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Finland: Arsenal

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Finland: Arsenal[1]

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Abstract

Following a large-scale deregulation of the financial sector during the 1980s and the subsequent massive credit expansion, a banking crisis in Finland caused a sharp contraction in the economy in the early 1990s. 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, as the group later came to be known, was ultimately responsible for managing more than FIM 40 billion (approx. $8.1 billion) in assets. By 1999 more than 90% of the assets had been wound down. Arsenal was not placed in liquidation until 2003, at which time losses had reached nearly FIM 20 billion. In the most recent available financial statements, 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, Government Guarantee Fund, Nordic banking crisis, Savings Bank of Finland , broad-based asset management

[1] This case study is part of the Yale Program on Financial Stability (YPFS) selection of New Bagehot Project modules considering broad-based asset management company programs.

Cases are available from the *Journal of Financial Crises* at https://elischolar.library.yale.edu/journal-of-financial-crises/.

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Finland: Arsenal

At a Glance

Following a large-scale deregulation of the financial sector during the 1980s and the subsequent massive credit expansion, a banking crisis in Finland caused a sharp contraction in the economy in the early 1990s. 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).

Arsenal was wholly government owned, with the Government of Finland owning 74% of the shares and an off-state-balance-sheet fund holding the remainder, and received an unconditional guarantee of up to 23 billion Finnish markkas (FIM) ($4.7 billion) for bonds issued by Arsenal itself.[3] Arsenal acquired the assets of the Savings Bank of Finland at their original book value, which was significantly greater than their market value at the time, using the Arsenal bonds guaranteed by the Finnish government (Arsenal 1994).

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" (Arsenal 1995).	
Launch dates	Circa end of 1993
Wind-down dates	1999: more than 90% of assets disposed; 2003: Arsenal placed in liquidation; 2018: one employee remains to manage few remaining bankruptcies
Size and type of NPL problem	18.7% at the end of 1993 (Klingebiel 2000); Savings bank loans
Program size	Not specified at outset
Eligible institutions	Initially just the Savings Bank of Finland; later expanded to include other institutions Closed-bank only
Usage	FIM 40 billion
Outcomes	Loss of FIM 20 billion on FIM 40 billion in assets
Ownership structure	Public-owned
Notable features	Allowed the banks who bought the good assets to give them back to Arsenal if they became non-performing in the first year; allowed Arsenal to prioritize the pursuit of bad debtors over strict loss minimization

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 more than FIM 40 billion in assets. By 1999 more than 90% of the assets had been wound down. Arsenal was not placed in liquidation

[3] FIM 4.936 = 1 USD during the time period in question (Federal Reserve Bank of New York, Foreign Exchange Rates Archive).

until 2003, at which time losses had reached nearly FIM 20 billion. 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 concludes that Arsenal 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 feature 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 is generally seen as having greatly contributed to the banking sector's eventual recovery.

Finland – Arsenal: Finland Context	
GDP (SAAR, Nominal GDP in LCU converted to USD)	$89.2 billion in 1993 $103.3 billion in 1994
GDP per capita (SAAR, Nominal GDP in LCU converted to USD)	$17,609 in 1993 $20,301 in 1994
Sovereign credit rating (5-year senior debt)	Data for 1993: Moody's: n/a S&P: AAA Fitch: n/a Data for 1994: Moody's: n/a S&P: AAA Fitch: n/a
Size of banking system	Data not available for 1993 Data not available for 1994
Size of banking system as a percentage of GDP	84.51% in 1993 73.08% in 1994
Size of banking system as a percentage of financial system	Data not available for 1993 Data not available for 1994
5-bank concentration of banking system	Data not available for 1993 Data not available for 1994
Foreign involvement in banking system	Data not available for 1993 Data not available for 1994
Government ownership of banking system	Data not available for 1993 Data not available for 1994
Existence of deposit insurance	Yes in 1993 Yes in 1994
Sources: Bloomberg; World Bank Global Financial Development Database; World Bank Deposit Insurance Dataset.	

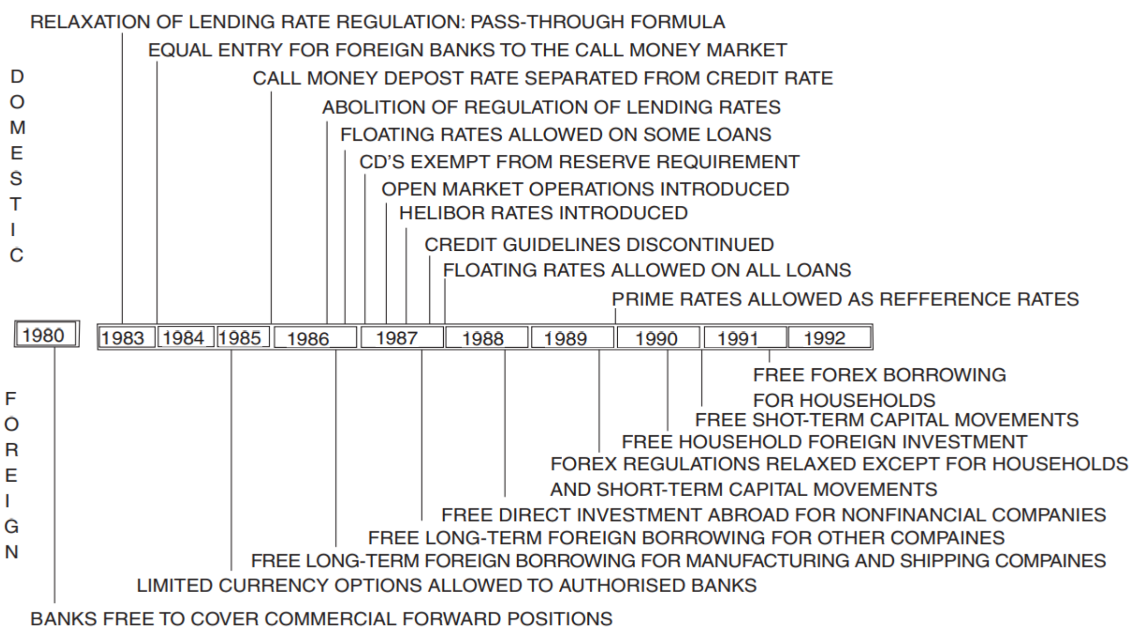
I. Overview

Background

The Buildup

During the 1980s in Finland there was a large-scale deregulation of the financial sector as outlined in Figure 1. The government allowed banks to lend into areas where they had not lent before and therefore lacked market-specific knowledge. Regulatory decisions were subject to court challenges, and it has been theorized that this "raised the threshold for introducing stricter supervisory practices" (Nyberg and Vihriälä 1994). 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, Solheim, and Vale 2004). The savings banks were taking extraordinary risks and were under-capitalized.

