

**Institutional settings and risk management in Swedish banking
during the early 20th century**

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Introduction

In the current discussion about securing commercial banking and creating international standards – Basel II – the question of capital requirements takes a central position. In developing a revised framework, a more risk-sensitive system for assets evaluation has been put forward – a system that in many ways resembles the Swedish system from the mid 1950s. However, already in the early 20th century the first simple capital requirements were formulated in Swedish bank legislation. In this paper we intend to analyse the effects of this legislation for individual banks and discuss the function of regulated capital requirements.

Few markets, if any, has as the financial been guided by legislation and other official regulations. Often these have developed as an extension of norms and traditions already guiding the financial market. Legislation and traditions have as an effect of this developed in an interactive way, where the path dependency has been obvious. But also on markets which show a long term institutional stability situations and periods occur when the financial system, at least to some extent, is overthrown and new guiding principles are introduced. These regime changes include both institutional and organisational change, and show the importance regulatory measures. The analysis of such regime changes requires that financial organisations are analysed from a broader context including economic as well as political changes.¹

The structure and content of these regime changes are closely connected to macro economic changes such as inflation or deflation. These types of specific problems could easily lead to changes in legislation for the financial market, but also other changes in society, such as unemployment or low growth rates, can result in regime changes.²

To make regime changes that are accepted by the financial actors, regulations have to be adjusted to the general situation on the market. If the rules are seen as obsolete the risks for opportunistic behaviour increases and the actors might find ways to circumvent the regulations intention. Another reaction might be that the financial intermediaries co-operate in

¹ Llewellyn (2001).

² Forsyth & Notermans (1997).

order to force the government to change regulations. Earlier research has shown that interest-groups often are established or activated when regime changes goes in to formative phases for the banks.³

In this paper we analyse an important regime change in the history of Swedish banking – the introduction of the new bank legislation in 1911. This introduction was followed by a formative period, when banks changed and developed their activities in order to adapt to the new law. The new legislation meant that commercial banks were allowed to own and trade with shares. This was an important step for especially the larger commercial banks since it opened the possibility for them to perform the activities of universal banks. As the freedom for commercial banks increased however, more detailed restrictions on the banks economic stability were introduced. Of special importance was the introduction of capital adequacy requirements, which limited the possibilities to attract deposits. In this paper we will analyze the effects of these regulatory changes for different types of banks.⁴ How did banks of different sizes react to both the introduction and the alteration of the regulation of capital requirements? Did these regulatory changes reduce risks or were the regulations used to motivate larger deposits – compared to during the non-regulated era?

The inflation during the 1910s made it increasingly difficult to maintain these capital requirements. In that situation the government in 1917 acted unexpectedly and reduced the capital requirements for larger banks, where deposits increased especially fast, but maintained the requirements for smaller banks. In the early 1920s Swedish banking was hit by one of the greatest banking crises in Swedish history, resulting not only in large losses but also in a restructuring of the financial sector. Which banks were hit by these economic problems – did the problems strike larger banks harder than the smaller ones, due to the regulation of capital requirements? Could this crisis have been anticipated if capital requirements had been studied more carefully?

Speculation and crisis in Sweden's economy

Swedish commercial banking has historically been organized in two different ways –as joint-stock banks with unlimited or limited liabilities. The first commercial bank in Sweden was founded in 1830, but was soon followed by others. It was however only in the wake of an

³ Llewellyn (2001). Forsyth & Notermans (1997) and Larsson (1998).

⁴ A similar study has been done by Pasiouras et al (2006). In this paper they among other things investigate the impact of bank regulations on individual bank ratings.

accelerating industrialisation in Sweden during the latter part of the 19th century that conditions were created that allowed private banking on a larger scale. The banks founded before the 1860s were so called “enskilda” (“private”) or joint- stock banks, with the owners being liable – one for all, all for one – for the bank’s obligations. These banks were primarily engaged in issuing banknotes and initially they showed little interest in deposits. But Stockholms Enskilda Bank, founded in 1856, displayed a much greater concern for this type of activity, however, which in turn led other banks to increase their deposits.

With the establishment of the first Swedish joint-stock banks with limited liability during the 1860s and 70s, this trend was further accentuated. These banks were not allowed to issue their own banknotes rather their operations were based on the shareholders’ equity and deposits from the general public. The right for joint-stock banks to issue their own banknotes was successively curtailed during the end of the 19th century. From 1904 only bank notes issued by the Swedish central bank, Riksbanken, were allowed to circulate on the Swedish market.⁵

Alongside these alternatives for industrial financing the stock market became increasingly important.⁶ The breakthrough for the Stockholm stock exchange came in 1901, when the trading was reorganized and as an immediate effect increased. In the following years, activities on the stock market grew also as an effect of the banking institutes being allowed to register on the Exchange.⁷ As trading with shares increased, the use of shares as a mean of speculation also became increasingly important. The real boom for speculation, however, did not come until the 1910s.

During World War One Sweden’s foreign trade increased and the balance of current accounts turned positive. Profits in industry also grew, to a large extent as an effect of the high inflation rates. The inflation also automatically resulted in growing values on estates and machinery, which further stimulated the economy. The expectations on growing values for shares, especially in industrial companies, underpinned the speculation and new companies were attracted by the growing activity on the stock exchange. The commercial banks also played a crucial role for this development. Especially through affiliated investment companies (*emissionsbolag*) the commercial banks helped new companies to enter the stock exchange,

⁵ Söderlund (1978). Larsson & Lindgren (1990).

⁶ Broberg (2006).

⁷ Hägg (1988).

while at the same time they became involved in the structural transformation of Swedish industry.⁸

The growing importance of the Stockholm stock market was not only evident in the introduction of new companies, but also in a growing volume – which in fixed prices was not exceeded until in the 1980s. The ease with which shares could be introduced on the open market also made this a more interesting way of financing than through the issuing of bonds. The level of interest rates for new bonds was also regarded as too high, especially towards the end of the 1910s.⁹

The inflation played an important role for both the development of and speculation on Sweden's financial market during World War One. Expectations of large profits were high among private persons as well as industrial companies and banks. The market began to fluctuate towards the end of the war, with stagnating share prices, but it was not until the early 1920s that this development turned over to a crisis.¹⁰

The international deflation which was apparent during the summer of 1920 reached Sweden with full power in the autumn the same year. Falling prices were promoted by the governmental monetary policy, which aimed to restore the Swedish crown to its pre-war gold value. To make this strategy successful the official discount initially had to be increased and the state budget squeezed. These measures added additional fuel to the deflation fire.

The deflation crisis hit both commercial banks and industrial companies. During the 1920s several reconstructions were carried out as an effect of the deflation. Since the majority of the commercial banks lending was to industry, these banks were especially hard hit by the crisis in the financial sector.

For the majority of the commercial banks the crisis resulted in large losses on outstanding credits and for some banks their funds had to be used to cover the losses in order to continue business activities. These banks needed additional capital. This was achieved mainly through capital contributions from the shareholders, but in some cases other solutions had to be considered. Thus, several commercial banks were taken over by more solvent competitors.

Commercial banks had a strong interest to avoid bank failures, where the depositors lost their capital, since this could lead to more general problems among the banks and in the worst case, a bank panic. In order to secure those banks where the owners could or would not

⁸ Östlind (1945).

⁹ Östlind (1945).

¹⁰ Larsson (1998).

contribute with more capital, some of the larger commercial banks guaranteed the capital of banks in crisis. This co-operation at the beginning of the crisis probably helped save the Swedish banking system, but when Sydsvenska Kredit AB in March 1922 reported severe losses, it became clear that not even a consortium of the large banks would be able to save the company. Instead the state – through the central bank – entered as lender of last resort to secure the existence of the banking system. A special institute – AB Kreditkassan – was established by the central bank and the commercial banks in co-operation, to transfer capital to banks experiencing a crisis and during the following years AB Kreditkassan played a major role in the reconstruction of commercial banks in crises situations.¹¹ Capital transfer could be handled in three basic ways

- as guarantees for shares issued by new banks established to acquire the business of failed banks,
- lending on shares when a bank issued new shares, and
- by taking credits and other obligations from the assets of banks in crisis.¹²

In all seven commercial banks were particularly badly affected by the financial crisis of the early 1920s. At least four of them would have encountered great difficulties to survive without support from Kreditkassan AB, Smålands Enskilda Bank, Wermlands Enskilda Bank, Sydsvenska Kreditaktiebolaget, Svenska Lantmännens Bank and Nordiska Handelsbanken. The reconstruction of the other three – Mälardalens Enskilda Bank, Kopparbergs Enskilda Bank and Svenska Handelsbanken – was made possible with aid from three of the largest banks – Stockholms Enskilda Bank, Skandinaviska Kreditaktiebolaget and Göteborgs Bank (see Table 1).¹³

Beside these banks, also the dominating Skandinaviska Kreditaktiebolaget experienced large losses. When the need for depreciation on loans was presented in December 1922, the Bank Inspection Board considered the banks evaluation to be much too low. In order to avoid a large bank failure the social democratic government presented a proposal of joint ownership – between the state and private interests – to the bank. The board of the Skandinaviska Kreditaktiebolaget saw both advantages and disadvantages with this proposal. It would certainly strengthen the bank in relation to its competitors, especially the Stockholms Handelsbank, which already had received a similar proposal. However like the Stockholms

¹¹ Hagberg (2007).

