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The business of central banking in Sweden, 1924–1939: Regime change and adaptation

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ABSTRACT

This paper re-examines Swedish central banking during the interwar period (1924–1939), exploiting major regime shifts to analyze how the Riksbank adapted its core operations. Using monthly money-market data, we show that although interest rate policy broadly followed the 'rules of the game' after the return to gold in 1924, the Riksbank's primary activity—rediscounting commercial bills—was largely financed through deposits from the National Debt Office, allowing domestic liquidity provision without reliance on gold flows. The Kreuger crisis underscores how the scale of emergency liquidity provision, combined with the collapse of international capital markets, strained the existing monetary–fiscal arrangement and hastened Sweden's departure from gold. After abandoning gold in 1931 and moving to a pound peg in 1933, interest rate setting adhered even more closely to the 'rules of the game' than during the gold-standard period. Further, domestic rediscounting disappeared and was replaced by foreign bill purchases, placing downward pressure on the krona. These combined findings support the view that exchange-rate objectives, rather than price-level targeting, dominated Swedish monetary policy in the 1930s.

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1. Introduction

The interwar decades were notoriously turbulent for firms and policy makers alike. In the post-war environment of the 1920s, the return to the classical gold standard became a policy priority for the major economies, which returned to convertibility at various speeds (Eichengreen, 1992). This priority was based upon the view that the classical gold standard (1870–1913) and the extensive banking network which was enabled by it (Kisling, 2023) underpinned the first era of globalization, characterized by unprecedented cross border capital flows, international trade and improvements in living standards (Eichengreen & Temin, 2000).

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However, by the 1920s, the pre-war business environment had been displaced by a new regime which did not lend itself to the flexibility which characterized the pre-war era. Aside from the rise of protectionism and unsustainable post-war debt levels, price adjustment mechanisms were met with rigidities which did not equally bind in the pre-war era (Crafts & Fearon, 2010; Eichengreen & Temin, 2000). At the level of central banks too, the breakdown in international co-operation, credibility and commitment (Eichengreen, 1992) that typified the classical gold standard were diminished due to prevailing political tensions in the aftermath of the armistice. These confluent forces changed the business of central banking during the 1920s and the 1930s.

How the business of central banking could be conducted during the interwar period depended upon both the timing and the manner in which a country returned to the gold standard. Further, the job of central bankers was made easier if production capacity remained intact after the conclusion of hostilities and government debt was at sustainable levels. However, at the beginning of the 1930s, as the world grappled with the economic upheaval of the Great Depression and central bank reserves dwindled, policy makers were forced into a difficult choice. Should they continue to prioritize external targets (gold convertibility) and raise interest rates, or should they instead prioritize internal targets by allowing interest rates to fall, abandoning the fixed exchange rate as the core policy consideration? The significant exit from the gold standard by the United Kingdom in September 1931 abruptly reversed the steady rise of countries that had returned to the regime from the mid-1920s (Wandschneider, 2008).

Leaving the gold standard signified more than just a shift in monetary regimes, but also a profound evolution in the conduct of central banks. In theory, by abandoning fixed exchange rates, the floaters would be freed up to pursue sovereign monetary policy to expand their economies, an option which had been proscribed with free capital mobility during the gold standard (Eichengreen, 2008; Mitchener & Wandschneider, 2015). Of the group of European countries that exited the gold standard in late 1931 with the United Kingdom (Denmark, Finland, Ireland, Norway, Portugal and Sweden), Sweden alone experienced a significant banking crisis.[1] The Kreuger crisis and the subsequent bank rescue which occurred in 1932, materialized as the operating environment in which Sweden's central bank (the *Riksbank)* functioned was utterly transformed.

Sweden had been neutral during World War 1, suffered no destruction of its production capacity and returned to the gold standard in April 1924 with comparatively low government debt. Our study contrasts the monthly business of the *Riksbank* on the interwar gold standard (1924–31), when it possessed a relatively clear mandate, with its monetary policy stance during the subsequent era (1932–8), when it operated in a novel environment without the same binding constraints. While the krona was allowed to float freely initially, it was pegged to the British pound in June 1933 until World War 2 (Berg & Jonung, 1999). In this paper, we collect and construct monthly financial data from the balance sheets of the *Riksbank* (Sweden's central bank), the commercial banks and the annual reports of the *Riksgäldskontoret* (National Debt Office/NDO) to observe whether and how the business of central banking in Sweden evolved throughout these alternative regimes. In this sense, the chronology of our paper is guided by comparability considerations and so we begin by contrasting the activities of the *Riksbank* between the two 'stable currency' periods (April 1924–September 1931 and July 1933-December 38), before returning to the floating period (October 1931–June 1933) during which the Kreuger crisis was tackled and future currency policy was finalized.

To begin, we address the question of how the *Riksbank* conducted its activities during the gold standard period and whether it played by the 'rules of the game' (Reis, 2007; Bazot et al., 2022). The *Riksbank's* primary (seasonal) business during the gold period consisted of providing liquidity to domestic banks via rediscounting their commercial bills, when the latter experienced typical deposit withdrawals that required immediate cash. We find that the *Riksbank* was able to operate in good faith on the gold standard (its interest rate movements moved inversely with its reserve ratio), because the source of its liquidity injections was overwhelmingly provided via the fiscal channel (NDO deposits), helping it to evade the typical monetary constraints associated with a fixed exchange rate and open capital markets.

Next, we consider the functions of the *Riksbank* through the post-gold era (1932–9) with reference to its official statements and its newly found policy space. In theory, after leaving gold, the *Riksbank* was freer to pursue domestic monetary policy and to expand the economy (Mitchener & Wandschneider, 2015), while at the same time pioneering price level targeting as Berg and Jonung (1999) have claimed. However, our study finds that in the post-gold era, the interest rate policy of the *Riksbank* was even more consistent with playing by the 'rules of the game' than it had been while on the gold standard. In this vein, our findings chime with other studies that find that central banks remained cautious even after abandoning the gold standard (Mitchener & Wandschneider, 2015; Monnet & Puy, 2020). Further, in the post-gold regime, its traditional business of rediscounting the bills of Swedish commercial banks disappeared, as a result of a recovery in the bank reserve combined with lower interest rates, and was replaced by sustained and unprecedented purchases of foreign commercial bills. Taken together, these findings suggest that the exchange rate remained the key priority of interest rate policy and that the *Riksbank* was keeping the value of the krona artificially weak. These findings are in line with Rathke et al. (2017) who downplay the 'official' policy pronouncements of the monetary reform package introduced in the *Riksdag* (Parliament) in early 1933 and instead find a prominent role for a weak exchange rate in Sweden's strong recovery from the Great Depression in the 1930s.

Finally, we give attention to the *Riksbank's* maneuvers during the turbulent transition period between exiting the gold standard and before committing to the sterling peg (October 1931-June 1933). Joining a set of recent studies on Swedish banking crises (Grodecka-Messi et al., 2021; Kenny et al., 2023), we zoom in on the Kreuger crisis of 1931–2. Unlike the most recent crises of 1907 and 1921–3, during this event, the *Riksbank* faced down a latent banking crisis whose interconnections were largely concealed, though it carried the potential to engulf the entire financial and commercial sections of Sweden's economy (Schön, 2010; Söderlund, 1978). While the character of the business of the *Riksbank* appeared to contemporaries to have experienced a radical shift (March 1931–February 1932), exemplified by lending substantial amounts to a non-bank entity (the Kreuger group) and banks alike, it concluded the crisis as the holder of an essentially risk-free asset (NDO bond), as the sole creditor in the chain of debts. Notably, during this short period, when the *Riksbank* had considerable policy space to engage in monetary expansion, the net effect of its involvement was zero additional liquidity. Again, its co-operation with the fiscal channel (NDO) allowed policy space to credibly commit to the sterling peg by 1933. Such co-operation between monetary and fiscal bodies has been a key attribute of 'learner countries' that have 'grown up' to financial stability (Bordo & Meissner, 2015).

Recent work in business history has emphasized how financial institutions and policymakers interpret crises, adapt organisational practices, and reshape financial systems in

response to uncertainty and institutional change. Our attention to the rescue of a large part of the commercial banking system joins recent work in business history on another fraud-induced set of (savings) bank failures which catalyzed a one-off partial deposit guarantee provided by Swedish policy makers in 1929 (Wendschlag, 2025). We also build on the work of Lönnborg et al. (2011) who contrast the 1920s and 1930s crises in terms of causes and responses. While they note the relative policy space enjoyed by the *Riksbank* during the (post-gold standard) 1930s crisis compared to the 1920s event, our work takes this one step further by re-telling the story that in the end, it provided zero additional liquidity.

