Unifying the European Experience: Vol. 2, Chapter 6
War and Dislocation, 1914-1950

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Version: October 15, 2007. This is a preliminary draft of work in progress.

War and Dislocation, 1914-1950

Introduction

Between 1914 and 1945 Europe's economic development and integration were interrupted and set back by two world wars, and its regional patterns were brutally distorted by combat, exterminations, migrations, and the redrawing of borders. World War I (1914-1918) set more than thirty countries into conflict with each other and led to 20 million premature deaths. It was dwarfed only by World War II (1939-1945), in which more than sixty countries waged war and prematurely ended the lives of more than 55 million people (Broadberry and Harrison, 2005b). The long-run potential of the European region was wasted in a climate of conflict and uncertainty, a situation that did not improve until after World War II.

Although separated by a twenty-year "interwar period," the two wars can be understood as a single historical process to which the European dimension was fundamental; Europe was the theatre of a long "civil war," fuelled by rising nationalism and the clash of empires. The first war was fought primarily by European powers in Europe; some non-European participants and colonial polities played a minor role while others intervened late in the process. The second began in Asia before spreading across the world; most participants understood, however, that the conflict in Europe would be decisive for the outcome. Ultimately, the processes leading to the first war and its impacts produced a fragmented Europe that had spent vast amounts of physical and human capital, leading to reparations and debts, and failed to solve the institutional dilemmas necessary to produce political and economic stability.

In this chapter we will pursue four themes. The first, titled "Globalisation, Regionalisation, and War," surveys the relationship between the globalisation of the late nineteenth century and the rise of economic nationalism in a number of European powers. This leads us to the second theme, "Economic Causes of the World Wars." National rivalry had three main economic dimensions: protectionism, colonialism, and the arms races of the years before 1914 and 1939. The rise to power of fascism and national socialism between the wars added some new ingredients to the pre-1914 type of nationalism, the most important being Hitler's aspiration to build an autarkic colonial empire within a racially restructured Europe. These interwar trends devastatingly reinforced the antiglobalization tendencies that had already come into being before 1914.

The third section, "The Waging of War," examines the factors underlying wartime economic mobilisation and integration. Still within the periods of fighting, there were two kinds of integration and disintegration processes: across economic sectors within the regions at war, and between the regions at war and the neutral countries. Successful integration was to some extent correlated with prewar economic developments; we will look at the channels of causation. The fourth section, "The Aftermath of War," examines the costs of the two world wars were felt in human and physical capital, and how they were distributed across the countries of the region. In particular, we will pay attention to the influence of good and bad national and international institutions on these patterns. World War I was followed by modest recovery, but there was no return to convergent growth across the region. Moreover, while there was a tendency towards increasing the political franchise among European countries after the war, the international institutions failed to provide solutions to the problems brought on by this conflict. World War II was followed both by recovery and convergence, accompanied by institutional solutions for some of the economic and political problems that plagued Europe after World War I.

Globalisation, Regionalisation, and War

The whole period witnessed shaky economic performances, political instability, and major economic and political crises for Europe and the world as a whole. The average growth rates of most European states were modest at best compared to the late 19th century performances or the so-called Golden Age 1950-1973 (Maddison, 1995); Maddison (2001) himself describes the period 1913-1950 as "a complex and dismal period, marked deeply by the shock of the two world wars and an intervening depression." Scholars like Eric Hobsbawm (1996) would view the extreme political and military outcomes of the period of world wars as indicative of the decadence and economic failures of the 20th century. But this is not the whole story. Bradford DeLong (2000) and Alex Field (2003; 2006) have stressed the underlying continuities of technological change through the first half of the twentieth century that eventually made possible the massive increases in living standards in the second half. Europe was certainly not an exception in this regard. Despite macroeconomic shocks, technological development continued at a fast pace and exceeded the 19th century European experiences. In short, whatever it was that came to an end in 1950, it was not economic growth.

What our period did bring to an end was the nineteenth century association between globalisation and empires. In the early twentieth century the great powers all regarded colonial empire as an entirely legitimate aspiration and national pursuit. For illustration, Table 1 shows the world's colonial dependencies. In 1913, Europeans were the greatest imperialists in the history of the world; 30 percent of the world's population lived in European colonies outside Europe that spread across more than two fifths of the world's land surface. In the same year Britain alone, which accounted by itself for one fortieth of the world's population and one five hundredth of its land surface, claimed sovereignty over 400 million people and 33 million square kilometres of Africa, Asia, America, and Australasia; its Empire, including both self-governing dominions such as Canada and Australia, and colonial dependencies such as India and Nigeria, embraced almost one quarter of the world's population and a quarter of its land surface. Other European powers, chiefly France and the Netherlands, and after them Belgium, Germany, Italy, Portugal, and Turkey lagged far behind. Outside Europe, the United States administered some neighbouring islands, as did Japan, in addition to its Korean colony.(see also Huntington, 1996)

Table 1. Colonial Dependencies in 1913 and 1938: Populations and Land Surfaces

In 1938, a quarter century later, almost nothing had changed. Germany and Turkey had lost their little empires as a result of the peace treaties that followed World War I. Italy and Japan were in the first stages of their expansion across the Mediterranean and the Pacific respectively. But these are barely apparent in the figures. Indeed, looking at the world from Berlin, Rome, and Tokyo, the lack of change in the balance of the world's colonial possessions was the problem: the old colonial powers had failed to give way to the aspirations of the new imperialists.

In fact, it was the pursuit of colonies by the rising powers, combined with the defence of their colonies by the established ones, that led to repeated crises in the global political equilibrium among the powers and was to a large extent responsible for the two world wars. In the process, the very idea of empire lost its legitimacy. This loss of legitimacy was particularly marked among the colonial populations, and within the United States, the foreign policy of which became decidedly anti-colonialist. By 1950, wholesale decolonisation, by consent or by force, was already under way within the British, French, and Dutch empires, the only ones of any significance that remained. In this sense the two world wars formed a single continuous historical process that began in 1914 and ended in 1945.(Modelski and Thompson, 1996)

The full extent of the 19th century globalization is discussed in Chapter 1 of this volume. There are two notable aspects. One is the gradual decline of Europe's competitive position in various sectors and in the world markets (Broadberry, 2003; Broadberry, 2006; Maddison, 1995; Maddison, 2001; Williamson, 1998). The other is the transformative process noted by contemporaries – Norman Angell, for example, argued in his 1909 bestseller *The Great Illusion* (reprint, 1972) that the increased economic interdependence of the Great Powers would make any major international conflict an impossibility, or at least bring it to a quick conclusion. With hindsight, we see that Angell and others observed what was to be seen accurately enough, but their prediction was confounded by factors that they missed: the growing resilience of modern states and modern public finance, and the growing power of European nationalism, between them strong enough to override the losses from despecialisation and disruption that would come with total war, a form of warfare that forced countries to utilize all means possible to defeat the enemy and maximize domestic efforts in the war.

