

Finland's Asset Management Company Arsenal

Kaleb B. Nygaard¹

March 20, 2020

Abstract

Following a large scale deregulation of the financial sector during the 1980's and subsequent massive credit expansion, a banking crisis in Finland caused a sharp contraction in the economy in the early 1990's. One of the key policy responses to the crisis was the creation of an asset management company called Arsenal in 1992. The original purpose of Arsenal was to absorb, manage, and liquidate the bad assets of the Savings Bank of Finland (an entity created by the government-forced merger of 41 of the country's 81 savings banks). During the following years Arsenal expanded to become a group of multiple asset management companies dealing with the bad assets of other failed entities. The Arsenal Group was ultimately responsible for managing over FIM40 billion (approx. \$8.1 billion). By 1999 over 90% of the assets had been wound down; however, Arsenal was not placed in liquidation until 2003. At this time losses had reached nearly FIM20b. In the most recent available financial statements (2017), Arsenal reported that it was down to one employee with just a handful of assets outstanding in domestic and foreign bankruptcy court that were expected to be finalized within three years, at which point Arsenal would be dissolved.

Keywords: asset management company, Arsenal, Finland, Savings Bank of Finland, Nordic banking crisis, Government Guarantee Fund

¹ Research Associate, New Bagehot Project. Yale Program on Financial Stability. kaleb.nygaard@yale.edu.

Finland - Arsenal

At a Glance

Following a large scale deregulation of the financial sector during the 1980's and subsequent massive credit expansion, a banking crisis in Finland caused a sharp contraction in the economy in the early 1990's. One of the key policy responses to the crisis was the creation of an asset management company called Arsenal in 1992. The original purpose of Arsenal was to absorb, manage, and liquidate the bad assets of the Savings Bank of Finland (an entity created by the government-forced merger of 41 of the country's 81 savings banks).

During the following years Arsenal expanded to become a group of multiple asset management companies dealing with the bad assets of other failed entities. The Arsenal Group was ultimately responsible for managing over FIM40b. By 1999 over 90% of the assets had been wound down; however, Arsenal was not placed in liquidation until 2003. At this time losses had reached nearly FIM20b. In the most recent available financial statements (2017), Arsenal reported that it was down to one employee with just a handful of assets outstanding in domestic and foreign bankruptcy court that were expected to be finalized within three years, at which point Arsenal would be dissolved.

Summary Evaluation

The consensus of a number of academic reviews of the Nordic area crisis and specific analyses of Arsenal concluded that Arsenal

| Summary of Key Terms | |
|------------------------------------|--|
| Purpose: | The Arsenal Group manages, develops and liquidates assets for which it has assumed responsibility, in order to ensure optimal financial results under prevailing circumstances. Its objective is to minimize any further Government investments in the Group and to reduce the risk of loss on investments already made." (AAR95, p.7) |
| Launch Dates | Announced: Circa end of 1993 (BoF93, p65; NAOF, p6; AAR94, p6) Operational: January 15, 1994 (NAOF, p6) First Transfer: February 1994 (AAR94, p6) |
| Date of Last Asset Disposal | 1999: over 90% of assets disposed. (NAOF, p12) 2003: Arsenal placed in liquidation. (NAOF, p1) 2018: One employee remains to manage few remaining bankruptcies. (Liquidation, p11) |
| Program Size | Not specified at outset |
| Usage | FIM40b (approx. \$8.1b) (BoF94, p31) |
| Outcome | Loss of FIM20b (approx. \$4b) on FIM40b in assets (AAR94 -00) |
| Management Approach | Arsenal managed many of the assets acquired, including some unfinished property developments (AAR94, p13). |
| Ownership Structure | Public-owned (Klingebl, pdf48) |
| Notable Features | Accepted non-performing assets of all sizes and types, making wind-down more challenging. Allowed the banks who bought the good assets to give them back to Arsenal if they became non-performing in the first year. (BoF94, p31) |

was provided with the appropriate level of funding and professional management necessary and that it operated transparently. Arsenal accepted all non-performing loans from the Savings Bank of Finland (similar portfolios and no-questions-asked acceptance of non-performing loans were present in the other asset management companies that subsequently were joined into the Arsenal Group). This criteria made it challenging to wind down the portfolio and has contributed to the protracted existence of Arsenal, despite an initial five to seven year expected life span. Arsenal greatly contributed to the banking sector's eventual recovery.

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| 1. The BOJ introduced a temporary measure of outright purchases of commercial paper via a reverse-auction format..... | Error! Bookmark not defined. |
| 2. The BOJ could purchase up to ¥3 trillion in CP..... | Error! Bookmark not defined. |
| 3. Initially, the measure was limited to 10 purchases, of ¥300 billion each, before the end of March, but the BOJ extended the amount and expiration date..... | Error! Bookmark not defined. |
| 4. The program could purchase CP from financial institutions that were counterparties of the Bank of Japan..... | Error! Bookmark not defined. |
| 5. Most types of domestic and foreign CP were eligible for purchase, but CP issued by REITs was excluded before the program launch | Error! Bookmark not defined. |
| 6. The BOJ conducted purchases of CP as “multi-price competitive auctions.” | Error! Bookmark not defined. |
| 7. The BOJ charged a minimum yield that was intended to be more favorable than rates during the crisis but less favorable than in normal times.. | Error! Bookmark not defined. |
| 8. To limit credit risk, the BOJ set limits on the total outstanding amount of a single issuer’s CP that it would purchase..... | Error! Bookmark not defined. |
| 9. CP had to have a rating of a-1, or it had to have a guarantee from a company with an a-1 rating. | Error! Bookmark not defined. |
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I. Overview

Background

Buildup

During the 1980's there was a large scale deregulation of the financial sector as outlined in the chart below (Nyberg, p11). The government allowed banks to lend into areas where they had not lent before and therefore lacked market-specific knowledge (Moe, p82; Nyberg, p12). Regulatory decisions were subject to court challenges and it has been theorized that this, "raised the threshold for introducing stricter supervisory practices" (Nyberg, p13). In addition, regulators lifted strict limits on deposit and interest rates. More broadly, the supervisory authorities were viewed as relatively weak - "they lacked resources and qualified staff and did not prioritise on-site inspections." (Moe, p82). The savings banks were taking extraordinary risks and were under-capitalized.