¹² Larsson (1992). Östlind (1945).

¹³ A more detailed description of the reconstruction of Swedish commercial banks in the 1920 is given in Larsson (1992) and in Swedish language by Östlind (1945) and Hagberg (2007).

Handelsbank and with the help of increasing profits from its business, the Skandinaviska Kreditaktiebolaget managed to avoid the governmental partnership.¹⁴

Table 1. Reconstructed commercial banks in Sweden during the 1920s crisis

Commercial bank	Initiation of reconstruction	Reconstruction with support of
Mälardalens Bank	February 1922	Skandinaviska Kreditaktiebolaget
Kopparbergs Enskilda Bank	February 1922	Skandinaviska Kreditaktiebolaget/Göteborgs Bank
Sydsvenska Kreditaktiebolaget	March 1922	Kreditkassan
Smålands Enskilda Bank	October 1922	Stockholms Enskilda Bank, Kreditkassan
Svenska Handelsbanken	October 1922	Stockholms Enskilda Bank/Skandinaviska Kreditaktiebolaget
Wermlands Enskilda Bank	April 1923	Skandinaviska Kreditaktiebolaget/Stockholms Enskilda Bank/Kreditkassan
Svenska Lantmännens Bank	April 1923	Kreditkassan
Nordiska Handelsbanken	September 1925	Kreditkassan

Risk reduction through banking legislation

The need for a more detailed control of the commercial banks activities had been discussed already during the end of the 19th century, as had the possibility for commercial banks to acquire shares. The latter issue was also the subject of an intense discussion around 1910 between representatives from banks as well as in the Swedish parliament. When a new bank legislation was adopted in 1911, it also included new regulations of the banking business. With the right to acquire shares the business opportunities for commercial banks increased, but at the same time new restrictions on banks liquidity and solvency were introduced to guarantee the depositors' capital.

The risks connected with commercial banking were especially treated in three types of regulations:

Basic and reserve funds. The basic fund for unlimited liability banks and share capital of limited liability banks was to amount to at least one million crowns, unless the charter of the company stated that "the company does not intend to operate a bank on a large scale, but

¹⁴ Söderlund (1978).

rather intends to satisfy a small volume of business on a local level". In that case, the basic fund could be reduced to 500 000 SEK, which can be compared to the earlier minimum amount of 200 000 SEK. This increase probably contributed to the disappearance – after a transitional period – of banks poorly equipped with capital. Bank mergers were also facilitated by regulations which made it easier to take over shares in other banks.¹⁵ The concentration of commercial banking was also quite astonishing. In 1910 there were 81 commercial banks, but within ten years the number was almost down to the half (41 banks) and after the crisis – in 1925 – there was only 31 banks left (see appendix).

Beside the basic fund, resources were to be set aside every year in a reserve fund. At least 15 per cent of the bank's yearly profits – after deductions to cover the previous year's deficits – were to be placed in the reserve fund. These provisions were to be made until the reserve fund amounted to a total of 50 per cent of the basic fund (share capital), but could of course also continue after that point. The reserve fund could be allowed to fall under the 50 per cent limit only in order to cover losses.

Cash reserves. In order to insure the short term stability of the banks, new regulations regarding liquidity were introduced in the 1911 banking law. In this regulation commercial banks were obliged to keep a cash reserve in assets that could easily be converted to money, which together with the cash account totalled at least 25 per cent of the commitments the company was obliged to honour upon demand.

Capital adequacy requirements. The concern for private savings also resulted in new rules regulating the size of banks' total deposits. Thus, deposits were not allowed to exceed five times the amount of the bank's own funds – the sum of the basic fund, the reserve fund and the free reserves. This was a simple an unsophisticated construction of a capital adequacy requirement which was not fitted to evaluate all kind of risks. The requirement limits were probably not much more than a confirmation of earlier banking practise. However in May 1917, banks with equity in excess of five million SEK were relieved of the obligation to maintain a level of deposits within five times the amount of the bank's funds.¹⁶

This decision was motivated by a substantial increase in deposits after 1916 and was to remain in effect until further notice. While requirements were thus reduced for the larger banks, the regulations of 1911 remained in effect for the smaller banks. Even if concern for

¹⁵ SFS 1911:74. Söderlund (1978).

¹⁶ SFS 1917:199.

private deposits lay behind this decision, it would seem clear that it accentuated the structural changes that had already begun within commercial banking. This regulation was prolonged one year at a time until January 1921. This meant that for more than four years larger banks had unlimited possibilities to expand their deposits. But with increasing problems for the banking sector new limitations were introduced for the larger banks, from January 1st 1921. According to this regulation, commercial banks with funds greater than five million SEK were allowed to have deposits to the amount of 25 million SEK plus nine times the difference between the banks own funds and five million SEK. The upper limit for deposits was set at eight times the banks own funds.¹⁷

These three measures were the basis for the regulation of economic stability in commercial banking. While the regulation of the cash reserve was hardly any problem – there was no bank run during this period in Sweden – both the size of the equity and the capital requirements were of fundamental importance for the long term survival of both the banking system and individual commercial banks. The funding of banking and the requirements on capital were also closely related, meaning that for example a reduction in the size of funds easily could result in an overdraft of the capital requirement ratio.

The capital requirement regulations of 1911 were designed as minimum requirement levels of capital. If banks wanted to hold a larger sum of capital than was regulated this was of course possible. This left banks with a strategy decision - whether to hold more capital than was regulated or to balance on the regulated level. It is necessary to look upon this from a short and long run perspective. We could expect that banks in the long run would prioritise stable growth and stable profits however in the short run perspective banks are more interested in getting maximum profits.

Capital held by the bank does not generate high profits this could only be attained by putting the capital on the market for example by investing in companies, buying stocks or giving credit. Invested capital equals risk since there is always a possibility of default. Hence invested capital stands in competition with held capital for more than obvious reasons. Investments come with different risk labels, when banks choose investment strategies. Therefore one may expect that risk levels would have an impact on the amount of funded capital, high risk levels for investments or credit equals high funded capital levels.

¹⁷ SFS 1920:210.

However there is also a possibility that we could see differences between large and small banks since large banks have access to a larger amount of information than their smaller competitors and therefore can make more accurate risk calculations. Thus it is necessary to distinguish between large and small banks in order to see different strategies.

The commercial banks structure 1912-1928

Swedish commercial banks were during our period, divided into personal responsibility banks (PRBs) and limited liability banks (LLBs). LLBs do not share the same responsibility for risk decisions as PRBs which could easily force them to face higher risk levels. However PRBs are more transparent and the argument could thereby be reversed.

The official statistical bank material divides banks into 3 different categories which primarily concern the responsibility related to ownership and company structure and secondarily concerns the company's assets and turnover. The first category is comprised of the larger commercial banks with personal responsibility which previously had the ability to issue notes. The second category consists of banks with a limited liability structure. This new form of company structure was established from the second half of the 19th century. The third category, like the second, also consists of LLBs but with smaller capital resources. Here we find many of the so called "peoples banks" (folkbanker) and other smaller LLBs. This categorisation suits our motives. Out of 78 banks, 15 PRBs represented 42 per cent¹⁸ of the total assets in commercial banking in 1912. However 9 out of the LLBs could also be considered as big banks, larger than many of the PRBs, representing of 48 per cent¹⁹ of the total assets in commercial banking in 1912. The remaining 55 banks represent only 10 per cent²⁰ of total assets.

A large number of Swedish commercial banks were active during the period 1912-1928. Table 2 shows the structural differences during the period and the total number of banks involved in the study. As the table shows there were large structural changes in the commercial banking sector in Sweden during the early 20th century. The decline in the number of commercial banks was mainly a result of company mergers. Only four banks liquidated and one was declared bankrupt.²¹ All the PRBs that disappeared as companies

¹⁸ SOS, Uppgifter om bankerna 1912

¹⁹ SOS, Uppgifter om bankerna 1912

²⁰ SOS, Uppgifter om bankerna 1912

²¹ Bankaktiebolaget Stockholms privatassistans was declared bankrupt in 1919 and was liquidated. During the following years 1914-1920 AB Nya banken in 1920, AB Eksjö folkbank in 1914, AB Kristdala folkbank in

during the period were merged with LLBs.²² The financial crisis in the early 1920s seemingly hit the LLBs more severely than the PRBs. As was mentioned previously in this paper the large PRBs were indeed shaken by the crisis but were, with the help of other large commercial banks, able to reconstruct. In 1928 only 38 per cent of the commercial banks that were active back in 1912 still remained.