Temporarily, World War I ended the liberal order of the 19th century and began a phase of deglobalization. Production and consumption for total war relied on securing vital strategic materials, raw materials, and food, and this led countries to restrict exports and expanding imports when possible. The belligerents also used the denial of trade as a weapon of war, seeking to bring the enemy to its knees through blockade and starvation. International commodity markets disintegrated and the volume of world trade declined.(Maddison, 1995)

More generally, in the first half of the century, mercantilist motivations and instruments became more prominent in Europe than at any time for a hundred years. The scramble for resources provoked by World War I was replaced in peacetime by a scramble for liquidity. The long-term impacts of World War I on international trade were disastrous, especially in Europe. As Figure 1 suggests, after the war European exports declined relatively and stagnated absolutely despite the initial recovery of world trade. Protectionism of both agriculture and industry gained popular support. By the middle of the 1920s tariffs were substantially higher than they had been in 1913 in Bulgaria, Czechoslovakia, Germany, Hungary, Italy, Romania, Spain, Switzerland, and Yugoslavia. Once the Great Depression took hold, beggar-thy-neighbor policies, often in the hands of increasingly nationalistic governments, and the consolidation of autarkic regional trading blocs completed the process of trade disintegration. The new restrictions in the 1930s on trade usually came in the form of quotas rather than tariffs. Trade treaties and relations became subjugated to the economic and military interests of the rearming European nations.(Findlay and O'Rourke, 2007; Kennedy, 1989; Kindleberger, 1973). Europe's share of world manufacturing continued to decline, and European trade recovered only modestly by the end of the 1930s. By 1950, however, all regions of the world economy, Europe included, began to share the benefits of restored trade and renewed commitments to liberalizations.(Maddison, 1995)

Figure 1. Exports of European countries and non-European OECD countries, 1900 to 1950 (selected years), at 1980 prices

A notable exception to the interwar turn to protectionism was the international arms trade. As Figure 2 suggests, there was an immediate collapse of military exports as World War I drew to a close. Then, in the early 1920s, the arms trade rebounded and grew substantially until the Great Depression. Military exports recovered faster than world trade as a whole from the depression, with stabilisation in 1931 and renewed growth as early as 1932 despite falling prices, which resulted partly from the worldwide deflation and partly from increased competition as smaller nations entered the market. Czechoslovakia and Sweden, followed by Belgium and Norway, were the rising military exporters of the 1930s; by 1935 Czechoslovakia was the market leader for small and medium size armaments with a 24.5 per cent market share; Sweden had a 7.7 per cent share of the market, and Belgium 5.8 percent (Eloranta, 2002a).Traditionally dominant producers such as the UK, maintained their control of the trade in heavier equipment such as warships. Attempts to regulate the arms trade usually fell far short of professed goals, partly because of opposition from domestic producer lobbies.(Krause, 1992; Krause and MacDonald, 1993)

Figure 2. World Exports and Military Exports by Value, 1920-1937 (per cent of 1929)

Economic Causes of the World Wars

Fundamentally, war is a political act. In that sense the causes of war are the domain of political science, not economics. Nonetheless, to the extent that war is pursued for gain, economists may also comment on the logic of war. What provided the motivation for the European states to force a half century of chaos and disruption on themselves? The list of possible explanations for the tragedy includes alliances, nationalism, imperialism, the (naval) arms race, shifting power balances, changes in strategic positions, diplomatic failures, Germany’s perceived aggression, mobilization plans, various economic and social causes, and international arms dealers, and, finally, the assassination of the Archduke Ferdinand in Sarajevo as the initial trigger.

In the past, historians have tended to hold Germany particularly accountable for the pre-1914 arms race and the subsequent diplomatic breakdown (e.g., Berghahn, 1973). More recent investigations have tried to cast doubt on this interpretation. Niall Ferguson, for example, has noted that, having started the arms race, Germany was unable to compete against its rivals, and was led therefore to gamble on a pre-emptive strike in 1914.(Ferguson, 1999; Ferguson, 2001) John Hobson (1993) has shown that both the United Kingdom and Germany spent less on their armed forces than most Great Powers. John Keegan (1999) describes a Europe thrust into war by communication failures and irreversible war plans based on *tit-for-tat* responses designed for the ”age-old quest for security in military superiority”. However, we can not accept World War I as a colossal ”accident” or a confluence of multiple factors of equal explanatory value. The prewar arms race, stimulated by the competition for colonies, was a principal cause, whereas the industrialization of armaments production contributed mainly to the length and destructiveness of the war.

The industrial revolution, followed by the fiscal reforms of the 19th century, enabled Western states to increase their absolute military spending without excessively burdening their economies. We provide two standardised measures of defense spending: the ”military burden” on national resources (per cent of GDP) and the ”defense share” of budgetary means (per cent of central government expenditure). In the the period leading to the First World War most countries carried heavier military burdens than in the early 19th century. Within Europe, as Table 2 suggests, the great powers carried somewhat heavier burdens than others; the average military burden on the GDPs of the six great powers was 3.2 percent, compared with 2.7 percent for the others in the sample; notably the United States, the emerging economic leader, devoted no more than 0.7 per cent of GDP to its armed forces.(Eloranta, 2003)

Table 2. Military Spending of the Great Powers in Peacetime, 1870-1913 and 1920-1938

Naval rivalry was prominent in this unbalanced arms race. Germany and the United Kingdom competed for superiority in an age of new types of armored battleships, the Dreadnoughts that dominated the seas after the British introduced them in 1906. The arms race appears to have been fuelled both by great power rivalries and also by the military restraint of the British and American economic giants. While some countries pushed up military spending so as to keep abreast of their rivals' efforts, others did the same so as to exploit the Anglo-American restraint. Despite the widespread view of the origins of the Great War in the consolidation of two confrontational alliances, the alliances themselves were ultimately inefficient and almost irrelevant to spending decisions (Eloranta, 2007).

In the interwar period, military burdens were on average higher than before 1914 but, as Table 2 shows, military spending was overtaken everywhere except Italy by social spending, as a result, budgetary defense shares were almost uniformly lower, and often much lower. Not reflected in the table are national variations in the timing of the rearmament; the Soviet Union, Germany, and Japan began to rearm at the beginning of the decade while for most others intense rearmament was delayed to the mid-1930s. Hitler raised Germany's military burden from 1.6 per cent in 1933 to 18.9 per cent in 1938. Mussolini was less successful in rearmament as well as in his efforts to realize the new Roman Empire, with Italy's military burden reaching no more than 5.0 per cent in 1938. The Japanese rearmament drive most impressive, with a 23-per cent military burden and more than 50 per cent defense share in 1938. Achieving high rates of military output before that time was of doubtful military value, however, since the rapid pace of technological change rendered obsolete many of the armaments produced earlier only two or three years later.

