



## ***Past, Present and Policy***

4th International Conference

### **The Sub-prime Crisis and how it Changed the Past**

Graduate Institute, Geneva 3-4 February 2011

Sponsored by the Norges Bank Bicentenary Project 1816-2016

## **The Causes and Consequences of Banking Regulation: The Case of Sweden**

Anders Ögren (Stockholm School of Economics and Université Paris Nanterre)

*The views expressed in this paper are those of the author(s) and not those of the funding organisation(s), which take no institutional policy positions.*

**Paper prepared for the CEPR PPP 4 Conference**

# The Causes and Consequences of Banking Regulation: The Case of Sweden

Anders Ögren

EHFF – Institute for Economic and Business History, Stockholm School of Economics  
EconomiX, Université de Paris Ouest Nanterre La Défense  
UCBH – Uppsala Center for Business History, Uppsala University

## ABSTRACT

Why are banks regulated and what are the outcomes of these regulations? This is the main topic of the paper that makes a survey over bank regulations in Sweden from the origin of the commercial banking system in the 1830s until the crisis in the 1930s. Regulations mainly seemed to follow the demands of the most powerful special interests and/or as ad hoc solutions to upcoming problems. The period consisted of four different regulatory regimes where the period 1864 to 1897 was the least discretionary and also seemed to be the most stable period. The paper also highlights how seemingly small regulatory changes may have unanticipated disruptive effects. In this case the ending of commercial bank note issuance made the central bank over issue notes in its strife to supply liquidity. But as the central bank notes were base money this led to an overall expansion of the banking sector. When representatives of the main commercial banks were involved in the regulatory processes they could use their pressure to alter regulations which usually fed the booms further. On the other hand the critics of commercial banks instead managed to limit the business possibilities of the commercial banks during the crisis in a way which instead amplified the effects of the crises further. The overall lessons are that regulatory changes may well have effects not counted for and that discretion is both more costly and more difficult to avoid than what it seems.

JEL: E42; E50; F33; N13; N23

## **Introduction**

There are few areas where the interconnection between economics and politics are more obvious than within the field of banking and financial regulation. We know from the literature on finance and growth that regulations and enforcement are of utmost importance for a well functioning financial system.<sup>1</sup> And this certainly was the case also for Sweden in the nineteenth century.<sup>2</sup> Thus there will always be a need for financial and banking regulations. But, as highlighted by Rajan and Zingales, part of these regulations are in fact necessary to counteract monopolizing and lock-in effects that may lead to less efficient financial and banking systems.<sup>3</sup> The recent CEPR report on lender of last resort and bank bail-outs also argues that all policy interventions has to be made with the explicit aim not to distort competition.<sup>4</sup>

In a historical survey over the regulatory regimes in the US Eugen N. White develops a scheme which is derived from Mishkin over nine different forms of policy interventions that regulations work through. This scheme provides a useful basis for an analysis of regulations, both in relation to the claimed rationality of the regulations and as a way of trying to measure the consequence of different regulations. The nine different forms of policy interventions are: 1) Establishment controls, 2) Capital requirements, 3) Limits on economies of scale, 4) Limits on economies of scope and on diversification, 5) Price limitations, 6) Liability insurances, 7) Disclosure rules and accounting standards, 8) Bank examinations and auditing, 9) Bank supervision.

As pointed out by White the first six forms are regulating the operation of the market whereas the last three are supposed to reinforce the first six by improving information. For each of these points White also lists what is usually the claimed rationality behind each form of policy intervention.<sup>5</sup>

It is important to notice that several policy interventions actually are directly meant to decrease the possibilities of diversification, which theoretically is one of the most important ways to counteract systemic risk. And as systemic risk also is what leads to contagion we should be somewhat skeptical of the benefits of extended use of regulations whose aims are to oppose the possibilities for diversification and ask what

---

<sup>1</sup> Rousseau, P.L. & Sylla, R. (2003), (2005), Rousseau, P. L. & Wachtel, P. (1998), Wachtel, P. (2001)

<sup>2</sup> Ögren, A. (2009)

<sup>3</sup> Rajan, R.G. and Zingales, L. (2004)

<sup>4</sup> Beck, T. et al (2010) p.12

<sup>5</sup> White, E.N. (2009) p.17

the real reasons behind the adoption of such policies are. Thus one problem when studying regulations concerns the reason for their implementation. The causes for implementation are often obfuscated by rhetoric, as self interest in regulation never can be disregarded as a plausible cause but for political reasons such self interests are not accepted as arguments for the implementation of regulations.

Financial and banking regulations usually becomes high on the agendas for policy makers, public opinion and researchers in times of financial distress. And financial crises in history were usually also the breeding ground for various politically appointed committees on the financial and banking system aiming to propose regulations meant to solve the presence of financial distress through regulatory schemes.<sup>6</sup> Today, even on the global scale, the Basel I and II agreements can be seen as direct effects of prior financial crises.<sup>7</sup> On the other hand there are also empirical studies that indicate that the effects of the Basel II regulatory framework was one of the main reasons for the current financial distress.

This is particularly interesting since it highlights the fact that a sound regulatory idea may well be distorted by other factors that may instead increase instability. In this case the regulatory idea was to give different weight to different assets in relation to their estimated riskiness, which was distorted by the organization of the rating agencies and policies governing mortgages in the US. These factors in conjunction came to encourage financial agents to hold subprime shares to an unproportionally large part of their portfolios.<sup>8</sup> This example also shows how more detailed regulations aiming to increase stability in the banking sector may have the opposite effect. One lesson to draw from this is that there is more that affects the business and the structure of the banking system than what might be clearly visible.

Thus policy makers do face the difficulties of estimating possible effects of their regulatory changes. The effects of the implemented regulation are difficult to measure as 1) there are usually several regulations at work simultaneously, 2) several other factors affecting the financial sector might interfere with the regulation, and 3) the time lag that passes between the implementation and the effect is difficult to estimate.

---

<sup>6</sup> This was the case also in Sweden where the crises all induced temporary committees that were assessing the financial and banking system with an explicit aim of solving its instability.

<sup>7</sup> Beck, T. et al (2010)

<sup>8</sup> Coval, J., Jurek, J., and Stafford, E. (2009)

I study the period from the inception of the commercial banking system in the 1830s until the financial crisis in the 1930s. The questions I ask are: 1) To what extent regulations have been implemented due to the need to stabilize the financial system in a manner that does not counteract competition on the market. Or if hidden reasons and particular interests may have guided the adoption of specific financial and banking regulation in Sweden. 2) What different regulatory regimes are possible to identify during the period<sup>9</sup>, and 3) What were the effects of these different regulatory regimes on the organization of the commercial banking system.

One issue that came to dominate the view on commercial banking way beyond its practical importance during the nineteenth century was the fact that the so called Enskilda banks held the right to issue notes until 1903. This focus on commercial bank note issuance actually created policy mismatches as some parts of the commercial bank activities were overregulated whereas other were not sufficiently regulated. In relation to this I argue that, in line with the unforeseen effects of the Basel II agreements, the ending of private commercial bank note issuance at the end of the nineteenth century paved way for the enormous expansion of the commercial banking system in the early twentieth century; an expansion that in conjunction with the economic developments during WWI led to the deep and prolonged crisis in the 1920s.

### **Political Debates on Banking and Regulatory Regimes**

There exists an idea that the commercial banking system in Sweden was more or less free from regulations, or self-regulated, before the adoption of the extensive regulatory package on banking in 1911.<sup>10</sup> But the Swedish banking system was governed both by laws and by individual charters from its beginning in 1830.

Through analyzing the charters, decrees, laws and regulations on banking since the inception of the commercial banking system in the 1820s plus the parliamentary debate surrounding them, I have identified four regulatory regimes: 1) the formative years 1824 – 1863, 2) the developed banking system, 1864 – 1900, 3) the transitional period, 1897 – 1910 and 4) the period of banking consolidation, 1911 – 1933.

---

<sup>9</sup> I use regulatory system/regime interchangeably. The overall idea is that combining the elements of regulations and supervision points in a general direction concerning the financial system. See White, E.N. (2009)

<sup>10</sup> Larsson, M. (2010)

### **Regulatory regime I: The formative years, 1824 – 1863**

Much noted has the fact been that the commercial banking system from its origin came to consist of note issuing banks under the principle of unlimited liability, the so called Enskilda banks. Although the right to issue notes later spawned heated debates in Parliament the fact is that the right to issue notes from the inception of the system was seen as a necessary requirement for funding banks. And thus debates on this issue were limited.<sup>11</sup> Like all other businesses, these banks would operate with unlimited owner liability.

The question of what type of banking system would best serve the public interest, however, was the subject of extensive discussion. In short there was a division between the Nobility which advocated high barriers of entry but no restrictions on the note issuance nor any prescribed conditions for note redemption. The stated motivation for the high barriers of entry was to assure the stability of the banks. Therefore, the Nobility proposed not only a high equity capital minimum but also a high minimum level for individual share holdings.<sup>12</sup>

By contrast, the Peasantry argued that highly detailed legislation would limit the flexibility of the banks and make it difficult for them to satisfy the varying needs of different regions. An excessively high equity requirement, it was argued, would prevent a sufficient number of banks from being established. While agreeing that the right to issue bank notes was a prerequisite for successful bank operations, the Peasantry supported a minimum on their denominations. They thus argued that the proclamation of 1824 should be widened to deal with the basis of note issuance, to establish minimum denominations and to permit the granting of twenty year charters instead of ten.<sup>13</sup>

---

<sup>11</sup> PrAd 1823, Bilagor Vol. 2 pp. 198-204, Vol. 1 pp. 977-988. The note issuing right's conflict with the Riksbank's constitutionally protected exclusive right to issue notes was mentioned. Article 72 stated that only the Riksbank had the right to "issue notes that may be admitted as coins within the Kingdom". RdSkr 1823 No 346, StU 1823 Vol. 3 No 315

<sup>12</sup> PrAd 1834/35 Vol. 1 p. 256-258, vol. 2 pp. 79-82, Vol. 11 pp. 53-55, Vol. 12 p. 54, pp. 175-179, Vol. 16 pp. 268-314, Vol. 20 pp. 289-405, 445-502, Vol. 21 p. 8, Vol. 22 pp. 65-67, 174. (As one Nobleman put it, without a sufficiently high equity requirement a hundred paupers could start a bank, thus rendering the principle of unlimited owner liability useless ("*om 100 trashankar förena sig om att inrätta en bank,*") PrAd 1834/35 Vol. 16 p. 269)

<sup>13</sup> PrBd 1834/35 Vol. 8 pp. 440-456, 477-480, Vol. 10 pp.158-181, Vol. 11 p. 141. The argument concerning the equity capital was that if a bank is useful for a region with one million in equity capital, it is so also with half of that amount (PrBd 1834/35 Vol. 8 p. 451).