The remainder of the paper is structured as follows. Section 2 describes the economic and financial context in Sweden over the period of the study. Section 3 draws on the monthly balance sheets of the *Riksbank* and the NDO to reveal the special relationship between the two organizations and how it enabled the *Riksbank* to provide Sweden's commercial banks with their regular liquidity requirements without falling fowl of the demands of the gold standard. Section 4 documents the evolution of the Kreuger crisis from its early manifestations at the beginning of 1931 through the interaction of the commercial banks with the *Riksbank*. Section 5 describes the rearrangement of existing debts that comprised the rescue of the banking system overseen by the partnership between the NDO and the *Riksbank*. Section 6 concludes the paper.

2. Context

Sweden returned to the gold standard in April 1924, as the first country to restore convertibility (Jonung, 1984). Major financial profits had been earned during the war (Schön, 2010, p. 262) when market shares of Swedish firms rose as the production of many of their traditional international competitors was redirected towards military priorities. However, the resulting gold inflows contributed to inflation rates that exceeded those in many belligerent nations (Lennard and Ögren, 2014). Those firms that had done well were those that borrowed at the beginning of the war and remained liquid at the end of the inflationary period (Schön, 2010, p. 252). In the post war deflationary slump, real interest rate rose almost 65 percentage points (1918–21) wiping out many firms that had entered the post war era with debt (Schön, 2010, p. 252), including many of the commercial banks that had lent to them (Kenny et al., 2023). Against this backdrop, Sweden returned to the gold standard.

Sweden's return to convertibility at the pre-war parity in April 1924 meant that it needed to inflict deflationary policies on the economy to achieve price levels similar to the pre-war period. However, unlike other nations who chose this path (e.g. U.K.), Sweden had not suffered wartime losses of manpower, destruction/restructuring of its industries and it did not emerge from the period with a politically sensitive high debt burden. Table 1 reports economic indicators for the relevant periods on and off gold.

Table 1. Economic data for Sweden, 1924–39.

	Real GDP	Nominal GDP	Deflator	Emp.	Debt/ GDP
1924–31	3.2	1.3	−1.9	1.6	18.8
1932–38	2.9	3.8	0.9	1.2	22.7
Average 1924–38	3.0	2.5	−0.5	1.4	20.7

Source: Nominal government Debt adjusted from Fregert and Gustafson (2015) to an annualized basis. Real/nominal GDP and employment from Schön and Krantz (2015, table 5, 8).

Note: All figures reported in Compound annual average growth rates, except debt to GDP, reported as a period average. "Emp" is employment.

Sweden's debt to GDP ratio for the period averaged only 20 per cent, while employment grew at 1.5 per cent per annum. Nonetheless, unemployment hovered around 10 per cent through much of the 1920s (Schön, 2010, p. 260). Sweden's economic growth during the gold standard years (1924–31) was marginally higher than the floating period (1932–8) and the economy grew at 3 per cent per annum over the full period, positioning it as one of the more successful European cases. Due to strong productivity growth and annual price falls of almost 2 per cent per annum, real hourly wages in industry by 1930 were almost double what they had been in 1918 (Schön, 2010, p. 259). Indeed, over the period 1930–50, no economy grew faster than Sweden's (Schön, 2010, p. 287).

The continuous decline in bank assets until May 1929, despite the falling central bank rate, reflected the persistently high real cost of borrowing for firms (Figure 1). Not until the second half of 1929 did lending begin to expand, only returning to the 1924 level in December 1930.[2]

The central bank rate peaked at 8 per cent in September 1931, as Sweden left the gold standard and commercial bank assets had contracted by 7 per cent by January 1932. This transition period represents the height of the banking crisis that is commonly known as the 'Kreuger crash'.[3] Ivar Kreuger's business empire, which had expanded rapidly through the 1920s, was built upon the basis of lending capital to cash-strapped foreign governments in return for a monopoly on selling matches within the client state (Partnoy, 2010). The company's ultimate downfall arose from the wave of sovereign defaults that transpired during the period (Ögren, 2018, p. 66), largely as a result of terms of trade shocks associated with sustained price declines in primary products (Esteves et al., 2026).[4] Swedish commercial banks were particularly vulnerable, as 60 per cent of all lending was linked to the Kreuger Group (Ögren, 2018, p. 66) and Ivar Kreuger's suicide in March 1932 set off a series of other bankruptcies that spring (Hagberg & Jonung, 2009). The resolution of the Kreuger crisis (discussed in Section 4) was made during a brief window of a freely floating exchange rate: in this sense, the possibility to manage the crisis and provide liquidity was very different to the situation in the early 1920s when the monetary policy was tied to the objective of restoring the gold standard (Kenny et al., 2023; Ögren, 2018, p. 68).

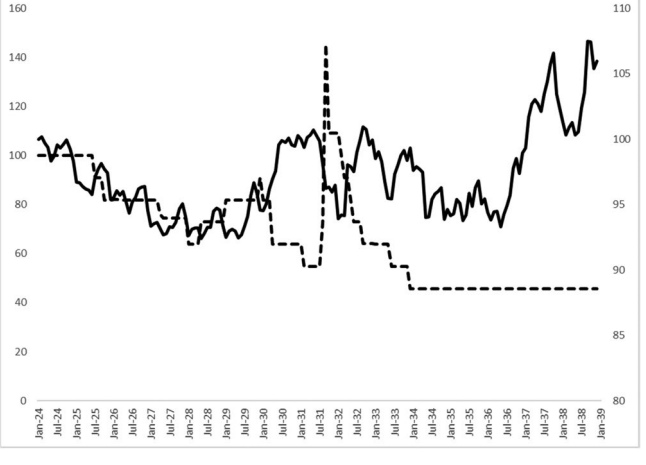


Figure 1. Swedish commercial bank assets and the rate of interest, 1924–38.
Source: Data collected from monthly volumes of Uppgifter om Bankerna (1924–1939).
Note: Both series indexed to January 1924 = 100. Riksbank rate of discount (dashed line, axis on LHS) and Commercial Bank Assets (black line, axis on RHS).

After briefly returning to pre-crisis levels in late 1932, bank assets trended downwards until May 1936, despite a sustained decline in the *Riksbank* rate. In the interim, Sweden had pegged the krona to the British pound in July 1933 (Lundberg, 1983). Ostensibly, this continuous fall in the central rate resembled the 1920s when Sweden had been on the gold standard. However, from the second half of 1936, bank assets expanded rapidly within a short time, while the central rate was held at 2.5 per cent. *Prima facie*, the absence of a policy response from the *Riksbank* plausibly represents a change in the nature of the conduct of its business five years after it left the gold standard. Perhaps the business of central banking in Sweden had shifted towards the stance of other floating rate countries that pursued expansionary monetary policies (Mitchener & Wandschneider, 2015). However, this broad conclusion requires the necessary detail to provide convincing answers on whether a distinctive shift in monetary stance had in fact occurred. First, we need to understand how the *Riksbank* conducted operations during 'normal times' (on the gold standard) in order to contrast them with the post-gold period and second, we need to know how it financed these activities and whether it changed during the two regimes. In Section 3, we collect and analyze monthly commercial bank and *Riksbank* balance sheet data to more formally discern any shift in stance during the interwar period, reserving detail on the resolution of the banking crisis for Section 4.

3. The business of Central banking in Sweden, 1924–38

Sweden's return to the (interwar) gold standard in April 1924 at a (fixed) pre-war parity signaled its intention to return to 'normal' monetary operations after a decade of price and currency distortions brought about by World War I and its aftermath. In the most basic form of the Mundell-Flemming trilemma, the Riksbank could only adopt two of three policy choices: 1) a fixed exchange rate, 2) free capital mobility and 3) sovereign monetary policy. The gold standard excluded (3), as central banks were expected to focus on maintaining convertibility of domestic currencies into gold at a fixed rate, while, at least in the pre-war gold standard, international capital moved across borders in volumes not seen again until the 1990s (Obstfeld & Taylor, 2004). The major business of central banking in this view, was an interest rate policy that would focus solely on convertibility. Playing by 'the rules of the game' meant raising interest rates, cutting the growth of credit, and hoping that capital flows would be stabilizing (Bordo & Meissner, 2015).

