further rearmament. Drastic changes had to be made with regard to economic policy if rearmament was to proceed.

This change came in late 1936 with the introduction of the Four-Year Plan, an economic programme designed to channel a large part of the economy's efforts and resources toward one main task: fulfilling the material needs of the military's armament programmes through an extensive exploitation of the nation's natural resources and an augmentation of domestically-produced industrial and synthetic raw materials. Issued in August 1936, the Four-Year Plan Memorandum called for a dramatic decrease in both foreign raw material imports and German exports. The nation would hereafter meet its own raw material demands as much as possible through home production, with priority given to the domestic production of industrial and synthetic raw materials such as petrol, rubber, light metals, and textiles. It also declared that cost, especially the cost of synthetic and *ersatz* (substitute) materials, would no longer be considered a significant factor. "If we are in any case compelled to build up a large-scale domestic economy on the lines of autarky -- which we are -- ...then the price of raw materials individually considered no longer plays a decisive part."<sup>30</sup> Furthermore, stockpiling of raw materials and foreign currencies was forbidden, especially if done "at the expense of national rearmament"<sup>31</sup>, and foreign exchange reserves were to be used exclusively for materials which were impossible to obtain domestically. "In every sphere where it is possible to satisfy our needs through German production, foreign exchange must be saved in order that it can be applied to those

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<sup>30</sup> "Memorandum of the Four Year Plan," Obersalzberg, August 1936, DGFP, C, 5, doc. 490, 860.

<sup>31</sup> *Ibid.*, 858.

requirements which can under no circumstances be supplied except by imports.”<sup>32</sup> Schacht had argued that the best solution to the Reich’s economic crisis lay in slowing the pace of rearmament; this would allow the nation to increase exports and acquire the foreign exchange it so badly needed to purchase raw materials. His position was supported by leading German bankers and industrialists from the coal, steel, and iron sectors who opposed the costly and inefficient exploitation of low-grade domestic raw materials. Other powerful magnates from the chemical, aluminum, and synthetic textile industries, as well as leaders from I.G. Farben and the Luftwaffe, however, supported the Four-Year Plan, for they stood to benefit greatly from such a programme.<sup>33</sup> At any rate, Hitler rejected Schacht’s recommendations, declaring that a slow-down of the rearmament process was politically impossible.

Autarky was a central component of the Plan, for it offered the Reich greater economic independence from world market influence and protection against possible blockades. As a theory, it was intertwined with National Socialist concepts of large-area economics and living-space. As an economic policy, it suited the regime’s strategic and diplomatic objectives perfectly, for a more self-sufficient economy coupled with a new and powerful military force would provide Hitler with the freedom and manoeuvrability needed to exploit any future diplomatic opportunity. Nevertheless, few if any within the top leadership believed that the Reich economy in its present form could be completely freed from its dependence on foreign imports. Even Hitler had admitted in the Four-Year Plan Memorandum that “I consider it necessary that now, with iron determination, 100 percent self-sufficiency should be attained in all those spheres *where it is feasible* [my italics], and... the national requirements in these most important raw materials [should] be made independent of other countries....”<sup>34</sup> But the redirection of foreign trade toward southeastern Europe, both prior to and during the operation of the Four-Year Plan, helped

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<sup>32</sup> Ibid., 859.

<sup>33</sup> Noakes and Pridham, Nazism: A History in Documents, I, 279-80.

<sup>34</sup> “Memorandum of the Four Year Plan,” DGFP, C, 5, doc. 490, 861.

make limited autarky within a German-dominated economic area a real possibility. Only then would the German economy be adequately suited to undertake large-scale preparations for war.

Responsibility for carrying out the Plan's initiatives and developing its infrastructure was given to the Luftwaffe head Hermann Göring, who had already been appointed Commissioner of Raw Materials earlier that year (4 April 1936), in order to resolve the raw material and foreign exchange problems which were symptoms of the New Plan. While Göring had no experience in economic affairs, he was one of Hitler's most trusted advisors who could ensure the economy would now be used to fulfill Nazi ideological aims and Hitler's foreign policy goals:

Göring may well have been technically unskilled in economic matters, but he had a clear grasp of the central political questions involved. As an autarkist and a champion of large-scale rearmament, he approached economic problems with quite different priorities from Schacht. Moreover, his appointment by Hitler to head a new Raw Material and Foreign Exchange Office at the beginning of April 1936 [and to head the Four-Year Plan in August 1936] was not simply the result of conservative cunning, as Schacht later suggested, but was part of Hitler's growing preoccupation with bringing the economy more closely under party supervision. Hitler intended, one way or another, to structure the German economy so that it could serve the needs of war and imperial expansion.<sup>35</sup>

Göring immediately established a separate Four-Year Plan authority composed of six departments or working groups (*Geschäftsgruppen*), each of which oversaw the organization and operation of a particular sector of the economy. One department, the Office for German Raw Materials headed by Colonel Fritz Löb, became the central agency of the Four-Year Plan responsible for the overall production of raw materials. The remaining divisions handled such matters as raw material distribution, labour matters, agricultural production, price supervision, and foreign exchange.<sup>36</sup> Private industrialists, the most important of whom was Carl Krauch of IG-Farben, were appointed to influential advisory positions within the organization, thus allowing for a sharing of expertise and

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<sup>35</sup> R. J. Overy, *Göring: The 'Iron Man'* (London: Routledge & Kegan Paul, 1984), 40.

<sup>36</sup> Noakes and Pridham, *Nazism: A History in Documents*, I, 289.

greater co-ordination with the private sector. Disputes arose amongst the various departments of government, however, as Göring sought to extend the power and influence of his Four-Year Plan authority. His appointment of State Secretaries from the Ministries of Labour and Agriculture to similar positions within the Four-Year Plan helped bring these two economic spheres under his direct control. Similar manoeuvres against the Economics Ministry helped bring about Schacht's resignation as Minister of Economics on 26 November 1937. Under Walter Funk, Schacht's replacement, the Ministry of Economics lost its independence and soon became another tool of the Four-Year Plan administration. After 1937, Göring's position was consolidated and his control over economic matters was unrivalled. As Berenice Carroll notes, Göring had far-reaching economic powers, and his influence extended to all areas of the rearmament process:

Göring retained, for example, the final word on allocations of raw materials to all major categories of public, private, and military claimants. Göring was also responsible for many major decisions on economic policy, including decisions relating to the economic administration of conquered territories.<sup>37</sup>

He had become the undisputed leader of the German economy, and of the Reich's economic preparations for war.

Before discussing the purpose and objectives of the Four-Year Plan, we must confront some fallacies surrounding the programme. The Plan was not a temporary expedient, as some historians have suggested, designed solely to maintain a functioning rearmament economy until such time as territorial conquest could provide the Reich with the plundered raw materials and labour of its enemies. Scholars<sup>38</sup> who support this claim insist that the Plan constituted the economic basis for *Blitzkrieg*: namely, that Hitler and his regime actively chose to forego in-depth rearmament in favour of rearmament in breadth, after which "an alternation of military aggression and diplomatic pressure [would]

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<sup>37</sup> Berenice A. Carroll, *Design for Total War: Arms and Economics in the Third Reich* (The Hague: Mouton & Co. N.V., 1968), 135.

<sup>38</sup> These scholars include Berenice Carroll, Hans Mommsen, and Hans-Erich Volkmann.

progressively enlarge the economic base of the Reich by territorial accretions.”<sup>39</sup> Since we have already demonstrated the inadequate composition of the Wehrmacht’s force structure for a *Blitzkrieg* war, the absence of any detailed military plans for *Blitzkrieg*, and the unwillingness of German military leaders to seriously consider such a radical departure from conventional strategic thinking, it is difficult to believe that the political leadership would prepare the economy for *Blitzkrieg* without doing the same for its own military forces. Such an argument fails to appreciate or simply ignores the long-term nature of the Four-Year Plan, and the long-term planning of its enterprises.

What, then, was the nature of the Four-Year Plan, its purpose, and its objectives? First, the Four-Year Plan was a long-term undertaking with long-term goals, not a temporary expedient as some have suggested. Despite Hitler’s demands that the army and the economy be fit for war within four years<sup>40</sup>, the state of Germany’s industrial capacity and raw material situation made it both physically and financially impossible to complete the large industrial projects of the Four-Year Plan, never mind the armament programmes of the military, in such a short period of time. Colonel Thomas recognized this in late 1936, noting that the Plan’s enterprises “were long-range projects which would provide their benefits only after the lapse of several years.”<sup>41</sup> He also worried that these projects would, in the meantime, create an even larger burden on the national economy as they drew scarce raw materials and foreign exchange away from the military’s armament programmes. Second, the Plan’s purpose was to mobilize the German economy for a protracted conflict which would be fought optimally after most of the economic and military programmes had been completed. Overy discusses this fact and notes that economic and military preparations had always been designed with a total war in mind:

All of these policies were part of a long-war strategy designed... to create a massive military machine for fighting the other major powers in the mid-1940’s, after six or seven years of military build-up. These plans were not isolated aspirations of an

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<sup>39</sup> Volkmann, “The National Socialist Economy,” 276-77.

<sup>40</sup> “Memorandum of the Four Year Plan,” DGFP, C, 5, doc. 490, 862.

<sup>41</sup> Carroll, 138.

anxious but ineffectual army staff, nor Göring's personal hobbyhorse. All the evidence on war preparations and military production plans confirms that the general expectation in Germany before 1939 was that any future war between the major powers (though not of course war against Poland alone), would be a total war from the start. The very nature of [modern] warfare made this imperative.<sup>42</sup>

In other words, the Four-Year Plan put into motion the transformation of the German economy from a peace economy, to a war economy in peacetime. Finally, this economic reorientation required armament in depth, placing the long-term enlargement of the Reich's industrial capacity and raw material output at the heart of the Plan's objectives. All this was required to facilitate greater armaments production in anticipation of a major conflict:

The object of the Four Year Plan was to set up a unified and centralized economic system which could provide through a heavy investment programme the necessary industrial base, or sub-structure, on which the superstructure of armaments output could be raised. It also made it necessary to acquire, one way or another, the economic resources of central and eastern Europe to strengthen and deepen the German efforts at economic rearmament.<sup>43</sup>

Closer relations with the Balkan states was therefore the next logical step in facilitating further large-scale rearmament.

Economic concerns were of paramount importance during this second phase of German-Balkan relations, as the Reich's expansion and intensified rearmament effort increasingly came to rely on the states of south-east Europe for secure imports of agricultural goods and raw materials in exchange for consumer goods and arms exports. Intensified bilateral trade with southeastern Europe and the incorporation of the Balkan economies into the Reich's trading bloc was a crucial aim of the Four-Year Plan, for limited self-sufficiency in the area of raw material production constituted a necessary component of the successful operation and completion of such a monumental build-up. The drive for economic hegemony intensified after the Austrian *Anschluss* (union) of March 1938, for Germany's economic and political leaders now viewed continued trade with

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<sup>42</sup> R.J. Overy, "Mobilization for Total War in Germany, 1939-1941," English Historical Review, vol. 103, 408, (1988), 615.

<sup>43</sup> *Ibid.*

south-east Europe as indispensable to continued military and economic mobilization. The Reich's underlying objective with regard to the Balkan states was, simply put, the formation of a large, secure trading sphere which not only would continue providing greater resources for German rearmament, but also could render Germany immune to blockade in the event of a major war. As Overy states, "This economic plan was the answer to Hitler's fear of blockade and Germany's trade and currency problems. A closed trading bloc was the best guarantee that in the event of a major war Germany would have access to economic resources beyond the level dictated by domestic supply on its own."<sup>44</sup>

There can be no doubt that tremendous importance was placed upon the successful execution of the Four-Year Plan, for the Reich's leaders knew it would require the commitment of the nation's entire physical and financial resources to achieve their expansionist goals. Hitler had declared at the beginning of the Plan's Memorandum that military and economic rearmament would take priority above all else:

The extent and pace of the military development of our resources cannot be made too large or too rapid! If we do not succeed in developing the German Wehrmacht within the shortest possible time into the first army in the world, in training, in the raising of units, in armaments... Germany will be lost. All our other desires must therefore be unconditionally subordinated to this task.<sup>45</sup>

Göring, too, stressed the magnitude of the Plan's tasks, and urged unhesitating commitment from all sectors of the German economy and society in order to prepare for a conflict which would decide the ultimate fate of the nation. In a speech to leading industrialists in December 1936, he warned that "The struggle which we are approaching demands a colossal measure of productive ability. No end to the rearmament is in sight. The only deciding point in this case is: victory or destruction. If we win, then the economy will be sufficiently compensated."<sup>46</sup> At the close of his speech, Göring "demanded unlimited

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<sup>44</sup> Overy, Göring, 82.

<sup>45</sup> "Memorandum of the Four Year Plan," DGFP, C, 5, doc. 490, 856.

<sup>46</sup> "Report on Göring's Speech before Leading Industrialists at the 'Preußenhaus,' 17 December 1936, Concerning the Execution of the Four Year Plan," Trials of the War Criminals before the Nuremberg Military Tribunals under Control Council Law No.10:

efforts of all factors in the whole economic field.” and announced that “Our whole nation is at stake. We live in a time when the final disputes are in sight. We are already on the threshold of mobilization and are at war, only the guns are not yet being fired.”<sup>47</sup> Later, during his interrogation at Nuremberg in March 1946, Göring once again outlined the Plan’s aims as he understood them, confirmed the central importance of the Four-Year Plan to the regime’s rearmament effort, and expressed his belief that preparations were to be for a total war:

I have explained that it [the Four-Year Plan] had two tasks to fulfill- 1) to safeguard the German economy against crises, that is to say, to make it immune from export fluctuations, as far as possible; and 2) to make it capable of withstanding a blockade, that is to say, in the light of experiences in the first World War, to put it on such a basis that in a second World War a blockade would not have such disastrous consequences. That the Four-Year Plan in this respect was a basic prerequisite for the entire building-up and expansion of the armament industry goes without saying. Without it the rearmament industry could not have been shaped in this way. ...I felt obliged, quite apart from passing fluctuations from a calmer to a more tense atmosphere [after 1937], to make the German economy ready for war and proof against crises or blockades....<sup>48</sup>

Colonel Thomas’ concerns about the impact of such a colossal programme were validated soon after its introduction, for from the outset, it placed an incredible strain on the Reich’s financial resources.

After 1936, the German economy became increasingly plagued by shortages of manpower and raw materials which not only hindered the operation of the Four-Year Plan but also threatened to halt the entire rearmament process. Labour shortages in the metallurgical and construction industries began to appear immediately after full

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Nuremberg, October 1946 - April 1949, vol. 12. International Military Tribunal (Washington, D.C.: Microcard Editions, 1971, 1949), doc. NI-051, 462.

<sup>47</sup> *Ibid.*, 465.

<sup>48</sup> “Göring’s Cross-Examination, 84<sup>th</sup> Day,” 18 March 1946. The Trial of the Major War Criminals before the International Military Tribunal: Nuremberg, 14 November 1945 - 1 October 1946, vol. 9, International Military Tribunal (Nuremberg: International Military Tribunal, 1947-1949), 450.

employment was achieved in December 1936. This occurred after manpower concerns were transferred to the Four-Year Plan authority, and despite the state's effort to extend working hours, to entice workers into the producer-goods and armament industries, and to increase the training of apprentices and specialists within key sectors of the economy.<sup>49</sup> Rivalling industries also began to pirate each other's workers with promises of higher wages; the resulting migration of skilled workers to higher-paying armament industry positions caused civilian exports to decline, thus diminishing the already limited supply of foreign exchange. Furthermore, a comprehensive price freeze encompassing all sectors of the economy had to be imposed at the end of November 1936 to stabilize prices and prevent inflationary increases in the price level.<sup>50</sup> A year and a half later, on 22 June 1938, labour decrees fixing wage rates and introducing compulsory work service for limited periods also had to be issued by Göring in an attempt to prevent sudden and dramatic increases in prices and wages.<sup>51</sup> Carr describes this situation as a complete breakdown of the entire wage and price control system which had been adequate up until this point. "Pressures on wages and prices increased until the controls, on which the Nazis had relied since 1933 to check consumer demand, started to burst at the seams."<sup>52</sup> In addition to the areas of manpower, prices, and wages, the regime experienced great difficulties in supplying itself with needed raw materials.