Some states oscillated between policies of disarmament and rearmament for most of the period. Many smaller states did not begin active rearmament until after 1935, but some had high military burdens already in the 1920s (e.g. Portugal and Finland). Sweden started the period with a high defense share, which declined noticeably until the end of the 1930s. A member of the League of Nations from the beginning, Sweden exemplifies the active pursuit of disarmament. According to Ulf Olsson (1973), the Swedish rearmament was slow to react to the worsening international security climate; its military burden remained meager until 1939, below two per cent. It thus resembles the slow reaction of the United States in the late 1930s.(Eloranta, 2002b)

Relatively high military spending was not a guarantee of military success or the security of borders. Military spending determined only the increment to one of four dimensions that, according to Samuel Huntington, produce military power. This was the quantitative dimension (men, arms, resources). The other three are technological (effectiveness of the equipment); organizational (discipline, training etc. of troops); societal (ability and willingness to apply military force in various situations).(Huntington, 1996) Military activity itself takes place at four different levels — political, strategic, operational, and tactical — of which the political sphere contains the funding decision.(Millett et al., 1988) Germany, for example, put forth the quantitative resources, invested heavily in various civilian and military technologies, had the required organizational structures and training, and whipped the society into a condition ready for war in the 1930s. French policy-makers, although convinced in the 1920s that French security required high military spending, were unable to maintain military spending at a competitive level in the 1930s and this may have contributed to the technological weaknesses of the French forces in the Second World War; in addition, their military strategies were ill-equipped for the highly mobile war that was about to be unleashed.

The ascendancy of the authoritarian nations and their military spending began in the mid-1920s, and accelerated after 1933, with Germany quickly tipping the balance. It appears that the international system was destabilized by the dispersion of military power in the 1920s. The United States, failed to exercise credible military leadership commensurate with its economic power. In European democracies, domestic military spending decisions were driven more by producer lobbies than external security concerns (Eloranta, 2002b).

The outcome of the renewed rearmament competition was World War II. Among the most widely cited causes are the emergence of nationalist and militarist regimes in Europe and Japan, the weakness of the democratic states and their appeasement policies, the isolationism of the United States, the unsatisfactory settlements codified in the Treaty of Versailles, the Great Depression, competition for resources and *lebensraum,* and long standing geopolitical rivalries among European states.

Where did the drive to war come from? There were both new and old elements in the mixture. Totalitarianism, which political theorist Hannah Arendt initially applied to describe the most oppressive regimes of the 20th century such as Nazi Germany and Stalin's Soviet Union, seems to comprise a new extreme authoritarianism of the interwar period. According to Juan Linz, a *totalitarian state* has specific characteristics: 1) Monistic center of power, being the center of legitimacy of political power; 2) Exclusive, autonomous and usually intellectually elaborate ideology used by the leader and/or leading group for identification and as a basis for practical rule; 3) Mobilization of the citizenry for collective purposes, channeled through a single party; the use of brutal violence against real or perceived opponents.(Boesche, 1996; Linz, 2000) The Soviet Union under Stalin was arguably such a state, although Stalin's victims were chiefly his own subjects, whether killed by neglect in the famine that followed the forced collectivisation of the countryside or killed to order in the Great Terror. Using new methods of state control, Stalin was also able to build up industry for an early start in the 1930s rearmament race; by the late 1930s the Soviet Union was possibly the biggest defense producer in the world, although by 1940 other Great Powers had caught up. At the same time the secret record of Stalin's foreign policy has been shown to be more "passive- aggressive" rather than expansionist (Harrison, 1996).

Hitler's regime also helped to inspire the notion of totalitarian control. To the traditional ideals of German nationalism and imperialism he added the explosive elements of anti-semitism and racial purification. His ascendancy to power in 1932-1933, first through an election victory but quickly assuming the role of a dictator, was preceded by the economic collapse of the Great Depression. Unemployment had reached staggering proportions in 1932, when at least a third of the labor force was unemployed, and the financial sector was imploding. It is possible that the rise of the National Socialists could have, in fact, been prevented or at least curtailed in many respects by an expansionary fiscal policy aimed at lowering unemployment (see e.g. Stögbauer and Komlos, 2004). Hitler's appeal to Germans was based on his ultrapopulistic rhetoric, the promised new domestic programs, blaming the Jews and other "subversive" elements for past failures, and promise of returning Germany to international glory and power. He started a program of massive deficit spending to finance public works projects and the rearmament, and initiated measures to eradicate trade unions and instituted repression towards non-cooperative businesses. A small number of key businesses, usually cartellized, formed the core of the new Nazi economy. While unemployment was drastically reduced as a result of this program, living standards and real wages declined. The main target of rearmament, however, had always been colonial expansion. Hitler's revisionist ideas soon came to fore in European politics. Germany's withdrawal from the League (admitted to the League in 1926) and its fevered rearmament from 1935 onwards certainly cast doubts on the League's and Europe's future. Equally, the process of "peaceful" conquests started by the remilitarization of Rhineland in March 1936, leading up to the Second World, were certainly among the death blows to the League's credibility. Domestically Hitler consolidated his power by silencing his enemies, creating an efficient propaganda machinery headed by Joseph Goebbels, and expanding his core Nazi security apparatus under organizations like the SS and SA.(Abelshauser, 2000; Kennedy, 1989) The ultimate outcome was an efficient and aggressive totalitarian state under Hitler's firm control.

In the Italian case, the ascendancy of Benito Mussolini and Fascism began in the aftermath of World War I, in October 1922, when the Fascists marched to Rome under Mussolini's leadership (although he did not participate in person) and he was appointed prime minister. However, Mussolini did not ultimately win his fight with parliamentarism and the political parties until 1925-1926, to become *il Duce* of Italy. All in all, Mussolini never achieved such centralized control of his polity like Hitler and Stalin, which did not confer a rearmament edge for Italy in the 1930s like he had hoped. Similarly, in Portugal, the period starting from 1926 until the 1974 could be characterized as authoritarian period, with António de Oliveira Salazar *gradually* becoming the dictator after his nomination as prime minister in 1932. In the Spanish case, Primo de Rivera's dictatorship 1923-1930 marked the first authoritarian experiment, although Francisco Franco brought it back in 1939, after a brutal civil war. In Eastern Europe, the Baltic, and places like Greece the 1930s also meant the rise of authoritarian governments, often led by prominent generals and populist leaders. All in all, there is some evidence that the structural changes in these three countries' military spending behavior were not caused by the regime shift. Therefore, these authoritarian regimes, perhaps also including Fascist Italy, were not able to achieve such sweeping centralized powers required to undertake massive arms buildups. Compared to for example Germany and Japan, the Italian military burden in the late 1930s was quite meager.(Eloranta, 2002b)

