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# The evolution of capital adequacy rules – the contrasting cases of Sweden and Britain

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## ABSTRACT

The regulation of bank capital has evolved from minimum capital requirements for joint-stock banks to elaborate risk-based capital adequacy rules. How did these regulations come about? How and why have they changed over time in different countries? Sweden began to regulate minimum capital in the nineteenth century. In 1911 an early version of capital adequacy was introduced. In addition to stringent regulation a separate inspection agency was given wide-ranging powers to ensure compliance. Britain also had minimum capital rules in place but during the twentieth century these two countries followed different paths in regulation and supervision of capital rules. This paper examines the Swedish case in detail and contrasts that with the British case. It is suggested that their respective civil and common law traditions may explain the divergent approaches to defining and regulating capital adequacy.

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## 1. Introduction

The question of banks' capital adequacy became a renewed focal point for regulators after the 2007–08 financial crisis began. How much capital should banks hold to manage their risks? Are statutory rules necessary and sufficient? Why does the approach to regulating bank capital vary in different jurisdictions? These questions are certainly not new and much work has been devoted to finding answers. This paper takes a step back to ask why capital adequacy rules were formulated at all in Sweden and as early as 1911, and examine how and why they changed until the international convergence of capital adequacy rules began in the 1970s.

We find that the Swedish approach is characterised by strict statutory rules and a supervisory agency with far-reaching powers. This contrasts the well-researched British case of reliance on minimum regulation and rather informal supervision during the same time-period.<sup>1</sup>

This paper will trace the developments of capital adequacy rules for commercial banks in Sweden from 1903, when commercial banks lost the right to issue notes, until risk-based capital adequacy was enshrined in the 1968 Banking Law. These developments reflect the civil law tradition in Sweden combined with pragmatism by authorities aimed at keeping control over the banking sector without nationalising it. The developments in England were similar with respect to banking legislation in the late nineteenth century. The Bank of England gained a *de facto* monopoly on note issuance from the early twentieth century. Here, however, the paths diverge as far as legislation and

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<sup>1</sup>It is the English banking laws that are studied but for the long term perspective I refer to Britain

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formal regulations go, despite being surprisingly similar in other respects. To investigate this further, the paper starts with the Swedish case building on a range of sources, then contrasting these findings with the English case as has been thoroughly discussed in the literature.<sup>2</sup>

The contemporary literature is rich concerning analyses of the role of banking regulation in the latest crises, and discussion of perceived gaps. Special issues of the *Journal of Financial Stability* (2008, no 4) and *Journal of Financial Economic Policy* (2015, vol7, no 3), respectively, have dealt with these matters and analysed developments in specific countries. Taking a longer perspective, Kobrak and Troege (2015) put the spotlight on the Basel regulations and argued that if the 1988 Basel Accord had been in place earlier it would not have prevented the banking failures of the 1970s and 1980s.

The literature examining banking regulations before the start of international convergence in the 1970s have focused more on different aspects of regulations. Bank entry rules have been explored to understand the growth of banking institutions in a number of countries (Grossman, 2001), specifically in England (e.g. Sayers, 1951 and Pringle, 1973) and in Sweden (Larsson & Söderberg, 2017). Hansen (2001), on the other hand, assesses the competition between public and private interests to understand the development of Danish banking regulation prior to the Second World War. Ogren (2019) similarly discusses the influence of interest groups on Swedish banking law in the nineteenth century. More recent research in Denmark and Sweden examines the impact of regulations on banks' balance sheets in the pre-war period, with works by Abildgren (2019) and Larsson (2019), respectively.

The development of capital adequacy rules has attracted interest among legal scholars debating the legal implication of regulating capital. Flammia (1988) argue that capital requirements could not save a mismanaged bank, while Angell (1992) uses a historical perspective to argue that capital ratios of 10–12 per cent would provide a reasonable cushion. The origin of the concept of capital adequacy not as well examined in the literature. This paper adds to the literature on the development of banking regulation in the twentieth century by focusing on the regulation of capital, complementing research on the impact of regulations on balance sheets. The paper also ties into the discussion of the concept of capital adequacy among law scholars and finds that the Swedish legal tradition helps to explain the propensity to regulate in Sweden.

## 2. Why do banks need capital?

Before examining the legislation, it is worthwhile to discuss bank capital, what it is, as well as its purpose (see e.g. Flammia [1988] for a general definition and Farag, Harland and Nixon [2013] for a more contemporary exposition). Simply put, in terms of a balance sheet for joint-stock banks, bank capital is the difference between assets and liabilities. A bank's assets are mainly the loans it has provided and the liabilities are the deposits. The difference between these two constitutes a bank's capital. In its simplest form, bank capital consists of equity and retained earnings. Over time, reserves for loan loss provisioning and different types of capital have been added to the capital base, but in the early twentieth century the balance sheets remained relatively simple. The exact definition of 'capital' varies between jurisdictions. Even in the first Basel Accord of 1988, there is only agreement on what is termed tier one capital, whereas the definition of tier two capital is allowed to differ between jurisdictions (BCBS, 1988).

