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Can regulations prevent financial crises? Uses of the past in the evolution of regulatory reforms in Sweden

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Abstract

Purpose – The purpose of this study is to examine whether regulations can prevent financial crises based on the case of Sweden in the 20th century. The evolution of banking regulation relies heavily on learning across borders as well as responding to recent and remembered crises. Sweden went from being an open economy with a highly protected national banking system with several banking crises under the Classical regime, through the Statist regime with no crises followed by abrupt liberalisation in the 1980s as the country changed to a more market-based regime. This study examines the regulatory responses to crises in each of these periods to assess how, and whether, an often backward-looking regulatory framework can address forward-looking risks.

Design/methodology/approach – This study is a qualitative study using a historical method. The authors use archival material, official publications and statistical data as well as secondary literature to succinctly analyse crises and regulatory responses in different regulatory regimes in the 20th century. The theoretical framework builds on three macro- and microeconomic policy regimes, the Classical, the Statist and the Market regime.

Findings – The authors find that regulations can play a decisive role in alleviating a banking crisis, but the relationship between regulations and economic development is complex, and regulations alone cannot prevent a crisis.

Originality/value – To the best of the authors' knowledge, this is the first longitudinal study of banking regulations in Sweden and how these change in response to crises with the aim of improving the role of banks in financial intermediation and financial stability. This study contributes to a body of literature on financial crises with a long-term perspective and an assessment of regulations as a policy response.

Keywords Sweden, Banking crises, Banking regulation, Regime change

Paper type Research paper

Introduction

Whenever banks fail or when systemic banking crises take place, the media and lawmakers tend to turn to regulations as the cure and the means to prevent future crises. The question of regulations as a response to financial crises has been examined by several scholars from

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slightly different angels after the crisis in 2007–2008 [1]. In this article, we will examine whether regulations can prevent financial crises and whether regulations introduced after a crisis are designed to solve the most recent crisis based on the Swedish experience. Here, we provide a long-term perspective of the evolution of regulations and crises by examining Sweden since 1907, as crises have hit and regulators have responded in different ways. Earlier studies have, in some respects, been more focused on the experiences made in continental Europe, the UK or the USA [2]. But Sweden is an excellent example of a small country in northern Europe, with rapid economic growth and a fast-growing financial sector during the period studied. The policy lessons learned and the international influences towards a small export-oriented economy are, therefore, important to discuss in a wider context.

To answer the question whether regulations can prevent financial crises, we discuss the development of regulatory regimes not only from a national historical perspective but also with references to the development of international regulations. In a long-term perspective, we can identify a pendulum movement between regulatory regimes with a strong state control and regimes with a strong market control [3]. The balance between these two regulatory approaches is of fundamental importance for the economic and business development. We find that regulations can play a decisive role in alleviating a banking crisis but not necessarily prevent one. Furthermore, as will be shown below, the relationship between regulations and economic development is complex.

Theoretical take off and methodological considerations

This article is a long-term analysis of the relationship between banking stability and regulations covering the 20th century. Different historical periods have been characterised by various regulative measures, and in international research, this has been identified as different macroeconomic regulatory regimes, each with similar characteristics in several countries. Peter Temin defined this as "the underlying principles that determine most actions" [4]. Forsyth and Notermans (1997) identified three distinctive macro- and microeconomic policy regimes during the 20th century which we build our analysis on [5]. This theoretical approach is especially useful for analysing long-term developments and risks in financial markets. Porter (2012) highlighted how informal global networks like the Financial Stability Forum have developed alongside – and sometimes fed into – formal regulations and how political groupings such as the Group of 7 (G7) have influenced formal regulations. In this paper, we focus on the formal regulatory regimes developed in each of the time periods identified by Forsyth and Notermans.

The first regime – the Classical Regime – covers the period from the beginning of the century to the early 1930s and is characterised by relative freedom for banks. Through the gold standard, a large number of international currencies were interchangeable which stimulated trade and international transactions. At the same time, the gold parities provided long-term stability. Laws and regulations were mostly directed towards currency stability, while direct regulations of financial market actors were less developed. Thus, the Classical Regime was characterised by more of a *laissez-faire* mindset.

The second regulatory regime – the Statist Regime – comprises the early 1930s to the latter half to the 1970s. In contrast to the Classical Regime, this regime was dominated by a political macroeconomic wish to secure full employment and economic growth. For the banking market, this meant increased public credit control to ensure that capital was available for prioritised investments. Interest rates were kept at a comparatively low level (Notermans, 2009, pp139-155; Forsyth and Notermans, 1997, ch 1).