For example, Primo de Rivera's authoritarian regime, lacking fascist-style state control, maintained an ambiguous dualism in its foreign policy, alternating between a revisionist stance and a traditional policy of accepting the status quo. Rivera considered success abroad to be vital for the survival of his regime. It maintained a lukewarm diplomatic courtship with Italy as an ongoing process while attempting to make headway in Northern Africa, mainly at the expense of the French. Despite some modest successes due mainly to luck, its biggest challenge was to obtain greater recognition from the League. Since the beginning, Spain's seat in the Council had been a nonpermanent one, which was a source of irritation for the regime. As

Germany acceded to the League in 1926 and obtained a permanent seat, Rivera began a campaign to get Spain a permanent seat as well, which after numerous twists and turns resulted in Spain's withdrawal from the League for two years in the late 1920s. When Spain rejoined, it did so under the same conditions as before, having achieved practically nothing except a political embarrassment and ending up undermining the League.(Lee, 1987; Saz, 1999) Many of the authoritarian states, with the exception of the totalitarian nations mentioned above, ended up with similarly weak foreign and economic policy positions in the 1930s. However, their domestic popularity rested heavily in the promise of more security and protectionist trade policies. Many of them, especially the Eastern European states, eventually sided with the Axis in World War II.

The Waging of War

The two world wars placed the economies of Europe under immense strain. What did this mean? First, the wartime strain on resources had little to do with the losses and destruction associated with the two world wars, although these were also immense, and far more persistent in the postwar period. The strain can be expressed most simply in an accounting identity: for the entities that were at war, domestic demand tended to exceed domestic supply. When this happened, the balance could be made up in two ways, by mobilising production and otherwise from external sources.

The relevant entities were, for the most part, national economies, and part of the story of both wars is the way in which national resources were mobilised and international trade was diverted to meet the national purposes of warfare. In wartime the great powers mobilised their young men for military service and their industries for war production. As a result they ceased to supply commercial exports to the world market; to the extent that they could, they sucked in food, fuel, and war goods from a variety of sources, for example, from their respective colonial empires and from their neutral trading partners; the latter had to accumulate credits that, they hoped, would continue to be good in the postwar period. Only one great power was comparatively rich enough to wage war and maintain an external surplus at the same time: the United States, which sustained its Allies in two world wars by doing so.

The existence of alliances created the scope for mobilisation at a supranational level. In each of the world wars there was a victorious coalition (Entente Powers in World War I; Allied Powers in World War II) that stretched around the northern hemisphere from the western seaboard of the United States through Great Britain to Russia, whose territory completed the circle across northern Europe and Asia to within a few miles of Alaska. The winning coalition integrated and coordinated its economic and military resources with much greater effect than the opposing coalition (Central Powers in World War I, including Germany, Austria-Hungary, and the Ottoman Empire; Axis Powers in World War II, including Germany, Italy, and Japan) in either war.

In some poorer countries the relevant scale of mobilisation became sub-national. The strain of mobilisation was such that efforts to integrate and coordinate a nationwide war effort failed. Instead, national economies pulled themselves apart. This tended to happen where agriculture was only partially commercialised and remained largely in the hands of small scale subsistence farmers. Under the pressure of wartime mobilisation this section of the economy displayed a tendency to "secede from the nation." The immediate symptom was usually the emergence of urban famine. When working families in wartime Hamburg or Petrograd could no longer buy food, the main reason was not the lack of the food in the economy as a whole, but the growing reluctance of farmers to sell at any price, given the lack of industrial commodities to buy in exchange. As a result, the true scale on which mobilisation could be carried out in practice was not the national economy but just the local urban economies that came under the direct control of the central government. Legally the government could claim jurisdiction over the countryside, but its economic sovereignty was de facto much more limited; it could no more command the resources of the farming households a few miles from the city limits than it could control the business decisions of manufacturers and traders in neutral countries the other side of the world.(Broadberry and Harrison, 2005b; Harrison, 1998b)

The economic disintegration of the Austro-Hungarian Empire during World War I provides an interesting illustration this theme. The two kingdoms of Austria and Hungary were ruled by a single emperor in Vienna but had separate governments, legal systems, and currencies. More important than outward differences was an economic asymmetry: Austria was richer and more industrialised than Hungary. To mobilise its industries for war, Austria needed the surplus food products of Hungarian farmers, but was unable to supply Hungary with manufactured civilian goods on the same scale as in peacetime. As a result, trade between the two kingdoms tended to shrink; the food stayed in the Hungarian countryside while the Austrian cities were unable to scale up industrial production because of the lack of food and raw materials. At the same time two things happened. Coordination between the kingdoms of the empire deteriorated; and at the same time, within each kingdom, the farmers went their own way. If Austria-Hungary could not coordinate itself, what chance did it have of achieving coordination with the other Central Powers?

Germany's experience of conquest in World War II provides another significant case. Germany's intention was to seize a colonial empire in Eastern Europe and convert the Ukraine and European Russia into a food surplus region, chiefly by killing or starving a large proportion of the inhabitants and forcing many of the survivors to flee beyond the Urals. The failure to achieve a quick victory over the Soviet Union prevented this master plan from being fully implemented; even so, the German occupation authorities made the most determined efforts to exploit the agricultural resources that fell under their control. But these resources proved exceptionally difficult to mobilise, even at gunpoint (Liberman, 1996). Almost by accident, at the same time most of Western Europe fell into German hands. During the period of occupation, Germany’s procurement of food from rich industrialised France ran at several times the level of its food seizures in Russia (Milward, 1965). This illustrates again the difficulty of mobilising resources when they remained in the hands of low-productivity subsistence farmers.

In two world wars, the only low-income country to defend its economic integrity under serious attack was the Soviet Union in World War II. More than a decade earlier, Stalin and his associates had drawn the appropriate lesson from Russia’s defeat in World War I: small scale peasant farming was Russia’s Achilles heel in wartime (Simonov, 1996). Stalin had launched a drive to secure state control over the peasant farmers and their food surpluses by collectivising the farms. The campaign was carried through at huge cost in lives, and the farming system that resulted was hated and inefficient (Davies and Wheatcroft 2004). But it achieved its goal in the sense that, when war broke out again, the peasant farmers no longer had the freedom to withdraw from the market. When food was critically short, when there was absolutely not enough food in the country to keep everyone alive, and millions starved, the soldiers and war workers had enough to eat (Barber and Harrison, 1991; Harrison, 1996). Stalin had converted the peasants into the residual claimants on their own produce. As a result, when the fate of the country was on a knife edge in 1942, the economic system did not break down and the Soviet war effort sustained itself at the most critical moment of the war.

The mobilisation advantage of the richer economies is equally evident. During both World Wars, for example, despite submarine blockade, the British fed themselves quite healthily and sufficiently, if monotonously, partly because capital-intensive commercialised agriculture responded speedily and flexibly to mobilisation requirements, and partly from the other side of the world. In the United States in World War II, as Hugh Rockoff (1998) has observed, consumers did not have more butter, but they did have more ice cream.

