FROM THE FIRST TO THE SECOND WORLD WAR

A SERIES OF CRISES

The first world war disrupted economic development. Protectionist tendencies became more pronounced, the war hampered world trade and led to a suspension of the gold standard.

After the war, many believed in or hoped for a return to the earlier order. However, the international economy was now more fragile. Attempts to restore the gold standard made matters worse because measures to reinstate pre-war exchange rates involved deflation. Financial markets had problems with war debt – Germany's indemnity to the victorious countries and the United States' claims on other allies. Governments tended to give national interests priority.

The tensions came to a head in the 1930s. The Wall Street crash in 1929 and the resultant financial crises in the United States and Europe forced most countries to abandon the gold standard again. At the same time, the politi-

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Greatly increased inflation during the First World War is followed by marked deflation in the early 1920s. The Riksbank has difficulty in coping with the economic fluctuations. The situation improves for some years, only to deteriorate again when the Wall Street crash in 1929 is followed by the suspension of the gold standard, Ivar Kreuger's suicide, increased protectionism and an economic depression. In the reformed, bicameral Riksdag, the political majority appoints a majority of the members of the Riksbank's governing board. The crisis in the 1930s prompts measures – inspired by Keynes and the Stockholm school of economists – whereby fiscal and monetary policy are more coordinated. This contributes to a more consistent approach to the economic strains of the Second World War.

1914–8 First World War.
1915–9 Rapid wartime inflation.
1920–2 Marked deflation.
1922–3 Bank crisis.
1924 Gold standard is reintroduced.
1929 Ivar Rooth is appointed governor of the Riksbank. Wall Street crash.
1931 International financial crisis. Britain abandons the gold standard, followed by Sweden and other countries. Monetary policy to aim for price stability.
1931–2 Prime Minister Ekman persuades the Riksbank to participate in two loans to Ivar Kreuger's financial empire.
1932 Kreuger commits suicide. The Riksdag adopts a monetary policy programme for price stability.
1933 The Swedish krona is pegged to sterling at 19.40 kronor to the pound.
1939 The krona is pegged instead to the dollar at a rate of 4.20 kronor.
1939–45 Second World War.
1941 Dag Hammarskjöld, under-secretary at the Finance Ministry, is appointed chairman of the Riksbank's governing board.

cal outlook darkened when the Nazis came to power in Germany. International financial flows decreased as more and more countries regulated foreign trade and cross-border payments.

Even when the gold standard was still working, government intervention had interfered with its mechanisms and this placed greater demands on central banks. The need to manage war debt and reparations contributed to formal central bank cooperation in the Bank for International Settlements (BIS) in Basel. Government efforts to cope with the crisis involved many central banks. When unresolved antagonisms resulted in the Second World War, the problems of a wartime economy returned. However, central banks were now able to draw on experience from the First World War.

In Sweden, the wars and crises metamorphosed the Riksbank. The reforms of 1897 had provided the basis for a modern central bank, while the world wars and the intervening problems gave the new role substance. The changes were partly institutional. Parliamentary rule had ended the earlier tensions between royal power and government on the one hand and the Riksdag on the other. The Riksbank's governing board increasingly represented the same political majority as the government. This helped to unify the various aspects of economic policy but it also raised questions about the Bank's independence.

Equally important changes occurred in economic conditions and in ideas about the role of monetary policy. The three decades from the outbreak of the First World War to the end of the Second World War provided dramatic experiences – of inflation and deflation, collapsing stock exchanges and other crises, the need to coordinate and regulate – that entirely transformed the Riksbank's functions and instruments.

THE FIRST WORLD WAR

During the First World War the Riksbank encountered a series of problems that hardly anyone knew how to tackle. The war and the early post-war years were a severe test of monetary policy.

The political situation in Europe became increasingly strained in the early 1910s and the economic outlook was more uncertain. Protectionism grew in the United States. Signs of an economic downturn first appeared in Germany and the United States during 1913 and reached Sweden in the first half of 1914 as iron ore exports slackened.

When Austria-Hungary declared war on Serbia on 28 July 1914, more and more countries joined in on either side, leading to a major war in a matter of days. Germany took steps that soon hampered Swedish exports of wood products; total exports fell, leading to inaction and pessimism.

Individuals and firms rushed to redeem notes while this could still be done; in the first four days of war the Riksbank's stock of gold was reduced by 2.7 million kronor. This was only 2.5 per cent of the gold reserves but enough to cause concern. Backed by the bank committee, the governing board suspended redemption for gold on 2 August. Exports of gold were banned on 25 November. Meanwhile, other countries left the gold standard. The customary par rates between national currencies no longer applied and no one knew how soon, if ever, they would be restored. This was a novel situation in practice as well as in theory.

The war's consequences for payments worried the Riksbank. When the matter was discussed on 2 August with Marcus Wallenberg and other leading bank representatives, it was agreed that a general moratorium on payments was needed to counter the risk of defaults. As the law would take at least two days to enact, banks were closed from 3 to 5 August. The Bankers Association decided that when banks reopened, withdrawals would be limited to 100 kronor per savings account and day. However, the fears of a run proved to be unfounded. Another inconvenience was a shortage of petty cash. The Riksbank resumed the printing of one-krona notes, which the Riksdag had terminated in 1875.

After the Moroccan crisis in September 1911, Governor Langenskiöld had arranged for a part of the Riksbank's securities to be deposited in Switzerland – a war might block access to bills and bonds in belligerent states. Holding assets in neutral countries in the vicinity of international financial markets would eliminate this risk. Some directors feared that if Sweden became involved in the war, foreign assets would be confiscated. To preclude this, the Riksbank transferred foreign claims and government securities to the four major banks, which booked them as a debt to the Riksbank. It was hoped that any confiscation would concern the property of hostile states and leave the assets of their citizens and companies untouched.

There seem to have been other considerations, too (Lundström, 1999). In July 1914 the greater part of the Riksbank's foreign exchange reserves consisted of treasury bills in reichsmark. There was nothing unusual about that; Swedish imports from Germany usually exceeded exports and the importers were in great need of reichsmark bills. Under normal circumstances, assets held in banks abroad were readily sold or transferred home without delay, to be made over to importers or converted into other currencies or gold. Now, however, the Riksbank seems to have been reluctant to use the usual channels; perhaps that would be considered provocative when everything hung in the balance. To avoid leaving the assets in Germany, they were transferred to large commercial banks, which converted them into treasury bills and dispatched three officials to bring the bills back to Sweden. The officials had a permit in German, issued by the Royal Swedish Railway Board, entitling them to take the documents with them. Once they had reached Sweden, the bills would be sold to other countries.

The plan failed. When the Swedish bank representatives arrived on the Jewish Sabbath, Warburgs, the bank that was holding the treasury bills, was closed. Next day, August 2, Germany declared war on Russia and the Swedes were advised not to attempt to take the treasury bills out of the country. So the bills remained in Warburg's safekeeping and neither the Riksbank nor the commercial banks could do anything about it. This left the Riksbank with no sizeable reichsmark holdings to sell when the war began. Neither was Governor Moll in a position to explain what had happened. It was not until 1 July 1920 that the Riksbank obtained a final settlement for the deposit.

The Riksbank's reichsmark assets presumably influenced its exchange rate policy. The reichsmark depreciated in the early days of the war but so did the krona at first, which limited the Riksbank's losses. Moll was unwilling to dispose of the reichsmark at the 'unreasonably low rates' a couple of months into the war, after which the rate fell even further. Östlind (1945) presumes that Moll, like many others, anticipated a fairly quick return to the earlier par rates. In that the reichsmark did not weaken so much against the krona, Germany could afford more food, which contributed to the shortage and profiteering in Sweden.

Many people believed the war would soon be over. Businessmen bided their time for the first six months; when a longer war seemed likely, demand rose for virtually all Swedish goods. Producers for the domestic market, such as the footwear and leather industry, obtained orders for the German and Austrian armies. Food exports rose rapidly and were not restricted until the autumn of 1915. When German companies concentrated on their own country's wartime needs, Swedish engineering firms broke into the Russian

The German mark fell against the Swedish krona during and after the First World War.

German 5 and 10 billion mark notes to cope with inflation; 72×121 and 82×120 mm.

market. Transit trade between belligerent countries was profitable, just as it had been during the Napoleonic and Crimean wars. The volume of Swedish exports increased by 50 per cent from 1910 to 1915 and then fell back a little, while prices rose even more – as much as 300 per cent from 1910 to 1918.

The external demand stimulated Sweden's economy. Additional capacity was needed to cope with the inflow of orders. Investment was highest in the production of capital goods, for which demand, prices and profits all spiralled upwards. Engineering companies needed more iron and steel, which meant that the latter industry in turn ordered more machinery from the engineering sector.

Sweden's neutrality gave companies at least six or seven years of uncontested expansion at home and abroad. ASEA was spared the competition from older and more advanced German companies like Siemens and AEG. 'It is indicative that as soon as there was talk of peace, the wartime price of ASEA shares fell' (Lundström, 1999). In the absence of competition from German ball-bearing companies, SKF was able to expand in Britain, France and the United States; this gave the company the financial resources to dominate the German ball-bearing industry in the 1920s.

The wartime blockade provided opportunities for substitutes, which worked both ways. Higher prices for imported coal and paraffin oil, accompanied by strong foreign demand for energy-intensive Swedish products, pushed up prices for domestic fuels such as wood and charcoal. This made electrification more commercially viable than before, which stimulated the introduction of hydroelectric power as well as the production of electric engines and other industrial machinery. At the same time, wartime conditions encouraged investment in mines and other ventures that collapsed after the war when foreign trade recovered. Inflation made borrowing cheaper and the war led to shifts in relative prices; it was hard to tell whether the changes were temporary or more permanent.

The profitable enterprises raised expectations; economic activity became increasingly speculative and inflationary. The impact of wartime conditions was clearest on the stock exchange. The 1911 Bank Act had eased the restrictions on banks' shareholdings. Investment could now be promoted in the same way as in other countries. Although limited, the right to purchase shares could be used to establish issue houses and other investment companies; these subsidiaries were then provided with large loans for further

acquisitions. The banks' commitments considerably exceeded what the Act had probably intended.

Access to loans pushed share prices up; a speculator could acquire a shareholding for 10,000 kronor and pledge it to borrow 7,500 kronor in order to buy additional shares. During 1915 shares in shipping companies rose 100–150 per cent. The following year there was an equally large price rise for 'war securities' such as ASEA, Stora Kopparberg and Stockholms Superfosfat, with more moderate increases for other paper. Stockbrokers increased in number to over a hundred.

The government set up emergency commissions to procure scarce products and administer their sale. Funding was arranged at first with loans from twenty or so private banks, which drew on their deposits and reserves. In 1917 the Riksdag decided that the Riksbank would be responsible instead, via the National Debt Office. This resulted in greatly increased liquidity: the private banks lent what was returned to them and the Riksbank obtained credit by printing money because accepting deposits was virtually prohibited. The problem was not addressed until May 1918, when the National Debt Office made a credit agreement with 23 banks, thereby reducing notes in circulation.

A strong balance of payments also generated liquidity. Exports were paid for in gold and foreign currencies which the Riksbank exchanged for Swedish notes. The inflow also included capital looking for a more secure haven. In October 1915 the Riksbank ceased to accept Danish notes at par and the rate for Norwegian money was lowered in December.

When conversion into gold was reintroduced at the turn of 1915, the krona rose above par against the reichsmark, sterling and the dollar. As the gold was exchanged at the old rate, it paid to buy Swedish notes and trade them for other currencies. The inflow of gold was so strong that after only a month or so the Riksbank was obliged to block gold and rescind convertibility. The problem remained because the Scandinavian monetary union was still in operation; gold was converted instead in Denmark and Norway in order to pay debts in Sweden. The Scandinavian partners finally suspended gold transactions on 17 April 1916.

Sweden's national debt grew rapidly during the war, from 650 million kronor at the outbreak to 1,650 million at the end of hostilities. Thus by 1918, wartime expenditure exceeded the cost of six decades of building up a modern infrastructure (Schön, 2000). A strong exchange rate induced Swedish investors to buy back most of the Swedish bonds that had been issued abroad. Germany activiated Swedish securities to pay for strategic imports. When the war ended, large transactions were arranged in France to pay for Swedish products for economic reconstruction.

Economists proposed various ways of checking the price rise. Knut Wicksell recommended a levy on exports that would be used to subsidise imports. A natural solution would be a higher discount rate, monetary policy's primary instrument in the days of the gold standard. In spring 1915, however, Moll considered that the Riksbank was unable to influence exchange rates and saw no point in open market operations.

The Bank had lowered the discount rate to 5½ per cent, the normal pre-war level, in January 1915, which was reasonable in view of the economic uncertainty in the first six months of the war. The Riksbank then remained passive even when credit growth took off in earnest. In September 1916 Moll declared that discount rate policy had 'at all events been able to exert just a very minimal influence on the price rise'. The Riksbank was criticised heavily at first, less so later on.

The price rise in Sweden was partly a consequence of strong demand and inflation abroad. In an assessment of economic developments from 1914 to 1922, Östlind (1945) agrees with Moll's view that the discount rate had become less effective because, in the absence of a gold standard, exchange rates fluctuated sharply: 'The question of which country to choose for a capital investment was largely determined instead by expectations of future movements in exchange rates'. Cross-border currency flows responded to the fortunes of war and the outcome of peace negotiations.

Still, Moll exaggerated the significance of external factors; domestic inflationary pressure became troublesome enough in itself. Knut Wicksell interpreted the situation as a deviation from the natural rate of interest, that is, the rate at which consumers save as much as producers are prepared to borrow for investment. Market rates below the natural level cause prices to rise because the greater propensity to invest entails increased demand; companies make up for the lack of savings by borrowing from banks. A higher discount rate discourages investment and speculation.

The economy became so overheated that the discount rate was ineffective. Under normal circumstances the banks provided commercial loans against bills which they rediscounted in the Riksbank. During the period of high inflation, however, deposits were so large that rediscounting was not

Victor Moll (1858–1929), governor of the Riksbank 1912–29.
Caricature by Nils Melander, 1924.

needed. So when the Riksbank finally began to raise the discount rate, the banks were immune.

In 1917, commercial bank lending rose faster than deposits. More than 60 per cent of the increase was secured with shares. The aggregate balance on special accounts for large companies and other important customers fell during the spring. Everything indicates that it was speculation and new issues which dominated demand for credit. Inflation could be exploited by selling stocks for more than they had cost to buy a year or so earlier, but profits fell in real terms. The October Revolution put an end to demand for companies that had ventured into the Russian market, though at first it was not clear how long this would last.