The third regulatory regime – the Market Regime – was initiated during the latter half of the 1970s and aimed to restrict inflation. Revised regulations allowed market actors to allocated credits based on demand. This regulatory regime remains today even though banking regulations have become more harmonised internationally through the Basel frameworks. For countries dominated by a strong social democratic tradition – like Sweden – this adjustment to international regulations implied considerable changes in laws as well as new tasks for traditional market actors, the banking supervisory agency (Bankinspektionen), Sweden's central bank (Riksbanken) and private actors (Forsyth and Notermans, 1997; Notermans, 2009; Llewellyn, 2001).

We use the historical method for our analysis, analysing primary sources from each period which can increase the understanding of crises resolution in conjunction with different macroeconomic regulatory regimes. The primary sources include documents from the Riksbank, Bankinspektionen, official bank statistics and studies which analyse and discuss the role of regulations. Of special interest is the Government's official investigation (SOU) which often was initiated as response to problems in the banking industry. The investigations were undertaken to provide policymakers with analysis and recommendations for revised or new laws (SFS). Contemporary documents are combined with secondary literature as well as statistics in our analytical narrative. We also build on archival material from Sweden and Basel, laws and regulations and published works to assess the long-term development of regulations as a response to banking crises and the increasingly international nature of banking regulations.

We argue that there is much to learn from the Swedish case when it comes to the development of regulations and how these relate to banking crises. For example, in 2010, Richard Grossman noted that Sweden, together with the USA and Great Britain, was "an appropriate subject for an in-depth study of banking evolution," given their long history of banking, and notes that, until the 1930s, these were the only industrialised countries with banking laws and how this decade saw new regulations that were overturned from the 1970s [6]. In 2008, Bloomberg published an article on its website entitled "Scandinavia's Banks Hold Crisis Lessons World Can't Ignore" with reference to the global financial crisis in 2007–2008 [7]. Other authors have also made references to the Swedish situation as lessons for resolving banking crises [8]. Thus, Sweden has been an example for avoiding and managing banking crises as well as a victim of international financial crises that spread. However, in all crises since the early 20th century, laws and regulations have been means to control this development. Each crisis and the consequences are discussed below.

The international literature on financial crises stretches across financial history, economics and law as scholars emphasise different aspects of the causes and resolution of crises and their long-term effects. Reinhart and Rogoff (2011) delve into different types of financial crises with numerous examples but do not dwell on regulations *per se*. Regulations feature in Cassis and Schenk (2021) where a number of financial crises are examined with an emphasis on how and what can be learnt. Our article adds to the literature on banking evolution and regime changes by analysing micro-level regulatory changes in the context of macroeconomic regimes.

In the next section, we assess the pre- and interwar decades under the Classical regulatory regime. Regulations were national, and Sweden experienced several banking crises. We then turn to the post-war decades under the Statist Regime, which were characterised by national regulations, strong state control and no crises. The third section analyses why and how Sweden moved into the Market Regime later than major economies and the crisis that occurred in the early 1990s. We then analyse some key aspects of regulations before concluding our findings. We find that regulations are often more backward looking than forward looking. Furthermore, the increasingly international nature of banking regulations means that national regulators have limited options to respond to specific aspects of local banking markets.

Crises and stability in the Swedish banking system under the Classical Regime 1907 to 1939

In 1907, a Bank Committee tasked with preparing revisions to the banking law in Sweden noted that regulations could only ensure that banks are solvent and liquid, but regulations could not address the adverse result of poor management (Bankkommittén, 1908) [9]. That was beyond the reach of the law. This frank recognition showed that the Committee knew that regulations alone could not prevent problems in a bank. The Committee proceeded to prepare a law in force from 1911 which regulated entry requirements and defined what constitutes a bank. The law also stipulated that the supervisory agency had the right to inspect the banks. The Swedish authorities, thus, had a solid regulatory and supervisory framework in place by 1911, but the legislators knew that the framework alone could not prevent banks from failing. At this time, Sweden was on the gold standard which facilitated international trade as well as borrowing on international capital markets. Thus, the macro-level policies were typical of the Classical Regime; on a micro level, banks were regulated and had been since the 1830s. Sweden cannot be said to have followed the Classical Regime completely like countries in continental Europe which had no specific banking laws.