Most critical of private banks and their right to issue notes were the Burghers.<sup>14</sup> In the Clergy the right of banks to issue notes was viewed in relation to the ability for the Riksbank to maintain convertibility.<sup>15</sup>

Since the Nobility in practice dominated the Parliament their proposal became implemented as a Royal Proclamation in 1824. Price controls existed in the form of the usury law that stipulated a maximum interest rate of six percent. Because the banks were to be given a partial exemption from the usury law's limit by being allowed to deduct one year's interest in advance, however, it was argued that the Crown should issue charters for no longer than ten years and should approve the proposed company regulations.

As the possibility to establish banks was severely limited and there was no rules that limited the funding of the banks or that protected the rights of the holders of the bank liabilities, the granting of bank charters in practice was a handing out of monopoly privileges. It was an outspoken idea to limit competition as it was seen as destabilizing the banking system. In terms of asset management the Enskilda banks were limited to trade in gold and silver. In 1855 the banks' also received the rights to trade with both domestic and foreign bills of exchange and "interest bearing assets" which basically meant bonds.<sup>16</sup>

The rural population carried most of the note issuing costs of the private banks. In the Parliament in the 1840s members of the Peasant Estate argued that it had occurred that individuals holding only private bank notes were fined by the tax authorities for not being able to pay their tax in the required, but unavailable, Riksbank notes. The Peasantry still did not question the right of private banks to issue notes but wanted the notes to be accepted for tax payments and that the private banks should provide the note holders with access to exchange agents.<sup>17</sup>

---

<sup>14</sup> PrBg 1834/35 Vol. 7 pp. 221-304, Vol. 9 pp. 376-437, 462-465, 569-571, 636-706, Vol. 10 pp. 63-69, 252-260.

<sup>15</sup> PrP 1834/35 Vol. 13 pp. 567-596, Vol. 14 pp. 31-79, Vol. 17 pp. 293-481, Vol. 19 pp. 124-126. As the Nobility, the Clergy discussed the possibility of forcing private banks to hold silver reserves but concluded that this would be even more fatal for the Riksbank's ability to maintain the specie standard (see PrAd 1834/35 Vol. 16 p. 276 and PrP 1834/35 Vol. 14 pp. 75-79).

<sup>16</sup> KFO 1855

<sup>17</sup> PrBd 1840/41 Vol. 1 pp. 244-246, 516-518, Vol. 7 pp. 225-246, Vol. 10 pp. 401-430, Vol. 12 pp. 110-112. When voting on the legislation, a majority of the Estate supported the right for private banks to issue notes by 82 for and 14 opposed (PrBd 1840/41 Vol. 421). The Peasantry again stressed the necessity of note issuance for private banking in such a poor country as Sweden. Regarding the possibility to pay taxes with private bank notes, the Standing Committee on Supply argued that private bank notes were to

The Nobility did not, however, support the acceptance of private bank notes for tax payments.<sup>18</sup> Given their enthusiasm for such note issuance, and since accepting them for tax purposes would increase the value of and demand for these notes, this stand seems to inconsistent. As recipients of certain tax payments, however, the Nobility was rational enough to insist on payment in the generally accepted and convertible Riksbank notes.

Even though debates were really harsh, even including an of impeachment (*Riksrättsåtal*) against the Government because of its “unconstitutional granting of monopoly privileges” through the banking charters, regulations did not change.<sup>19</sup> Instead the Banking law of 1846 was launched by the Crown which extended the Crown’s exclusive right to act with regard to private banks. It also maintained the regulatory strategy to combine discretion and heavy barriers on entry – the banking business should officially be of use for the Country –with more open rights for how to run banking business once a charter was received. The view was still that running a bank was a privilege and that receiving a charter was a regional monopoly that could be utilized during a time limited period.

The Law of 1846 was more or less a sum up of the pre-existing bank charters and thus continued the strict barriers on entry and the limitations in portfolio choices on the asset side. It also contained the rules for supervision as the position of the bank had to be sent to the regional governor on a quarterly basis plus that the authorities should be given prompt responses to any questions and that surprise visits may be made. The reports were published in the official journal of the State (*Post och Inrikes tidningar*) and thus contributed to some transparency of the banks position. Before this law most banks had only disclosed their positions vies-à-vie their note issuance.

The main focus of the law was the backing of the Enskilda banks’ note issuance. The principal basis was their equity capital. Entered on the asset side of the bank’s balance

---

be considered as IOUs issued by any company, and thus could not be viewed as legal tender (StU 1840/41 Part 2 No 143).

<sup>18</sup> PrAd 1840/41 Vol. 1 pp. 314-315, vol. 3 pp. 193-206, Vol. 4 pp. 333-345, Vol. 12 pp. 225-263, Vol. 20 pp. 396-437, 458. The Nobility also stressed the need for a private bank establishment in Stockholm.

<sup>19</sup> As a result of this, for a few years, the Crown and the Parliament were in agreement about the creation of a largely State controlled banking system. At an 1842 cabinet meeting, the King presented a memorandum concerning private banking. His vision was to replace the note issuing private banks with banks only partly privately owned and dependent on the Riksbank. These Riksbank branches would have a maximum of 50% private ownership and would operate with credits from the Riksbank. The obvious time for introducing this new system would be when the existing charters expired in 1847. KKS pp. 10-15.



sheet, this equity capital was divided into two parts. Seventy five percent consisted of bonds and shares. These were either deposited in a municipal office or were kept in the bank's safe. The rest was legal tender in cash or silver. The bank's note issue had to be fully backed by the sum of: 1) the securities held as part of the bank's equity capital, 2) the legal tender held by the bank, either at its exchange office or with the Riksbank, 3) the silver held by the bank and 4) collateral for the bank's loan up to an amount not to exceed fifty percent of the bank's equity capital.<sup>20</sup> The last point made it possible to supply credit, and thus notes to borrowers after demand.

The goal of eliminating the private note issuing banks was maintained by large groups within the Parliament.<sup>21</sup> There were two possibilities for replacing private bank credit and notes in circulation. The first was to simply let the Riksbank increase its note issue, while the other was to establish private banks relying on Riksbank credit.<sup>22</sup> A new kind of commercial bank, the Filial bank, was formed that were guaranteed subsidized loans from the Riksbank.<sup>23</sup> These came to act as a complements to, and not a replacement for, the note issuing banks.<sup>24</sup>

The view on the dangers of competition was clear as charters for Filial banks were not to be issued for cities where a commercial bank were already in operation. The Crown had the ultimate power over the issuance of Filial bank charters and this was exploited to further limit the competitiveness of the Filial banks by reducing the grants decided on by Parliament, and to prevent the Filial banks from engaging in deposit financing.<sup>25</sup>

---

<sup>20</sup> SFS 1846:1 §§8, 11, 13, 15 Skogman, C.D. (1846:2) pp. 38-42, 50-54. In its early days, a bank could count the owners' personal promissary notes as part of its equity capital (Post & Inrikes Tidning 2/2, 9/5-1843). The two earliest banks counted their own notes as equity during 1834-39, and until 1846 all the banks counted the notes of other Enskilda banks (Post & Inrikes Tidning 1835-1847, especially 21/3, 29/4-1835, 9/3, 26/4-1836).

<sup>21</sup> BaU 1850/51 Part 2 No1. The Peasantry again proposed private bank notes both to be valid for tax payments, and that the Riksbank should take over their business (PrBd 1850/51 Vol. 2 p. 63).

<sup>22</sup> BaU 1850/51 Part 1 No 43, No 65. PrBd 1850/51 Vol. 5 pp. 225-250, Vol. 6 p. 60, PrBg 1850/51 Bilagor Vol. 5 pp. 192-201, 211-212, Vol. 1 pp. 364-367, Vol. 3 pp. 938-985, Vol. 4 pp. 600-610, PrP 1850/51 Vol. 2 pp. 332-334, Vol. 8 pp. 110-154, Vol. 10 pp. 3-19.

<sup>23</sup> PrAd 1850/51 Vol. 8 pp. 153-167, Vol. 9 pp. 82-83, PrP 1850/51 Vol. 8 p. 125, PrAd 1856/58 Vol. 4, p. 147

<sup>24</sup> Montgomery, A. (1934) p. 33, Nilsson, G.B. (1981) p. 56, RdSkr 1850/51 Part 2 §§ 25-29 The system of Filial banks was close to the original suggestion made by the King in 1842, and the suggestion made in Parliament as a response on how to solve the question of a banking system if private note issuing banks were to end in 1844/45. Most of the members of the Peasantry had also approved this suggestion (KKS, PrBd 1844/45 Vol. 3 pp. 434-449).

<sup>25</sup> The motivation was that it anyway was impossible for the Filial banks to compete for deposits due to the already high interest rates (Nilsson, G.B. (1981) pp. 72-73).

Initial funding in Riksbank credit was allocated for the establishment of three Filial banks. Within a few months, however, eight applications had been received, all competing for same pot of funds. Over a period of eight years, a total of nineteen Filial banks were established despite very limited funds (twelve note issuing banks issued notes to between three and four times the Riksbank credit that was allocated to these Filial banks).<sup>26</sup> Against the intent of the Parliament, and perhaps as a result of their limited funding, the Filial banks functioned as important distributors of Enskilda bank notes. The unanticipated large number of Filial bank applications is the best evidence that there was no lack of interest in operating a bank.

In 1857 an international financial crisis hit Sweden. During the crisis the Riksbank supported the credit market by acting as a lender of last resort which brought it to the brink of abandoning convertibility. Facing a run for note redemption, the largest bank of the time, Skåne Enskilda Bank, had to be saved from bankruptcy by State intervention.<sup>27</sup>

In the Parliament, opposition to the rescue operation was centered among the Peasantry, now citing the legal rule that no private bank could expect help from the State. But, the Nobility managed to focus retrospective criticism on the Riksbank's policy. In response to these events, in 1858 the King appointed a committee to sort out the situation on the Swedish credit market. The proposal of the committee shows that the crisis was a window of opportunity for the Crown to promote their agenda to gain access over the Riksbank.<sup>28</sup> But it was also a window of opportunity for those groups in Parliament that were against the discretionary granting of banking charters that made the Enskilda banks protected regional monopolies. And as these groups were to increase representation drastically with the coming of the two chamber Parliament in 1865, a compromise in the banking question was made in 1863.