Raw material shortages intensified as well after 1936 as the army's armament programmes, the Four-Year Plan's enterprises, and civilian and party building projects all competed for the same limited supply of materials. Colonel Löb, head of the Four-Year Plan's central agency for raw materials, acknowledged in November 1937 that severe raw

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<sup>49</sup> "Report on Göring's Speech before Leading Industrialists," 17 December 1936, TWC, 12, NI-051, 461.

<sup>50</sup> Reichsgesetzblatt (Reich Law Gazette) 1936, vol. I, 927, cited in Volkmann, "The National Socialist Economy," 289.

<sup>51</sup> Reichsgesetzblatt, 1938, vol. I, 652, cited in Volkmann, "The National Socialist Economy," 289.

<sup>52</sup> Carr, Arms, Autarky, 64.

material shortages had in fact reduced the Plan's progress by over 50 percent during its first year of operation.<sup>53</sup> Eleven months later, the unsustainable economic and financial situation in Germany forced Hitler and Göring to modify and intensify the Four-Year Plan's goals. Announced on 14 October 1938, the New War Economy Production Plan extended the Four-Year Plan's time-frame from four to six years, and abandoned autarky in a wider sense so that attention could be focussed on the production of key war materials such as explosives, gunpowder, fuel, ammunition, buna rubber, and ores. The production of finished weapons and munitions for the army was made an urgent priority, as was the production of goods for export, since foreign currency reserves were almost non-existent.<sup>54</sup> One month later, however, Göring had to report to the Reich Defence Council on the grave state of the German economy and the deterioration of the nation's finances. "We have almost insurmountable drawbacks because of shortages of workers, factories running at full capacity, depleted currency reserves, the dire financial situation of the Reich, and the deficit."<sup>55</sup> This demonstrated the inability of even the New War Economy Production Plan to provide the economy with long-term, viable solutions to its labour and raw material shortfalls.

Rapid rearmament combined with the Four-Year Plan's industrial expansion projects also severely taxed the Reich's financial and monetary resources. Mefo bills, which had successfully funded a large portion of rearmament expenditures since 1934, were cancelled at the beginning of 1938. As Schwerin von Krosigk, Minister of Finance, stated in a letter to Hitler dated 1 September 1938, they had served their purpose without endangering the currency since "the increased circulation of money was offset by

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<sup>53</sup> "First Annual Report of Oberst Löh to Göring," NI-8590, cited in Carroll, Design for Total War, 171.

<sup>54</sup> "Speech by Generalfeldmarschall Göring in the Reich Air Ministry," 14 October 1938, TMWC, 27, doc.1301-PS, 160-4.

<sup>55</sup> "Address by Göring at a Meeting of the Reich Defence Council," 18 November 1938, TMWC, 32, doc. 3575-PS, 413.

corresponding increases in production.”<sup>56</sup> After full production was reached at the end of 1937, the system, worth approximately 12 billion RM, was abandoned in order to avoid new inflationary pressures. Afterward, however, the Reich increasingly came to rely on short-term loans to cover its expenditures, since revenues from personal savings and taxes proved insufficient. Krosigk warned against this, noting that increased expenditures for the army throughout 1938 had exhausted the nation’s cash balances, and endangered the possibility of obtaining further loans. “The intended floating of a new loan [in September] is faced with difficulty.... Reich obligations have appeared on the market and had to be absorbed by the Reich. If these obligations would not be taken up, government issues would drop in value: because of it the floating of future loans by the Reich would be difficult or impossible.”<sup>57</sup> High levels of demand for imported raw materials and foodstuffs, coupled with an acute shortage of foreign currency and overextended credit balances with its clearing-account trade partners, made it increasingly difficult for Germany to obtain foreign raw materials and maintain, let alone expand, its volume of foreign trade throughout 1938 and 1939. These severe conditions convinced Krosigk that the nation was heading towards a financial crisis:

The change in the [financial] situation, therefore, is due to the fact that we are steering towards a serious financial crisis, the forebodings of which, have led already abroad to detailed discussions of this weak side in our economic preparations and to an apprehensive loss of confidence domestically. I consider it my unavoidable duty to present to you, my Führer, in fullest truthfulness and sincerity my deep anxiety for the future of Germany, which is based on my knowledge of the economic conditions of our country, and also those of the outside world.<sup>58</sup>

These circumstances were the inevitable result of the Reich’s simultaneous attempts to rearm the Wehrmacht and expand the productive capacity of the economy for military

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<sup>56</sup> “Letter from Defendant Schwerin von Krosigk to Hitler, 1 Sept 1938, Concerning the Financial Situation of Germany, the Financing of Armament, and the Clarification of Foreign Policy.” TWC, 12, doc. EC-419, 510.

<sup>57</sup> *Ibid.*, 511.

<sup>58</sup> *Ibid.*, 512.

purposes. Chapter four will undertake a more in-depth analysis of these mounting economic and financial difficulties and their impact on military and economic rearmament, in an attempt to determine the existence of an actual German economic crisis, and its possible effect on the regime's time-table for war.

#### CHAPTER FOUR *“Blitzkrieg Strategy” as an Historical Anachronism: Economic Crisis, Diplomatic Blunder, and Total Mobilization*

We come finally to a discussion of the apparent absence of economic and military determinants which have heretofore been used to demonstrate the existence of a pre-planned *Blitzkrieg* strategy. An economic crisis characterized by increasing raw material and labour shortages, growing production bottlenecks, and delays in armament orders, had developed after 1937 as a consequence of Germany's expanding armament measures, deteriorating balance of trade, and diminishing supply of foreign currency. All these conditions inevitably posed a serious threat to the continued rearmament of the armed forces' three services. Those scholars supportive of the *Blitzkrieg* strategy theory have acknowledged that a growing economic crisis was taking shape in the latter years of the 1930s, but maintain that rearmament remained purposely modest. They are therefore unwilling to admit that large-scale war preparations were the very cause of the Reich's economic and financial crises. Conversely, historians who argue that Hitler and the regime's plans had always been centred around long-term preparations for a long war, beginning in the early 1940s, see no evidence of a *Blitzkrieg* strategy, and attribute such a historical theory to the misinterpretation of economic data and the popularity of analysis in hindsight. These academics have as well consistently sought to deny or at least downplay the presence of critical economic and financial difficulties which posed a significant threat to continued peace-time rearmament.

A tremendous amount of historical and economic evidence, however, suggests first, that pre-war German rearmament was indeed immense, not restrained; and second, that the Reich economy, burdened by chronic raw material, labour, and foreign currency shortages, had reached a point by 1939 at which further unrestricted rearmament could no longer be maintained. While these severe economic limitations to continued rearmament were of cardinal importance, they worked in combination with several other key diplomatic, military, and domestic political factors to convince Hitler not only that war with Poland was necessary, but also that it would remain limited. This, of course, did not occur, and a

general European war resulted.

In wartime, the operation of the German armed forces, and the nature and extent of German economic mobilization from 1939-41, prove that no grand strategic design for *Blitzkrieg* ever existed. The orthodox military concepts of decisive manoeuvre and encirclement framed the Wehrmacht's strategic outlook, and guided its conduct throughout both the Polish and French campaigns. The German economy, in turn, had great difficulty adjusting to the demands of war as it struggled to complete its raw material and industrial base while supplying the armed forces with war material. Despite a full-scale mobilization of the Reich's raw material, labour, and industrial resources during this period, the economy was unable to produce sufficient quantities of weapons and munitions necessary for a long war of attrition. Bureaucratic competition, inefficiency, and rampant wastefulness lay at the heart of this low output, not a purposely restrained mobilization conducive to *Blitzkrieg*. Once the regime's heavy industrial programmes had been completed and rationalization measures had been put in place in late 1941 and early 1942, the efficiency and productivity of the regime's large-scale mobilization for war increased exponentially and armaments production soared.

The German economy began to show signs of strain as early as 1937, as it attempted to deal with ever-increasing labour, raw material, and foreign currency shortages caused by the regime's unrelenting rearmament drive. The introduction of the Four-Year Plan in Autumn 1936 was supposed to have alleviated the frequent production disturbances and growing foreign exchange and raw material shortfalls which had caused ammunition factories to operate at 70 percent capacity during the summer of that year.<sup>1</sup> By early 1937, however, rationing of both iron and steel had to be implemented as stockpiles fell dangerously low. In an address to the fourteenth session of the Reich Defence Committee on 21 April 1937, General Georg Thomas of the Defence Economy and Weapons Office described the negative impact of these shortages on the rearmament effort: "The situation

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<sup>1</sup> Hans-Erich Volkmann, "The National Socialist Economy in Preparation for War," in *Germany and the Second World War*, Vol. I, ed. Research Institute for Military History, Freiburg im Breisgau, (Oxford: Clarendon Press, 1990), 274.

with regard to raw materials [shortages] is forcing cut backs and delays, even with the implementation of the Reich Committee's measures. The financial, foreign currency, and raw material situations are forcing the armed forces and civilian governments to stretch the Reich Committee's projects over a longer period of time."<sup>2</sup> Thomas went on, pointing out the "dependence of the Wehrmacht's armament programmes, along with its offensive and defensive capability, on the overall health of the German economy", and he highlighted difficulties with regard to "the depletion of supplies, the supply of metals, the necessity of importing foodstuffs, and the slowing down of armament production due to the short supply of raw materials."<sup>3</sup> A brief recovery in world trade in mid-1937, however, helped boost German exports by 30 percent and imports by 25 percent, thereby furthering the rearmament programme. Three months after his report to the Reich Defence Committee, Thomas admitted that "we are experiencing all over the world... a considerable economic upswing which can be seen as a boom in the armaments economy," a boom which, he concluded, enabled the Reich to avoid the onset of an economic crisis.<sup>4</sup> This recovery, nevertheless, was short-lived.

Thomas' August 1937 report to Hitler on the state of the rearmament effort focussed on major difficulties in the German economy, and described in no uncertain terms the gradual unravelling of the economy's raw material distribution system. Critical shortages of iron and steel, Thomas reported, were delaying the manufacture of machine tools and military goods, and had already meant an extension of the fortification

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<sup>2</sup> University of Alberta Archives. Records of Headquarters, German Armed Forces High Command (Oberkommando der Wehrmacht/ OKW ), Wehrwirtschafts- und Rüstungsamt, National Archives and Records Administration, T-77. GOV DOC GC 01 0008, Reel 131. (Washington, D.C.: American Historical Association, American Committee for the Study of War Documents, 1956), Wi/ I F 5.560, "Minutes and Preparatory Materials for the 14<sup>th</sup> Session of the Committee on Reich Defence," 21 April 1937, frame 863470.

<sup>3</sup> *Ibid.*, 863472.

<sup>4</sup> OKW, NARA T-77/14, Wi/ I F 5.114, "Die Bedeutung der Wehrwirtschaft für die Friedenswirtschaft," 12 July 1937, frame 724779.

programme from 1944 to 1948, the continued under-utilization of the newly completed railway system, and a delay in the construction of troop barracks. The situation was further exacerbated by corresponding shortages of tin, copper, nickel, zinc, lead, and other non-ferrous metals.<sup>5</sup> In addition, he indicated that not only had “the distribution of raw materials and the quota plan... not work[ed] as planned, so that the promised quota for armament parts could not be reached,”<sup>6</sup> but also that “the allotment of armament parts [were] not sufficient to cover even the most urgent arms needs.”<sup>7</sup> Every military and industrial project, from U-boat construction and the Luftwaffe’s switch to new weapon types to the Four-Year Plan’s heavy industrial enterprises, was being affected by such shortages of vital raw materials. Lieutenant Colonel Fritz Løb of the General Staff reported that acute shortages of raw materials had in fact cut the Plan’s rate of progress to less than half of what had been planned.<sup>8</sup> Consequently, Thomas warned that “we are living from hand to mouth” and deduced that “it is not possible to deliver the asked for supplies for all three services of the Wehrmacht.”<sup>9</sup> In order to alleviate these problems over the short-term, he first proposed that all non-essential civilian and party undertakings be set aside: “Everything possible must be done in order to secure the strength of the army for the future; we must abandon all tasks which are a drawback for full mobilization and rearmament.”<sup>10</sup> Second, he emphasized that “those projects which require a number of

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<sup>5</sup> OKW, NARA T-77/14, W/ I F 5.114, “Vortrag über die wirtschaftliche Rüstungslage beim Führer,” 18 August 1937, frame 724794.

<sup>6</sup> Ibid., 724789.

<sup>7</sup> Ibid., 724789-90.

<sup>8</sup> “First Annual Report of Oberst Løb to Göring,” Nuremberg doc. 8590, cited in Berenice A. Carroll, Design for Total War: Arms and Economics in the Third Reich (The Hague: Mouton & Co. N.V., 1968), 171.

<sup>9</sup> OKW, NARA T-77/14, W/ I F 5.114, “Vortrag über die wirtschaftliche Rüstungslage beim Führer,” 18 August 1937, frames 724796, -791.

<sup>10</sup> Ibid., 724798.

years for completion must be carried out first of all. These are, above all, warships, fortifications, and the most important plant expansions."<sup>11</sup> Thomas' report demonstrated that the slight boom in the world economy in mid-1937, which was beginning to falter by late fall, had only forestalled the onset of greater difficulties caused by the Reich's programme of rapid and unrestricted rearmament. As discussed earlier, however, little was done to co-ordinate the armament programmes of the individual services; they continued to implement them in complete isolation of each other, thereby worsening the already precarious situation

Despite the moderate upturn in the world economy in 1937, the Reich nevertheless experienced a marked deterioration in its economic health and solubility throughout the year. Gold and foreign currency reserves which were valued at RM 530 million in 1933 had, by the end of 1937, dropped to RM 70 million. Large food imports from Germany's clearing-account partners, begun earlier that same year, were supposed to have preserved precious foreign currency for raw material imports. But as the historian Hans-Erich Volkmann points out, "The high level of German indebtedness (RM 500 million in the summer of 1937) to a number of clearing countries, especially south-east Europe and Turkey, represented a further obstacle to the maintenance, let alone extension, of German foreign trade."<sup>12</sup> Similarly, exports in general rose throughout the year, but the nation's overall export surplus dropped by over RM 100 million.<sup>13</sup> This was in part the result of the onset of the American recession in late 1937 which not only halted the world economic recovery, but also extinguished the Reich's export boom and its capacity to import.<sup>14</sup>

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<sup>11</sup> Ibid., 724797-8.

<sup>12</sup> Volkmann, "The National Socialist Economy," 313.

<sup>13</sup> Carroll, 144.

<sup>14</sup> Timothy W. Mason, Social Policy in the Third Reich: The Working Class and the 'National Community.' ed. Jane Caplan (Providence/Oxford: Berg Publishers, 1993), 207; idem, "The Domestic Dynamics of Nazi Conquests: A Response to Critics," Reevaluating the Third Reich, eds. Thomas Childers and Jane Caplan (London/New York: Holmes & Meier, 1993), 163.

1938 saw little or no improvement in Germany's ability to continue with its unrestricted rearmament programme. Monthly reports from Thomas' office described in detail the continuing problems with raw materials allocation and labour shortages. January's report discussed the continued lack of basic housing, difficulties in obtaining industrial oils and fats, and the increasing importance of the growing labour shortage. February's report noted that 1937 had seen an unexpected upswing in the export of German war equipment, but it went on to discuss shortages of iron, steel, and wood products; March's report noted that shortfalls in the amount of coke had begun to create bottlenecks in the production of Phenol and Kresol (needed to produce synthetic pressed resins).<sup>15</sup> The report for April 1938 regretfully pointed out that the Austrian *Anschluss* (political union) was proving to be of little immediate benefit to the Reich economy.<sup>16</sup> At the same time, labour shortages began to intensify; by mid-year, there were only 292,000 registered unemployed, and by year-end, there existed one million unfilled jobs, most of which were skilled labour positions. This necessitated the use of foreign workers, whose numbers rose from 381,000 in 1938 to 435,000 by March 1939.<sup>17</sup> Shortages of labour, like those of raw materials, became an ever-present, insolvable phenomenon after 1937, and, as Timothy Mason argues, made the maintenance, let alone the expansion, of the German rearmament drive a much more difficult undertaking.

By the end of 1938 the overheating of the economy had led to a situation in which there were one million unfilled jobs. This had a wide variety of consequences: new workplace wage-bargaining; clear signs of a decline in work-discipline and industrial productivity; a growing drift of workers away from poorly paid into better-paid jobs; and a degree of wage inflation that led to an increased demand for consumer goods. All of these developments impeded the progress of

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<sup>15</sup> OKW, NARA T-77/140, W/ I F 5.582, "Stand der wirtschaftlichen Lage," January - April 1938, frames 872708-814.