In 1834, Sweden enacted a law for banks with unlimited liability for the owners, while the joint-stock banks (allowed from 1864) were regulated by the joint-stock legislation introduced in 1848. Joint-stock banks were not permitted to issue bank notes. Instead, their funding was based on deposits. Up until 1864, interest rates were regulated by law, but from this year, banks could decide on lending as well as deposit interest rates (Lakomaa, 2007). This changed in 1903 when note issuance was centralised to the central bank, the Riksbank, and all other banks had to fund their business from other sources. Entry regulations were also changed. In the deliberations about the revised law, it was noted that low equity was a risk, and bank equity was put at a minimum of 200,000 SEK. The aim with the new capital requirement was to protect depositors and avoid financial crises.

The 1907 Bank Committee was set up in response to a banking crisis. This crisis (as in 2007–2008) had its origins in the USA and spread to Europe. In Sweden, this crisis was above all manifest in large losses on loans to industry, granted by mid-sized banks. During the 19th century, several commercial banks with very limited equity were established to support local or regional development. These banks lent to local industries, in particular to more export-oriented ones. As the crisis spread to Europe, companies had difficulties to repay their loans and the under-capitalised banks faced difficulties (Grodecka-Messi *et al.*, 2021 and Larsson and Lönnborg, 2014). Four Swedish banks failed, five were recapitalised and more than ten were taken over by stronger rivals. The crisis contributed to a consolidation in the banking market that had started already with the increased capital requirement from 1903. However, minimum equity was found to be too low and was more than doubled in 1911 to 500,000 SEK. In addition, the reserve fund should amount to a minimum of 50% of share capital (SFS, 1903a, 101; SFS, 1903b, 102; SFS, 1911, 73).

Besides this reserve, the banks were to secure other capital funds to be used if they were hit by economic problems. Several of the smaller banks could not increase their equity and simply had to merge. The number of commercial banks were reduced from 88 in 1908 to 66 in 1915 and 32 by 1922 (E, Uppgifter om bankerna SM Ser, 1915/1922). The entry regulations in both 1903 and 1911 also included rules regarding the governance as well as rules for bookkeeping and auditing. As noted, a supervisory agency, Bankinspektionen, was given the overall responsibility to control the minimum level of capital and oversee the ownership and governance of banks. The idea behind these regulations was to impose economic stability to protect the depositors and avoid financial crises. In this case, the legislators did respond to a crisis by strengthening regulations but left it to the banks to either raise funds on their own or merge, so it was a combination of strengthening the rules and relying on market-based solutions. Thus, these changes were the first step towards the Statist Regime; however, the transition period proved to be more than two decades.

From a general point of view, the commercial banks capital resources seem to have been too small to avoid economic problems, even though higher equity requirement was an improvement. To strengthen support for the banks' stability, a type of capital adequacy rule was also introduced in 1911. The aim was to limit banks deposits in relation to equity. Initially, deposits were not allowed to exceed five times the size of share capital and funds, but in 1917, this regulation was abolished for the largest banks – with share capital and funds higher than 5m SEK – which already had experienced an impressive deposit growth during the inflationary years of the First World War. This pragmatic policy was motivated by the Bankinspektionen approach to the banks' risk exposure. A large bank was expected to have the capacity to manage adverse economic developments and could, therefore, be allowed to increase their deposits (SFS, 1917, 199).

The crisis in the beginning of the 1920s was the result of speculation in Swedish shares and real estate during the inflation period in the late 1910s. Commercial banks were allowed to own shares in companies that they also lent to. This contributed to both credit growth and speculation (Larsson and Lönnborg, 2014; Östlind, 1945). Furthermore, the aim to return to the gold standard at pre-war parity caused deflation which contributed to the financial crisis. Among the banks in crisis, we foremost find mid-sized banks that during the previous decade had made efforts to expand their geographical market (Östlind, 1945). The two largest banks and the ones most likely to merge with other banks – Skandinaviska Kreditaktiebolaget and Handelsbanken – were also hit by economic problems but managed to survive without reconstruction (Söderlund, 1978). Several smaller banks had to be reconstructed, and the government had to step in as lender of last resort by establishing a specific company, Kreditkassan AB, that could take over non-performing loans and disposed of the assets in due course. The design was modelled on the crisis in the 1870s, and the operations are detailed in Larsson and Lönnborg (2014).

