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Suomen Pankin keskustelualoitteita
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Law or finance: Evidence from Finland

Bank of Finland Discussion Papers 8/2002

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Abstract

Although it is widely acknowledged that the benefits of corporate governance reform could be substantial, systematic evidence on such reforms is scant. We both document and evaluate a contemporary corporate governance reform by constructing 18 measures of shareholder and creditor protection for Finland for the period 1980–2000. The measures reveal that shareholder protection has been strengthened whereas creditor protection has been weakened. We also demonstrate how the reform is consistent with a reorganisation of the Finnish financial market in which a bank-centred financial system shifted from relationship-based debt finance towards increasing dominance by the stock market. We find evidence that the development of shareholder protection has been a driver of the reorganisation, whereas the changes in creditor protection have mirrored market developments.

Key words: corporate finance, financial intermediation, corporate governance

JEL classification numbers: E50, G21, G24, G32

Sijoittajansuoja Suomessa: lainsäädäntö vai markkinat?

Suomen Pankin keskustelualoitteita 8/2002

Ari Hyytinen – Iikka Kuosa –Tuomas Takalo
Tutkimusosasto

Tiivistelmä

Tässä tutkimuksessa tarkastellaan sijoittajansuojaa sääntelevän lainsäädännön ja rahoitusmarkkinoiden rakenteen muutoksia Suomessa vuosina 1980–2000 sekä niiden vaikutuksia yritysrahoitusympäristöön. Luomme 18 kvantitatiivista muuttujaa kuvaamaan osakesijoittajien ja velkojien suojan muutoksia. Muuttujat paljastavat, että osakesijoittajien suoja on vahvistunut, kun taas velkojien suoja on heikentynyt. Osoitamme, että nämä muutokset vastaavat Suomen rahoitusjärjestelmän rakennemuutosta, jonka seurauksena pankkikeskeinen rahoitusjärjestelmä on muuttunut aiempaa osakemarkkinapainotteisemmaksi. Osakesijoittajien suojan muutokset ovat olleet osaltaan myötävaikuttamassa rahoitusjärjestelmän rakennemuutokseen, kun taas velkojien suojan muutokset ovat enemmänkin heijastelleet rahoitusmarkkinoiden muutoksia.

Asiasanat: lainsäädäntö, sijoittajansuoja, rahoitusmarkkinat, yritysrajoitus

JEL-luokittelu: E50, G21, G24, G32

Contents

1 Introduction

The growing law and finance literature, including the contributions by La Porta, Lopez-de-Silanes, Shleifer, and Vishny (LLSV) (1997, 1998, 2000, 2001), Levine, Loyza and Beck (2000), Beck and Levine (2001a), and Glaeser, Johnson, and Shleifer (2001), suggests that upgraded corporate governance could expand financial markets and increase their liquidity, facilitate the availability of external financing to new firms, and improve investment allocation both within and between firms. Unfortunately, there is neither unanimity on the means for implementing a successful reform of corporate governance (Berglöf, 1997, Becht, 1999, and LLSV 2000) nor much evidence on such reforms. The purpose of this paper is to describe changes in Finnish corporate governance and financial systems that occurred in the 1980s and 1990s and to evaluate extensively the development of the financial system in light of the corporate governance reform.

There is good reason for reform of corporate governance if a country experiences either simultaneous financial and currency crises (Johnson, Boone, Breach and Friedman 2000 and Mitton 2001) or a large-scale change in industrial structure (Jensen 1993, and Holmström and Kaplan 2001). In the past two decades Finland experienced both of these. In addition, its economy underwent the most serious cyclical downswing in the industrialised countries since the Great Depression of the 1930s (see eg Kiander and Vartia 1996, and Honkapohja and Koskela 1999).

Integral to the economic distress was a typical twin crisis. A major banking crisis and a collapse of the fixed exchange rate regime in the early 1990s followed the financial liberalisation of the 1980s. Over the same period, the structure of Finnish industry shifted in emphasis from the heavy metal and paper industries to the ICT sector. An apt example of the shift is that Finnish firms filed domestically 2,579 patent applications in 2000 – nearly two times as many as in 1980 and the second highest number per capita in the European Union (EU). Finland is also currently considered as one of the most competitive countries in the world both by World Economic Forum (WEF 2000) and International Institute of Management Development (IMD 2000).

We describe how the crisis and structural change parallel a comprehensive reform of Finnish corporate governance. Following the law and finance literature, we equate corporate governance to those legal mechanisms by which outside investors are protected.[1] We construct 18 indices, developed by LLSV (1997, 1998) and extended by Pistor (2000) and Glaeser, Johnson and Shleifer (2001),

[1] A summary of changes in the Finnish corporate governance beyond the legal reform can be found from appendix 2.

for measuring investor protection in Finland for the period 1980–2000. This exercise yields a striking finding; shareholder rights have recently been strengthened while creditor rights have been considerably weakened.

Besides describing the changes in investor protection, we draw on Beck and Levine (2001a) to build six measures for the development of the Finnish financial system over the past two decades. It turns out that the corporate governance reform is consistent with a reorganisation of the Finnish financial markets. In early 1980s the Finnish financial system had a main-bank structure, like the financial systems in Japan and Germany. By the end of the millennium the financial system had moved from relationship-based debt towards increasing influence of the stock market.

We also find that the development of shareholder rights has to some extent preceded the financial market restructuring, whereas creditor rights have paralleled market developments. The events in Finland thus suggest that some aspects of legislation may adjust more sensitively to market developments than others. The finding is in line with Berglöf's (1997) argument that law matters but is endogenous to economic developments (see also Bebchuk and Roe 1999).

Only a few empirical studies have been done on corporate governance reforms in different countries. In many respects the study that is closest to ours is Glaeser et al (2001), which documents and assesses corporate governance reforms in Poland, the Czech Republic and (to lesser extent) Hungary. They conclude that a reform should be enforced by highly motivated regulators rather than judges. Johnson (2000) studies an instance of contractual and legally-based corporate governance reform in Germany. He finds that the improved performance of the German stock market in the late 1990s followed the reform. Pistor (2000) documents changes in the legal protection of shareholder and creditor rights in transition countries. Pistor, Raiser and Gelfer (2000) then use the same database to show how corporate governance institutions persist despite substantial legal reforms.

In contrast to Glaeser et al (2001), who emphasise law enforcement, we focus on the law itself. The quality of enforcement is high in Nordic civil-law countries, including Finland (see eg LLSV 1998). Compared with Johnson (2000) and Pistor et al (2000) and the bulk of the other recent literature on corporate governance reforms (eg Bebchuk and Roe 1999, Coffee 1999, Schmidt and Spindler 2000 Gilson 2001, and Heine and Kerber 2002), we are less interested in the question of whether and how corporate governance around the world is converging or diverging. Instead, we draw on the key insights of this literature to study the relationships between legal and market-driven reforms. The events in Finland also shed light on the roles of economy-wide changes and politics in inducing corporate governance reforms in accord with the literature on the political

economy of macroeconomics and finance (see eg chapter 10 in Drazen 2000, Drazen and Easterly 2001, and Pagano and Volpin 2001).

2 Initial conditions

At the start of World War II, Finland was behind the other Nordic countries in terms of industrial development. Since the war, Finland's industrial structure has undergone rapid change continuing throughout the period of this study. In 1980 heavy metals, steel and forest-based industries formed the core of the Finnish economy. Since then, the electronics and telecommunications industries have expanded rapidly. The ICT sector currently accounts for 40% of GDP and over 60% of exports. Finland, which is ranked among the most competitive countries in the world, has a highly innovative business sector (WEF 2000, IMD 2000). An apt example of the change is Nokia, which is now the best-known Finnish company and employs over 60,000 persons. In 1980 Nokia had only 2,500 employees involved in the electronics industry. Production of rubber products, forest-related goods and cable machines accounted for over 80% of total sales – mainly to customers in Finland, Sweden and the Soviet Union. In 2000 virtually all of Nokia's sales came from ICT business. Over the period 1980–2000, Nokia's annual R&D investment grew from EUR 16 million to EUR 2,646 million (Ali-Yrkkö and Hermans 2002).

Table 1 shows some key indicators of the Finnish economy, which reflect structural changes and cyclical developments.[2] The growth of real GDP was rapid during the 1980s. After the growth period, Finland underwent an exceptionally deep depression. In many ways, it was more severe than the depression of the 1930s, as Kiander and Vartia (1996), and Honkapohja and Koskela (1999) point out. Real GDP had never declined during the post-war period until the economic crisis of the 1990s, when it dropped by about 14%. The recovery, however, was rapid, and economic growth was strong through the rest of the 1990s. Because of steady but slow population growth, the economic turbulence shows up also in the GDP per capita figures. The patterns of foreign trade illustrate both the structural change and the cyclical movements. In the 1980s the major trading partner was the Soviet Union. Exports as a percentage of GDP hit bottom in the early 1990s, when bilateral trade with the Soviet Union collapsed. Since then, export intensity

[2] Besides the indicators shown in Table 1, the unemployment rate closely follows movements in the Finnish economy. The unemployment rate remained at low levels in the 1980s, but in the crisis of the early 1990s, the rate of unemployment exploded. After peaked above 20%, it has gradually declined during the rest of the 1990s.

has increased and Germany, Sweden, United Kingdom and United States have become the most important trade partners.

Table 1. **Initial conditions**

Average	Real GDP growth	GDP per capita*	Inflation
1980–1985	3.3%	9199	9.1%
1986–1990	3.3%	15061	4.9%
1991–1995	–0.6%	20263	2.2%
1996–2000	5.1%	26754	1.6%
Average	Export intensity**	Bankruptcies***	TFP relative to USA****
1980–1985	30.9%	120	73%
1986–1990	20.5%	235	75%
1991–1995	25.5%	509	85%
1996–2000	32.7%	284	95%

* EUR m, current prices
** % of GDP
*** average number of bankruptcies per month
**** total factor productivity of Finnish manufacturing, USA = 100% (Maliranta 2001)

In summary, Finnish economic performance during the sample period is characterised by industrial change, wide-ranging deregulation, and turbulent economic conditions. The large-scale changes are closely related to reform of the Finnish corporate governance and financial systems, which we document next.

3 Investor protection

At the start of the 1980s Finland was highly advanced in terms of overall legal development. It is generally believed that the situation has improved since then. As Demirgüç-Kunt and Maksimovic (1998) report, the International Country Risk Guide gives Finland the highest possible score for the years 1985–1991 in its law and order index, which measures reliance on the legal system in mediating disputes and enforcing contracts. In both 1990 and 2000, the World Competitiveness Yearbook (IMD 1990, 2000) places Finland fourth in as regards fair administration of justice. As to the state of the legal framework, Finland is

ranked second after Singapore in the IMD yearbook for 2000.[3] The Global Competitiveness Report (WEF 2000) generally echoes these results. Nonetheless, although the foundations of the legal system were solid, we show in this section that Finnish legislation concerning corporate governance was underdeveloped in 1980. We also document subsequent changes, to 2000, in shareholder and creditor rights, accounting standards, and disclosure rules.

In the next two sections we describe, in four stages, the levels of shareholder and creditor protection conferred by the Finnish legal system. First, we briefly review the main legislation underlying shareholder and creditor rights. We then construct the indices developed by LLSV (1997, 1998) and their extensions by Pistor (2000), Pistor et al (2000), and Glaeser et al (2001). Third, we build on Pistor (2000) in developing additional indices that measure the protection of shareholders and creditors more accurately than the second stage indices. In the fourth stage we summarise all the indices via a cumulative index. We only briefly explain the indices and their coding, referring the reader to the original papers by LLSV (1997, 1998), Pistor (2000), Pistor et al (2000), and Glaeser et al (2001) for details.[4] In constructing the indices we measure legal status as at year-end.

3.1 Shareholder rights

The main determinants of shareholder rights in Finland can be found from the Finnish Companies Act 734/1978 (effective 1 Jan 1980) and Securities Market Act 495/1989 (effective 1 Jan 1989).

The Companies Act applies to all limited companies – whether private or state owned, family enterprise, or publicly listed. Its preparation was based on Nordic cooperation, which explains the similarity of investor protection across the Nordic countries, as documented in LLSV (1997, 1998).[5] Amendments to the old Companies Act of 1895 were rare during its entire existence. The Companies Act of 1978 was also virtually unchanged in the 1980s, but the amendments increased

[3] Regarding the fair administration of justice, Finland's score in the 1990 World Competitiveness Yearbook is 84.17 (of 100) and in the 2000 Yearbook 8.765 (of 10). Finland's score regarding the state of the legal framework in the 2000 Yearbook is 8.475 (of 10).

[4] For the variables in the LLSV (1997, 1998) index, we use the names given in Table 1 in LLSV (1998). Correspondingly, for the variables in Pistor's (2000) index we use the names given in annex 1 in Pistor et al (2000).