The stock-market boom worried some people. In January 1917, Joseph Nachmanson, deputy managing director of Stockholms Enskilda Bank, wrote to Marcus Wallenberg: 'When you return you will find almost the whole of Sweden is at present changing hands at unprecedented prices. How will all this end – and when?' Wallenberg-owned Investor scaled down its operations early on and, compared with other investment companies, was less affected by the stock market's volatility.

Unrestricted submarine warfare broke out in autumn 1917. Blockades reduced imports to such an extent that Sweden's export surplus reached an all-time high of almost 10 per cent of GDP. Imported foodstuffs were particularly scarce and stocks were low. The shortage was accentuated when favourable prices for animal products induced farmers to rear cattle and pigs on breadstuffs and potatoes. Maladroit price controls curbed farm output and made matters worse (Isaksson, 1990). Depleted food stocks were accompanied by the worst harvest for years. As winter approached, the shortage of coal became a problem; the State Fuel Commission had to speed up the procurement of firewood and timber. The profits from agriculture and forestry flowed into the banks, encouraging them to go on financing their customers' share issues even though the stock market had largely run out of steam.

Policy was finally realigned in September 1917, when the discount rate was raised to 6 per cent, followed by a further increase to 7 per cent for a brief period around the turn of the year. This was seen as a high level because in those days the debate focused on the nominal rate. The significance of the real interest rate (the nominal rate less the rate of inflation) had been pointed out two decades earlier by the American economist Irving Fisher without

gaining much support. Market participants were smarter than analysts. Inflation was so high that the real interest rate was negative; it paid to buy with borrowed money and sell about six months later, when the price had risen and inflation had eroded the value of the loan. This was what had driven property speculation in the Age of Liberty and it also resulted in the years of overheating in the 1980s.

The higher discount rate was therefore ineffective, whereupon the government resorted to persuasion. Bank loans were to be provided prudently and with discrimination. A Finance Council, chaired by the Riksbank's governor, was set up to oversee and regulate lending abroad. The Council soon extended its field to domestic loans; a circular in April 1918 exhorted all 'banks, banking institutions and other professional granters of credit to observe the greatest possible restraint in the provision of credit'.

The Capital Control Board (*kapitalkontrollnämnden*) that Moll initiated six months later seems to have been more effective. All equity and bond issues required the Board's approval. On behalf of the commercial banks, in October 1918 the Bankers Association gave an assurance that its members would not provide loans against shares and bonds which had been issued without the Board's approval. Plans to ration credit were discussed but nothing came of them.

Criticism of the Riksbank during the First World War also concerned practical matters. With most countries off the gold standard, exchange rates fluctuated more. The private banks monitored exchange dealing round the clock, whereas the Riksbank was closed outside normal office hours. Moll stubbornly refused to contemplate official exchange rates, so the Bankers Association had to convene meetings whereby exchange dealers set rates on a daily basis. Business contacts abroad found it hard to understand why exchange rates varied from bank to bank.

When the blockades eased and the economy started to recover, demand for goods and services exceeded supply and prices shot up. Speculating in continued price increases, some companies sold less and built up stocks. However, higher prices encouraged investment in additional production capacity. 'An inflationary process of this type generally defeats itself fairly soon … The stock speculation boom of 1919–20 came to a sudden end' (Lundberg, 1944).

In 1920 there was an international economic downturn. When major producers in the rest of the world disposed of stocks that had accumulated during the war in Europe, commodity prices fell. This was followed by an industrial output surplus because companies overestimated demand (Olsen, 1968). The earlier shortages had taught buyers to place orders with four or five firms and hope that one of them could supply what was needed, whereupon the other orders could be cancelled. Now, however, all orders led to production and output exceeded demand.

Sweden's current account moved into the red and the strains on the Riksbank grew. Depreciation against the dollar could not be countered with gold reserves because the 1914 ban on exporting gold was still in force.

Government measures were also reducing liquidity. A series of tax increases was now fully effective and the social democrat finance minister, Fredrik Thorsson, was cutting expenditure. The emergency commissions and military preparedness were quickly dismantled. The consequences came to be known as the 'Thorsson effect'.

The stock market fell. In December 1918 the Swedish financial newspaper *Affärsvärlden* was already complaining: 'One has soon tired of asking how long this decline will continue. Prices have been discussed time and again in the belief they were absolute lows. But a few days later they have been found to be even lower and so it has continued up to the present.' The downward trend actually lasted until 1924.

Shares were pledged as collateral for some 40 per cent of bank loans at the turn of 1919 – a millstone for the stock market as well as the banks. Falling share prices forced borrowers to either sell in order to repay loans or provide additional collateral, which pushed prices down even more. The banks were in a tight corner; liquidity was already low when the crisis began and they borrowed heavily from the Riksbank. They were less able to meet the needs of borrowers.

Of the fifty or so investment companies the banks had funded, only AB Emissionsinstitutet, owned by Stockholms Enskilda Bank and Skandinaviska Kreditakiebolag, and the Wallenberg-owned Investor managed to survive. The failures were a heavy blow as banks had to write off the large loans they had provided during the wave of speculation.

Lowering the loan value of the debt-burdened companies' shares was a problem, as Marcus Wallenberg explained in 1922: 'Everyone knows that when we lowered the rates for a paper [. . .] of the first grade, the managing director of the company in question has got in touch with his bank and complained of being mistreated [. . .] and that has led to a compromise'.

In order to ease the situation, for banks as well as the downward pressure on share prices, some leading bank representatives took a remarkable initiative: a company, Moneta Ltd., was formed by about a hundred people in autumn 1919 and purchased large holdings in Gränges, Stora Kopparberg, SKF and other companies. The Riksbank gave its support. When Moneta was finally dissolved in 1929, it had not generated any profit worth mentioning. Its holdings served in time to launch Ivar Kreuger's dealings in Swedish shares.

Moneta was just a partial solution. The post-war period was a severe trial for many banks. Additional loans were granted to hard-pressed companies in the hope that they could survive; when they failed, the losses were even greater. During the crisis, banks wrote off loans for a total of almost 500 million kronor, an enormous sum in those days. Bank failures started with Privatbank in February 1919, followed by the reconstruction of Nya Bank as Bank AB Norden in the spring of 1920 and the parcelling out of Köpmannabank to six other banks in December that year. This was just a prelude to the numerous failures and reconstructions in 1922.

THE GOLD STANDARD RETURNS

Economists as well as practitioners were confused by the course of events. They disagreed about the causes of the wartime inflation and failed to foresee subsequent developments. In the early 1920s the leading issue in monetary policy was a return to the gold standard.

A committee chaired by Moll had been appointed in summer 1918 to consider how to safeguard the value of money. Banking was represented by leaders from the three largest banks; economic expertise was provided by Knut Wicksell, Sven Brisman and David Davidson.

The committee was unable to reach a consensus. For the Riksbank, Moll continued to question the discount rate as a policy instrument. A joint statement by the three bank directors asked 'whether, considering the interests of the business community and the large government borrowing requirement, the current discount rate of 7 per cent is not unduly high. [...]

for industry and commerce it would be a considerable relief if a somewhat less draconian discount rate, for example a rate of 6 per cent, in a reasonably near future could be envisaged.'.

Supported by the other two economists, Wicksell advocated a tight credit policy as the only way of countering price increases. The borrowing rate should be set in relation to the marginal return on real capital, which meant a high discount rate. The current rate should be maintained until the price level showed a definite and persistent downward trend. Shortly after the publication of the committee's report, Wicksell confided to Davidson that he ought to have gone even further.

> I regret letting myself be led into supporting the majority opinion, with just our joint reservation, concerning the Riksbank's *deposits*. I should have insisted on having my true opinion recorded in the minutes. In actual fact I consider that, before it all ends in a disaster, *nothing* should be left undone that can lead more or less to combating high living costs: a higher bank rate, capital rationing, Riksbank deposits against interest, free export of gold, price reductions for buying and selling gold, export levies and import subsidies, and if possible, still more – as it is, apparently nothing is being done.

Wicksell was a central figure in the economic debate, as well as for left-wing politics. After a number of controversies, he had been appointed to the chair of economics at Lund University and published pioneering works on money theory and capital theory. He retired in 1916 and moved to Stockholm, where he frequently attended meetings of the Economic Society and voiced his opinions in the press.

At a meeting on 29 January 1918, the Society debated 'The budget statement and the economic situation'. The war-profits tax, introduced in 1915, was attacked by Cassel, who argued that the profits were actually quite normal, to which Wicksell replied:

> that these thousands of millions in extra profits have in reality arisen by and represent the innumerable small losses the war has inflicted throughout the country and that at the same time one has here a source for covering the large expenditures the govern-

Knut Wiksell (1851–1926), perhaps Sweden's most outstanding economist, made eloquent contributions to the monetary policy debate during and after the First World War.
Caricature by C. Jensen-Carlén, 1918.

> ment has incurred for this period. It is not as unreasonable as Herr Cassel claims, but rather the only truly rational treatment to apply here the principle not of taxation but of confiscation.

In another context, Wicksell suggested that a government agency should gather all the necessary information and later, when the value of money had stabilised, 'calculate the magnitude of unearned profits and undeserved losses that the price upheaval had caused' and which should be the subject of a fair equalisation.

Wicksell sided with social democracy but still considered that wages should be cut. He referred to 'Associate Professor Wigforss in Lund, who is in touch with the workers and has said that they understand that if prices fall, so must wages'. There were grounds for this: as wages were stickier than prices, real earnings had risen in 1919 and 1920 despite employers' efforts to negotiate lower nominal pay.

Political opinion concluded that Sweden should reintroduce the gold standard as soon as possible. When the Riksdag debated monetary policy in March 1920, every party supported a return at the earlier par rate. This called for an appreciation of the krona via downward pressure on prices. The politicians were not deterred by the prospect of deflation.

Wicksell thought otherwise. The gold standard did promote price stability in the countries concerned but not over time; fluctuations in the production of gold affected the price level. He advocated that 'we now and for ever give up any idea of a return to the gold standard and instead apply all our energy to a proper use of [...] *the free monetary standard*'. The ideal monetary system should be founded on note issues with no metallic base. A coordinated interest rate policy for central banks would dispense with the need for an international means of payment. Each country could have its own notes and render them internationally viable by making them redeemable at par by other central banks, just as the Nordic countries had done (Gårdlund, 1956 [1990]).

Other economists also questioned whether a gold standard could stabilise the value of money but were even more doubtful about a free monetary standard. Gunnar Silverstolpe, a future principal of the Gothenburg School of Economics, considered that 'the human wit' was not yet capable of keeping the value of a paper currency constant.

The business community was sceptical, particularly after the economic downturn in 1920. The government had set up a council of economic advisers that included Oscar Rydbeck, head of Skandinaviska Kreditaktiebolag, and Gustav Cassel, the economist who was most critical of deflation. During the First World War, Cassel had come to be seen as the leading international figure behind the doctrine of purchasing power parity. In his opinion, the relative value of national currencies must ultimately be determined by their purchasing power. Manipulating exchange rates by means of unrealistic par rates with a gold standard would be economically harmful.

In November 1920 the council warned against taking a policy of deflation too far. Cutting wages and prices by more than in the United States was not advisable. The council refrained from recommending a par rate with gold on the grounds that the situation was too uncertain. At an Economic Society meeting some months later, Ivar Kreuger declared that 'if the current monetary and exchange rate policy continues to be pursued, in the coming winter we shall face unemployment that is utterly disastrous'.

The council's reference to the United States was relevant. From 1920, US monetary policy aimed for a return to the pre-war price level; the Federal Reserve's line was highly restrictive. The inflow of gold in connection with current-account surpluses was prevented from augmenting the domestic money supply, which would have stimulated demand. Credit was curbed and the current account remained in surplus, which contributed to a higher real interest rate.

In April 1921, Sweden's Riksdag nevertheless confirmed the goal of a return to the gold standard at the earlier parity. The leading social democratic politicians – Branting, Sandler, Örne, and Wigforss – clearly opposed what Wigforss called a '*myntrealisation*', a term for restoring the value of money that the future finance minister used in the same derogatory sense as Karl XIV Johan had done a century earlier, apparently without worrying about devaluation's consequences for unemployment.

It may seem remarkable that the choice of a par rate attracted so little attention. The 1834 currency reform could in fact have served as a model; parity at the market rate would have made the adjustment as smooth as possible for industry and commerce. Practice abroad varied: the Netherlands and Switzerland (1925), Denmark (1927) and Norway (1928) returned at the pre-war parity, whereas Germany (1924), Finland (1925), Belgium (1926), Italy (1927) and France (1928) used the opportunity for a marked devaluation.

Britain had come off the gold standard at the outbreak of the First World War and now pressed for a quick return in order to maintain London's position as the world's leading financial centre. By the mid 1920s the gold reserves were considered to be adequate but parity was a dilemma. The pre-war rate of $4.86 would be a competitive disadvantage for British manufacturing, while a lower rate would hit most of Britain's investments abroad, which were quoted in either gold or sterling. Keynes, whose analysis of the consequences of the peace of Versailles had attracted international attention, claimed that price stability was not possible as long as sterling was tied to gold (Skidelsky, 1992). However, the chancellor of the exchequer, Winston Churchill, sided with the investors. The pre-war parity was chosen in 1925, necessitating wage cuts and entailing a redistribution of income from employees to owners of capital.[29]

In Denmark, the central bank deferred restrictions for a couple of years with explicit reference to 'protecting employment'. The social democratic minority government from 1924 had hoped that deflation could be achieved by degrees, enabling trade unions to safeguard wages at the expense of profits (Olsen, 1968). This contrasted sharply with social democratic opinion in Sweden. The course of events in Sweden also prompted Norway to refrain from tightening monetary policy until 1924 (Jahn et al., 1966).

Monetary policy in Sweden was even more restrictive than in other European countries and the United States. When the policy of deflation was introduced in September 1920, the krona was at two-thirds of its pre-war parity. The Riksbank raised the discount rate to 7½ per cent, the money supply fell 30 per cent and by the end of 1922 prices had dropped 35 per cent, more than in any other country.

The contraction of the money supply came in part from the rescheduling of wartime national debt, much of which consisted of short-term loans from the Riksbank. In order to redeem these loans, in 1919 the government raised a large dollar loan. The sudden replacement of short-term credit by long-term bonds caused a reversal. Government debt was transferred from the Riksbank to households and firms; the purchasing power which the long bonds absorbed was frozen in the Riksbank. A large proportion of the bonds were purchased with bank deposits, which forced the banks to restrict credit.

29 Deflation is normally more likely to lead to real wage increases because nominal wages tend to be more sticky downwards than prices.