However, the *Riksbank* was not the sole actor in the money market in Sweden. Founded in 1789, the *Riksgäldkontoret*, or National Debt Office (NDO), had been borrowing on behalf of the state in international capital markets since the 1850s, and depositing liquid funds in the *Riksbank's* giro account (Schön, 1989, p. 22), as demand deposits. Due to the unique relationship between these two institutions, the NDO's account was named 'Account no. 1' (Ögren, 2010, p. 86). The NDO also, through foreign loans, actively participated in acquiring gold and foreign exchange reserves for the *Riksbank*'s reserve fund which were added to the latter's obligations (Hildebrand, 1939, p. 37). Throughout various banking crises in Swedish history, including those of 1878/79 and 1921/22, the NDO frequently mobilized capital from international markets to establish funds for managing toxic assets. In addition, the *Riksbank* would then channel these funds to Swedish banks via rediscounting bills of exchange, facilitating liquidity support and stabilising the banking sector during periods of financial distress (Hagberg & Walldov, 2000, p. 32; Söderlund, 1964, pp. 303–304).

In a pioneering study encompassing 21 central banks on the classical gold standard (1871–1913), Sweden has been grouped with 'peripheral countries' which typically used restrictions on gold convertibility (i.e. a form of capital control) to minimize reserve losses (Bazot et al., 2022). Indeed, the fact that gold never circulated in Sweden might be considered an informal restriction (Jonung, 1984). However, as Ögren (2006) documented long ago, the *Riksbank* early on began to realize various reserve strategies, such as altering the composition of its reserves. It held assets that did not qualify as backing notes but could be converted into reserves through sale in the capital markets. As early as 1872, it formally established a reserve fund, the assets of which were to be used to offset and thus sterilize outflows of reserves (Ögren, 2006). Foreign assets (such as foreign government bond holdings) as well as specie were considered to be part of the *Riksbank's* formal reserves, aided by the fact that Sweden was a small peripheral country, allowing for elasticity in reserve composition and a degree of flexibility (Ögren, 2006). In this sense, while restrictions on gold convertibility may ostensibly have characterized the Swedish experience as a peripheral country (Bazot et al., 2022), the *Riksbank's* management of its broad reserve fund was more in line with strategies pursued by the core countries who 'let their international assets decrease'.

Further, the Swedish National Debt Office (*Riksgäldkontoret,* 1935/36 & 1940/41) regularly raised funds on the international capital market which were deposited at the Riksbank, if funds were needed for the banking system (Ögren, 2009). As we shall see, these played a leading role in the *Riksbank*'s provision of liquidity, both in 'normal' and in distressed periods. As Ögren (2010, p. 86) highlights, during the 1860s, the *Riksbank* started to request increased influence over the placement of NDO funds and in 1872, an official agreement gave it senior rank. It effectively stipulated that the NDO place its excessive funds in the *Riksbank* and to always consult the Bank before placing it on the domestic market.

In addition to the use of these deposits, another means by which the Riksbank would use NDO funds was via the latter's bonds. By 1872, the *Riksbank*'s 'official strategy' included holding National Debt Office bonds as part of their portfolio to be used to intervene on the financial markets in a sterilizing way; i.e. to counteract the effects of international capital movements and smooth out the volatility in the availability of liquidity and credit on the market (Ögren, 2010, p. 86). As we later show, NDO deposits were the primary means by which this sterilization was conducted. Both policies allowed the *Riksbank* to conduct its monetary policies more independently of the effects of international capital flows (Ögren, 2010, p. 83).

Figure 2 plots the evolution of the central bank reserve ratio over the entire sample period, splitting it into a pure gold and a broader reserve ratio (gold plus foreign bills).

Evidently, the gold reserve ratio averaged 33 per cent and remained notably stable over the period showing little variation (SD = 0.03), though a trough can be observed in late 1932. On the other hand, the broad reserve ratio began to rise considerably through 1930 in line with bank assets and began to fall from 87 per cent in October 1930 to 32 per cent in September 1931 when Sweden floated the krona. It began a rapid recovery thereafter. Notably, the broad reserve ratio averaged 72 per cent during the post-gold period in contrast to 55 per cent during the gold standard era. While increases in reserves are in line with studies showing a recovery in exports due to devaluations (Eichengreen & Irwin, 2010; Eichengreen & Sachs, 1985), the rise in the ratio suggests that the numerator (notes and deposits) did not increase in lock step with reserves. This suggests that the business of central banking had changed.

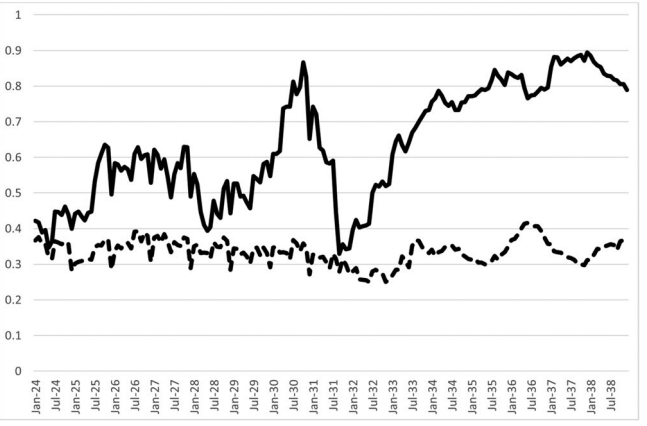


Figure 2. The gold and broad reserve ratios of the RIksbank, 1924–38.
Source: Data collected from monthly volumes of Uppgifter om Bankerna (1924–1939).
Note: Gold reserve ratio (dashed line) is = Swedish gold coins plus other gold coins and non-minted gold divided by sight liabilities of the Riksbank (notes plus deposits), Broad reserve ratio adds foreign commercial bills and claims to the former numerator.

Table 2. The monetary stance of Sveriges Riksbank, 1924–38.

	Reserve Type	Nurske Bloomfeld (adherence)		Bloomfeld
		Months	%	Coefficient
Apr 1924–Sep 1931	*Gold*	19/90	21.1	−0.09
	Broad	37/90	41.1	−0.59
Oct 1931–Dec 1938	*Gold*	31/87	36	−0.55
	Broad	31/87	36	−0.92

Source: Data collected from monthly volumes of Uppgifter om Bankerna (1924–1939). *Note:* Gold = Swedish gold coins plus other gold coins and non-minted gold. Broad reserve = 'gold' plus short-term assets at foreign banks and foreign bills of exchange. Interest bearing assets of the Riksbank were primarily discounted bills, but other loans and bonds also form part of that variable. Sight liabilities were predominantly bank notes, but also included deposits and postal notes.

To gain a crude measure of a potential change in the *Riksbank's* monetary stance during the interwar period on and off gold, we employ two simple tests conducted by Reis (2007). The Nurske Bloomfeld criterion stressed that a central bank should hasten adjustment by rising interest rates as soon as reserves start to leave its vaults to ensure adherence to 'the rules of the game' i.e. it focuses on the protection of the fixed value of currency expressed in terms of gold. With this objective, Reis (2007) posits that reserves should vary directly with domestic interest generating assets (*Riksbank* lending). In other words, lending should generally move in the same direction as the central bank's cash and therefore a simple indicator is given by targeting the first differences of these two variables on a monthly basis to arrive at the change. The next step would be to compare the two sets of first differences and multiplying them- if the resulting sign is negative there is a perceived breach of the rules. The second test is a more sophisticated variant of the first, which dictates that the discount rate of central banks should vary inversely with the reserve ratio (reserves divided by sight liabilities). The results for the two periods are presented in Table 2.

According to the results of these simple tests, the monetary stance of the *Riksbank* shifted distinctly over the two periods, though not in the manner standard theory might lead one to expect. During the gold standard period, the *Riksbank* lent in line with its reserve slightly

less than one half of the time and this changed only marginally during the floating period. However, the nature of how it conducted interest rate policy experienced a more pronounced shift. Though the *Riksbank* did not show a tendency to move interest rates in line with the gold ratio during the gold standard period, it did act upon movements in the broader reserve, which is negatively correlated with its discount rate (–0.55). However, it was during the 1930s, when the Swedish krona was no longer in the gold bloc, that adherence to the 'the rules of the game' appears to have peaked. From June 1933, the Swedish krona was pegged to the floating pound and the *Riksbank* matched a decline (increase) in reserves with an increase (decrease) in the rate of interest as a matter of course, shown by a correlation coefficient of –0.92. Relatedly, we find a structural break (Bai-Perron) on the gold reserve ratio in June 1933, the first month that Sweden entered the sterling peg. November 1930 also represents a structural break which represents the beginning of a distinct decline in the gold ratio pre-empting the exit from the gold standard.

However, this narrow focus ignores other external influences, such as the Bank of England rate (Bazot et al., 2022). In this vein, a recent study by Ögren and Zhao (2025) employed monthly data and a local projections framework (Jordà, 2005) to estimate the response of the *Riksbank* to exogenous shocks in the Bank of England discount rate. They find that the *Riksbank*'s policy rate moved pro-cyclically with the Bank of England's, indicating strong adherence to external monetary conditions. The analysis is not extended beyond 1933 due to the very limited number of interest rate changes, which prevents meaningful empirical identification. While interest rates changes were less frequent after that point, the *Riksbank* could have conducted its business using other techniques.