Table 2. Number of commercial banks in Sweden 1912-1924 categorized into PRBs and LLBs

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
PRB	15	14	14	14	14	12	11	11	11	11	10	10	10	10	10	9	9
LLB	63	61	55	54	48	45	41	37	32	29	28	26	25	22	21	20	21
Total	78	75	69	68	62	57	52	48	43	40	38	36	35	32	31	29	30

Source: SOS Uppgifter om bankerna 1912-1928

Structural changes, however, were not at their top during the crisis, but rather during the five years preceding the crisis. The financial boom during these years made them possible and also made it advantageous for larger commercial banks to acquire smaller competitors. The situation was reversed in the yearly 1920s when the economic situation in several banks hampered merger activities. Since the interest for acquiring banks in crisis was also limited, reconstruction with or without state support became the prime mover behind structural changes.

Commercial banks with unlimited personal responsibility (PRBs) showed a better survival ratio than limited liability banks, both during the crisis and in the years preceding it. This was to a great extent an effect of the large average size of these banks, but could also be explained by their organization and the role of personal ownership, since personal responsibility probably created a risk aversion.

The size of funds

The bank law of 1911 forced all commercial banks to hold funds at a minimum level of 1 million SEK. In special cases banks with limited business could be granted an exemption to hold capital at a minimum level of 500 000 SEK, but was only applicable for small banks. In

1917, and AB Stockholms folkbank in 1914 were merged with other commercial banks. (SOS, Uppgifter om bankerna 1912-1928)

²² SOS, Uppgifter om bankerna 1912-1924. See appendix 1.

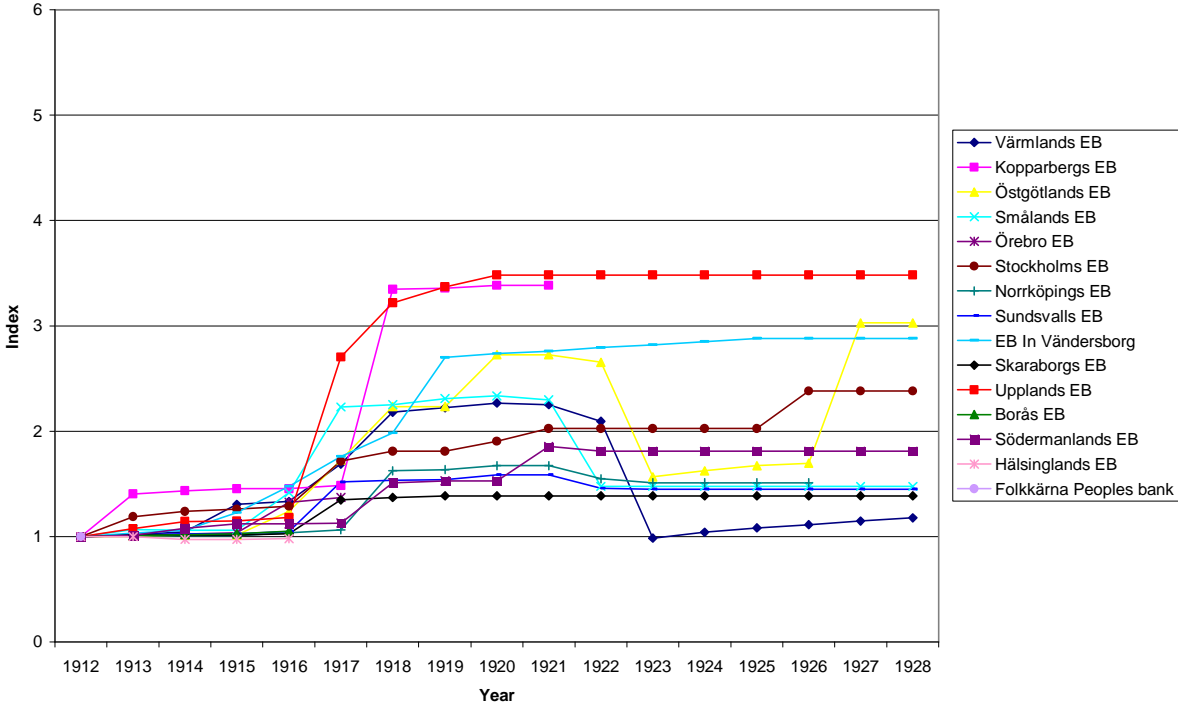
1912, 26 banks held funds below 1 million SEK²³ the majority of these banks were so called “peoples-banks” that managed limited business and administered comparatively small deposits. The law of 1911 defines funded capital as the sum of all funds (*grundfond, kommanditfond, reservfond, dispositionsfond*) – resources that banks easily could realize in case of financial instability or economic problems.²⁴

By looking at the level of funded capital in PRBs during the time of this investigation, one might conclude that until 1916 these levels were rather stable (see figure 1). However, by the year 1917 all banks seem to have increased their funded capital, and some banks, like Kopparbergs EB and Upplands EB, increased their funds rather heavily. From this year until 1921/22 development were characterized by consecutively increasing funds. But in 1921/22 the market changed dramatically; funds started to decrease and soon levels were nearly back to those that prevailed in 1912. This was surely an effect of a change from inflation to deflation in the early 1920s. But this development was also an effect of the financial crises and the subsequent write offs on banks’ funds in order to cover losses. This scenario was not, however, valid for all banks; while some banks like Upplands EB, EB in Vänersborg and Stockholms EB managed to keep their funded capital at a high level, Kopparbergs EB struggled hard to keep their capital at a sufficient level, but finally had to merge with Göteborgs bank in 1922.

²³ SOS, Uppgifter om bankerna 1912

²⁴ Including *Upp- och avskrivningsräkning, löpande räkning avista, löpande räkning på viss tid under 1 månad, sparkasseräkning, disposition- och kapitalräkning.*

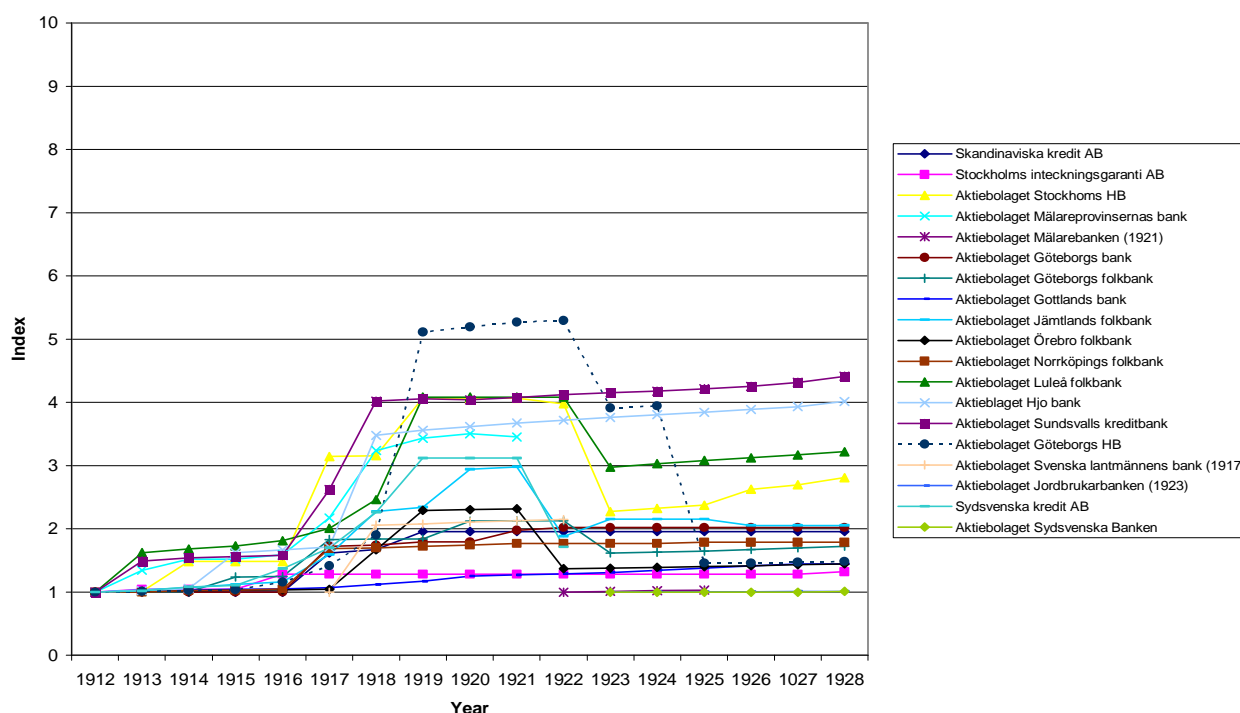
Figure 1: Total funded capital in PRBs 1912-1928 in relation to 1912, index



Source: Calculations based on SOS, Uppgifter om bankerna 1912-28.

