

## The Pre- and Post-WWI Dynamics of Saving, Investment, and Interest Rates: A Cross-Country Comparison<sup>1</sup>

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**Abstract:** *The study examines the dynamics of interest rates over 1904–1929 through the joint behavior of investment and saving across a diverse set of economies. It compares belligerents and occupied countries (Belgium, France, Italy, Germany), neutrals (the Netherlands, Sweden, Norway), extra-European cases (Australia, Japan), and the United Kingdom as the principal financial center. We document a broad-based rise in interest rates after World War I but operating through different structural channels: destruction and reconstruction pressures in Belgium and France; fiscal/budgetary burdens and the decision to return to gold in the United Kingdom and Italy; and institutional/market depth specificities in Japan. Methodologically, the study uses the Jordà–Schularick–Taylor Macrohistory Database (JST) Macrohistory Database (Release 6). Interpreting short-term nominal rate trends as informative about natural rate of interest ( $r^*$ ) rests on well-established money-demand/velocity relationships, while the post-war environment adds two additional layers: (i) the gold-exchange regime inaugurated after Genoa (1922) — the Genoa Conference on Economic and Financial Questions, which reconfigured the international hierarchy of “safe” assets without a single hegemonic issuer; and (ii) elevated macro-uncertainty, which raised risk premia even as reconstruction boosted capital demand. The findings speak to contemporary debates on safe-asset supply, fiscal capacity, and the identification of  $r^*$  from market yields. Large, system-wide shocks can simultaneously shift saving–investment balances, risk premia, and the international monetary architecture—mechanisms that remain pertinent for interpreting interest-rate behavior in today’s crises.*

**Keywords:** *saving–investment balance; economic reconstruction; war destruction; comparative economic history; natural rate of interest ( $r^*$ ); gold-exchange standard; safe assets.*

**JEL:** *E43; E44, N14*

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## Introduction

Understanding the natural rate of interest ranks among the central challenges of macroeconomic theory and economic history. It signals the equilibrium between saving and investment and serves as a gauge of the sustainable level of economic activity. Wars are moments of extreme disruption in which this equilibrium is abruptly reset. The First World War was a turning point not only politically but also economically, as it profoundly reshaped countries' capital balances. Analyzing these processes remains pertinent today, as economies once again confront crises of increasingly global scope.

The study examines the economic systems of selected European and non-European countries over the period 1904–1929. Its analytical focus is the relationship among investment, saving, and interest rates, viewed through the lens of the natural rate of interest and its determinants. The aim is to investigate how different economies—both belligerent and neutral—responded to the shocks of the First World War and to trace how this reset the saving–investment equilibrium, as reflected in the dynamics of interest rates. Achieving this aim constitutes the core research task.

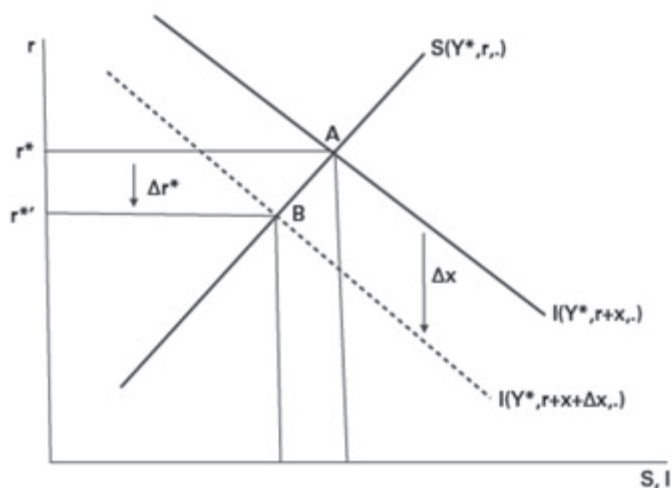
The central claim advanced is that, in the aftermath of the First World War, interest rates rose broadly but through different channels: in war-ravaged economies owing to acute capital scarcity and reconstruction needs; in neutral economies more moderately, under the influence of global financial conditions; and in non-European economies as a result of institutional specificities and structural capital shortages. Underpinning these movements is the behavior of the natural rate of interest ( $r^*$ ) (Wicksell, 1898). Methodologically, the study employs historical-economic analysis, a comparative approach, and interpretation within a theoretical framework for the natural rate of interest.