Before exiting the gold standard, the *Riksbank's* primary activity in the Swedish banking system was the provision of liquidity through rediscounting domestic bills. It was a seasonal business, with demand usually peaking in December and June, as commercial banks covered their deposit withdrawals with the liquidity the *Riksbank* supplied them, in return for their commercial bills which it purchased. Indeed, the rediscount of bills at the *Riksbank* is correlated with interest bearing liabilities of the commercial banks at –0.63 on the interwar gold standard.

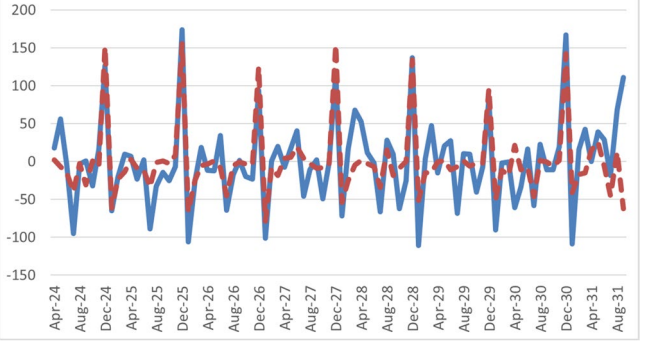


Figure 3. Changes in NDO deposits at Riksbank and in rediscounted bills (millions SEK), 1924–38.
Source: Rediscounted bills collected from monthly volumes of Uppgifter om Bankerna (1924–1939). National Debt Office deposits at the Riksbank were not published in the monthly bank reports and were sourced from Riksgäldskontorets Årsbok (various), 'behållning å Riksgäldskontoets checkräkning/giroräkning hos Sveriges riksbank'.
Note: Solid line represents changes to the Rediscount Rate and dashed line represents changes to the NDO deposits at the Riksbank.

As Figure 3 conveys, the volume of rediscounted bills at the *Riksbank* (assets) moved closely in line with National Debt Office deposits (liabilities), which suggests that the latter was the source of the former. While the volume of rediscounts was typically twice the level of NDO deposits, the similar size in the *changes* of both strengthens the potential case for the latter being the ultimate source of the former. The correlation coefficient in first differences is strongly positive at 0.76.

However, to more formally identify the source of this liquidity (rediscounted bills), Equation (1) shows that the *Riksbank* can provide liquidity or domestic credit (DC) to domestic banks through an increase in notes, a decrease in its reserves (-) or by drawing down deposits from banks or the NDO.[5]

$$\Delta DC = \Delta N + \Delta D_{Bnk} + \Delta D_{NDO} - \Delta R + \Delta BSR \tag{1}$$

Figure 4 decomposes the provision of liquidity to commercial banks on a quarterly basis in the gold standard period. The results mirror the pattern observed in Figure 3 in that the prominent driver of the growth and contraction in liquidity is predominantly the deposits provided by the NDO, which it borrowed on the international capital market (Ögren, 2009). As the latter is a branch of the fiscal authority, this external source of liquidity shielded the *Riksbank* and allowed it, ostensibly, to operate more easily within the rules of the game on the gold standard. When commercial banks approached the *Riksbank* to rediscount their domestic commercial bills during the gold standard, they received instant liquidity, reflected by the co-movement of bankers balances D_B and D_N.

In June 1933, the *Riksdag* (Parliament) approved a revised version of the monetary program for Sweden (first presented in May 1932) before pegging the krona to the pound in July. As documented by Berg and Jonung (1999), it stipulated that the "needs of Sweden's economy" were now to feature heavily in monetary policy decisions and continued deflation

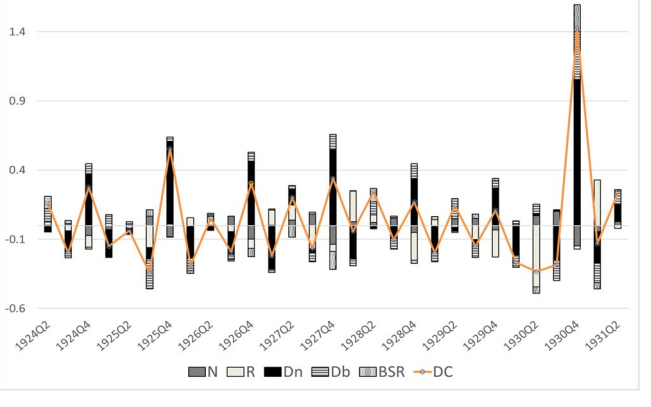


Figure 4. Contributions to liquidity growth (DC) on gold, 1924–31 (quarterly).
Source: All data from Uppgifter om Bankerna (1924–1939), except Dn taken from Riksgäldskontorets Årsbok (various). The bulk of liquidity provision (DC) is the re-discount of commercial bills at the Riksbank and minor loans. N is the notes of the Riksbank plus postal bank notes (usually trivial), R is the broad reserve (see above), Db, as bankers' balances is obtained as the residual of total deposits at the Riksbank minus NDO deposits (Dn) and the balance sheet residual (BSR) is obtained from "Other Liabilities" minus "Other Assets" plus the Equity of the Riksbank.
Note: Decimals as percentages (1 = 100%).

was to be resisted with equal force to the inflation that was expected to materialize when Sweden abandoned the gold standard. In addition to expressing the desire for some recovery in prices, it was admitted that policy conduced in the interest of the entire country involved considering so many factors that "a formal and simple rule" for monetary policy did not appear feasible. Most notably, it was generally desirable that domestic interest rates were kept as low as was conceivably possible without jeopardizing the monetary policy objective. The new regime of lower rates had a large impact on the business of central and commercial banking in Sweden. It made re-discounting an unprofitable business for Swedish banks, as they now received a lower rate of interest than they may have offered for commercial bills on the market.[6] The new regime also stated that efforts to control the value of the krona should start from the domestic price level and the "needs of Sweden's economy". As Figure 5 shows, the *Riksbank's* business switched from re-discounting domestic commercial bills to buying foreign (predominantly sterling) bills from mid-1933.

The substantial rise in the purchase of foreign bills represents a regime shift in the *Riksbank*'s balance sheet operations. Though Berg and Jonung (1999) cite a preoccupation with the sterling exchange rate among the board members of the *Riksbank,* they stress instead that the focus of policy makers was on domestic considerations in line with the new 'monetary programme', which included price level targeting. In contrast, Rathke et al. (2017) contend that official declarations of Swedish officials have been 'overvalued' and that in reality, the *Riksbank* was determined to have a stable and 'strongly undervalued' currency, motivated by 'the need to replenish its foreign exchange reserves, not the stabilization of the domestic price level'. The significant increase in foreign bill purchases is consistent with the latter interpretation, especially when combined with the test results presented in Table 2 and the increase in the reserve ratio in Figure 2.[7]

Taken together, the balance sheet data and simple tests presented above suggest that during the gold standard (1924–31), the *Riksbank* was able to conduct its regular/seasonal business (providing liquidity to commercial banks through re-discounting loans) with liquid funds sourced on the international capital market via the fiscal channel (NDO). This external source allowed it to operate comfortably within 'the rules of the game' by generally moving

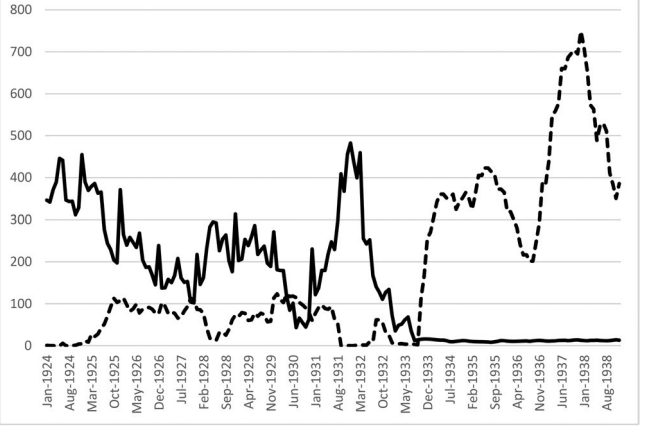


Figure 5. Domestic and foreign commercial bills held by Riksbank, SEK million (1924–38).
Source: All data from Uppgifter om Bankerna (1924–1939).
Note: Solid line denotes domestic commercial bills and dashed line represents foreign commercial bills.

its interest rates in the opposite direction to its reserve ratio 'in good faith' on the gold standard. In the new regime that emerged after Sweden's exit from the gold standard, interest rate policy was even *more* concerned with playing by 'the rules of the game', when the krona was pegged to the pound. The *Riksbank*'s domestic discount window business effectively disappeared, and it instead switched into buying foreign bills to weaken the exchange rate at a stable level in the new operating environment.