How did the warring economies of Europe fare relative to the neutral countries and countries in other regions? Table 3 suggests that in two world wars the belligerent European powers suffered relatively. By 1917, both neutrals and belligerents in Europe had on average suffered a loss of output, but the loss to the belligerent countries was greater.[1] The same pattern of effects is visible in World War II, when 1944 is compared with 1938, but the variation across groups of countries is much greater. In other parts of the world for which we have measures, output at least maintained itself or rose. Moreover, the effect was persistent: the disadvantage of the European countries involved in the conflict remained evident many years later.

Table 3. Economic Growth: Wartime and Postwar GDP (percent of prewar)

In both wars there are marked differences among the fighting powers. Harrison (1998b) and Broadberry and Harrison (2005b) have attributed these differences to advantages of economic development: countries that were more highly developed before the conflict began were better able to mobilise themselves once war broke out. As we have seen, there is considerable narrative evidence for this view. The statistical evidence is also strong on a global scale, taking into account the successful wartime experience of such highly developed economies as the United States and Canada. It is less compelling when our focus is limited to variations within Europe. It is also much less compelling for World War II (for which we have more data) than for World War I (where the data are anyway sparse).

Figure 3. Production Mobilisation in World War I: Seven European Countries

Figure 4. Production Mobilisation in World War II: Thirteen European Countries

Figure 3 shows the bivariate relationship between production change and prewar development level for seven European countries in 1917, and Figure 4 shows the same for thirteen countries in 1944. Italy is included in Figure 3 for completeness but the Italian data point is, we believe, unreliable; excluding Italy, there is evidently a weak correlation between prewar development and wartime success in economic mobilisation, but even this is accounted for largely by one other observation, that of the UK. In Figure 4, no relationship between prewar development and mobilisation in World War II is visible: there is just noise. Possibly, the bivariate relationship may not capture adequately a wide range of possible confounding factors and fixed effects (Eloranta and Harrison, 2007). The most important fixed effects were surely space and time: different countries were at different distances from the fighting, or the

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[1] This effect is to some extent contingent on our exclusion of the Italian data, which show a large and surely unrealistic increase in wartime GDP. The Italian data problem is discussed by Broadberry (2005).

fighting reached them at different times. As for possible confounding factors, there is a wide range. It may be simplistic to identify the development level of an economy very closely with the weight of subsistence agriculture, or to ignore other disabilities that may have affected mobilisation capacity. Poorer countries may also have had less well developed financial markets and less effective governance, but there are always exceptions to such rules that may have been significant in war.

In wartime, every government took new powers to direct resources in wartime. Naturally, losing the war had a devastating effect on the credibility of government. Even where governments were not directly replaced by occupation authorities, military defeat tended to undermine institutions and lead to political instability, clearly seen in Table 4. These fragile governments then had to deal with the difficult problem of demobilizing their military forces, often comprising millions of men. In general, the demobilization after World War II was much more successful, since most governments were better prepared for the immense challenges of such efforts.

Table 4. Political Instability in Europe After Two World Wars

The Aftermath of War

World War I caused heavy losses, generally concentrated in the countries on whose territory the fighting took place. Twenty million people suffered premature death. As Table 5 suggests, France, Germany, and Turkey and Bulgaria together each lost more than 6 per cent of their prewar human capital. There was a tendency for human losses to be exceeded, proportionately, by losses of physical capital; the exception was Germany the territory of which was spared fighting. The heaviest destruction of physical capital took place in France which, being already rich and industrialised, had most to lose.

Table 5. Physical Destruction in Europe in World War I: Selected Countries (percent of prewar assets)

The losses of World War I were mostly dwarfed by those of World War II. At least 55 million people died prematurely, and half of these were citizens of one country, the Soviet Union. The incomplete figures in Table 6 show that the rate of human losses was both variable and in the Soviet case astonishingly heavy. Despite this, it was everywhere exceeded by the rate of physical destruction; this was made possible by the new technological ability to substitute strategic aerial bombardment for territorial incursion.

Table 6. Physical Destruction in Europe in World War II, Selected Countries (per cent of assets)

One novel feature of the killing that accompanied World War II was the deliberate racial bias that arose from National Socialist policies, which moved from discrimination against the Jews to mass deportations and extermination. Despite vast researches into the Holocaust, there is as yet no empirical analysis of the specific long-term socio-economic impacts of racially biased killing on the economies and societies from which the Jews were removed.

The effects of the two World Wars on national economic growth patterns are strongly contrasting. In a world of growing economic integration in which countries increasingly exchanged commodities and factors of production and shared technologies and tastes one would expect to see, in the long run, an inverse relationship between economic growth rates and initial incomes per head. However fast the rich countries grew, the poorer countries should grow faster and so their income levels should converge gradually on those of the rich. Figure 5 shows clearly that World War I interrupted the process of European convergence. A decade after the Treaty of Versailles, there was no clear relationship between economic growth across the war period and prewar economic development. On the opposing peripheries of Europe, Turkey and Ireland were particularly poor performers -- while neutral Netherlands and occupied Belgium did particularly well; again, no regularities there.

Figure 5. Convergence Within Europe Across World War I, 1918 to 1929

A quarter century after 1945, European convergence had resumed. Figure 6 shows the clear inverse relationship between inverse relationship between economic growth rates and initial incomes per head that signifies convergence of the poorer on the richer. But again the Turkish and Irish economies were obviously underperforming.

Figure 6. Convergence Within Europe Across Two World Wars, 1913 to 1973

How should we explain the convergence that followed World War II, compared with the chaotic patterns of the interwar period? The most convincing explanation is put in terms of the varying features of the international system in the two periods. According to Barry Eichengreen (1990; 1992), the First World War shattered two important features of the prewar system; namely, the credibility of the Gold Standard and international financial cooperation. New political influences and groups entered the political arena, riding the wave of corporatist experiments and enlarged franchises, which in turn exerted pressure upon the central banks. International cooperation faced three insurmountable obstacles: domestic political constraints, international political rivalry, and incompatible conceptual frameworks. The haphazard Gold Standard of the 1920s did not perform like the prewar system, and it set the stage for the Great Depression of the 1930s by heightening the fragility of the international financial system.

The economic and political instability of the interwar period and the rise of authoritarian regimes are often seen as extensions of the First World War and the Great Depression (Feinstein et al., 1997). Many of the political institutional failures were rooted in the Versailles Peace Treaty of 1919, which unduly punished the Central Powers, and created another cause for Germans to rally around in the 1930s, and failed to meet the demands of the many of the participants. It also created many new democracies in Europe, thereby creating the illusion of a “new Europe.”