<sup>16</sup> *Ibid.*, 872708.

<sup>17</sup> R.J. Overy, War and Economy in the Third Reich (Oxford: Clarendon Press, 1994), 50-1.

rearmament....<sup>18</sup>

The regime thus found it necessary to more closely monitor and regulate the factors of production to facilitate further rearmament.

Faced with a crumbling resource allocation network, Hermann Göring announced his intention to streamline the system in a circular letter on 18 June 1938. First, he ordered that the merit of all 'defence' projects be reexamined to see where changes could be made. "It is therefore imperative that all planning and all projects in those field which are connected with the development of the defence of the Reich will be reexamined to the effect whether they can go on alongside with the large tasks or whether they have to be postponed, either entirely or in part until these great tasks are finished."<sup>19</sup> In reality, however, little came of this first measure, since Göring, unwilling to raise the ire of the regional *Gauleiters*, exempted 'special' civilian and Party building projects, both of which were large consumers of raw materials and labour. Second, Göring instituted stricter rationing measures for iron and other raw materials, warning that these should be regarded, for all intents and purposes, as permanent measures which would affect even the most important projects.

It is out of the question that these necessary measures will loosen up, before the projects of the defence of the Reich are completed; I therefore request not to make any attempts in this direction. The new situation becomes clearly obvious through the fact that not even the iron quota of the Four-Year Plan can be maintained at its former level although it was already rather too small than large.<sup>20</sup>

Finally, the field marshal promised that, among other things, "restrictions in the labour

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<sup>18</sup> Mason, "The Domestic Dynamics," 162.

<sup>19</sup> "Three Circular letters of Defendant Schwerin von Krosigk, Reich Minister of Finance, Concerning Reich Defence and the 1938 Budget," 5 July 1938, *Trials of the War Criminals before the Nuremberg Military Tribunals under Control Council Law No.10: Nuremberg, October 1946 - April 1949*, vol. 12, International Military Tribunal (Washington, D.C.: Microcard Editions, 1971, 1949), doc. NG-5328, 504.

<sup>20</sup> *Ibid.*, 506.

market, will facilitate the practical execution of the aforementioned points of view.”<sup>21</sup> His subsequent labour decree of 22 June fixed wage rates, extended the work-week from 40 to 60 hours to the armaments industry in general -- not just essential plants as had been done earlier in March<sup>22</sup> -- and introduced compulsory work service for limited terms. This decree foreshadowed changes made later in October which further restricted labour mobility, implemented longer work days with a greater number of shifts, and expanded the use of foreign workers and forced labour.<sup>23</sup> The June labour decree also represented a desperate attempt to head off sudden and large increases in wages and prices caused by burgeoning consumer demand.<sup>24</sup> But as Mason pointed out, it actually helped stimulate greater demand, for “The main new burden imposed on German workers was a lengthening of the working week, which resulted in substantial increases in weekly earnings (overtime bonuses).”<sup>25</sup> Therefore, despite Göring’s efforts, these measures only delayed the onset of further and more severe labour and raw material shortages, for they failed to address the underlying causes of the economy’s acute difficulties.

Raw material shortages and production bottlenecks were symptomatic of greater and more critical structural stresses within the Reich economy: namely, the constantly expanding number and scope of armament orders from the three services produced an even more exigent lack of foreign currency, necessary for further rearmament. As discussed

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<sup>21</sup> *Ibid.*, 505.

<sup>22</sup> OKW, NARA T-77/140, Wi/ I F 5.582, “Stand der wirtschaftlichen Lage,” 1 March 1938, frame 872748.

<sup>23</sup> “Twenty-three Items from the Files of the Chief of the Economic Armament Office Concerning Economic Preparation for War and Rearmament Questions for the Period ending 1 March 1939,” The Trial of the Major War Criminals before the International Military Tribunal: Nuremberg, 14 November 1945 - 1 October 1946, vol. 27, International Military Tribunal (Nuremberg: International Military Tribunal, 1947-1949), doc. 1301-PS, 162.

<sup>24</sup> See above, 104-5.

<sup>25</sup> Mason, “The Domestic Dynamics,” 163.

earlier<sup>26</sup>, the three services' efforts to safeguard their respective independence against overall Wehrmacht control, and their adamant refusal to co-ordinate their production plans resulted in a tremendous amount of wasteful competition for scarce material and labour resources. And the political leadership actively encouraged this Darwinian struggle, first by failing to establish a central resource allocation agency, responsible for the allotment of all raw materials and labour; and second, by ignoring calls by Thomas' office and other economic specialists to centralize overall control of rearmament under General Werner von Blomberg, Commander-in-Chief of the Wehrmacht, and the Wehrmacht High Command (OKW). With regard to iron and steel shortages besetting the aircraft industry as early as 1937, the historian Edward Homze submits that "The creation of an effective overall steel-allocation system proved equally baffling to the German leadership. Instead of devising a system of priorities for allocating raw materials, labour, and money and establishing a unified economic command, Hitler preferred that each group fight for its share. The results were chaotic."<sup>27</sup> Likewise, Richard Overy demonstrates the extent to which this chaos had encompassed Göring's own service, the Luftwaffe:

Even in the most advanced sector, the aircraft industry, traditional worker methods, excessive use of skilled labour, and wasteful material policies undermined the drive to greater output started by Hitler in 1938. In the end much of this problem stemmed from excessive competition for resources and duplication of effort between the three services, who refused to co-ordinate their production, leading to a multiplicity of weapon types and components and far too little standardization. Prospects for economies of scale and long production runs, of which German industry was perfectly capable, were poor from the outset.<sup>28</sup>

Whether it was the Army's August Programme of 1936, the Luftwaffe's Plan 8 in late 1938

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<sup>26</sup> See above, 72-4.

<sup>27</sup> Edward L. Homze, Arming the Luftwaffe: The Reich Air Ministry and the German Aircraft Industry, 1919-39 (Lincoln and London: University of Nebraska Press, 1976), 145; Wilhelm Deist, The Wehrmacht and German Rearmament (Toronto: University of Toronto Press, 1981), 93-4.

<sup>28</sup> Overy, War and Economy, 199.

(calling for a five-fold increase of the Luftwaffe by 1942)<sup>29</sup>, or the Navy's soon-to-be released Z-Plan in January 1939, each service's planning figures and forecasts after 1937 grew more economically unrealistic despite the growing gap between planned and actual output present throughout the entire rearmament economy. This inevitably worsened the strain on an already overburdened economy, growing weary from the military's rapid and unrestricted pace of rearmament. By not actively co-operating and eliminating inefficiencies, therefore, the service branches actually undermined the potential success of their own rearmament efforts.

A consequence of this situation and, ultimately, the Reich's most pressing problem, was a chronic shortage of foreign currency caused by a heavy reliance on imports of strategic raw materials for rearmament. Crushed by the combined weight of the Four-Year Plan's industrial programmes, civilian and Party building projects, and the ever-expanding armament orders of the three services, German industry was unable to spare both the industrial capacity and precious raw material and labour resources necessary to increase the production of export goods, and thus the Reich's supply of foreign currency. This had not been as important a factor during the nation's economic recovery and early stages of rearmament, for Hjalmar Schacht's New Plan as well as the military's early armament programmes were able to utilize the Reich's large stocks of strategic raw materials. After 1935, however, this practice became increasingly untenable as stockpiles dwindled and armament orders increased exponentially, forcing more sectors of the economy to cease export production and accept military contracts.<sup>30</sup> Thus, by 1938, German imports of raw materials and foodstuffs once again exceeded exports, as had been the case in 1934 before

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<sup>29</sup> See R.J. Overy, "The German Pre-War Aircraft Production Plans: November 1936 - April 1939," English Historical Review, vol. 90, 357 (Oct. 1975), 782; Deist, The Wehrmacht, 69.

<sup>30</sup> See above, 76, 85. As previously mentioned, a 9% increase in import prices, and a 9% decrease in export prices in late 1936 also exacerbated this situation.

the New Plan helped shift the nation's balance of trade to exports.<sup>31</sup> Williamson Murray stresses the paramount importance of German foreign exchange levels in determining the pace and extent of rearmament before the outbreak of war:

For prewar German rearmament the most critical problem was that of foreign exchange. Without hard currency to pay for imports, Germany industry could not produce at the levels asked for by the Wehrmacht. This dependence on imports and inability of German industry to boost foreign exchange earnings significantly was a decisive limiting factor in the prewar German economy.<sup>32</sup>

And just as foreign currency shortages had impeded the progress of the Four-Year Plan by 50 percent a year earlier, so too did they bring about material shortages which hampered the speedy completion of the military's armament orders: "Overall, from September 1937 through February 1939, German industry was able to meet only 58.6 percent of its scheduled and contracted armament orders because of raw material shortages and lack of industrial capacity."<sup>33</sup> The implication here is that a distinct lack of foreign currency, due primarily to declining civilian exports, caused these material and industrial shortages. Once completed, Göring's Four-Year Plan was meant to mitigate these problems by protecting the Reich from export fluctuations, thereby making the supply of foreign currency a less significant factor in rearmament. But because the Four-Year Plan was nowhere near completion in 1938, the result was increasingly severe foreign exchange shortages coupled with declining export levels and export potential needed to maintain these currency supplies.

The increasing frequency and severity of material shortages and production delays alarmed the Reich's political and economic leaders throughout the summer of 1938, and, in light of the growing diplomatic tensions surrounding the Czech Sudetenland, forced them

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<sup>31</sup> David E. Kaiser, Economic Diplomacy and the Origins of the Second World War: Germany, Britain, France, and Eastern Europe, 1930-39 (Princeton, NJ: Princeton University Press, 1980), 268.

<sup>32</sup> Williamson Murray, The Change in the European Balance of Power, 1938-1939: The Path to Ruin (Princeton, NJ: Princeton University Press, 1984), 14.

<sup>33</sup> Gerhard Förster, Totaler Krieg und Blitzkrieg, 101, cited in Murray, The Change, 16.

to alter their rearmament timetable. As previously mentioned, the New War Economy Production Plan of 14 October 1938 extended the Four-Year Plan to six years, suspended the drive for large-scale autarky, and made the production of finished weapons, munitions, and strategic war materials a priority.<sup>34</sup> While Göring declared export production to be of paramount importance, he also insisted that rearmament would not be slowed, regardless of export levels. “The export profits [from an increased attempt to export] are to be used for the increase of armament. The armament programme must not be reduced because of our export activity.”<sup>35</sup> All of this proved to be slightly unrealistic, for further into his speech, Göring regretfully announced that financial strains, owing to an acute shortage of foreign currency, were forcing him to cut the Wehrmacht’s material requirements for the remainder of the 1938/39 fiscal year: “The stressed financial situation of the Reich makes it necessary, that for the rest of the fiscal year 1938/39, the needs of the Wehrmacht, which in recent months under the force of unusual circumstances experienced a very considerable intensification, need to be decreased to an acceptable level....”<sup>36</sup>

The Reich thus experienced a marked decline in its financial health and its ability to continue the unrestricted and essentially *ad hoc* rearmament of its three services throughout the closing months of 1938. A report on a conference in the Reich Economics Ministry on 25 November lamented the fact that not even half of all special priority orders could be completed because of shortages of raw materials, foreign currency, and labour.<sup>37</sup> Those in attendance were informed not only that “The reserves of foreign currency for 1939 are as good as depleted,” meaning that all remaining supplies of foreign exchange had already been spoken for, but also that orders for iron ore alone were large enough to

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<sup>34</sup> “Speech by Generalfeldmarschall Göring in the Reich Air Ministry,” 14 October 1938, TMWC, 27, doc. 1301-PS, 160-4.

<sup>35</sup> *Ibid.*, 160.

<sup>36</sup> *Ibid.*, 167.

<sup>37</sup> OKW, NARA T-77/131, W/ I F 5.560, “Aktennotiz über die Besprechung am 25. November 1938: Arbeits-Ausschuss des General-Rates,” 25 November 1938, frame 863153.

consume the nation's entire supply of foreign currency.<sup>38</sup> Materials gathered in preparation for this conference warned that while the combined monthly steel requirements of the armed forces, the Four-Year Plan, and civilian export orders would reach 2.9 million tons by January 1939, the monthly production of the entire German steel industry was expected to reach only 1.8 million tons by the same date.<sup>39</sup> What was promoted at the conference as a viable option was a reemphasis on export production, which had become so crucial to the survival of the peacetime economy.<sup>40</sup> Göring's address to the Reich Defence Council approximately one month after the introduction of the New War Economy Production Plan as well raised many of the same issues: labour shortages, depleted currency reserves, overburdened productive capacity, and the growing Reich deficit.<sup>41</sup> It also ended the possibility of foreign nations purchasing German arms on credit; since the Wehrmacht's growing arms requirements limited the amount which could be exported, only payments of precious hard currency or strategic raw materials in exchange for arms exports would be

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<sup>38</sup> Ibid., 863154.

<sup>39</sup> "Materials for a Conference with Göring, Keitel and Thomas on 25 November 1938," 27 October 1938, Nazi Conspiracy and Aggression / Office of United States Chief of Counsel for Prosecution of Axis Criminality, vol. 3, U.S. Chief Counsel for the Prosecution of Axis Criminality, International Military Tribunal (Washington, D.C.: United States Government Printing Office, 1946), doc. 1301-PS, 905.

<sup>40</sup> OKW, NARA T-77/131, Wi/ I F 5.560, "Aktennotiz über die Besprechung am 25. November 1938: Arbeits-Ausschuss des General-Rates," 25 November 1938, frame 863153.

<sup>41</sup> "Bericht über die Sitzung des Reichsverteidigungsrates," [Address by Göring at a Meeting of the Reich Defence Council] 18 November 1938, TMWC, 32, doc. 3575-PS, 412-15.

Germany's public debt had also increased 30% over the 1938/9 fiscal year, due in part to Hitler's cancellation of the Mefo bill program. See M. Geyer, "Rüstungsbeschleunigung und Inflation. Zur Inflationsdenkschrift des Oberkommandos der Wehrmacht vom November 1938," Militärgeschichtliche Mitteilungen, vol. 23, 2, (1981), cited in Overy, War and Economy, 191.

accepted.<sup>42</sup> This move demonstrated not only the Reich's desperate need for both foreign currency and war materials, but also its policy of constantly adjusting trade policy to meet these needs. Further proof that declining foreign currency earnings had made unrestricted rearmament unmanageable and inevitably unsustainable can be found in General Wilhelm Keitel's decision to implement deep cuts to the Wehrmacht's steel and raw material allocations for armament production, effective 1 January 1939, to forestall the collapse of the allocation system under the weight of unrealistic armament orders and illusory production forecasts.<sup>43</sup> As Mason aptly points out, "These were truly reactive policies...."<sup>44</sup>

It is obvious that, by late 1938, the German economy had been worked into a state of financial crisis and operational paralysis which made continued rearmament a less likely possibility. Michael Geyer argues that the regime had only itself to blame for allowing such a state of affairs to develop:

There arose an economic, armaments, and financial chaos [late in 1938]. This took the form of chronic shortages of all the factors of production and of rises in unit costs, as the armed forces competed with each other for non-existent capacities; this then led to a sudden policy reversal in November, one that gave priority once more to exports and cut the armed forces' demands for steel for 1939 by half. The Reich treasury was temporarily empty; existing contracts were left hanging in the air. The leadership of the Third Reich quite consciously risked a crisis: the precarious armaments boom was transformed into an open economic and financial crisis, and there were no administrative solutions to the short-term and deliberate overburdening of German industry.<sup>45</sup>

And while both Hitler and Göring called for a renewed emphasis on export production at this time, once Germany's foreign exchange stocks and balance of trade had already

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<sup>42</sup> "Bericht über die Sitzung des Reichsverteidigungsrates," [Address by Göring at a Meeting of the Reich Defence Council] 18 November 1938, TMWC, 32, doc. 3575-PS, 415.

<sup>43</sup> "Documents on a Conference at Göring's, with Supreme Commanders Gen. Keitel, Neumann, Koerner, and Gen. Thomas," 7 December 1938, NCA, 3, doc.1301-PS, 907.

<sup>44</sup> Mason, *Social Policy*, 305-6.