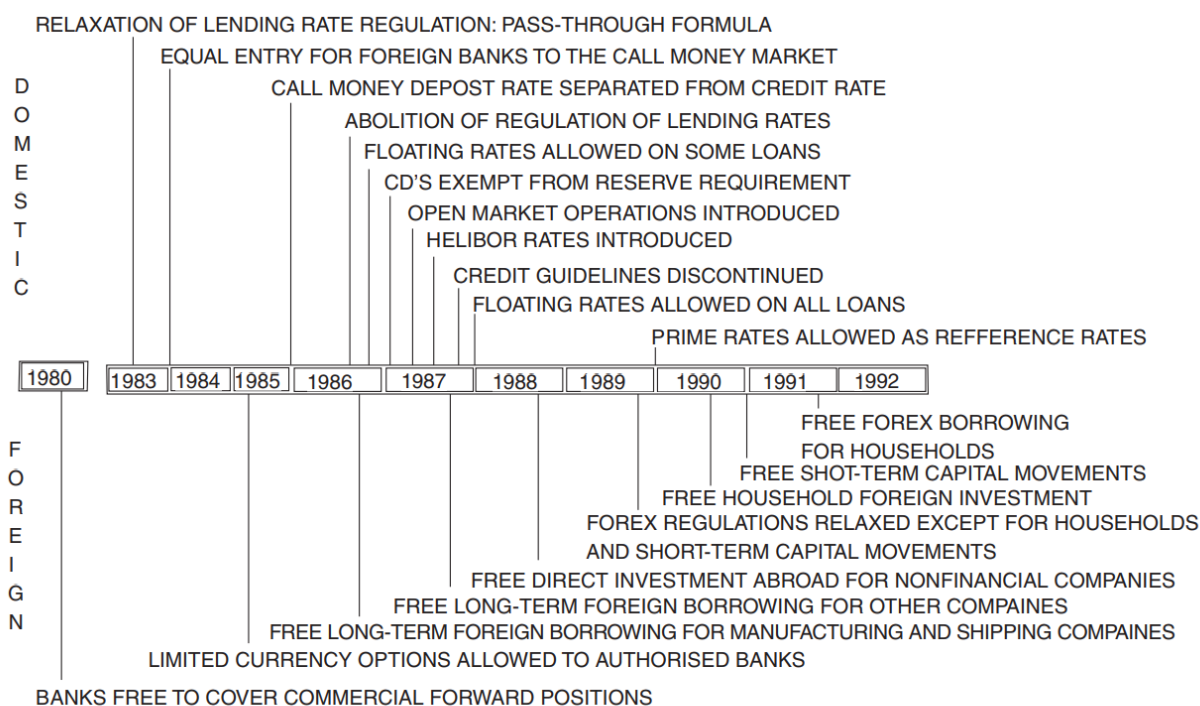


Figure 2.1 Financial market liberalisation in Finland

Source: Nyberg and Vihriälä (1994).

During the same time period both household and corporate debt increased significantly. The Finnish, Norwegian, and Swedish "tax systems encouraged borrowing through very generous rules for deducting interest expenses from taxable income" (Moe, p81). Household debt rose from 25% of GDP in 1980 to 45% in 1992, and corporate debt rose from 70% of GDP to nearly 90% of GDP in just a couple of years starting in 1989 (Mayes, p39). Housing prices doubled between 1986 and 1989 and the Finnish stock market tripled between 1985 and 1988 (Mayes, p40). Commercial property prices may have increased even more than

residential (Moe, p81). This led to the traditional cycle where the increases in property prices lead to higher collateral values, which facilitate an increase in bank lending (Moe, p81).

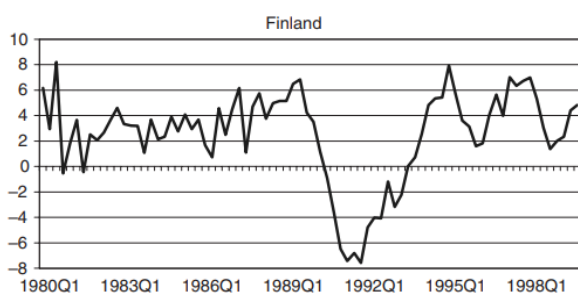
Finally, there were two significant international events that affected the Finnish economy in the late 80's and early 90's. First, Finland was scheduled to join the European Union in 1995 and use the new Euro currency in 1999 (EU). However, the steps taken to prepare caused a dilemma. Finland could use exchange rate targeting in the late 80's and early 90's and make the transition to the Euro smoother, but the resulting interest rates would be lower than they naturally would have been and borrowing would outpace growth. Alternatively, they could raise interest rates to dampen the borrowing but lose the exchange rate peg and risk a disruptive transition to the Euro. They chose the former (Mayes, p28).

Second, Finnish exports collapsed with the fall of the Soviet Union (Moe, p83). The Soviet Union had accounted for approximately 15% of the exports of Finland (Mayes, p28). The decrease in exports to the former Soviet Union caused a negative demand shock of approximately 2.5% of GDP to the Finnish economy (Nyberg, p18).

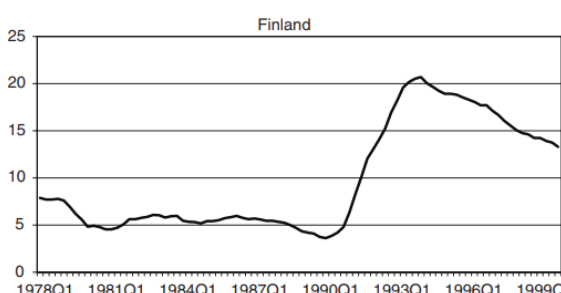
The Crisis

Finland was not alone in suffering a banking crisis and economic downturn during the early 1990's. Sweden, Norway, and Denmark experienced crises that, although had distinct causes and effects, were similar in many ways (Mayes, p11). However, Finland suffered the most with a growth rate of -8% of GDP during the worst of the crisis years and a peak unemployment rate at over 20% (Mayes, p18-19).

GDP growth (%)



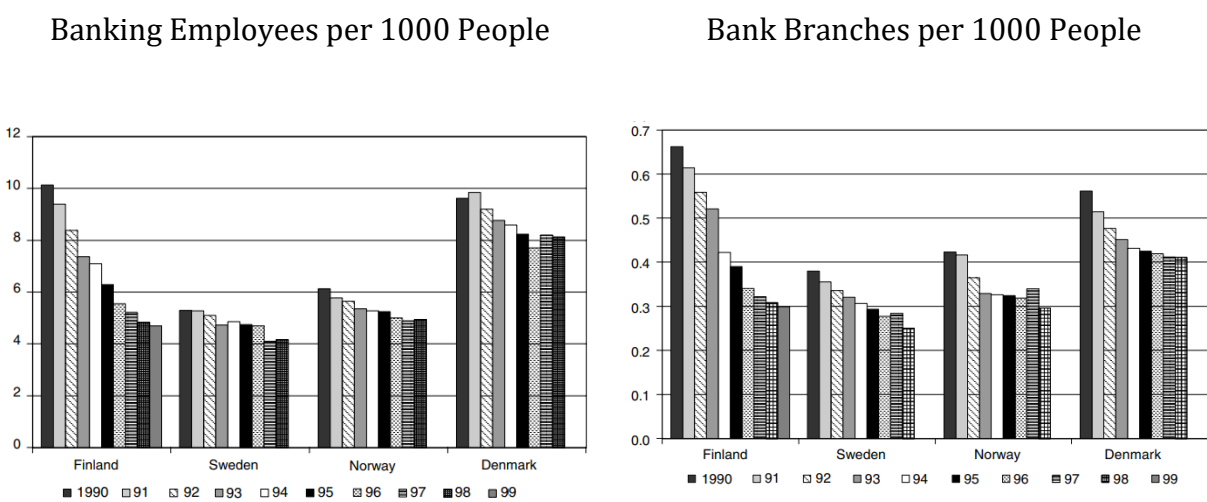
Unemployment (%)



Source: (Mayes, p18-19)

Lending to the public by all Finnish deposit banks more than doubled from FIM214b to FIM491b from 1985 to 1990 (Nyberg, p23). Throughout the time period, GDP was growing at a similar pace so this lending represented a consistent 75% of GDP (WBGDP). Then from 1991 to 1995 bank lending fell by more than a third (Moe, p84). It would take nine years before bank lending returned to the pre-crisis levels (Moe, p84). This dramatic build-up and then crash of the banking sector can be seen in the following two charts showing the decrease of employment in banking by more than half and, similarly, the closure of more

than half of physical bank branches. By 1993, nearly one in five loans were non-performing (Klingebiel, p46).