The competition from the Filial banks and the financial crisis of 1857 caused the supporters of the Enskilda banks to revisit the legislation on banking. The Nobility in line with what the Peasantry had suggested from the beginning now proposed that there

---

<sup>26</sup> Brisman, S. (1934) pp. 113-119, Montgomery, A. (1934) p. 34, Sveriges Riksbank (1931) pp. 21-23, 175-177

<sup>27</sup> See Ögren, A. (2007)

<sup>28</sup> Finanskommittén 1858 The committee reiterated the proposal of the 1823 Royal Financial Committee that a new bank, jointly controlled by the Crown and the Parliament, be established, while the existing Riksbank would be limited to circulating silver backed notes. The proposal being the same, so was the Parliamentary response. Only the Nobility was willing to accept this expansion of the Crown's power.

be freedom to establish banks and that private note issuing banks be required to redeem their notes for legal tender on demand.<sup>29</sup>

### **Regulatory regime II: 1864 – 1897**

In the Parliament of 1862/63 it was decided that no further Riksbank credit was to be extended to the Filial banks. A new law concerning Enskilda banks was passed and, in 1864, was sanctioned by the Crown.

Two features closely associated with the Enskilda banks during the gold standard period were contained in the 1864 legislation. First, their notes were to be exchangeable for Riksbank notes or specie at their main office and, second, while they were given the option of delaying such an exchange for six months, such action would result in an interest penalty of six percent per annum. These rules were incorporated as a way of forcing the banks to redeem their notes on demand, prior to this there existed no official rule that protected the note holders. It thus, was not aimed at increasing the stability of the Enskilda bank system by decreasing the probability of bank runs or hostile note raids.<sup>30</sup>

Concerning note issuance the inclusion in the new legislation of higher minimum note denominations, plus the explicit requirement that banks should redeem their notes on demand protected the note holders and may have been important for the trust in the liabilities of the banks. The opponents of private bank notes also succeeded in imposing a 0.2 % tax on the issuance of Enskilda bank notes.<sup>31</sup>

Most important was the changes concerning the barriers to entry since it ended the discretionary practices with the granting of bank charters. Given certain requirements it became virtual freedom to establish new Enskilda banks. And the prior so costly process of renewing the charters of existing banks now became but a formality as long as the

---

<sup>29</sup> PrAd 1856/58 Vol. 2 p. 326, Vol. 4 pp. 143-157, PrBd 1856/58 Vol. 1 pp. 233-239, 253, 345-346, 386, PrBg 1856/58 Bilaga pp. 252-259, 277). A member of the Nobility accused the Crown for creating the opposition towards the banking system by systematically refusing to follow the intentions of the Parliament (PrAd 1856/58 Vol. 4 pp. 144-146).

<sup>30</sup> SFS 1864:31 §§27-28, Thus, these features were not implemented to protect the gold holdings of the Enskild banks in 1874, as has been suggested (Flux, A.W. (1910) pp. 61-63, Jonung, L. (1984) pp. 371-372).

<sup>31</sup> Davidsson, D. (1931) pp. 147-150, Montgomery, A. (1934) pp. 36-37, RdSkr 1858/60 Part 1 Vol. 2 No 260, 1862/63 Part 1 Vol. 2 No 183, No 184, Part 2 §§ 34, 41, SFS 1861:34 §15, 1864:31. The 1864 legislation concerning the note issuing banks was agreed upon by all four Estates in the Parliament 1858/60 (RdSkr 1858/60 Part 1 Vol. 2 No 260). One reason why the Peasantry criticized note issuance in the 1844/45 Parliament was that it made private banks reluctant to accept deposits (PrBd 1844/45 Vol. 3 p. 439).

basic requirements were fulfilled. The regulatory regime had now changed to make bank establishment easier but included more regulations on the liabilities of the banks.

The credit market was further deregulated through the repeal of the usury law and the introduction of Limited liability banks that did not hold the right to issue notes. From 1864 and onwards there existed two kinds of commercial banks governed by different laws. The Limited liability banks operated in Gothenburg and Stockholm where the main capital markets were situated. They quickly became important commercial banks.

The representation reform of 1865 created a two chamber parliament in which both Chambers had to approve legislation before it was presented to the Crown for its sanction. The new election process for the Second, or lower, Chamber had the effect of increasing the influence of the interests previously represented in the Peasant Estate.<sup>32</sup> The increased representation of the Peasantry, however, did not result in the elimination of the Enskilda banks' note issuing rights.

A majority in the Second Chamber continued to advocate the revocation of the Enskilda banks' right to issue notes. The First Chamber, however, overwhelmingly supported the note issuing privileges of the Enskilda banks. If the votes in the two Chambers are combined, a majority would be found to have supported the banks.<sup>33</sup>

The rise in the number of commercial banks also made the Ministry of Finance, that were responsible for the banking inspection, hire an assistant to take care only of the banking concerns in 1868. In 1876 supervision was further expanded as the Banking bureau (*Bankbyrån*) was created which was embodied by one inspector and one assistant.<sup>34</sup>

In connection with the switch from the silver to the gold standard in 1873, new legislation concerning the Enskilda banks was enacted. This was largely a matter of adapting the Law of 1864 to the gold standard by officially making the banks forced to hold gold instead of Riksbank notes – a change which had no effect in practice. It also

---

<sup>32</sup> See Nilsson, G.B. (1969)

<sup>33</sup> BaU 1869 Part 2 No 2, MotAK 1868 No 323, 1869 No 85, No 151, No 161, PrAK 1869 Vol. III pp. 503-506, PrFK 1869 Vol. III pp. 307-318. Voting in the second chamber was 65 for vs. 82 opposed, and in the first 47 for vs. 14 opposed (PrAK 1869 Vol. III p. 506, PrFK 1869 Vol. III p. 318). Similar outcomes resulted with regard to voting on an extension of the tax on note issuance and on preventing the Enskilda banks from limiting the redemption of their notes to their main offices.

<sup>34</sup> Wendschlag, M. (2010) A further assistant was hired in 1890.

granted the Enskilda banks, subject to the Crown's veto, the right to issue small denomination (five and ten kronor) notes. In 1879, the five kronor notes were banned.<sup>35</sup>

Paradoxically, opinion had shifted away from the Enskilda banks as a result of the crisis of 1878/79. The important Stockholm Enskilda Bank had to be saved by State funds, but the difficulties of the bank resulted in a run for deposits and not for note redemption. What this crisis actually demonstrated was that the note issuing banks were no more vulnerable to runs than were banks relying exclusively on deposits. Unlike the crisis of 1857/58, however, when the Riksbank was the focus of criticism, this time the Enskilda banks were the principal target. The Standing Committee on Banking reported that existing banking law was deficient, and the Parliament requested that the Crown provide a new legislative proposal. The upshot was that the new special committee on banking of 1883 which again recommended that the Crown was to receive some degree of influence over the Riksbank in return for which the Bank should be granted a monopoly on the issuance of notes.<sup>36</sup>

No such agreement, however, was reached. In 1886, the Crown proposed alternative legislation concerning both commercial banking and the Riksbank in case private note issuance was to cease. The Standing Committee on Banking concluded that it was impossible to withdraw all the private bank notes. Both chambers agreed on an overall limit on Enskilda bank notes in circulation which approximately was the same amount as the Enskilda banks had in circulation (50 MSEK).

In relation to this debate on new banking legislation it was also decided, with reference to the riskiness in shares, that banks should not be able to trade with these. As the amendment of 1855 was written the right for banks to trade in shares was subject to debate.<sup>37</sup>

The Parliament successively increased the tax on private bank note issuance from the original 0.2% to 0.3% in 1887, 0.5% in 1892 and finally to 1.0% in 1893.<sup>38</sup> As the banks became more solidly established, they decreased their reliance on note issuance.

---

<sup>35</sup> Ögren, A. (2006), RdSkr 1879 No 52, SFS 1874:44

<sup>36</sup> Bankkomitén (1883) p. III, BaU 1881 Part 2 No 1, MotAK 1879, No 110, 1881 No 87, No 120, RdSkr 1881 No 50. Due to fraud one bank, Wadstena Enskilda bank, failed and its liabilities were assumed by another note issuing bank. Regarding the crisis and the banking support, see Ögren, A. (2007). An observation is that in every Swedish financial crisis, from the one after the Napoleonic Wars in early nineteenth century until the crisis in the 1990s, the actors on the credit market have been blamed.

<sup>37</sup> BaU 1886 Part 2 No 1, No 2, No 4, Kprop 1886 Part 1 Vol. 2 No 27, No 28. The second chamber wanted a total limit of 40 MSEK, the first of 60 MSEK. Larsson, M. (2010) p.175

<sup>38</sup> RdSkr 1887 No 49, 1892 No 98, 1893 No 45, SFS 1861:34 §15

Starting in the mid 1880s, notes amounted to between twelve and fifteen percent of their total liabilities.<sup>39</sup>

In 1896, the Crown proposed an end to private bank note issuance together with joint control of the Riksbank. The Parliament agreed to amend Article 72 to permit a Crown appointee to serve as chairman of the seven member Riksbank board. Whether this decision was taken in the interest of greater efficiency is unclear but empirics supports that there is reason to believe that the decision rather was based on a desire to increase control by the State.

### **Regulatory regime III: 1897 - 1910**

The Banking Act of 1897 revoked the right of the Enskilda banks to issue notes, to be effective from 1903 and their notes to be totally out of circulation from 1906. In practice this meant that Enskilda banks and Limited liability banks now only were different as far as the ownership forms were concerned. As a result a new banking act was launched in 1903 that targeted both Limited liability banks and Enskilda banks. The law still pointed out what assets banks could trade with, the same as had been amended in 1855; gold, silver, bills of exchange and bonds. There was also a debate concerning the right of banks to trade in shares.

Another feature in the law of 1903 was that it had two different levels of required equity capital, where banks with smaller businesses only needed an equity capital as small as one fifth of the requirements, something that can explain the expansion in the number of small local banks (see figure 1).<sup>40</sup>

In 1906 the question about bank supervision was really put on the agenda as a temporary Parliamentary committee recommended the instigation of a Bank inspection (*Bankinspektionen*). This new governmental organization was to be put under the Ministry of Finance.<sup>41</sup>

The Bank inspection opened in January 1907 and it could have started under better circumstances, the crisis of 1907 led to the failure of seven smaller local banks. Again a Temporary Parliamentary committee was instigated to solve the problem of how to be able to stabilize the channeling of credit to the building sector that had ceased due to the crises, and to ensure a stable supply of credit for the future. As a symbol of how closely

---

<sup>39</sup> Ögren, A. (2008), Sammandrag af Bankernas Uppgifter

<sup>40</sup> Håkansson, E. (2009) p.49, Larsson, M. (2010) p.175, SFS 1903:101

<sup>41</sup> Wendschlag, M. (2010)

interrelated the interests of the politicians and the finance elite had become several leading bankers were part of the committee.