[5] Such legislative cooperation has been quite common within the Nordic legal family and, accordingly, the Finnish legislation shares many similarities with the other Nordic countries. Swedish legislation has been especially influential due to Finland's organic union with Sweden, which lasted for more than 700 years.

significantly in the 1990s. In particular, the Companies Act underwent a significant revision in autumn 1997.

Prior to the Securities Market Act of 1989, there was no specific law governing securities markets. Like the Companies Act, the Securities Market Act was frequently amended in the 1990s.

3.1.1 Antidirector index of LLSV (1997, 1998) and extensions

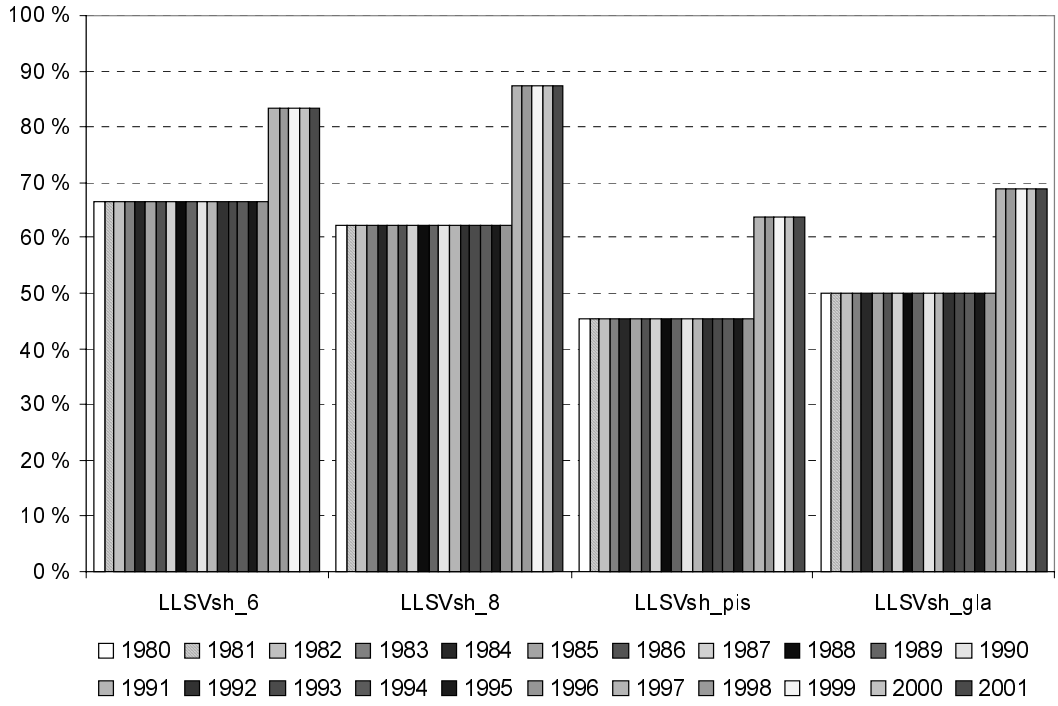
We consider four shareholder rights indices, two of which were developed by LLSV (1997, 1998). The shorter version is also known as the antidirector index, but we label it LLSVsh_6, because it consists of six measures of minority shareholder protection provided by company law or commercial code: 1) one-share-one vote; 2) proxy by mail; 3) shares not blocked before meeting; 4) cumulative voting or proportional presentation; 5) oppressed minorities mechanism; and 6) preemptive rights. The longer version, called here LLSVsh_8, includes two additional provisions: 7) percentage of share capital to call an extraordinary shareholders' meeting; and 8) mandatory dividend.

Pistor (2000) fine-tunes the LLSVsh_6 by splitting three of the original LLSV criteria. For example, she distinguishes between registration of shares and blocking of shares prior to shareholder meeting. Registration of shares differs from blocking in that shares preserve control rights in the shareholders' meeting even if they are traded after registration. We term this modified LLSV index LLSVsh_pis. Glaeser et al (2001) consider ten additional measures of minority shareholder protection. These include eg minority shareholders' right to appoint an additional board of auditors, the right to verify participants in the general shareholders' meeting, and the existence of quorum requirements. We denote this index LLSVsh_gla.[6]

Figure 1 displays the results of our coding exercise. All the indices suggest that protection of minority shareholders remained stable until the reform of the Companies Act in 1997, when it was strengthened.

[6] Of the measures in Glaeser et al (2001), we exclude the term of the board of directors from our index, because it is the only measure whose effect cannot be captured by an indicator variable. In Finland the law restricts the term to 4 years. There are however no restrictions on the number of terms that a member can be on a company's board of directors.

Figure 1. **Shareholder rights**



Comparison of the values in Figure 1 to the findings in LLSV (1997, 1998) is somewhat dubious, because shareholder rights may also have been changed in the other countries. Keeping this caveat in mind, we conclude that by 2000 protection in Finland reached the level of the common law countries reported in LLSV (1997, 1998). For instance, the score of 5 in LLSVsh_6 in 2000 is the same as the average score for common law countries in LLSV (1997, 1998)[7] and higher than the world average of 3.0 and the average of 2.33 received by the French and German civil law countries.

3.1.2 Decomposition of shareholder rights

Pistor's (2000) taxonomy of shareholder rights suggests five additional indices of investor protection (see also Pistor et al 2000). These measure the legal dimensions of corporate governance in more detail than the indices constructed in the previous section. Following Pistor (2000) we denote these by VOICE, EXIT, ANTIMANAGE, ANTIBLOCK and SMINTEGR.

[7] In LLSV (1997, 1998) the score for Finland is 3, but our reading of the Finnish legislation is that the score should be 4, because the legislation included a provision on cumulative voting. Casual evidence suggests however that cumulative voting has been used relatively rarely.

The rationale for constructing the VOICE and EXIT indices emerges from the influential work of Hirschmann (1970), who argues that shareholders may exercise their control over management by either exercising voting rights (voice) or selling shares (exit). Pistor (2000) points out that, although both mechanisms protect minority shareholders, they are secured by different legal rules and have different impacts on shareholder behaviour.

The VOICE index attempts to capture the strength of voting rights. The provision for mandatory dividend notwithstanding, this index includes the LLSVsh_8 indicators. It also includes six additional indicators of shareholders' control rights: 1) minority shareholders may demand convocation of extraordinary shareholder meeting; 2) executives (incl. general directors) are appointed or dismissed by the supervisory board rather than by the shareholder meeting; 3) members of management and supervisory board may be dismissed at any time without cause; 4) at least 50% of total voting shares must be represented at a shareholder meeting for it to take binding decisions; 5) fundamental decisions – including charter changes, liquidation of companies, sale of major assets - require qualified majority (at least 3/4); and 6) supervisory board members are elected by shareholders (no mandatory representation of employees or the public).

The EXIT index consists of four legal rules allowing shareholders to leave corporations and liquidate their investments: 1) right to transfer shares is not restricted by law and cannot be limited by charter; 2) formal requirements for transfer of shares are limited to endorsement (bearer shares) and registration (registered shares); 3) minority shareholders have a put option (may demand that their shares be bought by the company at fair value) if they have voted against major transactions such as mergers, reorganisation, sale of major assets, and charter changes; and 4) mandatory takeover bid (threshold).

The purpose of the ANTIMANAGE and ANTIBLOCK indices is to capture the impact of a legal system on two main conflicts of interests in corporate governance. The ANTIMANAGE index emphasises the classical corporate governance problem, ie the conflict of interest between shareholders and management. It includes the following legal rules aimed at protecting shareholders against management: 1) shareholders may take judicial action against executives' decisions (also included in LLSVsh_8); 2) minority shareholders may demand convocation of an extraordinary shareholder meeting; 3) executives (incl. general directors) are appointed or dismissed by the supervisory board rather than by the shareholder meeting; 4) members of management and supervisory board may be dismissed at any time without cause; 5) an audit commission may be called for by minority shareholders representing not more than 10% of shares, and 6) conflict of interest rules, including rules on disclosing conflict and abstaining from voting, are included in the law.

The ANTIBLOCK index focuses on the tension between minority shareholders and blockholders which, as LLSV (2001) suggest, should be the more severe, the more concentrated the company's ownership. The ANTIBLOCK index takes into account eight provisions for protecting minority shareholders against large owners: 1) cumulative voting in election of members of supervisory board; 2) other rules ensuring proportional board presentation; 3) shareholders may take judicial action against decisions by executives; 4) current shareholders have pre-emptive rights in case new shares are issued by the company; 5) at least 50% of total voting shares must be represented at a shareholder meeting for it to take binding decisions; 6) minority shareholders have a put option (may demand that their shares be bought by the company at fair value) if they have voted against major transactions such as mergers, reorganisation, sale of major assets, and charter changes; 7) mandatory takeover bid (threshold); and 8) acquisition of large blocks of shares triggers mandatory disclosure (threshold). The first four variables are also included in LLSVsh_8.

Finally, we code a stock market integrity index called SMINTEGR. It includes six measures of the protection of market liquidity: 1) conflict of interest rules, including rules on disclosing conflict and abstaining from voting, are included in the law; 2) shareholder register must be maintained by an independent firm (not the issuing company); 3) insider trading prohibited by law; 4) acquisition of a large block of shares triggers mandatory disclosure (threshold); 5) a state agency conducts capital market supervision; and 6) capital market supervision is formally independent.

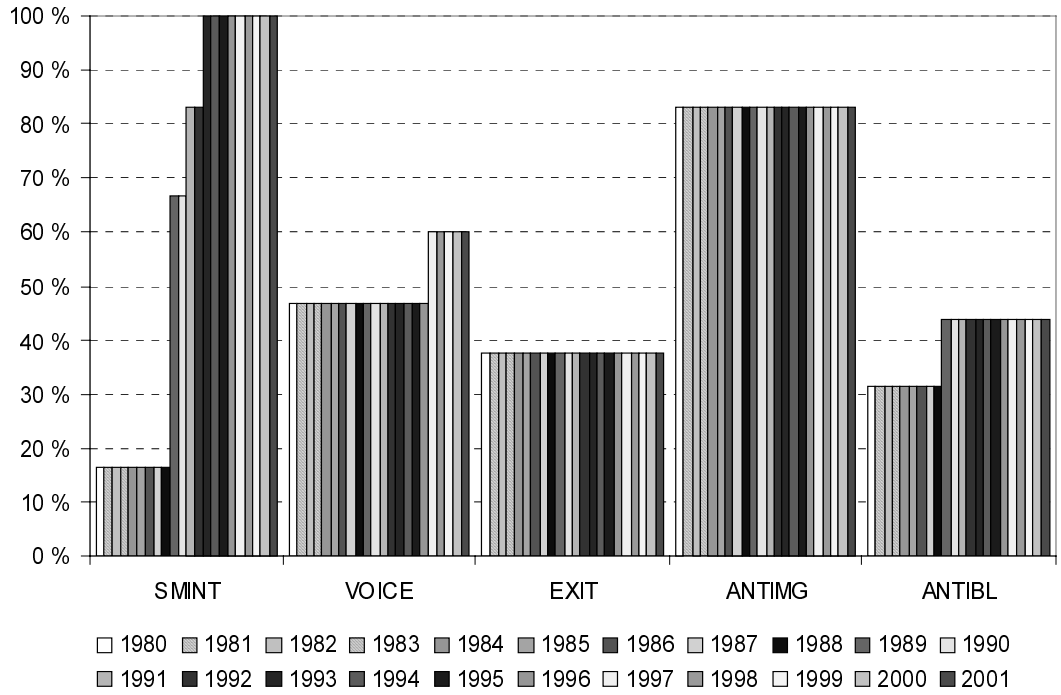
Figure 2 displays the development of VOICE, EXIT, ANTIMANAGE, ANTIBLOCK and SMINTEGR in Finland in 1980–2000. The development of SMINTEGR shows that stock market integrity was quite poor at the start of the 1980s, which belongs to the era of the regulated financial system. Stock market integrity improved significantly in the late 1980s and early 1990s. In particular, the reorganisation of financial market supervision in 1992–1993 improved market integrity.[8] Figure 2 also reveals that the emphasis in legislative reform has been on protection of minority shareholders (ANTIBLOCK) rather than the agency problem between management and shareholders (ANTIMANAGE).

Internal control rights, as captured by VOICE, have also improved. Our interpretation is that the one share-one vote rule was effectively adopted in connection with the 1997 company law reform. For corporations with multiple share classes, the old Finnish code did not require a consensus among the shareowners of the different classes. In 1997 the law was changed so that a majority decision is needed in each class in case of major transactions – such as

[8] See appendix 4 for a detailed account of the development of financial market supervision in Finland.

mergers, divestitures, and share repurchases – that may endanger the position of the shareholders in the company. As a result, there is a vote in each share class and, within a class, there are no differences in voting rights.[9] Another internal control right was strengthened at the same time: proxy voting by mail was allowed.