Source: (Mayes, p43)

Summary of Finnish Government actions leading up to Arsenal

Skopbank was one of the banks that most embodied the increase in volume and expansion into new sectors of lending during the late 1980's boom years. It was a commercial bank that served as a central bank or correspondent bank to Finland's savings banks. They were one of the first institutions to face imminent collapse as the market began to sour. In addition to being one of the most aggressive lenders during the "boom years", Skopbank made a large, strategic investment in a multiproduct industrial group that fell sharply with the turn in the market (Nyberg, p21). Skopbank was controlled and mostly owned by the savings banks (Borio, p32).

In 1989 the Bank of Finland (Finland's central bank) and Finland's Banking Supervision Office (an arm of the Ministry of Finance) began a, "special and increasingly strict surveillance" of Skopbank's books (Nyberg, p21). In October of 1990 a restructuring program was designed by the authorities that required that the savings banks raise FIM1.8b in capital for Skopbank. Ultimately, however, the capital proved insufficient and after an acute liquidity crisis in September of 1991 the Bank of Finland took majority control of Skopbank with 53% of the outstanding shares (Borio, p32) and recapitalized the bank with an initial investment of FIM4b² in equity, and set up three companies to manage most of the

² Approximately \$810m (FRBNYFX, for available time period: average FIM4.936/1USD, minimum FIM4.18/1USD, maximum FIM5.772/1USD, standard deviation FIM0.444/1USD)

bank's assets (Nyberg, p21). This takeover and equity injection were seen as outside the traditional roles of a central bank (Nyberg, p26).

In March of 1992 the Finnish government provided an FIM8b capital injection program to the banking system. Participation in the program was voluntary, but "virtually all banks applied and received a share" (Moe, p86). The capital was available to, "all banks regardless of their solvency and in relation to their risk-weighted assets" (Nyberg, p28). By December 1992 FIM7.9b of the FIM8b program had been deployed (Nyberg, p28).

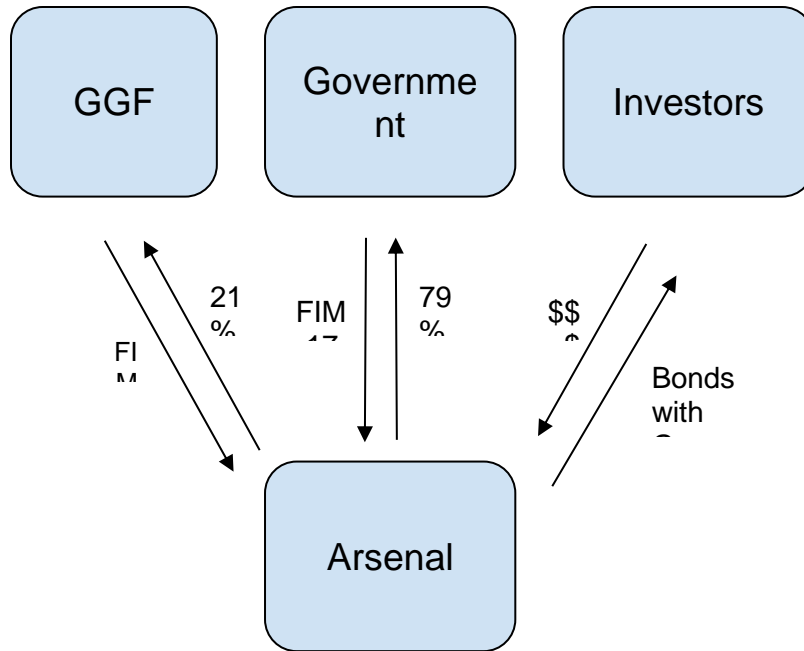
In late April 1992 an off-state-balance-sheet Government Guarantee Fund (GGF) was created by law (GGF), to prevent a collapse in domestic and international confidence in the stability of the banking system and its claims (Nyberg, p29). The GGF was initially provided with FIM20b in federal funds to use to meet that stated goal; however, by the end of the year three quarters of the money had been spent, and in early 1993 another FIM20b was made available (Nyberg, p31). One of the first actions of the GGF was to acquire Skopbank from the Bank of Finland.

Another significant action taken by the GGF was the June 1992 decision to force the merger of 41 of the country's 81 savings banks. The new entity was called the Savings Bank of Finland, or SBF, and accounted for 23.9% of the total financial system's assets (Klingebiel, pdf p46). It was provided with an initial commitment of FIM7.2b from the GGF, FIM5.5b in Tier 1 capital and a guarantee for a FIM1.7b subordinated loan. This original amount would prove insufficient and multiple rounds of further assistance were required. By October 1993 SBF had received a total of FIM14.5b (Nyberg, p36). At that point the GGF sold the healthy parts of SBF, about FIM41b in assets (Nyberg, p38), to four competing banks: Kansallis-Osake-Pankki, Union Bank of Finland Ltd, Postipankki Ltd, and the Okobank Group (BoF93, p30). An asset management company called Arsenal was established in November 1993 to take on the remaining unhealthy remnants (BoF93, p65).

Program Description

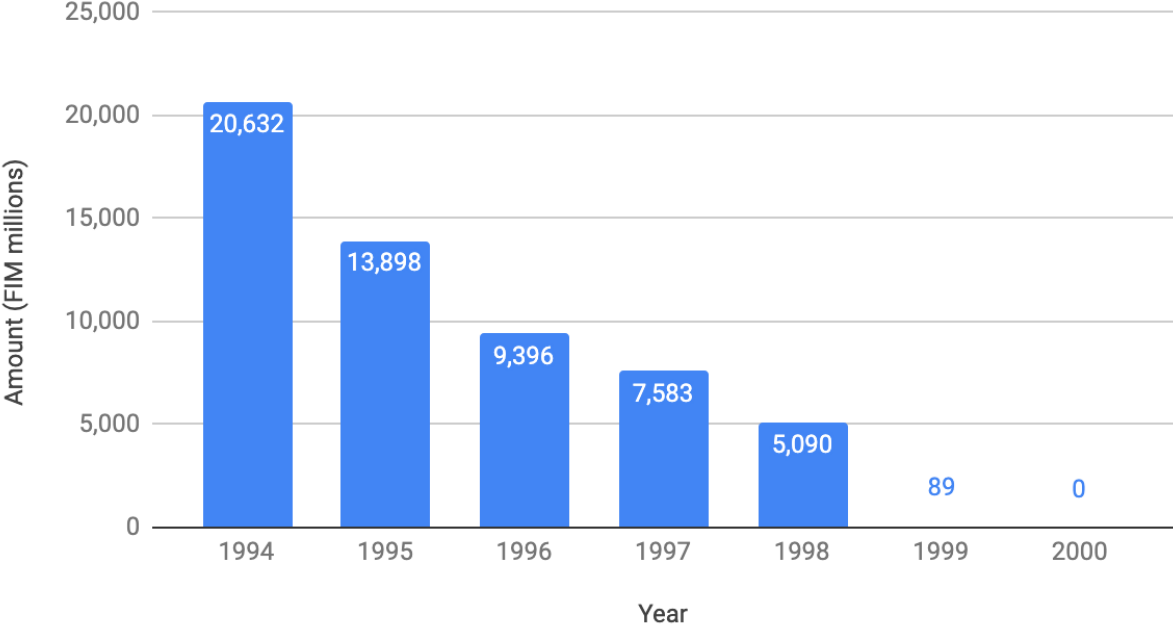
Financing and Governance of Arsenal

On November 18, 1993, after FIM41b in healthy assets of the Savings Bank of Finland, itself an entity created by a government forced merger of 41 of 81 of Finland's savings banks, were sold to four large commercial banks, an asset management company called Arsenal was formed to handle the remaining FIM30b in unhealthy assets (Nyberg, p36). The new venture was funded by the Government of Finland (Government) and the GGF (see the chart below). In the initial FIM5b capitalization the Government took a 74% equity stake and the GGF took 26% (AAR94, pdf p12). Due to higher than originally anticipated losses the government made a series of further capital injections: FIM6b in 1994, FIM8b in 1995, and FIM4b in 1996 (Borio, p37). The equity balance ultimately shifted slightly to 79% and 21% for the Government and the GGF respectively (Klingebiel, pdf p48).