In its simplest form bank capital serves several purposes. First, there is the need to have a capital cushion as revenues may fluctuate; this makes it possible to handle (temporary) losses. Second, deposit-taking institutions need capital as an assurance to depositors that they will be repaid. Third, capital assures the general public that the bank is solvent and will stay in business.

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<sup>2</sup>This literature is vast, and references are made to results in specific studies while the background description is based on the work by Channon (1977), Pringle (1973), and Sayers (1951).

As will be discussed, entry regulations for banks developed in the nineteenth century. Joint-stock banks had to comply with minimum levels of capital. Banks with unlimited liability were perceived to be more trust-worthy than banks with limited liability since the owners were expected to honour liabilities in full (Collins, 1989; Larsson & Lindgren, 1989), whereas banks with limited liability had to convince customers that they had sufficient capital and possibly had to work harder to attract deposits.

When central banks developed lender-of-last-resort facilities and deposit insurance schemes were introduced, moral hazard increased (see for example Calomiris, 1990; Hoggarth et al., 2004; Lovett, 1989; McCoy, 2006). This led to demands for higher capital requirements. The argument was that if banks were forced to hold a certain level of capital, banks might – in theory – manage their risks better. If problems were to arise then banks should use their own capital before turning to official sources. Explicit deposit insurance schemes were introduced in Britain and Sweden, in 1982 and 1995 respectively, thus after the time period studied.

### 3. Early codification and formal inspection in Sweden

Banks have existed since the seventeenth century in Sweden. The oldest bank was founded by private charter in 1656. The central bank, the Riksbank, was established in 1668. The law establishing the Riksbank stated that the bank ‘was to maintain the domestic coinage at its right and fair value’.<sup>3</sup> The bank thus resembled a modern central bank since it had a clear objective to preserve the value of the currency. The bank did not have a monopoly on note issuance, nor was it a lender of last resort when it was founded. Swedish commercial banks emerged later, initially to finance industry through intermediation between savers and investors, even though credits were short-term in the early 1800s (Larsson, 1998). As long as banks were allowed to issue notes deposit-taking was of minor importance. Over time, deposits became a larger source of funds. Stockholms Enskilda Bank, founded in 1856, was the first commercially-oriented bank that actively sought to attract deposits. The deposits were then channelled into short-term commercial loans.

During the nineteenth century, Swedish banking could largely be characterised as free banking in the sense that there were no laws regulating the establishment of banks, nor were there measures defining what a bank was or the limits of business it could undertake. In 1864, the first limited liability joint-stock bank was founded and during the latter half of the nineteenth century, the majority of commercial banks were of this nature. These, by and large, became universal banks taking deposits, managing payments, offering credits and providing underwriting services. Banks with unlimited liability for the shareholders, so called *enskilda* banks, existed as well until the 1930s.

Savings banks and agricultural banks – established in 1820 and 1915 respectively – were regulated by separate laws until 1968 when the banking law was revised, and a unified legal and regulatory framework was established for all types of banks.

#### 3.1. Determining bank’s capital and its adequacy

In 1886, a Banking Law was enacted that set the minimum capital for joint-stock banks at SEK 1 million. However, if the banks were local, that is operating in a more rural than urban location; capital could be less than that amount. There was thus a minimum level of capital set by law but the law did not define what a bank was. For example, there were no provisions regarding banks’ governing structures. These were instead specified in each bank’s articles of association. Over time, regulations became more detailed and the banks’ articles of association mattered less. A turning point in banking regulation came in 1903 when the central bank received a monopoly on note issuance. This called for a new banking law to ensure that joint-stock banks, which had unlimited liability for owners, had sufficient capital once they lost their note-issuing privilege. A Bank

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<sup>3</sup>Official translation from the Riksbank.

Committee was appointed to review the existing law, recommend necessary changes and draft a new law that applied to all commercial banks. There were four members, including representatives from the government and one bank manager; this combination would feature in all subsequent bank committees. The Committee's review, recommendations and any dissenting views among Committee members were then published. This tradition of appointing expert committees to assess existing legislation and draft new laws has continued in Sweden, providing transparency to the legislative process.