Figure 2. **Decomposition of shareholder rights**



3.2 Creditor rights

The main determinants of creditor rights in Finland can be found in the Liquidation Bankruptcy Code 31/1868 (effective 9 Nov 1868), the Act on Compositions 148/1932 (effective 10 May 1932), the Act on Restitution of Assets in Bankruptcy 758/1991 (effective 1 Jan 1992), the Act on Claim Priorities 1578/1993 (effective 1 Jan 1992), and the Act on Reorganisation of Companies 47/1993 (effective 8 Feb 1993). In addition, there are liquidation provisions in the Companies Act.

Until the start of 1993, the principal route of resolution was liquidation bankruptcy. When a firm is declared bankrupt, a trustee takes over the firm and

[9] Our interpretation is of course debatable, but our discussions with leading Finnish legal scholars indicate that there is no unanimity on the interpretation. The analysis would remain qualitatively unchanged if we credited the index by a fraction, say, 0.5 instead of 1, because of the ambiguity.

sells its assets. The firm may be sold as a going-concern or liquidated piecemeal. The proceeds are then distributed to creditors according to priority of claims. Although the Liquidation Bankruptcy Code of 1868 was amended earlier, the changes were relatively minor compared with the changes in the reform of 1993. Workouts, or compositions established by a court, provided an alternative way of resolution until 1993 but, as documented in the government bill 182/1992, they were rarely used. The Act on Reorganisation of Companies of 1993 replaced compositions and introduced court supervised reorganisation for financially stressed firms. As Ravid and Sundgren (1998) demonstrate, the Finnish Act on Reorganisation of Companies of 1993 is similar in many ways to the US Chapter 11 procedure.

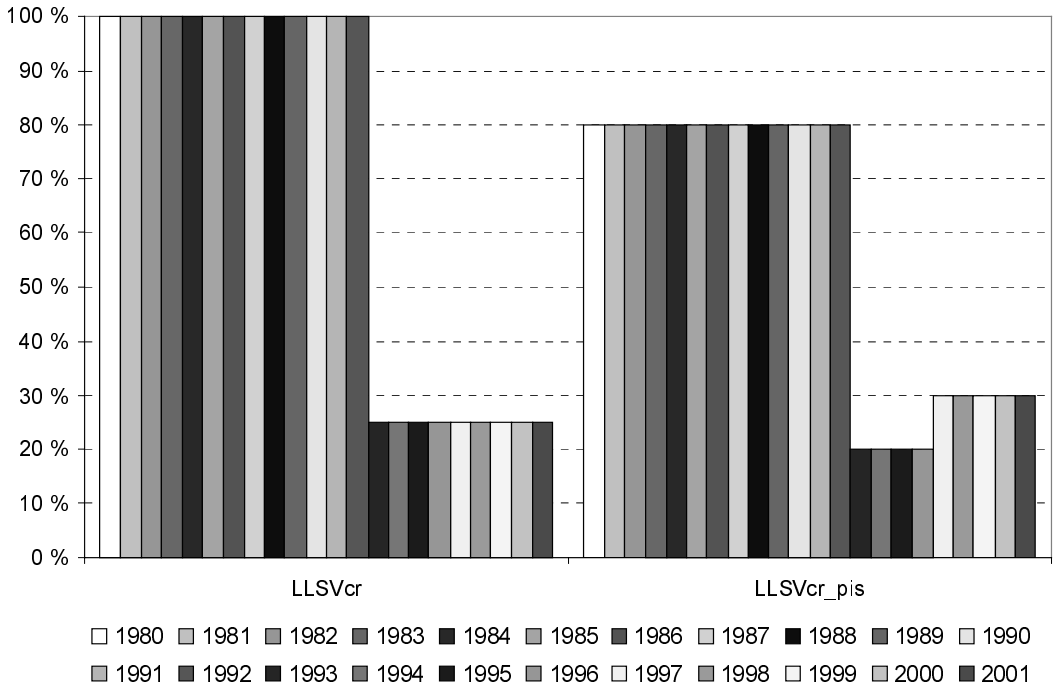
3.2.1 Creditor rights index of LLSV (1997, 1998) and extension

We begin our analysis of creditor rights by coding the index developed by LLSV (1997, 1998). The index, which we refer to as LLSVcr, consists of four measures of creditors' role in bankruptcy and reorganisation: 1) restrictions on going into reorganisation; 2) no automatic stay on secured assets; 3) secured creditors first; and 4) management does not stay. We also consider an extension to the LLSVcr initiated by Pistor (2000). This index, here denoted LLSVcr_pis, adds to the LLSVcr a discrete variable for the provision for a legal reserve, ie the minimum percentage of total shares required to avoid dissolution of the company.

Figure 3 displays the results of our coding exercise concerning creditor rights. Both indices suggest that the Act on Reorganisation of Companies in 1993 was detrimental for creditor protection. The reform implied that the restrictions on going into reorganisation were weakened and the scope of the automatic stay on assets preventing secured creditors from getting their security was expanded. We also claim that the Act diluted creditor rights by enabling management to remain in the reorganisation.[10] The slight increase in LLSVcr_pis in 1997 is due to an increase in the minimum percentage of total shares required to avoid dissolution of the company. The revision of the Companies Act in 1997 increased the legal reserve from 33% to 50%.

[10] Our interpretation is disputable. After the reform of 1993, the management can stay in a reorganisation, although its power is limited and a trustee should be appointed. Prior to the reform, however, the management did not have the option of staying because a trustee and the creditors managed the company in bankruptcy. However, it was possible for members of the pre-bankruptcy management to be selected to run the company.

Figure 3. **Creditor rights**



The sharp reduction in creditor rights coincides with the economic crisis of the early 1990s when bankruptcies reached unprecedented levels and Finnish banks were struggling. We return to the implications of these developments for Finnish corporate governance in section 4.1.

As a result of deterioration of creditor rights, Finnish legislation currently provides a lower level of creditor protection than common or civil law countries, as reported in LLSV (1997, 1998). The score of 1 for Finland in 2000 is lower than the world average of 2.3 and the Nordic average of 2.0. Prior to 1993, the score for Finland was 4. As stated earlier, the comparisons to LLSV should be interpreted cautiously, because the legislation may also have been changed in the other countries.

3.2.2 Decomposition of creditor rights

The LLSVcr and LLSVcr_pis indices reflect moral hazard problems stemming from US legislation allowing choice between reorganisation (Chapter 11) and liquidation (Chapter 7). Because such a choice was impossible in Finland prior to 1993, we draw on Pistor's (2000) taxonomy of creditor rights to code three alternative indices of investor protection. Following her, we denote them by CREDCON, COLLAT, and REMEDY.

The CREDCON index measures the degree of creditors' control of the bankruptcy. It includes the LLSVcr indicators, except for the provision on restrictions for going into reorganisation, and two additional variables: 1) automatic trigger to file a bankruptcy (debtor unable to meet obligations for more than 90 days); and 2) adoption of a reorganisation or liquidation plan requires creditor consent.

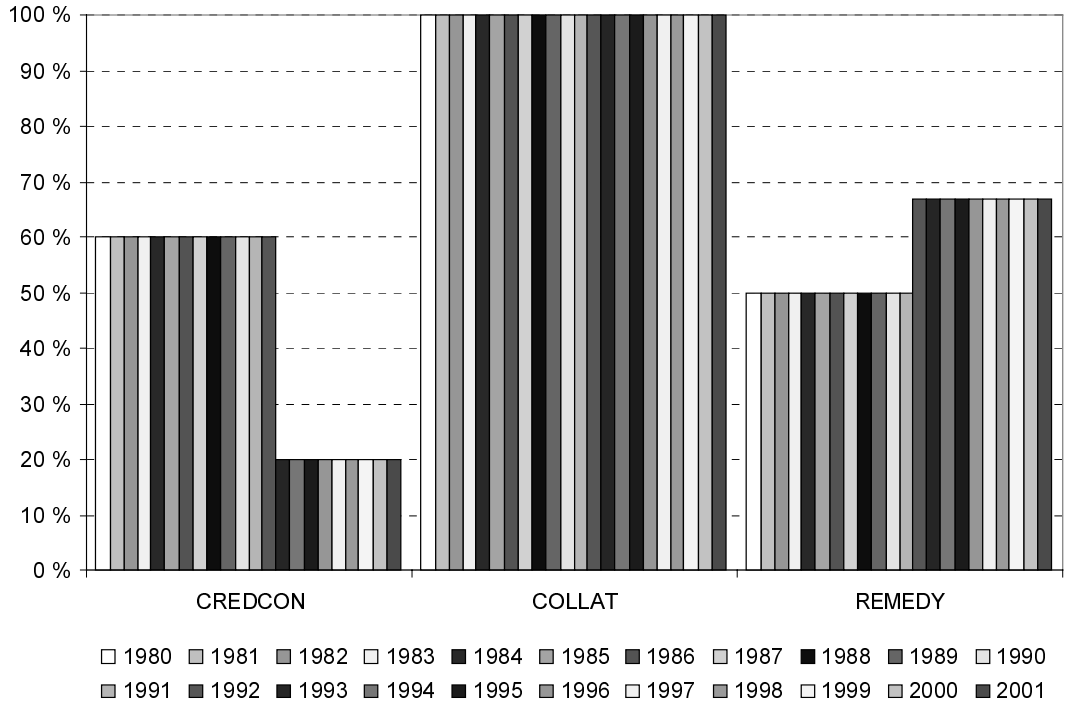
As noted in Pistor (2000), the relevance of LLSVcr and CREDCON is subject to collateral rules in a legal system. The two indices in practice assume that security interests are in place and, accordingly, tangible assets can be secured. In other words, there is a need to measure the collateral rules. We thus construct the COLLAT index, which includes the following three provisions: 1) establishing a security interest in movable assets does not require transfer of asset; 2) law requires the establishment of a register for security interests in movables; and 3) enforceable security interest in land may be established.

The CREDCON and COLLAT indices measure creditors' control rights in a bankruptcy, but the legislation may also allow the creditors to impose sanctions on management. To capture the creditors' legal possibilities to punish the management, we construct an index, called REMEDY, consisting of three variables: 1) legal provisions that allow creditors to pierce the corporate veil; 2) management can be held liable for violating provisions of insolvency law (lower threshold than criminal law activities required); and 3) transactions preceding the opening of bankruptcy procedures may be declared null and void.

Figure 4 displays the results of the measurement exercise. As against the findings of the previous section, it is not surprising that creditors' control over bankruptcy was significantly weakened by the Act on Reorganisation of Companies of 1993. The other creditor rights have remained untouched and strong. In the dimensions measured by the COLLAT, Finnish legislation provides a maximum level of investor protection.[11] Because the Act on Restitution of Assets in Bankruptcy became effective at the start of 1992, it became easier to resituate transactions preceding the opening of bankruptcy. The change increased REMEDY during the crisis years.

[11] We argue that there is an automatic trigger to file a bankruptcy in the Finnish law, although this differs slightly from the trigger proposed by Pistor (2000). According to the Finnish Companies Act of 1978, if the board of directors finds that the company's equity is below 50% of share capital, it should without delay prepare a balance sheet and have it audited. The board should, within two months from preparation of the balance sheet, convene a general meeting of shareholders to consider liquidation of the company. If the company's equity is below 50% of share capital by the following general meeting - to be held within twelve months after the first mentioned general meeting - the company must be liquidated.

Figure 4. **Decomposition of creditor rights**



3.3 Summary of shareholder and creditor rights

To evaluate the overall changes in investor protection, we first sum all the shareholder rights indicators given by Pistor (2000). The index is denoted by CUMSUMsh_pis. We then add to the CUMSUMsh_pis the indicators suggested by Glaeser et al (2001) and label it CUMSUMsh_gla. An aggregate index of creditor rights is developed using Pistor's (2000) indicators; it is called CUMSUMcr_pis. Finally, we combine CUMSUMsh_gla with CUMSUMcr_pis to obtain an index, CUMSUM_total, of general investor protection. The results are reported in Figure 5.