The response from legislators in the 1920s was to set up a new Bank Committee. The focus of this time was to analyse commercial banks' lending during the 1910s and 1920s. The banks' ownership of, and lending to, companies against shares as collateral was assessed. It was noted that this was probably a larger problem than credits granted to a single borrower. Therefore, it was important to manage the banks' lending through affiliated share trading companies. This resulted in a prohibition of banks ownership in investment companies in 1922 (SOU, 1927, 11, pp 82–84).

Capital requirements had been raised in 1911, but it is difficult to evaluate the effects of this on the banking sector as a whole. There are several examples both in the 1910s and early 1920s of small banks with both small loans and limited credit losses. But it is probable that several smaller banks would have been hit by the crisis in the early 1920s, if they had not merged with larger competitors. However, in some cases, the larger merger-partner/ buyer used all resources to be able to undertake mergers or take-overs, and in some cases, the financial resources were heavily stretched in the early 1920s. In addition, banks sent monthly reports to the supervisory agency, and a comparison between selected banks for the period 1918–1922 indicates that this capital adequacy rule did not make it possible to anticipate economic problems (Ser E. Uppgifter om bankerna 1915–1924). The velocity in economic fluctuations probably required daily or weekly information – and not monthly information – of the banks' finances to be able to evaluate the risks. While capital regulations were strengthened in 1911 and the supervisor had a mandate to inspect the banks, the rules were not enough to prevent the crisis in the 1920s.

The risks connected with large lending to one single client were discussed in Denmark and Norway in the 1920s, and in both cases, single borrower limits of 25% of bank equity and reserves were introduced. This was comparatively generous compared to the USA, where the limit was 10%. The Swedish analysis from 1927 showed that credit to a single client had been a problem in only 11 cases in two decades, and this was not perceived to merit any restrictions. It was also argued that restrictions on banks' lending would only result in the client turning to another bank, which would make it more difficult to analyse the creditworthiness of clients. Thus, the committee had no faith in single borrower limits and even argued that this could block legitimate and fully secured credits (SOU, 1927, 11 pp 113–117, 225).

Even though the Bank Committee in 1927 rejected single borrower limits, the question soon came to the fore. The third banking crisis grew from the New York stock market crash in 1929. This crisis reached Sweden in 1932 and affected primarily Skandinaviska Kreditaktiebolaget (later Skandinaviska banken), as the bank had granted large credits to the Ivar Kreuger business group. His suicide in March 1932 and the subsequent collapse of his business empire resulted in large losses for the bank, but there was no systemic banking crisis. It became clear that 30% of the bank's total lending had been granted to the Kreuger business group. Thus, a single borrower limit of 25% would have had positive effects for this bank, and a limit of 15% would probably have reduced the bank's losses considerably. On the other hand, the Kreuger empire had a special position in the Swedish economy as an internationally successful and very entrepreneurial business group. Even though the problems for the Kreuger group accumulated during 1932, the government tried to persuade the larger Swedish banks to support the group with additional credits until the crash was inevitable.

After the Kreuger crash, the risk connected with credits to a single client was once again analysed (SOU, 1932, 30). However, in the review of the bank legislation, only minor changes were done. Thus, the banks were required to be especially careful with credits to individual clients or to clients connected with one another to limit the risks and potential losses (Ser E. Uppgifter om bankerna 1915–1924). Compared to Sweden's neighbouring countries, this was a cautious statement, whose effects could be questioned.

Thus, behind these three banking crises from 1907 to 1932, we can find both international and national origins and driving forces for change. The legislators responded to the first crisis with increased capital requirements and supervision, but rules were changed in response to economic circumstances to support banks but that did not prevent a crisis in the 1920s. The thorough assessment after the crisis in the 1920s highlighted some concerns, but decisive action came only after the 1930s crisis. It was in the 1930s that countries like Germany and Italy prepared specific banking laws and moved to the more Statist Regime. However, Sweden was in transition towards a Statist Regime. Even though regulations became more detailed and public control increased – especially with the outbreak of the Second World War – it was not until the early 1950s that the Statist Regime based on macroeconomic policies became dominant in Sweden.