However, in the turbulent period between the exit from the gold standard and the new official monetary regime (October 1931-June 1933), the *Riksbank* was involved in an extensive rescue of the Swedish banking system. Though Ögren (2018, p. 68) noted that the *Riksbank* operated with much greater policy space in the 1930s crisis than in the gold-constrained early 1920s, Schön (2010, p. 295) recognized that without intervention 'a bank crash with unforeseeable consequences threatened'. It is to this event we now turn our attention.

4. The Kreuger crisis

The Swedish banking crisis of 1931–32 unfolded within the wider European crisis triggered by the collapse of international capital flows after the Wall Street Crash. Although US lending to Europe continued briefly into the early 1930s, capital increasingly took the form of short-term funds (Straumann, 2019), leaving European banking systems exposed. In the first phase in Sweden, foreign assets declined while foreign interbank liabilities rose sharply, reaching nearly 8% of total liabilities by May 1931. This inflow may have reflected Sweden's temporary role as a perceived safe haven or interest rate differentials created by commercial banks maintaining higher deposit rates (Nygren, 1985). When the European crisis erupted—beginning with *Creditanstalt*'s collapse in May 1931 (Carlson, 2015) and the failure of *Darmstädter- und Nationalbank* in July (James, 1984)—Swedish banks were hit by a rapid 'sudden stop'.

Table 3. Banks with highest outstanding rediscount loans from the Riksbank in Sept.1931 (million SEK).

			The decline in interbank deposits between May.1931 and Sept. 1931	
Bank name	Total assets	Rediscounted bills	Decrease in foreign interbank deposit	Decrease in domestic interbank deposit
Skandinaviska Kredit AB	1061.0	196.0	115.0 (79.1%)	33.6 (44.3%)
AB Svenska Handelsbanken	1325.0	83.9	72.5 (76.5%)	12.9 (30.9%)
AB Göteborgs Bank	516.4	34.8	17.7 (67.1%)	−3.9
Stockholms Enskilda Bank	451.2	22.5	73.1 (76.9%)	0.6 (5.6%)
AB Jordbrukarbanken	141.9	9.8	0.0	−2.4
Upplands Enskilda Bank	162.9	9.8	0.0	1.3 (26.0%)
AB Sydsvenska Banken	197.8	6.5	2.4 (27.5%)	3.3 (23.6%)
Östergötlands Enskilda Bank	149.6	5.3	0.4 (42.1%)	−0.7
Stockholms Inteckningsgaranti AB	242.7	2.7	−0.6	0.0
AB Nordiska Handelsbanken	184.0	2.5	1.2 (54.1%)	0.3 (4.3%)

Source: Uppgifter om Bankerna (1924–1939).
Note: The percentages in parentheses indicate the decline from the peak in May 1931 (a minus sign indicates an increase).

Within three months, 80% of foreign liabilities were withdrawn, with the largest banks—Skandinaviska Kredit AB, Handelsbanken, and Enskilda Bank—bearing the brunt of the outflow. Table 3 shows the strong link between those banks that had approached the *Riksbank* for the most liquidity by September 1931 and the extent of the run on their foreign liabilities. Indeed, recent work has emphasized interbank deposits as a key indicator used by survivor banks to identify failure banks (Blickle et al., 2024). While it was the typical business of the *Riksbank* to rediscount in the face of seasonal withdrawals as we have seen, the magnitude of this pressure was on another scale.

These shocks were amplified by the collapse of the highly leveraged Kreuger Group, whose operations accounted for over 60% of Swedish bank lending before 1931 (Ögren, 2018). Kreuger's business of underwriting the debts of foreign governments meant that in the event of the market not buying the sovereign bonds of his client states, Kreuger and his companies would have to produce the remainder of the funds. As the wave of international sovereign defaults began, market participants were no longer eager to buy government debt and foreign banks began cancelling loans to Kreuger in early 1931 preferring to remain liquid (Söderlund, 1978) forcing him to rely increasingly on the Swedish commercial banking system, particularly *Skandinaviska Kredit AB*. These events began to expose the vulnerability of the Kreuger model and pushed the business of the *Riksbank* into uncharted waters. Table 4 traces the financial support, in the form of loans, that were provided to the Kreuger group.

As documented in Söderlund (1978), the *Riksbank* was directly involved in assisting the Kreuger Group through their liquidity crisis since March 1931. Initially, *Skandinaviska Kredit AB* issued a SEK 20 million loan to the Kreuger Group, which the *Riksbank* promptly refinanced. In May, the *Riksbank* refinanced a further SEK 74.7 million credits issued by *Skandinaviska Kredit AB* to Kreuger. That existing credit arrangement was formally rescheduled in September among the Kreuger Group, the *Riksbank*, and *Skandinaviska Kredit AB*, with the *Riksbank's* SEK 94.7 million rediscounted loan toward *Skandinaviska Kredit AB* being transferred as the Kreuger Group's debt on to the *Riksbank's* balance sheet (guaranteed by *Skandinaviska Kredit AB*). The rediscounted securities were placed at the disposal of the *Riksbank*. Thus, the *Riksbank* became a direct lender to the Kreuger Group (Söderlund, 1978, pp. 475–484).

In the first month after exiting the gold standard, the *Riksbank*, with newly found space in monetary policy, provided the first direct loan of SEK 40 million to the Kreuger Group, though it did obtain a guarantee of 20 million from *Skandinaviska Kredit AB* (Söderlund, 1978,

Table 4. Exposure to the Kreuger Group over period March 1931–February 1932 (millions SEK).

Month	The Kreuger Group's debt to the Riksbank	The Kreuger Group's debt to Skandinaviska Kredit AB
Mar. 1931		20
May 1931		124
Sept. 1931	94.7	29.3 (+94.7 guarantee)
Oct. 1931	134.7	29.3 (+114.7 guarantee)
Feb. 1932	145.8	29.3 (+114.7 guarantee)

Source: Summarized from Söderlund (1978, pp. 475–494). Division of periods denotes change in monetary regime from gold standard to floating currency.

pp. 475–484). In February 1932, the *Riksbank* contributed two thirds of the SEK 16.7 million negotiated loan to the Kreuger Group, together with *Skandinaviska Kredit AB* and *Svenska Handelsbanken*, each contributing one sixth. At that point, the total amount of credit that the *Riksbank* had provided to the Kreuger Group had risen to SEK 145.63 million. How did it provide this liquidity? Figure 6 traces the monthly provision of rediscounting (DC) over this short, but turbulent period.

Evidently, there is a regime change in the 'business' of the *Riksbank* in the months before leaving the gold standard. This is driven by three considerations. First, as lending in the international capital market contracted, it became difficult for the NDO to conduct its usual business of borrowing at reasonable rates and depositing funds at the *Riksbank*. This led to the NDO playing only a marginal role from early 1931. Second, the problems facing the Kreuger group required immediate attention as the ramifications of such a failure worried policy makers and the Swedish commercial banking system. Largescale direct lending to a non-bank entity marked a new turn in the business model of the *Riksbank*. Third, as we have already seen, while seasonal discounting was a normal function of the *Riksbank*, in the months before exiting gold, the run on Swedish commercial banks' foreign liabilities led to abnormally large requests for re-discounting services at the *Riskbank*. As Figure 6 demonstrates, the funds provided by the *Riksbank* in 1931 were overwhelmingly sourced by a reduction in its own reserves and the issuance of its bank notes. Consequently, as we saw above in Figure 2, during these months the broad reserve ratio of the *Riksbank* had collapsed from just under 90 per cent to below 40 per cent.

In March 1932, at the height of the *Riksbank's* exposure to the Kreuger group, a hidden payments gap of SEK 135 million was revealed in Kreuger's accounts and his suicide in Paris triggered a full-scale confidence crisis, forcing the *Riksbank* to act in unorthodox ways again. While it sourced almost all of its liquidity provision that month by merely issuing notes, a more sustainable solution was required to deal with the extent of the banking problem. It is to this we now turn.