The result was a real interest rate shock. In 1921–2 the real rate on government bonds is calculated to have been 20–25 per cent (Schön 2000). Deflation made loans from the years of inflation more costly because in the middle of the depression the Riksbank raised the discount rate and bank lending rates followed suit. Neither did wages and other production costs come down to the same extent as product prices. In 1921 Sweden's GDP fell 5 per cent, the sharpest peacetime decline in Sweden's modern history. The contraction came from exports, industrial output and investment, where in volume terms it amounted to 15 per cent.

The real interest rate shock was a heavy blow for banks. Some problems were solved by comparatively stable banks taking over or providing support for those in distress. When Sydsvenska Kredit AB ran into trouble, however, such remedies no longer sufficed. Members of the Bankers Association established a credit society, Kreditkassa, on 7 April 1922 with a capital contribution of 5 million kronor, while the government arranged a guarantee fund of 50 million kronor. When Wermlandsbank became unstable in 1923, even this was inadequate. The Riksbank provided temporary credit and Moll arranged a right to borrow that gave Kreditkassa greater discretion.

This was the worst crisis so far for Sweden's banking system, though Kreditkassa's estimated losses did not exceed 70 million kronor (Östlind, 1945). Many banks were rescued in one way or another but 14 failed completely. There were 80 commercial banks in 1910 but only 32 in 1925.

The major banks fared differently. Handelsbank's annual accounts for 1922 showed write-offs of 95 million kronor, almost a tenth of the loan stock. In autumn 1922 the Bank Inspection Board judged that Skandinaviska Kreditaktiebolag needed write-downs of almost 156 million kronor, around 15 per cent of its loans. Stockholms Enskilda Bank also had non-performing loans but no more than 2–3 per cent of its stock; Knut and Marcus Wallenberg had not forgotten the lessons from 1878–9.

It is something of a paradox that despite these difficulties, the banks strengthened their hold on industry and commerce. Many companies needed bank loans in 1921–2 to avoid default. In the case of small and medium-sized enterprises that were already heavily indebted, banks were prepared to accept shares – often preference stock – in place of the earlier loans. As a rule, the banks tried to disengage as soon as possible but some commitments lasted for much of the 1920s.

The crisis in the early 1920s ruined numerous owners of capital. The situation at the end of 1923 was summarised by *Affärsvärlden*: 'Capitalists from 1913 are, through the stock-market depression, more decimated than the proudest cavalry regiment that has ever charged against a dozen well-placed machine-guns'. A lively account of the dreams and misfortunes of small investors is to be found in Birger Sjöberg's novel *Kvartetten som sprängdes* (not available in English).

The earlier parity seemed far away. It entailed a return to the pre-war dollar rate of 3.73 kronor. The rate had strengthened to 2.55 kronor in 1917 but after the war, demand for dollars and sterling picked up and in spring 1919 the krona was weaker than its pre-war level; by February 1920 the rate was close to 5.50 kronor.

This raised doubts among the gold standard's advocates. Perhaps the need for deflation should be mitigated by pegging the krona to sterling instead of to the dollar. By the end of 1921, however, the rigorous policy had brought the krona so close to the target that the remaining appreciation was more or less automatic: expectations of a return to the earlier parity were self-fulfilling. The final surge was aided by an economic recovery in the United States in autumn 1921.

The Riksbank did not share the political enthusiasm for a return to gold. Moll and others agreed about the objective but were worried about the consequences of Sweden being the only country to permit a free cross-border flow of gold. For Moll, dealing with external price movements called for a free gold market in London and the convertibility of sterling. He wanted to wait for a solution to the question of German war reparations, because Britain's return to the gold standard was dependent on that. He was even more worried when France and Belgium tried to force Germany to pay up by occupying the Ruhr at the beginning of 1923. The krona already returned to the earlier parity with the dollar in spring 1922 but the Riksbank repeatedly requested exemption from the statutory obligation to redeem for gold (Péteri, 1995).

The government finally asserted its authority; the Riksbank had applied for exemption until 30 September 1924 but the legislators proposed 31 May as the final date. In order to preclude further discussion, the bank committee recommended obligatory redemption without delay, from 1 April. To ward off the feared inflow, Moll managed to obtain a ban on gold imports.

Exports and industrial output recovered during 1922 and GDP rose 8 per cent. Stocks had been run down, so product prices had to cover costs and stopped falling. Residential construction picked up. Investment turned upwards again in 1923. By the following year the volume of industrial output had risen to the level from 1916. The pull came from the domestic market; it took another two years for exports to recover.

In the period up to 1931, annual economic growth then averaged 4 per cent. In real terms, Sweden overcame the crisis fairly quickly. The good times encouraged the middle class to buy cars; finance was arranged with the novel hire-purchase system, which soon spread to radio sets, gramophones and premium bonds. According to Eichengreen (2007), while many countries had to cope with over-valued currencies in the 1920s, domestic deflation in Sweden had been so strong that the krona remained under-valued even after the return to a gold standard. That favoured the competitive position of Swedish producers.

The Riksbank accepted notes for redemption from 1 April 1924. A pre-emptive discount rate increase from 4½ to 5½ per cent failed to ward off problems. The krona gradually weakened against the dollar. Moll was in a tight spot and turned for help to Stockholms Enskilda Bank, where Joseph Nachmanson was now managing director. In a letter to Marcus Wallenberg Jr., who was gaining experience in the United States, Nachmanson indicated that he had been tempted to spoil things for Moll:[30]

> Imagine my surprise when at 1 p.m. last Sunday Herr First Delegate at Sveriges Riksbank phoned Stockholms Enskilda Bank's MD and asked for a talk. I then realised that the bell had tolled and the bubble had burst. It was a long and instructive (not for me) talk that ended in my promising to help them if possible. It was tempting because if he had come to a dead end now, he would certainly not have been reappointed; but the national interest was at stake and S[tockholms] E[nskilda] B[ank] is not then usually prone to hesitate. On Saturday I saw how things were going and asked Jacob to explore

30 Söderlund (1978) considers that banking circles had been comfortable with Langenskiöld, whereas Moll's view of an appropriate monetary policy often caused disagreement.

> the possibilities of an advance similar to Finland's. I told Moll we would try to achieve it. But I also said that a condition for our intervention would be that if we were successful and the terms of the offer that was made were acceptable, I required immediate agreement without bringing competitors into the matter.

Jacob Wallenberg arranged an overdraft and Stockholms Enskilda Bank obtained its commission. The arrangement provided the Riksbank with foreign currency but could not strengthen its position. 'Discount rate policy, which had become increasingly unpredictable because the Riksbank never divulged the motives and aims of the adjustments, had by that time already lost part of its unquestionable influence on bank interest rates. … In the following years this became clear on a couple of occasions when the banks followed the discount rate solely as regards the bill rate' (Sommarin, 1945).

Part of the reason was inter-bank competition. The savings ratio had risen in the 1910s and remained at the higher level in the following decade. One factor here seems to have been the tendency towards a more uniform distribution of income after the First World War (Lindgren, 1987); the growing attraction of pensions and other forms of assurance probably contributed, too. It was the middle class and the lower income groups that started to save more and they turned to savings banks and post offices, which were more widespread and less exclusive than the commercial banks.

Savings banks had acquired high-yield bonds during the years of inflation and charged a high rate for mortgage loans, where they predominated. As a result, throughout the 1920s they could afford to pay an average of one percentage point more on deposits than the commercial banks. In order to compete, the commercial banks had to charge more for loans. That in turn made companies more inclined to finance investment from earnings. All this made the discount rate a less effective monetary policy instrument.

THE SCANDINAVIAN MONETARY UNION'S SWAN-SONG

The monetary union had been emasculated by the First World War but its remnants lived on for many years. Without a gold standard, the national currencies went different ways and in time the banks ceased to accept the

notes of other countries' banks at par. The agreement on a common currency system was annulled in 1924.

There was, at least in Denmark, 'a popular demand to have it [the union] resurrected' (Olsen, 1968). This was an important factor behind Denmark's decision to return to the gold standard at the earlier parity. With comparatively small gold reserves, however, Denmark chose a gold *bar* standard rather than a gold *bullion* standard. The Bank of England had done the same and its governor, Montagu Norman, influenced Denmark's choice; the right to exchange for a bar of gold required a minimum of 28,000 kronor, which effectively reduced demand.

When Nordic economists discussed the monetary union in Copenhagen in September 1926, the Dane Axel Nielsen made a strong plea for Scandinavianism. Eli Heckscher from Sweden considered that the common currency was of little value, if not harmful. Wilhelm Keilhau from Norway was directly opposed, arguing that the union had paved the way for harmful Danish and Swedish interference in Norway's monetary policy: 'There have been times when one of them unasked has given good advice. I believe, for example, that it would have been much easier for us to arrange our monetary system […] if we had not received so much excellent advice from Professor Cassel.'

When Norway had also returned to gold at the earlier parity in 1928, Nordic central bankers discussed the union at a meeting in Stockholm. They agreed to issue a press notice to the effect that cooperation would be restored as soon as possible but that the question of specie (coins) or bars would have to be investigated. A committee consisting of one member from each central bank's governing board was set up to revive the union. The pace was slow and in February 1931 Sweden called a halt. In April, Denmark and Norway renewed the monetary union on a trial basis that came to an end with the international financial crisis that autumn.

A FRAGILE GLOBAL ECONOMY

The immediate post-war crisis gave way to a gradual international recovery that lasted from 1922 to 1928–9, apart from minor setbacks in 1924 and 1927. The United States was one of the more successful countries in the 1920s, while growth was even higher in Japan and Italy. Britain and many countries in Eastern Europe, including the recently established Soviet

278 Union, suffered from economic stagnation. Germany experienced hyperinflation in the first half of the decade and then picked up, albeit from a low level.

Protectionism increased. A new factor here was sovereign debt, which had been of little consequence before the war. Countries in Europe had borrowed extensively from each other and above all from the United States. Repayment involved pressure on Germany to make reparations. The new financial situation contributed to the fragility of the global trading system after 1929. US tariffs had been high even before the First World War and now became still higher. The 1922 Fordney-McCumber Tariff Act introduced the highest tariffs in the country's history and was then surpassed by the 1930 Smoot-Hawley Tariff Act, which President Hoover signed despite protests from more than a thousand economists.

Assessments of the 1920s are wont to attribute many of the problems to the gold standard. The fault lay rather in the system being hobbled. Its self-regulating mechanisms were disengaged by the United States and France, which experienced a strong inflow of gold. Free rein for gold would have led to higher prices and stronger demand in the recipient countries, which would have stimulated exports from countries with an outflow of gold. Instead, US and French monetary policy was restrictive, partly to counter precisely the price rise or income growth that could have restored equilibrium. At the same time, the deficit countries failed to adjust costs, not least because wages had become more rigid. Sweden, too, modified the gold standard by banning the import of gold in 1924–30 (Kock, 1961), though this was of little practical consequence.

THE GOLD STANDARD'S DEMISE

In the second half of the 1920s stock markets were bullish in many countries; at times the tendency was close to an international boom. Wall Street was particularly buoyant, which has been attributed to an injudicious monetary policy (Friedman & Jacobson Schwartz, 1963 [1993]). When share prices shot up, the discount rate lagged behind market interest rates, providing US banks with a strong incentive to borrow from the Federal Reserve system. These authors consider that 'A vigorous restrictive policy in early 1928 might well have broken the stock market boom without its having to be kept in effect long enough to constitute a serious drag on business in general. [...]

The bull market brought the objective of promoting business activity into conflict with the desire to restrain stock market speculation. The conflict was resolved in 1928 and 1929 by adoption of a monetary policy, not restrictive enough to halt the bull market yet too restrictive to foster vigorous business expansion.' 279

Share prices peaked on 7 September 1929, when Standard & Poor's index reached 254. The subsequent decline was orderly at first, with an upturn at the beginning of October. When the downward path was resumed, however, panic broke out on 23 October as large holdings were dumped on the market, bringing the index down to 162 on Black Monday, 29 October. The crash shook confidence in American banks and the run forced many of them to suspend payments.

In Europe, distrust was accentuated by the Nazi successes in the German election in September 1930. In May 1931 the largest Austrian investment bank, Credit-Anstalt in Vienna, suspended payments. The alarm spread to Hungary, Czechoslovakia, Romania, Poland and, above all, Germany, where Darmstädter- und Nationalbank and Dresdner Bank were on the verge of collapsing. The crisis became so grave that a moratorium on payments was agreed in July. This *Stillhalte* agreement was then repeatedly renewed. The amounts involved shrank but a large proportion of the German debt was still outstanding in spring 1939.

The German government restricted redemption for gold on 15 July 1931, followed by Hungary a few days later. The crisis in Germany generated strong pressure on sterling. When their investments in Germany had been frozen, some central banks exchanged sterling for gold to reinforce liquidity. All this led to a political crisis in Britain. A strong faction in the Labour government advocated devaluation, others favoured a continuation of the gold standard. At the end of August a National Government was formed with the objective of maintaining gold parity, but monetary policy lacked direction. After an increase to 4½ per cent at the end of July, Bank rate remained at that level. The British government ultimately suspended the gold standard on 21 September.