*A vast literature* documents how the pre-1914 gold standard and the post war gold-exchange order shaped capital flows and yield behavior via parity commitments and credibility (Bloomfield 1963; Nurkse 1944; Eichengreen 1992; Bordo & Eichengreen 1993; Flandreau & Zumer 2004; Obstfeld & Taylor 2004; Kindleberger 1986). Capital-mobility work emphasizes the saving–investment correlation (Feldstein & Horioka 1980). Macro-finance links yields and money demand to the natural real rate and safe-asset supply (Laubach & Williams 2003; Woodford 2003; Lucas & Nicolini 2015; Benati 2020; Greenwood & Vayanos 2014; Krishnamurthy & Vissing-Jorgensen 2012; Holston, Laubach & Williams 2017; Rachel & Summers 2019; Schmelzing 2020). Using harmonized database, this study maps how war-time destruction, fiscal/solvency burdens, and institutional/market depth transmitted into higher  $r^*$  in the 1920s across belligerent, neutral, extra-European, and UK cases.

## Theoretical Framework and Methodology

The natural rate of interest is defined as the real rate at which planned saving equals planned investment, with the economy in equilibrium and absent inflationary

pressure (Fig. 1). When the observed (market) short-term interest rate deviates from the natural rate, imbalances arise: if it is lower, investment exceeds saving and inflationary pressure emerges; if it is higher, the opposite holds—saving exceeds investment and the economy exhibits deflationary tendencies (Laubach & Williams, 2003; Woodford, 2003). The natural rate  $r^*$  is the safe yield  $r_s$  that equates desired saving and investment at  $Y^*$ :  $S(Y^*, r_s, \cdot) = I(Y^*, r_s + x, \cdot)$ . Any shift of the saving curve  $S$  or the investment curve  $I$  changes their intersection and, for given  $Y^*$ , implies a new equilibrium and a new natural (risk-free) interest rate  $r^*$ . An increase in the risk premium  $x$  shifts the investment schedule down,  $I(Y^*, r_s + x, \cdot) \rightarrow I(Y^*, r_s + x + \Delta x, \cdot)$ , moving the equilibrium from  $A$  to  $B$  and lowering the natural rate by  $\Delta r^*$  (from  $r^*$  to  $r^{*'}$ ). Conversely, a fall in  $x$  shifts  $I(\cdot)$  up and raises  $r^*$ .



**Figure 1. Natural (Risk-Free) Rate at Potential Output (S–I framework)**

*Source: Own calculations, based on Jordà. Ò.. Schularick. M. & Taylor. A.M. (2017; updated 2024).*

In wartime and subsequent reconstruction, the natural rate rises sharply: destroyed capital generates acute demand for new investment while saving is constrained. At the same time, rising uncertainty increases the risk premium and depresses the “safe” natural rate (Blanchard, 2023), so the observed net effect depends on the relative strength of the two channels (destruction versus confidence/uncertainty). It is also critical which asset the market deems safe: after the First World War there is no single issuer able to absorb global demand for safe assets; instead, following the 1922 Genoa Conference on Economic and Financial Questions, a hybrid gold-exchange arrangement emerged, with a de facto sterling–dollar duopoly and incomplete hegemony. An average short-term interest rate over an extended period is not itself the “natural” rate, but it can serve as a proximate indicator of its dynamics. This interpretation rests on evidence of a stable long-

run demand for money and a predictable relationship between velocity and the interest rate (Benati, 2020; Lucas & Nicolini, 2015), according to which persistent movements in short-term nominal rates reflect lasting changes in the opportunity cost of holding money. The authors' data indicate that when currency and various deposits are treated as alternative means of payment and an appropriate monetary aggregate is constructed, money demand is stable over the past century, and velocity exhibits a robust long-run relationship with the short rate. Through this lens, we can infer how the First World War reset the saving–investment equilibrium and altered the level of the natural rate of interest across countries and periods, consistent with the natural-rate hypothesis.