The new law defined what a bank was, set minimum capital rules, and codified accounting and valuation practices which aimed to ensure that banks were financially sound and that their financial statements could be trusted. The minimum share capital (*grundfond*) was set at SEK 1 million but could be as low as 0.2 million if the bank only operated in a small town (SFS, 1903:101). At the time, all banks with unlimited liability had a *grundfond* in excess of SEK 1 million whereas half of the banks with limited liability joint-stock banks had a *grundfond* below SEK 1 million. The small banks were typically incorporated in smaller towns and served the local population and business community. The banks with unlimited liability thus had more share capital, that, at the time would signal to bank customers that the bank was financially sound. Bank deposits were safe and the banks had sufficient capital to redeem their notes. The law had further provisions on reserve funds that counted towards total capital. The law also defined a bank as a business that undertakes borrowing and lending. The law further stipulated that assets should be valued according to their 'proper value' (which meant market value). Non-performing loans were to be valued at the amount the bank expected to recover. If bank managers thought that loans could not be recovered the loans should be written off. This law thus codified entry regulations and accounting rules that, in theory at least, should ensure that the financial statements were accurate.

One of the Committee members, Mr Robert Benckert, spoke publicly about the proposed law and said that the most efficient control of the banks was undertaken by the public through the publication of financial statements. He expected the public to choose a bank that was perceived to be stable (*Nationalekonomiska Föreningens Årsbok 1903*). Mr Benckert was a member of the existing bank inspection unit and subsequently became the head of the supervisory agency, which was established in 1907.

A revision of the banking law was called for in response to a banking crisis in 1907 when seven smaller banks failed. Another reason was to update the banking law in line with the new joint-stock company law. A new Bank Committee was appointed to prepare changes in the law. The revised law applied to both joint-stock banks with limited liability and banks without limited liability. The absolute minimum capital for small local banks was raised to SEK 0.5 million but the general minimum was kept at SEK 1 million (SFS, 1911:74). The Committee felt that there were too many banks and that a consolidation would be beneficial for the financial system. Increased minimum levels of capital would help facilitate this. There was also an expectation that there would be no new banks with unlimited liability and the rather cumbersome approval process would deter any applicants.

The law thus raised minimum capital. However, the Committee that prepared the law pointed out that a bank must be managed prudently to remain solvent and liquid in order to protect the depositors. The best way to do this, the Committee decided, was to limit deposits in relation to capital. The limit was set at five times bank capital. This ratio was based on calculations of the size of deposits in relation to capital. The Committee found that for most banks this was between 0.7 and 6.4 so they settled on a limit of five times capital. Only a few banks would have to make adjustments to meet the new requirement. The law also specified that banks should maintain a cash ratio equivalent to 25 per cent of on-demand liabilities. These rules can be interpreted as a type of capital adequacy since the regulation effectively limited the size of banks operations through rules related to capital. The objective was to ensure that banks had an 'adequate' level of capital in case of losses. However, the Committee noted, the law alone could not ensure that banks remained solvent although the rules could 'to some extent prevent the fallout of poor management' (Bankkommittén, 1907). The Committee thus communicated clearly that regulations alone would not ensure that banks were financially sound.

The limit on deposits was suspended through temporary laws for large banks from 1917 to 1920 since the inflation during the First World War caused deposits to soar. Many banks simply could not keep the deposit limit as they could not raise more capital. Furthermore, in 1921, a change was made in the banking law that stipulated that banks with capital up to 5 million could take deposits up to five times that amount, whereas banks with larger capital could hold deposits to a maximum of eight times their capital. Calculations by the author show that the three largest banks at the time in terms of assets (Svenska Handelsbanken, Stockholms Enskilda Bank and Skandinaviska Kreditaktiebolaget) were well within the limits in the 1920s, even though they had very low reserves during the 1920s. The banking crisis in the 1930s led to a further temporary relaxation of the deposit rules, but the Banking Committee of 1932 ruled out any permanent change in the law (SOU, 1932:30). In 1934, banks with unlimited liability were obliged to change their corporate form to limited liability joint-stock banks. As noted, there was an expectation in 1911 that banks with unlimited liability should be phased out but it was not until 1934 that a law was passed that called for banks with unlimited liability to turn into limited liability banks (SFS, 1934: 18).

During the Second World War deposits at commercial banks grew and the rules were discussed again by a new Bank Committee set up in 1945. The Committee noted that when banks reached their deposit limit their operations were hampered. They discussed options for increasing bank capital in order to allow banks to accept more deposits and, consequently, lend more. The Committee proceeded to examine both sides of the balance sheet and discussed the risks associated with various types of lending (Prop, 1946:364). During the Second World War, the banks had drastically increased their holdings of government bonds. The Committee compared this to inter-war data and concluded that the overall level of risk in commercial banks was far lower in the 1940s than in the 1920s, since banks holdings of cash and government bonds had increased and these assets were considered to be risk-free. Here it is clear that the Committee began to examine banks' assets and began thinking in terms of the risk associated with different types of assets in a way that was not discussed by previous Committees. However, this did not lead to a change in the capital rules in the banking law.