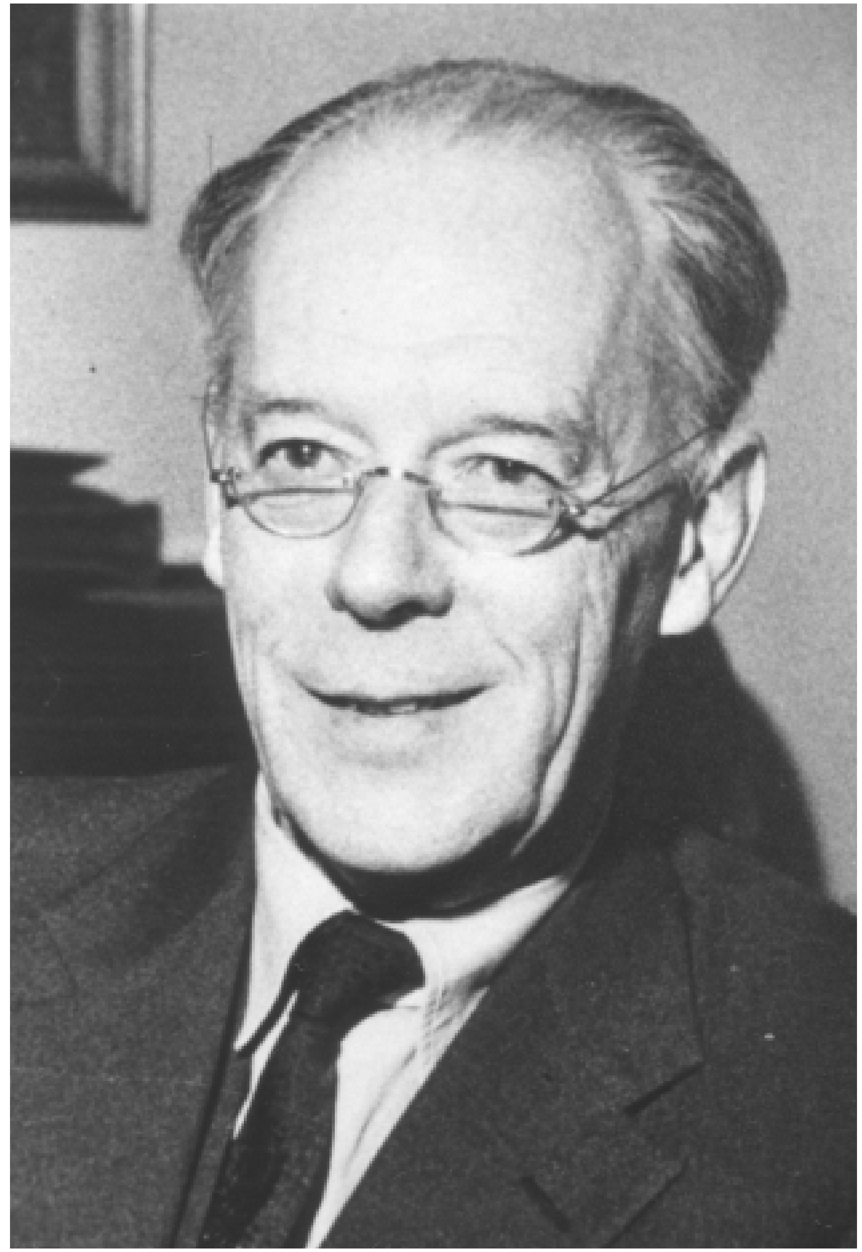
What was Sweden to do? Following discussions with the major banks, the Riksbank decided to defend the exchange rate; the discount rate was raised to 5 per cent on 21 September and to 6 per cent four days later. The finance minister, Felix Hamrin, declared on 24 September that the gold standard would be maintained. Governor Rooth, who had succeeded Moll two years earlier, noted that 'Hamrin ... talked a little too much and did a good many things without consulting me. ... Among other things he sent a circular via the Foreign Ministry to every Swedish mission shortly after England had left the gold standard ... There were rumours that we would do the same but he gave an absolutely definite guarantee that Sweden would not depart from the gold standard. When I heard that, I called on him and said "Why didn't you ask me about it before you issued a denial, for I would then have told you that it should not be issued because we, too, will probably have to drop the gold standard"' (Rooth, 1988).

Another discount rate increase, to 8 per cent, was to no avail; the exchange reserves were virtually exhausted. On 27 September redemption ceased to be mandatory and a ban was imposed on exports of gold.

The previous Sunday, Rooth had assembled his Nordic colleagues at his Stockholm apartment on Karlavägen and informed them of Sweden's intentions. 'He [Rosenkrantz, one of the five Danish directors] knew nothing about the exchange position and simply said that Denmark can maintain the gold standard. Ryti said they did not need to do it now but a little later; if I remember rightly, he waited a week because Finland's Bank had some foreign currency debt they wanted to repay before leaving the gold standard. [...] Rygg from Norway followed us all the way.'

Sweden abandoned the gold standard on 28 September 1931. 'The Riksbank's report [to the Riksdag, 1932] is interesting in that it shows how everyone misread the situation, partly due to a lack of information about the exchange position' (Kock, 1961). Kock notes that the Riksbank failed to raise a foreign loan in time to strengthen its reserves. The Bank held on to foreign bonds that then proved difficult to sell; it also called on the commercial banks to reduce purchases of foreign securities but that took time.

After 28 September the discount rate remained at the high level, for which the Riksbank was heavily criticised. The purpose may have been to counter speculation in foreign exchange and augment the reserves. The devaluation of sterling had caused the krona's rate to strengthen to 14.50 to the pound. The krona's subsequent depreciation raised the rate to 17.85, which was still below par, 18.16. Speculators were aware of the Riksbank's currency position and counted on a further weakening. Exporters had an incentive to defer receipts from abroad and obtain capital by borrowing in Sweden. The situation was somewhat similar to the defence of the fixed exchange rate in the early 1990s. A high discount rate penalises domestic



Ivar Rooth (1888–1972), governor of the Riksbank 1929–48, managing director of the International Monetary Fund 1951–56.

borrowing and attracts foreign currency, though Kock notes that far more than 8 per cent would have been needed to counterbalance the expectations of a return to parity, which became a fact on 17 November.

Britain's departure was followed by 38 countries. The only major countries to remain on the gold standard were the United States, France and Germany, though the latter strictly controlled capital flows. At the end of 1937, Germany had four different exchange rates for different purposes – Reisemark, Registermark, Kreditsperrmark and Effektensperrmark – ranging from 63.1 to 18 per cent of the rate for gold. Other countries did much the same. The smaller countries that remained on the gold standard were Belgium, Italy, the Netherlands, Poland and Switzerland.

As a result of political reactions to the crisis, protectionism and regulation gained the upper hand. By 1933 the volume of international trade had fallen 30 per cent from the high in 1929 and the drop in value amounted to 60 per cent. In 1937, when global industrial output had picked up and was 9 per cent higher than in 1929, world trade was still down by 5 per cent.

By the end of 1938, exchange controls were in place in 17 countries in Europe. The consequences made investors averse to securities. Direct investment was more attractive because output then avoided tariffs, which became increasingly widespread and punitive.

Protectionism led to greater government involvement in trade, particularly when the regulations took the form of inter-state agreements. Another arrangement was the guarantees which many governments provided to back export credits as a way of assisting commercial projects that were too risky for an individual exporter and his bank. Such a guarantee fund was introduced in Sweden in 1933 and extended in 1939.

INTERNATIONAL CENTRAL BANKING

Central bank cooperation was rather sporadic in the era of the classic gold standard. Governors in Sweden met Nordic colleagues but seldom many others; language difficulties were an obstacle in some cases. The international monetary system functioned well enough as long as the gold standard's mechanisms were in working order.

As tensions grew, organised cooperation became more important. One issue was how the gold standard should be reinstated. At the end of

1921 the Scandinavian central banks declared that the discount rate could not recover its normal influence until 'more national currencies have been stabilised through a return to the gold standard and the confidence that is required for free international capital movements has been restored'; Moll sent a translation of the statement to Montagu Norman at the Bank of England.

The Scandinavian desire for stability prior to a return agreed with the British view but opinions differed about how to get there. Britain actively promoted a global economic conference that would draw up both the rules for a return and the future exchange rates. Moll was definitely against letting an international forum decide how the Riksbank was to manage gold. He was sceptical about British plans for international agreements whereby central banks would hold dollars and sterling instead of gold. In his opinion, it should be up to each central bank to decide how much gold it wanted to hold in the light of national interests. At a meeting with Norman, he cited the Scandinavian monetary union as an example of an agreement that had failed to hold when it was most needed (Péteri, 1995).

World economic conferences were a failure in the 1920s. Instead, more organised cooperation occurred in connection with arrangements for Germany's war indemnity. In 1925, Norman had begun to talk of the need for a 'Central Banks' "Club", small at first, large in the future'. The outcome was the Bank for International Settlements, founded in 1930 with its seat in Basel (in Sweden the name is sometimes translated as 'International Control Bank' but nowadays the bank is mostly known as the BIS). It soon developed into the consultative body which Norman was looking for.

Sweden was one of the first countries which the founders invited to join the BIS. Governor Rooth was elected to the board in 1931; his first reaction, prompted by insufficient information about what was happening in the United States, was that the meetings were 'humbug'. Even so, Per Jacobsson, the Swedish economist who became the leading BIS analyst that year, considered 'it was beneficial for Rooth to belong to BIS circles'. The function of ensuring an efficient system for international payments became increasingly difficult in the 1930s but the BIS managed to keep going during the Second World War, keeping in touch with both sides from neutral Switzerland. Since then, the organisation has become increasingly important as a forum for consultation between central banks around the world (Toniolo, 2005).

The 1897 Riksbank Act had been a victory for those who gave precedence to the functions of a modern central bank. However, it left some things undone. The Bank still managed some forms of government borrowing, as well as a minor share of deposits. The new division of banking tasks was still somewhat obscure. Ideas about the Riksbank as a counterweight to commercial banking lived on.

In 1916 a liberal member of the Riksdag, Oscar Bogren from Skaraborg, moved that the Riksbank resume its earlier acceptance of deposits from the general public. The bank committee rejected the motion but some members supported a proposal from a social democrat, F.V. Thorsson, to establish a separate state-owned commercial bank.

In the past, such ideas had come mainly from leftist members of the Riksdag; they were now attracting wider support on account of tensions between banks and other business interests. Malte Sommelius from Helsingborg, an industrialist with a past as chairman of the board of Bank AB Södra Sverige, was one of those in the Riksdag who wanted to protect provincial entrepreneurs from Stockholm's overwhelming financial power. He opposed the banks' ambition to master-mind the national economy and called for an inquiry into measures for preventing speculation in shares.

For the 1917 bank committee, this was the most heated issue. Cassel, bank directors Rydbeck and Wallenberg, and some other members rejected a proposal to extend state-owned banking operations and control interest rates. Bank inspector Krusenstjerna and Professor Sommarin were also against but wanted to allow the Riksbank to accept deposits from the general public in order to exert an influence on the banks' interest margins. When the committee finalised its report in August 1919, a majority supported both these views.

A third group included the Riksbank's board chairman Adolf af Jochnick and the second delegate Richard Lindgren, as well as a social democrat, Anders Örne. Their line was that state participation in commercial banking should be arranged by dividing the Riksbank into two parts, one for central banking and the other for commercial banking. Nothing came of all this. The differences illustrate how controversial the status of the Riksbank continued to be and indicate a threat which commercial banks and the Bankers Association had to face for years to come.

In September 1919, shortly after the bank committee presented its report, the matter was addressed at the general meeting of chambers of commerce in Malmö. Cassel still opposed a state-owned commercial bank. His colleague, Professor Sommarin, argued that the Riksbank should have a general deposit facility, mainly because the banks' interest margins 'are no longer in any way determined by the proper representatives of the public good and common interests, namely the directors of Sveriges Riksbank'.

The bank crisis redirected the search for an alternative. Could a state-owned establishment be achieved by taking advantage of difficulties for one of the major banks?

On 30 December 1922, Governor Moll arranged a personal meeting with the managing director of Skandinaviska Kreditaktiebolag, Oscar Rydbeck. He wondered how Rydbeck would react to the state becoming a part-owner of the bank in the same way as the state and capital were collaborating in the mining company LKAB. In return for the right to appoint half the board, the state would subscribe a new share issue that matched the value of the bank's existing share capital. The effect on the bank's direction and operations would be confined to paying some consideration to public interests. As an example, Moll mentioned that interest margins must not be unduly large.

Söderlund (1978) considers that Moll presumably had finance minister Thorsson's support; he argues that the question of principle must have arisen by autumn 1922, when Handelsbank had received a similar proposal.

As a member of the 1917 bank committee, Rydbeck had opposed state-owned banking operations but the offer might be acceptable to his board. Moll counted on this. A capital contribution of 90 million kronor was one inducement; another was the Riksbank's strong support as owner of half the bank. Saying no would be risky. If the Bank Inspection Board informed the Riksbank that Skandinaviska Kreditaktiebolag ought to reduce its loan stock, rediscounting might be curtailed. There was also a risk of the offer going instead to Handelsbank, which with this support would be an extremely dangerous competitor.

The negotiations dragged on until Rydbeck could be sure that the government would not pass on the offer in time for it to be considered at Handelsbank's general meeting. News that the three boards of Skandinaviska Kreditaktiebolag had unanimously decided to refuse the offer reached Moll on 22 February 1923, the day after the agenda for Handelsbank's general meeting had been finalised.

The Post-Office Savings Bank (*Postbanken*), established by the Riksdag in 1883, was reorganised in the 1920s to enhance competition; the ceiling on deposits was raised and the interest rate, set by the King-in-Council, matched the level among private savings banks. The strategy was successful; in the period 1920–31 the Post-Office Savings Bank's deposits grew several times faster than the other savings banks', albeit from a modest start.

The idea of taking over a commercial bank persisted. When AB Sydsvenska Bank was reconstructed in 1924, the private banks were worried that the state would acquire a holding. The four largest commercial banks owned 53 per cent of the share capital via a paper company, AB Nessus, but a large part of this holding had been pledged with Kreditkassa, the credit society in which the state was the dominant participant. Kreditkassa caused a stir by calling in its loan to Nessus on 1 February 1923. The social democrats in the Riksdag had demanded an inquiry to consider using the state's bank assets to form 'a state-owned commercial bank'; both chambers rejected the motion but it served as a warning to the banks.

Led by Stockholms Enskilda Bank, efforts were made to find some other solution for Sydsvenska Bank. In March 1928 the shares were finally sold to a consortium in which Torsten Kreuger was a major but anonymous player. In an appendix to the contract, the new owners undertook not to transfer the shares 'to either the State of Sweden, a representative of the State of Sweden or an enterprise over whose administration the State of Sweden has a right to decide'. The state did take over a couple of smaller banks but that was largely because no other solution could be found.

More was to come. In 1941 the Riksdag called for an inquiry into the Riksbank and the credit system. Should the Riksbank be just a central bank or compete with the commercial banks as well? If its role were confined to central banking, should the state have its own banking institution? The committee was finally appointed by the government when the war was over and presented its report in 1949. It left the private banking system intact but revived the old idea of a state-owned commercial bank. In the same year the Riksdag decided in principle that the Riksbank's regional branches should be closed and its commercial operations transferred to a state-owned bank.

When the time came to draft plans for the new bank, the Riksbank dug its heels in. Its argument was that via the local branches it could exert an influence not only on interest rates but also on credit's amount and destination. The governing board became increasingly sceptical about closing the branches and a minority was explicitly opposed.

In the end, the Riksbank retained its organisation and functions, including the stewardship of funds which the committee had intended to hive off. The banking interests the state had acquired during reconstructions in the 1920s were consolidated. Göteborgs Handelsbank was sold to Skandinaviska Kreditaktiebolag, while 14 of its branches were transferred to an agricultural bank, Jordbrukarbank, renamed Sveriges Kreditbank in 1951. The latter extended its office network and expanded its operations, not least thanks to the rising tide of public sector payments that flowed in its direction. Even so, it remained a minor player; government influence on the credit market was exerted largely through the Riksbank, via controls, regulations and insight rather than through ownership.