Funded capital for the limited liability banks increased even faster than for the personal responsibility banks. While capital funds in the PRBs increased at the most 3½ times between 1912 and 1920, funds for some LLBs increased over four times during the same period (see figure 2). At the same time there were also small and medium sized LLBs that did not increase their funds more than inflation. However, from a general point, it probably was easier to attract capital to a limited liability bank than to a personal responsibility bank, and that might have promoted the development of funds in the LLBs. From a risk perspective, one could presume that these banks encountered a higher risk if they used their funds to increase deposits, than those that did not develop that fast. Another interpretation however, would be that larger funds helped stabilize the banks during the 1920s crisis. Which of these conflicting statements that was correct depends on what strategy that was adopted by each individual bank.

Figure 2: Total funded capital in LLBs 1912-1928 in relation to 1912, index



Source: Calculations based on SOS, Uppgifter om bankerna 1912-28.

For both the LLBs with PRBs we can see that the majority of banks could keep their funds at the same level during the crisis or reduce them only with a minor sum. This would imply that losses on loans could be handled with capital within the bank, with contributions from the share owners or with hidden reserves. It is also clear that those banks most hit by the crisis had to reduce their funds sharply in order to solve their economic problems. During 1922/23 six of the eight banks in crisis (see table 1) were forced to use their funds to cover losses, while two of the banks were taken over by other banks before funds could be used. Obviously a reduction in a bank's fund is an indication of economic problems. But that does not necessarily mean that the bank will be hit by the crisis and will have to reorganize. Funds were built up to be used in case of economic problems, and there are also examples when these funds were sufficient to solve such problems. Thus, it is hardly surprising that the reduction of funds indicate economic problems. In order to understand the security system for Swedish commercial banks, we have to look more closely at how the capital requirements were implemented.

The function of capital requirements

A bank's deposited capital is defined as the sum of all deposits held by the bank. The banks monthly statistics contain five different types of deposits, short as well as long deposits. By dividing the total deposits with the total capital funds we get a quota that could be compared with the stipulated capital adequacy level. The number 5 represents the threshold which banks by law should not exceed – all X lower than 5 represent a capital adequacy within the stipulated limits:

$$\text{Deposits/funds} = X >, =, < 5$$

Capital adequacy within the levels stipulated by the law of 1911 has been highlighted in table 3 with a grey background. Kopparbergs EB experienced capital level problems as early as in 1917, and in the following year three more banks; Smålands EB, EB in Vänersborg and Skaraborgs EB, were unable to maintain the capital requirements. These problems increased in the early 1920s, with the largest problems in 1923, when six out of ten PRBs displayed capital requirement ratios higher than 5.

However, as we already have seen, this did not mean that the banks were violating the regulation of capital requirements. From May 1917 until January 1921 there was no capital requirements for banks with funds larger than five million SEK, and from 1921 banks had to keep deposits not higher than eight times their funds.

Table 3. PRBs, funded capital in relation to deposits

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Värmlands EB	3,69	3,93	4,01	3,44	4	3,75	3,75	4,3	4,78	4,54	4,45	8,24	7,3	6,5€	6,0€	5,7€	5,54
Kopparbergs EB	4,95	3,61	3,65	3,68	4,08	5,27	3,29	3,29	4	3,96	²⁵	-	-	-	-	-	-
Östgötalands EB	3,79	4,01	4,13	4,37	4,31	4,53	4,99	5,61	5,5	5,61	5,27	7,38	6,6	6,15	5,7€	4,51	4,45
Norrköpings EB	1,71	1,79	1,82	2,3	3,2	3,76	3,52	3,8	3,94	3,58	3,4	2,88	2,94	2,9	2,9€	-	-
Smålands EB	4,31	4,15	4,32	4,62	4,55	3,9	5,82	6,41	6,91	6,74	8,84	7,5	7,0€	6,75	6,4€	6,5€	6,2€
Örebro EB	3,27	2,29	3,43	3,95	3,39	4,08	²⁶	-	-	-	-	-	-	-	-	-	-
Stockholms EB	2,56	2,46	2,69	2,97	4,15	3,6	4,29	5,11	4,53	3,82	3,69	3,67	3,42	3,34	2,69	2,67	2,62
Sundsvalls EB	2,12	2,23	2,37	2,48	2,78	2,18	2,64	3,01	3,42	3,44	3,8	3,63	3,53	3,41	3,46	3,58	3,62
EB i Vänersborg	4,18	4,33	4,39	4,34	4,13	4,38	6,31	6,2€	6,5€	6,5€	6,2€	5,7€	5,4€	5,2€	5,2€	6,04	5,15
Skaraborgs EB	3,70	3,77	4,03	4,35	4,77	4,44	6,58	7,5€	7,94	7,9€	7,81	7,0€	6,8€	6,47	6,4€	6,04	5,8€
Upplands EB	3,45	3,64	3,72	3,86	4,08	3,35	4,15	4,76	5	4,93	4,79	4,46	4,31	4,37	4,25	4,25	4,16
Borås EB	1,85	1,99	2,31	2,37	2,8	²⁷	-	-	-	-	-	-	-	-	-	-	-
Södermanlands EB	2,13	2,2	2,27	2,62	3,12	4,11	4,35	4,53	4,9	5,2€	5,2€	5,1	4,84	4,79	4,7€	5,3€	4,94
Hälsinglands EB	3,06	3,2	3,36	3,42	3,8	²⁸	-	-	-	-	-	-	-	-	-	-	-
Folkkärna folkbank	4,63	²⁹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: Calculations based on SOS, Uppgifter om bankerna 1912-1928

By 1918 all PRBs, except Wermland EB, Kopparbergs EB, Sundsvalls EB and Skaraborgs EB, had tripled their total deposits compared to 1912 (see figure 3). This development was further accentuated during the following years in some specific banks, especially Upplands EB, Södermanlands EB, EB in Vänersborg, Östergötlands EB and Stockholms EB where total deposits increased greatly. The development in the commercial banking sector after 1916 meant that several banks had a larger increase in total deposits than in total funds. This was in turn troublesome for these banks since they were supposed to establish a stabile capital adequacy. That funded capital increased may very well have been a direct consequence of

²⁵ Kopparbergs EB was merged with AB Göteborgs bank in 1922.

²⁶ Örebro enskilda bank was merged with Skandinaviska kreditaktiebolaget in 1918.

²⁷ Borås enskilda bank was merged with Bankaktiebolaget södra Sverige in 1917.

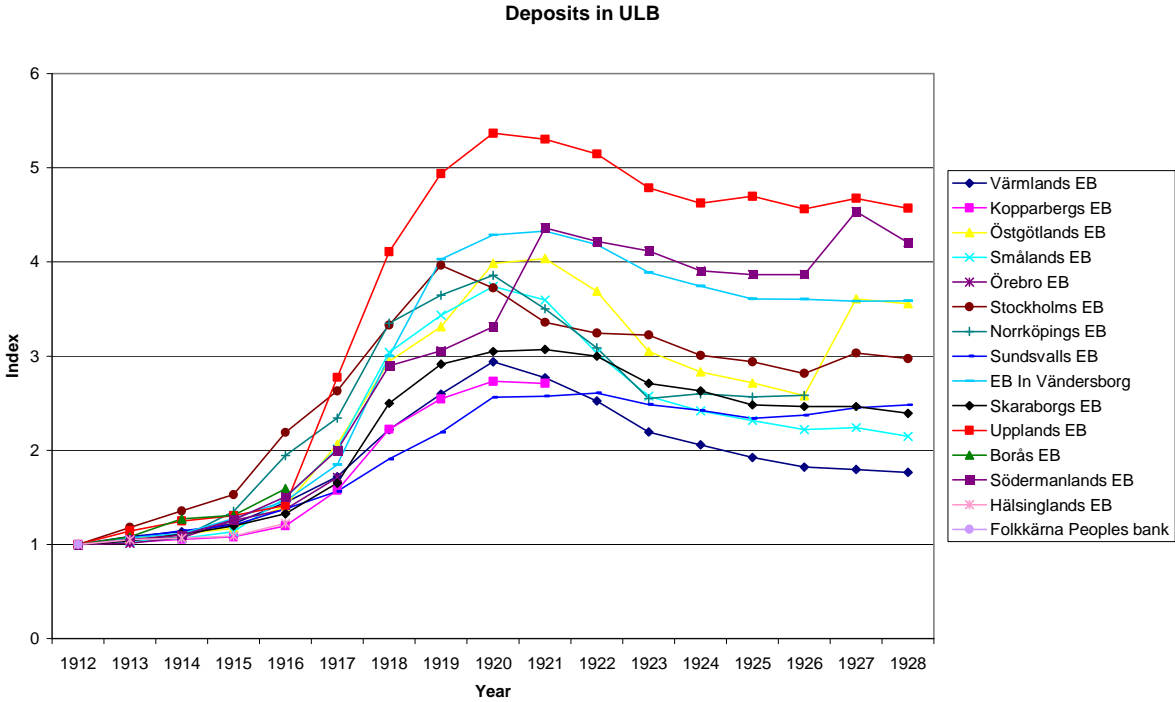
²⁸ Hälsinglands enskilda bank was merged with Mälareprovinsernas bank in 1917.