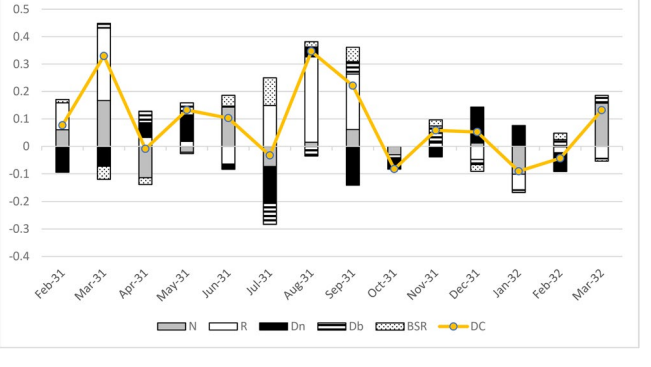


Figure 6. Contributions to Liquidity Growth (DC) provision by the Riksbank (Feb 1931–Feb 32).
Source: All data from Uppgifter om Bankerna (1924–1939), except Dn taken from Riksgäldskontorets Årsbok (various). The bulk of liquidity provision (DC) is the re-discount of commercial bills at the Riksbank and minor loans.N is the notes of the Riksbank plus postal bank notes (usually trivial), R is the broad reserve (see above), Db, as bankers' balances is obtained as the residual of total deposits at the Riksbank minus NDO deposits (Dn) and the balance sheet residual (BSR) is obtained from "Other Liabilities" minus "Other Assets" plus the Equity of the Riksbank.
Note: Decimals as percentages (1 = 100%).

5. The bailout

The collapse of the Kreuger group in March 1932 represented the highpoint of the crisis as a run on *Skandinaviska Kredit AB's* deposits led to withdrawals of up to SEK 53 million that month. The response from the *Riksbank* was decisive and swift as it rediscounted a further SEK 60 million in bills (via issuing notes, as discussed above) from the troubled bank to pay out its depositors. However, at this stage the commercial bank had a total of SEK 264 million in outstanding rediscounted loans at the *Riksbank* and a debt restructuring involving all actors was required to stabilize the banking system.

The resolution of the Kreuger Crisis was explicitly handled through formal legislative processes in the *Riksdag* (Swedish parliament), rather than solely through administrative or central bank action. In the immediate aftermath of Ivar Kreuger's death, the government introduced *Kungl. Maj:ts proposition nr 248* (1932), which directly linked the crisis to the collapse of the Kreuger empire, noting that 'the crisis has entered an acute phase' (p. 2), and argued that 'effective measures must be taken without delay so that confidence in our credit system is not jeopardised' (p. 4). The proposed measures, which were centred on substantial state support to *Skandinaviska kredit AB* formally recommended that the *Riksdag* authorise intervention via the NDO (*Bankoutskottet, utlåtanden, nr. 53*, 1932). However, though the *Riksdag*'s Banking Committee accepted the need for intervention in the case *of Skandinaviska Kredit AB,* it expressed clear reservations about broader state support to private banks, noting that 'serious objections' arose against such measures (*Bankoutskottets utlåtande nr 53*, 1932). It nevertheless recommended making SEK 30 million available to the government as a precautionary facility, justified by the risk that a loss of confidence could lead to 'severe damage to economic life' (ibid.). At the same time, it stressed that this should be treated as an exceptional measure and 'not… as a general guarantee' for the banking system (ibid.).

Parliamentary debates further demonstrate that these measures were framed as stabilizing the threat to-and reducing uncertainty in- Swedish commerce: 'through the crash of the Kreuger group, distrust has arisen' (*Andra kammaren, protokoll nr 30*, 1932, p. 21). This stance may have built on the experience of a contemporary state intervention in providing depositor guarantees to insolvent Swedish savings banks, as documented in the recent business history literature (Wendschlag, 2025).

Additional provisions, including a reserve fund to support other credit institutions, were likewise debated and approved (*prot. nr 53,* 1932). Taken together, the proposition, committee reports, and chamber debates provide clear evidence that the resolution of the Kreuger crisis was formally debated, legislated, and politically justified within the *Riksdag*, reflecting its systemic importance to Sweden's financial and economic stability (*Kungl. Maj:ts proposition nr 248,* 1932*; Bankoutskottets utlåtande nr 53,* 1932*; Riksdagens protokoll, Andra kammaren nr 29,* 1932). It was generally accepted that 'this intervention in reality concerns not only the bank but large parts of our commercial life' (*Andra kammaren, protokoll nr 30*, 6 April 1932).

The process unfolded in the following manner. In April 1932, the *Riksbank*, working in conjunction with the NDO and the commercial banks arrived at a solution involving an intervention worth almost one quarter of the *Riksbank's* entire assets. Ostensibly, this largescale rescue appears like a large risk for a central bank to expose itself to. However, as we document below, the *Riksbank* provided essentially no liquidity in the rescue of the banking system and merely oversaw a re-arrangement of existing debt structures between the other major players by ultimately removing itself from the chain of doubtful debts. Table 5 traces the chain of events described below in the April 1932 bailout.

Table 5. The Bailout sequence (April 1932).

Stage	Event Detail	Kreuger Group	Skandinaviska Kredit AB (SKA)	National Debt Office (NDO/ state)	Riksbank
(1)	NDO (state) lends SEK 214.7 m to SKA	—	+214.7m liability to NDO/state	+214.7m claim on SKA	—
(2)	SKA lends SEK 114.7 m to Kreuger, which uses it to repay the Riksbank	−114.7m liability to Riksbank; +114.7 m liability to SKA	−114.7m liquidity; +114.7 m claim on Kreuger	—	+114.7m cash; Kreuger exposure extinguished
(3)	SKA repays further rediscount obligations to the Riksbank, supported by loss reserve and interbank deposits	—	Repayment reduces earlier borrowing	—	≈+100m inflow; SKA exposure further reduced
(4)	Riksbank purchases SEK 214.7 m NDO/state bond	—	—	−214.7m bond issued to Riksbank	+214.7m state bond; swaps private credit risk for sovereign claim
(5)	SKA records ≈SEK 36.6 m increase in interbank deposits arranged by the state	—	+36.6m liability to other banks; liquidity partly used to fund repayments in (3)	—	—
(6)	SKA proves unable to repay its debt to the state, and the full liability ultimately rests on taxpayers	Kreuger estate bankrupt	Insolvency burden absorbed by shareholders; remaining obligation defaulted	Bears the loss as creditor to SKA; services bond owed to Riksbank	Bond serviced by state; no loss incurred

In the first place, the NDO (the fiscal/state channel) provided a loan of SEK 214.7 million to *Skandinaviska Kredit AB* (the same amount of rediscounted loans it had approached the *Riksbank* for). This intervention was authorized through *Kungl. Maj:ts proposition nr 248* (1932) and subsequent approval by the *Riksdag*, which empowered the NDO to subscribe SEK 100 million in subordinated debentures (*förlagsbevis*) and to extend loans of up to SEK 115 million to the bank (*Bankoutskottets utlåtande nr 53*, 1932). *Skandinaviska Kredit AB* reserved SEK 100 million of this as a loss absorber (recapitalisation) and lent SEK 114.7 million to the Kreuger group, who could immediately repay their debt to the *Riksbank*, removing that risk from the balance sheet of the latter. While the parliamentary record does not specify the internal allocation of funds within the bank, the use of subordinated debentures implies that the SEK 100 million component functioned as a loss-absorbing capital buffer. In sum, during this phase, the *Riksbank* was replaced by the NDO as lender, and the Kreuger group was replaced by *Skandinaviska Kredit AB* as the borrower (Söderlund, 1978, p. 494).

As documented by Söderlund (1978), in the next phase, the *Riksbank* purchased the NDO bond (SEK 214.7 million) from the latter using the funds it received from the Kreuger group (SEK 114.7 million) and *Skandinaviska Kredit AB* (SEK 100 million), of which, as implied above, the latter sourced these from its SEK 100 million loss absorber reserve and the freshly provided interbank deposits. As such, this rescue package did not create any new liquidity

through either the *Riksbank's* monetary obligations or via any international borrowing undertaken by the NDO. While the state, in line with the banking committee's recommendations (Bankoutskottets utlåtande nr 53, 1932) did make a sum of SEK 30 million available to the commercial banks due to adverse market conditions (Ögren, 2018, p. 67), no additional liabilities are observable in the balance sheets of Sweden's banks, indicating that the funds were not required. This might be explained by the rapid recovery in reserves and the lower interest rates that were to follow, as discussed in section 3.

In the final phase, *Skandinaviska Kredit AB* had to reckon with the non-performing loans on its balance sheet that were associated with the Kreuger empire. As we observe in the primary sources (Uppgifter *om bankerna 1924–1939*), in May 1932 the bank moved SEK 200 million of its loans associated with the Kreuger group into an 'Expense and other Temporary Account'.[8] A year later, SEK 50 million of this sum was written off as unrecoverable debt (reducing the bank's reserve fund) and the remaining SEK 150 million was transferred into the bank's shareholder account. Effectively, this represented a debt-to-equity swap where *Skandinaviska Kredit AB* gave up its repayment claims from the bankrupt Kreuger estate and acquired ownership claims on its remaining assets instead.