Another development that took place in between 1912 and 1940 was a considerable consolidation in the banking sector. This was brought about partly by the increased capital requirements. There were 76 commercial banks in 1912 and five of them accounted for 37 per cent of assets and 30 per cent of deposits (Bankinspektionen 0000). By 1920, there were 36 commercial banks and by 1940 there were 22. The five largest accounted for 56 and 71 per cent of total assets respectively. This level of concentration remained throughout the period studied.

### 3.1. Banking under financial repression

The joint-stock company law was changed again in 1948. This was one reason to form a new Bank Committee in order to prepare revisions that would align rules regarding joint-stock banks with those in the revised company law. The new Banking Committee was formed in 1949 and presented their findings and proposed revisions in 1952 (SOU, 1952:2). A revised Banking Law was enacted in 1955 and the principles relating regarding capital remained in place even though the amounts were changed (SFS 1955:183). The Committee noted that countries with well-developed banking systems such as Britain, France, Switzerland, and the United States did not have any provisions regarding deposits, but decided to keep the provisions in the Swedish law.

The law did not include a definition of capital. The Committee, however, had suggested that share capital, reserves, profit and loss balance, and certain other specified balances should count as capital. In the previous law the term *grundfond* had been used but was now changed to 'share capital' to mirror the terms in the Company Law. The detailed rules regarding minimum capital were removed. Instead, it was stated that banks' articles of association should determine minimum and maximum levels of share capital, although the minimum could not be below the statutory requirement in the Company Law.

In 1968, it was time to harmonise banking legislation through changes in the laws regulating commercial banks, savings banks and agrarian banks to ensure that they would be treated in the same way from a legal and regulatory perspective. The reasons for a unified law for all types of banks were that the different types of banks had come to offer similar banking services, and it was thus no longer meaningful to have different rules for different types of banks regarding capital, deposits and lending (SOU, 1967:64, SFS 1968:601). Savings banks continued to have a local focus and agrarian banks continued to serve farmers and agribusiness and in that respect the law did not alter the structure of the banking sector.

This law was also a break with the previous tradition of limiting deposits in relation to bank capital. Instead, this law stipulated a capital adequacy requirement related to assets and categorised these according to perceived risk. The Committee argued that this shift was motivated partly because of the unified banking law, partly because a shift in the thinking about risks that had started in the 1940s (SOU, 1967:64). The Committee argued that it made more sense from a solvency point of view to relate capital to assets as the level of risk on bank's balance sheet was found on the asset side.

### **3.2. Inspecting the banks**

The codification of banking rules thus has a comparatively long history in Sweden and so has mandatory supervision. In 1846, a royal proclamation set up conditions for banks that issued notes. Among these was a requirement to submit quarterly financial statements to the Ministry of Finance. This was the first formal reporting requirement for banks. Supervision until then had been irregular; when it took place, the purpose was primarily to check if the banks adhered to their charters (Wendschlag, 2012). Inspections mainly took place in Stockholm unless a bank had financial difficulties. In 1889, a specialised unit was set up within the Ministry of Finance with a mandate to oversee the banks, ensure that their activities were carried out properly and in accordance with each bank's articles of association. In 1907, the inspection unit in the Ministry of Finance was replaced by a separate supervisory agency called *Bankinspektionen*. The reasons for establishing a separate agency were said to be a need for more resources to oversee a rapidly expanding banking sector. A separate inspectorate would be able to act more swiftly than officials at the Ministry of Finance. In addition, the bank inspector and his specialised staff were more knowledgeable than the civil servants in the Ministry (Wendschlag, 2012). The 1911 banking law contained a section for supervision of banks (Section IV §28–228, *Bankrörelselagen 1911*). It stated that banks were obliged, among other things, to make their accounts and all other documents available to the supervisors as well as to submit monthly financial statements. The fact that the inspectorate had the right to examine all documents gave it a very powerful position. The inspectorate was funded by fees from banks based on the size of banks' own capital.

The Swedish approach to regulation and supervision thus has old roots, evolving from simply checking that bank charters were followed, to examining deposit ratios and later credit restrictions. In the post-war years the Riksbank had a prominent role in following up banks' lending practices. This early codification of rules for banks and supervisors is a distinctly civil law approach. This contrasts sharply with developments in common-law Britain where legal changes were infrequent and supervision informal.