Figure 5. **Summary of shareholder and creditor rights**

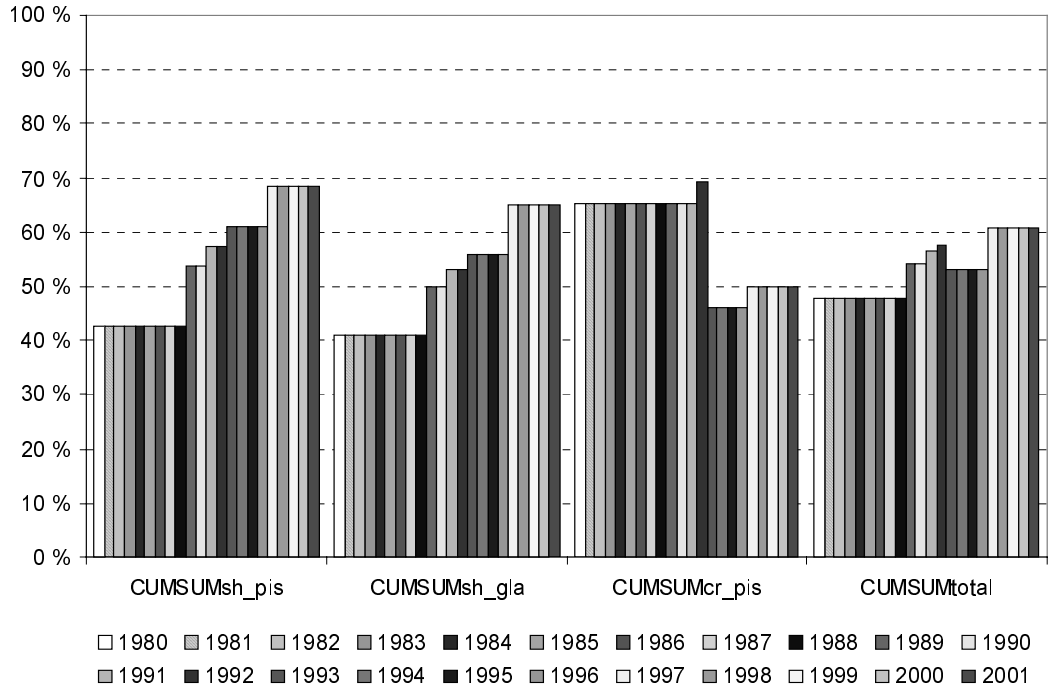


Figure 5 demonstrates that at the start of the 1980s creditors were better protected than shareholders but that the situation was reversed by 2000. As measured by the cumulative indices, Finnish legislation in 1980 covered about 80% of maximum creditor rights (as measured by the indices), but by 2000 the coverage had decreased to about 60%. After an increase of some 30 percentage points over the sample period, shareholder rights currently cover nearly 70% of maximum shareholder protection. As the development of the CUMSUM_total index illustrates, the increase in shareholder protection more than compensates for the decrease in the creditor protection. In the early 1980s, Finnish legislation covered about 50% of maximum protection, but the coverage increased to more than 60% by 2000. The development has, however, been non-monotonic. During the mid-1990s, the index value dropped, because the weakening of creditor rights had already been accomplished, but the main improvements in shareholder rights were effected only later.

3.4 Accounting standards and disclosure rules

One of the most significant changes in Finnish corporate governance concerns accounting, auditing and disclosure rules. In the early 1980s Finnish accounting legislation, which was based on an idiosyncratic cost-income theory, differed

from international standards. The primary aim of the Finnish accounting system was to determine the income of a financial year, which was in contrast to the Anglo-Saxon, IAS and US GAAP systems, which aimed at disclosing companies' earnings positions to investors. A survey of financial accounting practices by IASC (1988), covering fifty-four countries worldwide, indicated that Finnish accounting rules had the lowest conformity with International Accounting Standards (IAS). As a result, Finnish companies in the 1980s began to release dual financial statements, in line with each of the standards, in order to attract international investors (Kinnunen et al 2000).

Finnish accounting legislation shared similarities with the German system, which, Johnson (2000) argued, is geared towards protecting creditors and preserving capital and is closely linked to taxation principles.[12] In contrast to US firms, Finnish firms were unable to minimise taxable income without altering the pre-tax earnings reported to shareholders. The accounting rules also allowed dividend-based earnings management, which was a common practice among the Finnish companies prior to 1989 (Kasanen, Kinnunen and Niskanen 1996).

In the 1990s Finnish accounting rules underwent a series of reforms that narrowed the gap vs IAS rules. Reform of the accounting legislation in 1992 (effective 1 Jan 1993) brought eg the true-and-fair-view principle into Finnish legislation and reduced the scope for use of discretionary reserves. It also brought Finnish accounting legislation into line with the fourth and seventh Company Law Directives of the EU. Another major reform occurred in 1997, when the remnants of the peculiar cost-income theory were replaced.

The auditing regulation was also revised in the 1990s. The new Auditing Act came into effect at the start of 1995, replacing the old auditing legislation that had been introduced in the early 1980s. Besides incorporating the latest European developments into Finnish legislation, the Act increased both qualification requirements for auditors and their reporting and monitoring duties, and emphasised auditors' independence (Government bill 295/1993).

Like the accounting and auditing standards, Finnish disclosure rules were still underdeveloped in the early 1980s. By international standards, the quality of Finnish disclosure was low (see eg Keloharju 1993, Kinnunen, Niskanen and Kasanen 2000). Since then, a number of improvements have been made.

[12] This feature of the Finnish accounting system, which obtained in the 1980s, is summarised by Troberg (1992) and quoted in Kasanen et al (1996, p. 291): 'Because the accounting rules are in the form of laws, legal and political authorities, in addition to accountants, have significantly influenced the formation of the these rules and consequently their content. Through the Business Tax Act, the Finnish state (tax authorities) has had a major impact on accounting practice. As the financing structure of Finnish companies is by international standards highly leveraged, the role of creditors (banks) in the development of accounting reporting rules has by no means been a minor one.'

Disclosure requirements and sanctions for violations were stipulated in the self-regulation of the Helsinki Stock Exchange in 1985. The mandatory disclosure requirement was incorporated into Finnish legislation by the Securities Markets Act of 1989, which introduced a legal liability for violations of disclosure rules. The rules of the Helsinki Stock Exchange were first revised in 1990 and for the second time in 1994 in conjunction with a revision of the Securities Markets Act. As a result of the reform, Finland's disclosure rules are close to the standards in the other EU's member countries (Seppänen 1999).[13]

4 Financial system

The Finnish financial system has traditionally been relationship-focused, debt-based, and dominated by deposit banks. The stock market has been small and illiquid (Hietala 1989, Kasanen et al 1996). Our analysis in section 3 suggests that since the early 1980s, corporate governance legislation in Finland has changed significantly. Thus there is a reason to believe that the financial system has also changed. In this section we describe developments in the financial system, qualitatively and quantitatively.

4.1 Qualitative account

As in many other countries, financial market regulation was introduced in Finland in the aftermath of the crisis of the 1930s and has since then been gradually extended. At the start of the 1980s, the Finnish financial system was heavily regulated: cross-border capital flows controlled by the central bank, interest rate ceilings on bank loans and deposits, quantity limits on lending (Vihriälä, 1997) etc. The aim of loan and deposit rate regulation was to encourage investment by keeping interest rates low, whereas the regulation of foreign exchange movements supported a fixed exchange rate regime. The quotas for central bank advances further controlled the volume of bank lending.

Besides the direct regulation, taxation shaped the financial system, as noted in section 3.4.[14] Tax exemption of interest earnings was tied to a uniform deposit rate and terms set by the authorities, and interest expenses were often deductible

[13] The monitoring of disclosure rules is the duty of the Finnish Financial Supervision Authority, which was established in 1993. Financial market supervision in Finland is described in detail in appendix 4.

[14] See appendix 3 for a concise description of the Finnish tax system.

in taxation. Equity financing, by contrast, was subjected to burdensome tax treatment.

Low nominal lending rates, tax deductibility, and high inflation resulted in negative real lending rates and hence in excess demand for loans in the early 1980s. The regulation and low lending rates created favourable selection by excluding risky borrowers from the market (Drees and Pazarbasioglu 1995; see also de Meza and Webb 2001). The tax exemption of deposit interest earnings subsidised banks and effectively discouraged the development of other financial intermediaries. The regulations in turn reduced banks' incentive to compete for market shares and encouraged the creation of close banking relationships. Against this mix of regulation, taxation, and monetary policy favoring bank finance, it is hardly surprising that at the start of the 1980s the Finnish financial system was built on a non-competitive and subsidised banking sector in which long-term relationships with borrowers were essential and the incentives for risk management and monitoring were weak.

It however became increasingly evident that the old financial system, which relied on long-term relationships, was outdated. The gradual change in the industrial structure described in section 2 generated a need to move funds from declining to emerging industries. For example, between 1981 and 1985 the average real growth of R&D expenditures in the business sector was 13% while the corresponding growth rate for gross fixed capital formation was 3%. Demirgüç-Kunt and Maksimovic's (1998) analysis moreover suggests that, unlike in many other countries, firms in Finland used more long-term than short-term debt to fund their growth in the 1980s.

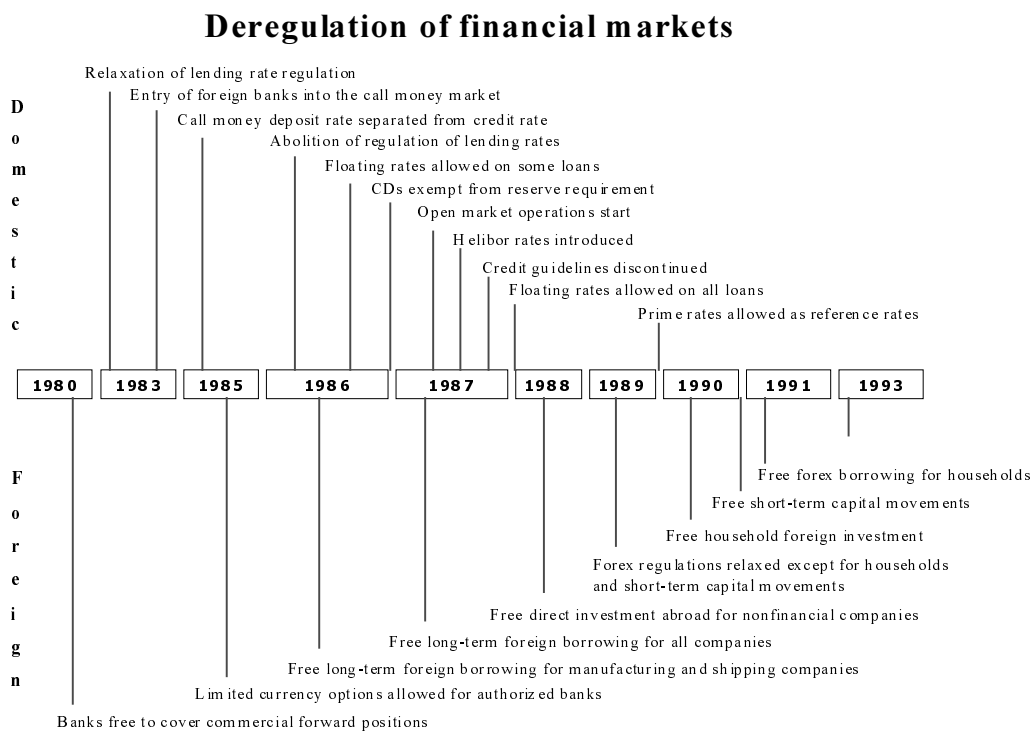
Faced with intermediation restrictions and accelerating inflation, the old system could not satisfy the financing needs of Finnish companies. Lenders, borrowers, and financial intermediaries began in the early 1980s to circumvent the regulation in a parallel (grey lending) market (Swoboda 1986, Drees and Pazarbasioglu 1995). The unregulated lending of commercial banks took place through their recently acquired finance companies. Measured as a ratio of total lending, it grew from 17% to 35% during the period January 1980 – December 1985 (Swoboda 1986). Unregulated deposits, ie higher-yielding taxable deposits, also expanded, but not as rapidly as the unregulated lending.

There were several other signs of financial system failure. For instance, another grey market emerged in the stock markets, where the demand for so-called unrestricted Finnish stocks by foreign investors steadily increased (Hietala 1989). In the early 1980s financial institutions also raised risk capital on the stock market, to the same extent as the non-financial corporations. Moreover, the profitability of Finnish deposit banks, despite the regulation and subsidisation, was among the lowest in Europe. According to OECD Bank Profitability Statistics, Finnish banks' operating profit before credit losses amounted to 0.75%

of balance sheet total for the period 1980–1984. In Europe only the Belgian banks had a lower ratio (0.54%).

The difficulties in the financial sector and the example of the United Kingdom and the other Nordic countries led to the gradual liberalisation of the financial market in the 1980s (Figure 6).[15] By 1988 the major restrictions, including foreign exchange movements and interest rate regulations, were removed.

Figure 6. **Financial liberalisation**



The financial market deregulation intensified competition between financial institutions and launched rapid lending growth. The annual growth rates were 25–30% in real terms. Borrowing in foreign currency also increased. As a result, the ratio of total credit to GDP grew sharply.

Financial market liberalisation initially increased the importance of intermediated debt finance and strengthened to the dominant position of the deposit banks. Nonetheless, an 'equitisation' process was also initiated. Initial public offerings increased in the late 1980s and peaked in 1989 when 43 companies were listed. Equity issuances by non-financial corporations also increased, and the liquidity of the stock market improved. In addition, 23

[15] See eg Drees and Pazarbasioglu (1995) and Vihriälä (1997) for comprehensive accounts of the liberalisation. Figure 6 is a modified version of Vihriälä's (1997) Figure 1.

development or private equity companies were established during 1984–1986. The role of the commercial banks in securities trading, in taking companies public and in the emergence of the private equity industry was nonetheless significant.