Following a call by the Social-Democratic Youth Movement to nationalise commercial banks in the 1960s, Sveriges Kreditbank and the Post-Office Savings Bank were merged in 1973 to form PK-bank, which was subsequently merged with Nordbank. When Nordbank had to be reconstructed in the 1990s, support for a state-owned commercial bank evaporated, though the idea was not entirely forgotten.

KREUGER'S ERA

The international capital market was constrained by the wartime blockades and took a long time to recover. A restrictive monetary policy in many countries reduced the supply of capital. The centre of global finance shifted towards the United States, where institutions were geared to providing funds for expansion westwards. These were the circumstances under which the Swedish financier Ivar Kreuger made his mark in the 1920s and early 1930s.

Kreuger started his career in the building trade, gained experience abroad and brought back the use of reinforced concrete. In 1908 he founded a construction company, Kreuger & Toll, which became the core of his financial empire. The company grew apace, thanks to Kreuger's skill in playing the stock market and banks.

The Kreuger family owned a couple of small match companies. From

1913 onwards Ivar Kreuger participated in a number of mergers that resulted in the Swedish Match Company (*Svenska Tändsticks AB, STAB*) in 1917, with Kreuger in the lead.

Supported by Handelsbank and Skandinaviska Kreditaktiebolag, where the managing director, Oscar Rydbeck, was Kreuger's close associate, STAB expanded rapidly abroad. In December 1922, however, the Bank Inspection Board criticised Kreuger's unconventional borrowing and recommended an impartial investigation. The Board considered that 'it cannot be regarded as compatible with sound business practice that, as has actually happened, when operations are suspended the high dividend is funded with loans on which interest is paid'. Professor Oskar Sillén, who conducted the investigation, described the group as 'Sweden's largest speculative enterprise' and feared that Kreuger was becoming all-powerful (Lindgren, 2007).

In the following years Kreuger relied on capital markets abroad. His company strengthened its market position by acquiring match factories in various countries. Kreuger went a step further by fishing for match monopolies with various governments, baiting his hook by undertaking to place loans in the international capital market. He applied in the first place to governments in Central and Eastern Europe and Latin America that were not considered sufficiently creditworthy to borrow directly; Kreuger's reputation and contacts gave access to international funding. This way of attaching commercial privileges to loan agreements is reminiscent of how bankers in the 16th century had dealt with unreliable princes – the profit from matches covered the credit risk. After the crisis in 1931, numerous bond loans of this kind, arranged by Kreuger and others, ceased to perform, catching small investors unawares.

In the late 1920s, Kreuger used his access to foreign capital to acquire large holdings in Swedish companies, such as Grängesberg, Stora Kopparberg, Skandinaviska Kreditaktiebolag (which he had helped to rescue) and SKF. He had a majority holding in L.M. Ericsson and helped to restructure Sweden's pulp and paper industry in Svenska Cellulosa AB (SCA). He also took over virtually all the shares in Boliden, which was beginning to exploit the rich mineral deposits in the north.

Swedish financial circles welcomed this development: Kreuger relieved the banks of commitments from the crisis and pressure on the stock market eased. His relationship with Stockholms Enskilda Bank was not as good as with the other major banks but when he became involved in Stora Koppar-

Ivar Kreuger (1880–1932) collaborated with Oscar Rydbeck (1878–1951), managing director of Skandinaviska Banken. Rydbeck (left) had to resign after Kreuger (centre) shot himself in Paris.

berg he managed to avoid a conflict by agreeing to a *modus vivendi* with Wallenberg's sphere.

Kreuger was much more of a financier than an industrialist. Many of his companies were in fact shaky but external capital contributions and somewhat questionable accounting enabled them to pay generous dividends, which kept share prices up. Kreuger attracted international investors by offering participating debentures,[31] which were still a novelty in the international capital market. A curious situation arose in the 1920s: Sweden exported capital via the bond market and imported capital via the stock market. After the crash, Price, Waterhouse & Co calculated that in 1928–29, Kreuger & Toll raised almost 650 million kronor in fresh capital, over half of it from the US market and just a tenth in Sweden. In total, however, in this period Sweden was a net capital exporter.

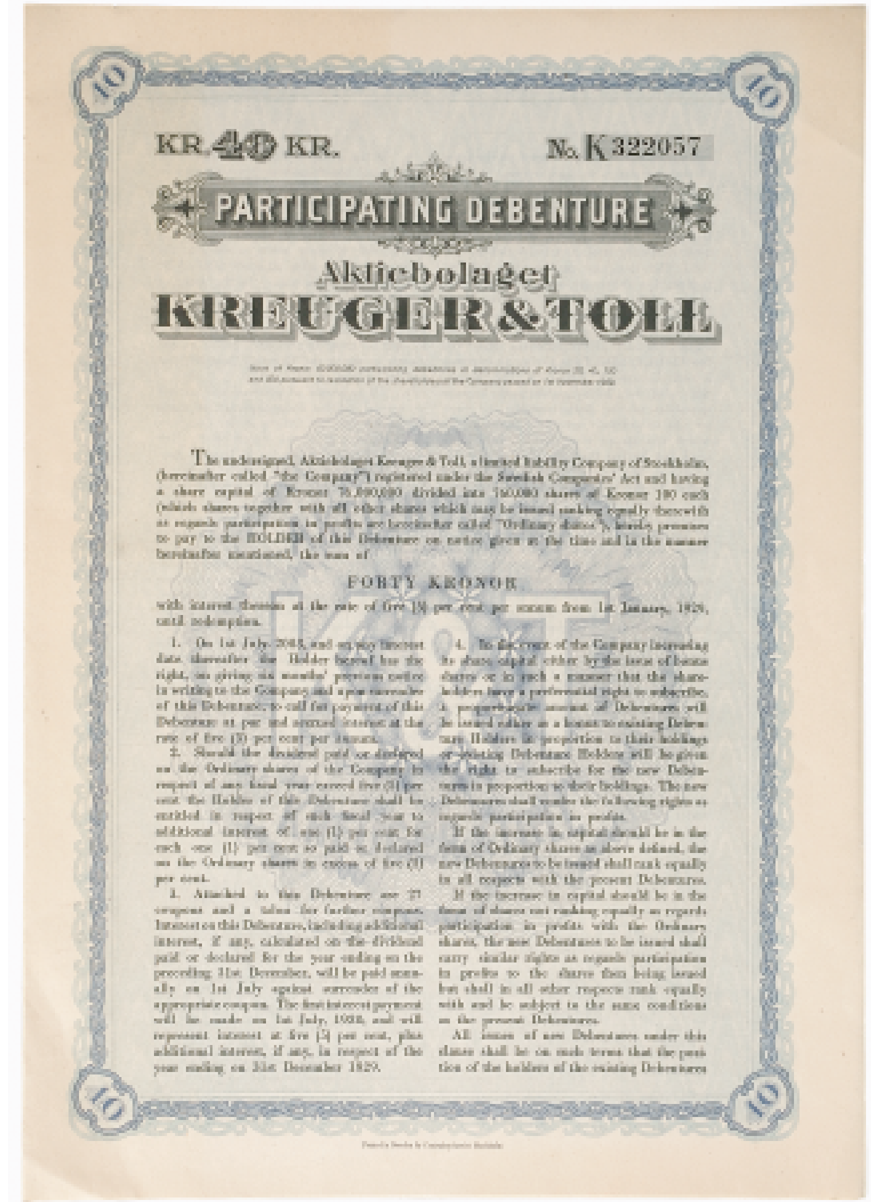
With the Wall Street crash, the subsequent financial crisis and the collapse of the gold standard, Kreuger's sources of capital dwindled. He was involved in a large bond loan to Germany and the moratorium there raised questions about his financial soundness. As it became increasingly difficult to meet commitments, Kreuger turned once again to the Swedish credit market. As the large commercial banks were already heavily exposed to his interests, that meant the Riksbank.

Governor Rooth had trained as a lawyer before going into banking and becoming an ombudsman in an investment guarantee company, Stockholms Inteckningsgaranti AB (SIGAB). He took part in public inquiries and moved in political circles. His autobiography (Rooth, 1988) relates that 'When Ekman formed his first government in 1926, Eliel Löfgren asked me whether I wanted to be minister of finance. I immediately replied that I was not interested. Such matters did, of course, interest me but I disliked Ekman, I did not trust him.'[32] However, when Ekman some years later proposed the Riksbank, he accepted.

Kreuger had been an executive director of SIGAB, so there was a link

31 Participating debentures were in practice non-voting preference shares. They were issued as a debt instrument mainly for tax reasons: unlike dividends, the interest paid could be deducted by the company and non-resident holders did not have to pay Swedish income tax, which they were liable for on Swedish share dividends (Glete, 1981).

32 When the Liberal Coalition, one of the three major parties in the Riksdag in the early 20th century, split in 1923 on the temperance issue, Carl Gustaf Ekman became the leader of the fraction that advocated prohibition and Eliel Löfgren headed the anti-prohibitionists.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PARTICIPATING DEBENTURE
Aktiebolaget
KREUGER & TOLL
FORTY KRONOR

Kreuger raised capital by issuing large volumes of bonds and shares.

 between him and Rooth, but there is no indication that this influenced the treatment of his business. The first matter went fairly smoothly. In connection with a Polish bond loan, Kreuger obtained credit from Swedish commercial banks, which rediscounted the loan in the Riksbank; Oscar Rydbeck negotiated with Rooth; Kreuger remained in the background

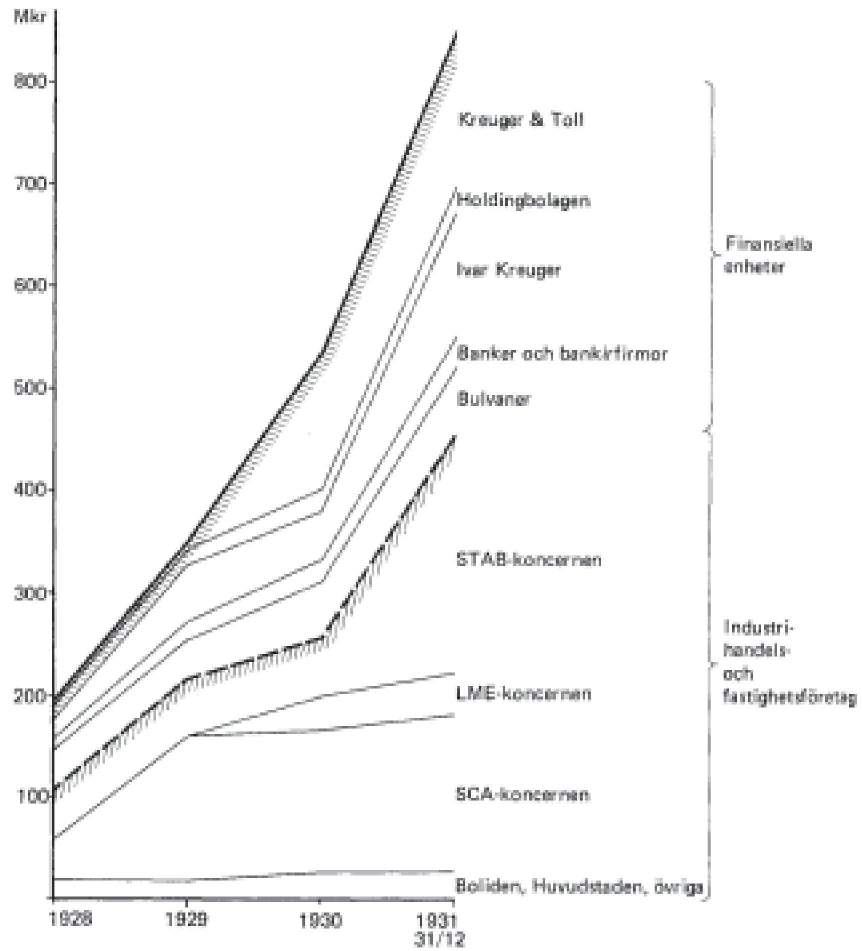
The next problem concerned Germany's bond loan and the large tranche that would mature in May. When Kreuger contacted Rooth on 24 April 1931, he was told that the Riksbank was not prepared to finance companies directly, so he should to turn to Skandinaviska Kreditaktiebolag, which would be able to rediscount in the Riksbank. Under these circumstances, Skandinaviska Kreditaktiebolag agreed to extend credit in May.

When the crisis obstructed share and bond issues, Kreuger covered capital requirements by rolling over short-term loans. Renewal became increasingly difficult. On 6 August he explained the situation to Rooth and Rydbeck and asked to borrow $10 million. Rooth flatly refused, presumably out of concern for the exchange reserves, which would have been depleted by almost 20 per cent. The situation was already precarious on account of the international crisis; the government had failed to obtain a loan in the United States shortly before Sweden left the gold standard.

At the beginning of October Kreuger tried again. This time he asked Rooth for an advance of 40 million kronor, which was roughly equivalent to $10 million. After some deliberation, on 20 October the governing board unanimously rejected Kreuger's application. Rooth and board chairman af Jochnick explained to finance minister Felix Hamrin (a prohibitionist colleague of Ekman's) that the collateral was not acceptable.

Hamrin was dismayed; his diary entry that day states, 'I said that this means disaster for the country. The govt. is unlikely to consider a guarantee for all dep[ositors?] because that would amount to a socialisation of the entire community'. He pointed out that he was neither able nor entitled to intervene in the management of the Riksbank, nor authorised to make a formal comment, but still considered it most unfortunate (Gäfvert, 1979).

The Riksbank's board reconsidered the matter, only to confirm its earlier decision. Meanwhile, a cabinet meeting was in progress; Hamrin was called on to request an authorisation to consult if necessary with the Riksbank's board on behalf of the government. Further discussion raised the possibility of a loan secured with Kreuger's holding in the Boliden



When international capital markets dried up, the Kreuger Group turned to the banking system in Sweden. This chart (from Glete, 1981) shows the Group's borrowing from Swedish commercial banks in 1928–31, together with the Riksbank's loans in 1931; the upper bracket represents financial enterprises, the lower industrial, commercial and property companies.

mining company, with an option for the state to purchase the shares. That catered for political concern that Kreuger might sell the mine to foreign interests. Prime minister Ekman sided with Hamrin, met Af Jochnick and Rooth and stressed the grave consequences which a default would have for the country and the banking system. After insisting that Skandinaviska Kreditaktiebolag guarantee the loan, the governing board finally gave its approval on 23 October.