Stability and government control – the Statist Regime 1950 to 1980s

During the 1950s, a new regulatory system developed in Sweden, which was maintained until the early 1980s, that encompassed the whole financial market, leaving very little room for banks to respond to demand and, thus, restricting competition. The main purpose with this regulatory regime was to secure venture capital at low interest rates for sectors prioritised by the government (primarily house building). This meant that the whole financial sector was put under government control with the Riksbank overseeing the implementation of this policy. At the same time, the Riksbank was under strict control of the government and the macroeconomic policy (Larsson and Söderberg, 2017). Compared to most West European countries, Sweden developed a more exhaustive control of the financial sector during the Statist Regime (Forsyth and Notermans, 1997).

The so called “Riksbank regulation” included several measurements limiting competition in the financial market (Riksbank Archive - A 1B, 1952 internal Riksbank memo, 2 January 1952). For example, lending and deposit rates were only allowed to fluctuate within given limits. Lending was also controlled through an indirect measurement where maximum lending was defined as a share of the bank’s annual deposit growth. This made it possible to direct the investments to preferred sectors, such as mortgage bonds or government bonds for example using moral suasion. At the same time, bond issuance was subordinated the Riksbank’s control. Finally, a type of liquidity quotas was also imposed by the Riksbank to guide the credit volume. This direct government control of bank lending had not been a part of the Swedish regulatory tradition, which is shown by the earlier emphasis on regulation protecting depositors. However, with the Riksbank regulation, the interest in controlling bank lending increased. In fact, control of lending became a major regulatory measure. The aim was not to limit the banks’ risks but to guide capital to areas of governmental priority.

The regulation of banks’ activities in Sweden was subordinated to the monetary policy and economic progress. Both interest rate policy and credit policy became integrated with the general economic policy, aiming for sustained high economic growth. Compared to other European countries, the Riksbank regulatory measures were extensive. In the 1970s, when several countries including the USA and the UK moved towards greater freedom for market forces and market actors, Sweden retained strict regulatory controls.

During the Statist Regime, there was little attention to risks in lending. Lending was traditionally based on collateral, but under the Riksbank regulation, the need for collateral was not that important. That meant that unsecured debts grew, but these debts were not considered high risk, as the loans were made with the preferred sectors with tacit Riksbank support. A revision of the Banking law made it possible for banks to grant larger loans without collateral from 1955, and in 1968, risk-based capital adequacy relating to assets rather than liabilities was introduced. Since the late 1940s, Bank Committees had discussed and examined risks in bank balance sheets and had decided that more attention should be paid to bank assets when examining bank soundness. The Bank Committee that prepared the banking law introduced risk-based capital adequacy by relating risks to collateral for loans (SOU, 1967, 64.) The revised capital adequacy regulation was in some ways a forerunner to the Basel 1. As the Riksbank regulation was still in place, banks were still bound by that and could not respond to the demand for credits. There were no banking crises in the immediate post-war decades. With the passage of time, the institutional memory of handling banking crises also faded (Larsson and Lilja, 2021).

Sweden and the international regulatory convergence – towards a Market Regime

The international convergence of banking regulation and supervision began 1974 with the formation of the Basel Committee on Banking Supervision. The European Economic Community had set out plans for a more integrated financial sector through monetary integration, but the process came to a halt with the end of the Bretton Woods system. It was later revived, but it was only with the Single European Act in 1987 that the process began in earnest. Sweden was not a member of the European Economic Community but a member of the Group of Ten (G10) countries and, thus, participated in various groups that met regularly at the Bank for International Settlements.

In 1974, the main concern was supervision of foreign banks in London. It is clear from the records of meetings in Basel in the 1960s that they were chiefly concerned with the growth of the euro-currency market in London and its effect on international finance. Concerns were raised about the supervision of banks’ foreign branches and to what extent these were regulated and supervised and by whom. [Bank for International Settlements Archive, Meeting of Experts (1959/1977), File ref. 1.3a (3)]. This led to the formation of the Basel Committee on Banking Supervision and closer collaboration between national supervisors and, subsequently, to the Basel Accord in 1988.

The Accord or Basel I as it has been termed is the first international regulation of banks. The central piece of the accord is credit risk (BCBS, 1988). The regulation came about after the sovereign debt crisis in Latin America with a recognition that certain assets carry a larger risk than others. As Schenk (2014) and Kobrak and Troege (2015) have demonstrated, credit risk was not the only problem in the Latin American crises, and banking failures in the USA and the UK were other events that led to the formulation of the Basel Accord. The Accord, nevertheless, focused exclusively on credit risk. Basel I stipulated that capital should be related to assets and that these, in turn, should be classified according to risk. Claims were categorised into groups based on an assessment of the probability of default. In some cases, national discretion could be used to allow different weights. The process behind the Accord is discussed at length by Goodhart (2011), who writes that the risk-weights were set quite arbitrarily, rather than based on assessments of past defaults and probability of default.