Although equity investments grew, bank lending, money and public debt markets grew more rapidly, and the economy became increasingly indebted towards the end of the 1980s. The economy was thus vulnerable to the shocks that hit in the early 1990s (see section 2.2). When borrowers' incomes and wealth declined dramatically in 1991, and bankruptcies (see Table 1) increased, the banks experienced severe problems. The currency crisis first raised short-term interest rates and then led to depreciation of the currency. This further weakened the borrowers' debt service capacities, especially since many had borrowed in foreign currencies.

Measured by loan losses and bankruptcies, the worst years of the banking crisis were 1992–1994. Bankruptcies for example reached their peak in 1993 when nearly 1.5 firms per thousand went bankrupt (see also Table 1). To prevent the banking sector from collapsing and to limit the adverse impact of financial sector problems on the real economy, the government intervened.[16] A part of the intervention was Parliament's resolution, published in February 1993, in which the Finnish state guaranteed the Finnish banks' contractual obligations.

The banking crisis led to a reorganisation of the banking sector (see Table 2). The savings bank group almost disappeared because of forced mergers by the authorities and eventual takeovers by other banking groups. The banks that were not forced to consolidate, consolidated voluntarily. For instance, the two largest commercial banks (KOP and SYP) merged in 1995.

The banking crisis also changed corporate financing in Finland. In the short-term it caused a disruption in the supply of external finance to companies. Although the evidence on a general credit crunch is weak (Vihriälä 1997), Saarenheimo (1995) finds that adverse shocks to the credit supply reduced private investment by about EUR 3.3 billion annually in the early 1990s. The debt-equity ratios of non-financial enterprises rapidly declined in 1991–1993, to the level that had prevailed in the 1970s, ie prior to liberalisation.[17]

Perhaps the most important long-term consequence of both the deregulation and banking crisis concerns the availability of external finance to small firms. As Petersen and Rajan (1994) and Berger and Udell (1998) argue, this may crucially hinge on the supply of relationship-based credit, which we feel shrank

[16] Vihriälä (1997) reports that confidence in the Finnish economy and financial system deteriorated in winter 1992/93 to the extent that the Finnish banks and large corporations encountered severe difficulties in borrowing from abroad.

[17] As Edey and Hviding report (1995), similar developments occurred in three other Nordic countries (Denmark, Norway and Sweden).

considerably in Finland in the 1990s. First, the deregulation increased competition both within the banking sector and from outside the sector, which tended to undermine banks' long-term relationships with borrowers (see eg Petersen and Rajan 1995 and Booth and Thakor 2000). Second, the banking crisis limited the scope for relationship-based debt finance. Kinnunen and Vihriälä (1999) report eg that small and medium size firms that were the customers of the banks in the worst trouble were more likely to close in 1992 than other firms or the same such firms in other years. Finally, as Table 2 shows, the consolidation of the banking sector reduced the number of small banks, which tend to devote larger proportions of their assets to small business lending than do large banks (see Berger and Udell 1998 and Berger, Miller, Petersen, Rajan and Stein 2002).

When the economic environment improved in the mid-1990s, creditors had poor possibilities for regaining their dominant position, because their ability to protect their rights was weakened (see section 3.2) and because the competition had increased. Instead, the development of the stock market that had begun in the late 1980s continued in the mid-1990s. In the 1990s, equity issuance on the stock market by the non-financial firms increased, clearly outpacing that of financial institutions. IPO activity restarted immediately once economic conditions had improved. Six new companies were successfully listed on the Helsinki Stock Exchange in 1994, and the trend accelerated in subsequent years. In the period 1995–2000, 55 companies were listed. As Hyytinen and Pajarinen (2001) report the venture capital market also grew. The first venture-backed company was listed in 1994 and by end-2000, there had been 23 venture-backed listings.

In summary, our qualitative account suggests that the structure of the Finnish financial system has thoroughly revamped during the period 1980–2000. The role of relationship-based debt in the Finnish financial system has reduced, while that of the stock market grew in importance.

4.2 Quantitative account

4.2.1 Financial development indices of Beck and Levine (2001a)

We build on Beck and Levine (2001a) to measure the deepness of the Finnish financial system and the relative importance of equity and debt as a source of firms' external finance. We follow the same procedure as for indices of investor

protection and explain briefly the measures. The reader is referred to the original paper by Beck and Levine (2001a) for further details.[18]

The Finance-Activity measure in Beck and Levine (2001a) measures the amount of financial market activity in an economy, which is given by the log of the product of two ratios: the value of private sector credit provided by financial intermediaries to GDP and the value of shares traded on the stock market to GDP. The larger the measure, the higher the volume of financial transactions in the economy at a given point of time.

We modify the Finance-Activity measure in two ways. First, we consider only corporate credit – albeit our corporate lending data is comprehensive, as it includes all corporate credit granted by financial institutions, government, and pension funds.[19] Our corporate lending measure also includes institutions' holdings of corporate bonds and commercial paper. Second, to filter the forward-looking component of stock prices, we divide the value traded by market capitalisation. This gives a turnover measure that is invariant to expectations-driven stock prices, because stock prices enter both numerator and denominator. Because of Nokia's dominant role in the Helsinki Stock Exchange in the late 1990s, we also construct a measure that excludes Nokia, called Finance-Activity (w/o Nokia).

The Finance-Size measure in Beck and Levine (2001a) is defined by the log of the sum of two ratios: value of private sector credits provided by financial intermediaries to GDP and market capitalisation to GDP. While it has many advantages, the measure suffers from the defect that growth of stock market capitalisation reflects asset price inflation, ie increases in the discounted value of companies' expected cash flows. To measure the size of the stock market in real terms – ie at expectations-adjusted stock prices, as in Rousseau and Wachtel (2000) – we normalise the time series of market capitalisation and GDP, respectively, at 1995 share price level and overall price level.

As Figure 7 illustrates, Finance-Activity increases in the first half of the 1980s and then declines, hitting bottom during the economic crisis of the 1990s. It then rapidly recoups but, surprisingly, declines again in the end of the 1990s. The development of the Finance-Size measure is less volatile, but it also decreases toward the end of the 1990s.

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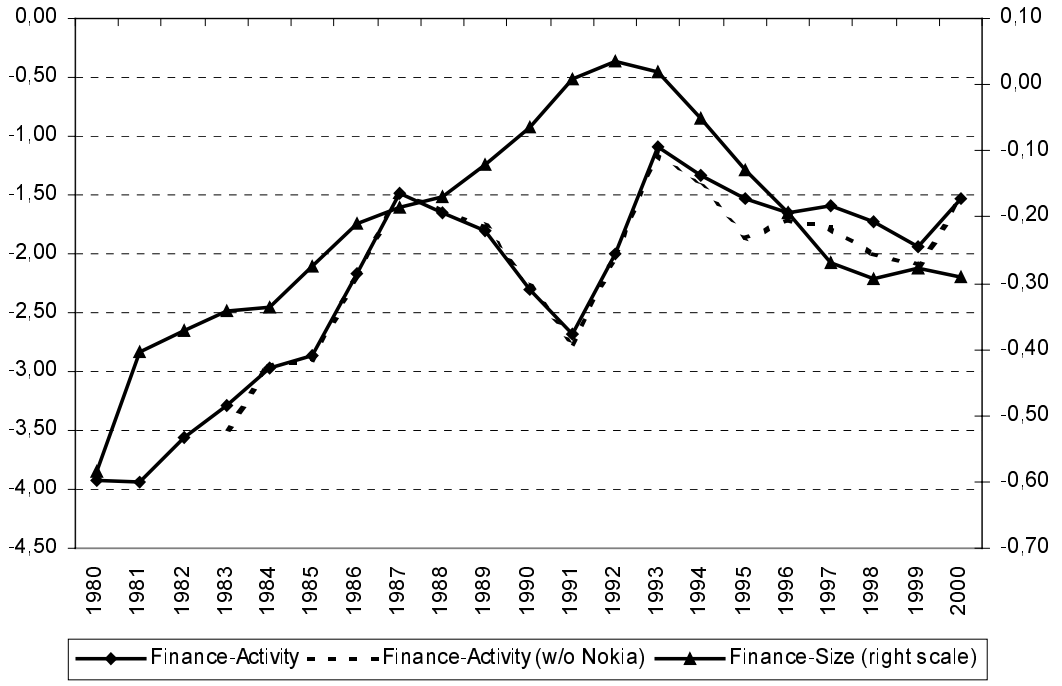
[18] See also Beck, Demirguc-Kunt and Levine (2000) and Levine (2001), who construct and use similar indices. The indices are based on various stock and flow variables. In computing the ratio of a stock variable measured at the end of a period to a flow variable measured over a period, a bias may arise (see Beck and Levine 2001b). We try to reduce the bias by employing the average of the (real) stock variables in periods t and t–1 and by relating the average to the (real) flow variable for period t.

[19] Government accounted on average for 3% of corporate lending in 1980–2000.

Figure 7. **Financial developments**

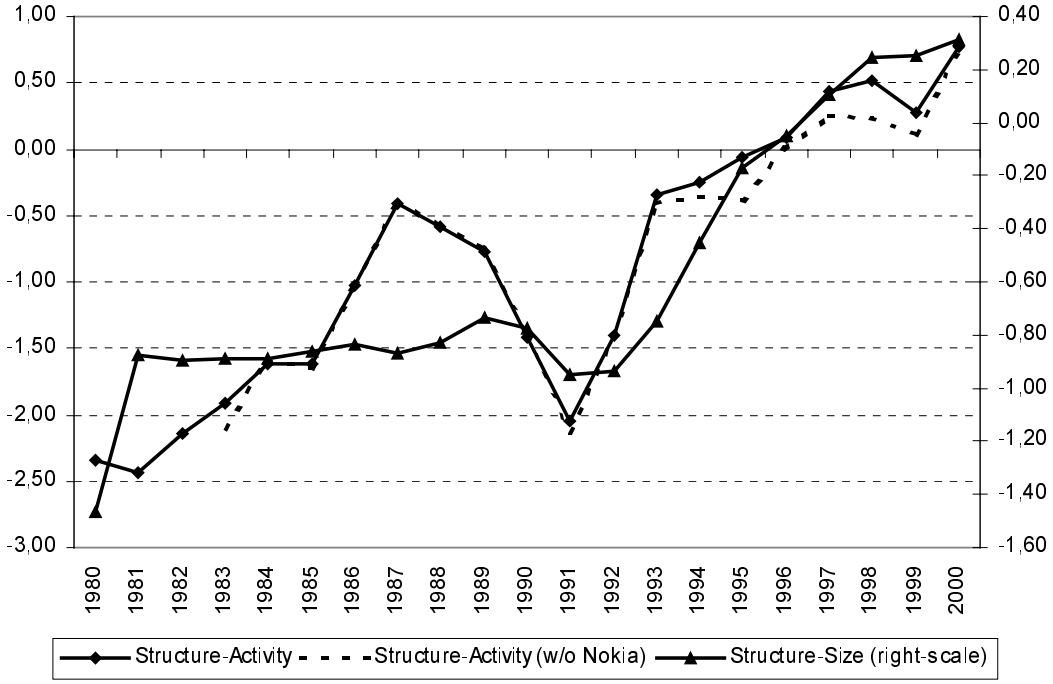


This then raises the question of why financial market activity has been stagnant. The individual components of the Financial-Activity and Finance-Size measures reveal that the liquidity of the stock exchange has improved during the latter half of the 1990s, but financial intermediaries' corporate lending relative to GDP has decreased sharply at the same time. To elaborate on the issue whether the orientation of the Finnish financial system has been moving from banks towards the stock market, we follow Beck and Levine (2001a) and construct Structure-Activity and Structure-Size measures. As in the case of the Finance-Activity and Finance-Size measures, we modify them to eliminate the forward-looking component of share prices. Structure-Activity compares activities of the stock market and financial intermediaries. It is equal to the log of the ratio of stock market turnover to corporate claims of financial intermediaries, where intermediaries' claims are measured in GDP shares. We again control for Nokia's impact by computing the measure without it (Structure-Activity (w/o Nokia)). The second measure, Structure-Size, captures the relative size of the stock market with respect to intermediated debt finance. It is defined as the log of the ratio of real market capitalisation to corporate claims of financial intermediaries.

Figure 8 illustrates developments in the Structure-Activity and Structure-Size indicators. They demonstrate how the Finnish financial system has over the past twenty years disengaged from debt finance towards increasing dominance of stock markets. The trend is clear, although the crisis of the early 1990s temporarily

disrupts it. Although there was a change towards stock market-oriented financial system already in the 1980s, the rate of change accelerated during the 1990s.