The end moves in the financial game troubled Marcus Wallenberg Sr because they demanded so much of Sweden's credit and currency market. At the turn of 1931, Kreuger's loans from Swedish banks totalled 800 million kronor, which was equivalent to almost half of Sweden's national debt and more than 10 per cent of GDP. Marcus had already warned his son Jacob Wallenberg, now Stockholms Enskilda Bank's managing director, that the high quotations for Kreuger & Toll's participating debentures were not commensurate with the company's real assets. On 23 November, Marcus wrote to his brother Knut that the foreign exchange position had deteriorated and 'a muffled bitterness' surrounded Rooth and Kreuger. Next day he wrote to August Nachmanson, managing director of the closely-related issuing company AB Emissionsinstitutet: 'The Riksbank's foreign exchange is almost exhausted and Rooth has taken measures that have not been particularly successful. Rooth's star will soon be below the horizon but then he has been unfortunate in his doings concerning Kreuger and Skandinaviska Kreditaktiebolag.'

On 23 February 1932, Rooth received Krister Littorin and a colleague from the Match Company, accompanied by Holger Lauritzen from the Stockholm branch of Skandinaviska Kreditaktiebolag. They presented Kreuger's borrowing requirement and mentioned his failing health. Rooth was informed that default was expected, with 'the grav[est] cons[equences]'. Rooth rejected the solutions his visitors proposed and advocated coordinated support from the three major banks. If they extended credit to Kreuger, the Riksbank was prepared to place the necessary dollars at their disposal notwithstanding the fact that in November 1931 the Bank had decided that this would be done only 'for purposes that could be considered desirable for the country'. When the meeting was over, Rooth's action was approved by the governing board.

At 7 p.m. the prime minister came to the Riksbank and was told what had happened. This was followed by a renewed conference between Ekman

and people at the Riksbank; other participants were called in from time to time to consider various proposals. This resulted in the notion that a $2 million credit would be shared by the Riksbank and the commercial banks. Rooth did not say who had originated the idea but it turned out to have been Ekman.

Rooth consulted af Jochnick and Axel Amnér, the Bank's second delegate. The prime minister's intervention had changed things and they told Ekman that the Riksbank was now prepared to shoulder its share provided this was taken over later by Kreditkassa. Ekman discussed the matter with under-secretary Bergendal from the finance ministry and gave his assent. The Riksbank's representatives sounded out the rest of the governing board and confirmed their position.

That left the three major commercial banks. Skandinaviska Kreditaktiebolag and Handelsbank agreed to take a sixth share each but Stockholms Enskilda Bank opted out. When Marcus Wallenberg Jr then called on Rooth and was given a resumé of Kreuger's dealings, he noted the absence of a large dollar loan that the Wallenbergs knew was due in a matter of days. Marcus consulted his father in Berlin and so did the prime minister, but the answer was still no (Olsson, 2000). Jacob Wallenberg returned to Stockholm and prevaricated for some days before issuing a final refusal on 1 March (Lindgren, 2007). The Riksbank adopted Ekman's proposal that it should carry the sixth part for the time being.

Rooth made the Riksbank's approval conditional on Kreuger returning to Europe to account for his situation. On 11 March, en route to seeing Rooth in Berlin, Kreuger arrived in Paris, where he met Rydbeck and Littorin. It seems likely that Rydbeck had a list of sixteen questions from Rooth concerning Kreuger's payment liabilities in the coming months. The list made it clear that the Riksbank's governor was aware of Kreuger's financial straits and realised that additional credit would be needed. After a couple of hours the parties agreed to meet again next day; in the meantime Kreuger shot himself. Rydbeck may have mentioned Rooth's list at the last meeting (Gäfvert, 1979).

Kreuger had made an important contribution by facilitating the flow of American capital to Europe. He also had a hand in the reconstruction of Swedish industry. His empire turned out to be built on sand, however, and additional credit would hardly have enabled it to survive. His holdings in Swedish companies depressed the market for a long time to come.

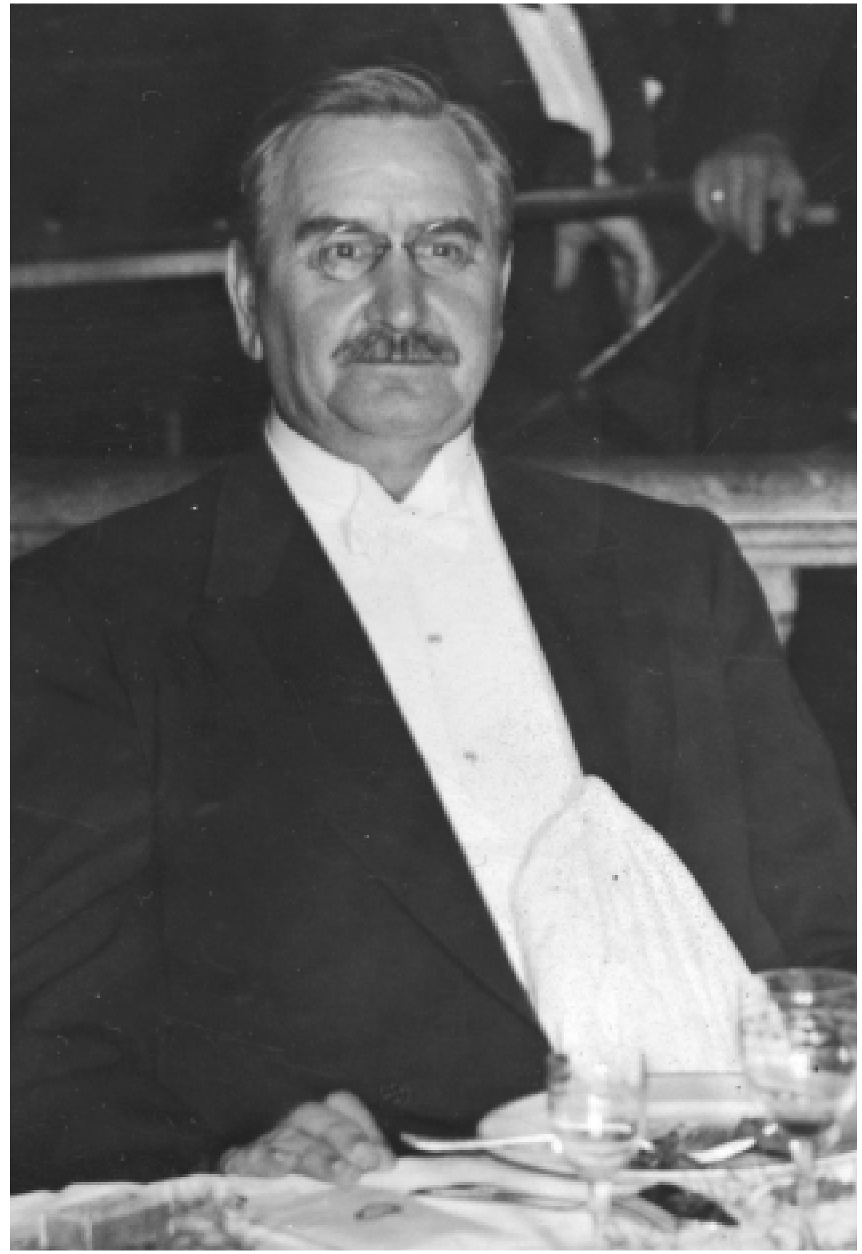
The Riksbank's credits to Kreuger were remarkable for their size and because they went directly to a private company. The total of 150 million kronor was equivalent to almost 2 per cent of Sweden's GDP for 1931.

When the bank committee scrutinised the Riksbank's administration in spring 1932, it focused on the credit from May 1931 and criticised the Bank for its part in reducing Sweden's liquid capital assets in an exposed situation for foreign exchange. This had led to higher interest rates and credit restrictions to the detriment of Swedish industry and commerce. Furthermore, the credits had reduced the exchange reserves and were one of the factors that had forced Sweden to come off the gold standard in September 1931. The Riksbank ought to have abstained from this form of support; if the matter was considered essential, it should have been referred to the government and the Riksdag.

From the Riksbank's point of view, the government's repeated interventions were dubious. They left an even worse taste when it subsequently became known that prime minister Ekman had received two cheques, each worth 50,000 kronor, from Kreuger. They were said to be a political contribution but Ekman had not reported them to the party treasurer and at first he denied even receiving the second cheque. His party colleague and biographer, Waldemar Svensson (1972), saw nothing unusual in this way of supporting a political party, an explanation that is hardly convincing. Ekman received the first cheque on 30 September or 1 October 1931 and cashed the second on 13 February 1932, in both cases just a fortnight before he became engaged in Kreuger's credit applications. Following his denial of the second cheque, he was forced to resign on 6 August 1932 and was succeeded by his finance minister, Felix Hamrin, who headed the government until the lower chamber election some weeks later.

HOW MUCH OF A CRISIS?

The upheavals in the international financial system interacted with real economic developments. The bank failures and falling share prices frightened savers and investors. No one spent money on inessentials; people saved whatever they could to tide them over hard times. Support for protectionism was strong in many countries. Governments were expected to favour their country's industry in order to combat unemployment. They intervened in foreign trade to reach agreements about what could be exported and



As prime minister, Curt Gustaf Ekman (1872–1945) did his best to persuade the Riksbank to provide loans for the Kreuger Group; when it became known that he had accepted cheques from Ivar Kreuger, he was forced to resign.

imported and how payment was to be arranged. World trade withered, unemployment was rampant.

The 1930s crisis has played a leading role in Sweden's public debate, both as a cautionary tale and as the starting point for new ideas. The stock-market crash, the collapse of the gold standard and the high unemployment pointed to the need for a better economic organisation. Political liberalism was weakened by prime minister Ekman's involvement in the Kreuger affair. Sweden was ready for a change. The crisis policy paved the way for social democracy and a more activist economic policy.

Compared with most other countries, in Sweden the depression was briefer and less pronounced. The downturn occurred in mid 1930 and was gradual up to the financial crisis in 1931 (Kock, 1961). Investment was still fairly buoyant in these years; residential and other construction continued to absorb considerable resources. At the time of the low point in 1932, the index of industrial output had declined to 89 in Sweden (1929=100) compared with 84 in Britain, 72 in France and 53 in Germany and the United States.

In Sweden's financial sector, the situation was most critical in summer 1932, when the multitude of bankruptcies threatened the entire banking system. Skandinaviska Kreditaktiebolag was most exposed; Kreuger's death and the collapse of his interests obliged the bank to take over the Riksbank's credits it had guaranteed. Wigforss (1954) recalls how the bank then turned to the government:

> It was scarcely a request for help that the Bank [Skandinaviska Kreditaktiebolag] formulated in its submission to the government. It was close to a simple notice that the bank was threatened with a disaster which it expected the public sphere would find means of averting. It was basically a declaration that a major bank could no longer be regarded as a private company, acting at its own risk; that it had actually acquired the nature of a public enterprise.

This was the line Gripenstedt had contemplated in 1863 and which Hans Forssell had been obliged to recognise in 1879. To avoid a default, the government authorised the National Debt Office to provide Skandinaviska Kreditaktiebolag with a loan, thereby limiting the repercussions on other banks. Sixty years later, government intervention was again required to resolve the bank crisis in the 1990s. Leaving the sector to its fate is more or less out of the question when financial system stability is at stake.

The decision to leave the gold standard prompted finance minister Hamrin to state that monetary policy would aim 'with every available means to maintain the Swedish krona's domestic purchasing power'. The Riksbank was thus the first central bank for which monetary policy's objective was internal price stability. Advice was sought from some of Sweden's leading economists; the Bank received assistance in defining the objective as well as in initiating surveys and constructing an index for monitoring price developments. There were also two qualified evaluations of the programme (Berg & Jonung, 1999).

The bank committee discussed the monetary policy objective in May 1932 and found the Riksbank's programme acceptable, adding that continued deflation should be counteracted as vigorously as the inflation which had previously been feared. Price stabilisation entailed preventing a price fall that would discourage production. The level of consumer prices should be maintained, while some increase in wholesale prices would be welcome to stimulate output. The Riksdag accepted the committee's statement, accompanied by harsh criticism of the Riksbank's interest rate policy.

The departure from gold was followed by a floating exchange rate and the krona weakened; the foreign reserves were too small for the Riksbank to intervene. After a while the krona showed signs of recovering until the Kreuger crash struck a new blow. By the time the Riksbank focused on holding the rate against sterling at 19.40, the krona had depreciated 15 per cent. In 1937, prices in both Britain and Sweden abruptly rose 5 per cent. Economists pressed for revaluation to ease the international pressure but the finance minister disagreed. Lundberg (1977) describes how the plans for an appreciation were dropped:

> I was secretary to a small ad-hoc committee chaired by Wigforss; other members included Cassel, Heckscher, Lindahl, Hammarskjöld, Riksbank governor Ivar Rooth and some representatives from the Federation of Industries. I can still hear Heckscher's voice urgently declaiming *Commercial Notice's* alarmingly high rates of increase for various national wholesale price indices in the second half of 1936. A memorandum was drafted to demonstrate the necessity of an immediate appreciation to neutralise these strong upward price

> impulses and thereby be able to adhere to the norm of a constant price level. Whereupon the economists' (including Wigforss') 'bubble of enthusiasm' burst when Prytz, head of SKF, calmly announced that he – just back from London – had observed a sharp price fall in progress on the commodity exchanges. This time the appreciation was a non-starter.

The protectionist element in world trade left Sweden comparatively unscathed. Sweden abstained from protectionist measures as far as possible and the composition of Swedish exports, with strategically important items, was favourable, as was development in the principal markets. Economic growth in the other Nordic countries and Britain improved in the aftermath of the gold standard and Germany's share of Swedish exports doubled in the 1930s (from 10 to 20 per cent), almost entirely in the form of iron ore for rearmament and infrastructure. Sweden's economy benefitted from the run up to the Second World War.

An important factor in the 1930s was that notwithstanding the expansionary exchange rate, Sweden avoided inflation (Lundberg, 1983). Consumer and wholesale prices rose only 3 per cent as economic growth picked up from 1931 to 1936; such an upswing would usually entail rising prices and wages, to the detriment of Sweden's competitive position. The explanation lay in a plentiful supply of unutilised resources, with high unemployment. Idle capacity could be activated without generating upward pressure on prices.

Technical innovations from the 1920s – the refrigerator, the telephone – were there to create jobs when demand for them grew. The increased exports generated a currency inflow that firms exchanged in the Riksbank. The increase in the money supply was left to swell bank liquidity. The Riksbank was then able to lower the discount rate on 1 September 1933 to 2½ per cent, where it stayed until 15 December 1939. The effective rate was even lower because at that time the Riksbank also paid the banks a rediscount of ½ per cent.