## **4. Regulating by suasion in Britain**

The oldest joint-stock bank in Britain is the Bank of England founded in 1694. At the time, it was not a central bank in the modern sense. The Bank of England issued notes and it was not until about 1900 that it had a de facto monopoly on note issuance. From 1709 until 1826, the Bank of England was the only joint-stock bank in England and Wales. Most banks at the time were privately-owned partnerships with no more than six partners. The oldest banks in England acted as financial

intermediaries and safe-keepers of funds (Pringle, 1973). Merchant banking arose as a side business for merchants who had surplus funds to invest in various ventures. These merchant banks were often partnerships, which did not take deposits. Instead, their role was primarily to finance trade. If these banks failed the owner/founders or those who invested money via the banks lost their money. There was no regulation of capital until joint-stock banks were allowed. These by definition needed to have a capital base.

The Banking Co-Partnership Act of 1826 made it possible to start joint-stock banks with more than six partners in England and Wales outside a 65-mile radius from London (Banking Co-Partnership Act 1826). In 1833, this restriction was removed, and new joint-stock banks could be founded in London as well. In 1844, the Bank Charter Act regulated the entry requirements for banks, and joint-stock company legislation set minimum capital at 100,000 pounds (Bank Charter Act, 1844, Joint Stock Company Act 1844). At the time most banks were small, and few had branches; this would change with joint-stock banks. In 1857, the Joint-Stock Companies Banking Act allowed unlimited liability and in 1858 limited liability was introduced. Limited liability, of course, made each shareholder liable only for his or her share. New banks emerged as joint-stock banks. In advertisements to prospective customers, they emphasised that they had a broader capital base than the partnership banks, thus signalling that they had capital and could therefore be trusted to be safe and sound (Newton, 2015). In addition, new joint-stock banks began to pay interest on deposits, thereby attracting more depositors and more capital (e.g. Pringle, 1973). Banks with unlimited liability had been perceived as safer than those with limited liability according to Collins (1989) because the shareholders were indeed prepared to honour all liabilities in full. Quantitative research by Turner (2014) shows that the limited liability banks indeed had more capital than unlimited liability banks.

The banking crisis in 1878 and in particular the failure of the City of Glasgow Bank changed the banking landscape in many respects as studies have shown (Acheson & Turner, 2008; Button et al 2015; Collins, 1989). The bank had concealed losses and the accounts were found to be deeply misleading. The shareholders who had unlimited liability had to cover all losses which were extensive. This banking crisis marked the beginning of the end of unlimited liability. This change was introduced in the 1879 Companies Act. The concept of reserved liability was introduced, capping shareholder's liability at a multiple of his or her shares although this could only be called on in case of bankruptcy.<sup>4</sup> The law further stipulated that accounts should be audited. The auditing requirement should, of course, ensure that accounts were accurate. There were no requirements to publish accounts. Many banks, however, chose to do so, thereby communicating to customers that the bank was financially sound.

Through examining internal records of banks, Goodhart (1972), estimates that in the late nineteenth century, bankers thought that 15 per cent cash to assets and 40 percent available assets to public liabilities signalled that the bank was safe and sound. During this time, as Collins (1995) points out, English banks were not the main suppliers of long-term capital to industry and indeed had not been the principal financiers to industrial development in England. Their credits were mainly short-term which could contribute to comfortable and stable capital positions a comparatively smaller maturity mismatch. In addition, London city banks were more engaged in multilateral trade finance than domestic long-term loans. This may well explain the comparatively high ratios of cash to assets and available assets to public liabilities. Banks that provided long-term funds for industrial development were less likely to have readily available cash.

In the second half of the century, change and consolidation took place. The number of partnership banks was reduced while the number of joint-stock banks increased. However, the joint-stock banks sought scale and a number of mergers took place, leading to fewer banks. The next dramatic consolidation took place in 1916–18 with a series of mergers, resulting in ten so called clearing

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<sup>4</sup>This is sometimes referred to as uncalled capital. For a further discussion please see Collins (1989) and Hickson and Turner (2003)

banks that were later reduced to five, a consolidation process examined by Cottrell (1994).<sup>5</sup> This consolidation is similar to the one that took place in Sweden resulting in a handful of commercial banks that accounted for a large share of the assets.