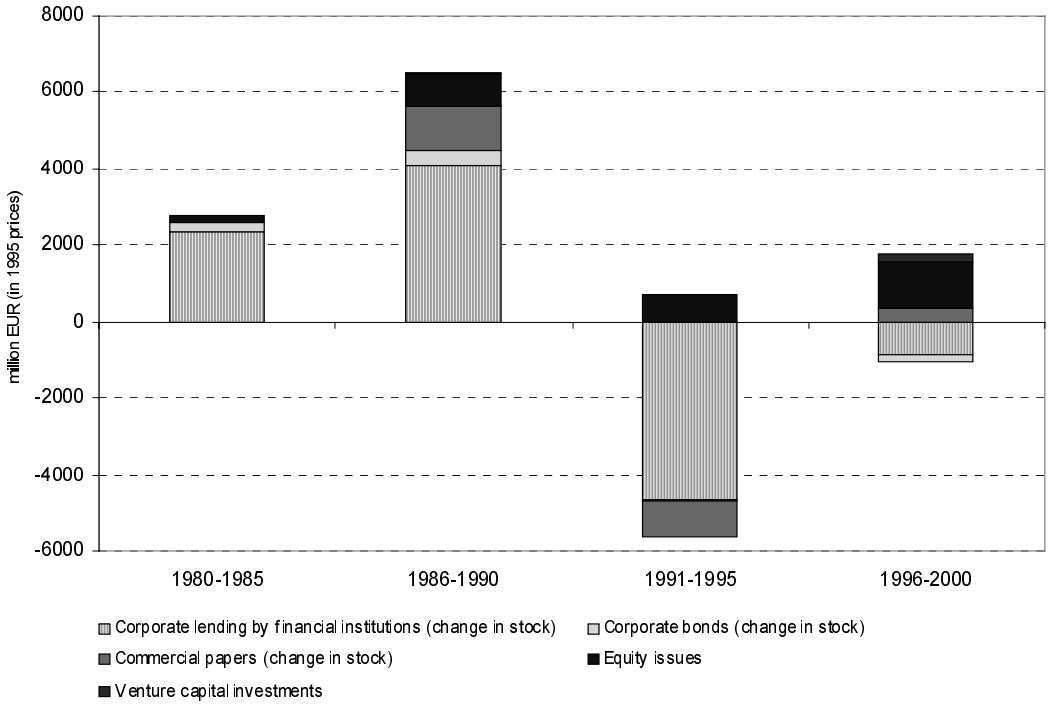
Figure 8. **Financial structure**



The structural change of the Finnish financial market is also evident from Figure 9, which depicts changes in sources of external finance for four consecutive periods.[20] Figure 9 shows how equity issues and venture capital have increased in relative importance as sources of external funds to firms. There has been a major decline in the intermediated debt. It seems that market-based debt finance has also sifted toward shorter maturities, because the corporate bond stock decreased while the commercial paper stock increased.

[20] The sources are corporate lending by financial intermediaries, corporate bond stocks, commercial paper stocks, equity issues, and venture capital investments. All data are in real (1995 prices) terms.

Figure 9. **Flows of external finance to firms**



A final affirmation of the banks' decreasing role can be obtained from Table 2. The private credit of the first column has a broader debt component than the earlier measures of this section, because it includes credit to households and non-profit organisations in addition to corporate lending. The broad measure confirms that there has been a drastic decline in intermediated debt during the 1990s. As Table 2 indicates, the concentration of the banking sector and increase in the number of non-deposit financial institutions have characterised developments in the financial services sector.

Table 2. **Indicators of financial system structure**

Year	Private credit*	Number of deposit banks	Average size of deposit banks**	Non-bank financial institutions***
1980	79%	653	38.4	13
1985	92%	644	81.5	19
1990	115%	519	236.4	75
1995	88%	347	291.5	180
2000	70%	335	353.5	153

* = % of GDP (lending by financial intermediaries, pension funds and government)
** = in EUR m
*** = number of non-bank financial institutions supervised by FSA

4.2.2 Ownership of Finnish companies

A key hypothesis stemming from the growing law and finance literature (see eg LLSV 1998, 2000) is that legal protection and control are substitutes. In this section we, however, show that the Finnish evidence runs against the hypothesis. As said, at the start of the 1980s the Finnish financial system had a main-bank structure. The most important Finnish firms were roughly divided into three spheres, which were controlled by the main Finnish commercial banks (Lantto 1990). A salient feature of the power spheres was the cross-ownership between financial institutions and nonfinancial firms. As a result, the financial institutions had a substantial influence on the decision-making of non-financial firms (Pohjola 1988, Kasanen et al 1996). Because the banks held large stakes in the firms in their spheres through equity and debt, they provided both financial and managerial support, if a firm in their sphere encountered financial difficulties.

As indicated by Table 3, which shows the largest owners of Finnish listed companies, the banking crisis and industry restructuring resolved the spheres almost completely by 2000. The ownership shares of financial institutions increased during the 1980s but have subsequently declined substantially. The role of financial institutions has thus diminished, not only as providers of debt finance (section 4.2), but also as owners.[21] Table 3 also reveals that since restrictions on the foreign ownership of Finnish companies were removed in the early 1990s foreign ownership has grown substantially.

Table 3. **Ownership by type of owner**

Year	Financial institutions	Households	Foreign	Corporations	Other*
1980	–	44%	–	–	56%
1985	20%	37%	–	26%	18%
1990	25%	25%	–	27%	24%
1995	19%	19%	24%	18%	20%
2000	4%	13%	53%	14%	17%

* = 'Other' is a residual owner sector the composition of which changes from year to year

In Table 4 we document ownership concentration of listed companies, in terms of both cash flow and voting rights; C/V ratios compare the largest owners' cash flow rights to their voting rights. The table reports direct stakes of the largest owners, but ultimate control rights are typically larger than indicated by direct

[21] As we argue in appendix 4, although there have been frequent changes in the rights of financial institutions to own corporate equity over our sample period, the ownership restrictions have not in practice become more stringent. They thus cannot drive the patterns in ownership that we document. See also Pohjola (1988).

stakes. Table 4 shows that the median largest direct voting stake is around 30%, which is in line with previous European findings (Becht and Röell 1999). The figure is noteworthy, since Pohjola (1988) argues that a direct voting stake of 30% is sufficient for obtaining control in Finnish companies. It also appears that ownership concentration was higher in the 1990s than in the 1980s and has remained stable since 1990. The C/V ratios were lowest in 1990, which suggest that even the largest owners may have feared expropriation at the end of the 1980s (cf also LLSV, 2001).[22]

Table 4. **Ownership concentration**

Panel A. Ownership shares of largest owner

	Cash-flow rights*		Voting rights**		C/V***	
Year	Average	Median	Average	Median	Average	Median
1980	22%	14%	–	–	–	–
1985	25%	15%	23%	14%	0.87	1.00
1990	28%	22%	29%	18%	0.80	0.91
1995	28%	22%	36%	30%	0.95	1.00
2000	28%	23%	34%	31%	0.93	1.00

Panel B. Combined ownership shares of three largest owners

	Cash-flow rights*		Voting rights**		C/V***	
Year	Average	Median	Average	Median	Average	Median
1980	36%	29%	–	–	–	–
1985	39%	35%	44%	37%	0.95	1.00
1990	44%	39%	55%	56%	0.82	0.90
1995	43%	40%	53%	56%	0.97	0.98
2000	43%	41%	50%	48%	0.93	1.00

* three largest owners' combined share in cash-flow rights
** three largest owners' combined share in voting rights
*** ratio of three largest owner's combined cash-flow rights to voting rights

In summary the quantitative account supports the conclusion of the qualitative account, ie that the bank-centred financial system has disengaged from relationship-based debt finance towards increasing dominance of stock markets.

[22] In Panel A, the high average values of 0.95 and 0.93 for C/V in 1995 and 2000 are partly generated by a single company (Raisio Ltd). If that company is removed, the averages fall to 0.82 and 0.87. In Panel B, the adjustment reduces C/V from 0.97 to 0.83 in 1995 and from 0.93 to 0.89 in 2000.

5 Assessment

5.1 Law or finance?

Starting out, it is difficult to say whether what matters is law or finance. On the one hand, a legal reform enhances financial market development, as argued by LLSV (1997, 1998 and 2000). On the other hand, market-based development may drive legal reform, as argued by Berglöf (1997). The Finnish evidence also seems convoluted. The substitution of equity for debt and the fall of the bank-centred financial system depicted in section 4 are in harmony with the weakened creditor and strengthened shareholder protection recorded in section 3, but it is an open question whether the legal or market-based reform has been driving the developments in the Finnish financial markets. We try to answer both by looking deeper into what drives the main legal changes that we have documented and by testing whether our measures of investor protection can be used to predict financial market development, or vice versa.

Considering first the major changes in shareholder protection, we observe that the Securities Markets Act of 1989 was introduced in connection with the first growth stage of the Finnish securities market in the late 1980s. We interpret Government bill 157/1988 to indicate that policy-makers recognised the growth prospects of the securities markets and wanted to contribute to it, as there was no law governing the markets. The second growth stage occurred in the late 1990s and was preceded by preparatory work and 1997 reform of the Companies Act. Government bill 89/1996 reveals the legislators' key reason for the reform. They wanted to provide companies and entrepreneurs with additional financing instruments and high-powered, equity-based incentive mechanisms.[23] The reform also removed inconsistencies that compromised the principle of equal treatment of all shareholders. Another aim of the reform was to bring Finnish legislation into line with EU directives on company law.

As regards the major reforms of creditor rights, the Act on Reorganisation of Companies was written after the crisis of the early 1990s had emerged. Amidst the crisis it was felt that illiquid but solvent firms were unnecessarily liquidated because of overly stringent legislation. The need for a novel route for financially stressed firms is stated in Government bill 182/1992. The pressure for reform was strong. It is stressed in the bill that the reform was needed without a delay and that

[23] The law hindered the use of high-powered incentive systems, as it required a link between warrants and companies' bond issues. The mandatory link with debt instruments was abolished when the Companies Act was amended in 1997. Since then, incentive schemes have become more high-powered, as Figure A1 indicates.

it was more urgent than other then-planned changes in bankruptcy legislation. The working group set up by the Ministry of Justice was given less than ten months to draft a proposal for the new law, to ask for opinions of representatives of creditors, debtors and other organisations concerning the proposal, and to write a Government bill.

Evaluation of the main legal changes thus suggests that the reform of the shareholder protection preceded or coincided with financial market developments, whereas the changes in creditor protection have at least to some extent followed them. There is further casual evidence supporting the asymmetric relationship between legal and market-driven reforms. The liberalisation of bank lending in the early 1980s was preceded by the emergence of the grey lending markets (see section 4.1), while the reform of accounting legislation in 1992 was based on forward-looking concerns. Government bill 111/1992 indicates that one of the legislators' primary motivations for reforming the accounting legislation was to enhance the availability to companies of market-based external finance.

Besides elaborating qualitatively on the relationship between the legal changes and the financial market development, it would be desirable to make a robust econometric assessment on the impact of investor protection on financial market development. This is a dubious exercise in a single equation framework, because the exogeneity of legal protection is disputable. By specifying a general multivariate model, it would be possible to test the exogeneity of legal protection as an explanatory variable. Our small sample size, however, renders such a model inappropriate. Instead, we test whether our measures of investor protection can be used to predict financial market developments, or vice versa.

In testing for the predictability, we use a new measure, RELPROT, of investor protection in addition to the CUMSUMsh_pis, CUMSUMcr_pis, and CUMSUM_tot developed in section 4. RELPROT equals the ratio of CUMSUMsh_pis to CUMSUMcr_pis. We regard this measure as a proxy for the changes in the strength of the shareholder relative to that of creditor protection. Since a bias may arise if financial market participants anticipate legal changes, we assume that if a legal rule was effective at the end of a year, it applies to the entire year, while the financial market data comprise year-end observations. In addition, we lag the investor protection indices by a period in this empirical exercise.

Financial market development is measured by Finance-Size, Finance-Activity, Structure-Size and Structure-Activity from section 4.2. We also build on Beck and Levine (2001a) to create two summary variables, called Finance-Aggregate and Structure-Aggregate, of these financial system indicators. Finance-Aggregate equals the first principal component of Finance-Size and Finance-Activity and, correspondingly, Structure-Aggregate equals the first principal component of Structure-Size and Structure-Activity.

We employ a relatively simple pair-wise test of Granger-causality to test the possibility of predicting one variable with past values of the other variable. The Granger test can be sensitive to the lag length but, because of the small sample size, we consider only lags one and two. The variables in the regression equations are treated symmetrically with respect to lags.

Because of the small sample size and the known problems with Granger tests, the results reported in Table 5 are tentative. The hypothesis that Granger-causality (predictability) is unidirectional from shareholder protection to structure of financial system agrees with the data, whereas the hypothesis that causality is unidirectional in the reverse direction is rejected. The same conclusion applies to the relation between the relative strength of shareholders' rights (RELPROT) and structure of the financial system. In contrast, developments in the structure of the financial system predict developments in creditor protection, but the same does not hold for the reverse. The evidence is however quite weak. Finally, we find no evidence for predictive power between overall financial market developments and overall investor protection. Given that our measures in Figures 5 and 7 indicate a relatively monotonic improvement in overall investor protection but contracting financial developments in the late 1990s, the last finding is unsurprising.