<sup>45</sup> M. Geyer, "Rüstungsbeschleunigung und Inflation," 129f, 143f, 136, 146, cited in Mason, "The Domestic Dynamics," 170.

experienced a marked deterioration, it was simply too late and, administratively, too difficult to begin transferring already scarce materials, labour, and industrial capacity back to civilian export production. As David E. Kaiser notes, "Göring did what he could to increase exports during 1939, but the demands of rearmament made it difficult to expand normal exports...."<sup>46</sup> Preferring to reserve the bulk of its civilian export capacity for nations which could pay in hard currency, Germany had exchanged increasingly large arms exports for strategic imports from south-east Europe. Arms exports to the Balkans had first been openly suggested by General Blomberg in 1935 as a way of facilitating further rearmament, and it had thereafter served the dual-fold purpose of providing the Reich with an easy and sustainable method of obtaining raw materials and foodstuffs with no corresponding loss of foreign exchange, and ensuring that Germany's Balkan allies would be dependent upon the Reich for their military needs.<sup>47</sup> It was also one of the Reich's most beneficial trading arrangements, for south-east Europe's share of German raw material and foodstuff imports had risen from 4.7 percent in 1933 to 9.9 percent by 1938.<sup>48</sup> By early 1939, however, the continued expansion of the armed services made this trading strategy ever more unfeasible. Kaiser explains: "The requirements of the German armed forces restricted arms exports... [and] the strategy of exchanging arms for Eastern European raw materials and food products began to break down."<sup>49</sup>

What, then, was the state of the German economy during 1939, and to what degree had long-term preparations been completed? The increasing chaos, which Geyer had observed spreading throughout the entire rearmament economy late in 1938, was indeed growing ever more severe by 1939. To begin with, the systemic and acute problems with

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<sup>46</sup> Kaiser, Economic Diplomacy, 268-9.

<sup>47</sup> "Reich War Minister and Commander-in-Chief of the Wehrmacht [Blomberg] to the Foreign Minister [Neurath]," 24 June 1935, Documents on German Foreign Policy, 1918-1945, Series C, vol. 4, doc.168, (Washington, D.C.: United States Government Printing Office, 1957), 350-1.

<sup>48</sup> Volkman, "The National Socialist Economy," 351.

<sup>49</sup> Kaiser, Economic Diplomacy, 268-9.

raw material allocation, labour shortfalls, and foreign currency shortages which had continually hampered the pace and progress of German rearmament in 1937 and 1938 continued unabated throughout 1939. In a May address to members of the Foreign Office on the status of rearmament, General Thomas announced that although 23 percent of Germany's gross national product, more than that of any of its rivals, was being directed to rearmament<sup>50</sup>, major economic and financial weaknesses still existed. "Despite this extraordinary output which the Four-Year Plan contributed to," Thomas remarked, "[there are] four main concerns of our economic structure at this time: the shortage of raw materials; the shortage of labour [or] workers; the shortage of capacity of individual industrial branches; [and] the large financial need which arises everywhere in order to cover the financial requirements of these projects."<sup>51</sup> He highlighted the persistent shortage of iron ore, and warned that "Suppl[ies] of non-ferrous metals, which unfortunately cannot be achieved owing to the foreign currency problem, are an absolute necessity in order to guarantee our long-term survival in a long or extensive conflict."<sup>52</sup> Like Thomas, Berenice Carroll argues that the economy's faults were nowhere more obvious or critical than in the sphere of raw material distribution:

Worst of all, the 'system' for allocating scarce raw materials, especially steel, was still chaotic. Germany's steel supplies were probably adequate for all 'essential' needs in 1939 and earlier, but for two reasons they appeared hopelessly inadequate:

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<sup>50</sup> "Address by Major-General Thomas to Members of the German Foreign Office, 24 May 1939. Status of Rearmament in Germany; Economic Preparation for War (Defence Economy Organization); Comparison of the State of German Armament with that of the Western Powers; German Economic Difficulties," TMWC, 36, doc. 028-EC, 120.

Gross national product levels for Germany's western rivals were as follows:

|         |     |
|---------|-----|
| England | 12% |
| France  | 17% |
| America | 2%  |

<sup>51</sup> *Ibid.*, 116, 127.

<sup>52</sup> *Ibid.*, 124.

first, 'inessential' demand was not throttled; and second, the widespread *sense* of scarcity led to hoarding and inflated demand on the part of all claimants.<sup>53</sup>

Volkman agrees, adding that the decentralized and unco-ordinated nature of German rearmament manifested itself by 1939 as the inefficient usage of both raw materials and productive capacity:

The 'smooth flow of economic production' was being 'impeded by an often chaotic placing of orders'. Work was 'started on, to be set aside half-finished because new jobs needed completion'. Too much was being started simultaneously. 'Bottlenecks in production' occurred, and 'less was completed within a given time than might have been completed without those bottlenecks'. That mistaken directives and wastage of raw materials were daily occurrences goes without saying.<sup>54</sup>

Thomas also discussed the crisis involving labour difficulties: "Unfortunately, there is such a shortage of [agricultural] workers in the rural areas, that an improvement in the production of fats is no longer even considered as a question."<sup>55</sup> Germany's labour shortage had, by 1939, reached 1 million, and was especially acute in agriculture, where the migration of workers to better paying industrial and armament positions not only endangered performance levels, but also meant the use of a further 150,000 foreign labourers from Holland and south-east Europe.<sup>56</sup> All these alarming figures reflected the extent to which unrestricted rearmament had left the German economy in a precarious state by mid-year.

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<sup>53</sup> Carroll, 168.

<sup>54</sup> From Völkischer Beobachter, 23 July 1939, cited in Volkman, "The National Socialist Economy," 367.

<sup>55</sup> "Address by General-Major Thomas to Members of the German Foreign Office, 24 May 1939," TMWC, 36, doc. 028-EC, 123.

A 45 percent shortage in fats existed in Germany by 1939-- see Volkman, "The National Socialist Economy," 299-300.

<sup>56</sup> Volkman, "The National Socialist Economy," 367-8.

In this last year of peace, the Reich still depended on foreign imports to fulfill 33 percent of its total raw material requirements.<sup>57</sup> Agricultural imports, which had increased by 50 percent over the past three years due to rising consumption and the incorporation of the Austrian and Czech territories, accounted for 20 percent of the nation's entire food supply by 1939. And this figure neither included nor reflected a roughly 45 percent shortage in fats and a 30 percent shortage of animal feed.<sup>58</sup> Unfortunately, as Volkmann points out, "In the event of war, therefore, only some 44.4 percent of the necessary requirements of imported foodstuffs and 33 percent of the requirements of imported raw materials could be regarded as relatively secure."<sup>59</sup> Substantial gains were made in petrol production, which increased by 63 percent in three years. But because the petroleum industry was unable to reach its short-term production targets, Germany was still forced to import half of its oil throughout 1939. In addition, the synthetic oil industry, to which the Four-Year Plan had devoted huge resources, could only satisfy 18 percent of the nation's oil requirements by 1939. Similarly, synthetic rubber or *Buna* production in the last year of peace amounted to only 25 percent of the Plan's target of 80,000 tonnes.<sup>60</sup> German dependence on imports for non-ferrous metals also remained relatively high as domestic production was only able to satisfy the same percentage total consumption in 1939 as in 1934.<sup>61</sup> Some success had been achieved in certain key sectors: self sufficiency was

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<sup>57</sup> This figure was significantly higher for most essential war materials. See Kaiser, Economic Diplomacy, 177, and Volkmann, "The National Socialist Economy," 355.

<sup>58</sup> Volkmann, "The National Socialist Economy," 299-300.

See Avraham Barkai, Nazi Economics: Ideology, Theory, and Policy (New Haven and London: Yale University Press, 1990), 254, Table 7 *German Imports of Foodstuffs, 1929-1939*, and Table 8 *German Self-production in Foodstuffs, 1927/28-1938/39*, for German food import levels and domestic agricultural production statistics.

<sup>59</sup> *Ibid.*, 351.

<sup>60</sup> *Ibid.*, 301, 303.

<sup>61</sup> Volkmann, "The National Socialist Economy," 309; Kaiser, Economic Diplomacy, 177.

reached in coal production by 1939; lignite and coke production rose by 22 and 23 percent respectively between 1936 and 1938; steel and iron production reached planned levels by 1938; and production rates of key chemicals such as sulphuric acid, chlorine, caustic soda, and soda fell short of the Four-Year Plan's targets by a mere six percent. Furthermore, artificial fibre production, which had met only 5.2 percent of domestic demand in 1934, satisfied 43 percent by 1938-9.<sup>62</sup> Despite these successes, however, we have already seen that shortages, backlogs, and production bottlenecks persisted throughout 1939. Why? Because the Four-Year Plan's expansion of German industrial capacity and raw material output by 1939 was incomplete at best, and incapable of keeping pace with the continual and overwhelming, uninhibited demands made by large-scale rearmament and industrial expansion.

German rearmament had clearly reached a cross-roads by mid-1939, yet Thomas, in the conclusion to his address of 24 May, argued that the remedy to these varied economic and financial ills lay in returning priority to export production, which, he explained, would then provide the Reich with the foreign currency needed for continued rearmament.

I fear that an improvement in our armament-in-depth will not occur until we increase exports, which will bring in more foreign currency. For this reason, therefore, the economic leadership must always keep this point, especially the production of exports, in mind. We [also] need to increase our exports in order to accumulate foreign currency which will give us some freedom, if we should happen to need it, to buy important wartime materials which we lack.<sup>63</sup>

He was, however, completely unable to grasp the futility of such a recommendation at this late stage in the Reich's peacetime rearmament. Since the Wehrmacht's pressing demand for armaments ruled out the expansion of arms exports, the civilian economy alone would have to supply larger amounts of exports; this, in turn, would require diverting resources from military to civilian production. A return of material and labour back to civilian production would inevitably result in a slow-down of German rearmament, and this, as

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<sup>62</sup> Volkmann, "The National Socialist Economy," 304-5.

<sup>63</sup> "Address by General-Major Thomas to Members of the German Foreign Office, 24 May 1939," TMWC, 36, doc. 028-EC, 124-5.

Hitler and Göring had already indicated, was politically impossible.<sup>64</sup> For German rearmament had, by mid-1939, gained a certain momentum which could neither be stopped nor significantly slowed without undermining the regime's credibility. Thomas' recommendation was thus unrealistic not only in relation to the degree to which the German economy had been tailored to satisfy the needs of rearmament, but also in light of Hitler's political, ideological, and foreign policy goals.

The strained and overworked condition of the German economy was at the forefront of Hitler's mind as he considered his foreign policy options in mid-1939. It undoubtedly worked in combination with other critical factors to convince Hitler that a limited war with Poland, not a general European war, would not only alleviate the Reich's serious economic and financial strains, but also bring the regime closer to attaining its ultimate goal of *Lebensraum* (living space) in the East. Revisionist historians such as R.J. Overy have always downplayed the severity and depth of Germany's economic and financial troubles, refusing to accept the argument that domestic economic and social factors contributed directly to Hitler's decision to attack Poland. Nevertheless, it is wrong to suggest that Hitler was ignorant of, or oblivious to, the pandemic stagnation spreading throughout the rearmament economy as a whole, given the continual flow of pessimistic and often distressing updates from Thomas' office, the Four-Year Plan authority, and each of the military services.

Having been adequately informed of these acute shortages, backlogs, and delays, Hitler invariably concluded that rearmament had pushed the German economy to the breaking point, having exhausted its material, financial, and productive capacities, and was now in danger of caving in on itself if relief could not be had in the form of territorial accretion. As Wilhelm Deist states, economic factors were simply too important not to have had a tremendous impact on Hitler's expansionist plans.

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<sup>64</sup> "Twenty-three Items from the Files of the Chief of the Economic Armament Office Concerning Economic Preparation for War and Rearmament Questions for the Period ending 1 March 1939," TMWC, 27, doc. 1301-PS, 160.

The precarious economic situation, the disruption of the State's financial and resulting inflationary tendencies, the State's organization of manpower potential and concomitant social problems as well as the undeniable *potential* threat posed by the sum of these elements to the domestic power base of the regime cannot, at least from 1936 onwards, be left out of consideration in any assessment of Hitler's war policy.<sup>65</sup>

At a conference on 23 May 1939, in the presence of his most senior military and government officials, Hitler openly admitted that the nation's economic and financial constraints necessitated the use of force, presumably to furnish the resources for continued rearmament: "So, too, must the economic problems be solved. No German can evade the creation of the necessary economic conditions for this. Circumstances must rather be adapted to aims. This is impossible without the invasion of foreign states or attacks upon foreign property."<sup>66</sup> Later in August, Hitler once again repeated his warning to the Reich's military leaders, stating that deteriorating economic conditions now demanded some form of action. "We have nothing to lose; we have everything to gain. Because of our restrictions, our economic situation is such that we can only hold out for a few more years. Göring can confirm this. We have no other choice, we must act."<sup>67</sup> The target of this aggression, Hitler announced in May, was the hated Polish state. The conquest of Poland would not only serve Nazi ideological and expansionist aims, but also replenish the Reich's depleted supplies of raw materials, agricultural products, labour (both industrial and agricultural), and hard currency. For, as Hitler confessed, "Danzig is not the subject of dispute at all. It is a question of expanding our living space in the East and of securing our food supplies.... Over and above the natural fertility, thoroughgoing German exploitation [of Poland] will enormously increase the surplus."<sup>68</sup> Considering that even the Reich's

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<sup>65</sup> Deist, The Wehrmacht, 111-12.

<sup>66</sup> "Minutes of a Conference on 23 May 1939," NCA, 7, doc. L-79, 848.

<sup>67</sup> "Speech by the Führer to Commanders-in-Chief, 22 August 1939," DGFP, D, 7, doc. 192, 201.

<sup>68</sup> "Minutes of a Conference on 23 May 1939," NCA, 7, doc. L-79, 849.

most favoured trading partners, those with clearing account agreements, had stopped granting short-term loans to Germany due to its RM 355 million clearing account debt<sup>69</sup>, any addition to the economy in terms of resources or capacity would be a welcome improvement. Even Overy, when faced with this overwhelming mountain of evidence, conceded in 1989 that “Economic motives were a consideration in waging war against Poland alone....”<sup>70</sup> Nevertheless, economic motives were certainly not the sole determinant of war in September 1939.

Other key factors, working in combination with the Reich’s severe economic and financial pressures, convinced Hitler that a limited war with Poland, not a general European war, would be best fought in 1939. First, Hitler saw himself as irreplaceable, and feared that he was Germany’s last, best hope for achieving hegemony on the European continent. As the proverbial lynch-pin to the entire political-economic-military structure of the Third Reich, his existence and position as leader was of paramount importance. Speaking to his military leaders on 22 August, Hitler stated:

Essentially all depends on me, on my existence, because of my political talents. Furthermore, the fact that probably no one will ever have the confidence of the whole German people as I have. There will probably never again in the future be a man with more authority than I have. My existence is therefore a factor of great value. But I can be eliminated at any time by a criminal or a lunatic. No one knows how long I will live.<sup>71</sup>

Thus, after pondering his own mortality, Hitler concluded that time was not in his favour.

Time was also working against the healthy lead in armaments and military readiness which Germany presently possessed relative to its potential enemies. This constitutes the second factor which led Hitler to opt for war. General Thomas had confirmed this earlier in May, when he stated that despite serious shortages of almost every

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<sup>69</sup> Volkmann, “The National Socialist Economy,” 365.

<sup>70</sup> David Kaiser, Tim Mason, R. J. Overy, “Debate: Germany, ‘Domestic Crisis’ and War in 1939,” Past & Present, 122 (February 1989), 223.