The Bank of England did not have a formal, or statutory, role in regulating or supervising banks until it was nationalised in 1946. Instead, a *de facto* supervisory function evolved during the 1920s when the Governor of the Bank of England began to hold regular meetings with bank general managers, although the bank was privately owned at the time (Fforde, 1992). A number of industry associations, like the Committee of London Clearing Banks and the British Bankers' Association, had developed rules and procedures that their respective members followed. The Bank of England could engage in this type of informal supervision of the banks and the banking system because there were few dominant banks, and the managers all knew each other (Turner, 2014). In addition, the banking market was almost an oligopoly and the Bank seems to have discouraged new entrants. There was also a latent threat of nationalisation that aided the Bank when suggestions were made to bankers regarding the development in their respective banks. While the Bank of England had no formal supervisory role, bank general managers and chairmen met annually with the Bank of England Governor, Executive Directors and the Principal of the Discount Office and discussed developments. In lieu of formal sanctions, the Bank could: 'persuade or cajole, but had to be very careful about giving orders' to bankers (Fforde, 1992, p. 696). The Bank of England relied on monthly balance sheet statements, annual reports and the information provided during meetings with the Governor and senior staff as a base for their assessment of the banks' soundness. This informal approach to supervising the banks continued until statutory powers were given.

The Bank of England Act of 1946 states that the Bank 'may request information from and make recommendations to bankers' (BoE Act, 1946, section 1:3). This remained the extent of the legal basis for supervision and regulation that was in place until 1979. Banking supervision was very informal involving meetings between senior Bank of England representatives and senior bank management to discuss the bank's business. Rather than sanctions, the raised eyebrow of the Bank of England Governor signalled displeasure. Roberts (1995) argues that this informal approach worked well until the 1950s. As a consequence of the expansion of the Euromarket, the number of banks and other financial institutions increased and it was no longer possible to limit communications to a small group of people in order to disseminate the views of the Bank of England.

#### 4.1. Regulating capital

Capital consisted of share capital and reserves in published accounts plus hidden reserves, which were not published. Statistics were gathered but the published statistics were rather rudimentary; the concept of hidden reserves made it difficult to gauge the true capital position of the banks. The Company Act 1947 raised reporting requirements for firms. The Company Act 1948 called for the Board of Trade to prepare a list of banks that were permitted to maintain hidden reserves in their accounting. These were known as Schedule 8 banks and were judged to be of the highest standing (BoE Quarterly 1975:2). In practice, Billings and Capie (2007), note that this meant that these banks could use hidden reserves to smooth reported profits over time and signal that their banks were safe and sound and that it was a long-established practice to keep hidden reserves. They point out that Midland Bank, for example, established a hidden reserve as early as 1866.

The Bank of England did use ratios relating cash to deposits and liquidity after 1946. The minimum cash ratio was fixed at 8 per cent of deposits and the liquidity ratio at 30 per cent until 1963 and 28 per cent thereafter. Liquid assets included cash, discount bills, Treasury bills and commercial bills (BoE Quarterly, 1969:2). Arch (2018) emphasises that this was the only ratio included in the

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<sup>5</sup>Clearing banks refer to banks that were members of the London clearing house, meaning that they cleared payments from other banks. These five banks became the dominant banks in terms of assets.

'Monthly Statements of Balances of London Clearing Banks' submitted to Treasury. Furthermore, Arch points out that self-regulation worked well during this time.

Billings and Capie cite Sheppard's calculations of the ratio of capital as percentage of total assets which found that the ratio declined from 16.4 in the period 1880–1889–8 per cent in 1910–1919 (Billings and Capie [2007], p. 144). The clearing banks continued with a larger share of short-term credits to industry and continued to be well-capitalised in the 1930s. After the Second World War, however, the ratio dropped significantly and was as low as 2.8 per cent in the 1950s before returning to an average of 4.6 per cent during the 1960s.

## 5. Capital adequacy and financial repression in the 1950s

The Swedish and English cases are opposites when it comes to the codification of capital adequacy rules. While the main objective of this article is to examine the development of capital adequacy rules one needs to take the overall financial policies in Sweden and Britain after the Second World War into consideration as well. Both countries pursued repressive financial policies. This financial repression served to direct bank lending towards what the respective governments regarded as priority sectors which severely limited banks operations.

In Sweden, specific regulations were introduced during the Second World War in order to direct lending to productive resources (Jonung, 1993; Larsson, 1998; Larsson & Söderberg, 2017). The banks purchased government bonds in large amounts then sold them after the War. The rapid sale of these sparked fears of inflation. The government was already concerned that inflation could rise after the War and insisted on keeping certain price regulations in place, while also maintaining low interest rates to stimulate investments. In 1947, the Riksbank requested the commercial banks to restrict lending to productive and export-oriented sectors. They reiterated this request in 1950 when the war in Korea sparked renewed fears of inflation (Letter from the Riksbank Governor, A 1B:1950 a). The Banker's Association duly complied.