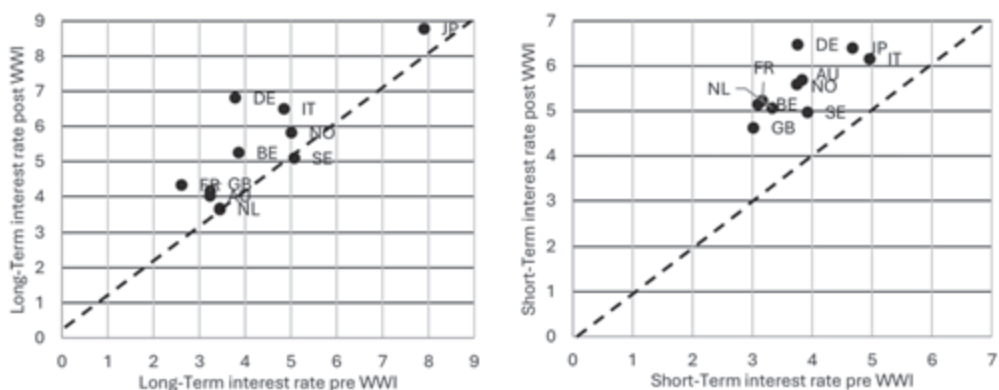
For the purposes of this study, we use data from the Jordà–Schularick–Taylor Macrohistory Database, Release 6 (Jordà, Schularick & Taylor, 2017; updated 2024). This database is among the most widely used in the economic-history and macro-finance literature because it provides long time series (up to 150 years) for a broad set of economies. Its advantage lies in combining national accounts, indicators of financial development, and interest rates in a comparable format, enabling an examination of the dynamics of investment, saving, and equilibrium interest rates over long horizons. Specifically, we employ variables for investment (*iy*), saving (*sy*), short-term interest rates (*stir*), and long-term interest rates (*ltrate*), focusing on the period 1904–1929 and on selected countries with differing experiences of the First World War (**Appendix 1**).

The database's limitations must also be acknowledged in interpretation. First, for belligerent countries reliable data are often missing for the war years themselves (1914–1918), necessitating a focus on “before” and “after” comparisons. Second, in some cases national statistics have been reconstructed or harmonised from multiple sources, which may yield imperfect comparability. Third, the data capture aggregates and do not permit a separation of private from public investment or saving by sector. Notwithstanding these limitations, JST remains a suitable source for long-run comparative analysis, particularly when the aim is to assess how global shocks such as wars (or pandemics) alter the equilibrium among saving, investment, and interest rates.

### **Empirical Analysis**

*Country selection follows an identification strategy that exploits cross-sectional heterogeneity in destruction, neutrality, imperial financial integration, and market depth.* The study delineates four strata: **(i) belligerent/occupied economies**—Belgium, France, Italy, Germany—subject to large wartime capital losses and post-armistice stabilization/reconstruction episodes, yielding plausibly exogenous shifts in the marginal product of capital and external funding needs; **(ii) European neutrals**—Netherlands, Sweden, Norway—with preserved capital stocks and high saving propensities, providing a counterfactual in which global shocks transmit absent domestic devastation; **(iii) extra-European cases**—Australia and Japan—capturing, respectively, dominion finance within the sterling area and a late-industrializing market with shallower

interwar financial depth and persistently higher premia; and **(iv) the United Kingdom**, the incumbent financial centre undergoing a post-1914 reconfiguration of its role and parity choices. This ex-ante stratification delivers quasi-experimental variation in the determinants of **saving–investment gaps** and in the **level/slope of the term structure**, while keeping measurement consistent across countries (JST definitions). Comparative inference rests on within-stratum homogeneity and between-stratum contrasts, thereby attenuating confounding from unobserved country-specific factors documented in the interwar literature (e.g., parity credibility, debt overhang, and market segmentation).



**Figure 2. The rising of Long-term Interest Rates (Left panel) and Short-term Interest Rates (Right panel), 1920-1929 (vertical axle) vs 1904-1913 (horizontal axle)**

*\*Closer the 45-degree line means there is no significant change in values*

*Source: Own calculations, based on Jordà. Ò., Schularick. M. & Taylor. A.M. (2017; updated 2024).*

**Belgium** is particularly illustrative. Since 1839 Belgium had enjoyed an internationally guaranteed neutral status (the Treaty of London). Germany violated this status in August 1914 by invading Belgium to execute the Schlieffen Plan against France. As the first industrialised country on the continent, Belgium built a powerful industrial base in Wallonia—metalworking, coal, and textiles. Its growth, however, was fuelled by substantial foreign capital, chiefly British and French (Cameron, 1961). In the early twentieth century, investment averaged above 14% of GDP, while national saving was barely about 3%, making Belgium a textbook net capital importer. This dependence created vulnerability to shocks: low domestic saving implied limited capacity to finance industrial expansion without foreign support.