As noted, in Sweden, the regulations remained tight during the 1970s, while other major economies de-regulated and moved towards a market-based regime. In the early 1980s, however, the restrictions began to be circumvented in Sweden. An unregulated credit market developed where commercial banks had only an indirect role. This market grew throughout the 1970s, and by 1980, it was equivalent to 40% of total credits (Ingves, 1983). It was clear that the system with regulated credit was untenable, and it was abandoned in November 1985 (Jonung, 1993). This meant that banks could lend freely to anything that they deemed creditworthy. The deregulation led to a rapid credit expansion primarily related to real estate. An estimated two-thirds of all loans were linked to real estate and structured on the expectation of higher asset prices. The deregulation was not accompanied by any policy measures, of either monetary or fiscal policy, that could balance or counteract a rapid credit expansion. On the contrary, interest payments were tax deductible at 50% or more which, of course, contributed to the lending boom. A fixed exchange rate left the central bank with few tools.

The commercial banks expanded their lending, and it became evident when the crisis started in the 1990s that the banks had too little knowledge and experience in evaluation of credit risk. Hörngren (1998) not only pointed toward the rapid credit expansion and poor risk analysis at the banks as causing the crisis, but also argued that the banks in effect broke the law by not analysing clients' creditworthiness properly. The 1987 banking law explicitly stated that the banks should assess customers' ability to repay and not only value the collateral (SFS, 1987, 617, 2 kap, 13§). The law contained the same rules on risk categories and risk weights as the 1968 law. This suggests that the capital adequacy rules were not sufficient as they were. The risk-weights should possibly have been adjusted or that stricter regulations on evaluating the collateral used for lending should have been imposed when the credit market was deregulated.

The general view is that the main cause of the banking crisis in the 1990s was the rapid credit expansion (Jonung, 1993; Larsson and Lönnborg, 2014). The statutory rules for banks with respect to capital adequacy did not prevent a crisis. The banking law had general categories for assets depending on the level of risk, but these were possibly too general to adequately reflect risk in an environment with rapid growth of real estate lending and the rapidly rising values of real estate. Hörngren (1998) pointed out that there was a lack of knowledge and experience of credit risk assessments among bankers that contributed to the unsustainable credit expansion. It seems that there was a lack of institutional memory among the law makers as well. In the 1930s, the Bank Committee members and the legislators had just experienced the crisis in the 1920s and lived through the Wall Street crash and its international repercussion and, in particular, the fallout from the Kreuger crash. They understood the perils of large exposure to a single borrower and the problems with inadequate credit risk analysis.

In 1985, when the deregulation took place, no measures were introduced to manage the potential risks with deregulating credits literally overnight. An institutional memory may not have changed the outcome, but judging from the analysis made, there was little attention paid to credit risk analysis and the need for access to information about potential borrowers' total borrowing.

The new Swedish financial regulatory regime that developed during the 1980s was directly adjusted to international developments. This meant a return to the guidance of the financial market through ordinary banking legislation and not through the Riksbank regulation, which resulted in less detailed governance of the financial market. The introduction of a new regulatory regime often results in adjustment problems, and this occurred in Sweden during the 1980s and 1990s. The elimination of the Riksbank regulation led to increased competition after decades of repressive regulations, but at the same time, this led to higher risk in lending. Rapid credit growth, especially to the real estate sector during the 1980s, contributed to a hike in property prices, particularly in larger urban areas, and stimulated speculation. Banks responded to demand for credit, but they also competed vigorously with each other for market share and used international borrowing more as restrictions were removed. The Swedish banking system, thus, became directly connected to international banking markets and, thereby, directly affected by international developments. With a fixed exchange rate, the Riksbank had few tools to manage capital flows.