This policy continued and by early 1952, commercial and savings banks were formally asked to restrict credit while the insurance companies were directed to invest primarily in government bonds (Internal memo, A 1B:1952). In the 1950s the direction was to guide all banks (and insurance companies) towards buying government and housing bonds to ensure that the government's plans for construction of housing could be realised. Voluntary agreements were reached with industry representatives (the Bankers Association, the Savings Banks Association and so forth) to limit credits overall and to direct lending to preferred sectors. The banks were required to meet specific asset-liability ratios set according to the size of the bank. The Riksbank specified which assets and liabilities could be counted. In order to meet the quotas, the banks essentially had to buy more government bills and bonds (Governing Board Minutes, A 1B:1952). The Bankers Association duly issued a recommendation that the commercial banks to comply and urged them to inform their corporate clients that less credit would be provided henceforth (Circular 4 February, 1952, A 1B:1952).

Since the agreements meant that credits to private industry would have to be curtailed, the Riksbank assumed that this would lead to more bonds being issued. The Riksbank then reserved the right to have final approval over corporate bond issuance, the amounts, terms and conditions (ibid). In this capacity the Riksbank implemented the Government's policy of directing financial resources towards specific sectors and projects, such as the construction of apartment buildings. Power firms were also granted permission to issue bonds, although very few industrial firms were allowed to do so.

The Riksbank Governor held regular meetings with managers from the largest commercial banks to discuss the implementation of these restrictions. In the minutes from the meetings there is no hint of nationalising the banks. However, it was suggested that legally binding rules could be introduced similar to legal restrictions during the Second World War. At a meeting in 1954 for instance one of the leading bankers expressed concern about the effect on business with corporations,

whereby the Governor pointed out that if the banks did not comply and the overall goals for monetary policy would not be reached with their voluntary cooperation, then binding legislation could be introduced (Minutes meeting 10 June 1954, F1C:1952-59 file 8).

In 1955, the Governor was concerned that clients who were denied credit in one bank would take their business to another that would grant the credit. If major clients bargained with different banks, restrictions would be undermined. This prompted the Banking Association to demand that banks collaborate on credit applications. Banks should consult one another if they received an application from a client in a rival bank (Circular 18 January, 1955, A 1B:1955). This exemplifies the active role that the banks took to comply although they did complain that they had to turn down business opportunities in order to do so.

In early 1958 the Riksbank's Governing Board ceased to discuss banks' financial position at monthly intervals. However, regular meetings with commercial bank managers continued and the Governor conveyed time and again that he expected the banks to lend responsibly (Governing Board Minutes 8 July, A1B:1959, Riksbank Archive). Since Sweden had extensive foreign exchange regulations the development of the Euromarket in London did not really have an impact on bank lending in Sweden.

Consequently during the 1950s Swedish banks were subject not only to the capital adequacy rules that limited the size of their operations through the limits on deposits to capital but they also agreed to lend directly to preferred sectors and restrict their lending. In the 1950s credit restrictions rather than capital adequacy rules limited banks operations. While the banking law aimed at protecting depositors the Riksbank regulation aimed at achieving policy goals.

In Britain, government debt had increased rapidly during the Second World War reaching an estimated 237.7 per cent of GDP. The government aimed to reduce this through financial repression via low nominal interest rates (Radcliffe Committee 1959, Allen, 2014). With an interest rate cartel in place from the late 1930s the clearing banks were already aligned in their interest rate setting. Nobay (1973) suggests that their dominance probably made it easier to pursue low interest rates. After 1946 the Bank of England used a mix of cash ratios and liquidity ratios to compel banks to increase reserves with the Bank as well as buying government bonds to meet these liquidity ratios. These policies were pursued until the 1970s.

In addition, bank lending was directed towards priority sectors, which included defence, exporters, nationalised industries and agriculture. This was achieved through a mix of qualitative and quantitative directives. There were discussions between the Bank of England and the CLCB regarding the implementation and the clearing banks agreed on procedures to comply (Fforde, 1992). The directives were not statutory and Turner (2014) suggests four reasons as to why the banks complied. First, the Bank of England Act contained a provision allowing the Bank to direct banks. Second, sanctions could be imposed, such as closing the discount window and closing accounts with the Bank. Third, the banks were profitable and their interest rate cartel could continue. Finally, there was a latent threat that banks could be nationalised.

The financial repression effectively limited the banks' operations, preventing excessive lending, thereby reducing the need for regulating capital adequacy. This de facto limitation coupled with a tradition of flexibility in England seem to have reduced any need for outright capital adequacy rules to further limit banks' extension of credit.