Coupled with the FIM23b in total state-injected-capital, Arsenal also received an unconditional guarantee from the Government of up to FIM28b for all “repayment of bonds and other debt financing issued by Arsenal” (AAR94, p13). The bonds were described as, “negotiable, State-guaranteed zero coupon bonds in the form of a book-entry security and technically comparable to certificates of deposit issued by commercial banks and governments” (AAR95, p26). Most of the debt had short-term tenures. However, in 1996 two long-term bonds, worth a total of FIM3b, were issued (AAR96, p20). In its first series of public debt issuances Arsenal sold FIM20.6b (AAR94, p15). The amount of debt issued is outlined in the chart below.

Arsenal's Debt Instruments Public Issues



Source: Arsenal Annual Reports 1994 - 2000

The governing structure of Arsenal was designed with a balance of private sector expertise and government oversight. Of the six members of the board of directors, two were from the private sector and four represented the Government. The CEO and other senior management members were appointed by the Government from the private sector. Oversight of Arsenal was conducted by the GGF, the State Audit Office, and the Parliamentary State Auditors (Klingebiel, pdf p48).

Operations and Assets

Arsenal became operational on January 15, 1994 (NAOF, p6) and began the process of assuming responsibility for the assets the following month (AAR94, p6). At the outset, the Government estimated the time horizon within which Arsenal would be able to divest of its assets was five to seven years. However, it was noted that, “the divestment process will possibly continue after year 2000 if it will assist in reducing the financial burden levied on the Government” (AAR94, p9).

The non-performing assets acquired by Arsenal were taken at book value. Given the market turmoil it was widely accepted that the book value was substantially higher than the market value. This was confirmed in the summer of 1994 when an extensive review was conducted by external surveyors to assess the market value of the complete real estate portfolio (AAR94, p13). Based on the estimates, property write-downs amounted to FIM3.5b during 1994 (AAR94, p13). The portfolio included loan receivables, real estate, and other assets totaling a book value of FIM30b (Nyberg, p38). This included 15,000 properties and 1,478 companies, of which 95% were real estate companies (AAR95, p4, p6).

Assets originally transferred accounted for 5.2% of Finland's total banking assets and 8.2% of GDP ([Klingebliel](#), pdf p52). In addition to the original assets, Arsenal was permitted by law to extend additional credit as needed, "in cases where this reduces the total cost to the Government" ([Nyberg](#), p38). Also, the four banks that had acquired the healthy assets of SBF were permitted to transfer to Arsenal any of those assets that underperformed or became non-performing until the beginning of 1995. Those banks transferred an additional FIM10b during 1994, bringing the total assets of Arsenal up to FIM40b ([BoF94](#), p31 for the FIM40b and [AAR94](#), p15 for the original FIM28.6b).

Arsenal's largest asset disposal of 1995 was the sale of a travel resort and in 1996 it was a golf course ([AAR95](#), p23; [AAR96](#), p1). Although Arsenal did not commence any new construction projects, they did manage unfinished property developments if it was determined that, "the overall result is better than through selling the unfinished project" ([AAR94](#), p13).

Outcomes

Expansion to Asset Management Group

Arsenal began as an asset management company with the sole purpose of managing and liquidating the non-performing loans and other assets of the SBF. However, during the years following its creation, Arsenal's purpose was expanded to absorb more troubled institutions and assets.

In the summer of 1993 the GGF split STS Bank into two entities. The entity with healthy assets was bought by KOP Bank. The entity with bad assets was renamed Siltapankki and although officially owned by KOP Bank, the control of Siltapankki was held by the GGF. In November 1995 Siltapankki was sold to Arsenal for only FIM1 ([Borio](#), p33).

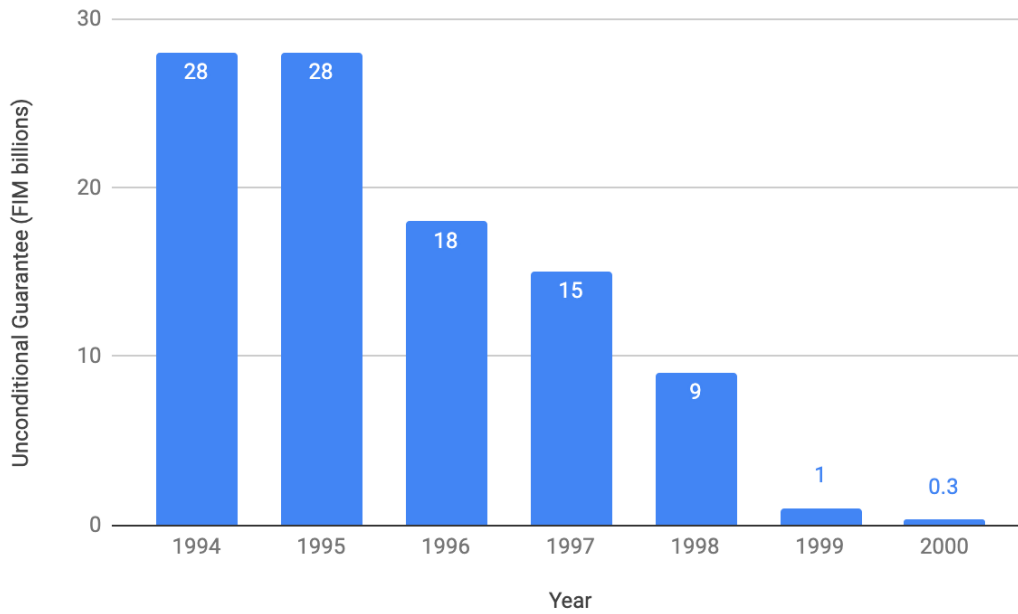
In June 1995, the law was changed to allow Arsenal to expand to hold other asset management companies ([AAR95](#), p5). When Arsenal was originally founded there were certain assets of SBF that had not been transferred to Arsenal itself, but rather had been kept as a subsidiary bank of Arsenal. In November 1995 the banking charters of these entities (named Arsenal-SSP) and Siltapankki (renamed Arsenal-Silta) were revoked and both entities became asset management companies ([AAR95](#), p7).

The Bank of Finland (the central bank) took over Skopbank, the correspondent bank of savings banks, in September 1991. They divided the assets into three holding companies, one of which was a real estate asset management company called Sponda ([BoF91](#), p25). In May of 1996, with real estate assets worth FIM1b (note that on p1 of the Arsenal Annual Report 1997 the entity is called SKOP-Real Estate), it was sold to Arsenal³ ([Kuustera](#), p694).