²⁹ Folkkärna folkbank merged with Upplands Enskilda Bank in 1913.

increasing deposits, since the banks had to manage the capital in accordance to bank legislation (see table 3)

In spite of a reduction in deposits during the crisis years, deposits continued to be high also around and after the 1920s. This indicates that the banking crisis had not fundamentally changed people’s trust in the commercial banks. The reduction of deposits during the crisis years can also to some extent be explained by the general economic downturn, unemployment and deflation.

Figure 3: Total deposited capital in PRBs 1912-1928 in relation to 1912, index



Source: Calculations based on SOS, Uppgifter om bankerna 1912-1928

The LLBs to a greater extent managed to meet the capital requirements stipulated in the 1911 banking law (see table 4). This is not surprising since the absolute majority of all small banks in Sweden were LLBs that did not exhibit any large demand for depositing in the 1910s. On the contrary several of these small banks were extremely stable with deposits only twice the size of the funds (see Table 4 and appendix 2). During the 17 years under investigation several of these small banks merged with larger competitors (see appendix 1 and 2).

Table 4: Selected LLBs, funded capital in relation to total deposits

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Skandinaviska kredit AB	2,44	2,46	2,63	2,96	3,38	2,95	4,11	5,10	4,92	4,78	4,23	3,64	3,41	2,98	2,95	2,98	2,81
Stockholms in-teckningsgaranti AB	0,90	0,86	0,84	0,75	0,87	1,35	1,57	1,41	1,29	1,41	1,13	1,23	1,35	1,15	0,99	0,9	0,9
AB Stockholms HB	1,30	1,35	2,37	2,71	3,53	3,32	4,51	5,41	6,66	5,47	4,88	7,59	7,09	6,81	7,57	7,3	7,02
AB Mälarebanken	-	-	-	-	-	-	-	-	-	-	6,98	6,27	5,86	5,54	-	-	-
<i>AB Mälare-provinsernas bank</i>	2,74	2,02	2,33	2,46	3,09	4,58	4,23	4,63	4,45	4,09	-	-	-	-	-	-	-
AB Göteborgs bank	2,45	2,58	2,67	2,95	3,77	3,27	4,47	4,59	4,58	4,54	5,49	4,97	4,63	4,6	4,69	4,77	4,77
AB Göteborgs folkbank	1,82	2,19	2,56	2,41	3,94	3,39	4,04	4,7	4,2	3,83	3,05	3,24	3,2	2,98	3,06	3,05	3,08
AB Gottlands bank	1,89	2,15	1,91	2,2	2,53	3,06	4,1	4,81	4,44	4,3	4,22	4,09	4,02	4,03	4,15	4,06	4,1
AB Jämtlands folkbank	4,6	4,72	4,67	4,47	4,91	4,39	3,89	4,26	3,35	3,18	4,34	3,98	3,75	3,54	3,64	3,55	3,62
AB Örebro folkbank	3,53	3,59	3,66	3,78	4,06	4,81	4,1	3,37	3,66	3,44	4,74	4,47	3,38	4,27	4,02	4,0	3,92
AB Norrköpings folkbank	3,05	3,09	3,1	3,32	3,69	2,89	3,56	4,33	4,39	4,39	4,55	4,29	4,33	4,4	4,9	5,29	4,76
AB Luleå folkbank	6,14	4,46	4,44	3,92	4,4	5,25	5,44	3,8	4,1	4,05	3,72	4,68	4,8	4,31	4,58	4,63	4,22
AB Hjo bank	2,02	2,28	2,41	1,71	2,12	2,92	2,27	2,48	2,52	2,52	2,27	2,04	1,92	1,9	1,9	1,9	1,88
AB Sundsvalls kreditbank	3,19	2,13	2,11	2,12	2,82	2,26	1,98	1,89	1,88	1,75	1,8	1,7	1,73	1,85	2,06	2,17	2,29
AB Göteborgs HB (1919 Nordiska HB)	2,55	2,87	3,13	3,95	4,97	5,73	6,83	4,11	4,22	3,78	3,29	3,82	3,64	6,99	6,52	6,55	631
AB Jordbrukar-banken	-	-	-	-	-	-	-	-	-	-	-	3,27	3,73	4,67	5,67	5,85	6,09
AB Svenska lant-Männens bank						1,45	3,74	4,53	5,12	4,29	3,92						
AB Syd-svenska Banken	-	-	-	-	-	-	-	-	-	-	-	4,3	3,95	3,99	3,72	3,66	3,48
Syd-svenska kredit AB	4,11	4,3	4,5	4,98	4,88	4,98	5,48	4,55	4,51	3,84	4,7	-	-	-	-	-	-

Source: Calculations based on SOS, Uppgifter om bankerna 1912-1928

Note: All LLBs can be found in appendix 1-2. Included in table 4 are banks that lasted for a longer period of time and banks in which we have a special interest, as for example AB Mälarebanken which experienced major problems during the crises.

Even though most LLBs met the required deposit-fund level, some LLBs had problems already in 1917 and also the following year. Both AB Luleå folkbank and AB Göteborgs HB

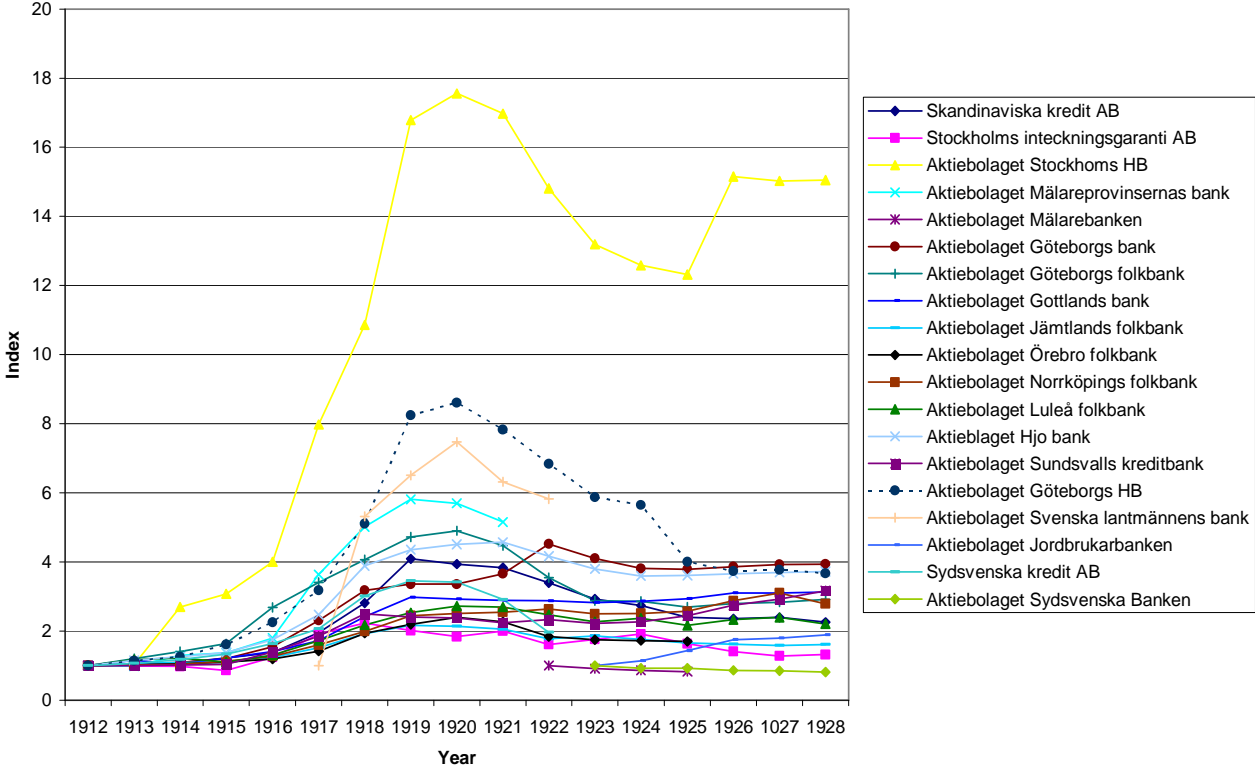
encountered difficulties leaving them with capital adequacy levels above “5”, but they managed to fall below the “5-level” already in 1919. The very same year AB Göteborgs HB was reconstructed, changing its name to Nordiska HB. Neither of these banks experienced any problems during the following years. During the five year period 1919-24 five more banks exceeded the “5-level”; Skandinaviska kredit AB (1919), Stockholms HB (every year except 1922), Göteborgs bank (1922) and Mälardalens länssparbank/AB Mälarebanken (1919-24). From 1925 both AB Jordbrukarbanken and Nordiska HB experienced problems with keeping deposits within requested limits. This is however, not an indication of a developing crisis. Both Jordbrukarbanken (1923) and Nordiska Handelsbanken (1925) had been reconstructed with the government as the dominating owner.