Table 5. **Predictability analysis (Granger causality tests)**

	p-values of F-tests	
Regression Equation (Granger-causality)	Lag = 1	Lag = 2
CUMSUMsh_pis on Structure-Size	**0.06**	**0.00**
Structure-Size on CUMSUMsh_ps	0.57	0.91
CUMSUMsh_pis on Structure-Activity	**0.09**	**0.01**
Structure-Activity on CUMSUMsh_pis	0.31	0.60
CUMSUMsh_pis on Aggregate-Structure	**0.08**	**0.00**
Aggregate-Structure on CUMSUMsh_pis	0.37	0.78
CUMSUMcr_pis on Structure-Size	0.12	0.10
Structure-Size on CUMSUMcr_ps	0.22	**0.02**
CUMSUMcr_pis on Structure-Activity	0.23	0.84
Structure-Activity on CUMSUMcr_pis	**0.04**	0.18
CUMSUMcr_pis on Aggregate-Structure	0.22	0.34
Aggregate-Structure on CUMSUMcr_pis	**0.06**	**0.04**
RELPROT on Structure-Size	**0.01**	**0.07**
Structure-Size on RELPROT	0.92	0.17
RELPROT on Structure-Activity	**0.09**	**0.04**
Structure-Activity on RELPROT	0.14	0.31
RELPROT on Aggregate-Structure	**0.05**	**0.03**
Aggregate-Structure on RELPROT	0.28	0.27
CUMSUM_total on Finance-Size	0.11	**0.04**
Finance-Size on CUMSUM_total	0.99	0.93
CUMSUM_total on Finance-Activity	0.36	0.14
Finance-Activity on CUMSUM_total	0.62	0.34
CUMSUM_total on Aggregate-Finance	0.82	0.91
Aggregate-Finance on CUMSUM_total	0.77	0.40

The results in Table 5 support the conclusion derived from the study of the main legal changes. A cautious interpretation of our econometric findings is that developments in shareholder protection have been a driver of financial market restructuring, whereas the changes in creditor protection have followed market developments. The latter finding is in contrast to the conclusion of LLSV (1997, 1998 and 2000).

5.2 An alternative interpretation: Politics or finance?

Our analysis of the development of the Finnish corporate finance over the past two decades shows different aspects of the legislation may have different degrees of sensitiveness to financial market developments. There are of course alternative interpretations of the finding. A weakening of creditor rights rather than strengthening of shareholder rights may provide an explanation for the diminishing importance of corporate lending during the 1990s, as it may have reduced the supply of intermediated debt finance. The Finnish firms may also have substituted internal and equity financing for external debt because of their good profitability during the boom and because the taxation no longer favoured debt financing. In addition, the deregulation (and globalisation) of financial markets may have contributed to the decline of domestically intermediated debt.

While all these may explain our finding to some extent, we think that a more profound explanation is related to the question of how the legislation is changed. On the one hand, it seems that the legal reform has enhanced stock market development. On the other hand, it seems that market-based developments have preceded the reform of creditor protection. In both cases changes in the law are emphasised. But since the law on the books in the Nordic civil law countries can only be changed by politicians, politics may be the missing variable explaining the development of legislation, rendering both the legal and market-based reforms 'endogenous'.[24] Specifically, politics may explain why the reform of creditor protection seems to follow market developments.

Our evidence supports the crisis-induced-reform hypothesis (see eg chapter 10 in Drazen 2000, and Drazen and Easterly 2001). The traditional version of the hypothesis maintains that a sufficiently severe economy-wide crisis launches macroeconomic policy reforms. But a macroeconomic crisis also restricts the availability of external finance to firms and may induce a reform of corporate

[24] The legislative power in Finland lies with the Parliament, consisting of 200 members who are elected every four years through direct and proportional suffrage. The supreme executive power is vested in the President of the Republic and the Council of State (the Cabinet).

governance laws, since the economic and political costs of postponing it would be significant. Moreover, the macroeconomic crisis may disturb the balance of power between interest groups supporting and opposing the reform. Both these factors, the costs of postponing reforms, and the changing influence of interests groups contributed to the dilution of creditor rights documented here in section 3.2.

Traditionally the banks have been an influential interest group in Finland and the worsening of creditor rights runs against their interests. However, as described in section 5.1, the economic crisis of the early 1990s put heavy pressure for reform on the government, because it was felt that too many illiquid-but-solvent companies were being liquidated. The banking crisis and reorganisation of the banking sector also meant a deterioration of banks' previously strong political power. The Act on Reorganisation of Companies was adopted despite fierce protests by the Finnish Bankers' Association. The banks' objection to the Act is clearly documented in Government bill 182/1992. The weakened political influence of the banks also removed an obstacle to the accounting law reform of 1992. Although the reform was made to enhance the availability of market-based finance (see section 5.1), it simultaneously meant that many creditor-friendly properties of the law were eliminated.

The crisis-induced-reform hypothesis may also explain the development of the Finnish financial system in the 1980s. Besides highly visible economic recessions, a crisis can also be a less transparent deterioration of corporate governance. When incumbents' rents dissipate, their incentive to oppose reforms declines. They also begin seeking new sources of profits, which may require circumvention of legal rules, resulting in a market-based reform. Such a concealed crisis occurred in the 1980s, when the need to move capital from declining to emerging industries emerged. Increasing demand for external finance and the deteriorating rents of incumbent financial institutions eventually led to deregulation of the financial markets. Deregulation was followed by the introduction of new legislation that strengthened shareholder rights and stock market integrity. Since banks actively participated in the securities markets in its first growth stage (see section 4.1), they had little reason to resist improvements in shareholder protection in the late 1980s.

Although the crisis-induced-reform hypothesis seems to predict the creditor side of our evidence, we have a little evidence to evaluate the political economy explanations for the developments in shareholder protection. The pattern of the changes in shareholder and creditor rights may nonetheless reveal legislators' preferences regarding the most suitable financial system for Finland. The analysis in sections 4.1 and 4.2 suggests that Finnish legislation has become more favourable towards shareholders at the expense of creditors. The change has taken place since the conservatives in 1987 became participants in the Government for the first time in 20 years. Since the elections of 1987, the Government has also

been pro-European. As indicated earlier, European integration has contributed to the changes in shareholder protection and accounting standards in Finland. It thus seems that the shift in political power has also favoured shareholders.

6 Conclusions

In this study we look at changes in Finland's corporate governance and financial systems throughout the 1980s and 1990s and evaluate financial system developments against the corporate governance reform. We come up with four main findings.

First, the changes in Finnish corporate governance have been profound, but the reform has treated shareholders and creditors unequally. Shareholder protection has been strengthened while creditor protection has been weakened considerably. Against the findings of LLSV (1997, 1998 and 2000), the conclusion is puzzling in two respects. On the one hand the outcome of the Finnish reform is a relatively unusual financial system where shareholders are better protected than creditors. On the other hand, there has been neither a decrease in ownership concentration nor an increase in the ownership of financial institutions despite the indisputable strengthening of shareholder rights and equally indisputable weakening of creditor rights. The finding is at odds with the view that law and power are substitutes.

Second, the changes in investor protection parallel a complete reorganisation of the Finnish financial markets. In this reorganisation, companies have to a large extent substituted equity for debt and a bank-centred financial system has disengaged from relationship-based debt finance towards increasing influence of stock markets.

Third, we find some evidence for an asymmetric relation between the law on books and the level of financial market development. It seems that development of the shareholder rights has been a driver of financial market restructuring, whereas the creditor rights have mirrored market developments. Some parts of the legislation may thus be more prone to change with market developments than others, and vice versa. Moreover, this finding is at odds with the conclusions of LLSV (1997, 1998 and 2000), who emphasise the role of law in shaping financial systems. The asymmetry is however in line with Berglöf's (1997) argument that law matters but is endogenous to developments in the economy.

Finally, our evidence is consistent with the crisis-induced-reform hypothesis (see eg chapter 10 of Drazen 2000, and Drazen and Easterly 2001). The traditional argument is that a sufficiently severe economy-wide crisis launches a macroeconomic policy reform. But a crisis, be it macroeconomic turbulence or

deteriorating financial system, also restricts the availability of external finance to companies. Such a crisis may induce a reform of corporate governance laws, since the economic and political costs of postponing reform would be significant. Politics may thus explain why in Finland reforms of legislation governing creditors seem to follow market developments.

There is a need for a further analysis of Finnish corporate finance in the spirit of recent research on the political economy of finance (as summarised in Pagano and Volpin 2001). Such an analysis should be extended beyond our sample period. For example, before the crisis of the early 1990s corporate finance was shaped by several laws that were introduced after earlier major economic crises at the end of the 1860s and in the early 1930s (see also appendix 1).

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Appendix 1

Macroeconomic environment before 1980

Several Finland's economic institutions, such as banking system, transportation and communication infrastructure were developed under the autonomy period of 1809–1917. The Grand Duchy era also included deregulation of commercial activities. The economy remained, however, primarily agricultural, rendering it vulnerable to the weather conditions.

The independent monetary policy became possible in 1865, when Finland received an own currency, the Finnish Markka. To establish reputation for the currency, the Bank of Finland kept the monetary policy tight in the subsequent years. The tight monetary policy combined with the bad weather resulted in a deep depression in the end of the 1860s. The GDP dropped 8%, a bankruptcy wave swept over the country, and over 100 000 Finns died in hunger and various illnesses. The economic crisis resulted in a series of reforms. For example, the Finnish bankruptcy liquidation code became effective as of 1868.

After the depression the long-term growth performance of the Finnish economy has been good. During the past hundred years the average growth rate has been about 3%. Only few countries such as Japan and Taiwan have experienced faster average growth. Beside the world wars, the two major economic crises occured in the 1930s and in the 1990s.

Like in many other countries the depression of the 1930s induced significant economic reforms in Finland. The fixed exchange rate peg and the balanced-budget policy were abandoned, and the Government regulation of commercial activities was re-introduced. In particular, the Finnish financial market became tightly regulated.

Although the depression of the 1930 was in Finland similar as in most other industrialized countries, Finland hardly suffered from the oil crisis of the 1970s. The key reason was a peculiar bilateral trade agreement between Finland and the Soviet Union. Finland was importing oil from the Soviet Union and, when the oil price rose, the Finland's exports to the Soviet Union automatically increased. The bilateral trade agreement also partially explains why knowledge-based industries begun increasing their share of production and exports in the 1970s.

As described in section 2, there has been a comprehensive change in the industrial structure since the Word War II. As a result the percentage of labour force employed in farming and forest work has decreased from nearly 50 to fewer than 10. Currently the service sector and public administration employs over 50% of the labour force, and approximately one-third works in industry and construction. In addition to the industrial change, high inflation characterized the

post World War II economy. A salient feature of the monetary policy has been so-called inflation-devaluation cycle. There were 13 devaluations of the currency during the period of 1945–1985.

Since the World War II and especially during our sample period 1980–2000, the Finnish economy has also been deregulated and integrated to the Western hemisphere. In the early 1980s the Finnish domestic market was regulated and protected. For example, in 1982 a blocking of prices (price stop) covered around 80% of the goods included in the cost-of-living index. Price regulations were abolished fully in 1988 but, despite Finland's agreements with the EFTA (associate member as from 1961) and the EEC (free trade agreement as from 1973), agricultural and service sectors encountered little competition before Finland joined the EU. Since then the domestic market has increasingly been exposed to the competition.