Wind Down and Liquidation

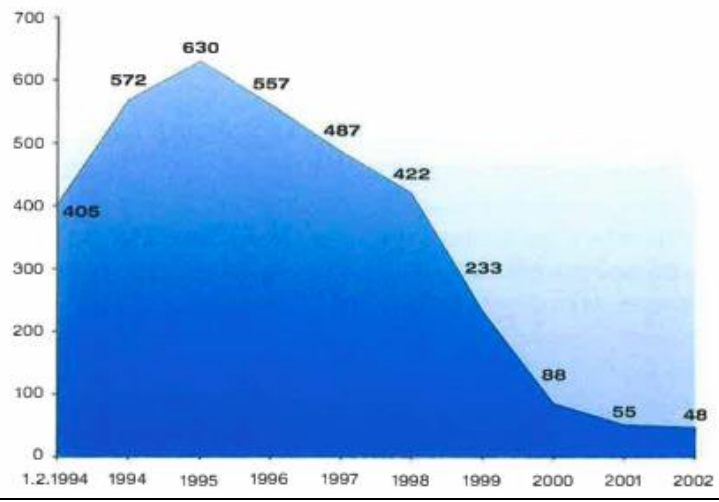
³ The other two holding companies were named Scopulus (held the shares of Skopbank itself) and Solidium (held industrial assets) ([Nyberg](#), p21). Scopulus sold its shares to the GGF in June 1992 ([Kuustera](#), p675). Solidium was merged into Sponda before Sponda was sold to Arsenal ([Kuustera](#), p675).

For unspecified reasons the Government’s unconditional guarantee of Arsenal’s debt was decreased as seen in the chart below.



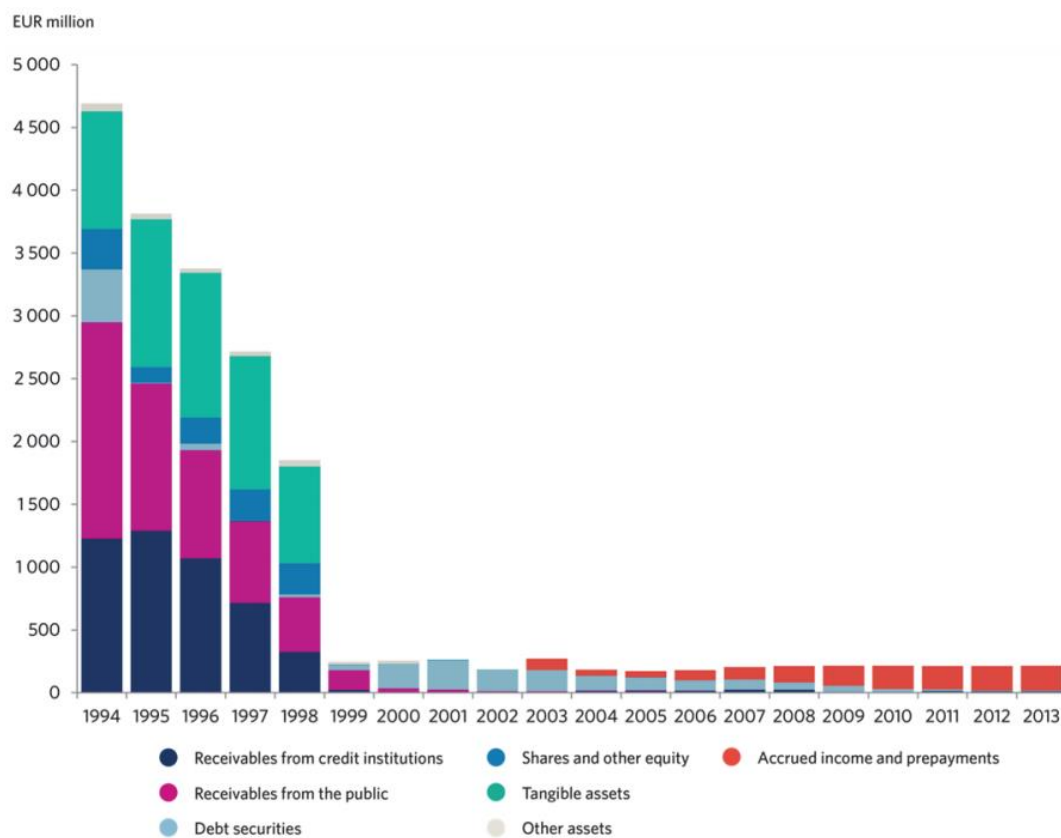
Source: Arsenal Annual Reports 1994 - 2000

In 1996, the number of subsidiaries being managed by the Arsenal group peaked at 1,584 (AAR96, p22). At its height, as seen in the chart below, Arsenal had a total of 630 employees in 1995 (AAR02, p16). By 2003 there were just 13 salaried employees⁴ (NAOE, p23). In 1997 the number of offices was reduced from 22 down to 15 (AAR97, p13) and then from 15 down to 6 in 1999 (AAR99, p44).



⁴ The company also had two liquidators.

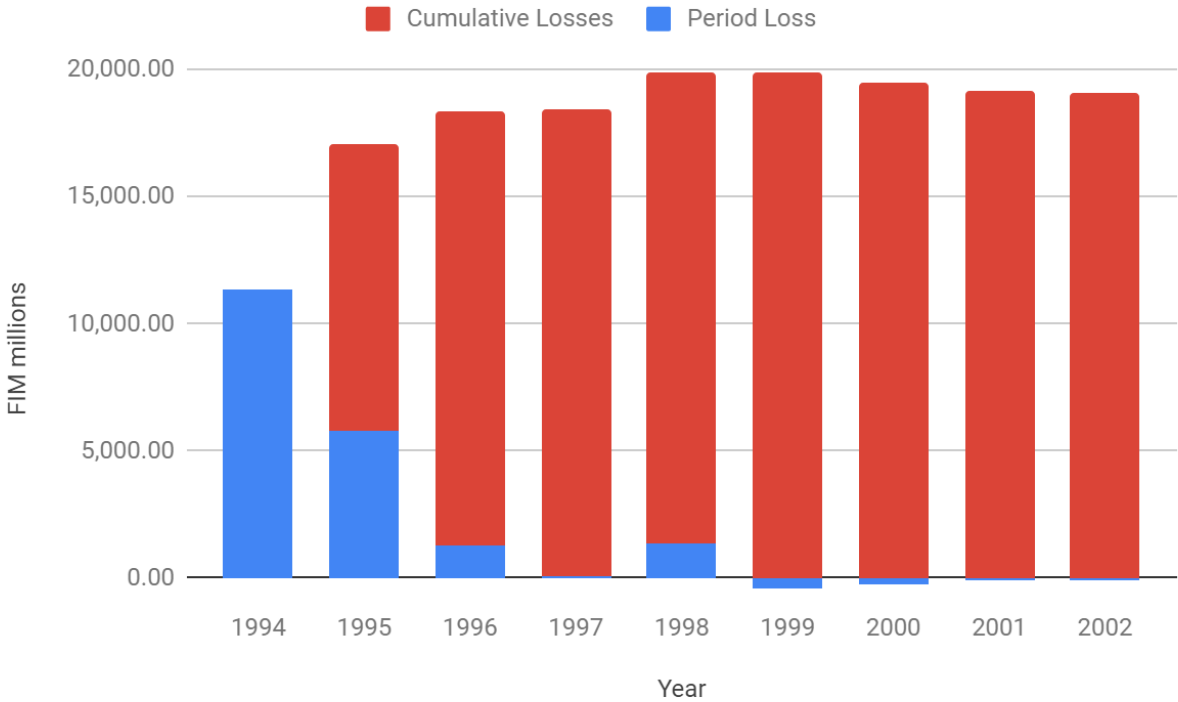
As seen in the chart below, over 90% of the peak total assets had been offloaded by 1999 (NAOF, p12).