Figure 1: Timeline of market liberalization 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, Solheim, and Vale 2004). 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. Housing prices doubled between 1986 and 1989, and the Finnish stock market tripled in value between 1985 and 1988 (Mayes, Halme, and Liuksila 2001). Commercial property prices may have increased even more than residential prices. 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, Solheim, and Vale 2004).

In addition, there were two significant international events that affected the Finnish economy in the late ’80s and early ’90s. First, Finland faced significant speculative attacks on its currency, which resulted in a major devaluation in September 1992. In an attempt to stabilize its currency, the Finnish government tightened monetary policy through rising interest rates, which dampened borrowing (Mayes, Halme, and Liuksila 2001).

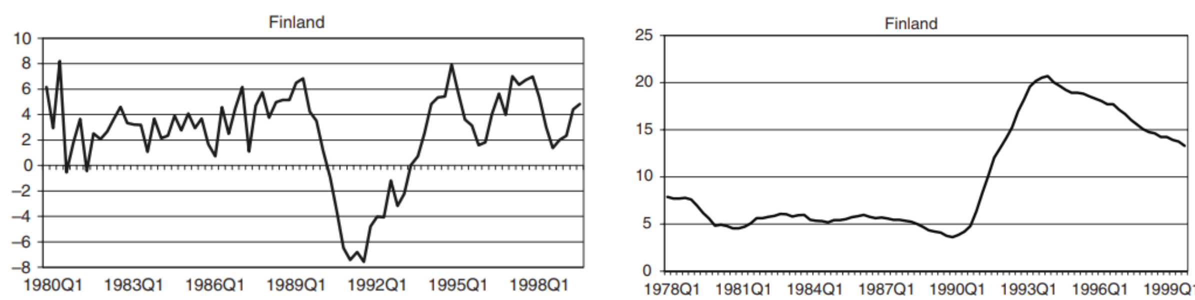
Second, Finnish exports collapsed with the fall of the Soviet Union (Moe, Solheim, and Vale 2004). The Soviet Union had accounted for approximately 15% of Finnish exports (Mayes, Halme, and Liuksila 2001). The decrease in exports to the former Soviet Union caused a negative demand shock of approximately 2.5% of GDP to the Finnish economy (Nyberg and Vihriälä 1994).

The Crisis

Finland was not alone in suffering a banking crisis and economic downturn during the early 1990s. Sweden, Norway, and Denmark experienced crises that, although they had distinct causes and effects, were similar in many ways. However, Finland suffered the most, with a growth rate of negative 8% of GDP during the worst of the crisis years and a peak unemployment rate at greater than 20% (Mayes, Halme, and Liuksila 2001). See Figure 2.

Figure 2: GDP growth and unemployment rate in Finland in the 1980s and 1990s

GDP growth (%) Unemployment (%)

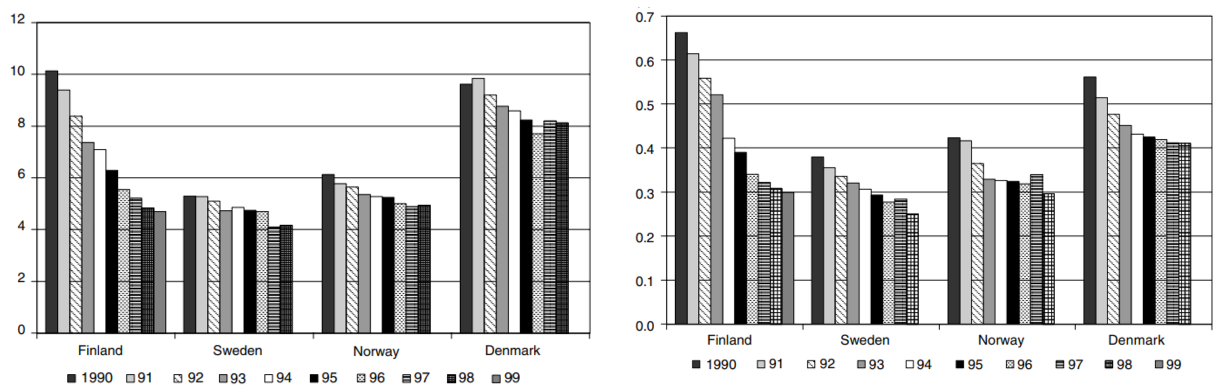


Source: Mayes, Halme, and Liuksila 2001.

Outstanding loans to the public by all Finnish deposit banks had more than doubled from FIM 214 billion to FIM 491 billion from 1985 to 1990 (Nyberg and Vihriälä 1994). Throughout the time period, GDP was growing at a similar pace, so this lending represented a consistent 75% of GDP (World Bank n.d.). Then, from 1991 to 1995, bank lending fell by more than a third. It would take nine years before bank lending returned to the pre-crisis levels (Moe, Solheim, and Vale 2004). This dramatic buildup and then crash of the banking sector can be seen in the two charts in Figure 3, which show 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 2000).

Figure 3: Size of banking sector by employment and branches in the 1990s

Banking employees per 1,000 people Bank branches per 1,000 people



Source: Mayes, Halme, and Liuksila 2001.

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-1980s boom years. It was a commercial bank that served as a central bank or correspondent bank to Finland's savings banks. Skopbank was 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 and Vihriälä 1994). Skopbank was controlled and mostly owned by the savings banks (Borio, Vale, and von Peter 2010).

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 and Vihriälä 1994). In October 1990 a restructuring program was designed by the authorities that required that the savings banks raise FIM 1.8 billion in capital from private investors for Skopbank. Ultimately, however, the capital proved insufficient, and after an acute liquidity crisis in September 1991, the Bank of Finland took majority control of Skopbank, with 53% of the outstanding shares (Borio, Vale, and von Peter 2010); recapitalized the bank with an initial investment of FIM 4 billion in equity; and set up three companies to manage most of the bank's assets. This takeover and equity injection were seen as outside the traditional roles of a central bank (Nyberg and Vihriälä 1994).

In March 1992 the Finnish government provided an FIM 8 billion capital injection program to the banking system. Participation in the program was voluntary, but "virtually all banks applied and received a share" (Moe, Solheim, and Vale 2004). The capital was available to "all banks regardless of their solvency and in relation to their risk-weighted assets." By December 1992, FIM 7.9 billion of the FIM 8 billion program had been deployed (Nyberg and Vihriälä 1994).