Even though some of the LLBs had problems with capital adequacy in the 1920s – especially AB Stockholms HB – these banks did quite well, especially in comparison to the PRBs. To some extent this might be a direct consequence of the fact that many of the banks listed in this category were smaller banks with lesser abilities to attract deposits, as for example many of the smaller “peoples banks” (folkbankerna).

From 1916 more or less all commercial banks seem to have had increasing difficulty to maintain the stipulated capital adequacy, due to inflation. The very same year more than half (57 percent) of all PRBs and nearly one third (28 percent) of the LLBs exceeded a level of deposit capital being four times the level of funded capital. The new legislation from 1917, relieving commercial banks with funds over five million SEK from the capital requirements, was primarily used by the largest banks situated in expanding regions.

It was also these banks that had the fastest development of deposits. The three largest commercial banks – Skandinaviska Kredit, Stockholms Handelsbank and Göteborgs Bank – together with the agriculture bank (Svenska Lantmännens bank) were among those banks gaining the most on expanding savings in the 1910s (see figure 4). This development was strongest for Stockholms Handelsbank, where deposits increased nearly 18 times between 1912 and 1920. However, this was to a large extent a result of the bank’s merger activities in the 1910s, when as many as 15 competing banks were taken over. This rapid expansion can explain why Stockholms Handelsbank for several years had a high deposit/fund ratio in the 1920s.

Figure 4: Total deposited capital in LLBs 1912-1928 in relation to 1912, index



Source: Calculations based on SOS, Uppgifter om bankerna 1912-1928

The size of deposits for smaller and medium sized LLBs, however, did not increase that fast. Instead there were great similarities between these banks and the majority of PRBs. Both the development of funds and deposits indicate that the smaller banks with regional markets did not play any active role in the development of the financial market in the 1910s and this probably helped reducing the risks for these banks. Only a few of these banks had capital adequacy near 5. Deposits at a size of twice or three times the funds were much common. However, the number of these small banks was radically reduced towards the end of the decade through mergers and liquidations. In 1917 there were 29 small banks (all LLBs) – with funds less than 5 million SEK – and after the crisis in 1920 there were only 16 left.

Banks in crisis – monthly changes

Annual information gives us a picture of the long term development of capital adequacy for banks, but this does not necessary show us how the capital situation developed for banks in crisis. However, with the help of monthly statistics it is possible to follow also rapid changes

in capital adequacy requirements. In this part of the paper, we have chosen to lift the five commercial banks which were reconstructed with the help of public support (see table 1) to analysis.

During spring 1922 capital adequacy for Sydsvenska Kreditaktiebolaget gradually improved from 3,89 in January to 3 in June (see table 5), thus well below the required ratio.³⁰ At the same time losses on loans increased heavily, resulting in the need to use all open funds as well as a large part of the share capital to cover the losses. The bank's business had to be reconstructed with public support. Total funds in the new Sydsvenska Banken were 34 million SEK compared to 62 million for Sydsvenska Kreditaktiebolaget. Even though deposits decreased at the same time capital adequacy ratio was considerable higher than before the reconstruction.

Table 5. Changes in Capital adequacy requirement for Sydsvenska Kreditaktiebolaget/ Sydsvenska Banken 1922

January 1922	3,89
February	3,78
March	3,17
April	3,13
May	3,11
June	3
July	5,19
August	5,11
September	4,98
October	4,89
November	4,89
December	4,7

Note: Sydsvenska Kreditaktiebolaget changed its name to Sydsvenska Banken in July 1922

Source: Calculations based on SOS, Uppgifter om bankerna 1922

The problems for Smålands Enskilda Bank became obvious during the spring of 1922. Heavy losses together with withdrawn deposits led to liquidity problems which could not be solved without the help of public support.³¹ A reconstruction of the bank's business was carried out in October 1922 resulting in the reduction of funds from 18,9 million to 12,6 million SEK. At the same time capital requirement ratio increased from 6,34 to 9,25 – thus higher than the limitation given by legislation. Since the reconstruction was financed and monitored by public interests this overdraft must have been officially accepted. The capital requirement ratio was gradually reduced during the late 1922 and 1923.

³⁰ The reduction of capital adequacy ratio was a result of falling deposits.

³¹ Hagberg (2007), pp 159-162

Table 6. Changes in Capital adequacy requirement for Smålands Enskilda bank 1922

January 1922	6,94
February	6,96
March	7,1
April	6,97
May	6,87
June	6,72
July	6,67
August	6,53
September	6,34
October	9,25
November	8,45
December	8,84

Source: Calculations based on SOS, Uppgifter om bankerna 1922

The economic problems of Wermlands Enskilda Bank became apparent during the summer of 1922. When the bank during the autumn 1922 calculated the losses the sum totalled at 47 million SEK, which equalled the value of the bank's all funds. The reorganisation of the bank was carried out in Januari 1923 resulting in the reduction of the bank's funds from 47,3 million to 22,2 million SEK. As the deposits increased at the same time the capital adequacy ratio more than doubled from 4,45 to 9,58 (see table 7). Capital adequacy ratio was not within the regulated limits until 1924.

Table 7. Changes in Capital adequacy requirement for Wermlands Enskilda Bank July 1922 – June 1923

July 1922	4,83
August	4,81
September	4,75
October	4,66
November	4,52
December	4,45
January 1923	9,58
February	9,54
March	9,41
April	9,26
May	9,09
Juni	8,8

Source: Calculations based on SOS, Uppgifter om bankerna 1922

Svenska Lantmännens Bank never had any problems in keeping the capital adequacy limits (see table 8). Compared to other commercial banks they did not depend totally on deposits but also on loans from other banks. But it was not this situation that led to the reconstruction of

the bank's business in April 1923. The need to write off due to bad credits was even higher than the bank's total funds and a reconstruction was only possible through public involvement. In the reconstruction total funds were reduced from 23,6 to 20 million SEK, which did not have much effect on the capital adequacy ratio.

Table 8. Changes in Capital adequacy requirement for Svenska Lantmännens bank/Jordbrukarbanken 1923

January 1923	4
February	3,84
March	3,41
April	3,62
May	3,47
June	3,39
July	3,38
August	3,31
September	3,23
October	3,17
November	3,2
December	3,27

Note: Svenska Lantmännens Bank changed its name to Jordbrukarbanken in April 1923

Source: Calculations based on SOS, Uppgifter om bankerna 1922

Nordiska Handelsbanken had encountered economic problems already in 1922, but had been able to solve them with the use of own funds. In 1925 problems once again occurred, but without sufficient funds the situation had to be handled with public support.³² In September 1923 a part of the bank's deposit customer was taken over by Sydsvenska Banken, which resulted in a very low capital adequacy level (see table 9). The reconstruction was made in October and at the same time the name was changed to Göteborgs Handelsbank. Funds were reduced from 54,6 million to 20 million SEK and with a limited reduction of deposits, the capital adequacy ratio increased from less than 3 to over 7.

In none of these five examples could the capital adequacy requirement have been used to foresee economic problems. On the contrary, it became more difficult to keep the capital requirement level after reconstructions – financed and monitored by official organisations – when funds had been used to cover losses. New capital was not of the same size as the capital that had been lost. It is also important to note that none of the five banks had any problems keeping the requested capital adequacy.

³² Hagberg (2007), pp 157-158.

Table 9. Changes in Capital adequacy requirement for Nordiska Handelsbanken/Göteborgs Handelsbank 1925

January 1925	3,69
Februari	3,66
March	3,58
April	3,53
May	3,51
June	3,56
July	3,53
August	3,54
September	2,92
October	7,33
November	7,25
December	6,99

Note: Nordiska Handelsbanken changed its name to Göteborgs Handelsbank in October 1925

Source: Calculations based on SOS, Uppgifter om bankerna 1922

Conclusions

As stated above the regulation of capital requirements seems to be the only restraining factor for of bank's risk taking during the 1910's. This paper has shown that the capital adequacy regulation was legitimized by banks as a respected regulation. There were very few violations of the regulation, but this might also be explained by the abandonment of the deposit/fund ratio between 1917 and 1921. When regulation changed in 1917 many banks, especially the PRBs exploited the ability to take greater deposits. The increase in deposits was, for obvious reasons, much higher in large banks than in small banks; large banks had the ability to attract larger amounts of capital than small banks since they were considered to be more stabile, had larger contribution ratio and were established in large cities.

Large banks were also considered to be more stabile by the government. This was shown in the change of regulation in 1917 when large banks were given the right to hold greater deposits in relation to funds. Small bank with funds below five million SEK were not comprised by this new regulation. Many large LLBs were close to exceeding their right to hold deposits larger then five times their capital coverage in funds in 1916. When the regulation changed in 1917 PRBs swiftly changed to hold higher deposits. Thus as small banks were considered to be less stable they consequently held larger funds in relation to deposits than large banks. The higher amount of deposits in large banks, in both LLBs and PRBs, resulted in a pressure to invest and take higher risks since holding large amounts of capital liquid was not profitable. The investment pressure forced banks into less stabile

markets sensitive to business cycles, especially credits against shares as collateral, which eventually accelerated the consequences of the economic downfall in 1922.