After the WWI, conditions changed dramatically. Belgium was among the most severely affected countries—almost its entire territory was occupied, a large share of industrial infrastructure was destroyed, and output fell by more than 40% in the critical years (Harrison, 1998). Reconstruction required massive investment, which in the first post-war decade rose to 18–19% of GDP. National saving, however, remained

constrained—on average around 10% of GDP—again underscoring reliance on external finance and foreign borrowing. A high investment push in the face of scarce domestic saving exerted upward pressure on the natural rate of interest. The data are consistent with this: the short-term rate rose from 3.9% pre-war to 5.3% in the 1920s.

In the late nineteenth century, the **Netherlands** stood out for exceptionally high national saving relative to other European economies—a classic “rentier state.” Building on substantial financial wealth accumulated since the seventeenth-century Golden Age, the country further reinforced this position in the nineteenth century through colonial revenues from Indonesia (Flandreau & Zumer, 2004). Industrialisation proceeded more slowly and on a smaller scale than in Belgium or Germany, keeping domestic capital demand relatively low. At the same time, households, commercial elites, and pension funds amassed sizeable saving channelled into government bonds and foreign assets (Van Zanden & Griffiths, 1989). The result was a structural surplus of saving over investment that was large relative to the economy by the end of the nineteenth century. Even before the war, saving and investment were close to balance—around 12–14% of GDP. After the war, both rose in tandem, reaching 18.9% and 18.2% of GDP, respectively, in the 1920s. This pattern implies the absence of major internal imbalances and relatively stable interest rates; indeed, the short-term rate hardly changed before and after the war, placing the Netherlands among stable net creditors in the interwar period (Obstfeld & Taylor, 2004).

Until 1905 **Sweden and Norway** shared a personal union under a common monarch. Although political tensions culminated in a peaceful dissolution, their economic trajectories retained certain similarities. By late nineteenth-century standards both were relatively poor, with agriculture dominant and limited industrialisation. Sweden industrialised more intensively after the 1870s, led by iron ore, timber, and pulp exports, whereas Norway relied primarily on fisheries, its merchant fleet, and timber exports (Schön, 2012; Grytten, 2004). These distinct resource endowments produced different capital-flow patterns. In Sweden, industrialisation gradually raised investment demand, but high household saving and restrained domestic consumption ensured a relative balance between saving and investment. In Norway, capital requirements were lower, and a strong orientation toward maritime trade and shipping generated a specific pattern of saving, often invested in the fleet and trading enterprises rather than heavy industry (Hanisch, 1999). Some authors depict Scandinavia as a peripheral “catch-up” case (O’Rourke & Williamson, 1999), while others emphasise that high saving and flexible resource allocation enabled successful integration into the world economy as exporters of raw materials and services (Söderberg, 2010).

Both Sweden and Norway remained neutral in the First World War. Neutrality spared them the physical destruction suffered by Belgium or France but did not shield them from economic shocks. British blockades curtailed imports, and German submarines threatened trade routes—particularly for Norway, which lost hundreds of ships and

thousands of sailors, a severe blow for a small, shipping-dependent country (Grytten, 2004). Sweden, by contrast, sustained exports of raw materials and foodstuffs, which even strengthened its saving. Post-war data indicate relative stability: in Sweden, saving slightly exceeded investment (14% versus 13.7%), and interest rates remained nearly unchanged. In Norway, both aggregates rose (20.1% and 15.9%), while short-term rates increased moderately from 5% to 5.8%. This pattern points to the absence of acute capital scarcity and to a preserved saving–investment balance.