In late April 1992, the Parliament created the off-state-balance-sheet Government Guarantee Fund (GGF) (Parliament of Finland 1992) to prevent a collapse in domestic and international confidence in the stability of the banking system and its claims. The GGF was initially provided with FIM 20 billion 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. In early 1993, another FIM 20 billion was made available (Nyberg and Vihriälä 1994). One of the first actions of the GGF was to acquire Skopbank from the Bank of Finland.

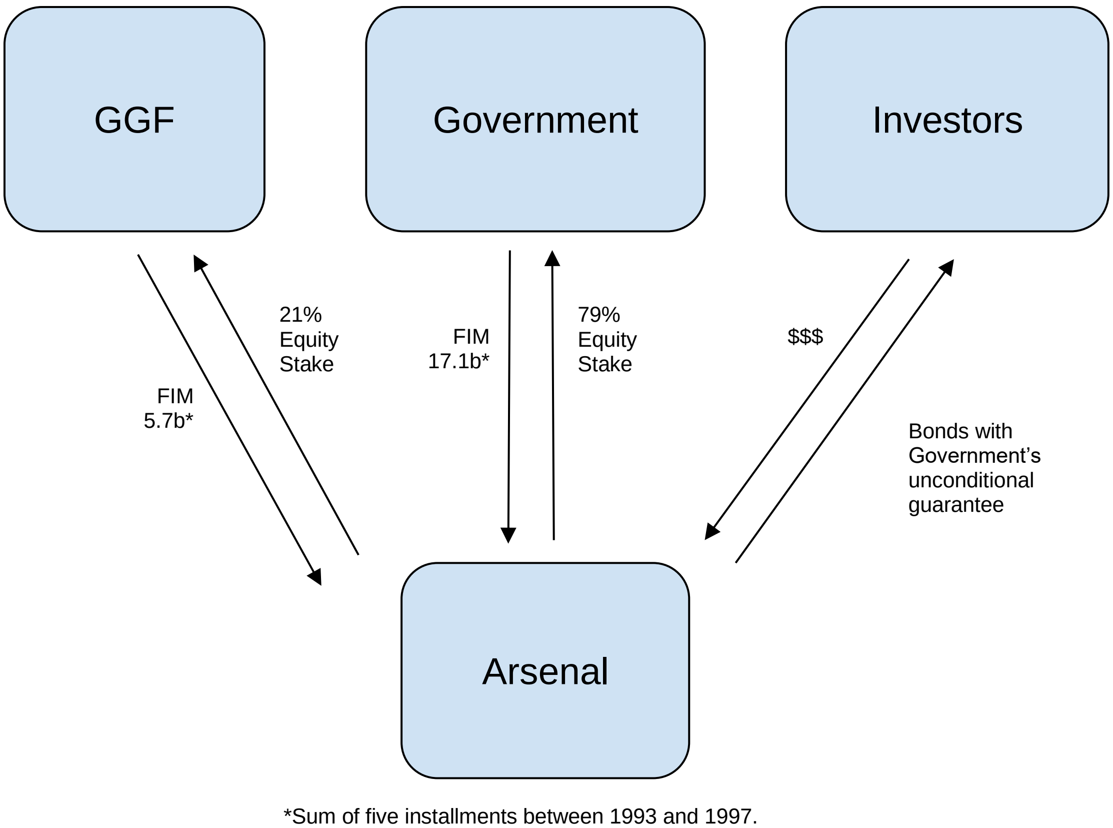
Another significant action taken by the GGF was the June 1992 decision to force the merger of 41 of the country's 81 savings banks into a new entity called the Savings Bank of Finland, or SBF. SBF accounted for 23.9% of the total financial system's assets (Klingebiel 2000). The GGF provided the new entity with an initial commitment of FIM 7.2 billion, including FIM 5.5 billion in Tier 1 capital and a guarantee for a FIM 1.7 billion subordinated loan. This original amount proved insufficient, and multiple rounds of further assistance were required. By October 1993 SBF had received a total of FIM 14.5 billion. At that point, the GGF sold the healthy parts of SBF, about FIM 41 billion in assets (Nyberg and Vihriälä 1994), to four competing banks: Kansallis-Osake-Pankki, Union Bank of Finland Ltd, Postipankki Ltd, and the Okobank Group (Bank of Finland 1993).

Program Description

Financing and Governance of Arsenal

On November 18, 1993, after FIM 41 billion in healthy assets of the Savings Bank of Finland were sold to four large commercial banks, an asset management company called Arsenal was formed to handle the remaining FIM 30 billion in unhealthy assets (Nyberg and Vihriälä 1994). The new venture was funded by the Government of Finland (Government) and the GGF (see Figure 4). In the initial FIM 5 billion capitalization, the Government took a 74% equity stake and the GGF took 26% (Arsenal 1994). Due to higher than originally anticipated losses, the Government made a series of further capital injections: FIM 6 billion in 1994, FIM 8 billion in 1995, and FIM 4 billion in 1996 (Borio, Vale, and von Peter 2010). The equity balance ultimately shifted slightly to 79% and 21% for the Government and the GGF, respectively (Klingebiel 2000). See Figure 4 for a visual representation of Arsenal's financing.

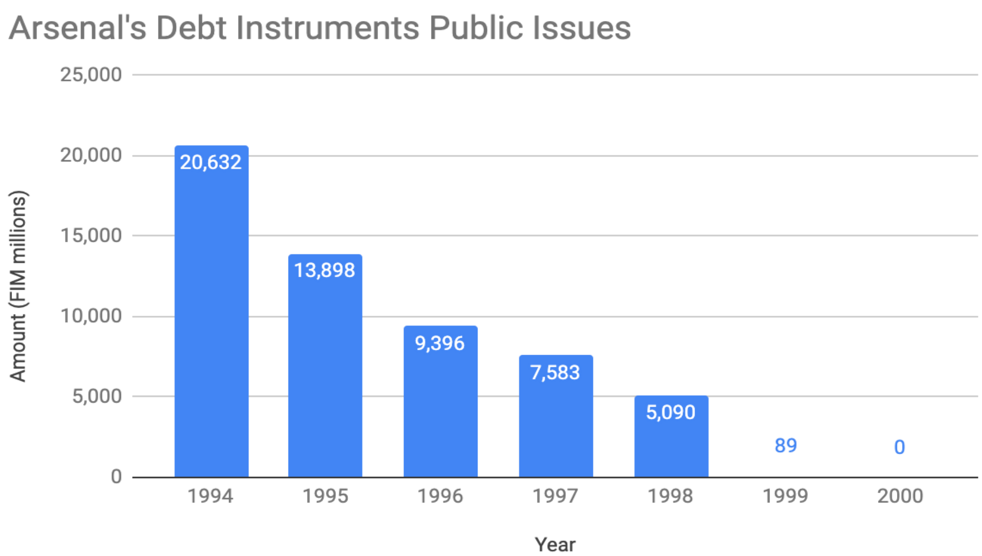
Figure 4: Financing of Arsenal



Sources: Klingebiel 2000; Borio, Vale, and von Peter 2010.