The low interest rate aided the domestic market. The age of motoring called for new roads and workshops. Electricity was extended to rural areas and farming was mechanised. High birth rates earlier in the century meant that more people were joining the labour market, marrying and setting up homes. Real income rose and so did employment. Towns expanded as more

and more people migrated from the countryside. All this meant that, once a major labour dispute had been settled in 1934, the construction industry boomed; the number of dwellings completed in 1939 was almost twice the earlier record in 1930.

With high liquidity, however, the commercial banks were less dependent on the Riksbank and did not cut their interest rates to the same extent as the official discount rate. They started to turn away deposits in high-interest accounts but the inflow continued. By 1934 they accepted sizeable deposits only on cheque accounts, for which interest was a meagre ½ per cent. Rediscounting in the Riksbank virtually ceased from 1933 onwards, with just a temporary revival in connection with a liquidity crisis when war broke out in 1939. The Riksbank tried to come to terms with the banks but the discount rate was simply out of alignment with the general level of interest rates. The savings banks' stock of high-yield bonds from the First World War enabled them to maintain high deposit rates. Life assurance companies suffered from a shortage of securities with a 3 per cent yield.

Rooth's approach to the banks differed from his predecessor's. Moll had negotiated with leading figures such as Wallenberg, Rydbeck and Carl Frisk, the latter from Handelsbank. Rooth did the same but also arranged important discussions as formal meetings at the Riksbank and included representatives from savings banks. Discount rate adjustments invariably occasioned a Bankers Association board meeting; the minutes reveal some differences of opinion about the discount rate but the collaboration was generally smooth. In a history of the savings bank movement, Sommarin (1945) notes: 'Basically it was the Riksbank's governor who in these years guided the savings banks' interest rate policy with a gentle hand.' Rooth was assisted by the new savings bank inspectorate, while the finance ministry kept the Post-Office Savings Bank's interest rate down.

Company taxation was reformed in the 1930s. Generous depreciation allowances provided better terms for internal funding. The 1928 Municipal Tax Act had in principle removed restrictions on inventory write-downs; in 1938 a depreciation allowance was introduced for machinery and other fixtures. Tax was deferred on allocations to the new contracyclical investment reserves. Company tax was made proportional instead of progressive.

All this led to greatly increased internal financing. By the end of the 1930s industrial companies were depositing more than they borrowed from commercial banks. Share dividends exceeded the inflow from share issues. Share prices reached a low in 1932; the peak rates from 1928 were not reached again until 1949–50 (at constant prices not until the end of the 1950s).

THE RIKSBANK AND CRISIS POLICY

A common theme in assessments of the 1930s is the new approach to fiscal policy. The 1933 budget bill included an annex on the business cycle and the public economy in which Professor Gunnar Myrdal argued that public works should be used to counter an economic downturn. That would make better use of labour, stimulate the corporate sector and augment public revenue.

The notion influenced economic theory and debate but its practical consequences were rather slight, at least initially. The interest rate was probably more important. In a retrospective analysis at the centenary of the Economic Society, Myrdal (1977) mentioned two more factors:

> In Sweden it is Wigforss who deserves credit for having understood and adopted the pre-Keynesian theory which the younger generation of Swedish economists had already developed on the basis of Wicksell's writing around the turn of the century. But even his pump priming was far too meagre to have been of appreciable importance. When Sweden – despite a grave labour dispute – began to climb out of the depression relatively quickly, it was mainly due to the unplanned depreciation of the domestic currency plus an advantageous development of terms of trade, which was not our doing either.

When the Social Democrats took over in 1932, under-secretary Kurt Bergendal willingly transferred to the ministry of trade rather than design a new fiscal policy that differed in many respects from what he had followed (Wigforss, 1954). His successor was deputy director Herman Eriksson, subsequently a cabinet minister. In those days the finance ministry was still rather impotent (Henriksson, 1987a). Monetary policy was in the Riksbank's hands; trade policy was divided between the ministries of trade and finance. Fiscal policy, which today gives the finance ministry such a strong position as coordinator in the government offices, was still in its

infancy. The new approach to economic policy paved the way for a different arrangement.

There were some initial difficulties. When Wigforss tried to include the Riksbank in the coordinated policy, Rooth (1988) would have none of it:

> In the spring of 1933, Wigforss, or the government, required the Riksbank to undertake to put the sum of 200 million kronor at the state's disposal. I replied, 'That I refuse to do' and said 'It is conceivable that in the autumn there will be a situation in which I find it prudent for the Riksbank to do so; I refuse to make a commitment now about something that perhaps will not be necessary.' Wigforss listened and said, 'Oh, I see, but we require that it be done'. To which I responded, 'Do you want a decision about it now?' He then suggested that I go to London [to the world economic conference], whereupon I said, 'If you want a decision now, my answer is no. I'm not going to London to learn that while I'm away, my refusal has led you to appoint someone else to govern the Riksbank.' The governorship was due for renewal during my stay in London. Wigforss said, 'Yes, I'll think about that.' I said, 'Yes, you'll please be so good as to do so but I'm not leaving until I'm told I'll be reappointed.' So next day or the day after he phoned and said 'Go!'

Many of the innovations in crisis policy were inspired by Keynes. He had attacked the gold standard on the grounds that fixed exchange rates make it difficult to counter international price movements. A floating exchange rate would make price stability more possible. Deflation, which Keynes considered more economically harmful than inflation, could then be avoided.

Keynes was perceived and cited as an advocate of increased government spending. Marcus Wallenberg Sr had got to know him during the trade negotiations between Sweden and Britain in May 1918. They met again as government experts at the peace negotiations in Versailles and continued to correspond from time to time. When Wallenberg wrote to Keynes for his opinion and assessment of Sweden's situation, the latter replied, on 12 April 1933, that the Swedish economy was certainly more dependent on developments abroad than the British and could not completely recover without an international upswing. He nevertheless believed that the measures planned by the Swedish government ought to be of great importance, ‘partly because even public works which are not greatly needed are probably a better asset than unemployed men, and partly because the additional income thus put into circulation may actually benefit the Budget by more than the subsidies involved . . .’. He did not, however, agree with ‘your Government’s plan to increase taxation in order to pay off the proposed borrowing rapidly. I should expect the effect of this to undo some part at least of the usefulness of the programme.’

Keynes reacted in particular to Wallenberg’s information that government borrowing could be arranged at 4½ per cent and that Wallenberg seemed to find this reasonable: ‘It strikes me as outrageously high’. The bond rate ought not to exceed the British rate, which at that time was 3½ per cent.

> Both in your case and in ours I should not think even 2½ per cent on long term unduly low. In the long run in my judgement nothing on earth will save the capitalistic regime except the steady lowering of long-term rates of interest to a level at which in contemporary conditions current savings can still be profitably absorbed along normal lines. I should even be prepared to go slow on the public works programme and to bring in a conservative Budget in the conditions which exist in Sweden, if I thought that this would be helpful as a transitional measure towards much lower interest rates.

Although the correspondence had no immediate effect, Keynes and members of the Stockholm School, who likewise advocated a more active policy, did influence Wigforss. Economic policy’s institutional framework was reformed and reinforced. Fiscal and monetary policy came to be seen as complementary; one or the other could be chosen, depending on the circumstances. In many countries there had previously been a divide, or at least a distinction, between the government and the central bank, particularly where the latter was wholly or partly in private hands. More and more central banks in Europe were being nationalised, Denmark’s in 1936, the Bank of England and the Banque de France not until 1945 and 1946, respectively. Governments were then in a better position to make economic policy more consistent.

The crisis in the 1930s prompted a lively economic policy debate among Swedish and other economists.
Caricatures by Nils Melander.

Kock (1961) summarises how Swedish economists viewed the need for closer coordination. In autumn 1931, finance minister Hamrin gave an assurance that the Riksbank had managed the crisis entirely on its own, without government interference. Eli Heckscher found it necessary to 'rid oneself of the notion that with a floating currency the Riksbank should have the right to decide the Bank's monetary system'. Myrdal expressed a similar view. Heckscher elaborated:

> The floating currency cannot be determined in this way [as with a gold standard] and since the state's power over the monetary system has never been and reasonably never should be delegated to any subordinate body, however exalted, it is unquestionable that the Riksbank continually needs to keep in touch with the state authority's immediate representative in this field, namely the finance minister [. . .] The management of monetary policy [...] must rest with the country's government.

Others disagreed. The Unemployment Commission considered that as monetary policy was the principal instrument for smoothing the business cycle, the Riksbank's mandate should include contracyclical policy as a whole. 'From this it follows that other economic measures for equalising business activity – in the first place measures of fiscal, trade and wage policy – should be made complementary to monetary policy in consultation with the authorities responsible for monetary policy.'

Similar ideas were put forward by Lindahl (1935):

> Considering that domestic business activity is so intimately connected with the central bank's regulation of interest rates and terms for credit, as well as with the currency's relationship to other currencies, in my opinion there can be little doubt that the cyclical smoothing which is considered desirable shall be achieved in the first place with measures of monetary policy. Responsibility for contracyclical policy must also rest primarily with the central bank because it can hardly be separated from responsibility for the currency's value. Fiscal policy's role as a contracyclical instrument can therefore be only supplementary and should preferably constitute a part of the policy which the central bank directs.

The 1933 committee of currency experts drew a clearer dividing line between the government and the Riksbank. 'The Riksbank ought not to be given any monetary policy directive apart from the one that lays down monetary policy's objective. The choice of means for attaining this objective should be solely up to the Riksbank and for this the Bank should have the necessary discretion.' The bank committee confirmed this view. When Wigforss agreed in 1937, however, he added the 'self-evident condition that the state authorities' various actions that exert an influence on economic life and thereby on the monetary system are coordinated so that they support and do not counteract one other'. Coordination had precedence over independence.

The civil servant most involved in economic policy's realignment was Dag Hammarskjöld. He was recruited to the Unemployment Commission in 1930 and became an associate professor three years later. In 1935 he was appointed secretary in the Riksbank to assist Rooth with international analyses. Speaking at a regular bank meeting (Hammarskjöld, 1935), he outlined the new situation for monetary policy:

> The modern central bank in a world without fixed exchange rates is forced to recognise its responsibility, since no line of action can be regarded as given independently of the political assessment of its economic and political consequences. The stability of exchange rates, which was of such self-evident value that it became an end in itself, emerges after the gold standard's fall in a truer light, namely as one of many possible means of achieving the intended result.

That could imply entirely new measures and an interaction among economic policy's various instruments that was very different from what had been customary. As regards the implications for the status of central banks, Hammarskjöld wavered:

> If the power of central banks is to be restricted to the old order, many new functions that seem naturally to belong to central banks must unquestionably be transferred to the government. The most congenial in principle is, however, that when developments require new, uncertain functions, the state authority is as far as possible in the hands of bodies that, like the central banks, are essentially beyond the direct influence of party politics.

The active, more uniform policy called for material on which to base decisions. Hammarskjöld went on to stress the importance of qualified analysis:

> In a situation such as I have outlined, central banks clearly have a greatly increased need of knowledge about the domestic economic situation and global economic activity. The modern central bank therefore needs something that the old central banks could do without, namely a staff of officials who are not primarily engaged with banking technicalities but monitor developments, endeavour to gain insights into the more long-term economic significance of what is happening and thereby on behalf of the central bank's management draw the conclusions, in the first place as regards the formulation of monetary policy, which the material can warrant.

Awareness of the basis for decisions was important. Erik Lundberg, who helped to compile analyses at the Riksbank in 1934–5, describes Rooth's attitude (Lundberg, 1987a):

> I recall once asking Rooth – when one such major report had been finalised – whether we should send it to Wigforss. 'No, he knows so much anyway. He doesn't need this.' There was always a certain rivalry between them. You might call it the problem of a monopoly of knowledge.

As finance ministry under-secretary the following year, Hammarskjöld became Wigforss' closest collaborator. In 1937 he managed the budget reform that launched the active fiscal policy. The National Institute of Economic Research (*Konjunkturinstitut*) was set up at the same time and led to a marked improvement in the production of material for economic decisions. At the Institute's 50th anniversary, one of Hammarskjöld's colleagues, Gustav Cederwall, recounted the way things had gone (Cederwall, 1987):

> Hammarskjöld was secretary to the Unemployment Commission, secretary to the Riksbank, under-secretary in the finance ministry and subsequently chairman of the Riksbank's governing board.

As finance ministry under-secretary and Riksbank board chairman, Dag Hammarskjöld (1905–61) did much to promote the coordination of fiscal and monetary policy. He left Sweden in 1953 to be secretary-general of the United Nations.

> One can follow how he promoted the idea of an institute of economic research in the inquiry, influenced the content of its report as well as the formulation of the Riksbank's statement, controlled other inquiries and contributed to the texts of the legislation, thereby exerting a decisive influence on the final decision. That was, moreover, very close to Hammarskjöld's first memorandum to the inquiry. There is actually nothing exceptional about this; it is a good example of how things can be done in this country, how Sweden is governed.

Sweden's departure from the gold standard put the Riksbank in a position to implement a more active monetary policy but it did not do so until late in the 1930s. This was partly because its bond portfolio was too small for effective open market operations and plentiful liquidity robbed the discount rate of its bite. In 1937, traditional interest rate policy acquired a new instrument when the Riksdag placed treasury bills at the Riksbank's disposal for open market transactions. Moreover, an enabling act from the same year authorised the government to permit the Riksbank to tighten the regulations for banks' reserves. The Riksbank had new tools with which to influence the supply of credit more directly.

THE SECOND WORLD WAR

Sweden's policy-makers during the Second World War were concerned to avoid mistakes from the 1910s and 1920s. They were so successful that the wartime experiences and instruments continued to leave their mark on economic policy in the early post-war years.

Czechoslovakia's dismemberment in 1938 delayed the outbreak of war by a year; this, as Wigforss (1954) pointed out, served as a respite for better readiness. The Riksbank's gold reserves were transferred from Britain to the United States in spring 1939. The Bank also obtained new ways of influencing the volume of bank lending and liquidity. Emergency banknotes were printed in Jönköping in 1939–40, though they were never put into circulation. The outbreak of war led to direct exchange control; this restricted the commercial banks' operations abroad and meant they were no longer free to buy and sell foreign currency.

On 28 August 1939, four days before the war started, the krona was

pegged to the dollar instead of to sterling. This based the exchange rate on the currency of a country that would not be actively involved in the approaching war. After Germany and Italy declared war on the United States on 11 December 1941, the dollar peg remained in force at the par rate of 4.20 kronor.