This conclusion agrees with Minsky's argument that inflation leads to financial crises when financial actors are forced in to speculation.³³ This also gives us the ability to predict financial instability when investment pressure created from an abundance of capital is current. Banks like Smålands EB, Kopparbergs EB, Stockholms HB, Sydsvenska kredit AB and Wermlands EB that exploited the right to hold larger deposits also experienced problems in the following crises during the 1920's.

Since the majority of the LLBs were small and only active on local or regional markets, they were not primarily involved in speculations. If these small banks are omitted there was no significant difference between LLBs and PRBs. Large and some medium sized banks were active in increasing funds and deposits irrespective if whether they were limited liability banks or personal responsibility banks.

It is true that banks in crisis sometimes revealed high deposit/fund ratios before they went into a crisis situation. But that is not true for all banks. For example Svenska Lantmännens bank did not exhibit any large increase in the deposit/fund ratio before the reconstruction in 1923. On the contrary the ratio had dropped considerably since its highest level in 1920. With funds of over 23 million SEK their deposits could have been eight times that high, but were limited to less than four times in 1922. One reason for this was that the bank to a large extent was dependent on borrowed capital – not deposits – and that their lending customer mix was unfavourable during the 1920s economic downturn. From a general level this indicates that capital requirements can not always be used as an indicator of economic problems.

This also tells us something about the capital adequacy requirements as an indicator of risk-taking behaviour. Obviously it is not well suited for all situations. Previous research has also given us mixed results and has not been able to show that capital requirements can play a role in foreseeing banking crisis or being a guide to efficient banking behaviour.³⁴ Other results, however, indicate that capital adequacy requirements could be effective especially for smaller banks and if they are monitored effectively.³⁵ In our example the capital adequacy ratio did not function as an early warning signal of economic problems, basically because it

³³ Kindleberger (1989).

³⁴ Barth et al (2004).

³⁵ Beatty & Gron (2001). Fernandez & Gonzalez (2005)

was not well suited for the risks taken by the banks but also because of its unsophisticated construction.

We must also consider the possibility that capital requirements can create problems. If the mix of customers and the structure of lending are unfavourable, it does not really matter if a bank fulfils the capital adequacy ratio or not. In fact if the banks ratio is within accepted limits, it might create a false security which can promote further risk taking. The same situation might have occurred in 1917 when the capital regulation was withdrawn for larger banks. This must have sent a signal that the situation was under control, when in fact inflation and speculation demanded a more detailed and active control.

Appendix 1: PRBs merging with LLBs (*in italiac*), funded capital in relation to deposits 1912-1928

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Värmlands EB	3,69	3,93	4,01	3,44	4	3,75	3,75	4,3	4,78	4,54	4,45	8,24	7,3	6,56	6,03	5,79	5,54
Kopparbergs EB	4,95	3,61	3,65	3,68	4,08	5,27	3,29	3,29	4	3,96	⁻³⁶	-	-	-	-	-	-
AB Tjänstemannabanken	3,32	3,33	3,31	2,99	3,39	3,16	-	-	-	-	-	-	-	-	-	-	-
Östgötalands EB	3,79	4,01	4,13	4,37	4,31	4,53	4,99	5,61	5,5	5,61	5,27	7,38	6,6	6,15	5,76	4,51	4,45
BankAB Mellersta Sverige	-	-	-	-	-	-	1,58	1,09	-	-	-	-	-	-	-	-	-
Norrköpings EB	1,71	1,79	1,82	2,3	3,2	3,76	3,52	3,8	3,94	3,58	3,4	2,88	2,94	2,9	2,92	-	-
Smålands EB	4,31	4,15	4,32	4,62	4,55	3,9	5,82	6,41	6,91	6,74	8,84	7,5	7,06	6,75	6,47	6,53	6,26
Mellersta Hallands bank-AB	1,19	1,22	1,69	1,84	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Varbergs bank	2,84	2,93	3,33	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Örebro EB	3,27	2,29	3,43	3,95	3,39	4,08	⁻³⁷	-	-	-	-	-	-	-	-	-	-
Stockholms EB	2,56	2,46	2,69	2,97	4,15	3,6	4,29	5,11	4,53	3,82	3,69	3,67	3,42	3,34	2,69	2,67	2,62
Sundsvalls EB	2,12	2,23	2,37	2,48	2,78	2,18	2,64	3,01	3,42	3,44	3,8	3,63	3,53	3,41	3,46	3,58	3,62
AB Hudiksvalls bank	2,23	2,37	3,38	2,35	2,56	-	-	-	-	-	-	-	-	-	-	-	-
AB Bollnäs folkbank	3,32	3,53	3,14	3,19	3,68	4,11	5,13	4,32	3,88	3,8	-	-	-	-	-	-	-
AB Ljusdals folkbank	3,07	3,17	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Bergsjö folkbank	4,03	3,96	3,8	3,75	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Nylands folkbank	4,87	4,73	4,59	2,56	3,08	3,27	2,15	2,51	2,8	-	-	-	-	-	-	-	-
EB i Vänersborg	4,18	4,33	4,39	4,34	4,13	4,38	6,31	6,23	6,53	6,55	6,26	5,76	5,49	5,23	5,22	6,04	5,19
AB Borås folkbank	2,29	2,76	2,27	2,62	3,09	2,98	3,04	0	-	-	-	-	-	-	-	-	-
AB Vara bank	2,95	3,44	3,88	4,57	2,97	4,34	-	-	-	-	-	-	-	-	-	-	-
AB Värmlands folkbank	-	-	-	-	-	1,52	2,96	0	-	-	-	-	-	-	-	-	-
Skaraborgs EB	3,70	3,77	4,03	4,35	4,77	4,44	6,58	7,59	7,94	7,99	7,81	7,05	6,85	6,47	6,42	6,04	5,86
Upplands EB	3,45	3,64	3,72	3,86	4,08	3,35	4,15	4,76	5	4,93	4,79	4,46	4,31	4,37	4,25	4,25	4,16
AB Sundsvalls HB	2,47	2,44	2,58	2,72	3,72	-	-	-	-	-	-	-	-	-	-	-	-
AB Avesta folkbank	4,27	4,9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

³⁶ Kopparbergs EB överlämnade sin rörelse till AB Göteborgs bank

³⁷ Örebro enskilda bank uppgick 1918 i skandinaviska kreditaktiebolaget

AB Gävleborgs folkbank	-	-	-	-	-	-	4,34	-	-	-	-	-	-	-	-	-	-
AB Gäfle folkbank	3,35	4,25	3,82	3,66	4,18	2,73	-	-	-	-	-	-	-	-	-	-	-
AB Hudiksvalls kreditbank	3,64	3,56	2,59	2,68	2,41	3,57	4,16	3,15	-	-	-	-	-	-	-	-	-
Borås EB	1,85	1,99	2,31	2,37	2,8	-. ³⁸	-	-	-	-	-	-	-	-	-	-	-
AB Herrljunga landtmannabank	2,79	3,18	3,82	4,63	-	-	-	-	-	-	-	-	-	-	-	-	-
Södermanlands EB	2,13	2,2	2,27	2,62	3,12	4,11	4,35	4,53	4,9	5,26	5,23	5,1	4,84	4,79	4,79	5,33	4,94
AB Affärsbanken	-	-	-	-	-	0,56	0,81	0,73	0,77	0,82	-	-	-	-	-	-	-
Hälsinglands EB	3,06	3,2	3,36	3,42	3,8	-. ³⁹	-	-	-	-	-	-	-	-	-	-	-
Folkkärna folkbank	4,63	-. ⁴⁰	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Source: SOS, Uppgifter om bankerna 1912-1928

³⁸ Borås enskilda bank was merged with Bankaktiebolaget södra Sverige in 1917.

³⁹ Hälsinglands enskilda bank was merged with Mälareprovinsernas bank in 1917.

⁴⁰ Folkkärna folkbank was merged with Upplands Enskilda Bank 1913.