In 1909 their proposal to establish a State governed organization, *Stadshypotek*, that financed building activities by issuing bonds backed by the Swedish tax payers was realized. The Parliament also accepted the proposal to allow specific commercial banks, investment banks, to trade with shares. Despite this exclusive right no applications to form any such bank was ever filed. Not even by the bankers who had proposed this solution. Instead the now organized bankers in the banks' trade organization (*Svenska Bankföreningen*) again promoted the idea of commercial banks right to trade with shares in relation to the revision of the banking legislation in 1911.<sup>42</sup>

#### **Regulatory regime IV: 1911 – 1933**

Many features from the first law in 1846, as well as prior charters, were present in the law of 1911. First and foremost the use of bank charters regulating the banks' businesses now also became the case for Limited liability banks. The original reference to the fact that the banking business should officially be of use for the Country was again put into the demand for charters. And as it limited the possibility for future competition the banks' trade organization was happy with this suggestion. Furthermore the minimum equity capital for small, local banks was raised from one fifth to half of what was the requirements for all commercial banks.

The number of commercial banks that already had started to decrease due to the 1907 crises started to fall even more rapidly. But the size of the commercial banking sector in terms of turnover, lending and public liabilities rose (see figure 3).

But the 1911 law was more detailed in its regulation than that, it stipulated that banks should hold funds that covered at least twenty percent of all deposits and cash legal tender reserves that covered twenty five percent. If the bank in addition held six times the required equity capital, they were allowed to trade with shares. It should however be noted that the basic equity requirement of one million SEK was quite modest and quickly decreased even more due to the inflation.

Finally all trades in shares made by a bank should be approved by its board. As far as the possibility to trade in shares was heavily regulated, the banks utilized the possibility

---

<sup>42</sup> Larsson, M. (2010) p. 174-176

to set up subsidiary companies owned by the banks that engaged in trading shares. This way the banks also could circumvent the control of the Bank inspection.

The continuing boom during WWI and inflation however stretched the commercial banks possibilities to cover their deposits to the extent the law required. Instead of forcing banks to decrease their deposits, and by doing so also force them to decrease their lending, the law was amended in 1917 so that banks holding five million SEK (five times the required equity capital) did not have to obey to the deposit limits.<sup>43</sup> It is clear that the policies and their amendments favored big banks, and given the obvious political influence of the group of bankers active within these it is likely that their interest really were taken as being “of use for the Country”.

As mergers and acquisitions continued and led to larger and larger banks restriction on mergers came in 1919 in the way that the Government should approve of the mergers. However the inconveniences for the possibility to merger seems to have been small as the mergers continued until the crisis in 1921 and 1922. One of the restrictions however was to end the possibilities for banks to circumvent the regulations through subsidiary companies. Unfortunately this restriction came in the crisis 1922. This plus sharply increased demands for banks to have the right to trade with shares forced banks to sell of even more shares at a time when the market for shares was completely frozen. The funds that banks had to hold to engage in trade with shares were for instance increased by 67 % (from six million to ten).<sup>44</sup> In this way it certainly seems as the banking regulations had worked in a manner that amplified the economic trends during the 1910s and early 1920s. In 1933 banks were no longer allowed to hold shares at all, although at this time this measure probably was of marginal importance.<sup>45</sup>

### **The Swedish commercial banking system**

From its outset the Swedish commercial banking system came to consist of note issuing banks governed under the principle of unlimited liability, the so called Enskilda banks. These banks were in all respects the dominant form of commercial banks until their right to issue notes was revoked in 1903.<sup>46</sup> However, these notes, just like deposits, were inside money and could not serve to expand the money supply through the money

---

<sup>43</sup> Håkansson, E. (2009) p.49-53

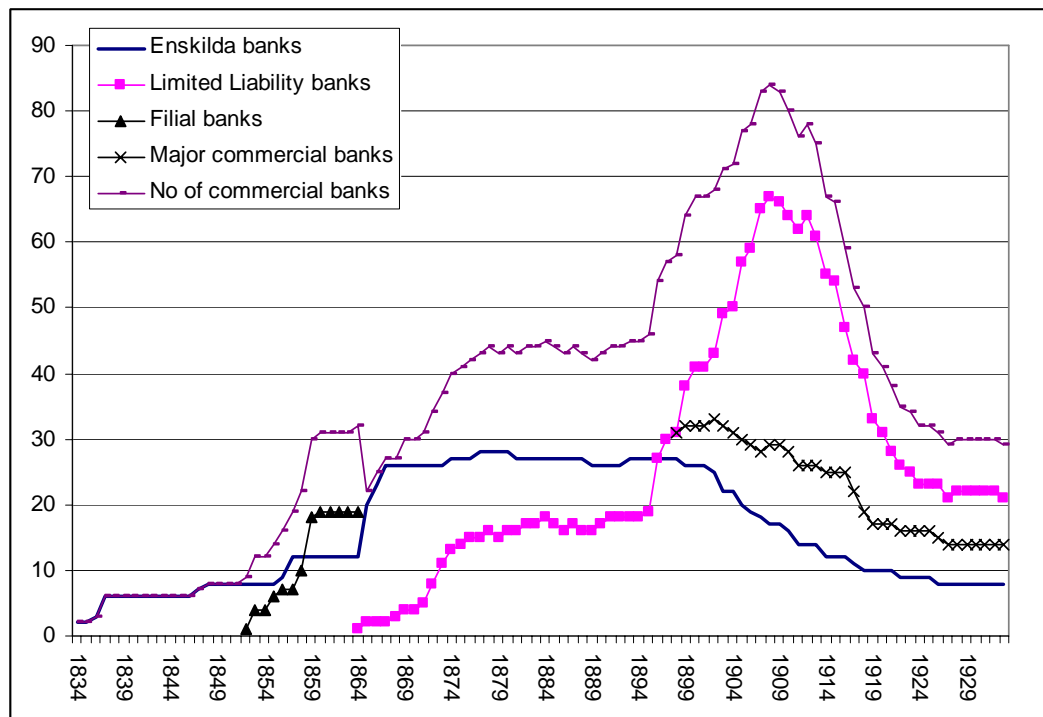
<sup>44</sup> Håkansson, E. (2009) p.53

<sup>45</sup> Broberg, O. and Ögren, A. (2008)



multiplier the same way as issued Riksbank notes. Still the focus on commercial bank notes as inherently instable and a force that takes away the central banks possibility to run monetary policy lingered during the entire nineteenth century and well beyond into our days.

Figure 1: No. of Enskilda, Limited Liability, Filial and Major Banks, 1834-1933



Sources: Brisman, S. (1924) p. 245, Brisman (1934) pp.219-221, Ekonomisk Tidskrift 1899-1933, Sammandrag af Bankernas Uppgifter, 1871 – 1911, Sveriges Riksbank (1931) pp. 172-185

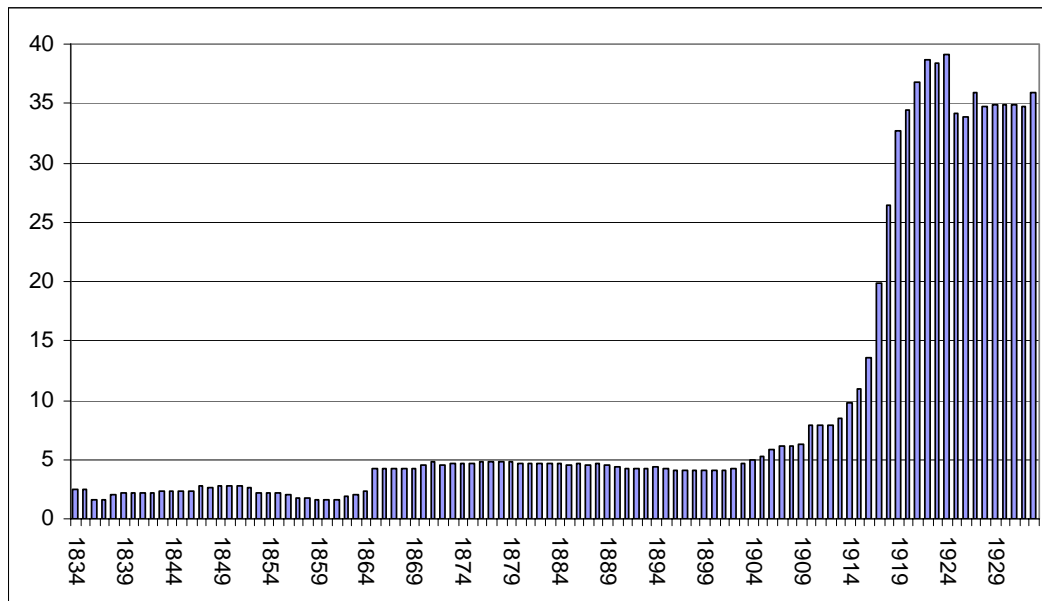
As seen in figure 1 above there was a slow start of the banking system, the interpretation of this slow start has been that demand for bank credit was low.<sup>47</sup> This was not at all the case, instead there were political and regulatory reasons behind the slow development. The Filial banks that existed for a short period are in themselves an interesting evidence of the under established banking system and their acknowledged “failure” also due to political reasons and over-regulations concerning their possibilities to fund their business. The Limited liability banks that emerged in the mid-1860s were few but important and operated mainly in the cities. These did not carry the right to

<sup>46</sup> Ögren, A. (2008)

<sup>47</sup> Flux, A.W. (1910)

issue notes.<sup>48</sup> The explosion in Limited liability banks in the mid-1890s was again caused by political regulatory changes as the possibilities for Savings banks to invest their funds were largely limited by law in 1892.<sup>49</sup> Many Savings banks thus chose to reform as Folkbanks, a form of local Limited liability bank that more resembled Savings banks but that were categorized under Limited liability banks. The enactment of the banking law of 1903 also supported the establishment of small regional commercial banks. Due to this development I have chosen to also include the category of “Major commercial banks” as selected by *Ekonomisk Tidskrift* for the years 1898 until 1933. An interesting observation is that the number of commercial banks that exploded during the first and the second financial revolution in the 1870s and 1890s respectively, shrank to approximately the same number in the late 1920s and early 1930s.<sup>50</sup>

Figure 2: Branches per Commercial bank, 1834 – 1933



Sources: Sources: Brisman, S. (1924) p. 245, Brisman (1934) pp.219-221, *Ekonomisk Tidskrift* 1899-1933, Lilja, K. (2010) p.46, *Sammandrag af Bankernas Uppgifter, 1871 – 1911*, Sveriges Riksbank (1931) pp. 172-185

One important part of a developed banking system is the usage of branch banking. Branch banking has important effects as it allows banks to diversify their investments as well as their liabilities. Despite this branch banking has been considered as unsound

<sup>48</sup> See Ögren, A. (2008). Regarding the failure of the Filial banks see for instance Nilsson, G.B. (1981), Söderlund, E. (1964).