Coupled with the FIM 23 billion in total state-injected capital, Arsenal also received an unconditional guarantee from the Government of up to FIM 28 billion for all "repayment of bonds and other debt financing issued by Arsenal" (Arsenal 1994). 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" (Arsenal 1995). Most of the debt had short tenures. However, in 1996, two long-term bonds, worth a total of FIM 3 billion, were issued (Arsenal 1996). In its first series of public debt issuances, Arsenal sold FIM 20.6 billion (Arsenal 1994). The amount of debt issued is outlined in Figure 5.

Figure 5: Arsenal's issuance of public debt



Sources: Arsenal 1994; 1995; 1996; 1997; 1998; 1999; 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 2000).

Operations and Assets

Arsenal became operational on January 15, 1994 (NAOF 2015) and began the process of assuming responsibility for the assets the following month. At the outset, the Government estimated the time horizon within which Arsenal would be able to divest 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" (Arsenal 1994).

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. Based on the estimates, property write-downs amounted to FIM 3.5 billion during 1994 (Arsenal 1994). The portfolio included loan receivables, real estate, and other assets totaling a book value of FIM 30 billion (Nyberg and Vihriälä 1994). This included 15,000 properties and 1,478 companies, of which 95% were real estate companies (Arsenal 1995).

Assets originally transferred accounted for 5.2% of Finland's total banking assets and 8.2% of GDP (Klingebiel 2000). 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 and Vihriälä 1994). 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 FIM 10 billion during 1994, bringing the total assets of Arsenal up to FIM 40 billion (Bank of Finland 1994; Arsenal 1994).

Arsenal's largest asset disposal of 1995 was the sale of a travel resort, and in 1996 it was a golf course (Arsenal 1995; Arsenal 1996). Although Arsenal did not commence any new construction projects, it did manage unfinished property developments if it was determined that, "the overall result is better than through selling the unfinished project" (Arsenal 1994).

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, a small, struggling commercial bank, into two entities. The entity with healthy assets was bought by KOP Bank, a larger bank. The entity with bad assets was renamed Siltapankki, and although officially owned by KOP Bank, control of Siltapankki was held by the GGF. In November 1995 Siltapankki was sold to Arsenal for only FIM 1 (Borio, Vale, and von Peter 2010).

In June 1995, the law was changed to allow Arsenal to expand to hold other asset management companies. 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 this entity (named Arsenal–SSP) and Siltapankki (renamed Arsenal–Silta) were revoked, and both entities became asset management companies (Arsenal 1995).

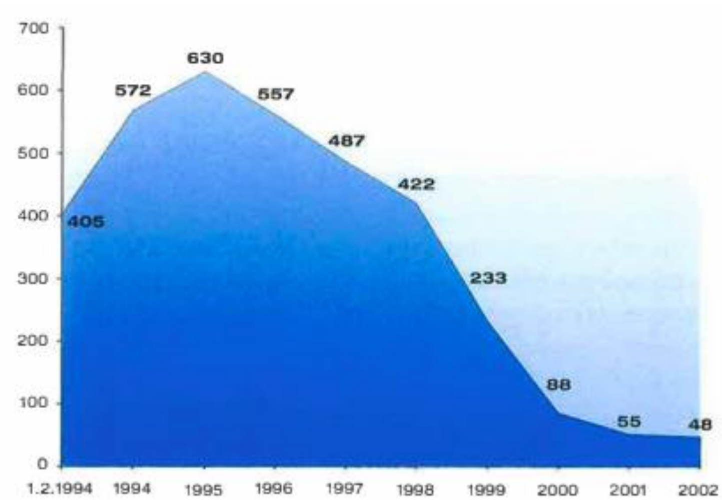
The Bank of Finland (the central bank) took over Skopbank, the correspondent bank of savings banks, in September 1991. It divided the assets into three holding companies, one of which was a real estate asset management company called Sponda (Bank of Finland 1991). In May 1996, with real estate assets worth FIM 1 billion, it was sold to Arsenal (Kuusterä and Tarkka 2012, 694).[45]

[4] The other two holding companies were named Scopulus (which held the shares of Skopbank itself) and Solidium (which held industrial assets) (Nyberg and Vihriälä 1994). Scopulus sold its shares to the GGF in

Wind-Down and Liquidation

In 1996, the number of debtors being managed by Arsenal Group peaked at 1,584 (Arsenal 1996). At its height, as seen in Figure 6, Arsenal had a total of 630 employees in 1995 (Arsenal 2002). By 2003 there were just 13 salaried employees (NAOF 2015).[6] In 1997 the number of offices was reduced from 22 to 15 (Arsenal 1997) and then from 15 to 6 in 1999 (Arsenal 1999). See Figure 6 for a representation of these changes.

Figure 6: Number of Arsenal employees



Source: Arsenal 2002.

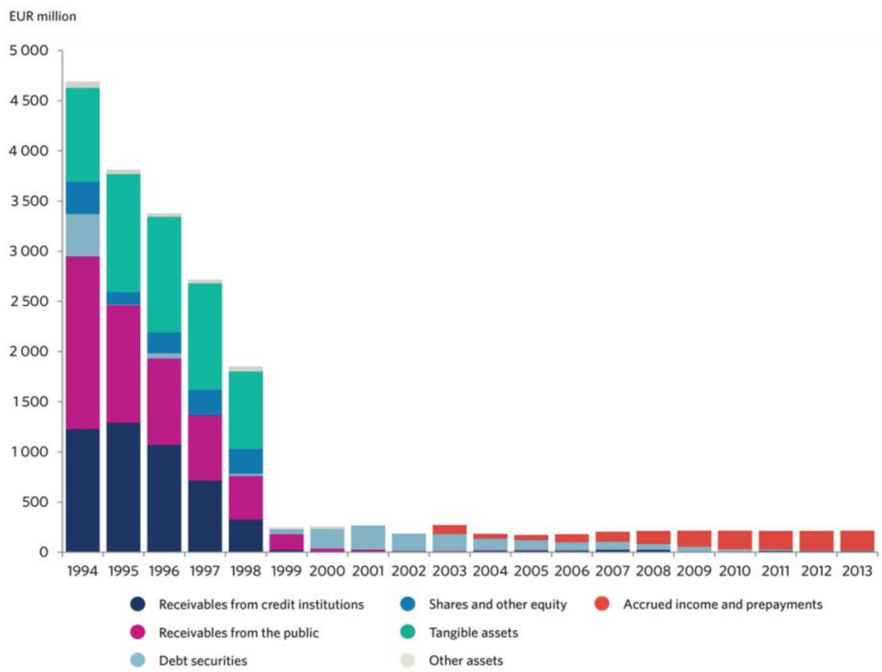
As seen in Figure 7, more than 90% of the peak total assets had been offloaded by 1999 (NAOF 2015).