Assets in Arsenal's balance sheet between 1994 and 2013.

Arsenal was placed in liquidation in October of 2003 (NAOF, p1). The duties of the board of directors and managing director were transferred to two liquidators who oversaw a reduction of outstanding debtors from over 1500 to less than 500 between 2003 and 2014 (NAOF, p17). According to the 2017 Financial Statements, the most recent available at the time of this writing, the liquidation of Arsenal was ongoing, but it was estimated that by the end of 2018 there would be only one employee. There were a number of Arsenal assets that were going through domestic or foreign bankruptcies. These were expected to close within two to three years, at which point Arsenal was expected to dissolve (Liquidation, p11).

As seen in the chart below, Arsenal lost nearly FIM20b in the first five years of operation (AAR94-98). During the next four years leading up to the liquidation Arsenal turned a small annual profit (AAR99-02). At the time of liquidation the cumulative losses were FIM19.07b.



Source: Arsenal Annual reports 1994 - 2002.

The approximately FIM114.0b cost of the broad rescue of Finland’s financial system has been estimated at 17.2% of GDP by 1995. Of this 17.2%, studies have estimated that over half of the government’s investments was recovered, giving an estimated net cost of around 7% of GDP (Mayer, p41). The funding for Arsenal itself was estimated at 6.6% of GDP (Borio, p14).

II. Key Design Decisions

- 1. As part of the Government’s resolution of the Savings Bank of Finland, Arsenal was created to take over the bad assets.**

The asset management company Arsenal was announced in the Fall of 1993⁵ and became operational on January 15, 1994 after multiple steps had been taken by the Finnish government and the Bank of Finland to handle the banking crisis. Skopbank, a correspondent bank for savings banks, had been taken over by the Bank of Finland. Then 41 of the 81 savings banks were forced to merge together into a new entity called the Savings Bank of Finland. After parts of the healthy pieces of the Savings Bank of Finland were sold to four larger banks, Arsenal was created to absorb, manage, and liquidate the non-performing assets.

⁵ Varying sources report different establishment dates in October and November of 1993.

Arsenal did not accompany other government interventions or programs announced at the same time.

2. New authority was sought, and granted under the Government Guarantee Act of 1992, to create the asset management company Arsenal.

As the financial crisis began to unfold, the government sought new legal authority to, among other things, establish an asset management company. This authority was granted in the Government Guarantee Act of 1992 (GGF). In June 1995 a significant amendment was made to the original act to allow Arsenal to hold other asset management companies (AAR95, p5). This was necessary to accommodate the acquisition of other, smaller asset management companies that had been created during the crisis to handle the bad assets of other financial institutions.

Originally structured as a limited joint stock company governed by the Government of Finland, Arsenal converted to a limited public company in 1998 (AAR97, p19).

3. The Government of Finland made a series of increasingly strong public statements and commitments regarding their handling of the banking crisis.

The Government of Finland made a number of public statements and commitments regarding their plan to contain the banking crisis. In March of 1992 a special working group formed by the Prime Minister to review the situation published a report encouraging, among other things, the creation of the Government Guarantee Fund (Nyberg, p28). In August of 1992 the Government announced that they would secure the Finnish banking system under all circumstances (Nyberg, p28).

In January 1993 the Government made this final commitment more explicit via a Parliamentary Resolution. The resolution stated, “Parliament requires the state to guarantee that Finnish banks are able to meet their commitments on time under all circumstances. Whenever necessary, Parliament shall grant sufficient appropriations and powers to be used by the Government for meeting such commitments” (Nyberg, p33).

4. Governance and administration of Arsenal.

The Board of Directors of Arsenal was made up of four members from the government sector (the Director General of the State Treasury, the Deputy Head of the Budget Department in the Ministry of Finance, the Director of the Government Guarantee Fund Board, and the Industrial Counsellor of the Ministry of Trade and Industry) and two members from the private sector (Senior Vice President of KOP Bank and CFO of Huhtamaki Oy, a food and beverage packaging company). The management team was brought from the private sector (the President and CEO came from a Senior Executive Vice President role at Partek Corporation, a building materials company). Operations were overseen by a number of government agencies, including: the Government Guarantee Fund, the National Audit Office, and Parliamentary State Auditors. (Klingebliel, pdf p48).

Arsenal was required to publish monthly public reports and a full annual report with audited financial statements. The company created a website that contained interim reports and key figures on the company’s capital and shareholders (Klingebliel, pdf p48).

In their 1994 Annual Report, Arsenal indicated that they had built an extensive new data system to manage the growing number of clients, asset portfolios, and internal employees (AAR94, p12-13).

5. At its peak, Arsenal had assets worth FIM40b.

At its peak at the end of 1994, Arsenal had assets worth FIM40b (BoF94, p31). Although Arsenal acquired additional assets and asset management companies during the following years, they were disposing of more assets than they were acquiring and thus never surpassed the peak size that was reached in the first year (see Arsenal's annual reports for the full financial statements).

6. Arsenal was funded by capital injections from the Government Guarantee Fund (26% ownership) and the Government of Finland (74%).

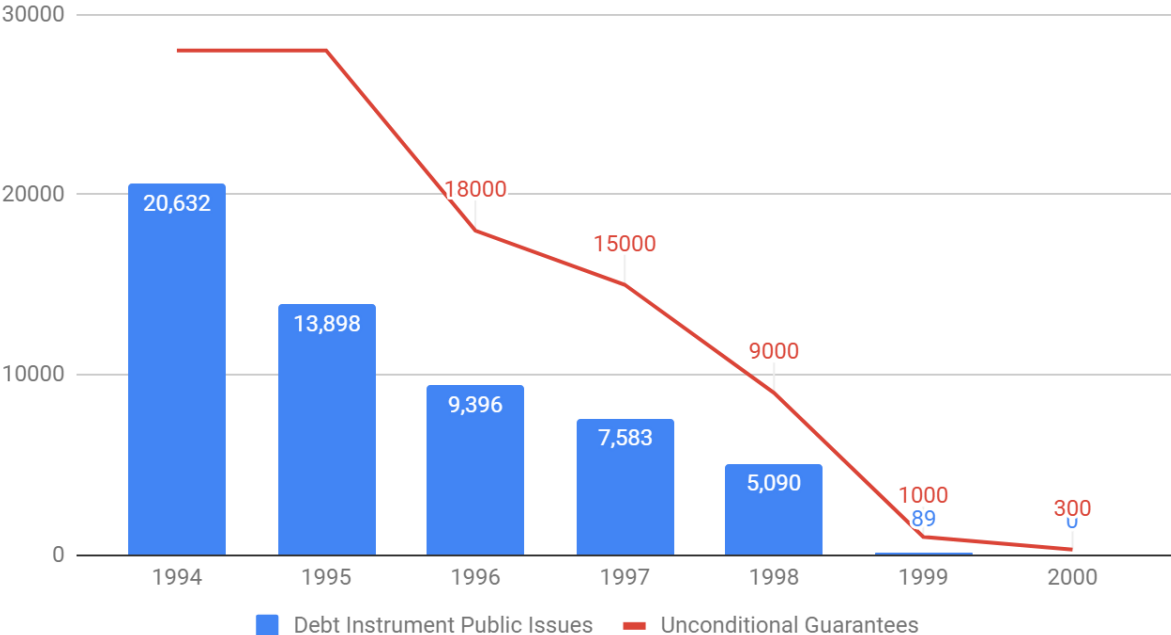
Primary funding for Arsenal came from the Government Guarantee Fund and the Government of Finland. The combined equity capital investments included a total of nearly FIM23b: FIM5b in 1993, FIM6b in 1994, FIM8b in 1995, and FIM4b in 1996 (Borio, p37). The initial investments allocated 74% ownership to the Government and 26% to the GGF (AAR94, pdf p2). After the subsequent rounds of additional capital injections, the Government's ownership stake increased slightly to 79% and the GGF's ownership decreased to 21% (Klingebiel, pdf p48). GGF's stake in Arsenal was paid for with KOP Bank shares (AAR94, p6).