On the eve of the war, **Australia** was a typical dominion economy, deeply integrated into London’s financial sphere: domestic investment was traditionally financed through external borrowing for railways, ports, irrigation, and urban infrastructure (Butlin, 1986; Cain & Hopkins, 2001). The pre-war figures reflect this: investment averaged 13.6% of GDP, saving 15.9%, and the short-term rate hovered near an anchor (3.2%, with the long-term rate at 3.8%), a considerable advantage for Australia. The configuration implied a current-account surplus supported by strong export earnings (wool, wheat) and ready access to external finance. Australia suffered no destruction on its soil but faced substantial human losses and fiscal outlays, together with repatriation and veterans’ “settlement” needs (land, housing, infrastructure). Investment surged in the 1920s (to an average of 18.0%) while national saving fell markedly (to 11.0%). Market signals were clear: the short rate rose moderately (to 4 %) but the long rate moved up more sharply (to 5.7%). Part of the literature views the 1920s investment boom as “natural”—catch-up urbanisation and productive infrastructure—whereas another strand stresses vulnerability stemming from long-term borrowing, deteriorating terms of trade after 1920–21, and rising state debt of the Australian colonies, all of which “anchored” higher long-term yields and raised the level of  $r^*$  (Schedvin, 1970; Meredith & Dyster, 1999).

**Japan** entered the war with an established industrial base and high market interest rates—a structural feature of relatively shallow financial markets and higher risk premia (Ohkawa & Rosovsky, 1973; Minami, 1986). Pre-war investment averaged 16.7% of GDP, saving 14.2%, but the short-term rate—near 8%—was an order of magnitude above European levels and those in Britain’s dominions, signalling tight money-market conditions. Japan’s wartime role was limited to seizing German colonies in the Pacific and Shandong (China), while the main economic effects came from trade and financial opportunities. With European producers preoccupied, Japanese manufacturers (textiles, shipbuilding, metallurgy) captured their Asian markets. Exports and trade surpluses surged, lifting national saving (Ohkawa & Rosovsky, 1973). For the first time in its modern history, Japan shifted from net debtor to net creditor status internationally. In the 1920s, investment averaged 18.3% and saving 16.8%—both higher than pre-war. Despite abundant wartime saving and some decline in short rates, the post-war short-term rate remained structurally high. Explanations include the continued shallowness of banking and capital markets (Hoshi & Kashyap, 2001), a rapidly growing yet still capital-scarce economy, and frequent real shocks—notably the Great Kantō Earthquake (1923), which

destroyed physical capital and necessitated reinvestment, followed by the 1927 banking (Shōwa) crisis. These episodes raised credit risk and liquidity preference, “requiring” higher interest rates even amid increased saving. Policies aimed at a return to the gold standard also demanded monetary restraint and high real interest rates in the preceding years—visible in the 1920s averages.

**Italy, the United Kingdom, and France** formally belonged to the camp of victors, yet their post-war trajectories diverged sharply. **Italy** entered the war in 1915 with promises of territorial gains, at the cost of more than 650,000 dead, high inflation, and financial collapse. Although wartime production rose under mobilisation, it did so alongside large fiscal deficits and rapidly increasing public debt. Inflation eroded real household incomes, and saving fell from 17.6% of GDP pre-war to just 10.1% in the 1920s. Investment also dropped—from 16.5% to 12.4%—signalling resource scarcity and an uncertain environment. Despite destruction in Northern Italy (the Isonzo and Caporetto fronts), which would normally imply strong reconstruction demand, low domestic saving and weak public finances impeded recovery. Short-term rates rose sharply (from 4.9% to 6.5%), as did long-term rates (from 3.9% to 6.5%, on decade’s averages 5% to 6.2%), reflecting loss of confidence and fiscal strain (Toniolo, 1980). Italy was a victor on the battlefield but economically depleted, with a high natural rate due to constrained saving. The social consequences were severe; veterans returned to a poor and fragmented economy with limited state support—unlike Australia or France—fueling political radicalisation and paving the way for the rise of Fascism in the 1920s (De Felice, 1995).