<sup>49</sup> Larsson, M. (2010) p.178

and, especially in the history of commercial banks in the US, has been subject to extensive regulations. In the Swedish case we can see (Figure 2) how the idea that banks should operate on their own territory, a kind of regional monopoly, was expressed at least until the early twentieth century. Before this the branches consisted mainly of exchange agents whose sole purpose was to redeem the Enskilda bank notes for currency (Riksbank notes).<sup>51</sup> The average of above four branch offices per bank from 1870 and onwards may indicate a more positive attitude towards branch banking. The reason for the leap is surely the ending of the Filial banks that either chose to reform as independent Enskilda banks or to merge with already existing Enskilda banks. The huge increase in branch banking appears in the late 1910s along with the decline in the number of commercial banks. This was a result of the extensive merger and acquisition movement that took place within commercial banking 1910s and early 1920s – the period between 1910 and 1914 seventeen M&A:s took place, 1915 to 1920 thirty-seven and 1920-1924 thirteen – that makes a total of sixty-seven M&A:s during fifteen years. The period after it M&A activities again decreased to lie around between one and five M&A:s for each five year period.<sup>52</sup> Clearly this M&A movement was an effect of the economic trends in conjunction with the new banking law of 1911. A banking law that increased the influence of the main banks.

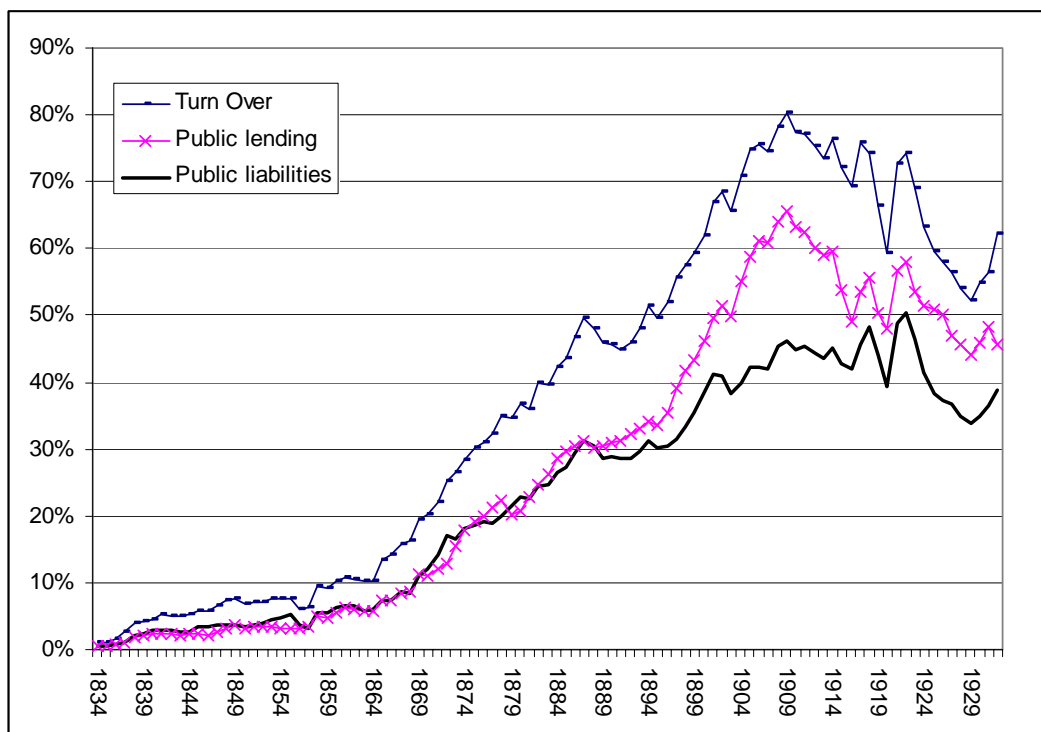
---

<sup>50</sup> Broberg, O. (2010), Larsson, M. (2010), Ögren, A. (2009), Ögren, A. and Sylla R. (2010)

<sup>51</sup> See Ögren, A. (2006)

<sup>52</sup> Jungerhem, S. & Larsson, M. (2010) p. 7

Figure 3: Public lending, Public liabilities and Turn over in commercial banks, 1834-1933 in percentage of GDP (Market prices)



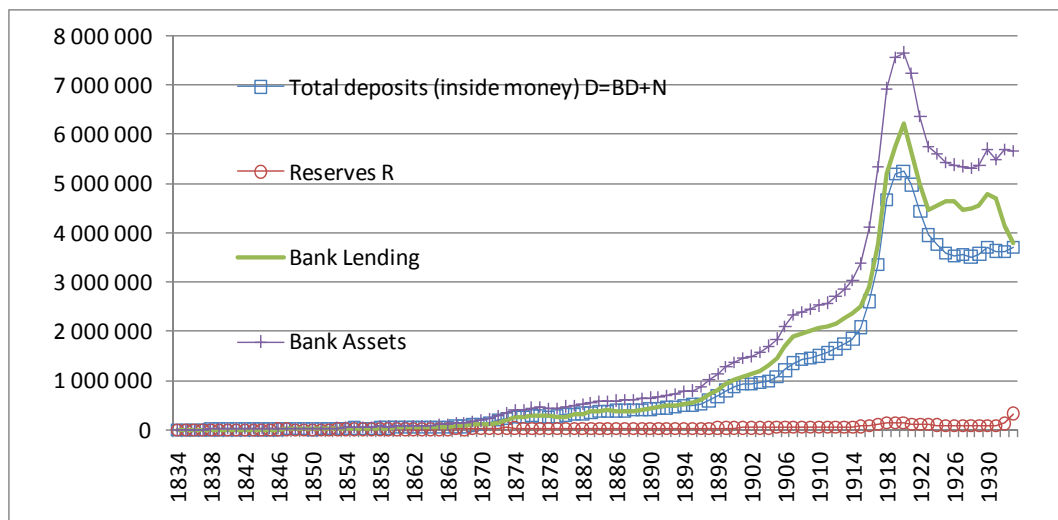
Sources: Brisman (1934) pp.219-221, Ekonomisk Tidskrift 1899-1933, Krantz, O. and Schön, L. (2007), Lilja, K. (2010) p.46, Post & Inrikes tidning 1835-1871, Sammandrag af Bankernas Uppgifter, 1871 – 1911, Sveriges Riksbank (1931) pp. 172-185

As seen in figure 3 above the development of the commercial banking system took off in the late 1860s and early 1870s. Its growth continued until it halted and dipped during the late 1880s. A new wave of bank establishment took place in the mid 1890s (as seen in figure 1) which rapidly increased the commercial banking sectors size. Lending to and deposits from the general public followed suite in the expansion, but a larger portion of the commercial banks lending became funded by other means than the issuance of public liabilities. The gap between the lending and the deposits was around fifty percent in the early 1910s. This means that somewhere around the late 1880s commercial banks expanded their activities beyond the classical idea of intermediation. This probably indicates that the banks now had developed to the point when other assets could fund lending, such as retained earnings in different kinds of reserve funds.

If we look at the development of the banking system in nominal terms (figure 4 below) we can also see the take off in banking in the 1870s and the steady growth. But what is striking is the enormous expansion that occurred from the mid 1890s and especially from the early twentieth century. What is interesting to notice with this

development is that it occurred without a simultaneous increase in reserves. This means that in banks and depositors alike somehow found it unproblematic to allow between ninety-five and ninety-eight percent of each deposited unit be lent out again.

Figure 4: Public lending, Public liabilities and Turn over in commercial banks, 1834-1933 (1000's SEK)



Sources: See figure 3

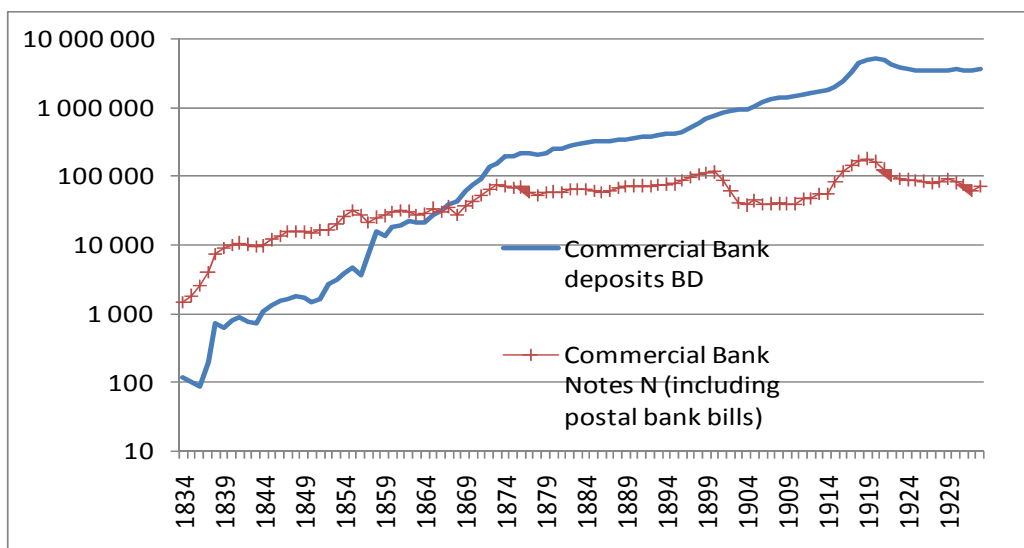
As we have seen that the debate on banking was mainly concerned with the fact that the commercial banks held the right to issue notes an important question is to what extent the commercial banking was dependent on note issuance as source of public funds. As seen in figure 5 below, notes as commercial bank liabilities were more or less marginal after the mid 1890s. And as a matter of fact deposits surpassed notes as source of funds already in the mid 1860s and the biggest issuers of deposits throughout the nineteenth century were not the Limited liability banks but the note issuing Enskilda banks. These banks used the possibility to issue notes as a complement to meet regional and seasonal differences in the demand for liquidity.<sup>53</sup>

The peak of commercial bank note issuance was in absolute terms in the year 1900 – that is three years after the Banking Act of 1897 had declared that commercial bank notes should be out of circulation by the end of 1906 and no notes should be issued after 1903. But if postal bank bills (certified checks) are included in the amount of notes, it

<sup>53</sup> Post & Inrikes tidning, Sammandrag af Bankernas Uppgifter, see also Ögren, A. (2008). A common misconception even today is that the Enskilda banks were dependent on the note issuance for their business and thus that the ending of note issuance made them alter their business fundamentally (see for instance Håkansson, E. (2009) p. 49)

should be noted that commercial banks held around the same amounts in those between the years of 1916 and 1922 as in traditional bank notes in the year 1900. All in all it is clear that after the year 1870 commercial bank notes were marginal in comparison to commercial bank deposits.