<sup>71</sup> “Speech by the Führer to Commanders-in-Chief, 22 August 1939,” DGFP, D, 7, doc. 192, 201.

factor of production, the German armed forces, at present, certainly possessed a considerable lead in both scope and preparedness over those of all other states.<sup>72</sup> Hitler's thoughts on this lead were two-fold. First, in order for it to be thoroughly exploited, Germany must practice a form of pro-active diplomacy: "The power of initiative must not be allowed to pass to others. The present moment is more favourable than in two or three years time."<sup>73</sup> Second, it is apparent from statements made concerning British and French readiness, that Hitler assumed the Reich's lead in armaments would naturally have a deterrent effect:

What are the real facts about British rearmament? The naval construction programme of 1938 has not yet been completed. Only the reserve fleet has been mobilized. No substantial strengthening of the Navy before 1941 or 1942. Little has been done on land. England will be able to send at most three divisions to the Continent. A little has been done for the Air Force, but it is only a beginning. Anti-aircraft defence is in its initial stages. It will take a long time before sufficient numbers [of guns] are produced. England is still vulnerable from the air. This can only change in two or three years. At the moment the English Air Force has only 130,000 men, France 72,000, Poland 15,000. England does not want the conflict to break out for two or three years. France is short on men (decline in the birth rate). Little has been done for rearmament. The artillery is obsolete. France d[oes] not want to embark on this adventure.<sup>74</sup>

This belief was especially strong with regard to the Luftwaffe, whose mere existence, Hitler assumed, would dissuade the West from defending Poland. And his blatant over-estimation of the air force's fighting strength, Edward Homze argues, added to this illusion: "Hitler and Göring were victims of their own propaganda about the Luftwaffe. In the summer of 1939, Hitler apparently came to the conclusion that his Luftwaffe had a decided advantage over his expected opponents but that time was running against him. He

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<sup>72</sup> "Address by General-Major Thomas to Members of the German Foreign Office, 24 May 1939," TMWC, 36, doc. 028-EC, 117-8.

<sup>73</sup> "Speech by the Führer to Commanders-in-Chief, 22 August 1939," DGFP, D, 7, doc. 192, 202.

<sup>74</sup> *Ibid.*, 203.

mistakenly decided to gamble.”<sup>75</sup> That Hitler was grossly misinformed with regard to the extent of French and British rearmament in particular certainly explains his overconfidence in the Reich’s military superiority, and the ease with which he dismissed the threat from the West.

A third factor which encouraged Hitler to take greater diplomatic risks was his growing conviction that Germany must be prepared, without hesitation, to capitalize on the growing instability in international relations throughout the world. He explained this to his military chiefs in August:

The political situation is favourable for us: in the Mediterranean, rivalry between Italy, France and England; in the Far East, tension between Japan and England; in the Middle East, tension which causes alarm in the Mohammedan world. The English Empire did not emerge stronger from the last war. England is in the utmost peril. Unhealthy industrialization. France’s position has also deteriorated, above all in the Mediterranean.<sup>76</sup>

He continued:

Since Albania, there has been a balance of power in the Balkans. Yugoslavia is infected with the fatal germ of decay because of her internal situation. Rumania has not grown stronger. She is open to attack and vulnerable. She is threatened by Hungary and Bulgaria. Since Kemal’s death, Turkey has been ruled by petty minds, unsteady, weak men.<sup>77</sup>

Whether these assumptions were grounded in fact is really unimportant. What matters is Hitler’s view that all political and international conditions were momentarily in Germany’s favour, and his concern that this advantageous international situation would certainly pass unless it was promptly exploited. For, he concluded that “All these favourable circumstances will no longer prevail in two or three years. Therefore, better a conflict

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<sup>75</sup> Horze, Arming the Luftwaffe, 265.

<sup>76</sup> “Speech by the Führer to Commanders-in-Chief, 22 August 1939,” DGFP, D, 7, doc. 192, 201-2.

<sup>77</sup> *Ibid.*, 202.

now.”<sup>78</sup>

Fourth, Hitler’s adamant belief that Great Britain would not intervene in a German-Polish conflict demonstrated a deeply flawed understanding of British strategic interests, and undoubtedly influenced his decision for war. He had argued as early as May that war with Poland appeared inevitable, but that it would have to remain limited. “There will be war,” Hitler announced, and “our task is to isolate Poland. The success of the isolation will be decisive. There must be no simultaneous conflict with the Western Powers.”<sup>79</sup> Three months later, he repeated his opinion that “the probability is still great that the West will not intervene.”<sup>80</sup> How had Hitler arrived at such a position? Most importantly, he sensed a lack of resolve from both British and French leaders, and his experience at Munich a year earlier only helped reinforce this feeling in his own mind: “The other side presents a negative picture as far as authoritative persons are concerned. There is no outstanding personality in England and France. Our enemies have leaders who are below the average. No personalities. No masters, no men of action.”<sup>81</sup>

Hitler had been warned, however, as early as September 1938 that Britain would not shirk from waging war against Germany. Writing to his chancellor on the sorry state of the rearmament economy a month before the Munich crisis, Minister of Finance Schwerin von Krosigk cautioned Hitler not to underestimate Britain’s strategic advantage, nor overestimate the Reich’s economic stability.

The fact that England is not ready for war militarily, does not prevent England from entering it. For she possesses two great trump cards. One is the soon expected active participation of the United States of America in the war. The second trump card is, Germany shows financial and economic weaknesses, although she has a head start militarily. Germany’s self-sufficiency for the required war needs is only in the early stages. In my opinion, it is Utopian to think that we can secure the

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<sup>78</sup> Ibid.

<sup>79</sup> “Minutes of a Conference on 23 May 1939,” NCA, 7, doc. L-79, 849.

<sup>80</sup> “Speech by the Führer to Commanders-in-Chief, 22 August 1939,” DGFP, D, 7, doc. 192, 202.

<sup>81</sup> Ibid., 201.

necessary raw materials with the importations from the Southeast [of Europe] and by the exploitation of our own resources. Economically, we are in a position which corresponds to Germany's situation in 1917. The Western powers would not run against the West Wall but would let Germany's economic weakness take effect until we, after early military successes, become weaker and finally lose our military advantage due to deliveries of armaments and air planes by the United States.<sup>82</sup>

While war had been avoided during the Munich crisis, much to Hitler's chagrin, conditions had changed considerably by the summer of 1939. Overy details the extent of Hitler's self-delusion by this time:

Hitler was determined to create diplomatic conditions in 1939 to ensure that the conflict with Poland would remain localized. Under the growing influence of Ribbentrop, Hitler argued that the failure of the western powers to take action in September 1938, or in March 1939, or against the Soviet action over Bessarabia demonstrated the pusillanimous nature of western leadership. In the event of German moves for a violent settlement with Poland, Hitler believed that Britain and France would do nothing beyond some token of disapproval. Indeed he hoped that his action would produce internal government crisis in the democracies, whose political structure he regarded as more fragile than his own. His arguments for war against Poland only made sense from this perspective.<sup>83</sup>

Little did he realize, as Mason points out, that a stable political and military equilibrium in Europe was an essential component of British strategic security:

Much more persuasive is the fundamental foreign policy argument that Hitler *never* understood Britain and the British Empire, that his idea of some kind of a division of world power between a Germanized continent of Europe and a sea-based British Empire grew out of a total misconception of British interests, and that the British government (even that of Chamberlain) was bound to become involved in war with Nazi Germany as soon as that power entered on wars of aggression. This line of argument emphasizes not the faulty application in the 1930's of the strategy that Hitler had elaborated so clearly in Mein Kampf, but the fact that that strategy was itself founded upon a deep misunderstanding of the basic British need for some kind of balance of power on the continent of Europe. This did not rule out the semi-peaceful revision of some of Germany's frontiers, but it did rule out

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<sup>82</sup> "Letter from Defendant Schwerin von Krosigk to Hitler, 1 September 1938, Concerning the Financial Situation of Germany, the Financing of Armament, and the Clarification of Foreign Policy," TWC, 12, doc. EC-419, 513.

<sup>83</sup> R.J. Overy, Göring: The 'Iron Man' (London: Routledge & Kegan Paul, 1984), 90.

expansionist wars.<sup>84</sup>

Military guarantees such as the Anglo-Polish Alliance of 25 August did nothing to deter Hitler's plans, despite, as Mason once again notes, "the clear evidence of the collapse of one of the central axioms of his foreign policy [namely, avoiding war with Great Britain]."<sup>85</sup> Hitler's decision to continue with a Polish offensive therefore represented a miscalculation in foreign policy of immense proportions, which had far-reaching consequences for the German Reich.

The fifth and final factor which, in conjunction with severe economic and financial pressures, persuaded the Nazi leader that war with Poland could proceed was the security gained from the Nazi-Soviet Non-Aggression Pact of 24 August 1939. The Pact not only provided the Reich with a secure, blockade-proof supply of strategic raw materials and foodstuffs, unlike Germany's experience during the First World War, but also gave Hitler the confidence to proceed with the risk-laden invasion of Poland. Even before the official signing of the Pact, Hitler boasted to his generals that "Now Poland is in the position which I wanted her. We need not be afraid of a blockade. The East will supply us with cattle, coal, lead, and zinc."<sup>86</sup> Two days after the signing, in a letter to the head of the Italian government, his tone had become haughtier:

As neither France nor Britain can achieve any decisive successes in the West, and as Germany, as a result of the Agreement with Russia, will have all her forces free in the East after the defeat of Poland... I do not shrink from solving the Eastern question even at the risk of complications in the West.<sup>87</sup>

The underlying assumption here, hidden amongst the egotistical bluster, was that war with Poland had the potential to cause problems with the Western powers, but these would in all

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<sup>84</sup> Mason, Social Policy, 300.

<sup>85</sup> Mason, "The Domestic Dynamics," 165.

<sup>86</sup> "Speech by the Führer to Commanders-in-Chief, 22 August 1939," DGFP, D, 7, doc. 192, 204.

<sup>87</sup> "The Führer to the Head of the Italian Government," 26 August 1939, DGFP, D, 7, doc. 307, 314.

likelihood surface only *after* Poland had been defeated, if at all. Nevertheless, Hitler was willing to take this chance, for it is clear that he never regarded British and French guarantees to Poland as sincere. The pact with Russia, Overy argues, “was a diplomatic coup of the greatest importance, for it came at just the right psychological moment from Hitler’s point of view, and seemed to remove once and for all the threat of a serious crisis in the west.”<sup>88</sup> Hans Mommsen adds, however, that the agreement with Russia created false expectations of a limited conflict which bound the regime and its leaders to a military solution:

In the last hour the German-Soviet non-aggression pact reinforced the illusion of an isolated war against Poland. It was, however, decisive that as a result of its internal structure, the regime could not retreat without endangering its very existence. The prevention of war would in any case have discredited Hitler and his close entourage.<sup>89</sup>

The Non-Aggression Pact thus paved the way for Hitler’s calculated risk.

All of these various factors – deteriorating economic and financial conditions; Hitler’s fears for his health and ability to govern; time-related pressures concerning the Reich’s military advantage; Hitler’s belief in the existence of a favourable international situation; his miscalculation of British and French resolve; and the strategic security intrinsic in a non-aggression pact with Soviet Russia – played a major role in determining the outbreak of war in September 1939. They collectively limited Hitler’s options, influenced his judgement, and led him to launch a war against Poland in the hopes that the ensuing battle would not escalate into a general war with the Western powers. Of all the scholars who have written on this topic, Overy best captures the nature of Hitler’s thoughts at this critical point in time:

I see him [Hitler] deliberately playing down the warnings of those who said that Britain was serious this time, increasingly obsessed with the desire to have his local war against the obstinate Poles, trapped intellectually in a self-deluding racial view of the European balance of power, anxious to buy off Russia, even at the

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<sup>88</sup> Overy, *War and Economy*, 195.

<sup>89</sup> Hans Mommsen, “Reflection on the Position of Hitler and Göring in the Third Reich,” *Reevaluating the Third Reich*, eds. Childers and Caplan, 96.

extravagant price of giving Stalin a major strategic foothold in eastern Europe, taking the risk that he felt he should have taken in 1938 but had been tricked out of by Chamberlain and Mussolini. War with Poland would solve some of the economic problems, would help to keep the regime on the boil, and would bring him widespread popular support and give his soldiers a first taste of blood. In this sense the war had a domestic dimension as well, and was not just 'foreign policy'. But most of all he saw a window of opportunity opening up and did not want to lose it. He remained stubbornly committed to limited economic mobilization to meet a local war in August, an order that was not replaced with one for general economic mobilization... until 3 September.<sup>90</sup>

Whatever Hitler's particular mind set may have been, however, the deteriorating state of the Reich's economic and financial solvency throughout 1938 and 1939 was, without question, the principal catalyst which forced the regime to decide in the relatively near future whether to slow rearmament, or risk a *limited* confrontation in order to continue rearming. What resulted was a general war which Germany and its National Socialists neither desired nor were prepared to fight.

Certain, then, is that the Reich's pre-war rearmament efforts were devoted overwhelmingly to constructing an industrial foundation upon which large-scale armaments production, and a corresponding expansion of the armed forces, could take place. Leading experts in this field, including Overy, Murray, Mason, Volkmann, Kaiser, and Geyer, agree to varying degrees that the Reich's pre-war rearmament was, by any standards, massive. More precisely, however, pre-war rearmament was as extensive an undertaking as possible given the Reich's political or diplomatic, economic, and financial restraints throughout the 1930s. It is estimated that between 1933 and 1939, the Wehrmacht's total direct expenditures on rearmament averaged RM 60.9 billion, ranging from a low estimate of RM 60.82 billion to a high assessment of RM 81.12 billion. Table 1 outlines the estimated figures for total direct rearmament expenditures, 1933-1939.

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<sup>90</sup> Kaiser, Mason, Overy, "Debate: Germany," 236.

Table1 *Some Estimates of Rearmament Expenditure 1933-1939, by Calendar Year*  
(RM billions)

|       | 1      | 2     | 3      | 4    | 5      | 6     | 7    |
|-------|--------|-------|--------|------|--------|-------|------|
| 1933  | 0.746  | 0.7   | —      | 1.9  | 0.746  | 0.72  | 1.5  |
| 1934  | 4.197  | 4.2   | 4.433  | 4.1  | 4.197  | 3.3   | 2.8  |
| 1935  | 5.487  | 5.5   | 5.934  | 6.0  | 5.487  | 5.15  | 5.5  |
| 1936  | 10.273 | 10.3  | 10.743 | 10.8 | 10.273 | 9.0   | 11.0 |
| 1937  | 10.961 | 11.0  | 14.515 | 11.7 | 10.961 | 10.85 | 14.1 |
| 1938  | 17.247 | 17.2  | 20.325 | 17.2 | 17.247 | 15.5  | 16.6 |
| 1939  | 11.906 | 32.3  | 13.907 | 30.0 | —      | —     | 16.3 |
| TOTAL | 60.82  | 81.12 | 69.86  | 80.7 | 48.9   | 44.52 | 67.8 |

*Estimate sources (by column):* (1) Heinrich Stuebel, 'Die Finanzierung der Aufrüstung im Dritten Reich', *Europa-Archiv*, 6 (1951), 4129; (2) Wolfram Fischer, *Deutsche Wirtschaftspolitik 1918-1945* (Opladen: C.W. Leske, 1968), 102; (3) Arthur Schweitzer, *Big Business in the Third Reich* (Bloomington, Ind.: Indiana University Press, 1964), 331; (4) Carroll, *Design*, 184; (5) Minister of Finance Schwerin von Krosigk in the Wilhelmstrasse trial, quoted from René Erbe, *Die nationalsozialistische Wirtschaftspolitik 1933-1939 im Lichte der modernen Theorie* (Zurich: Polygraphischer Verlag, 1958), 39; (6) *Ibid.*, 25, 100; (7) Dietrich Eichholtz, *Geschichte der deutschen Kriegswirtschaft 1939-1945*, vol. I 1939-1941 (East Berlin: Akademie-Verlag, 1969), 31.

*Source:* Hans-Erich Volkmann, "The National Socialist Economy in Preparation for War," in *Germany and the Second World War*, Vol. I, ed. Research Institute for Military History, Freiburg im Breisgau, (Oxford: Clarendon Press, 1990), 237.

It is clear that the Reich's direct spending on armaments in peace time was enormous, exhibiting a three- to fivefold increase from 1935 to 1939, depending on the estimate employed. In other words, a full eight percent of the nation's GNP (gross national product) was dedicated to direct military spending in 1935, 15 percent in 1938, and an impressive 23 percent by 1939 -- a far higher outlay on military expenditure than that of any of Germany's future opponents.<sup>91</sup> These figures, however, do not include the indirect

<sup>91</sup> "Address by General-Major Thomas to Members of the German Foreign Office, 24 May 1939," TMWC, 36, doc. 028-EC, 120; Overy, *War and Economy*, 20.