In addition, Arsenal issued mostly short-term, government guaranteed debt securities. In 1996 two long-term bonds, worth a total of FIM3b, were issued with the same government guarantee (AAR96, p20).

7. The Government of Finland provided guarantees for up to FIM28b in debt issued by Arsenal and assumed all of the losses incurred.

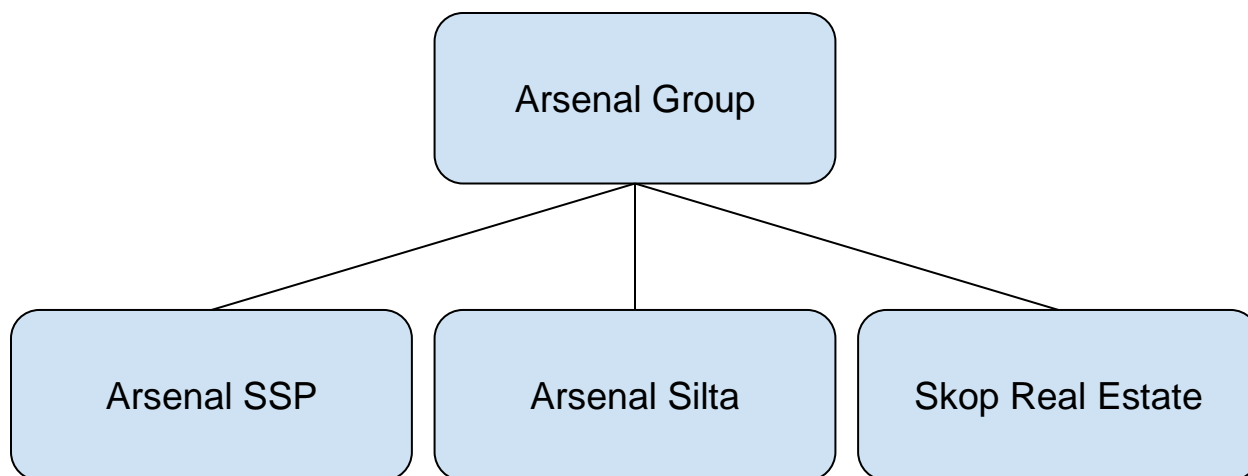
The Government of Finland said in May 1994 that it would guarantee Arsenal's funding up to FIM28b for all "repayment of bonds and other debt financing issued by Arsenal" (AAR94, p13). In December 1996 the guarantee was reduced by FIM10b to FIM18b (AAR96, p20). In 1997 it was reduced an additional FIM3b to FIM15b (AAR97, p3). In 1998 it was reduced FIM6b to FIM9b (AAR98, p1). In 1999 it was reduced to just FIM1b (AAR99, p1). In the chart below, the red line shows the Government guarantee and the blue bars show the actual amount of debt issued.

Unconditional Guarantees and Actual Debt Issued



8. Initially, Arsenal only took on assets from the Savings Bank of Finland. Over time additional assets were acquired from a small handful of other banks and asset management companies.

Arsenal was founded with the purpose of taking on the bad assets of the Savings Bank of Finland (SBF), itself the forced merger of 41 of the country’s 81 savings banks (AAR94, p8). The four institutions that acquired the healthy assets of SBF were permitted to return any of those assets that became non-performing during the first year of operation. Over time Arsenal accepted assets from other institutions and even transformed into a group with its holdings of other asset management companies. In March of 1995 Siltapankki, an asset management company handling the non-performing assets of STS-Bank was acquired by Arsenal (AAR95, p4 and p7). Also, real estate assets worth FIM1b were transferred from SKOP bank in May of 1996 (Kuustera, p694 and AAR97, p1).



Beyond the four institutions that took the healthy assets of SBF, there was no period in which Arsenal accepted non-performing assets from the broader banking or any other sector.

9. Arsenal accepted all non-performing assets of the Savings Bank of Finland.

Arsenal took on all non-performing assets of the Savings Bank of Finland. According to a report by the World Bank, the asset portfolio of Arsenal broke down as follows: Real Estate 33.7%, Client receivables 41%, and other assets 25.3% ([Klingebiel](#), pdf p52; also see AAR96 for clients receivables).

10. The assets acquired by Arsenal were priced at their original book value, an amount significantly above the market value of the time.

Arsenal acquired the non-performing assets of the Savings Bank of Finland at their original book values (AAR94, p8). The book values were significantly higher than the market value of the time (AAR94, p13).

During the following years when additional assets and/or asset management companies were acquired they were done in single transactions and not during a specified, open purchase window.

11. Arsenal prioritized achieving the best return for its portfolio over prompt disposal.

In the summer of 1994, shortly after the assets had been acquired, Arsenal hired outside surveyors to conduct a valuation of the entire real estate portfolio (AAR94, p13). This valuation was conducted to assist in the disposal of the assets and did not affect the acquisition price.

When Arsenal was created it was not given a target end date or sunset clause. The first annual report estimated that activities would last between five to seven years, with a plan to divest by the end of the year 2000; however, it was noted that “the divestment process will possibly continue after year 2000 if it will assist in reducing the financial burden levied on the Government” (AAR94, p9).

III. Evaluation

A review of the banking crises in the Nordic countries during the early 1990's concluded that, "creditors' confidence in the banking systems was quickly restored, banks returned to profitability fairly quickly and the impact on the economies of the banking problems seemed fairly modest" (Moe, p98). The authors of the review also made positive conclusions regarding the amount of transparency in the creation and management of the asset management companies (Moe, p99).

A similar cross country examination of asset management companies by the World Bank emphasised that, "Arsenal was provided with appropriate funding, had professional management, and a skilled human resource base" (Klingeziel, p16). However, because Arsenal had accepted all non-performing loans regardless of asset type or size, the wind down strategy was slowed because they had to hire a large number of professional staff to value, manage, and sell the assets. Also due to the nature of the wide range of real estate and other assets under management, Arsenal wasn't able to use "wholesale divestiture techniques" (Klingeziel, p16). A favorable factor, the World Bank noted, was that "appropriate funding allowed Arsenal to market assets to market value after their transfer" (Klingeziel, p16).