Appendix 2

Corporate governance: Beyond the legal reform

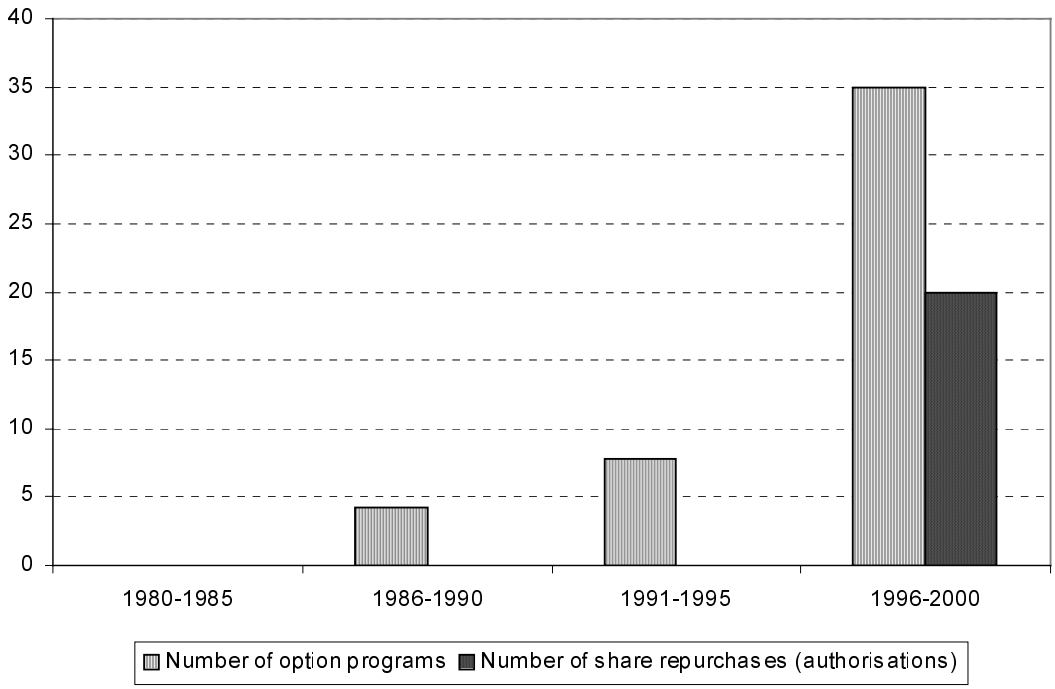
In this appendix we briefly review how the Finnish corporate governance concerning corporations' board of directors, executive compensation, and targets has changed over the period 1980–2000 (see for further discussion, eg, Ylä-Anttila, 2000, Ali-Yrkkö and Ylä-Anttila, 2001, and Mäkinen, 2001).

During the 1980s no major changes took place in the main aspects of the governance of the Finnish companies. The board of directors monitored the operative management. The members of the operating management team frequently occupied the board and sometimes they even had an outright majority in the board. A supervisory board usually monitored the board of directors in large Finnish firms. For example, 2/3 out of the 30 largest firms in Finland had the two-tier system in 1989. Cross-board membership was common, too, and a single person was often a board member in four to six listed firms. Executive compensation was based on low-powered incentive schemes. As Figure A1 indicates, executive stock options were virtually non-existing, as the first option program was launched in 1988. Finally, shareholder value was not among the main corporate objectives in the 1980s. Instead, various targets, such as success in product market competition, were emphasized.

The 1980s was followed by a decade of major changes. The dual-board governance structure was almost completely waived by the end of the 1990s. Only six of the 30 largest firms had a two-tiered board system in 1999. The board of directors also underwent large reorganisations and they began to play a larger role. In particular, they have become more independent from the operative management team. The number of outside expert members in the boards has increased, whereas the cross-board membership and the multiple board memberships held by a single person have decreased.

There were numerous other changes in addition to the composition of tge board of directors. For instance, the number of investor relations departments in companies rose, and the top directors of the Finnish listed companies began to participate in the management of investor relations. As Figure A1 indicates, the use of high-powered incentive schemes also spread, partially because shareholder value became an explicit corporate target in the 1990s.

Figure A1. **Share repurchases and incentive option programs**



Appendix 3

An overview of Finnish tax system over 1980–2000

In the 1980s the Finnish capital taxation was detailed and favoured the use of debt in financing investment (see, eg, Hietala 1989, Honkapohja and Koskela 1999). The main characteristics of the Finnish tax system in the 1980s were as follows. First, capital gains and dividends were taxed differently. Second, realized capital gains were always taxable and losses always tax-deductible for banks, insurance companies, and stockbrokers. For individuals and other companies, capital gains (losses) were taxable (tax-deductible) only if the security was held for less than five years. Individuals and non-financial companies were allowed to deduct capital losses only against the capital gains that realized during the same fiscal year. Third, dividends were taxable for individuals (net of a small investment income deduction) and for banks, insurance companies, stockbrokers, and holding companies, unless they distributed dividends directly to their stockholders. For the other companies dividend income was non-taxable.

Fourth, interest income from government and mortgage bank bonds, and from deposit accounts that paid an interest rate below the maximum rate imposed by the regulations, was tax exempt for individuals. Interest income from other sources was taxable. For corporations, interest income was taxable without exceptions. Finally, foreign investors had to pay a withholding tax of 25% of their investment income.

Between 1987–1993 a series of tax reforms were implemented. In 1990 the two-rate tax system was replaced by an imputation system where the recipients of dividend income was fully credited for the taxes paid by the distributing firm. In 1991 source taxation of interest income was introduced. While maintaining the imputation system, a uniform capital income tax rate was introduced in 1993. The tax-rate is the same regardless of whether the taxable capital income is rental, interest, dividend, corporate, or capital gain income. The rate was first set at 25 percent, but has since then been raised twice. Currently the rate is at 29 percent. The withholding tax on interest income no longer applies to foreign investors.

The effective tax rates, taken from Valkonen (1999), before and after the reforms are displayed in Table A1.

Table A1. **Effective tax rates before and after the reform (Valkonen, 1999)**

	Before reform	After reform
Corporate tax	25%	28%
Interest income tax	0%	28%
Dividend tax	13%	0 / (28%)
Capital gains tax	0%	28%

In addition to capital income taxation, the principles of stamp duty have changed. Previously, a stamp duty was payable for all stock market transactions. It was 1% percent at the beginning of 1980s and was raised to 1.4 percent in 1985. In 1992, the duty was removed for transactions taking place in the stock exchange. If stocks are sold outside the exchange, a stamp duty of 1.6 percent must be paid.

Appendix 4

Regulation and supervision of banking and financial markets

The regulation and supervision of banking and financial markets have changed beyond what we describe in the main text. In this appendix, we provide an overview of the other changes in the regulatory framework, paying special emphasis on the rights of financial institutions to own equity securities.

The banking regulations that prevailed in Finland in the early 1980s had been introduced in connection with a legislative reform in 1969. Besides the banking laws, there were specific laws for mortgage banks, credit companies, banking supervision and insurance companies.

The legislative reform of 1969 maintained the old principle that separate banking laws governed different banking groups. There were three banking laws: Commercial Bank Act, Savings Bank Act and Co-operative Bank Act. Although amendments and modifications to the banking laws of 1969 were made in 1978 and 1982, their essential features remained in place until the Deposits Bank Act in 1991. In 1994 the Credit Institutions Act replaced the Deposits Bank Act. The Credit Institutions Act was to a large extent introduced because of the need to harmonize the Finnish legislation with the European Union's banking directives.

The ownership restrictions of financial institutions were extensive and complicated in the early 1980s. The banking laws of 1969 prohibited banks from being engaged in industrial, trade, construction, insurance, or real estate businesses. They, however, allowed the banks to hold equity in the firms operating in these sectors. The limit of such equity holdings were set at 10 percent of the bank's equity capital. In companies operating in the other fields of business, the banks were permitted to own 20 percent of a company's equity capital. The total equity ownership of a bank in non-financial firms was regulated against the bank's equity capital. The main rule was that a bank or its subsidiary was permitted to hold a stake at a non-financial company for at most 15% of the bank's equity capital. The total equity ownership in non-financial firms had to be below 60% of the bank's equity capital. Inconsistencies in the laws, however, effectively compromised these restrictions and, in practice, there were virtually no restrictions on the bank ownership in non-financial firms (Halme 1999, p. 135). In addition, a bank was allowed to hold equity in other credit institutions up to 30 percent of the bank's own capital. Beginning from 1980, real estate investments, including lending to real estate companies, were limited to at most 3 percent of a bank's balance sheet total.

In 1987 the rule limiting banks' equity ownership in non-financial firms to 20 percent of a firm's own capital was decreased to 10 percent. Initially different

banking groups were, however, treated unequally. The 10 percent limit applied to the commercial banks but savings and co-operative bank groups were still allowed to own 20 percent (Halme 1999, p. 134). Another extension to the banks' rights to hold equity in the non-financial firms was made in 1991, when the Deposits Bank Act came into effect. The reform meant, first, that the banks were allowed to own unlimited amount of equity for securities trading. Second, the rules concerning ownership of other credit institutions were waived. Third, the computation method used to calculate banks' ownership in non-financial firms was modified, putting different banking groups on a more equal footing. The Deposits Bank Act, however, maintained the ineffective ownership restrictions concerning the total equity ownership in non-financial firms.

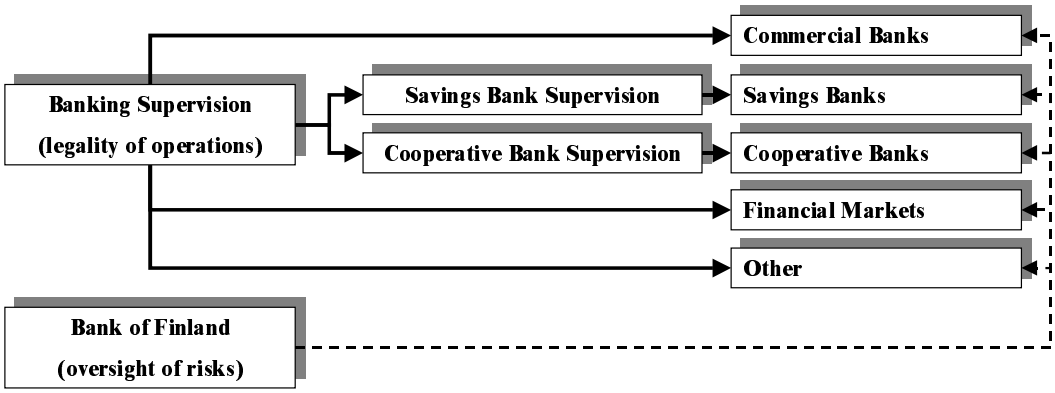
In addition to banks, insurance companies have been firm owners in Finland. The new regulations governing the insurance sector were imposed in 1979. According to the law, insurance companies were allowed to own up to a half of the equity of a non-insurance firm, real estate companies notwithstanding. Authorities could nonetheless grant a special permit to circumvent the restriction. The 50 percent restriction was decreased to 20 percent in 1987.

The legislation was frequently changed in the mid-1990s, when Finland joined first EEA and then EU. For example, in 1993 the ownership restriction on insurance companies was returned to 50 percent. Since 1995 insurance companies have been allowed to own other credit institutions. Finally, all the restrictions concerning ownership stakes at non-financial firms were waived in 2000.

In summary, there have been numerous changes in the restrictions on the rights of financial institutions to own corporate equity over our sample period. However, the restrictions have not in practice become stringer when compared to the situation that prevailed in the early 1980s.

The Banking Supervision was established under the Ministry of Finance in 1922. It first dealt with commercial banks, but in 1970 co-operative and savings banks were also brought under its supervision, albeit only indirectly. The Bank of Finland had also a duty to oversee financial institutions and markets. Figure A2 illustrates the supervisory framework that was effective prior to the banking crisis.

Figure A2. **Banking supervision in Finland 1980–1993**



The primary task of the Banking Supervision has been to oversee the legality of activities of the institutions it supervises. Legislation governing the Banking Supervision remained relatively unchanged much of the 1980s and early 1990s. For example, the 1990–1991 legislative reforms included no major changes. Changes that took place, however, increased the questions subject to the Banking Supervision's discretion (Halme 1999, p. 161) and thus the supervision's workload.

Despite the unchanged legislation the activities of the Banking Supervision expanded in the 1980s. The number of institution under its direct supervision increased sharply. In 1980, corporations supervised were seven commercial banks, eight credit institutions and banks' guarantee funds and foreign bank's representative offices. By 1990 there were 90 supervised institutions. Over the period 1987–1991 the activities of the Banking Supervision were expanded to include the supervision of mutual funds, derivative and stock exchanges, OTC and other securities market places, securities brokers and the branches of foreign banks. The Banking Supervision in practice became also involved in overseeing the risk management of the supervised entities (Halme 1999, p. 158–161, Banking Supervision 1991).

Lack of resources hampered the effective supervision of the Finnish banking and financial system in the 1980s. Over the period 1985–1990 there were on average 7 employees per one hundred supervised institutions. Because of increased supervisory burden and lack of resources, the internal organisation of the Banking Supervision was completely revised in 1989. New operational units were established and the 67 year-old collegial board was replaced by a management board. The Director General was given the ultimate decision-making power. Simultaneously the entire legislation governing the Finnish financial system and banking was undergoing a reform.

The lack of resources in the Banking Supervision and the dispersed organisation of the banking supervision led to the establishment of a new Financial Supervision Authority (FSA) in 1993. The Financial Supervision Authority operates in connection with the Bank of Finland and carries on the operations the Banking Supervision and the Banking Office of the Bank of Finland's Financial Markets Department. The number employees per supervised institutions have increased after the FSA was established.

The quality of information received and processed for supervisory purposes by the Banking Supervision did not improve until in the 1990s. One reason was probably that limited resources and uncertainty over the future of the organisation delayed development projects concerning transparency of supervised institutions (see, eg, Banking Supervision 1992). The Banking Supervision became more active in issuing guidelines on information disclosure by its supervised institutions at the beginning of the 1990s. For example, guidelines on the reporting of non-performing assets were given amidst the banking crisis in 1992.

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