June 1992. Solidium was merged into Sponda before Sponda was sold to Arsenal (Kuusterä and Tarkka 2012, 675).

[5] Note that on page 1 of the Arsenal 1997 Annual Report, the entity is called SKOP-Real Estate.

[6] The company also had two liquidators.

Figure 7: Total assets held by Arsenal (millions of euros)



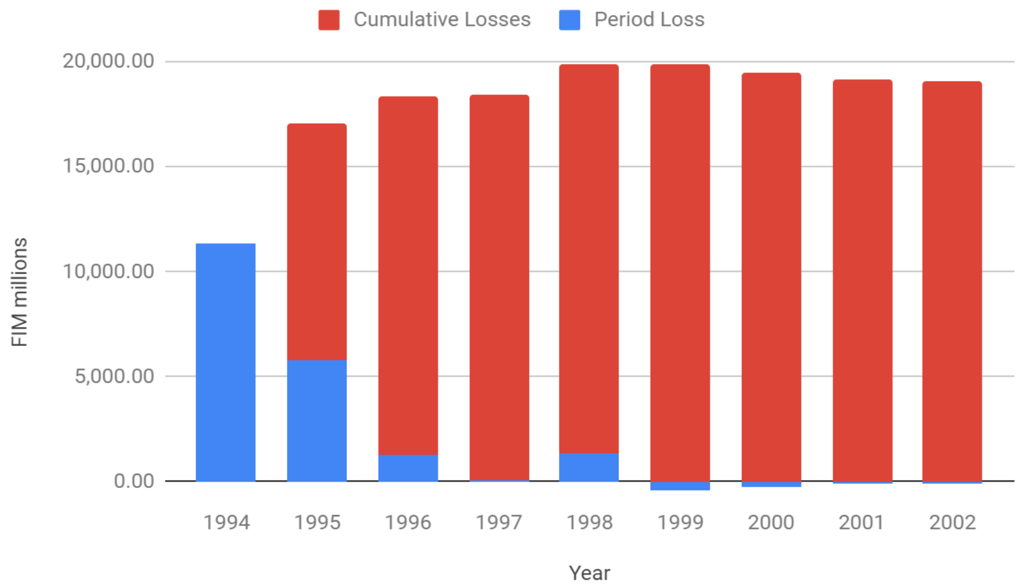
Assets in Arsenal's balance sheet between 1994 and 2013.

Source: NAOF 2015.

Arsenal was placed in liquidation in October of 2003. The duties of the board of directors and managing director were transferred to two liquidators who oversaw a reduction of outstanding debtors from more than 1,500 to less than 500 between 2003 and 2014 (NAOF 2015). According to Arsenal's 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 (Arsenal 2017).

As seen in Figure 8, Arsenal lost nearly FIM 20 billion in the first five years of operation (Arsenal 1994; 1995; 1996; 1997; 1998). During the next four years leading up to the liquidation, Arsenal turned a small annual profit (Arsenal 1999; 2000; 2001; 2002). At the time of liquidation the cumulative losses stood at FIM 19.07 billion.

Figure 8: Arsenal's yearly and cumulative losses



Sources: Arsenal 1994; 1995; 1996; 1997; 1998; 1999; 2000; 2001; 2002.

The approximately FIM 114 billion cost of the rescue of Finland's financial system has been estimated at 17.2% of GDP by 1995. Of this 17.2%, studies have estimated that more than half of the Government's investments were recovered, making for an estimated net cost of about 7% of GDP (Mayes, Halme, and Liuksila 2001). The funding for Arsenal itself was estimated at 6.6% of GDP (Borio, Vale, and von Peter 2010).

II. Key Design Decisions

1. Part of a package: 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 1993 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.[7] Skopbank, a correspondent bank for savings banks, had been taken over by the Bank of Finland. Then 41 of the nation's 81 savings banks were forced to merge 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.

[7] Varying sources report different establishment dates in October and November 1993.

2. Legal authority: 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 actions, establish an asset management company. This authority was granted in the Government Guarantee Act of 1992 (Parliament of Finland 1992). In June 1995 a significant amendment was made to the original act to allow Arsenal to hold other asset management companies (Arsenal 1995). 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.

3. Special powers: Arsenal did not possess any notable special powers.

Arsenal did not have any special powers of note to pursue its mandate.

4. Mandate: Arsenal's two guiding principles were minimizing losses incurred by the government and investigating irregularities in debtors' activities.

According to the first annual report of Arsenal, its assignment was to "manage and liquidate, in an orderly manner and at a minimum cost to the Finnish society and its taxpayers, the assets and lending activities, of which the responsibility was assumed from the former Savings Bank of Finland" (Arsenal 1994). Throughout Arsenal's lifetime, it managed bad loans and sold real estate and other assets (NAOF 2015).

Arsenal's other guiding principle was the so-called clarifying objective, alternatively translated as an "interest in investigation" of nonpaying debtors.[8] Parliament's view was that this objective would serve "the citizens' sense of justice." Under this objective, Arsenal could allow for a review of debtor irregularities to take priority over the minimization of taxpayer losses. In the pursuit of this objective, Arsenal initiated long-term trial and debt collection processes against some debtors, rather than quickly liquidating and winding them down in the fastest manner possible (NAOF 2015).