*Figure 5: Deposits and Notes issued by commercial banks, 1834-1933 (1000's SEK). Semi-logarithmic scale.*



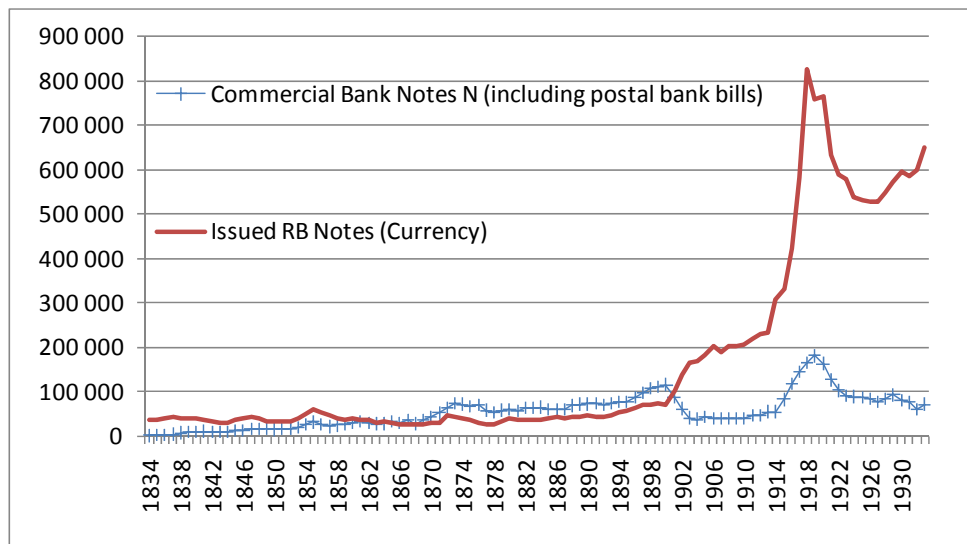
Sources: Ekonomisk Tidskrift 1899-1933, Ögren, A. (2003) Post & Inrikes tidning 1835-1871, Sammandrag af Bankernas Uppgifter, 1871 – 1911, Sveriges Riksbank (1931) pp. 172-185

The discourse regarding regulations and risks in banking during the entire nineteenth century was pre-occupied with the risks in relation to the note issuance. Deposits were not considered risky and subsequently regulations only targeted how banks should back their issued notes and not their deposits. This despite the fact that demand deposits outgrew notes in the early 1880s and that the crisis in 1878/79 led to a run for deposits at the Stockholm Enskilda Bank. This run was logical in the sense that Stockholm Enskilda Bank carried a comparably very high portion of systemic risk in its portfolio. The public realized that losing notes or deposits is the same thing; why a run for deposits in fact is the same as a run for notes. It should also be noted that the law of 1864 had included an option clause giving the possibility to delay note redemption with up to six months thus making notes a form of demand liabilities as well. Despite these obvious similarities deposits remained untouched by reserve requirements in the regulations until the enactment of the extensive regulatory package in 1911.

But the biggest problem was not that deposits were considered as less risky than notes – or even as not risky at all – the biggest problem was that the idea existed that all

bank notes are the same regardless of the issuer. An idea that misses out on the importance of the difference between base (outside) money and bank (inside) money.

Figure 6: Notes issued by commercial banks and the Riksbank, 1834-1933 (1000's SEK).



Sources: Ekonomisk Tidskrift 1899-1933, Ögren, A. (2003) Post & Inrikes tidning 1835-1871, Sammandrag af Bankernas Uppgifter, 1871 – 1911, Sveriges Riksbank (1931) pp. 172-185

As a result of the ending of the commercial banks note issuance the Riksbank started to increase its note issuance. The idea was to fill the public's demand for liquidity, a demand that the commercial banks earlier had supplied. Clearly this was a mistake – during the years 1900 to 1906 the Riksbank almost tripled the amount of base money which meant that the Riksbank more than met an eventual increased demand for liquidity. This increase in base money was a main reason behind the expansion of the commercial banking system. However, the 1907 crisis did not make the Riksbank change its policy – the supply of base money continued to increase, at a lower rate but still increasing even further. And the following economic effect of the war further made the Riksbank fuel the economy by issuing base money as capital inflows consolidated the central bank reserves further. Thus the situation occurred that the exchange rate appreciated at the same time as the supply of base money rocketed and domestic prices soared.<sup>54</sup> And in absolute numbers the banking system continued to grow. It was during these circumstances and near the absolute peak of the boom in 1917 that the law was

<sup>54</sup> This situation spawned an intense debate among Swedish economists. In 1917 Gustav Cassel published his book *Dyrtider och sedelöverflöd* (Expensive times and note abundance). See also Cassel, G. (1918), Davidson, D. (1918), Wicksell, K. (1919) and for a summary of the debate see Kragh, B. (1944).

amended so that the biggest banks did not have to obey to the limits set up by the capital requirements. In retrospect a policy decision that directly came to amplify the boom even further.

### **The effect of the Base Money expansion**

Commercial bank notes were, and are, not only viewed as problematic because of the belief that they are more risky for the holder than what bank deposits are. Another strong belief, which oddly enough is shared among advocators of free banking and the most fierce defenders of central banks, is that commercial bank notes somehow makes it impossible to pursue monetary policy for the monetary authority. But the empirical fact is that it makes not much difference if the bank liability is in the form of a deposit or a note, what makes a difference is to what extent the banks use the liabilities issued by the central bank as backing for its liabilities.

In nineteenth century Sweden commercial bank notes were covered by Riksbank notes – even to a larger extent than what deposits were. And both of these liabilities followed the Riksbank’s issuance of base money.<sup>55</sup> Given that the commercial banks may continue to run “business as usual” such an important expansion of the supply of base money would direct result in an expansion of the banking system.

I use the Friedman identity of the money supply and its different components to sort out the effect of the increased issuance of base money by the Riksbank as a result of the enactment of the law of 1897 and the following boom and WWI economy. In this model the relation between the domestic money supply and its determinants are summarized in five equations:

- (1)  $M = C + D$ ; where M denotes the money supply, C the public’s holding of money and D the public’s deposits in the banking system.
- (2)  $B = C + R$ ; where B is base money, usually defined as monetary liabilities of the authorities, and is equaled with assets that actually, or potentially, can be used as reserves by the banking system. R denotes reserves held by the banking system.
- (3)  $r = R / D$ ; r is seen as the banks reserve to deposit ratio, and it is through this mechanism the banking system affects the money supply, as this is part of the money multiplier.

---

<sup>55</sup> See Ögren, A. (2006)

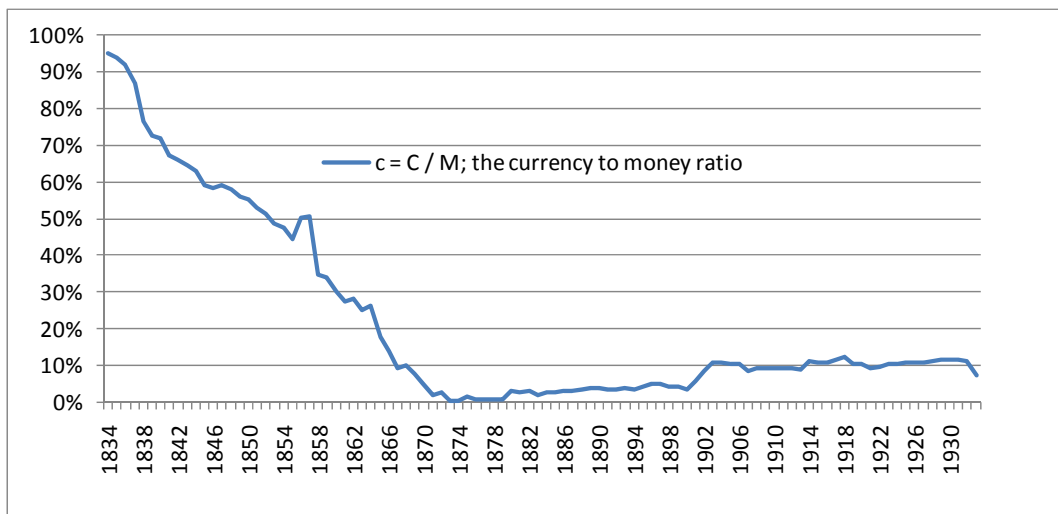


- (4)  $c = C / M$ ;  $c$  is the currency money ratio which is displaying the public's preferences for holding money. As part of the money multiplier this is how the preferences of the public is determining the money supply.
- (5)  $M = B / (c + r - cr)$ ; this is the equation for how the supply of base money ( $B$ ) determines the total money supply ( $M$ ) through the multiplier ( $1 / (c + r - cr)$ ).

In the case of Sweden I have adjusted the equations to fit with the specificities of the Enskilda bank notes. As they were inside money created by the banking system they should be considered as issued deposits and not as currency; thus they are not part of the public's holding of currency but of public deposits. Base money, notes issued by the Riksbank, could either be held as reserves or be held by the public as liquidity whereas the Enskilda bank notes could not be held as reserves and thus could not increase the money supply through the money multiplier any more than public deposits could – and this was the huge difference between the notes issued by the Riksbank and the notes issued by the Enskilda banks.<sup>56</sup>

An increase in Riksbank notes that served to increase public holding of liquidity should lead to an increase in the currency to money ratio. As seen in figure 7 below the currency to money ratio did increase – but not to the extent needed to sterilize the effects of the increase of Riksbank's issuance of base money (currency)

Figure 7: The currency to money ratio, 1834-1933

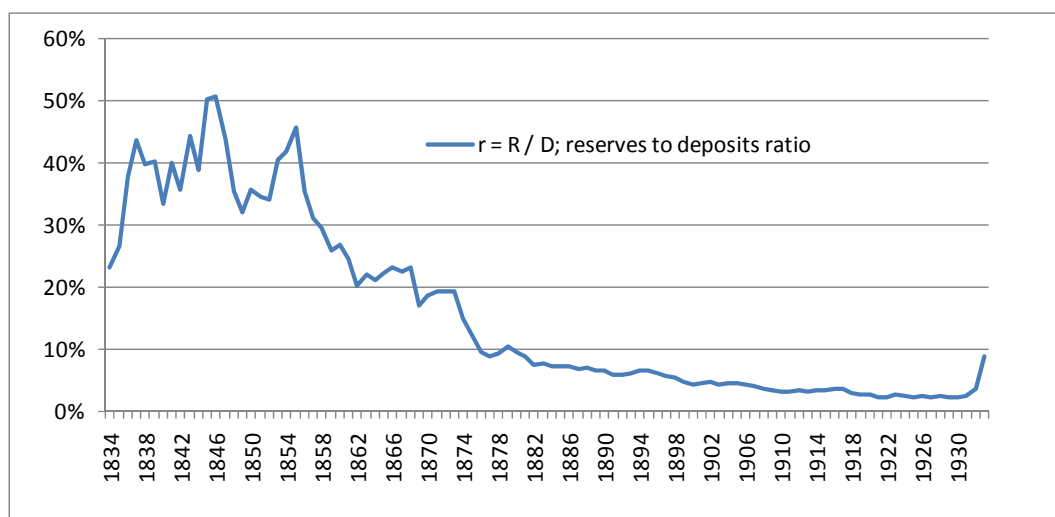


<sup>56</sup> See also Jonung, L. (1975) pp. 13, 29, 208-215. Jonung did not discuss the problem of how to characterize the Enskilda bank notes, as part of the public's preference for holding money or part of the public's deposits in the banking system. He included Enskilda bank notes in the money stock as part of the public's holdings of notes when defining the measure, but did include it in commercial bank deposits when calculating the currency money ratio (Jonung, L. (1975) p. 13, 54, 71, 78, 215).