After World War I this fragile Europe was additionally stressed by debt relationships rooted in the war period. The United States had extended lines of credit worth millions of dollars to Britain and France. In turn, the British and French had extended their own credits to Italy and Russia. As a result, the poorer countries in the coalition were able to continue fighting long after they would have run out of their own resources. One consequence that bedevilled interwar economic and political relationships was this complicated network of war debts, most of them eliminated sooner or later by default. In World War II, the same pattern emerged in that the United States eventually made available billions of dollars of economic assistance to Britain and the Soviet Union, and Britain had its own much smaller Soviet aid programme too. The main difference is that, after an early pause for consideration, all the wartime assistance among the Allies was rendered free of charge, so that no substantive postwar debts resulted.

Table 7. Debt-to-GDP Ratios in Europe, Selected Years and Per Cent

Central government spending tended to increase substantially as a result of both world wars, during and after. Subsequently, this tended to increase sovereign debts as well. In the period before 1914, strong economic growth generally promoted budget revenues without escalating tax rates, and so central government debt-to-GDP ratios (see Table 7) remained quite stable. World War I clearly increased the indebtedness of most countries, especially those directly involved in the war. Most politicians did not want to resort to higher taxation to finance the peacetime reconstruction (Eloranta, 2003; Webber and Wildavsky, 1986). The share of foreign government loans increased in the late 1920s. The debt burden incurred by the UK, for example, grew noticeably as a result of the war, whereas those European nations that stayed out of the war were barely affected by it. The availability of foreign loans dwindled to almost nothing as a result of the Great Depression in the 1930s. World War II forced almost all European nations to resort to debts as a way to finance this massive conflict. However, the post-war settlements and the improved economic performance of the post-war decades helped many countries reduce their debts substantially.

Institutional failures of the interwar period can perhaps best be observed vis-à-vis the performance of the League of Nations, an organization that failed to act adequately and/or decisively during the various political crises of the period, beginning with the Japanese aggression in Manchuria. The League of Nations came into existence on January 10, 1920. All in all eighteen states became members of the League at first by formally approving the peace treaty. By late 1920, the number of members had already grown to over forty. In 1938, by comparison, the member count was fifty-five. The member states of the League of Nations in 1920 comprised 74 per cent of the world’s population and, respectively, 63 per cent of the world states’ area. Ultimately, the League was another failed institution set up after World War I, laying the groundwork for the interwar instability, 1930s’ arms race, and, ultimately, World War II. The failure comprised several dimensions, such as the differing disarmament and security goals of the key members, the absence of some of the key great powers, and the failure to provide credible security guarantees for the member nations. It seems that the League was doomed to fail, given its shortcomings.

Did the same apply to the United Nations? The UN was established in 1945, when representatives of 50 countries met San Francisco at the United Nations Conference on International Organization to draw up the United Nations Charter. The delegates tackled these issues from a basic template worked out by the representatives of China, the Soviet Union, the United Kingdom and the United States at Dumbarton Oaks, United States in late 1944. The Charter was signed on 26 June 1945 by the representatives of the 50 countries. Poland, which was not represented at the Conference, signed it later and became one of the original 51 Member States. The founders of the UN, like their predecessors did in crafting the League of Nations, had high hopes that it would act to prevent conflicts between nations and make future wars impossible. The emerging Cold War between the capitalist West led by the United States and the communist East led by the Soviet Union, starting in many ways already during World War II and intensifying quickly in the post-war years, divided Europe in half, dropping the famous Iron Curtain in between. Whereas on the sphere of poverty and hunger crises the UN has undoubtedly had an impact from early on, on issues like disarmament and conflict resolution became extremely problematic in the UN given the political dynamics of the Cold War. For example, the first proposals for disarmament were not initiated until the 1950s, with little chance of actual success.(Jolly et al., 2005) The interests of the great powers, and the subsequent alliances, superseded the UN’s opportunities in this area. Thus, the UN has suffered from similar limitations and failures on political reconciliation like its predecessor, yet it has had some success on its other goals, which in turn were complemented by the emergence of other multilateral institutions in the immediate post-war period.

Another example of post-1945 efforts to avoid interwar failures concerns financial institutions and organizations. Delegates from 44 nations, meeting in Bretton Woods, New Hampshire in 1944, decided that in order to avoid some of the institutional problems, as well as macroeconomic challenges such as unstable exchange rates and trade disintegration, they needed to establish an international monetary system of convertible currencies, fixed exchange rates (tied to the U.S. dollar), and promote free trade. The agreement finalized as a result of this conference created two new, important international institutions: the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (the World Bank). The intention was to provide economic aid for reconstruction of postwar Europe. This agreement was also meant alleviate currency competition and promote economic cooperation between nations. Moreover, this system established a now eager new hegemonic nation, the United States, as the leading voice in the West. The Bretton Woods system remained the anchor for the post-war stability and economic expansion until the early 1970s. (Maddison, 1995; Maddison, 2001)

In 1948-1951 the United States poured substantial financial aid, in total $13 billion (about $100 billion at 2003 prices) into the economies of Western Europe. This massive aid package, by no means the first of its kind in the post-World War II period, was called the Marshall Plan, named after its designer George C. Marshall. The main purpose of this aid was to help Western European economies recover from the devastation of the war period, as well as tie them firmly into the capitalist economic system and decrease the threat of socialism and political upheavals. Most Eastern European nations had been converted into Soviet satellites or did not want to aggravate the Soviet Union by accepting Western aid. In Western Europe, in contrast, U.S. policies linked the nations firmly into free trade policies and capitalism, and provided a boost for economic cooperation in the region. (Ritschl, 2004)

Conclusions

In the first half of the twentieth century the globalisation of the European region came to an abrupt halt. It was replaced by protectionism, nationalism, war, and killing and destruction on an immense scale. In mid-century, globalisation was resumed, and the European economies began to converge on much higher and more uniform income levels.

After two world wars, three things had changed. First, European economic growth, integration, and prosperity had lost its association with empire. No doubt to the surprise of Europe’s nineteenth century leaders, had they lived to see it, it proved possible to acquire wealth and wield influence without claiming imperial sway over vast stretches of faraway peoples and their lands and oceans.

Second, Europe’s leaders had a new sense of the importance of cooperation. They now cooperated with the United States in exchange rate coordination and tariff reduction, with each other in laying new foundations for European integration, and with developing countries in decolonisation and development assistance.

Third, Europe’s leaders had learned to use the power of the state to regulate economic life. In wartime, governments had wielded immense authority over their people, production, and consumption. There is at least some reason to see the effectiveness of this power as directly linked with the level of development of the economy: as the economy became richer, the potential scope of government authority became wider and more effective. It did not follow that government ought to use this authority in peacetime as in wartime just because it could, although some thought so. One particular reason that they thought so was the unexpected success of the Soviet command economy in mobilising to defeat Nazi Germany. Learning the appropriate limits of government control over the market economy was a major challenge of the postwar period.