On the eve of the war, the **United Kingdom** exhibited the profile of a mature financial economy: high saving (14.7% of GDP) and low investment (7.6%). As a capital exporter, Britain financed industrialisation elsewhere. It emerged from the war as a military victor but no longer the unchallenged economic hegemon of 1914. Unlike France and Belgium, Britain’s territory was not a battlefield; its capital stock remained intact. The true cost of war materialised through public finances, debt, and sterling’s international role. During 1914–18 the UK purchased armaments, raw materials, and food from the United States on a massive scale, transforming its international position from creditor to net debtor. Public debt jumped from about 25% to over 125% of GDP (Feinstein, 1972), with a large share owed to American creditors—fundamentally altering London’s role as a global financial centre. Post-war data reflect this transformation: saving fell to 11.5% while investment rose modestly to 8.9%. Britain remained a low-investment economy and did not experience a reconstruction “boom” like the devastated countries. Interest-rate dynamics mirrored the new reality: the short rate rose from 3.2% to 4.2%, and the long rate from 3% to 4.6% (up to 5.2% in peak), driven chiefly by fiscal pressures and monetary restraint. The decision to return to gold at the pre-war parity in 1925 proved excessively contractionary, requiring high interest rates and deflationary policy, which left the economy stagnating through the 1920s (Keynes, *The Economic Consequences of*

*Mr. Churchill*, 1925). Britain thus paid a double price: “war debt” to the United States and “currency deflation” to uphold sterling’s prestige.

**France** may be the most dramatic of the great-power cases. A victor at the cost of more than 1.3 million dead, France suffered the destruction of a substantial share of its industrial heartland (roughly one-fifth of the industrial base in the north), alongside heavy damage to agricultural land and transport infrastructure (Hautcoeur, 1994). In the late nineteenth and early twentieth centuries, France was renowned for high domestic saving—a structural feature often described as “rentier capitalism” (Cameron, 1961). In 1904–1913, national saving averaged 23.1% of GDP, with investment also elevated (19.1%). France was a net exporter of capital, and small savers and rentiers frequently invested in government bonds and foreign assets (Flandreau & Zumer, 2004). Interest rates were low: short-term at 2.6% and long-term at 3.0%, reflecting confidence in the stability of the French financial system under the gold standard.

The war years were catastrophic for the real economy. Occupied industrial regions (Nord–Pas-de-Calais, Lorraine) lost factories and mines; agriculture was paralysed across large areas. Output collapsed, and the state financed military expenditure through heavy debt and inflation. Saving declined, but did not vanish, as broad segments of the population channelled funds into government bonds—a kind of “patriotic saving”—thereby providing a base for war finance at high social cost. In the 1920s, French saving displayed remarkable resilience: 23% of GDP—virtually identical to the pre-war level. Investment also remained high—21.1%, exceeding its pre-war average—evidence that France mobilised resources for reconstruction despite massive destruction. The price was higher interest rates: the short rate rose from 2.6% to 4.3%, and the long rate from 3.0% to 5.2%. Capital destruction created intense investment demand; even with high saving, reconstruction required greater resource mobilisation, pushing the natural rate up. Despite economic mobilisation, France remained socially and politically unsettled. Demographic losses constrained the labour force; reconstruction proceeded under persistent fiscal pressure.

**Germany** was the greatest “loser” of the First World War. On the eve of the conflict, it was Europe’s leading industrial power—with strong growth in heavy industry, chemicals, and electrical equipment (Feldman, 1993). The economy was comparatively balanced: saving averaged 16.8% of GDP, investment 15.3%, with averaged short-term rates at 3.8% and long-term at 4.3%—indicative of a relatively stable equilibrium and a moderate natural rate. Unlike France and Belgium, whose territories hosted much of the fighting, Germany’s industrial base was not physically destroyed on a large scale. Nevertheless, the political and financial conditions imposed by defeat precipitated economic collapse. Under the Treaty of Versailles (1921) Germany faced reparations of 132 billion gold marks—an unbearable burden. Public finances slid into chronic deficit (Bresciani-Turroni, 1937). In this context, 1920s data show saving at 14.4% and investment at 15%—a nominal balance under severely distorted prices. Short-term interest rates rose

6.8%, and long-term rates from 4.3% to 6.5% (8% peak). This sharp increase reflected not investment pressure but a profound loss of confidence in the financial system and a high inflation premium.

### **Discussion and conclusion**

Whereas the long-term interest rate reflects overall confidence in the financial system and the sovereign's debt sustainability, the short-term interest rate serves a different but no less important function: it is a sensitive indicator of immediate monetary conditions and of the short-horizon saving–investment equilibrium. On the eve of the First World War, short-term rates were relatively stable—often below 4%—reflecting the perceived predictability of money markets under the classical gold standard (Bordo & Schwartz, 1999). After the war, however, they rose almost everywhere. These markedly higher levels testify to the strains generated by reconstruction needs, large fiscal deficits, and inflation expectations.