Over this same period, German GNP rose from RM 74 billion to RM 130 billion. See Mason, *Social Policy*, 181.

rearmament expenditures of the ministries of labour, transport, the interior, and all civilian departments, nor that of the Four-Year Plan.<sup>92</sup> Consequently, many historians, including Overy, caution that “The formal military budget... ignores the growing significance of ‘indirect rearmament’ after 1936... and greatly understates the degree to which the German economy was committed to re-militarization in the late 1930’s.”<sup>93</sup> Furthermore, none of these rearmament expenditure estimates helps to confirm the validity of a restrained *Blitzkrieg* economy. In fact, each demonstrates the opposite.

State expenditures on capital investments also illustrate the nature of pre-war German rearmament. In general, investment in the Reich’s producer goods industries more than doubled between 1928 and 1939.<sup>94</sup> More specifically, investments in the capital goods sector quadrupled from 1935 to 1939, and approximately 50 to 60 percent of all industrial investment went into the large “militarily-important branches of industry that came within the purview of the Four-Year Plan”<sup>95</sup> during the last two years of peace. While both Overy and Murray point out the significance of this, Overy adds that the orientation of the German economy after 1936 was increasingly geared toward industrial enlargement, producer-goods production, and strategic infrastructure and transport improvement.

The whole industrial economy was distorted in favour of engineering, industrial raw materials, and heavy industrial equipment. The labour market, too, suffered a similar distortion, with shortages in consumer industries and agriculture. By 1939 a quarter of the industrial work-force laboured on orders for the armed forces, but a great many more worked on constructing the industrial capacity, or on the raw-material programmes of the Four-Year Plan, or the building of the Westwall fortifications, or the strategic refurbishment of the railways.<sup>96</sup>

Given that armaments production appears at this time to be just one in a multitude of

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<sup>92</sup> Volkmann, “The National Socialist Economy,” 237.

<sup>93</sup> Overy, War and Economy, 20.

<sup>94</sup> Murray, The Change, 17-19; Overy, War and Economy, 263- 4.

<sup>95</sup> Mason, Social Policy, 181.

<sup>96</sup> Overy, War and Economy, 21.

rearmament priorities and tasks, it seems highly unlikely that a regime planning to launch a series of brief wars some time in the near future would continue to focus such intense effort and vast material and labour resources on the construction of large-scale, long-term industrial and raw material projects during the last years of planned peace. Overy agrees, arguing,

This strategy makes very little sense in terms of a limited commitment to short wars, and Hitler himself made it clear on numerous occasions that his conception went well beyond that, for a major war to be fought when the armaments were finally ready in 1943-5; and when the economic resources of central and south-eastern Europe had been integrated with those of the Reich, to provide a large economic platform for the launching of war.<sup>97</sup>

Moreover, it was these heavy industrial projects, not arms or munitions manufacturing facilities, which, by September 1939, had already been completed or showed the greatest degree of progress:

On 8 August... OKW drew up a list of industrial sectors for which mobilization plans already existed, those in preparation, and those still to be produced. It is significant that the mobilization plans that were complete [iron/steel, chemicals in part, mineral oil] were exclusively in the heavy-industrial sectors, the foundations of the war economy, and were almost entirely lacking in the manufacturing sectors, reflecting closely the priorities established under the Four-Year Plan in 1936. Even in the heavy-industrial sectors there was still much that needed to be done.<sup>98</sup>

In order to continue paying for these large rearmament projects, the regime was increasingly forced to borrow funds and enlarge the national debt; taxation covered only two-thirds of the growing costs associated with uninhibited rearmament, and, as has been mentioned, Hitler's cancellation of the Mefo bill program in early 1938 eliminated a valuable source of stable medium-term funding. Consequently, the national debt doubled to almost RM 42 billion between 1935 and 1938, and rose 30 percent over the 1938/39 fiscal year alone, resulting in what Mason refers to as a "revolution in German public

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<sup>97</sup> Ibid., 263.

<sup>98</sup> Ibid., 198.

finances."<sup>99</sup>

This in-depth construction of an extensive military-industrial base also entailed a concomitant capping, if not reduction, of consumer consumption. While earlier historians in this field believed the civilian economy to be largely unaffected by the Reich's 'modest' preparations for war<sup>100</sup>, most contemporary scholars have found that the civilian economy was indeed circumscribed to a greater or lesser degree after 1936. In 1938, for example, civilian consumption made up between 54 and 59 percent of German national income, whereas this level had been 81 percent in 1933, and 71 percent in 1928.<sup>101</sup> These figures, however, do not even take into account the decade-long growth in population and employed labour force, the 20 percent rise in the index of industrial production, and the almost 40 percent increase in gross national product.<sup>102</sup> Further proof of a restricted civilian economy is provided by Carroll, who found that "Consumer goods output increased 38 percent between 1932 and 1938, while output of capital goods increased 197 percent."<sup>103</sup> As Table 2 demonstrates, an overwhelming concentration of resources was being directed to Germany's capital industry and producer-goods sector after 1935, while the nation's investment in the consumer-goods industry recovered slowly and modestly, failing to reach even 1928 levels by 1938.

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<sup>99</sup> Mason, Social Policy, 181; M. Geyer, "Rüstungsbeschleunigung und Inflation," cited in Overy, War and Economy, 191; Mason, "Some Origins," 83.

<sup>100</sup> See Burton H. Klein, Germany's Economic Preparations (Cambridge, Mass.: Harvard University Press, 1959), and Alan S. Milward, The German Economy at War (London: The Althone Press, University of London, 1965).

<sup>101</sup> R. Erbé, Die nationalsocialistische Wirtschaftspolitik im Lichte der modernen Theorie, 100, cited in Overy, Göring, 83.

<sup>102</sup> C.W. Guillebaud, The Social Policy of Nazi Germany (Cambridge/London, 1941), 106, and Klein, Germany's Economic Preparations, 72, 10, both cited in Mason, "Some Origins," 82.

<sup>103</sup> Carroll, 89.

Table 2 *Investment in German Industry 1928-1938 (1928 = 100)*

|      | Production-goods<br>industry |       | Consumer-goods<br>industry |       | Industry<br>overall |       |
|------|------------------------------|-------|----------------------------|-------|---------------------|-------|
|      | RMm.                         | %     | RMm.                       | %     | RMm.                | %     |
| 1928 | 1717                         | 100.0 | 898                        | 100.0 | 2615                | 100.0 |
| 1932 | 245                          | 14.3  | 194                        | 21.6  | 439                 | 16.8  |
| 1933 | 309                          | 18.0  | 248                        | 27.6  | 557                 | 21.3  |
| 1934 | 700                          | 40.8  | 360                        | 40.0  | 1060                | 40.5  |
| 1935 | 1221                         | 71.1  | 415                        | 46.2  | 1636                | 62.6  |
| 1936 | 1637                         | 95.3  | 522                        | 58.1  | 2159                | 82.6  |
| 1937 | 2208                         | 128.6 | 635                        | 70.7  | 2843                | 108.7 |
| 1938 | 2952                         | 171.9 | 739                        | 82.3  | 3691                | 141.1 |

Source: Ursula Albert, Die deutsche Wiederaufrüstung der Dreißiger Jahre als Teil der staatlichen Arbeitsbeschaffung und ihre Finanzierung durch das System der Mefawechsel (unpubl. diss. Nuremberg, 1956), 68, cited in Volkmann, "The National Socialist Economy," 231.

Similarly, workers' wages shrank as a percentage of national income between 1928 and 1938, as Table 3 outlines; this decline was, of course, most pronounced after 1932, as the National Socialist regime sought to discourage consumer consumption by curtailing wages. Real earnings also failed to reach 1928 levels over the same period.

Table 3 *German Wage and Consumption Statistics 1928-1938*

|      | Real Earnings<br>(1925/9 = 100) | Wages<br>(as % of national<br>income) | Consumption<br>(as % of national<br>income) |
|------|---------------------------------|---------------------------------------|---|
| 1928 | 106                             | 62                                    | 71  |
| 1930 | 114                             | —                                     | —   |
| 1931 | 106                             | —                                     | —   |
| 1932 | 91                              | 64                                    | 83  |
| 1933 | 87                              | 63                                    | 81  |
| 1934 | 88                              | 62                                    | 76  |
| 1935 | 91                              | 61                                    | 71  |
| 1936 | 93                              | 59                                    | 64  |
| 1937 | 96                              | 58                                    | 62  |
| 1938 | 101                             | 57                                    | 59  |

Source: G. Bry, Wages in Germany 1871-1945, (Princeton: Princeton University Press, 1960), 331, 362, cited in Overy, Göring, 83.

As shown, civilian consumption was being actively discouraged after 1932, falling steadily as a percentage of national income, and the Reich's rising consumption throughout the 1930s was thus concentrated largely in the military and heavy industrial sectors of the national economy. These wage and consumption figures also suggest that workers and consumers directly subsidized German rearmament through restricted wages and reduced living standards.

There is therefore sufficient evidence from the pre-war period alone to corroborate the claims, first, that German rearmament was as extensive and large as was politically, materially, and financially possible; second, that the Reich was preparing to fight a long war in the early to mid-1940s after its long-term industrial and manufacturing programmes had been completed; and, finally, that the *Blitzkrieg* strategy theory as an historical construct has been proved fallacious, and is now undefendable. A close examination of the Reich's military operations and economic mobilization in wartime supports these conclusions, for it not only reveals the true nature of the German offensives against Poland and France, but also explains the character of the war economy between 1939 and 1941.

It is important to first point out that while the Wehrmacht did, throughout the Polish and French campaigns, employ tactical and operational manoeuvres commonly described as *Blitzkrieg* tactics, we must not confuse these operations with the revolutionary armoured strategy promoted by General Heinz Guderian. As discussed in Chapter 2, key scholars in this field, after examining the force structure and conduct of the invading army, have made three important discoveries. First, the army in both campaigns was made up overwhelmingly of traditional infantry divisions, not motorized and armoured divisions as a pre-determined *Blitzkrieg* strategy would necessitate. Fourteen of a total of 103 German divisions taking part in the attack on Poland were fully motorized (six, and later ten were panzer) and only sixteen of 135 divisions serving in the French conflict were motorized. Clearly, as Murray points out, "[the] development of armour was not the central concern of the army's leadership. Rather, the army placed the emphasis in rearmament on World War I style, that is, on infantry divisions."<sup>104</sup> Why was this so? Because, Murray continues, "the

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<sup>104</sup> Murray, *The Change*, 37.

OKH and most generals... did not regard armour as the solution to Germany's strategic problems" and therefore took no part in the development of armoured tactics to meet these requirements.<sup>105</sup> Second, German armoured divisions were not used to their fullest potential, for they were limited primarily to a supportive role for the larger army of foot soldiers. This was most obvious during the Polish conflict, in which vast numbers of tanks were attached to infantry divisions, outside the realm of the panzer arm, to form motorized infantry or light divisions. As Matthew Cooper states, "The mechanized units were distributed along the 1000 mile front, positioned among the armies in groupings no bigger than corps. The principle of concentration, so earnestly advocated by Guderian, had been disregarded."<sup>106</sup> Even within the panzer arm's six, and eventually ten armoured divisions, the uneven distribution of tank units and inadequate supply of supporting mobile infantry divisions negatively affected the offensive capacity and endurance of each division. In general, then, the armoured forces, either within the panzer arm or spread throughout the infantry formations, possessed no independent role, and were tied closely to the movements of the mass army. Cooper explains:

At every point throughout the [Polish] campaign the actions of the mechanized forces were subordinated to the strategy of encirclement, and, for most of the time, the movements of the individual units were closely co-ordinated with those of the mass of the infantry armies to which they were attached. Throughout, the employment of the mechanized units revealed the idea prevalent among the senior army and army group commanders that they were intended solely to ease the advance and to support the activities of the infantry.<sup>107</sup>

Third, the army high command (OKH) never really employed Guderian's radical armoured idea in either the Polish or French campaigns, for this would have meant the organization

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<sup>105</sup> Williamson Murray, "German Army Doctrine, 1918-1939, and the Post-1945 Theory of 'Blitzkrieg Strategy'," German Nationalism and the European Response, 1890-1945, eds. Carole Fink, Isabel V. Hull, and MacGregor Knox (Norman & London: University of Oklahoma Press, 1985), 93.

<sup>106</sup> Matthew Cooper, The German Army 1933-1945: Its Political and Military Failure (Lanham, MD: Scarborough House Publishers, 1978), 173-4.

<sup>107</sup> *Ibid.*, 174, 176.

of armour into large, self-contained units operating independently of the traditional infantry divisions, undertaking deep, penetrative thrusts behind enemy lines in order to induce organizational chaos. Instead, the General Staff proceeded with the orthodox strategy of decisive manoeuvre and envelopment as set out in *Die Truppenführung* of 1933<sup>108</sup>, which, nonetheless, still necessitated the prosecution of a *blitzschnell* (quick, lightning-like) war.<sup>109</sup>

This was clearly evident with regard to Wehrmacht operations in Poland which, as Cooper observes, followed closely the OKH's conventional strategy:

Any strategic exploitation of the armoured idea was still-born. Certainly, the panzer and motorized divisions played an important role in the ground operations, spearheading three out of five armies involved, and, certainly, the new concept found tactical expression in Hoepner's... Guderian's... and Thoma's [advances].... But there it ended. The paralysis of command and the breakdown of morale were not made the ultimate aim of the operational employment of the German ground and air forces, and were only incidental by-products of the traditional manoeuvres of rapid encirclement and of the supporting activities of the flying artillery of the Luftwaffe, both of which had as their purpose the physical destruction of the enemy troops. Such was the *Vernichtungsgedanke* of the Polish campaign.<sup>110</sup>

Such was the case during the French invasion as well, where the rapid advance of the panzer divisions was continually hampered by senior German commanders distressed by increasingly exposed flanks and overstretched or severed supply lines.<sup>111</sup> "The proposals for deep, unsupported thrusts by mechanized formations," Cooper maintains, "were not only actively encouraged, they were positively feared."<sup>112</sup> This was demonstrated in a March 1940 memorandum from General Georg von Sodenstern, Chief of Staff to Field-Marshal Gerd von Rundstedt, to General Franz Halder, Chief of the Army General Staff:

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<sup>108</sup> See above, Chapter II, p. 36-7.

<sup>109</sup> Murray, *The Change*, 37; also see above, note 13, Chapter II, p. 36.

<sup>110</sup> Cooper, 174, 176.

<sup>111</sup> These commanders included Generals von Kleist, Rundstedt, Brauchitsch, Leeb, and Bock.

<sup>112</sup> Cooper, 219.

I have serious objections to the use of armoured and motorized forces ahead of the front line of the attacking armies. These mobile forces can have a strong effect upon morale, because of their speed and heavy armament, and yet, quite apart from my basic opinion that they should be held back as operation reserves to force a decision after the enemy front has been broken, I fear that they will be unable to carry out the task allotted to them in the imminent operation.<sup>113</sup>

Thus the French campaign, like the Polish before it, was conducted within the purview of the traditional strategic doctrine favoured by the army's senior commanders. That this strategy ultimately failed to completely eliminate all resistance in the West, Cooper explains, is exemplified by the German halt order at Dunkirk:

The famous 'halt order', which saved the British Army, has been a subject of much controversy. If the fateful decision to stop the panzers outside Dunkirk is regarded as an isolated, typical incident of the campaign, then the answer is difficult to find. If, however, it is seen as the culmination of the fears, hesitations, and failings of the previous nine days, it becomes readily understandable. Coordination of the force and security of the flanks, had been basic to the German advance so far; and on 24 May, just as they were on the verge of one of the most decisive battles of annihilation in history, Hitler and his generals chose to behave exactly as they had done for the past fourteen days. They saw no reason why they should act against their tradition.<sup>114</sup>

Orthodoxy, not heterodoxy, thus dominated the strategic planning and execution of both the Polish and French campaigns.

*Blitzkrieg*, then, was not a strategy. Rather, it was a series of winning operational tactics and manoeuvres hastily put into practice by competent front-line commanders under the doctrinal guidance of Guderian's armoured idea. Had not the Wehrmacht been such an effective fighting force, the Polish and French campaigns may have become long, extended battles of attrition, and there would be no such concept as that of a planned *Blitzkrieg* strategy. Nor is there any evidence to suggest that this front-line tactical doctrine was formulated with the Reich's precarious economic state in mind. It has already been shown

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<sup>113</sup> "General G. von Sodenstern to General F. Halder," 5 March 1940, Imperial War Museum AL 795B, cited in Cooper, 204.