Tables

Table 1. Colonial Dependencies in 1913 and 1938: Populations and Land Surfaces

	1913		1938	
	Population, millions	Land Surface, million km^2	Population, millions	Land Surface, million km^2
British Dominions	19.9	19.5	30.0	19.2
British Colonies	380.1	13.5	453.8	15.0
French Colonies	48.4	10.7	70.9	12.1
Dutch Colonies	44.1	2.1	68.1	1.9
Other European Colonies	54.1	11.5	33.0	8.3
European Powers' Colonies and Dominions, total	546.5	57.2	655.9	56.5
Non-European Powers' Colonies	28.8	0.6	75.7	1.9
The World	1810.3	134.4	2168.0	134.4

Notes and sources: Harrison (1998a) and Broadberry and Harrison (2005a).

Table 2. Military Spending of the Great Powers in Peacetime, 1870-1913 and 1920-1938

	Military spending, % of GDP		*Military spending, % of central or federal government expenditures*	
Country	1870-1913	1920-1938	1870-1913	1920-1938
Austria(-Hungary)	3.5	0.9	12.0	5.8
France	3.7	4.3	25.9	22.4
Germany	2.6	3.3	54.1	23.8
Italy	2.8	4.4	21.7	25.4
Russia (USSR)	3.9	7.1	27.9	11.9
UK	2.6	3.0	37.5	16.3
6-country mean	3.2	3.8	29.9	17.6
Japan	5.0	5.7	32.2	20.1
USA	0.7	1.2	29.4	22.4
16/17-country mean	2.7	2.8	33.3	18.0

Sources: See Eloranta (2002b), p. 110 for details. *Notes:* The 16-country mean for 1870-1913 includes Austria(-Hungary), Belgium, Denmark, France, Germany, Italy, Japan, Netherlands, Norway, Portugal, Russia, Spain, Sweden, Switzerland, UK, and USA; the 17-country mean for 1920-1938 adds Finland.

Table 3. Economic Growth: Wartime and Postwar GDP (percent of prewar)

	Percent of 1913:			Percent of 1938:		
	N	1917	1929	*N*	1944	1973
European Neutrals	7	97	155	6	112	465
European Belligerents	*6	92	117	13	95	324
Former British Colonies	4	105	161	4	207	450
Former Iberian Colonies	8	100	168	14	124	577

Source: Maddison (2001). European Neutrals are, in World War I, Denmark, Netherlands, Norway, Portugal, Spain, Sweden, and Switzerland; in World War II, Ireland, Portugal, Spain, Sweden, Switzerland, and Turkey. European Belligerents are, in World War I, Austria, Belgium, Finland, France, Germany, Italy, and United Kingdom; in World War II, Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, United Kingdom, and USSR. Former British Colonies are, in both World Wars, Australia, New Zealand, Canada, and United States. Former Iberian Colonies are, in World War I, Argentina, Brazil, Chile, Colombia, Mexico, Peru, Uruguay, and Venezuela; in World War II, Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador, Guatemala. Honduras, Mexico Nicaragua,, Peru, Uruguay, Venezuela.

* Excludes Italy, for reasons noted in the text; if included, then 92 becomes 97 and 117 becomes 119.

Table 4. Political Instability in Europe After Two World Wars

	Countries that:		
	Stayed Out	Won	Lost
Number of countries	13	6	27
Average Polity 2 index:			
Prewar (1913 and 1938)	4.8	4.3	-0.6
Postwar (1923 and 1950)	5.3	4.5	1.4
Change, postwar over prewar	0.5	0.1	2.0
Five years after the war:			
Average regime durability, years	25.5	28.0	3.1
Proportion of countries experiencing regime change in last year of war and five postwar years, percent	15	33	93

Notes: Countries that stayed out are, for World War I: Denmark, Netherlands Norway Portugal Spain Sweden Switzerland; for World War II: Ireland Portugal Spain Sweden Switzerland Turkey. Countries that won are, for World War I: France Greece Italy United Kingdom; for World War II: United Kingdom and USSR. Countries that lost, meaning that their governments surrendered or their territory was entirely occupied, are, for World War I: Austria Belgium Bulgaria Germany Hungary Romania Russia, Serbia, and Turkey and, for World War II: Albania, Austria Belgium Bulgaria Czechoslovakia Denmark Finland France East and West Germany, Greece Hungary Italy Netherlands Norway Poland Romania Yugoslavia. The Polity IV index subtracts autocracy scores from democracy scores, and also fixes standardised scores, to create a composite index of the political regime suitable for time series analysis, with values ranging from +10 (strongly democratic) to -10 (strongly autocratic). Regime durability is measured by the number of years since a change in the Polity index of three points or more within three years or less.
Source: Polity IV Dataset from http://www.cidcm.umd.edu/polity .

Table 5. Physical Destruction in Europe in World War I: Selected Countries (percent of prewar assets)

		Physical capital			
	Human capital	Domestic assets	Overseas assets	Reparations bill	National wealth
Austria-Hungary	4.5	6.5	…	…	…
France	7.2	24.6	49.0	…	31.0
Germany	6.3	3.1	…	51.6	54.7
Italy	3.8	15.9	…	…	…
Russia	2.3	14.3	…	…	...
Turkey and Bulgaria	6.8	…	…	…	…
United Kingdom	3.6	9.9	23.9	…	14.9

Source: Broadberry and Harrison (2005b).

Table 6. Physical Destruction in Europe in World War II, Selected Countries (per cent of assets)

		Physical assets	
	Human assets	National wealth	Industry fixed assets
UK	1	5	…
USSR	18-19	25	…
Germany	9	…	17*
Italy	1	…	10
Japan	6	25	34

Source: Harrison (1998b).
* West Germany only.