At the end of this resolution, who held the bill for the bailout? Despite the rapid and extensive liquidity support provided by the *Riksbank* in the initial phase, its exposure was quickly removed from its balance sheets via receiving full repayment from the Kreuger group (SEK 114.7 million) and *Skandinaviska Kredit AB* (SEK 100 million) within the month. Using the funds it received, the *Riksbank* bought and held the state-backed NDO bond as an asset, as the ultimate creditor of an asset that bore little risk.

However, the secured part (SEK 114.7 million) of the original loan (SEK 214.7 million) from the NDO to *Skandinaviska Kredit AB* was based upon the latter's claim on recovering its loan repayments from the Kreuger group. When this claim was revealed to be worthless, it became a *de facto* equivalent of the unsecured SEK 100 million tranche of the bond. While financial losses were borne by the shareholders of the bank that had become most involved in financing the Kreuger group (*Skandinaviska Kredit AB)*, it was unable to repay the bond. Essentially, the loan was repaid by the Swedish taxpayer (state) and this represented about 4 per cent of 1932 GDP (Schön & Krantz, 2015, Table 1). While the business of the *Riksbank* had changed temporarily, in the end, its ongoing partnership with the fiscal channel (NDO) once again allowed it to pursue its external balance objectives without falling foul of domestic credit risk or compromising monetary discipline. This clean slate gave credibility to its adoption of a sterling peg the following year.

6. Conclusion

This paper revisits the business of central banking in Sweden over the interwar period (1924–39). Our analysis exploits the dramatic variation in the operating environment of the *Riksbank* that occurred over a fifteen-year period to assess how it adapted to these major changes.

In the first place, we considered the primary business of the *Riksbank* and examined its interest rate stance following its early return to the gold standard in April 1924. In this vein, we build on the work of others who have looked at the behavior of peripheral central banks on the *pre-war* gold standard (Ögren, 2012). As noted elsewhere, few countries operated in a mechanical manner consistent with the 'rules of the game' (Ögren, 2012; Reis, 2007). In a

recent seminal study, Sweden was categorized as a peripheral country on the pre-war gold standard and was grouped with other countries as having 'gold restrictions' (Bazot et al., 2022). While indeed gold did not circulate in Sweden (Jonung, 1984), our study reveals a more complex picture.

Drawing on a rich set of monthly data from the key players in Sweden's money markets, we find that ostensibly, the *Riksbank*'s interest rate setting was broadly in line with these 'rules', when including the foreign reserve fund; it tended to raise interest rates in a response to a drain on its reserves. However, when we focus on its primary activity of providing seasonal liquidity to commercial banks via rediscounting their bills, a more nuanced picture emerges. Essentially, we show that the *Riksbank* financed these transactions through drawing down deposits furnished via the National Debt Office, or the *fiscal* channel. The latter borrowed on the international capital markets on behalf of the state and deposited some of the proceeds at the *Riksbank*. These deposits were disconnected from the trade account/gold flows and enabled the *Riksbank* to provide Sweden's commercial banks with their regular liquidity requirements without falling fowl of the demands of the gold standard. This partnership between the monetary and fiscal authorities was a cornerstone of the interwar gold standard (1924–31) in Sweden.

Second, we focus on the core business of the *Riksbank* in the 1930s, after it had abandoned the gold standard and moved towards a pound peg in the summer of 1933. As we show in our paper, after leaving the gold standard, it abandoned it's primary activity of rediscounting commercial bills, as under its new mandate of lower interest rates (Berg & Jonung, 1999) it became unprofitable for Swedish commercial banks to approach the discount window. As reserves underwent a dramatic recovery in the 1930s, the old partnership between the *Riksbank* and the NDO was no longer an essential feature. What replaced the core business of re-discounting on the part of the *Riksbank*? We show that almost immediately after leaving the gold standard, aggressive purchases of foreign commercial bills replaced the domestic bills of the 1920s in the *Riksbank*'s balance sheet. Such activity would have placed downward pressure on the Swedish krona, combined with lower interest rates. In this vein, our findings support the view of Rathke et al. (2017) who argued that unofficially, Swedish monetary policy was focused on generating an artificially low exchange rate (against the pound), which was a leading factor in the relatively strong economic performance of Sweden during the 1930s. The authors argue that official pronouncements in the monetary program of 1932 credited with pioneering price level targeting (Berg & Jonung, 1999) have been 'overvalued' and at odds with the economic history that subsequently transpired. In support of this view, we find that during the 1930s, the *Riksbank*'s interest rate policy was even more concerned with 'the rules of the game' than it had been while on the gold standard.

Finally, our study revisits the Kreuger crisis of 1932 in the transition period between the two major regimes (Lönnborg et al., 2011). While the bank rescue was hotly debated in parliament and discussed at length by the *Riksdag*'s bank committee, it was reluctantly accepted as a measure that was critical to restoring confidence amongst the commercial community (*Bankoutskottets utlåtande nr 53*, 1932). In this sense, it may have drawn some inspiration from the unprecedented deposit guarantees provided by the Swedish state to savings banks members in 1929, as discussed in recent business history literature (Wendschlag, 2025). As we show through the balance sheets of the commercial banks and the *Riksbank*, the latter extended considerable liquidity during 1931 when the run on Swedish foreign bank deposits

began to gain momentum. However, the extent of this support up to September 1931 dwarfed the traditional (seasonal) business of rediscounting the domestic bills of the commercial banks. Importantly, as the pressure built through that year, the NDO did not serve as the source of liquidity, as international capital markets contracted and the *Riksbank* drew on its own reserves to provide the banks, and even the Kreuger group, with this liquidity. In the end, the depletion of its reserves became untenable and Sweden departed the gold standard in September. In the crisis that followed, the partnership between the NDO and the *Riksbank* was again paramount. No new liquidity was injected into the banking system and in the end, the *Riksbank* became the ultimate creditor in the chain, as it transferred its riskier exposure to the Kreuger group on to the latter's principal banker (*Skandinaviska Kredit* AB) which it replaced with a NDO bond backed by the Swedish taxpayer.

Our paper argues that policy co-ordination between the monetary and fiscal authorities was more appropriate during the 1920s when the *Riksbank* navigated the uncertainty of the interwar gold standard and the crisis that characterized the immediate aftermath of that system. While a rapid response was required and forthcoming from the Central Bank, once the dust had settled, the partnership between the *Riksbank* and the NDO shielded the former once again when the final accounting was complete. Our paper also finds that while the business of central banking in Sweden had changed between the two periods with regard to replacing domestic commercial bills with the foreign equivalent, it was generally 'business as usual' in terms of prioritizing a fixed exchange rate, though at an artificially lower value after the gold standard.

Notes

1. While all in this group exited gold, Denmark chose to impose exchange controls in the months after to Mitchener and Wandschneider (2015).
2. In real terms, lending reached the 1924 level in 1929.
3. The term is often directly translated from the Swedish equivalent "Kreugerkraschen". In this paper, we will restrict ourselves to using the "Kreuger crisis".
4. The Kreuger group was also known for fraudulent book-keeping and it's business model has been likened to a Ponzi scheme (Partnoy, 2010).
5. The identity of the balance sheet of the *Riksbank* can be stated in the following equation with the assets on the left-hand side and the liabilities on the right. Essentially, its assets are comprised of reserves (R), domestic credit (DC) and other sundry assets (A_{Oth}). The liabilities include its notes (N), deposits (D), other sundry loans (L_{Oth}), and equity (E).

$$R + DC + A_{Oth} = N + D + L_{Oth} + E$$

   In addition to traditional bankers' balances (deposits), we know from NDO yearbooks (*Riksgäldskontorets Årsbok*) that it too maintained a deposit account at the *Riksbank*. The second equation splits total deposits into those deposited by commercial banks as bankers' balances (D_{Bnk}) and those deposits that were furnished by the NDO (D_{NDO}). Finally, we combine the less significant "other" items into a balance sheet residual (Other Liabilities – Other Assets + Equity).

$$DC = N + D_{Bnk} + D_{NDO} - R + BSR.$$

6. The relationship between NDO deposits and domestic commercial bills ceased after that point and there was no discernible equivalent between the former and *foreign* commercial bills.
7. When the *Riksbank* buys foreign bills, it pays in SEK (increasing SEK supply) and demands more foreign currency, which mechanically pushes the value of SEK *down* relative to that foreign currency.
8. "Utgifts- och diverse tillfälliga räkningar".