<sup>114</sup> Cooper, 230.

that not only did army high command *not* emphasize the development and deployment of mobile armour, preferring instead traditional infantry formations, but it also deliberately suppressed the application of Guderian's principles throughout both conflicts. As Murray points out, "The coincidence between the development of the doctrine that won the great victories of 1939-41 and the strategic needs of the German economy was no more than that: sheer coincidence."<sup>115</sup> It is because these early campaigns were such definitive successes that certain scholars, in hindsight, saw fit to apply a theoretical framework to these events, thus adding some much needed order and clarity to what, in reality, was a very disorganized and confusing period.

This disorder arose, however, because Germany lacked a clearly-formulated strategy which, normally, would have served as a foundation around which the regime could set priorities and establish short- and long-term goals for both the armed forces and the national economy. Responsibility for this situation lies primarily with Hitler, whose diplomatic risk-taking and push for unrestricted rearmament over the past three years ultimately thrust the Reich prematurely into a general war which it had neither planned for nor was prepared, at the moment, to fight. And this strategic uncertainty did not disappear once war began, for even after the Polish campaign had ended, Hitler's war directives continued to be marked, as Bernhard Kroener notes, by "a strangely ambivalent estimate of the situation which alternated between the hope for a short conflict and the fear of a longer one."<sup>116</sup> No strategy for *Blitzkrieg* could have possibly been formulated, let alone implemented, in such an atmosphere, nor could it have been the guiding force behind what Murray describes as an essentially improvised war effort:

A close examination of the evidence does not support the theory of a *Blitzkrieg* strategy; rather it points to an uncertain and unclear grand strategy in which the Germans put the military pieces together at the last moment, with serious doubts

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<sup>115</sup> Murray, "German Army Doctrine," 91.

<sup>116</sup> Denkschrift of 9 October 1939, cited in Bernhard R. Kroener, "Squaring the Circle: Blitzkrieg Strategy and Manpower Shortage, 1939-1942," The German Military in the Age of Total War, ed. Wilhelm Deist (Warwickshire, U.K.: Berg Publishers Ltd., 1985), 289.

and considerable haste. Whatever the reasons, the Germans fought the war of 1939-1940 (in fact the war in general) very much on the basis of an *ad hoc* strategy. The lack of realistic, hard-headed appraisals of risks, strengths, weaknesses, and economic factors in German strategic directives is striking when one compares British appreciations with whatever German ones come to mind, whether they be Hitler's or Beck's.<sup>117</sup>

The regime's unwillingness and inability to forge a comprehensive strategic blueprint not only affected the performance of the military forces, but also had a particularly negative impact on the rearmament economy's efficiency and productivity from the outset of the war.

The German economy's performance during the early years of war reveals the absence of an overriding plan to tailor pre-war economic preparations and armaments production to the specific requirements of *Blitzkrieg* campaigns. In fact, the economy, caught off guard by the immediate and substantial material requirements of the Polish invasion, suffered severe difficulties and pressures as a result of the premature outbreak of general war, and, more importantly, Hitler and the Nazi leadership's refusal to lay down unambiguous strategic goals and production priorities. Thomas and those within the Defence Economy and Weapons Office repeatedly called on Hitler to give the Reich's military and economic leaders some indication as to the nature and possible length of the conflict so that they could make the appropriate preparations. The general stated in a September memorandum, "We urgently need instructions from the Führer on where we should focus our urgent needs," and he lamented the fact that shortages of labour, factory capacity, and raw materials had already delayed the completion of many needed armament programmes.<sup>118</sup> On 18 September he wrote that with regard to the Reich's limited stocks of raw materials, "We need a quick, clear decision about what length of war our further rearmament should aim for, [and] a decision about which goals and production targets the

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<sup>117</sup> Williamson Murray, *German Military Effectiveness* (Baltimore, MD: The Nautical & Aviation Publishing Company of America, 1992), 225, 361.

<sup>118</sup> OKW, NARA T-77/429, W/ I F 5.3575, "Interne Monatsberichte zur deutschen Rüstungswirtschaft," September 1939, frame 1291954.

German economy should work toward, and which priorities should guide further rearmament.”<sup>119</sup> But these decisions were not immediately forthcoming, and economic efficiency suffered as a result.

Organizational chaos grew exponentially within the German economy after 1 September, since it was allowed to operate as it had done in peacetime: no co-ordination, no central planning, no centralized control of raw material distribution, and no clear production priorities. Thomas remarked, “In the course of the first month of war, it has been shown that the conversion of the economy needs time to adjust, and that the sudden change from peace to a war economy naturally has led to some clashes.”<sup>120</sup> The most urgent area of concern was the production of weapons and munitions, which, as the Polish conflict demonstrated, was wholly unable to keep pace with the military’s rates of consumption; after-action field and economic reports revealed that the armed forces had consumed from two to eight times the amount of various types of munitions which the national economy could produce in a month.<sup>121</sup> Thomas, Carl Krauch of I.G. Farben and the Four-Year Plan, and other economic experts all agreed that “We need to advise the Führer together: the munitions programme should be our number one priority. Other programmes need to be postponed or shortened. A better munitions situation will determine the war.”<sup>122</sup> Internal memoranda from Thomas’ office reported in October that insufficient supplies of skilled workers, raw materials, factory equipment, and food for industrial labourers meant that most production demands over the past two months had not been met. It also acknowledged that the armament industry as a whole had experienced severe disruptions in its production programmes as a result of the sudden outbreak of

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<sup>119</sup> Ibid., 1291973.

<sup>120</sup> Ibid., 1291958.

<sup>121</sup> Ibid., November 1939, 1291997.

<sup>122</sup> OKW, NARA T-77/331, Wi/ I F 5.2014, “Aktenvermerk vom 21. November 1939,” Auszüge aus Aktenvermerken über Besprechungen bei General Thomas, frame 1166895.

war.<sup>123</sup> These disruptions, however, were not limited solely to armaments production. In fact, the Reich's entire raw material distribution and transport systems were strained to the breaking point, unable to meet the challenges posed by a general war in 1939.<sup>124</sup> As Overy aptly notes, "Many of the problems and pressures faced by the German war effort were the result, rather than the cause, of the premature outbreak of a large-scale European war."<sup>125</sup>

These severe economic upheavals clearly make no sense within the context of a *Blitzkrieg* strategy. The German invasion of Poland was, according to *Blitzkrieg* strategy proponents, the model *Blitzkrieg* campaign, and yet the Reich economy had such difficulty meeting the relatively modest military demands of such a conflict. Surely, had pre-war plans been in place to keep mobilization levels just high enough to defeat an enemy in a quick campaign, the German economy would not have experienced such chaotic upheavals from a brief conflict against a vastly inferior enemy. The fact that the *Blitzkrieg* strategy, after almost fifty years, still cannot adequately account for such a situation demonstrates how historical reality has been made to fit within a theoretical assumption. Clearly, the performance of the national economy throughout the early months of war reveals the absence, not the presence, of a purposely restrained pre-war rearmament programme.

Long after hostilities had ended, though, the confusion, mismanagement, and lack of direction continued, as the patchwork system which had governed Germany's pre-war rearmament faltered under the demands of war. Bottlenecks in munitions production and machine equipment persisted, as did shortages of essential raw materials, mineral oil, rail cars, and steam engines.<sup>126</sup> It was the distinct absence of planning objectives, decisive

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<sup>123</sup> OKW, NARA T-77/429, Wi/ I F 5.3575, "Interne Monatsberichte," October 1939, frame 1291979.

<sup>124</sup> Ibid., September 1939, 1291964; OKW, NARA T-77/331, Wi/ I F 5.2014, "Aktenvermerk über eine Besprechung bei General Thomas am 17.11.39 über Erhöhung der Eisen- und Stahlkontingente zur Durchführung des Krauch- Plans," frame 1167002.

<sup>125</sup> Overy, War and Economy, 25.

<sup>126</sup> See OKW, NARA T-77/429, Wi/ I F 5.3575, "Interne Monatsberichte," September - November 1939, and Wi/ I F 5.2014, "Aktenvermerk," 18 September 1939, 21 November 1939, 17 November 1939.

leadership, and co-operation from all the Reich's sectors which, Overy argues, contributed to this chaotic state:

Industrialists blamed the problems on a lack of clear planning. Thomas blamed the problem on poor leadership by the civilian ministers, particularly Funk at the Economics Ministry, and on the party officials which would comply only slowly with the demands for conversion, or who refused to abandon party or state projects on political as much as economic grounds. The irony was that the military and state authorities, in their anxiety to convert the economy thoroughly and smoothly to war, while avoiding disruption on such a scale that it might evoke popular resentment, created instead a confused scramble....<sup>127</sup>

Hitler's 4 October revision of the vague and inadequate priority rating he had issued on 7 September did little to ameliorate the chaos, for while it outlined the urgent tasks of each of the three services, it instituted no fixed schedule, thereby forcing these pressing conversion programmes to compete with each other for top rank.<sup>128</sup> Six days later, Hitler arbitrarily and without warning moved the motorization of further Wehrmacht divisions to top priority. Later, in mid-November, he once again revised the economy's priority rating by placing munitions production above all other programmes.<sup>129</sup> Disturbed by Hitler's erratic penchant for shifting mobilization and production priorities, Thomas denounced the deplorable state of German economic mobilization at a conference on 21 October to members of the Economics Ministry and Army Ordnance Office, and attempted to

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<sup>127</sup> R.J. Overy, "Mobilization for Total War in Germany 1939-1941," English Historical Review, v.103, 408 (1988), 623.

<sup>128</sup> Carroll, 195; OKW, NARA T-77/429, Wi/ I F 5.3575, "Interne Monatsberichte," October 1939, frame 1291979, lists these tasks as outlined by Hitler, in order of urgency:

- 1.) Army- continue the completion of weapons.
  - the munitions programme.
  - equipping the motorized divisions.
- 2.) Navy - carry out the U-boat programme
  - completion in 1940 of necessary surface ships.
- 3.) Luftwaffe- the Ju-88 programme.
  - improvement of bomb production and manufacturing.
  - the anti-aircraft programme.

<sup>129</sup> Carroll, 196.

convince those in attendance that things must change.

There reigns today in Germany a war of each against all. The situation is the more to be deplored, in that I have been at pains to make it clear to the Commanders-in-Chief that focal points should be designated within the services and that the raw materials should be assigned first of all to these.

The General Staff and Ordnance Offices have also been informed in full detail. And what has happened? Now we hear on all sides the demand that no more reserves be maintained, but that all available supplies of raw materials be distributed for current use.... New demands have been put forward by all three services. This cannot go on.<sup>130</sup>

By November, Thomas' frustration with the unchanged situation was palpable, as the economy continued to endure chronic transport problems, weapons and munitions backlogs, and depleted raw material stocks: "The General Staff's need for munitions is understandable, however, impossible given the available raw materials. At the beginning of the war, we should have determined the important areas and concentrated on those. It is at present impossible to carry out the orders of all three of the armed services."<sup>131</sup>

Furthermore, rivalry amongst the service branches, due in part to Hitler's frequent priority revisions, continued unabated and was a great hindrance to the economy's conversion to wartime production. "Within the Wehrmacht's armament industry and services," Thomas noted, "there is again an intensifying competition amongst the programmes for existing workers, raw materials, and plant capacity. We can only carry out one programme, and another is set back."<sup>132</sup> Wastage, inefficiency, duplication of effort, and managerial incompetence became hallmarks of the German war economy over the next two years of war.

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<sup>130</sup> OKW, NARA T-77/331, Wi/IF 5.2014, "Aktenvermerk über eine Besprechung bei General Thomas betr. Eisen- und Stahlkontingente des Heeres am 21.10.1939," 23 October 1939, frames 1166966-67.

<sup>131</sup> OKW, NARA T-77/331, Wi/IF 5.2014, "Aktenvermerk vom 21. November 1939," frame 1166894.

<sup>132</sup> OKW, NARA T-77/429, Wi/IF 5.3575, "Interne Monatsberichte," November 1939, frame 1291992.

The total lack of centralized direction and unified control over productive resources, coupled with unrestrained competition amongst the armed services, the Four-Year Plan, and various other government ministries, led to the complete mismanagement and under-utilization of the national economy, and a distressingly low level of armaments production. As Table 4 demonstrates, German weapons and munitions production rose at a steady rate from September 1939 until late 1940, whereupon it stagnated and even fell slightly the following year.

Table 4 *Indices of Production of Certain Armaments in Germany, 1939-1941*  
(average monthly indices, Jan/Feb. 1942 = 100)

| <i>Period</i>                | <i>Ammunition</i> | <i>Explosives</i> | <i>Bombs</i> | <i>Army<br/>Weapons</i> |
|------------------------------|-------------------|-------------------|--------------|-------------------------|
| 1939 4 <sup>th</sup> quarter | 74                | 38                | 41           | n.a.                    |
| 1940 1 <sup>st</sup> quarter | 82                | 41                | 40           | 86                      |
| 2 <sup>nd</sup> quarter      | 125               | 88                | 146          | 101                     |
| 3 <sup>rd</sup> quarter      | 139               | 101               | 179          | 97                      |
| 4 <sup>th</sup> quarter      | 102               | 82                | 124          | 101                     |
| 1941 1 <sup>st</sup> quarter | 105               | 93                | 122          | 127                     |
| 2 <sup>nd</sup> quarter      | 106               | 107               | 117          | 144                     |
| 3 <sup>rd</sup> quarter      | 100               | 103               | 106          | 132                     |
| 4 <sup>th</sup> quarter      | 95                | 111               | 100          | 90                      |

*Source:* U.S.S.B.S., The Effects of Strategic Bombing on the German War Economy, (Washington, D.C.: United States Government Printing Office, 1945), 283-6, cited in Alan S. Milward, War, Economy and Society, 1939-1945 (London: Allen Lane, 1977), 80.

But figures gathered by Rolf Wagenführ on weapons expenditures in Table 5 reveal a constant, stable increase throughout this same period.

Table 5 *Expenditure on Selected Weapons in Germany, 1939-1941*

| <i>Weapon</i>     | <i>1939*</i>                          | <i>1940</i> | <i>1941</i> |
|-------------------|---------------------------------------|-------------|-------------|
|                   | <i>(1941/2 prices, million marks)</i> |             |             |
| aircraft          | 1040.0                                | 4141.2      | 4452.0      |
| ships             | 41.2                                  | 474.0       | 1293.6      |
| armour            | 8.4                                   | 171.6       | 384.0       |
| weapons           | 180.0                                 | 676.8       | 903.6       |
| explosives        | 17.6                                  | 223.2       | 338.4       |
| traction vehicles | 30.8                                  | 154.8       | 228.0       |

\* Sept.- Dec.

*Source:* calculated from R. Wagenführ, *Die deutsche Industrie im Kriege 1939-1945* (Berlin: Duncker & Humblot, 1963), 29. cited in R.J. Overy, "Hitler's War and the German Economy: A Reinterpretation." *The Economic History Review*, v. 35, 2 (1982), 285.

What could be the explanation behind these seemingly contradictory sets of figures? First, these two trends occurred simultaneously: finished weapons and munitions production increased and then levelled off during this period at the same time that expenditures on armaments were rising steadily. As Overy states, "The supply of weapons grew much more slowly than the supply of resources to produce them."<sup>133</sup> This he describes as a paradox which was a consequence of the massive inefficiency and organizational ineptitude which hindered the economy during these first two years of war. But it also stemmed from the fact that the bulk of the German economy's labour and material resources in September 1939 were still committed to the enlargement of the Reich's military-industrial foundation, and not to the production of armaments.

The economy had to cope with completing expensive capital projects in industrial sectors essential for war as well as producing larger quantities of finished weapons. The synthetic oil and rubber programmes, the chemical plants essential for expanding the output of explosives, the expansion of domestic iron-ore and steel output, the expansion of facilities and plant for armaments, all of these soaked up substantial quantities of labour, material, and managerial effort. The problems produced by the competition for resources might well have mattered less if there had existed an effective and co-ordinated administration for the war economy to sort out the different claims and organize priorities. In practice, priority was claimed for every new programme, so that a real ordering of need was difficult to

<sup>133</sup> Overy, *War and Economy*, 346.

produce.<sup>134</sup>

In other words, the economy was at odds with itself, saddled with two diverging strategic objectives as it attempted to complete its raw material and heavy industrial base for large-scale war while fighting this war at the same time. Hence the Reich's low output of finished weapons and munitions during the first two years of war was not, as some scholars have suggested, the planned outcome of a purposely under-mobilized *Blitzkrieg* economy, but rather a by-product of the incompetence, ineffective mobilization, and inefficiency which dominated the German war economy before its large industrial projects could be finished and rationalization measures instituted. Throughout late 1941 and early 1942, these war-essential programmes were, one-by-one, completed, and the transfer of remaining labour and material resources to direct war production, coupled with the implementation of serious rationalization measures and the elimination of much productive waste and inefficiency, brought about the huge production increases of 1942-44.