The drop in international economic activity in 1991 together with an overheated real estate market and rising interest rates created problems. During the 1990s banking crisis, banks' credit losses grew, and in some cases, the banks survival was endangered. Two of the largest banks – Nordbanken and Gota Bank – were saved by a governmental agency (Bankstödsnämnden), especially organised for securing the survival of the financial system (Larsson and Sjögren, 1995; Ingves and Lind, 1998). The ownership of both banks was taken over by the state. Gota Bank was later merged with Nordbanken, which later was listed on the stock market and gradually privatised. The institutional arrangement with a government owned company, Securum, to manage non-performing assets was similar to the solution in the 1920s with Kreditkassan. Thus, in resolving the crisis, the government seemingly relied on historical experience.

The banking crisis that followed in the 1990s led to major changes in supervision with the formation of the single financial services regulatory agency replacing the two supervisory agencies, Bankinspektionen and Försäkringsinspektionen (for insurance companies). Furthermore, the Riksbank became independent and was given a mandate to ensure financial stability. Sweden joined the EU in 1995, and this meant that the regulations over time converged with EU regulations which in turn are based on the Basle Committee. The Basel Accord was criticised for only covering credit risks and not taking other risks into account. An amendment in 1996 addressed market risk and how that should be treated in relation to banks' capital. Rigidities in the classification of assets were also discussed, and those discussions paved the way for what became known as Basel II (BCBS, 2006). This was then translated into two EU Directives with a goal to implement them in 2007.

Swedish banks did experience problems in 2007–2008, but they were not systemic. The government responded quickly and provided support to banks and instituted a requirement for banks to pay into a stabilisation fund which would be used to recapitalise banks in future crises (Barr and Pierrou, 2015; Regeringens förordning nr, 2008a, p. 819, 2008b, p. 820 and 2009, p. 46, *P2008*/9:61). This fee was later replaced by the EU-wide resolution fee. In 2007–2008, there was still an institutional memory from the crisis in the 1990s which probably explains both a rapid response to support smaller banks and the more forward-looking measure of making banks pay in advance for support. The transition towards a more market-based regime was initially driven by market developments, and subsequently, regulations were changed and adapted to international standards.

Rules and crises under different regimes – concluding remarks

In the introduction, we noted that regulators tend to be reactive rather than proactive. We have shown how Bank Committees have been tasked with evaluating laws and crises repeatedly and how they have responded. The Committees responded within the overall macroeconomic regime, and under the Classical Regime, Swedish banks were more regulated than English banks for example, with a view to protect depositors. The micro regime in Sweden, thus, deviated a bit from the UK and the USA. Changes in the 1911 banking law were not primarily a result of pro-activity from the government but a reactive result of problems or mismanagement among the banks. This meant that regulations were tightened gradually and that the banks' businesses became more and more restricted. Furthermore, during the first half of the 20th century, there was an institutional memory of the financial crises in the 1920s and 1930s as well as of financial market developments during both World Wars that affected both institutions and organisations. As shown, successive Bank Committees presented possible new regulations. Some were dismissed, and others that could have prevented problems in the most recent crisis were introduced. However, with the introduction of the Riksbank regulation, the link to previous decades was broken. Banks' business became totally dependent on the Riksbank's measures under the Statist Regime.

In the 1980s, as market developments in Sweden led to regime change, we showed that when credit and foreign exchange restrictions were removed, there was little understanding and experience of risk assessments and credit evaluation among bankers and regulators. There was no longer an institutional memory of previous crises and what had caused them. Instead, it was clear that regulations were circumvented and, therefore, ineffective and, thus, had to be changed. In hindsight, it is easy to see the lack of preparedness for the rapid credit expansion, capital inflows and growth of real estate lending.

Excessive credit growth has preceded several crises and legislators have tried to manage that through regulations. [10] Collateral should be adequate to cover lending as well as any depreciation of the value of the collateral that may ensue. However, the bank legislation from 1911 did not give any clear rules for the use of collateral, other than stating that loans should be covered by enough collateral. But as the value of collateral fluctuates, a large price fall can easily make the value of the collateral fall below the value of the loan. Traditionally, bonds and real estate have been regarded as good collateral, while shares and personal guarantees have carried the largest risks.

An analysis of the credit losses in two commercial banks at the beginning of the 1920s shows that over 60% of the losses occurred where shares had been granted as collateral. Regulators had been aware of the risks with shares as collateral since 1912, but no action had been taken. During the First World War, share issuance increased and so did lending with shares as collateral. The banks risk management, and their self-regulation was regarded as sufficient for the protection of both the financial system and market actors. Higher risk could nearly always be managed by higher interest rates (SOU, 1927, 11, p. 110).