Short-term rates in this period are also informative because they reveal how countries managed the transition from a war to a peace economy. Where destruction was extensive (Belgium, France), short-term rates jumped, reflecting acute capital scarcity for reconstruction. Where destruction was absent (the Netherlands, Sweden), levels remained more stable, though they too rose in line with global forces. In economies such as Japan—where financial markets were less developed and perceived risk higher—short-term rates were structurally elevated (above 7–8%) even before the war. This underscores that, beyond common global shocks, local institutional and financial characteristics were decisive.

A common regularity across all cases is the rise in long-term interest rates during the 1920s relative to the pre-war period. Whereas before 1914 they clustered around 3–4%, after the war they reached 5–6% and, in some instances, even higher (Germany, Italy). Several interrelated factors underlie this shift. First, the massive issuance of public debt to finance military expenditure altered the balance of capital demand and supply (Eichengreen, 1992). Second, the restoration of the gold standard under new conditions—higher debt and fiscal fragility—required higher risk premia (Kindleberger, 1986). Third, the inflationary upheavals of the war years (and especially hyperinflation in Germany) undermined confidence in long-dated bonds and necessitated greater compensation for investors. Finally, heightened political and social uncertainty in the post-war era—revolutions, strikes, unstable governments—also raised perceived risk (Accominotti & Flandreau, 2008).

Consequently, whether countries had been belligerents and suffered destruction (Belgium, France, Germany, Italy) or remained neutral (the Netherlands, Sweden, Norway), long-term interest rates rose across the board. This indicates that the post-war transformation was not merely a local phenomenon but a global one, tied to structural changes in the financial system and to the reconfiguration of international capital markets.

## Appendix 1

Table 1.

### Selected countries database

Simple average period	National Investments to GDP	National Saving to GDP	Short-term Interest rate	Long-term Interest rate
Belgium				
1904-1913	14.3%	3.3%	3.86	3.10
1920-1929	18.6%	10.4%	5.25	5.15
The Netherlands				
1904-1913	14.5%	12.7%	3.45	3.33
1920-1929	18.2%	18.9%	3.67	5.07
Sweden				
1904-1913	13.8%	12.0%	5.08	3.92
1920-1929	13.7%	14.0%	5.10	4.97
Norway				
1904-1913	18.7%	15.1%	5.01	3.75
1920-1929	20.1%	15.9%	5.83	5.59
Australia				
1904-1913	13.6%	15.9%	3.23	3.83
1920-1929	18.0%	11.0%	4.02	5.69
Japan				
1904-1913	16.7%	14.2%	7.91	4.68
1920-1929	18.3%	16.8%	8.78	6.40
Italy				
1904-1913	16.5%	17.6%	4.85	4.96
1920-1929	12.4%	10.1%	6.50	6.16
The United Kingdom				
1904-1913	7.6%	14.7%	3.24	3.02
1920-1929	8.9%	11.5%	4.16	4.63
France				
1904-1913	19.1%	23.1%	2.61	3.17
1920-1929	21.1%	23.3%	4.33	5.23
Germany				
1904-1913	15.3%	16.8%	3.78	3.76
1920-1929	15.0%	14.4%	6.82	6.48

Source: Based on Jordà. Ò., Schularick, M. & Taylor, A.M. (2017; updated 2024). *The Jordà-Schularick-Taylor Macrohistory Database. Release 6.* Available at: <https://www.macrohistory.net/data/>

\*Notes on Interest-rate measures (JST): The short-term interest rate (stir) is a nominal annual series representing each country's standard money-market indicator—typically the central bank official discount/

bank rate, a money-market rate, or the 3-month Treasury bill yield where available. Values are annual (usually averages of monthly observations; where only point observations exist, end-year values are used). The long-term interest rate (*lrate*) is a nominal annual yield on long-maturity government debt—ideally the 10-year government bond; for earlier periods or specific market structures, JST employs close substitutes (e.g., consols/perpetuals or generic “6+ year” government bonds). Country-level documentation details sources and splices across sub-series. Comparability and interpretation. Both series are nominal and display historical heterogeneity (discount vs. money-market definitions for *stir*; 10-year bonds vs. consols for *lrate*). War years sometimes contain gaps that JST fills using the best available sub-series.

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