## 6. Different paths based on tradition

The development of laws and regulations in the two countries reflect their legal traditions. Although both countries enacted laws providing for joint-stock banks with limited liability in the mid nineteenth-century, Sweden went into greater detail with each revision to the banking law. Britain did the opposite, once limited liability joint-stock banks were provided for in the legislation, no further banking law was enacted to set out details of banking business or capital rules. The company law, rather than a banking law, regulated the establishment and governance aspects of joint-stock banks.

These two countries were in this sense at opposite poles of the legislative spectrum, ranging from a more hands-off common law approach in Britain to strict advance codification in civil law in Sweden.

The main dividing line for the two legal systems, both derived from Roman law, is the codification of law in civil law systems (Stein, 1992). The thinking in civil law is that the whole law could be codified into a coherent system with no gaps to be filled by judges. Judges are thus expected to apply the law as written. The codification dates from the late eighteenth century and the Scandinavian civil law evolved as distinct from French and German civil law (Gomard, 1961). The role of jurisprudence would be limited in the legal process in civil law countries, whereas in common law systems it is central and evolves over time.

The English approach as discussed above depends on lawmakers standing back and letting the bankers develop business, trusting that it is in their interest to pursue sound business practices, while letting self-regulation work through industry associations. The absence of statutory capital requirements and the supervisory approach after 1946 shows that the central bank trusted the banks to act properly within the bounds set by the company law and the credit restrictions in place. The Swedish approach was the opposite and relied on statutory requirements and regular inspections. These different approaches seemingly follow the dichotomy of common and civil law but they may also be products of general traditions in the two countries.

Thus, when contrasting Sweden and Britain, Swedish banks acted on a small heavily regulated and supervised market whereas the English ones acted in an international financial centre with far fewer formal rules. The Bank of England also had much less room to manoeuvre with the development of the Euromarket which diminished the impact of the financial repression policies. The Swedish case illustrates a different story than the English one, with statutory rules regarding capital and formal supervision on the one hand and financial repression on the other. The result was that banks were bound by capital rules, in addition to limited options of lending based on a purely commercial basis. The policies of financial repression limited banks' business options to such a degree that capital adequacy rules appear superfluous from a financial stability perspective.

These developments took place in the Bretton Woods era when international capital flows were limited through outright capital controls or by other regulations. International thinking and practice concerning capital adequacy evolved slowly at this time. The international convergence of banking regulation and supervision that started in the 1970s shows that harmonisation across jurisdictions and legal traditions can be achieved. A 1974 survey undertaken at the Bank for International Settlements for the Meeting of Experts to examine supervisory practices and central banks' approaches to ensuring capital adequacy illustrate the differences between jurisdictions (BISA, 1974a). Britain stood out with its reference to 'yardsticks of normal banking prudence' rather than exact statutory rules (BISA, 1974b). However, it should be noted that, at the time, the rules summarised in the survey report related mainly to capital controls, to the extent that banks and countries were subject to limits on capital transfers (BISA, 1975). There was some discussion regarding liquidity and solvency but there was a greater focus on the supervision of banks' foreign branches since the main concern was the growth of the euro-currency market.

The subsequent formation of the Basel Committee on Banking Supervision and the process of international convergence of rules relating to capital adequacy shows that, while the legal traditions in common and civil law countries differ substantially on what and how to regulate, common principles could be agreed (BCBS, 1988).

## 7. Concluding remarks

This analysis of regulations regarding capital and capital adequacy from 1900 to 1970 has shown that statutory rules regarding capital other than minimum capital required for joint-stock banks, have been in place in Sweden for more than a century. Moreover, the Swedish authorities instituted a separate regulator with extensive powers that was enshrined in law. The rules evolved in line with

the civil law tradition to use regulations to achieve control. This system remained in place throughout the period studied. This formality contrasts sharply with the English case with its reliance on moral suasion and peer pressure until 1946. The Bank of England gained a statutory right to regulate and supervise, but it continued with ‘light touch regulation’. The common and civil law approaches are obvious in Britain and Sweden, with the former light on prudential regulation and statutory rules, while the latter promulgated detailed rules for banks, their capital, balance sheet limits as well as corporate governance matters.

Financial repression in both countries during the 1950s shows that both central banks could strongly influenced banks’ activities regardless of any rules regarding capital. During the Bretton Woods era banks’ operations were constrained through foreign exchange and other capital controls which meant that rules relating to capital only were part of an overall regulatory framework, and possibly had a more limited effect on banks than current rules in place today.

Subsequent international convergence has illustrated that common rules can be developed regardless of legal tradition. However, the question of adequate capital remains far from settled. Sweden has tried different options to calculate capital adequacy for more than a century. Risk-based capital adequacy has been in place since 1968 but an optimal formula seems to be elusive, as is a view on what is indeed adequate capital.

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