Sources: Ekonomisk Tidskrift 1899-1933, Ögren, A. (2003) Post & Inrikes tidning 1835-1871, Sammandrag af Bankernas Uppgifter, 1871 – 1911, Sveriges Riksbank (1931) pp. 172-185

Another way the banking system could have dealt with the extended supply of base money would have been to increase reserves. This did not happen, on the contrary commercial banks reserves continued to decrease (see figure 8 below). And thus the fact that most of the base money issued by the Riksbank was not held as liquidity meant that it was deposited at banks, and that the commercial bank then in their turn used these deposits to fund their lending instead of consolidate their reserves.

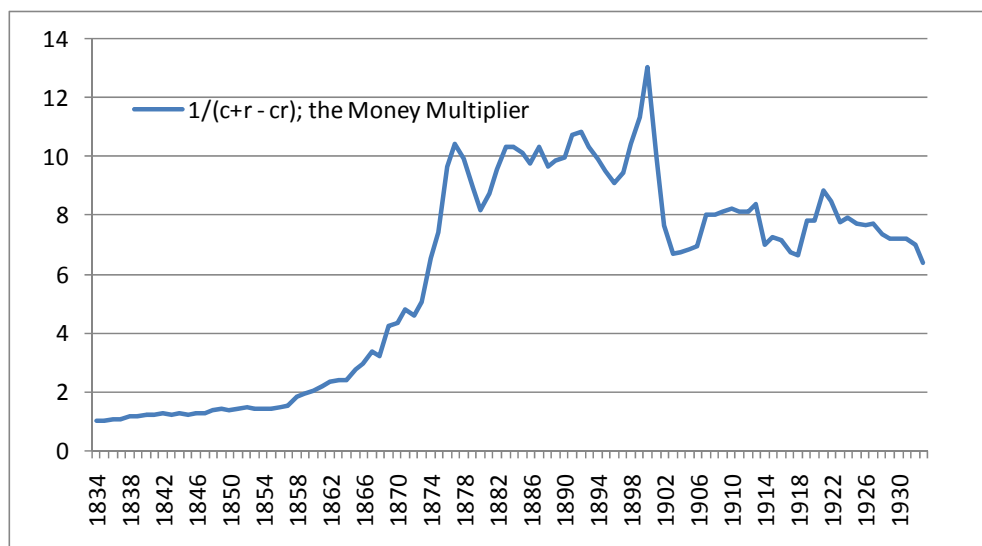
Figure 8: The Reserves to Deposits ratio, 1834-1933



Sources: Ekonomisk Tidskrift 1899-1933, Ögren, A. (2003) Post & Inrikes tidning 1835-1871, Sammandrag af Bankernas Uppgifter, 1871 – 1911, Sveriges Riksbank (1931) pp. 172-185

So even though some of the base money issued by the Riksbank actually did end up as liquidity, the commercial banking system did not alter its behavior. Risk assessments and views on prudent reserves stayed the same. This would be the explanation why the money multiplier (see figure 8 below) only partly adjusted after the ending of the commercial bank note issuance.

Figure 9: The money multiplier, 1834-1933



Sources: Ekonomisk Tidskrift 1899-1933, Ögren, A. (2003) Post & Inrikes tidning 1835-1871, Sammandrag af Bankernas Uppgifter, 1871 – 1911, Sveriges Riksbank (1931) pp. 172-185

In extension the limited drop in the money multiplier around the turn of the century would explain why public liabilities, lending and bank assets all could explode the way they did between the years 1900 and 1918. Just as the increase in banking activities seems to have coincided with the large issuance of base money the drop in the banking expansion seems to have coincided with the rapid fall in base money issuance by the Riksbank between 1918 and 1919 (see figures 6 and 4).

As seen in table 1 below OLS regressions support the importance of the supply of base money for the expansion of the banking system. The different regulatory regimes do however not seem to correspond to the development of the banking system as such.

Table 1: OLS-regressions with public liabilities, lending, reserves and bank assets as dependent variables, 1834 – 1933

	Eq. 1 dlog(liabilities)	Eq. 2 dlog(lending)	Eq. 3 dlog(reserves)	Eq. 4 dlog(bankassets)
C	0.116	0.104	0.022	0.096
Prob.	0.179	0.160	0.879	0.197
DLOG(BASEMONEY(-1))	0.348***	0.412***	0.294*	0.345***
Prob.	0.002	0.000	0.099	0.003
DLOG(GDPCP)	0.163	0.142	0.528	0.063
Prob.	0.609	0.606	0.316	0.819
REGREGIMEI	-0.004	0.004	0.077	0.018
Prob.	0.9656	0.961	0.600	0.814

REGREGIMEII	-0.052	-0.035	-0.005	-0.030
Prob.	0.550	0.640	0.975	0.685
REGREGIMEIII	-0.096	-0.075	-0.046	-0.069
Prob.	0.296	0.342	0.761	0.384
REGREGIMEIV	-0.097	-0.100	0.036	-0.079
Prob.	0.270	0.185	0.804	0.301
R-squared	0.158	0.249	0.070	0.198
Adj. R-squared	0.103	0.200	0.008	0.145

\* 10%, \*\*5% and \*\*\* 1% significance level

## Conclusions

Regulations were a mixed result of special interests and ad hoc solutions to experienced problems in the banking sector. Each crises prompted the instigation of a special committee, and each window of opportunity to change regulations in favor of a specific group was quickly utilized.

The period 1824 – 1933 consisted of four distinctive regulatory regimes. The first period 1824 to 1863 was a period of high barriers to entry, local monopolies, and freedom for banks to manage their liabilities – possibilities to hold assets were however limited. This kind of regulatory regime benefitted the group who managed to establish banks and this group also used its power in Parliament to sustain a commercial banking system based on these principles. Problems for the holders of these commercial bank liabilities, i.e. notes, made the commercial bank note issuance a principal target for criticism in Parliament.

Increased representation by the groups in Parliament who carried the costs of the commercial banks' monopoly privileges in conjunction with the fact that the largest bank had to be bailed out in the 1857 crisis drove through a change in the regulatory regime. 1864 was a hallmark year in the change to a developed commercial banking system. First limited liability banks without the right to issue notes were allowed to establish and more importantly, bank establishment became a matter of following certain specific non-discretionary criteria and the prolongation of bank charters was made into a formality that ended their disruptive character.

During the period 1864 to 1900 the commercial banking system grew steadily. Deposits overtook notes as principle source of funds already in the late 1860s and issued commercial bank notes quickly became marginal in comparison to issued deposits.

Despite the fact that notes by law had to be backed but not deposits, and that the run on the major bank in the crisis 1878/79 was a run on deposits and not notes, Parliamentary debates all focused on the commercial bank note issuance. This was believed to be disruptive and to deprive the Riksbank of its possibility to run effective monetary policy.

As a result the law of 1897 took away the right of the unlimited liability banks to issue notes. This should be effective from 1903 and all notes should be out of circulation by 1906. The peak year of commercial bank notes in circulation was the year 1900. Still the amount of notes was around fifteen percent of the deposits. As the belief existed that commercial bank notes were the same as Riksbank notes, the Riksbank started to massively and rapidly increase its note issuance by the late 1890s. The idea was to replace commercial bank notes to supply the public's preference for liquidity. But the fact that the Riksbank notes were base money that unlike the commercial bank notes could serve to increase the money supply through the money multiplier made the broad money supply boom. As this took place during an economic boom the commercial banking system thrived and expanded. In the middle of this rapid increase in bank establishments the banking act of 1903 was implemented, a banking act which was constructed to benefit the establishment of small local banks. As a result the number of commercial banks almost doubled between 1900 and 1906 (from 44 to 84), bank asset and lending followed suit. During the same years the Riksbank had almost tripled its issuance of base money.

This period 1897 to 1911 was a period of transition – the ended note issuance would not have been as disruptive had the monetary authorities understood the difference between the inside money issued by the commercial banks and the effects of the base money issued by the central bank .

The crisis of 1907 again called for a revision of banking regulation. Despite the expansion of the banking system and the fact that the important increase in base money had not lead to an increased reserves to deposits ratio nor a sufficiently decreased money multiplier – debates concerned mainly commercial banks right to own shares. An issue clearly promoted by the representatives of the commercial banks themselves.

The fourth period began with the enactment of the extensive regulatory package in 1911. This package was a trade-off between the State and the representatives of the major banks (who had been present in the temporary committees to pave way for such a change in commercial bank regulations). Again bank establishment became subject to

charters under the fuzzy statement that banks had to serve “the common good”. Banking interests were strong in influencing not only the regulations, but also their interpretations and enforcement. An example is how the major banks succeeded in altering the capital requirements during the peak years of the boom in 1917 – even to remove their limit on deposits. In the same manner as such discretionary regulatory changes served to amplify the boom – banking opponents used the fear of banking instabilities to alter regulations to amplify the recession in 1922.