5. Communication: 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 1992 a special working group formed by the Prime Minister to review the situation published a report encouraging,

[8] See the English translation from Finnish: https://www.vtv.fi/julkaisut/omaisuudenhoitoyhtio-arsenal-oyn-selvitystilan-kaytannot/. The National Audit Office of Finland cited the Parliamentary Finance Committee's definition of this objective: "The bank subsidies should be subjected to more public scrutiny and all economically significant credit losses should be thoroughly investigated in connection with the granting of the bank subsidies, and the granting of the subsidies should be made conditional on investigating the credit losses. Investigated cases involving suspected crimes and offences should be brought before a court, which would make them open to public scrutiny. In special audits, opinions should also be expressed on the irregularities in which liability for damages and criminal liability has expired" (NAOF 2015).

among other actions, the creation of the Government Guarantee Fund. In August 1992 the Government announced that it would secure the Finnish banking system under all circumstances (Nyberg and Vihriälä 1994).

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 and Vihriälä 1994).

6. Ownership structure: Arsenal was a government-owned asset management company. While originally a limited joint stock company operated by the Government, Arsenal became a public enterprise in 1998.

At creation, the Government of Finland owned 74% of the share capital of Arsenal, while the Government Guarantee Fund held the remaining shares (Arsenal 1994). Originally structured as a limited joint stock company governed by the Government of Finland, Arsenal converted to a limited public company in 1998 (Arsenal 1997).

7. Governance/administration: The board of directors of Arsenal was a mix of public and private representatives, overseen by multiple government agencies.

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 (Klingebiel 2000).

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 (Klingebiel 2000).

In its 1994 Annual Report, Arsenal indicated that it had built an extensive new data system to manage the growing number of clients, asset portfolios, and internal employees (Arsenal 1994).

8. Size: The Finnish government did not define the size of Arsenal at the outset.

At its peak at the end of 1994, Arsenal had assets worth FIM 40 billion (Bank of Finland 1994). 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).

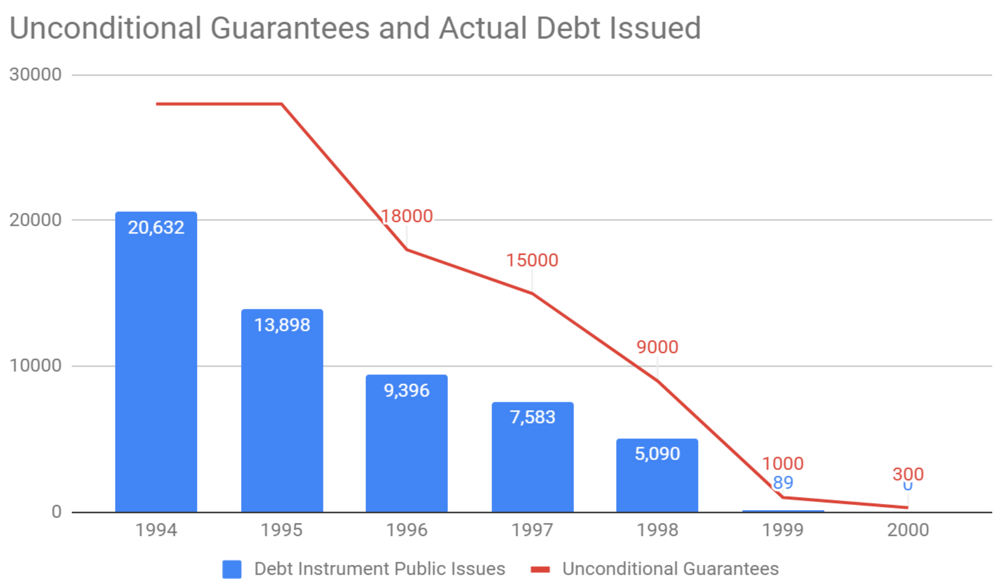
9. Funding source: Arsenal was funded by the Finnish government.

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 FIM 23 billion: FIM 5 billion in 1993, FIM 6 billion in 1994, FIM 8 billion in 1995, and FIM 4 billion in 1996 (Borio, Vale, and von Peter 2010). The initial investments allocated 74% ownership to the Government and 26% to the GGF (Arsenal 1994). 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 2000). GGF's stake in Arsenal was paid for with KOP Bank shares (Arsenal 1994).

In addition, Arsenal issued mostly short-term, government-guaranteed debt securities on the market. In 1996 two long-term bonds, worth a total of FIM 3 billion, were issued with the same government guarantee (Arsenal 1996).

The Government of Finland said in May 1994 that it would guarantee Arsenal's funding up to FIM 28 billion for all "repayment of bonds and other debt financing issued by Arsenal" (Arsenal 1994). In December 1996 the guarantee was reduced by FIM 10 billion to FIM 18 billion (Arsenal 1996). In 1997 it was reduced an additional FIM 3 billion to FIM 15 billion (Arsenal 1997). In 1998 it was reduced FIM 6 billion to FIM 9 billion (Arsenal 1998). In 1999 it was reduced to just FIM 1 billion (Arsenal 1999). In Figure 9, the red line shows the Government guarantee and the blue bars show the actual amount of debt issued.

Figure 9: Arsenal's Unconditional guarantees and debt issuances

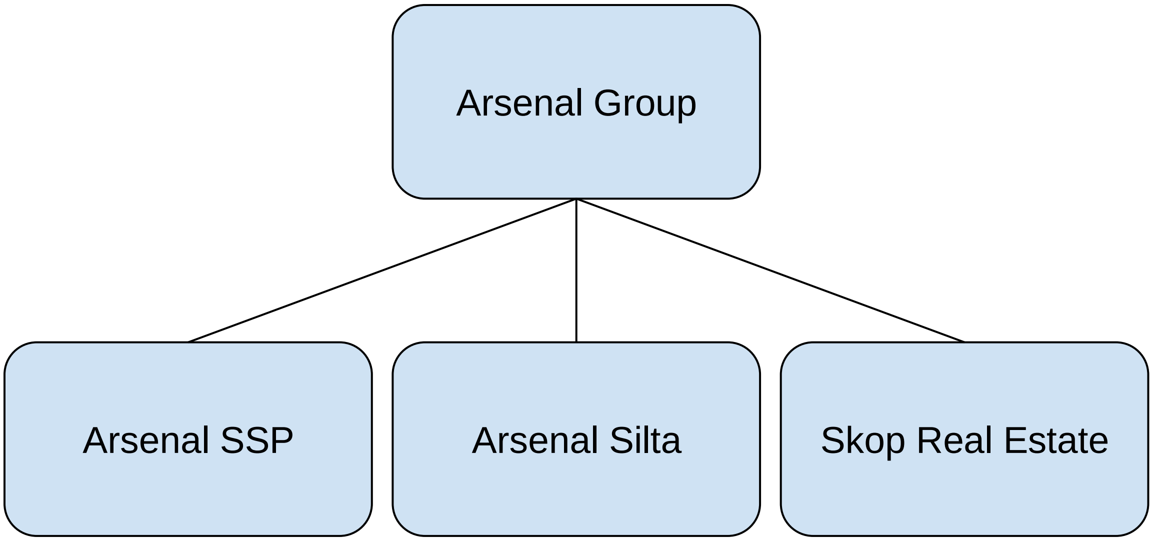


Sources: Arsenal 1994; 1995; 1996; 1997; 1998; 1999; 2000.