However, regulation based on the greater margin between the size of loans and the value of collateral would have reduced the risk.

Collateral had, thus, been the basis for lending in Sweden, and as noted in the 1968, law risk weights depended on the collateral posted for a loan. However, there was no transparency in lending, and the use of collateral could differ between bank branches (within the same bank) which made it difficult to control the size and risks connected with these credits. The situation was even more complicated by the business groups' network, which were very difficult to penetrate (Rydbeck, 1993). This was also noticed by Bankinspektionen which, between 1977 and 1990, requested that all banks reported credits over 15% of the bank's equity and funds. This regulation was tightened to 10% in 1992. But Sjöberg (1995) showed that there was too little transparency for the regulation to be effective. A soft single borrower limit was introduced in the 1930s, and in the 1990s, the issue surfaced again in conjunction with lending practices. This demonstrated that there was an awareness of the risk of exposure to a single client, but that the measures taken were insufficient and that companies and business groups were at least one step ahead of the banks and the regulators. In addition, collateral requirements proved to be insufficient.

We asked whether regulations could prevent financial crises and judging by the Swedish experience; the answer is it depends. It is evident that laws and regulations can play a decisive role in alleviating a banking crisis, but the relationship between regulations and economic development is complex. The overall regulatory regime will determine the degree to which laws and other regulations affect developments in the financial sector. This is obvious when looking at the development of Sweden's financial markets during the decades after the Second World War and the shift from the Statist to the Market Regime.

The result from this study shows primarily that the Statist Regime decades from 1950 to 1980 in Sweden are exceptional, as the Riksbank ruled banks business. The Riksbank regulation was added to the existing banking regulations and combined these regulations gave the banks little room to respond to demand and risk-taking was limited. There was no major financial crisis during this time, and most likely, it was because of the combined regulation.

During the transition towards a more market-oriented regime, it was clear that markets developed faster than regulations. Non-bank financial institutions became significant actors and could expand their business, as they were not regulated as banks. Furthermore, the deregulation in the 1980s was done without any changes to the regulations regarding risk-based capital adequacy in spite of changes in the economy and the rapid globalisation of financial markets that took place at the same time. One lesson for policymakers would be to undertake more stringent analyses of potential consequences of regulatory changes.

Another lesson is to learn from history but not assume that history repeats itself. It is clear from the extensive analyses carried out by successive Bank Committees from the 1910s and 1940s that there was a collective, institutional memory of crises and a need to understand what caused crises and how to address them. In the 1990s, there was no such institutional memory of crises, even if the establishment of government owned asset management companies resembled the response to the crisis in the 1920s. While lessons from history are important, they must be interpreted with an understanding of current financial markets and trends. This means that market actors as well as regulators must focus on potential problems in the financial system and evaluate risks with the knowledge of previous crises.

It is also clear from the Swedish case that when regulations were national, lawmakers could respond quickly with regulatory changes. With international convergence of banking regulations and an integrated banking market in the EU, regulatory change takes time, and Swedish regulations cannot deviate much. The international convergence continued in the early 21st century. However, neither more aligned regulations nor increasingly close contacts between supervisory agencies could prevent the crisis of 2007–2008. That crisis illustrated what the Swedish Bank Committee said in 1907, that regulations could ensure solvency and liquidity but not address the fallout of poor management.

Notes

1. McDonough (1998) and an assessment of the Basel regulations in Kobrak and Troege (2015).
2. For example, Eichengreen (2015), Schenk and Cassis (2021).
3. The expression market control refers to market actors who together influence other actors and through pricing of credits and competition allocate credit rather than the state.
4. Temin (1989), p. 5.
5. Further elaborated in Notermans (2009) pp. 139-155 and Llewwellyn (2001).
6. Grossman, (2010), pp. 10-12.
7. Magnusson, Niklas." Scandinavia's Banks Hold Crisis Lessons World Can't Ignore"
8. See for example: DeLong, Brad (2008). "Time Not for a Bailout. But for Nationalization and Krugman, Paul (2008) "The good, the bad and the ugly".
9. This Committee and subsequent Bank Committees consisted of senior bankers, regulators and political appointees. Their findings and any dissenting views were published. They are all called Bank Committees. The reasons for this and the deliberations have been examined in detail by Goodhart (2011).
10. See Reinhart and Rogoff (2009) for an overview of historical cases globally and Larsson and Sjögren (1995) for Swedish crises.

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