## References

- Bankkomitén (1883) *Bankkomiténs betänkande I. Bankkomiténs underdåniga förslag till förändrad organisation af bankanstalterna*. Norstedts. Stockholm, Sweden. [Special Committee on Banking – Proposed Changes in Bank Organization]
- BaU – Bankoutskottet 6:e Samlingen 1823 – 1898 [Standing Committee on Banking]
- Beck, T., Coyle, D., Dewatripont, D., Freixas, X., and Seabright, P. (2010) *Bailing out the Banks: Reconciling Stability and Competition An analysis of state-supported schemes for financial institutions* CEPR
- BeU – Bevillningsutskottet 5:e Samlingen 1823 – 1898 [Standing Committee on Ways and Means]
- Brisman, S. (1924) *Sveriges Affärsbanker. Grundläggningstiden*. Svenska Bankföreningen. Norstedts. Stockholm, Sweden
- Brisman, S. (1934) *Sveriges affärsbanker. Utvecklingstiden*. Svenska bankföreningen. Norstedts. Stockholm, Sweden.
- Broberg, O. (2010) “Incorporation and Financial Modernization” in Ögren, A. (Ed.) *The Swedish Financial Revolution* Palgrave Macmillan
- Broberg, O. and Ögren, A. (2008) “Making money, creating credit: Swedish commercial banking and lending against shares, 1870 – 1938” Unpublished paper presented at the European Business History Association Conference in Bergen, August 21-23
- Cassel, G. (1918) “Abnormal Deviations in International Exchanges” *The Economic Journal*, **Vol. 28**, pp. 413-415
- Coval, J., Jurek, J., and Stafford, E. (2009) “The Economics of Structured Finance” *Journal of Economic Perspectives* **Volume 23:1** Pages 3–25
- Davidson, D. (1918) ”Spridda studier angående prisnivåstigningen” *Ekonomisk Tidskrift*, **Vol. 20**, pp. 119-133
- Ekonomisk Tidskrift 1924 – 1933 (Volumes 27 – 35)
- Finanskommittén 1858 Riksarkivet – ÄK No 496 Vol. 1 – 4 [Swedish National Archive – the Temporary Committee on Finance 1858]

- Flux, A.W. (1910) *The Swedish Banking System*. National Monetary Commission. Washington, USA
- Håkansson, E. (2009) "Regime and Risk in Swedish Banking During the Early 20<sup>th</sup> Century" Unpublished manuscript, Department of Economic History, Uppsala University
- Jonung, L. (1989) "The Economics of Private Money. Private Bank Notes in Sweden 1831-1902." Unpublished Research Report Stockholm School of Economics
- Jungerhem, S. & Larsson, M. (2010) "Size matter! The interplay between bank owners, bank management and the state in Swedish commercial banking mergers 1910-2009" Unpublished paper, UCBH Uppsala University
- KFO – Kunglig Förordning 14/1 1824. *Angående inrättandet av enskilde Banker eller Diskonter*. [Royal Decree concerning the establishment of private banks or Discount companies. January 14, 1824]
- KFO 1855 – Kunglig Förordning 10/11 1855. *Om vissa ändringar och tillägg vid Kongl. Kungörelsen den 9 Januari 1846, angående Enskilda Banker som Utgifva egna Kreditsedlar*.
- Kindleberger, C. P. (2005) *Manias, Panics, and Crashes: A History of Financial Crises* (5<sup>th</sup> Edition) Palgrave Macmillan
- KKS – Kunglig Konselj Skrift 15/8 1842 (tryckt). *Om Banker*. Skrift, meddelad i Conseljen. [About Banks. Royal Print for the Cabinet Meeting August 15, 1842]
- Kprop – Kungliga Propositioner 1:a Samlingen 1823 – 1898 [Royal Propositions]
- Kragh, B. (1944) "Den penningpolitiska diskussionen i Sverige under och efter förra världskriget" *Ekonomisk Tidskrift*, Vol. 46, pp. 74-85
- Krantz, O. and Schön, L. (2007) *Swedish Historical National Accounts 1800-2000*, Lund
- KU – Konstitutionsutskottet 3:e Samlingen 1823 – 1898 [Standing Committee on the Constitution]
- Larsson, M. (2010) "The State and the Financial System – Regulation and Regime Change around 1900" in Ögren, A. (Ed.) *The Swedish Financial Revolution* Palgrave Macmillan
- Lilja, K. (2010) "The Deposit Market Revolution in Sweden" in Ögren, A. (Ed.) *The Swedish Financial Revolution* Palgrave Macmillan
- Montgomery, A. (1934) "Riksdagen och Riksbanken efter 1809" in *Sveriges Riksdag, senare avdelningen. Band XIII*. Stockholm, Sweden.
- MotAK – Andra Kammaren Motioner 1:a Samlingen 2:a Avdelningen 1866 – 1898 [Proposals of the Second Chamber, Part 2, Vol. 2]
- MotFK – Första Kammaren Motioner 1:a Samlingen 2:a Avdelningen 1866 – 1898 [Proposals of the First Chamber, Part 2, Vol. 1]
- Nilsson, G.B. (1969) "Den samhällsbevarande representationsreformen." Reprint from Scandia BD 35.

- Nilsson, G.B. (1981) *Banker i brytningstid. AO Wallenberg i svensk bankpolitik 1850-1856*. EHF. Stockholm School of Economics. Stockholm, Sweden.
- Nilsson, G.B. (1984) *André Oscar Wallenberg. I. Odysseernas år 1816-1856*. Norstedts. Stockholm, Sweden.
- Nilsson, G.B. (1989) *André Oscar Wallenberg. II. Gyllene tider 1856-1866*. Norstedts. Stockholm, Sweden.
- Nilsson, G.B. (1994) *André Oscar Wallenberg. III. Ett namn att försvara 1866-1886*. Norstedts. Stockholm, Sweden.
- Ögren, A. (2006) “Free or Central Banking? Liquidity and Financial Deepening in Sweden, 1834 – 1913.” *Explorations in Economic History* **Volume 43:1** Pages 64-93
- Ögren, A. (2007) “Lender of Last Resort in a Peripheral Economy with a Fixed Exchange Rate: Financial Crises and Monetary Policy in Sweden under the Silver and Gold Standards, 1834 – 1913” in Cottrell, P., et al. (Eds.) *Centers and Peripheries in Banking: The Historical Development of Financial Markets* Ashgate Pages 225 – 252
- Ögren, A. (2008) “The Rationale of Private Note Issuance: Note Issuing Commercial Banks in the Economic and Financial Development of Nineteenth Century Sweden” *EconomiX/Université de Paris Ouest Nanterre La Défense Working Paper* 2008:8
- Ögren, A. (2009) “Financial revolution and economic modernisation in Sweden” *Financial History Review* **Volume 16:1** Pages 47 – 71
- Ögren, A. and Sylla R. (2010) “What we can Learn from the Swedish Financial Revolution: An International Comparison” in in Ögren, A. (Ed.) *The Swedish Financial Revolution* Palgrave Macmillan
- Post & Inrikes Tidning 1835-1871 [Official Swedish Gazette]
- PrAd – Ridderskapets och Adelns Protokoll 1823 – 1865 [Minutes of the Nobility]
- PrAK – Andra Kammarens Protokoll 1866 – 1898 [Minutes of the Second Chamber]
- PrBd – Bondeståndets Protokoll 1823 – 1865 [Minutes of the Peasantry]
- PrBg – Borgarståndets Protokoll 1823 – 1865 [Minutes of the Burghers]
- PrFK – Första Kammarens Protokoll 1866 – 1898 [Minutes of the First Chamber]
- PrP – Presteståndets Protokoll 1823 – 1865 [Minutes of the Clergy]
- Rajan, R.G. and Zingales, L. (2004) *Saving Capitalism from the Capitalists: Unleashing the Power of Financial Markets to Create Wealth and Spread Opportunity* Princeton University Press.
- RdSkr – Riksdagens Underdåniga Skrifvelser 10:e Samlingen 1823 – 1898 [Parliamentary Resolutions]
- Rousseau, P.L. & Sylla, R. (2003) “Financial systems, economic growth and globalization” in Bordo, M.D., Taylor, A.M. and Williamson, J.G. (Eds.) *Globalization in Historical Perspective*. University of Chicago Press.



- Rousseau, P.L. & Sylla, R. (2005) "Emerging financial markets and early US growth" *Explorations in Economic History*, Vol. **42** pp 1-26
- Rousseau, P. L. & Wachtel, P. (1998) "Financial Intermediation and Economic Performance: Historical Evidence from Five Industrialized Countries" *Journal of Money, Credit and Banking* **30**, pp. 657-678
- Sammandrag af Bankernas Uppgifter 1871-1911 [Summary of Bank Reports]
- Schuler, K. (1992) "The world history of free banking" in Dowd, K. (Ed.) *The experience of free banking*. Routledge. London,UK
- Selgin, G.A. (1988) *The Theory of Free Banking. Money Supply under Competitive Note Issue*. Rowman & Littlefield. USA
- Selgin, G. A. & White, L. H. (1994) "How Would the Invisible Hand Handle Money?" *Journal of Economic Literature* **32**, pp. 1718-1749
- SFS [Swedish Code of Statues]: 1846:1, 1861:34, 1864:31, 1874:44
- Sjögren, H. and Knutsen, S. (2010) "Why do Banking Crises Occur? An Evolutionary Model of Swedish Banking Crises" in Ögren, A. (Ed.) *The Swedish Financial Revolution* Palgrave Macmillan
- Skogman, C.D. (1846:1) *Anteckningar om Rikets Ständers Bank och allmänna lånerörelsen i Sverige. Sednare delen. I. Ifrån och med år 1809 till och med år 1833*. Hjerta. Stockholm, Sweden.
- Skogman, C.D. (1846:2) *Anteckningar om Rikets Ständers Bank och allmänna lånerörelsen i Sverige. Sednare delen. II. Ifrån och med år 1834 till och med år 1845*. Hjerta. Stockholm, Sweden.
- Söderlund, E. (1964) *Skandinaviska banken 1864 – 1914*. Esselte. Stockholm, Sweden
- StU – Statsutskottet 4:e Samlingen 1823 – 1900 [Standing Committee on Supply]
- Sveriges Riksbank (1931), "Statistiska tabeller" [Statistical tables] in *Sveriges Riksbank 1668-1924. Bankens tillkomst och verksamhet. Part V*. Norstedts. Stockholm, Sweden.
- Wachtel, P. (2001) "Growth and Finance: What Do We Know and How Do We Know It?" *International Finance* **4**, pp. 335-362
- Wendschlag, M. (2010) "Rigid regulation, market dynamics and adaptive enforcement, the case of Swedish banks' right to trade in stocks" Unpublished paper, EHFF Stockholm School of Economics
- White, E.N. (2009) "Lessons From The History of Bank Examination and Supervision in the United States, 1863-2008" in Gigliobianco, A. and Toniolo, G. (Eds.) *Financial Market Regulation in the Wake of Financial Crises: The Historical Experience Bank of Italy*
- Wicksell, K. (1919) "Växelkursernas gåta" *Ekonomisk Tidskrift*, **Vol.21**, pp. 87-103