10. Eligible institutions: Initially, Arsenal took on assets only from the Savings Bank of Finland. Over time, additional assets were acquired from a 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 created through the forced merger of 41 of the country's 81 savings banks (Arsenal 1994). Over time Arsenal accepted assets from other institutions and even transformed into a group with its holdings of other asset management companies. In March 1995 Siltapankki, an asset management company handling the non-performing assets of STS–Bank was acquired by Arsenal (Arsenal 1995). Also, real estate assets worth FIM 1 billion were transferred from Skopbank in May 1996 (Kuusterä and Tarkka 2012, 694; Arsenal 1997). See Figure 10 for an organization chart of Arsenal.

Figure 10: Arsenal organization chart



Source: Arsenal 1997.

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.

11. Eligible assets: 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 2000; Arsenal 1996). 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 (Bank of Finland 1994).

12. Acquisition mechanics: After acquiring the entirety of the non-performing assets from the Savings Bank of Finland, Arsenal obtained further assets on a case-by-case basis.

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

13. Acquisition pricing: The assets acquired by Arsenal were priced at their original book value, an amount significantly higher than the market value of the time.

Arsenal acquired the non-performing assets of the Savings Bank of Finland at their original book values. The book values were significantly higher than the market value of the time (Arsenal 1994).

14. Disposal: Arsenal prioritized achieving the best return for its portfolio over the prompt disposal of assets.

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

15. Timeframe: Arsenal did not have a target end date, with the first annual report estimating a five-to-seven-year lifespan.

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 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" (Arsenal 1994).

More than 90% of the assets had been sold or written off by 1999. In 2003 Arsenal was placed in liquidation (NAOF 2015). In 2017 Arsenal was down to a single employee managing a handful of final bankruptcies that were expected to be finalized within three years (Arsenal 2017).

The National Audit Office of Finland wrote in 2015 that the pursuit of debtors under Arsenal's clarifying objective mandate was "one of the main reasons why Arsenal has remained operational for considerably longer than was anticipated at the establishment of the company" (NAOF 2015).

III. Evaluation

A review of the banking crises in the Nordic countries during the early 1990s 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." 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, Solheim, and Vale 2004).

A similar cross-country examination of asset management companies by the World Bank emphasized that, "Arsenal was provided with appropriate funding, had professional management, and a skilled human resource base" (Klingebiel 2000). 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." A favorable factor, the World Bank noted, was that "appropriate funding allowed Arsenal to market assets to market value after their transfer" (Klingebiel 2000).

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 would take an asset management company to divest itself of its holdings, "public receivership should also be considered as an alternative." Additionally, as a result of the so-called clarifying objective, Arsenal committed to long-term trial and debt collection processes rather than simply liquidating quickly, which led to Arsenal's lifespan lasting much longer than expected (NAOF 2015).

IV. References

Asset Management Company Arsenal Ltd (Arsenal). 1994. "Annual Report and Accounts 1994."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1994.

———. 1995. "Annual Report and Accounts 1995."
https://ypfs.som.yale.edu/library/annual-report-arsenal-1995.

———. 1996. "Annual Report and Accounts 1996."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1996.

———. 1997. "Annual Report and Accounts 1997."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1997.

———. 1998. "Annual Report and Accounts 1998."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1998.

———. 1999. "Annual Report and Accounts 1999."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1999.

———. 2000. "Annual Report and Accounts 2000."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-2000.

———. 2001. "Annual Report and Accounts 2001."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-2001.

———. 2002. "Annual Report and Accounts 2002."
https://ypfs.som.yale.edu/library/annual-report-and-accounts-2001-0.

———. 2017. "Financial Statements and Report of the Board of Directors 31.12.2017." [In Finnish]. https://ypfs.som.yale.edu/library/financial-statements-and-report-board-directors-31122017.

Bank of Finland. 1991. "Bank of Finland 72nd Year Book Report on Activities in 1991." https://ypfs.som.yale.edu/library/bank-finland-72st-year-book-report-activities-1991.

———. 1993. "Bank of Finland 74th Year Book Report on Activities in 1993." https://ypfs.som.yale.edu/library/bank-finland-74th-year-book-report-activities-1993.

———. 1994. "Bank of Finland 75th Year Book Report on Activities in 1994." https://ypfs.som.yale.edu/library/bank-finland-75th-year-book-report-activities-1994.

Borio, Claudio, Bent Vale, and Goetz von Peter. 2010. "Resolving the Financial Crisis: Are We Heeding the Lessons from the Nordics?" 311. Bank for International Settlements. https://ypfs.som.yale.edu/library/resolving-financial-crisis-are-we-heeding-lessons-nordics.

Klingebiel, Daniela. 2000. "The Use of Asset Management Companies in the Resolution of Banking Crises Cross-Country Experiences." SSRN Scholarly Paper ID 282518. Rochester, NY: Social Science Research Network. https://ypfs.som.yale.edu/library/use-asset-management-companies-resolution-banking-crises-cross-country-experiences.

Kuusterä, Antti, and Juha Tarkka. 2012. "Bank of Finland 200 Years: Parliament's Bank II." Otava Publishing Company LTD Helsinki. https://ypfs.som.yale.edu/library/bank-finland-200-years-parliaments-bank-ii.

Mayes, David, Liisa Halme, and Aarno Liuksila. 2001. "The Financial Crisis of the Early 1990s and Its Lessons." Improving Banking Supervision, 11–48. https://doi.org/10.1057/9780230288195_2.

Moe, Thorvald, Jon Solheim, and Bent Vale. 2004. "The Norwegian Banking Crisis." Norges Bank Occasional Papers, no. 33. https://ypfs.som.yale.edu/library/norwegian-banking-crisis.

NAOF. 2015. "Performance Audit Report Practicalities of the Liquidation of Asset Management Company Arsenal Ltd." https://ypfs.som.yale.edu/library/performance-audit-report-practicalities-liquidation-asset-management-company-arsenal-ltd.

Nyberg, Peter, and Vesa Vihriälä. 1994. "The Finnish Banking Crisis and Its Handling." Bank of Finland Discussion Papers, April. https://ypfs.som.yale.edu/library/finnish-banking-crisis-and-its-handling-update-developments-through-1993.