A 2015 audit of the liquidation of Arsenal was commissioned by the Finnish government. One of their conclusions was that due to the built-in-unknown of how long it will take an asset management company to divest of its holdings, "public receivership should also be considered as an alternative" (NAOF, p2).

IV. References

- (AAR94) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 1994".
- (AAR95) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 1995".
- (AAR96) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 1996".
- (AAR97) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 1997".
- (AAR98) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 1998".
- (AAR99) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 1999".
- (AAR00) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 2000".
- (AAR01) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 2001".
- (AAR02) Asset Management Company Arsenal Ltd. "Annual Report and Accounts 2002".
- (Liquidation) Asset Management Company Arsenal Ltd in Liquidation. "Financial Statements and Report of the Board of Directors 31.12.2017"
- (BoF90) Bank of Finland. "Bank of Finland 71st Year Book Report on Activities in 1990".

- (BoF91)** Bank of Finland. “Bank of Finland 72nd Year Book Report on Activities in 1991”.
- (BoF92)** Bank of Finland. “Bank of Finland 73rd Year Book Report on Activities in 1992”.
- (BoF93)** Bank of Finland. “Bank of Finland 74th Year Book Report on Activities in 1993”.
https://helda.helsinki.fi/bof/bitstream/handle/123456789/7402/BoF_Yrb_1993.pdf?sequence=1&isAllowed=y
- (BoF94)** Bank of Finland. “Bank of Finland 75th Year Book Report on Activities in 1994”.
https://helda.helsinki.fi/bof/bitstream/handle/123456789/7403/BoF_Yrb_1994.pdf?sequence=1&isAllowed=y
- (BoF95)** Bank of Finland. “Bank of Finland 76th Year Book Report on Activities in 1995”.
- (BoF96)** Bank of Finland. “Bank of Finland 77th Year Book Report on Activities in 1996”.
- (BoF97)** Bank of Finland. “Bank of Finland 78th Year Book Report on Activities in 1997”.
- (BoF98)** Bank of Finland. “Bank of Finland 79th Year Book Report on Activities in 1998”.
- (BoF99)** Bank of Finland. “Bank of Finland 80th Year Book Report on Activities in 1999”.
- (Borio)** Borio, Claudio; Bent Vale; Goetz von Peter. “Resolving the financial crisis: are we heeding the lessons from the Nordics?” Bank for International Settlements Working Papers No 311. June 2010. <https://www.bis.org/publ/work311.pdf>
- (EU)** European Union. “Finland Overview”. Website accessed June 1, 2019.
https://europa.eu/european-union/about-eu/countries/member-countries/finland_en
- (GGF 1992)** Annual Report of the Government Guarantee Fund 1992.
- (GGF 1993)** Annual Report of the Government Guarantee Fund 1993.
- (GGF 1994)** Annual Report of the Government Guarantee Fund 1994.
- (GGF 1995)** Annual Report of the Government Guarantee Fund 1995.
- (GGF)** Finnish Government. “Act on Government Guarantee Fund 30.4.1992/379”.
https://www.finlex.fi/en/laki/kaannokset/1992/en19920379_20060644.pdf
- (Gov Report 1999)** Government report to Parliament on bank support. November 16, 1999.
- (Klingebiel)** Klingebiel, Daniela. “The Use of Asset Management Companies in the Resolution of Banking Crises: Cross-Country Experience”. The World Bank Financial Sector Strategy and Policy Group. February 2000.
<http://documents.worldbank.org/curated/en/887671468760186237/pdf/multi-page.pdf>

- (Kuustera)** Kuusterä, Antti; Juha Tarkka. “Bank of Finland 200 Years: Parliament’s Bank II”. Otava Publishing Company LTD Helsinki. May 2012.
https://www.suomenpankki.fi/globalassets/en/media-and-publications/publications/other-publications/documents/bof200_part_2.pdf
- (Mayes)** Mayes, David G; Liisa Halme; Aarno Liuksila. “The Financial Crisis of the Early 1990s and its Lessons”. 2001.
https://link.springer.com/chapter/10.1057%2F9780230288195_2
- (Moe)** Moe, Thorvald G; Jon A Solheim; Bent Vale (eds.). “The Norwegian Banking Crisis”. 2004. https://static.norges-bank.no/contentassets/ed5dd397dce345338046a22c7e07f959/hele_heftet.pdf?v=03/09/2017122240&ft=.pdf
- (NAOF)** National Audit Office of Finland. “Performance Audit Report Practicalities of the Liquidation of Asset Management Company Arsenal Ltd”. April 2015.
<https://www.vtv.fi/app/uploads/2018/06/28081111/practicalities-of-the-liquidation-of-asset-management-company-arsenal-ltd.pdf>
- (Nyberg)** Nyberg, Peter; Vesa Vihriälä. “The Finnish Banking Crisis and its Handling (an Update of Developments Through 1993”. Bank of Finland Research Discussion Paper No. 7/1994. April 18, 1994.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2756413
- (WBGDP)** World Bank Data using Google Public Data. GDP. Website accessed June 1, 2019.
https://www.google.com/publicdata/explore?ds=d5bncppjof8f9 &met y=ny_gdp_mktp_cd&idim=country:FIN:NOR:SWE&hl=en&dl=en#!ctype=l&strail=false&bcs=d&nselm=h&met y=ny_gdp_mktp_cd&scale y=lin&ind y=false&rdim=region&idim=country:FIN:SWE:NOR:DNK&ifdim=region&tstart=-303940800000&tend=1494820800000&hl=en_US&dl=en&ind=false
- (WBU)** World Bank Data using Google Public Data. Unemployment. Website accessed June 1, 2019.
https://www.google.com/publicdata/explore?ds=d5bncppjof8f9 &hl=en&dl=en#!ctype=l&strail=false&bcs=d&nselm=h&met y=unemployment&scale y=lin&ind y=false&rdim=region&idim=country:FIN:NOR:SWE:DNK&ifdim=region&tstart=67428000000&tend=1494820800000&hl=en_US&dl=en&ind=false

V. Key Program Documents

Summary of Program

The Finnish Banking Crisis and its Handling (an Update of Developments Through 1993 – Written a few months after Arsenal became operational this report by the Bank of Finland reviews the build up and early government actions to the crisis.

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2756413

Key Academic Papers

Country Experience – This report covers details regarding Arsenal’s functions and development and compares it against other asset management companies in other countries during financial crises.

<http://documents.worldbank.org/curated/en/887671468760186237/pdf/multi-page.pdf>

Resolving the financial crisis: are we heeding the lessons from the Nordics? – A 2010 report comparing the actions taken by countries during the Great Financial Crisis to the actions taking during the Nordic banking crisis.

<https://www.bis.org/publ/work311.pdf>

The Financial Crisis of the Early 1990s and its Lessons – A summary of the actions taken by the Nordic countries during the banking crises of the 1990s.

https://page-one.springer.com/pdf/preview/10.1057/9780230288195_2

Reports/Assessments

Performance Audit Report Practicalities of the Liquidation of Asset Management Company Arsenal Ltd – *A government commissioned report on the asset management company and liquidation of Arsenal.*

<https://www.vtv.fi/app/uploads/2018/06/28081111/practicalities-of-the-liquidation-of-asset-management-company-arsenal-ltd.pdf>