Appendix 2. LLBs funded capital in relation to total deposits

	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928
Skandinaviska kredit AB	2,44	2,46	2,63	2,96	3,38	2,95	4,11	5,10	4,92	4,78	4,23	3,64	3,41	2,98	2,95	2,98	2,81
AB skånska HB	2,82	3,02	3,16	3,62	4,8	4,65	4,73	-	-	-	-	-	-	-	-	-	-
<i>AB Stockholms köpmannabank</i>	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Sveriges privata centralbank	0,08	0,23	0,32	1,7	1,13	-	-	-	-	-	-	-	-	-	-	-	-
<i>AB nordiska kreditbanken</i>	1,93	1,92	1,89	2,06	2,53	-	-	-	-	-	-	-	-	-	-	-	-
Stockholms inteckningsgaranti AB	0,90	0,86	0,84	0,75	0,87	1,35	1,57	1,41	1,29	1,41	1,13	1,23	1,35	1,15	0,99	0,9	0,9
AB Stockholms HB	1,30	1,35	2,37	2,71	3,53	3,32	4,51	5,41	6,66	5,47	4,88	7,59	7,09	6,81	7,57	7,3	7,02
BankAB södra Sverige	2,65	2,92	3,05	3,58	3,91	4,6	5,88	-	-	-	-	-	-	-	-	-	-
AB Jämtlands kreditbank	2,43	2,66	2,89	3,15	-	-	-	-	-	-	-	-	-	-	-	-	-
Bank-AB Norra sverige	3,16	3,24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Norrlandsbanken	2,59	2,58	2,61	2,73	3,75	-	-	-	-	-	-	-	-	-	-	-	-
<i>AB Söderhamns folkbank</i>	2,8	2,94	2,65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>AB Östersunds diskontobank</i>	3,44	2,88	3,02	3,28	3,9	-	-	-	-	-	-	-	-	-	-	-	-
<i>AB Gäfleborgs HB</i>	3,01	3,44	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Ångermanlands folkbank	1,57	1,89	2,17	2,48	2,95	4,07	3,01	3,72	4,11	-	-	-	-	-	-	-	-
AB Arbrå folkbank	1,77	1,82	1,71	1,75	1,98	-	-	-	-	-	-	-	-	-	-	-	-
AB Hamnerdals folkbank	2,66	2,71	2,74	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Mälarebanken	-	-	-	-	-	-	-	-	-	-	-	6,98	6,27	5,86	5,54		
<i>AB Mälare-provinsernas bank</i>	2,74	2,02	2,33	2,46	3,09	4,58	4,23	4,63	4,45	4,09	-	-	-	-	-	-	-
<i>AB Föreningsbanken Stockholm (AB Mälareprovinsernas bank)</i>	4,7	3,66	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>AB Bergslagsbanken (AB Mälareprovins-</i>	3,65	3,88	4,05	4,34	-	-	-	-	-	-	-	-	-	-	-	-	-

ernas bank)																		
<i>AB Medelpads landtmanna-bank</i> (AB Mälareprovins-ernas bank)	4,35	4,98	4,06	4,22	4,7	3,74	5,16	-	-	-	-	-	-	-	-	-	-	-
<i>AB Hallsbergs folkbank</i> (AB Mälareprovins-ernas bank)	5,03	2,97	3,36	3,77	4,5	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>AB Dalarnes folkbank</i> (AB Mälareprovins-ernas bank)	-	-	-	-	-	-	2,3	-	-	-	-	-	-	-	-	-	-	-
<i>(Dalarnes folkbank) AB Mora folkbank</i>	3,23	2,9	2,82	3,09	3,31	3,14	-	-	-	-	-	-	-	-	-	-	-	-
AB Göteborgs bank	2,45	2,58	2,67	2,95	3,77	3,27	4,47	4,59	4,58	4,54	5,49	4,97	4,63	4,6	4,69	4,77	4,77	
AB Stockholms diskontobank	2,36	2,01	2,23	2,35	2,6	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Marks bank	-	-	-	1,24	1,83	-	-	-	-	-	-	-	-	-	-	-	-	-
AB Örebro länsbank	-	-	-	-	-	-	0,54	1,02	1,17	-	-	-	-	-	-	-	-	-
AB Över Västerdalarnes bank	-	-	-	-	-	-	0,77	1,39	1,99	2,13	1,89	1,79	-	-	-	-	-	-
AB Göteborgs folkbank	1,82	2,19	2,56	2,41	3,94	3,39	4,04	4,7	4,2	3,83	3,05	3,24	3,2	2,98	3,06	3,05	3,08	
AB Gottlands bank	1,89	2,15	1,91	2,2	2,53	3,06	4,1	4,81	4,44	4,3	4,22	4,09	4,02	4,03	4,15	4,06	4,1	
AB Jämtlands folkbank	4,6	4,72	4,67	4,47	4,91	4,39	3,89	4,26	3,35	3,18	4,34	3,98	3,75	3,54	3,64	3,55	3,62	
AB Jämtlands-banken	-	-	-	-	-	0,38	1,1	1,66	1,7	1,66	1,38	-	-	-	-	-	-	-
AB Örebro folkbank	3,53	3,59	3,66	3,78	4,06	4,81	4,1	3,37	3,66	3,44	4,74	4,47	3,38	4,27	4,02	4	3,92	
AB Norrköpings folkbank	3,05	3,09	3,1	3,32	3,69	2,89	3,56	4,33	4,39	4,39	4,55	4,29	4,33	4,4	4,9	5,29	4,76	
AB Luleå folkbank	6,14	4,46	4,44	3,92	4,4	5,25	5,44	3,8	4,1	4,05	3,72	4,68	4,8	4,31	4,58	4,63	4,22	
AB Hjo bank	2,02	2,28	2,41	1,71	2,12	2,92	2,27	2,48	2,52	2,52	2,27	2,04	1,92	1,9	1,9	1,9	1,88	
AB Sundsvalls kreditbank	3,19	2,13	2,11	2,12	2,82	2,26	1,98	1,89	1,88	1,75	1,8	1,7	1,73	1,85	2,06	2,17	2,29	
AB Göteborgs HB (1919 Nordiska HB)	2,55	2,87	3,13	3,95	4,97	5,73	6,83	4,11	4,22	3,78	3,29	3,82	3,64	6,99	6,52	6,55	631	
AB industribanken	-	-	-	-	-	2,33	2,97	-	-	-	-	-	-	-	-	-	-	-
<i>AB Roslagens folkbank</i>	3,75	3,83	4,3	4,87	5,87	5,45	-	-	-	-	-	-	-	-	-	-	-	-
<i>Bank-AB Kullen</i>	1,28	1,13	1,1	1,26	1,79	1,86	-	-	-	-	-	-	-	-	-	-	-	-
<i>AB Malmö</i>	1,64	1,87	2,15	3,22	4,19	0,07	-	-	-	-	-	-	-	-	-	-	-	-

<i>folkbank</i>																		
AB Hallands lantmannabank	-	-	-	-	-	1,89	3,58	4,2	4,32	3,99	3,35	2,9	-	-	-	-	-	
Bank-AB Stockholms privatassistans (1914 Stockholms privatbank AB), (1918 AB privatbanken)	4,14	4,31	3,66	3,32	3,59	2,49	8,37	B										
AB Köpmanna-banken	-	-	-	-	-	-	2,19	2,84	1,78	D								
AB Arbetareringens bank	2,29	2,50	3,23	3,46	4,23	3,98	-	-	-	-	-	-	-	-	-	-	-	
AB Jordbrukar-banken	-	-	-	-	-	-	-	-	-	-	-	3,27	3,73	4,67	5,67	5,85	6,09	
AB Svenska lantmännens bank	-	-	-	-	-	1,45	3,74	4,53	5,12	4,29	3,92	-	-	-	-	-	-	
<i>AB Halmstads folkbank</i>	2,53	2,56	1,73	1,91	2,1	2,4	-	-	-	-	-	-	-	-	-	-	-	
<i>AB Blekinge bank</i>	2,92	3,18	3,07	3,04	3,35	4,02	-	-	-	-	-	-	-	-	-	-	-	
AB Sydsvenska Banken	-	-	-	-	-	-	-	-	-	-	-	4,3	3,95	3,99	3,72	3,66	3,48	
Syd-svenska kredit AB	4,11	4,3	4,5	4,98	4,88	4,98	5,48	4,55	4,51	3,84	4,7	-	-	-	-	-	-	
<i>AB Filipstads bank</i>	3,09	4,12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
AB Nya banken	0,79	2,66	3,97	2,52	4,5	3,77	3,12	3,64	L									
AB Eksjö folkbank	4,07	3,7	L															
AB Kristdala folkbank	3,85	4,06	4,15	4,04	0	L												
AB Stockholms folkbank	3,24	3,71	L															
AB Borås bank	-	-	-	-	-	-	0,63	1,22	1,63	1,41	1,5	1,5	1,45	1,84	2,2	2,02	2,36	
AB Kreditbanken	-	-	-	-	-	-	-	0,71	0,91	0,78	0,93	1,3	1,23	1,35	1,62	1,59	1,7	
AB Bohusbanken	-	-	-	-	-	-	-	0,85	1,34	1,26	1,33	1,33	1,22	1,89	2,04	2,64	3,04	
Bank-AB Norden	-	-	-	-	-	-	-	-	3,59	2,05	1,18	1,01	1,18	1,37	1,5	L		
AB Skånska banken	-	-	-	-	-	-	-	-	-	1,66	1,68	1,62	1,72	1,74	1,71	1,78	1,7	
Aktiebolaget Diskonto-banken	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1,81	

Note: **B**= Bankrupt, **L**= Liquidated and closed, **D**= Divided

Banks in *italic* indicate that the bank has merged with the bank above without *italic* letters.

Source: SOS, Uppgifter om bankerna 1912-1928

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