Parliament of Finland. 1992. Act on Government Guarantee Fund. https://ypfs.som.yale.edu/library/act-government-guarantee-fund.

World Bank. n.d. "GDP (Current US$) – Sweden, Finland, Denmark, Norway." https://ypfs.som.yale.edu/library/gdp-current-us-sweden-finland-denmark-norway.

V. Key Program Documents

Legal/Regulatory Guidance

Act on Government Guarantee Fund (Parliament of Finland 1992)
Law establishing the Government Guarantee Fund.
https://ypfs.som.yale.edu/library/act-government-guarantee-fund.

Reports/Assessments

Annual Report and Accounts 1994 (Arsenal 1994)
Annual Report for Arsenal from 1994.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1994.

Annual Report and Accounts 1995 (Arsenal 1995)
Annual Report from Arsenal in 1995.
https://ypfs.som.yale.edu/library/annual-report-arsenal-1995.

Annual Report and Accounts 1996 (Arsenal 1996)
Annual Report for Arsenal from 1996.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1996

Annual Report and Accounts 1997 (Arsenal 1997)
Annual Report for Arsenal from 1997.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1997.

Annual Report and Accounts 1998 (Arsenal 1998)
Annual Report for Arsenal from 1998.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1998.

Annual Report and Accounts 1999 (Arsenal 1999)
Annual Report for Arsenal from 1999.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-1999.

Annual Report and Accounts 2000 (Arsenal 2000)
Annual Report for Arsenal from 2000.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-2000.

Annual Report and Accounts 2001 (Arsenal 2001)
Annual Report for Arsenal from 2001.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-2001.

Annual Report and Accounts 2002 (Arsenal 2002)
Annual Report for Arsenal from 2002.
https://ypfs.som.yale.edu/library/annual-report-and-accounts-2001-0.

Bank of Finland 71st Year Book Report on Activities in 1990 (Bank of Finland 1990)
Annual report from the Bank of Finland in 1990.
https://ypfs.som.yale.edu/library/bank-finland-71st-year-book-report-activities-1990.

Bank of Finland 72st Year Book Report on Activities in 1991 (Bank of Finland 1991)
Annual report from the Bank of Finland in 1991.
https://ypfs.som.yale.edu/library/bank-finland-72st-year-book-report-activities-1991.

Bank of Finland 73rd Year Book Report on Activities in 1992 (Bank of Finland 1992)
Annual report from the Bank of Finland in 1992.
https://ypfs.som.yale.edu/library/bank-finland-73rd-year-book-report-activities-1992.

Bank of Finland 74th Year Book Report on Activities in 1993 (Bank of Finland 1993)
Annual report from the Bank of Finland in 1993.
https://ypfs.som.yale.edu/library/bank-finland-74th-year-book-report-activities-1993.

Bank of Finland 75th Year Book Report on Activities in 1994 (Bank of Finland 1994)
Annual report from the Bank of Finland in 1994.
https://ypfs.som.yale.edu/library/bank-finland-75th-year-book-report-activities-1994.

Bank of Finland 76th Year Book Report on Activities in 1995 (Bank of Finland 1995)
Annual report from the Bank of Finland in 1995.
https://ypfs.som.yale.edu/library/bank-finland-76th-year-book-report-activities-1995.

Bank of Finland 77th Year Book Report on Activities in 1996 (Bank of Finland 1996)
Annual report from the Bank of Finland in 1996.
https://ypfs.som.yale.edu/library/bank-finland-77th-year-book-report-activities-1996.

Bank of Finland 78th Year Book Report on Activities in 1997 (Bank of Finland 1997)
Annual report from the Bank of Finland in 1997.
https://ypfs.som.yale.edu/library/bank-finland-78th-year-book-report-activities-1997.

Bank of Finland 79th Year Book Report on Activities in 1998 (Bank of Finland 1998)
Annual report from the Bank of Finland in 1998.
https://ypfs.som.yale.edu/library/bank-finland-79th-year-book-report-activities-1998.

Bank of Finland 80th Year Book Report on Activities in 1999 (Bank of Finland 1999)
Annual report from the Bank of Finland in 1999.
https://ypfs.som.yale.edu/library/bank-finland-80th-year-book-report-activities-1999.

Resolving the Financial Crisis: Are We Heeding the Lessons from the Nordics? (Borio, Vale, and von Peter 2010)
A 2010 report comparing the actions taken by countries during the Global Financial Crisis to the actions taking during the Nordic banking crisis.
https://ypfs.som.yale.edu/library/resolving-financial-crisis-are-we-heeding-lessons-nordics.

The Use of Asset Management Companies in the Resolution of Banking Crises Cross-Country Experiences (Klingebiel 2000)
A paper that evaluates asset management companies and identifies certain factors that lead to success.
https://ypfs.som.yale.edu/library/use-asset-management-companies-resolution-banking-crises-cross-country-experiences.

Bank of Finland 200 Years: Parliament's Bank II (Kuusterä and Tarkka 2012)
Historical view of the Bank of Finland.
https://ypfs.som.yale.edu/library/bank-finland-200-years-parliaments-bank-ii.

Financial Statements and Report of the Board of Directors 31.12.2017 (Arsenal 2017)
Liquidation report from Arsenal in 2017.
https://ypfs.som.yale.edu/library/financial-statements-and-report-board-directors-31122017.

The Financial Crisis of the Early 1990s and Its Lessons (Mayes, Halme, and Liuksila 2001)
A summary of the actions taken by the Nordic countries during the banking crises of the 1990s.
https://ypfs.som.yale.edu/library/financial-crisis-early-1990s-and-its-lessons.

The Norwegian Banking Crisis (Moe, Solheim, and Vale 2004)
Paper describing the causes and symptoms of the Norwegian Banking Crisis.
https://ypfs.som.yale.edu/library/norwegian-banking-crisis.

Performance Audit Report Practicalities of the Liquidation of Asset Management Company Arsenal Ltd (NAOF 2015)
A government-commissioned report from the National Audit Office of Finland (NAOF) on the asset management company Arsenal and its liquidation.
https://ypfs.som.yale.edu/library/performance-audit-report-practicalities-liquidation-asset-management-company-arsenal-ltd.

The Finnish Banking Crisis and Its Handling (Nyberg and Vihriälä 1994)
Written a few months after Arsenal became operational, this report by the Bank of Finland reviews the buildup and early government actions to resolve the crisis.
https://ypfs.som.yale.edu/library/finnish-banking-crisis-and-its-handling-update-developments-through-1993.