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References

Bazot, G., Monnet, E., & Morys, M. (2022). Taming the global financial cycle: Central banks as shock absorbers in the first era of globalization. *The Journal of Economic History*, *82*(3), 801–839. https://doi.org/10.1017/S0022050722000274

Berg, C., & Jonung, L. (1999). Pioneering price level targeting: The Swedish experience 1931–1937. *Journal of Monetary Economics*, *43*(3), 525–551. https://doi.org/10.1016/S0304-3932(99)00004-5

Blickle, K., Brunnermeier, M., & Luck, S. (2024). Who can tell which banks will fail? *The Review of Financial Studies*, *37*(9), 2685–2731. https://doi.org/10.1093/rfs/hhae020

Bordo, M. D., & Meissner, C. M. (2015). *Growing up to stability? Financial globalization, financial development and financial crises*, NBER Working Paper No. 21287. National Bureau of Economic Research.

Carlson, B. (2015). *Guldet blev till papper – 1930-talets pressdebatt om svensk penning- och valutapolitik*. Studentlitteratur AB.

Crafts, N., & Fearon, P. (2010). Lessons from the Great Depression of the 1930s. *Oxford Review of Economic Policy*, *26*(3), 285–317. https://doi.org/10.1093/oxrep/grq030

Eichengreen, B. J. (1992). *Golden fetters: The gold standard and the Great Depression, 1919–1939*. Oxford University Press.

Eichengreen, B. (2008). *Globalizing Capital: A History of the International Monetary System*. 2nd ed. Princeton University Press.

Eichengreen, B., & Temin, P. (2000). The gold standard and the Great Depression. *Contemporary European History*, *9*(2), 183–207. https://doi.org/10.1017/S0960777300002010

Eichengreen, B., & Irwin, D. A. (2010). The slide to protectionism in the Great Depression: Who succumbed and why? *The Journal of Economic History*, *70*(4), 871–897. https://doi.org/10.1017/S0022050710000756

Eichengreen, B., & Sachs, J. (1985). Exchange rates and economic recovery in the 1930s. *The Journal of Economic History*, *45*(4), 925–946. https://doi.org/10.1017/S0022050700035178

Esteves, R., Kenny, S., & Lennard, J. (2026). The aftermath of Sovereign Debt crises: A narrative approach. *The Journal of Economic History*, *86*(1), 218–257. https://doi.org/10.1017/S0022050725100995

Fregert, K., & Gustafson, R. (2015). Fiscal statistics for Sweden 1668-2011. In E. Rodney, J. Tor, & W. Daniel (Eds.), *House prices, stock returns, national accounts and the Riksbank balance sheet 1620-2012* (Vol. 2, pp. 183–222). Ekerlids Förlag.

Grodecka-Messi, A., Kenny, S., & Ögren, A. (2021). Predictors of bank distress: The 1907 crisis in Sweden. *Explorations in Economic History*, *80*, 101380. https://doi.org/10.1016/j.eeh.2020.101380

Hagberg, T., & Jonung, L. (2009). Chapter 5: How costly was the crisis in finland and sweden. In L. Jonung, J. Kiander, & P. Vartia, (Eds.), *The Great financial crisis in Finland and Sweden. The Nordic experience of financial liberalization* (pp. 158–182). Edward Elgar Publishing.

Hagberg, T., & Walldov, P. (2000). *Den finansiella krisen i Sverige 1907–08: Dess orsaker och verkan*. Stockholm School of Economics.

Hildebrand, K. E. H. (1939). *The National Debt Office, 1789–1939*. Kingl. Boktryckeriet.

James, H. (1984). The causes of the German banking crisis of 1931. *The Economic History Review*, *37*(1), 68–87. https://doi.org/10.2307/2596832

Jonung, L. (1984). Swedish experience under the classical gold standard, 1873–1914. In M. D. Bordo, & A. J. Schwartz (Eds.) *A retrospective on the classical Gold Standard, 1821–1931* (pp. 361–399). University of Chicago Press.

Jordà, Ò. (2005). Estimation and inference of impulse responses by local projections. *American Economic Review*, *95*(1), 161–182. https://doi.org/10.1257/0002828053828518

Kenny, S., Ögren, A., & Zhao, L. (2023). The highs and the lows: Bank failures in Sweden through inflation and deflation, 1914–1926. *European Review of Economic History*, *27*(2), 223–249. https://doi.org/10.1093/ereh/head001

Kisling, W. (2023). *Los von London*': A comparative, empirical analysis of German and British global foreign banking and trade development, 1881–1913. *The Economic History Review*, *76*(2), 445–476. https://doi.org/10.1111/ehr.13200

Lennard and Ögren. (2014). The Central Banks of a Belligerent and Neutral: The Bank of England and the Swedish Riksbank during the Great War. Unpublished paper presented at Banque de France 13 November 2014.

Lönnborg, M., Ögren, A., & Rafferty, M. (2011). Banks and Swedish Financial Crises in the 1920s and 1930s. *Business History*, *53*(2), 230–248. https://doi.org/10.1080/00076791.2011.555108

Lundberg, E. (1983). *Ekonomiska kriser förr och nu*. SNS Förlag.

Mitchener, K. J., & Wandschneider, K. (2015). Capital controls and recovery from the financial crisis of the 1930s. *Journal of International Economics*, *95*(2), 188–201. https://doi.org/10.1016/j.jinteco.2014.11.011

Monnet, E., & Puy, D. (2020). Do old habits die hard? Central banks and the Bretton Woods gold puzzle. *Journal of International Economics*, *127*, 103394. https://doi.org/10.1016/j.jinteco.2020.103394

Nygren, I. (1985). *Från Stockholms banco till Citibank: Svensk kreditmarknad under 325 år*. Liber.

Obstfeld, M., & Taylor, A. M. (2004). *Global capital markets: Integration, crisis, and growth*. Cambridge University Press.

Ögren, A. (2006). Free or central banking? Liquidity and Financial Deepening in Sweden 1834. *Explorations in Economic History*, *43*(1), 64–93. https://doi.org/10.1016/j.eeh.2005.10.004

Ögren, A. (2009). Financial revolution and economic modernisation in Sweden. *Financial History Review*, *16*(1), 47–71. https://doi.org/10.1017/S0968565009000043

Ögren, A. (2010). The modernization of the National Bank of Sweden: The Riksbank. In *The Swedish Financial Revolution* (pp. 79–94). Springer.

Ögren, A. (2012). Central Banking and Monetary Policy in Sweden during the long nineteenth century. In *The gold standard peripheries: Monetary Policy, adjustment and flexibility in a global setting* (pp. 17–36). Springer.

Ögren, A. (2018). Banking crises and lender of last resort in theory and practice in Swedish History, 1850–2010. In *Coping with financial crises* (pp. 47–76). Springer. https://doi.org/10.1007/978-981-10-6196-7_3

Ögren, A., & Zhao, L. (2025). 'Mitigating the Trilemma The Riksbank's Monetary Policy under Different Monetary Regimes1878–1939. (mimeo)

Partnoy, F. (2010). *The match king: Ivar Kreuger and the financial scandal of the century*. Profile Books.

Rathke, A., Straumann, T., & Woitek, U. (2017). Overvalued: Swedish monetary policy in the 1930s. *International Economic Review*, *58*(4), 1355–1369. https://doi.org/10.1111/iere.12254

Reis, R. (2007). An "art", not a science? Central bank management in the interwar period. *The Journal of Economic History*, *67*(1), 1–28.

Riksgäldskontorets Årsbok/Swedish National Debt Office. (1935/36 & 1940/41). Budgetåret.
Schön, L. (2010). *Sweden's Road to Modernity: An Economic History*. SNS Förlag.
Schön, L. (1989). Svensk Statsskuldspolitik genom Tvåhundra År. In E. Dahmén (Ed.), *Riksgäldskontoret 1789–1989: Upplåning och utveckling* (pp. 13–34). Riksgäldskontoret.
Schön, L., & Krantz, O. (2015). 'New Swedish Historical National Accounts since the 16th Century in Constant and Current Prices'. Lund Papers in Economic History No. 140, 2015.
Söderlund, E. (1978). *Skandinaviska banken i det svenska bankväsendets historia 1914–1939*. Almqvist and Wiksell international.
Söderlund, E. F. (1964). *Skandinaviska banken i det svenska bankväsendets historia 1864–1914*. (No Title).
Straumann, T. (2019). *1931: Debt, crisis, and the rise of Hitler*. Oxford University Press.
Uppgifter om banker in Statistiska centralbyrån (SCB) (1924–1939). *Historisk statistik för Sverige. Del 2: Finanser*. Statistiska centralbyrån.
Wandschneider, K. (2008). The political economy of the gold exchange standard. *The Journal of Economic History*, *68*(3), 787–823.
Wendschlag, M. (2025). Competing narratives in the Swedish 1929 deposit insurance-debate. *Business History*, *67*(5), 1381–1399. https://doi.org/10.1080/00076791.2024.2396359