The war made iron ore a strategic export and a sensitive foreign policy issue. By the late 1930s, iron ore exports had grown to 13 per cent of total Swedish exports, from 9 per cent in the 1920s. Germany was the sole recipient and obtained almost 60 per cent of its iron ore imports from Sweden, which accordingly supplied over 40 per cent of Germany's total consumption. Maintaining the supply of iron ore was an important consideration behind Nazi Germany's wartime pressure on Sweden.

Pulp was shipped westwards. The German occupation of Denmark and Norway cut off this flow, which was a heavy blow to Swedish exports of forest products.

The credit market was severely strained. Imports were brought forward and paid for in advance. People withdrew bank deposits in order to hoard goods and to offset the loss of income occasioned by military service. During the first year of the war the banks greatly reduced their holdings in the Riksbank; the fall in the savings banks' deposits was the largest since the crisis in 1878–9. People used their savings to buy defence bonds when the National Debt Office raised 1.6 billion kronor to cover defence expenditure.

The housing boom in spring 1939 meant that numerous dwellings were completed in the course of 1940, by which time no mortgage loans were available and the commercial banks ended up with the construction credits as short-term loans. The credit market proved equal to the task and from 1941 there was a deposit surplus, limited demand for credit and more competitive lending. Stronger demand for loans was needed in order to avoid even lower interest rates.

The solution lay in the housing sector, where the war had virtually halted construction. Besides the general uncertainty, there was the greatly increased cost of first-mortgage loans, for which the rate shot up from 3 per cent in 1939 to almost 5 per cent in 1940. An inquiry into construction costs proposed, and the Riksdag agreed, that the government would guarantee a 3.5 per cent ceiling on interest rates for first-mortgage loans. The inquiry also envisaged that the Riksbank would secure the supply of long-term funds by purchasing the mortgage institutions' bonds and extending credit to

The King in Council when a coalition government was formed at the outbreak of the Second World War.

savings banks. After the government had guaranteed the interest rate and the supply of credit, a third pillar in the form of the Rent Control Act was added in 1942.

The situation was summarised by the future prime minister Tage Erlander (1973): 'The measures to deal with the housing crisis in the early 1940s amounted to a breakthrough for regulating the entire housing market with the aim of overcoming the housing shortage or reducing rents. [...] Once these transformative measures had been taken in the name of the housing crisis, there was naturally no thought of a post-war return to the conditions from the inter-war years.' Interest rates fell back, so the guarantee was of little practical consequence in the early years. It was, however, of crucial importance for the way ahead.

Future economic policy was discussed by some economists under Gustaf Söderlund, a former head of the Employers' Confederation who chaired the wartime Industrial Commission. Their programme for a war economy, which emphasised the importance of price stability, was approved by the government in November 1942. The chief instrument would be a general price and wage freeze, while government spending should be stabilised, along with somewhat higher taxation. Government borrowing should be arranged as far as possible outside the Riksbank and the commercial banks. The Riksbank should attract deposits in order to tighten liquidity. An increase in bank liquidity should be avoided by using market operations to counter an inflow of foreign currency. There was to be no recurrence of the inflationary pressure during the First World War. The amount of notes in circulation did grow during the war but this was mostly due to uncertainty and a more widespread and greater need of cash compared with peacetime conditions.

Söderlund's programme did not mention interest rate policy (Kock, 1962). Stabilising the interest rate was the objective but it was to be achieved by freezing prices and wages. The interest rate began to be seen as just a cost, not an instrument for influencing economic activity. This was to be the prevailing view in the next two decades.

The programme led to the National Debt Office being fully engaged in the coordinated policy (Schön, 1989a). A majority of the Office's board had seen their primary task as being to provide conditions for major creditors, commercial banks in particular, that made it possible to go on placing large loans. The Riksbank and the finance ministry were more interested in the

possibility of using the loans to regulate the economy. Moreover, the Social Democrats wanted to make government borrowing less dependent on the commercial banks. The Riksbank exerted a decisive influence on the construction of the National Debt Office's loans; borrowing from commercial banks was to be restricted and bond issues were to be addressed to the general public to promote saving.

Economic policy was remarkably successful compared with its performance in the First World War. Poor harvests in 1940 and 1941 did cause shortages and pushed prices up but from 1942 onwards it proved possible to check the price rise. When the trade unions saw that food prices were being held back, they agreed to a wage freeze. Moreover, legislation to limit share dividends had been in the pipeline since the end of 1941 and was passed unanimously when the Riksdag convened in 1943.

The war led to the Riksbank being involved in trade policy. A trade and credit agreement with the Soviet Union was concluded in autumn 1940, whereby Sweden opened a 10-year credit line for 100 million kronor. The Riksbank arranged the credit, as it did with some advances to Finland; in return, the prime minister issued a guarantee that protected the Riksbank from losses.

The Riksbank also provided loans for Norway and Denmark. To get round the lack of a Danish government, the Danish envoy in Stockholm gave Rooth an undertaking that the post-war Danish government would be requested to repay the loan on the agreed terms. The loan was to be used solely to buy goods in Sweden that Denmark would need when the war was over; the goods were purchased by Danes and stored in Sweden. The agreements with Norway were arranged more simply with the government in exile in London (Rooth, 1988).

Dag Hammarskjöld's appointment as chairman of the Riksbank's governing board in 1941 strengthened his position as economic policy's coordinator. Rooth (1988) claims that when Wigforss asked him for a list of possible successors to af Jochnick in 1940, he had suggested Hammarskjöld, whereupon Wigforss had replied that it was out of the question and had persuaded af Jochnick to soldier on for another year. Rooth stuck to his proposal:

> Wigforss: 'It isn't conceivable that we shall take an under-secretary from the finance ministry to be chairman of the governing board.

> I shall think about it.' After a month or so, Wigforss returned to the matter and said that you can now have Dag Hammarskjöld as chairman. It pleased me greatly.

This was a decisive step. Never before had the Riksbank been so closely tied to the government. Wigforss (1954) relates that Hammarskjöld's appointment was not self-evident but that with him in the chair, the ministry could restrain Rooth and the Bank:

> The government had not been unanimous when he was made chairman. Bagge [leader of the conservatives] was very reluctant, wanted a man from private business. This would have amounted to giving the non-socialist parties yet another vote in this party-proportional assembly. What decided me was knowing about the Riksbank governor's confidence in Hammarskjöld. The ministry's contact with the Bank could be maintained without evasion, misunderstandings avoided and compromises facilitated. The discrepancy between Rooth's opinion about Riksbank policy and that of the board's majority as well as the government became in time so pronounced that a schism was unavoidable. That fact that it did not occur sooner than was actually the case was undoubtedly in no small measure due to Hammarskjöld and his ability to motivate policy with arguments that were also acceptable to the Riksbank's governor.

When the war was over and the coalition government was coming to an end, the opposition criticised Hammarskjöld's dual role more explicitly. Bagge launched an attack in the upper chamber on 20 June 1945:

> Since the under-secretary at the Finance Ministry is also chairman of the Riksbank's governing board, it can happen that these two instances can easily arrive at the same result, so that there is not the necessary balance that the arrangement with our present governing board of the Riksbank presupposes. I myself participated in under-secretary Hammarskjöld's appointment as chairman of the Riksbank's governing board but that was just an experiment; I had hoped for a different development from what has evidently been the case.

During and after the Second World War it was the finance ministry that controlled the instruments of economic policy; the Riksbank governor (Klas Böök) listens to what the finance minister (Ernst Wigforss) has to say.
Caricature by Nils Melander in *Svenska Dagbladet*, 1949.

The Nazi regime regulated most of Germany's foreign trade. To cope with the shortage of foreign currency, efforts were made to balance exports and imports country by country. When a deficit arose despite the bilateral clearing agreements, some form of payment had to be found. One solution was to use gold and securities.

The crisis in the summer of 1931 had drained nine-tenths of the Reichsbank's gold reserves. Replenishing the reserves proved difficult – after the collapse of the gold standard, many countries, Sweden included, concentrated on building up their own holdings to prepare for a return. During the war, Germany did manage to accumulate gold but much of it, as well as other means of payment, was obtained illegally. The gold reserves of occupied countries were confiscated and their origins were concealed in order to use them for international transactions. This was questionable in several ways. International law does not allow either a war of aggression or looting. An occupying power may commandeer state property but is not free to dispose of it because an occupation is a temporary situation.

The Nazi regime also took gold and securities away from individuals. This was done on a massive scale in connection with the persecution of Jews, Romany and other groups that were decimated in the Holocaust. Assets were also taken from other people in occupied countries. The practice ranged from paying something akin to market rates for gold and securities, to the desecration of corpses in concentration camps.

The origin of the appropriated gold was systematically concealed. When the Swiss central bank declared that only gold which had been in legitimate German ownership in 1939 was acceptable, the Reichsbank's leading figure, vice-president Emil Puhl, arranged for the stolen gold to be melted down into bars and stamped with the German certificate from 1935 (James, 1998). Gold taken from private sources was added to the molten gold from central banks, particularly from 1941 onwards. More and more of the precious metal was 'tainted'.

The first large gold transaction with Sweden related to the Swedish holding of bonds from the loan to Germany which Kreuger had negotiated. The Wallenberg brothers had arranged partial redemptions in 1935 and 1936 with Puhl and Hjalmar Schacht from the Reichsbank. Germany raised the question of the remaining holding with a view to restoring a normal

exchange relationship with Sweden. Rooth was informed and declared at the end of 1938 that a reduction of the Swedish holding was desirable.

When the Germans got in touch with Jacob Wallenberg in 1940, the question of payment for the bonds led to Rooth being involved. The transaction would be made in gold but to whom: directly to the holder or via the Riksbank? When Rooth hesitated, foreign minister Christian Günther and Gunnar Hägglöf, at that time head of the department of trade at the foreign office, stated that the Riksbank should not decline to participate.

The next series of major transactions was connected with the 1942 trade agreement. The clearing account showed a deficit that Germany was prepared to eliminate with gold rather than have Sweden reduce its exports. The trade agreement was a government affair and Sweden agreed to purchase gold from the Reichsbank for 70 million kronor.

The circumstances connected with the Riksbank's gold transactions have been examined by a commission on Jewish assets in Sweden at the time of the Second World War (SOU 1998:96). Per Jacobsson at BIS had talked with Rooth in November 1939 about the problem of the confiscated gold. Rooth made a note: 'P.J. If G takes Holland and its gold. Will the world then buy gold'. His fears were soon confirmed; on 29 December 1939 the Riksbank's board was informed that the US Federal Reserve did not accept gold abroad as loan collateral. In September 1940 Rooth noted: 'confiscated gold handed over to the Reichsbank'. On 21 February 1941 the board was told that the United States would probably refuse to buy gold that might come from the central bank of an occupied country.

The discussion thus far focused on central bank gold. Rooth realised that it could be difficult to use such gold in dealings with central banks in the Allied countries. He proposed that the Bank's gold be sold to goldsmiths or used for business between Sweden and Italy. The chief concern was the commercial risks.

Matters became more complicated when, on 5 January 1943, the British embassy informed Sweden's foreign ministry that the Allies had issued a joint declaration to the effect that after the war they would restore all the property which Nazi Germany had stolen from occupied countries and their inhabitants.

On 3 February, Rooth told Per Jacobsson that the Bank was not interested in any gold transactions whatsoever if there was a risk of subsequent demands for recovery. The chairman of the bank committee, Harald Åkerberg, wondered on 9 February whether it was not risky to buy gold in Germany.[33]

A week later, on 15 February, Germany asked for the limit on gold transactions to be raised from 70 to 105 million kronor. Rooth had already consulted the government about the problem of the gold's origins and wondered if he could write to Puhl at the Reichsbank, or whether the matter could be raised in Berlin by either Hägglöf or Sweden's envoy there, Arvid Richert. Herman Eriksson had phoned on 12 February to say that 'according to the minister of trade the government's unanimous opinion was that there were insufficient grounds for raising the matter in any of the ways I had proposed. On the other hand, if I met Puhl in person, there would be no obstacle to my mentioning the subject in passing.'

In the end, Puhl was approached by Jacob Wallenberg as a member of the government delegation for Swedish-German trade negotiations. Hägglöf reported that Wallenberg had expressed the wish that no gold bullion from occupied countries would be delivered to the Riksbank. Puhl had replied that he was glad the matter had been taken up in this way because otherwise it would have been difficult to handle; he said he would personally ensure that future deliveries to Sweden did not contain gold from occupied countries.

This provided Sweden with an argument for continuing to do business with Germany in exchange for gold. The government had arranged this and did not want it to stop; it also complied with the German request to raise the limit. The deliveries of gold continued up to August 1944, when Rooth turned down Jacob Wallenberg's soundings about a German redemption of bonds for 20 million kronor in gold (Lindgren, 2007).

In a later version, Rooth gave his account of the talk between Wallenberg and Puhl a wider meaning. When he was interrogated on 27 May 1946 by a Swiss judge on behalf of the National Swiss Bank, which had also had its gold holding questioned, Rooth stated that Puhl had given an assurance that stolen gold had never (*niemals*) been transferred to the Riksbank.

In its interim report, the Commission on Jewish Assets estimated that the Riksbank had acquired 30.5 tonnes of gold from the Reichsbank. In

33 Later it turned out that even the BIS had received stolen gold from Germany: 1.6 tonnes from Belgium and 2.1 tonnes from the Netherlands, some of it presumably from the Holocaust (Toniolo, 2005).

addition, the Riksbank had 15.5 tonnes of gold from the Reichsbank at its disposal in a Swiss deposit.

After the war it was found that Sweden had obtained 7–8 tonnes of gold from both the Netherlands and Belgium; this gold was then returned. The Dutch gold probably included smelted gold coins from private sources. The same may have been the case with the gold coins which the Reichsbank sold to Sweden, as well as with some of the transfers to Stockholm.

The Commission's final report (SOU 1999:20) found that 'to date there is no clear indication that the Riksbank's acquisition included gold with elements from the concentration camps, while the possibility cannot be ruled out that certain gold consignments – namely 16.4 tonnes – contained some minor proportion of gold that in other contexts had been confiscated or looted from Jews'. When the Riksdag decided the allocation of the Riksbank's profit for 2000, the Bank was authorised to pay out 40 million kronor to an institution for Jewish studies.

Another issue with its roots in the Second World War concerns central banks in the Baltic states. When war was declared in 1939, the central banks of Estonia and Lithuania deposited a part of their gold reserves in the Riksbank. As early as July 1940, Sweden transferred this gold to the occupying power, the Soviet Union. When the Baltic states regained their independence in 1991, the Riksdag decreed that Sweden would replace the gold that had been deposited.