Table 7. Debt-to-GDP Ratios in Europe, Selected Years and Per Cent

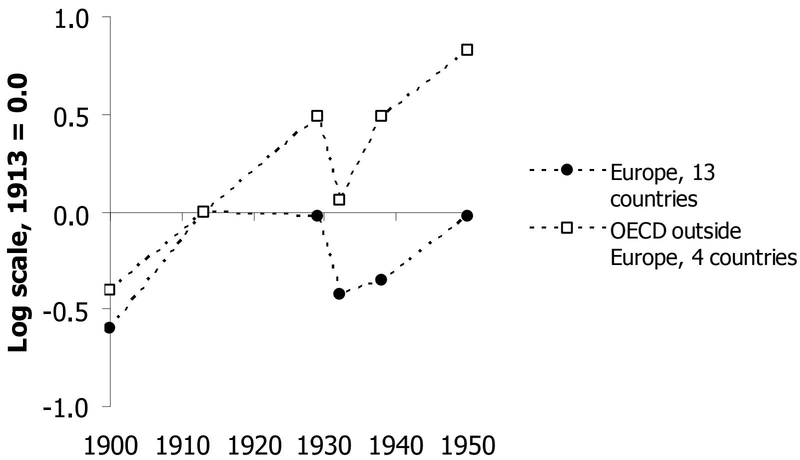
	1913	1919	1929	1938	1946
Austria-(Hungary)	69.7	110.8	139.5	147.7	..
Belgium	65.8	**102.9	62.4	70.2	..
Denmark	15.6	13.5	23.8	16.6	9.6
Finland	10.8	21.4	11.4	8.8	47.9
France	86.3	533.0	138.6	101.6	72.1
Germany	9.2	99.4	11.3	20.1	..
Greece	*72.8	53.7	92.9	79.7	..
Hungary	..	..	22.5	27.8	..
Italy	82.1	94.2	64.0	101.1	++85.1
Netherlands	48.1	49.8	40.7	71.7	..
Norway	19.5	16.3	36.3	25.7	..
Portugal	78.3	154.9	57.6	33.4	..
Spain	75.2	48.7	57.1	..	56.6
Sweden	16.7	14.7	19	20.7	52.4
Switzerland	3.7	19.3	21.8	30	74.3
Turkey			+44.2	..	..
United Kingdom	24.8	132.7	158.4	143.8	269.5
Means of values in columns	45.2	97.7	58.9	59.9	83.4

Sources: Obstfeld and Taylor (2003); Eloranta (2002b; 2007); United Nations (1948); Global Financial Data (2000). *Note*! In some case the value is from the preceding or following year, indicated in parenthesis. Calculation of the share for Spain and Switzerland for 1946 utilized gross national income.

*1914 ** 1920 + 1928 ++ 1945.

Figures

Figure 1. Exports of European countries and non-European OECD countries, 1900 to 1950 (selected years), at 1980 prices

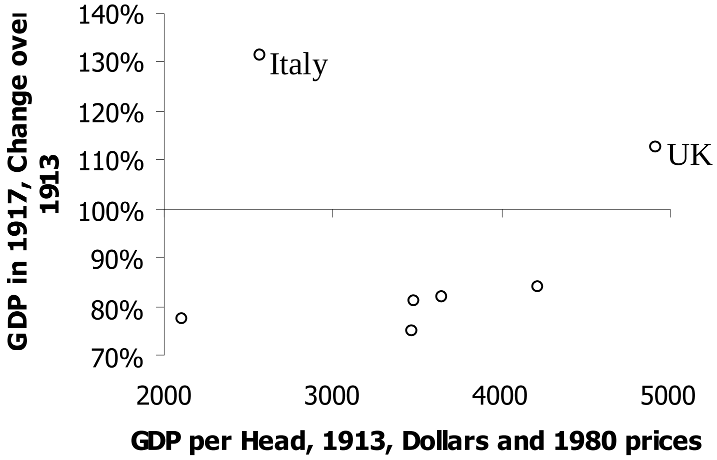


Source: Computed from Maddison (1989). European countries are Austria, Belgium, Denmark, Finland, France, West Germany, Italy, Netherlands, Norway, Russia/USSR, Sweden, Switzerland, and United Kingdom. OECD countries outside Europe are Australia, Canada, Japan, and United States. Years shown are 1900, 1913, 1928, 1932, 1938, and 1950.

Figure 2. World Exports and Military Exports by Value, 1920-1937 (per cent of 1929)

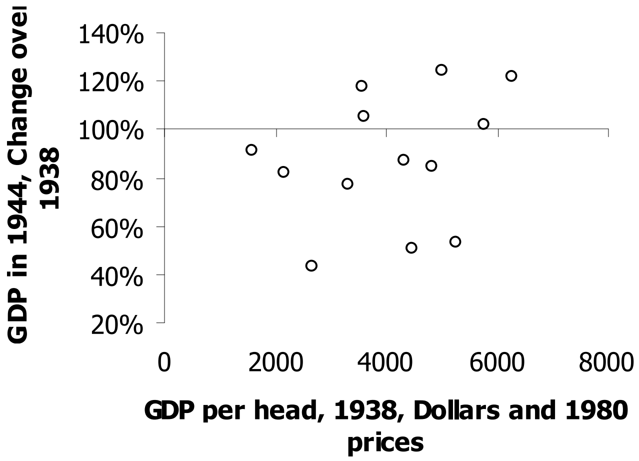
Source: Based on the sources and methods described in Eloranta (2002a). *Note*! Comprises only small and medium size armaments.

Figure 3. Production Mobilisation in World War I: Seven European Countries



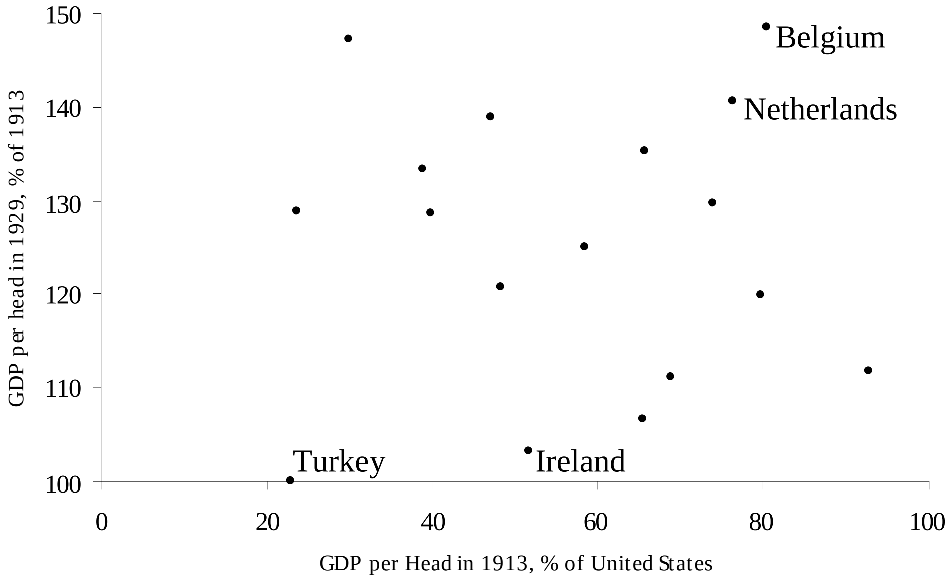
Source: Maddison (2001). The seven countries are Austria, Belgium, Finland, France, Germany, Italy, and the United Kingdom.

Figure 4. Production Mobilisation in World War II: Thirteen European Countries



Source: Maddison (2001). The thirteen countries are Austria, Belgium, Bulgaria, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Norway, United Kingdom, and USSR.

Figure 5. Convergence Within Europe Across World War I, 1918 to 1929



Source: Maddison (2001). Countries are Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and United Kingdom.

Figure 6. Convergence Within Europe Across Two World Wars, 1913 to 1973

Source: Maddison (2001). Countries are Austria, Belgium, Denmark, Finland, France, Germany, Italy, Ireland, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and United Kingdom.

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