The final contradiction which arises between the contrived *Blitzkrieg* strategy theory and the Reich's economic reality of 1939-41 concerns the degree to which the economy was mobilized for war during the early years of the conflict. A central tenet of this theory has been that German economic mobilization was held deliberately low prior to 1942 in accordance with the regime's pre-determined plans to defeat its enemies one at a time through a series of short, economically unobtrusive, campaigns. The Wehrmacht's defeat at Stalingrad, the theory goes on to state, shattered this systematic plan and forced the Reich's leadership to order the complete conversion and mobilization of the economy for war production, what Joseph Goebbels and Hitler at the beginning of 1942 coined 'Total War'.<sup>135</sup>

Economic statistics from this period, however, reveal an altogether different picture. Figures gathered by one of the founders of this *Blitzkrieg* theory demonstrate, as outlined in Table 6, that a steadily increasing amount of the Reich's net national product

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<sup>134</sup> Ibid., 346-7.

<sup>135</sup> See Alan S. Milward, "The End of the Blitzkrieg," *Economic History Review*, 16 (1964), 499-518, for an in-depth account of the theory.

was diverted to military purposes.

Table 6 *The Mobilization of Net National Product for War: Germany, 1938-1945*  
(percent of national income)

|      | I  | II |
|------|----|----|
| 1938 | 17 | 18 |
| 1939 | 25 | 24 |
| 1940 | 44 | 36 |
| 1941 | 56 | 44 |
| 1942 | 69 | 52 |
| 1943 | 76 | 60 |
| 1944 | —  | —  |
| 1945 | —  | —  |

*Key:*

(I) National utilization of resources supplied to the war effort, regardless of origin: military spending as share of national product.

(II) Domestic finance of resources supplied to the war effort, irrespective of utilization: military spending (for German , less net imports) as share of national product.

*Source:* Klein, Germany's Preparations for War, 256 cited in Mark Harrison, "Resource Mobilization for World War II: the U.S.A., U.K., U.S.S.R., and Germany, 1938-1945," Economic History Review, 2<sup>nd</sup> series, 41, 2 (1988), 184. GNP at market prices is adjusted to NNP at factor cost by a deduction representing the share of capital depreciation and indirect taxes in 1938 GNP within pre-1939 boundaries.

Klein's data, drawn largely from the United States Strategic Bombing Survey, reveals no harnessed mobilization between 1938 and 1941, and no immense increases after 1941. Furthermore, when these figures are compared with the mobilization rates of the other powers, as Mark Harrison has done, they show Germany, by 1943, to be the most highly mobilized of all the combatants in the European theatre.<sup>136</sup> Surely, not even Klein and his

<sup>136</sup> Mark Harrison, "Resource Mobilization for World War II: the U.S.A., U.K., U.S.S.R., and Germany, 1938-1945," Economic History Review, 2<sup>nd</sup> series, 41, 2 (1988), 184.

Mobilization rates of net national product for war as a percentage of national income, for all powers in 1943 are listed in Harrison, 184, as follows:

|          | I  | II |
|----------|----|----|
| U.S.A.   | 47 | 53 |
| U.K.     | 57 | 47 |
| U.S.S.R. | 76 | 58 |

pro-*Blitzkrieg* colleagues, who maintain that mobilization was decidedly modest before 1942, could argue that the Reich's peak mobilization status, attained in 1944, could have been reached after just one year's intensive effort. This was, of course, a physical and financial impossibility.

Investment figures for German industry for the years 1938-1944 also reveal similar trends as Klein's mobilization figures. Table 7 shows that the peak of investment in almost every category, excluding building construction, was reached in 1941, during which the regime's large synthetic raw material, chemical, and manufacturing facility programmes were slowly being completed.

Table 7 *Statistics on Investment in German Industry 1938-1944 in billion RM*

| <i>Year</i> | <i>Buildings</i> | <i>Machinery</i> | <i>Machine Tools*</i> | <i>Four-Year Plan</i> |
|-------------|------------------|------------------|-----------------------|-----------------------|
| 1938        | 13.0             | 2.9              | 0.62                  | 1.95                  |
| 1939        | 12.8             | 3.5              | 0.69                  | 2.10                  |
| 1940        | 8.3              | 3.7              | 0.79                  | 2.49                  |
| 1941        | 6.9              | 4.1              | 0.86                  | 2.49                  |
| 1942        | 4.7              | 4.2              | 0.82                  | 1.97                  |
| 1943        | 4.0              | 3.7              | 0.79                  | n.a.                  |
| 1944        | 3.7              | 2.6              | 0.65                  | n.a.                  |

\* value of annual sales.

Source: Wagenführ, *Die deutsche Industrie*, 160-3; D. Petzina, *Autarkiepolitik im Dritten Reich* (Stuttgart: Deutsche Verlagsanstalt, 1968), 183. cited in R.J. Overy, "Mobilization for Total War in Germany 1939-1941," *English Historical Review*, v.103. 408 (1988), 622.

With the bulk of industrial investment in place before 1942, it is apparent that the Reich economy had begun working towards the full mobilization of its economic resources soon after hostilities had commenced. Similarly, military and state expenditure, like the Reich's mobilization of net national product, rose consistently and in an uninterrupted fashion throughout the entire wartime period, even outdistancing, as Table 8 shows, the growth of

Germany 76

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I = National utilization of resources supplied to the war effort, regardless of origin.

II = Domestic finance of resources supplied to the war effort, irrespective of utilization.

national income.

Table 8 *Military expenditure, state expenditure and national income in Germany 1938-1944 (billion RM)*

|         | Military expenditure | State expenditure | National income |
|---------|----------------------|-------------------|-----------------|
| 1938/9  | 17.2                 | 39.4              | 98              |
| 1939/40 | 38.0                 | 58                | 109             |
| 1940/41 | 55.9                 | 80                | 120             |
| 1941/42 | 72.3                 | 100.5             | 125             |
| 1942/43 | 86.2                 | 124*              | 134             |
| 1943/44 | 99.4                 | 130*              | 130             |

\* Figures based on revenue from occupied Europe and Germany together.

Source: W. Boelcke, 'Kriegsfinanzierung im internationalen Vergleich', in *Kriegswirtschaft im Zweiten Weltkrieg*, eds. F. Forstmeier, H.-E. Volkmann (Düsseldorf: Droste, 1977), 55-6, cited in Overy, *Göring*, 95.

Overy explains that since military expenditures did indeed outpace the growth of the entire German economy, "This could only have been at the expense of civilian consumption."<sup>137</sup> Nevertheless, it is clear that military spending quadrupled between the 1938/39 and 1941/42 fiscal years, a finding which directly contradicts the claim that the Reich's *Blitzkrieg* stratagem kept wartime mobilization purposely low for the first two and a half years of war. As Overy points out, "In fact the greatest percentage increases in military expenditure were in the years 1939 to 1941. This pattern confirms the fact that German rearmament and war expenditure followed a relatively smooth course of expansion over the period with none of the implied discontinuities of the *Blitzkrieg* economy."<sup>138</sup> Aggregate NNP mobilization, industrial investment, and military expenditure figures all confirm that the main period of conversion to a war economy took place during the first two years of war, and that a vast proportion of the Reich's industrial and manpower resources were, by the end of 1941, devoted exclusively to war production. That this had not yet translated

<sup>137</sup> Overy, "Hitler's War," 283.

<sup>138</sup> *Ibid.*

into a massive increase in the numbers of weapons and munitions was due, as already discussed, to the negligent mishandling and ineffective mobilization of the national economy.

The 'production miracle' of 1942-44, namely the three-fold increase in the volume of German armaments production, took place after 1941 and was the result of a concerted rationalization effort which had its roots as early as 1940. Hitler's brilliant Armaments Minister Fritz Todt implemented a new system of production committees in 1940, designed to increase output by giving industry greater responsibility for each stage of the development and manufacturing process. As an internal memorandum reported, "The task of the work teams is to ensure the most efficient output of all running factories through regular reporting discussions of all sectors of production, especially finishing, assembly-line, and piecework."<sup>139</sup> In early 1941 Todt created special committees for each weapons type, which, as Overy argues, laid the foundation for more rational production under Todt's successor, Albert Speer.<sup>140</sup> Similarly, Erhard Milch of the Luftwaffe also sought to streamline production by implementing a system of production circles. Todt, Milch, and Thomas were eventually able to convince Hitler in the fall of 1941 that organizational inefficiency, duplication of effort, and mass wastage throughout the bureaucracy and arms industry were largely to blame for the Reich's production problems. Consequently, Hitler issued orders on 3 December 1941 calling for the rationalization of the entire war economy: "There must be an increase in the performance of armaments and implement production through the use of modern principles of mass production, and the rationalization of all finishing methods, through new economic working practices of business."<sup>141</sup> This was followed on 10 January 1942 by his Führer Directive 'Armament 42', which not only laid down new production programmes for raw materials, armaments,

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<sup>139</sup> OKW, NARA T-77/15, Wi/IF 5.118, "Bildung von Arbeitsgemeinschaften in der Munitionserzeugung," 6 April 1940, frame 726840.

<sup>140</sup> Overy, *Göring*, 149.

<sup>141</sup> OKW, NARA T-77/15, Wi/IF 5.117, "Vereinfachung und Leistungssteigerung unserer Rüstungsproduktion," 3 December 1941, frame 726328.

explosives, and transport, but also placed the German war economy under the centralized control of Speer and his armaments ministry. The long-term effects of these measures,

Overy notes, were stunning:

By 1944, output of all weapons was three times greater than in 1941, while the amount of additional labour, materials, and factory space had increased by very much less or, in some cases, not at all. From 1941 all the major armaments firms reported substantial improvements in efficiency in the use of labour and capital, achieved by a combination of better production planning, more advanced work methods and the elimination of wastage. In many sectors, output per man hour rose by 200 to 300 percent between 1941 and 1944. For the first time, planning and actual output began to converge.<sup>142</sup>

This transition to large-scale war production was therefore not a shift from limited to total war mobilization, as the *Blitzkrieg* strategy theory contends, but rather the transformation within a fully mobilized economy from disorganized and inefficient, to centralized and streamlined production.

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<sup>142</sup> Wagenführ, Die deutsche Industrie im Kriege, 178-9, cited in Overy, Göring, 150.

## CONCLUSION

While changing research interests over the past fifteen to twenty years have shifted attention away from the question of a planned *Blitzkrieg* strategy toward other areas of inquiry, this debate has by no means been resolved. On the one side are the supporters of the *Blitzkrieg* strategy -- Burton Klein, Alan Milward, Hans-Erich Volkmann, Wilhelm Deist, Berenice Carroll, Timothy Mason, and Avraham Barkai -- who, to varying degrees, agree not only that *Blitzkrieg*-style operations during the Polish and French campaigns were specifically designed with the Reich's precarious economic situation in mind, but also that German military and economic mobilization both before the outbreak of hostilities and throughout the first two years of war was deliberately restrained. In addition, these scholars argue that an economic crisis was indeed forming by 1938-39 which inevitably threatened to derail the regime's rearmament program. Conversely, revisionist historians -- Richard Overy, Williamson Murray, Bernhard Kroener, and Peter Hayes -- reject both the notion of a growing economic and financial crisis in 1939 and the existence of a pre-determined *Blitzkrieg* strategy. They maintain that war in 1939 was a product of Hitler's diplomatic risk-taking, and that preparations had been made for a large-scale conflict to be fought in the mid-1940s, once the regime's heavy industrial and raw materials projects had been completed. *Blitzkrieg* was instead a series of winning tactical and operational doctrines employed on the Polish and French battlefields, which *coincidentally* suited the regime's economic and financial capacity. Finally, these scholars insist that despite a stunning degree of administrative ineptitude and industrial inefficiency between 1939 and 1941, the Reich was wholeheartedly committed to total economic mobilization once war began.

This analysis, while revisionist in nature, has attempted to take a balanced and hopefully more inclusive approach to the debate. It provides documentary evidence to support the assertion that the uninhibited and unco-ordinated rearmament of the three service branches caused a real economic and financial crisis which jeopardized the entire

rearmament process and the regime's long-term goals by mid-1939. The grave economic situation, in addition to diplomatic risk-taking and the Reich's short-term military advantage, played a major role in determining the outbreak of war in September 1939 by limiting the leadership's options, and leading Hitler to launch a war in the hopes that it would remain limited. His only other options were to slow down or abandon rearmament altogether; given the regime's ideological goals, these were totally unacceptable. After securing a reliable future supply of raw materials by way of the Nazi-Soviet Non-Aggression Pact, Hitler chose to risk a limited confrontation with Poland at a time which he believed was optimal with regard to Germany's temporary military advantage and the West's apparent lack of resolve. This miscalculation, a consequence of Hitler's flawed understanding of British interests, led to a general war which Germany neither desired nor was prepared to fight.

More importantly, this work rejects the existence of a pre-determined *Blitzkrieg* strategy. Pre-war military and economic preparations were unaffected by any plan to limit the scope of German rearmament, or to keep mobilization levels just high enough to defeat an adversary in a limited conflict. The Four-Year Plan demonstrates this, for its in-depth preparations and long-range enterprises serve as proof of the regime's intention to fight not a series of *Blitzkrieg* wars in 1939, but a total war sometime in the mid-1940s, once the expansion of the regime's military-industrial foundation was complete. The performance of the armed forces and the war economy during the first two years of war also demonstrates that while Germany's military forces did employ *Blitzkrieg* operational tactics to maximize their effectiveness on the battlefield, there existed no detailed strategy for a series of *Blitzkrieg* strikes across Europe to which those leading the Wehrmacht and managing the economy could turn for guidance. These tactical and operational doctrines proved decisive in both the Polish and French campaigns, but were not the products of an overall strategy which sought to tailor pre-war economic preparations and armaments production to the specific requirements of a *Blitzkrieg* campaign. Furthermore, economic figures gathered between 1939 and 1941 indicate not only that the vast majority of German industrial, labour, and financial resources were already committed to war-time purposes

during the first two years of war, but also that this conversion to total economic mobilization began soon after war had broken out in late-1939. We find, therefore, that the *Blitzkrieg* strategy, employed by historians for well over five decades, is a myth which can no longer be regarded as an applicable or adequate historical framework within which to interpret the economic motivations and military decisions of Hitler's regime.

Why is it so important that the notion of a planned *Blitzkrieg* strategy be put to rest once and for all, especially considering that it no longer dominates current research? First, we must acknowledge that revisionist scholars, particularly Overy and Murray, have done much over the past twenty years to revolutionize this debate. Their in-depth research, innovative arguments, and provocative conclusions called into question the validity of the widely-accepted *Blitzkrieg* strategy, and forced the historical community to reevaluate many of its previously-held assumptions. Second, many influential contemporary historians -- Volkmann, Deist, Mason (d. 1990), and Barkai<sup>1</sup> -- still believe that the requirements of *Blitzkrieg* guided pre-war rearmament and throttled war-time economic mobilization, despite the overwhelming evidence to the contrary. Their implicit support of the *Blitzkrieg* strategy theory coupled with the influence of their writings has the potential to adversely affect the cogency of numerous future works on a variety of related and often unrelated topics, as succeeding historians adopt a set of discredited and disproved assumptions while fashioning arguments atop a faulty historiographical construct.

This work thus represents a revisionist interpretation which acknowledges the existence of a growing economic crisis within the German rearmament economy by the summer of 1939. There is, however, simply no evidence of a deliberately planned *Blitzkrieg* strategy, only improvised, impromptu military campaigns fuelled by an ineffective, yet fully mobilized war economy which caused the Reich to stagger across Europe following no coherent strategy.

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<sup>1</sup> For example, Avraham Barkai states in his book Nazi Economics: Ideology, Theory, and Policy (New Haven/London: Yale University Press, 1990), 235, that "The *blitzkrieg* strategy had already come to an end in the fall of 1941, with the failure of the German army to capture Moscow before winter closed in."

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