

Hyytinen, Ari; Kuosa, Iikka; Takalo, Tuomas

Working Paper

Law or finance: Evidence from Finland

ETLA Discussion Papers, No. 775

Provided in Cooperation with:

The Research Institute of the Finnish Economy (ETLA), Helsinki

Suggested Citation: Hyytinen, Ari; Kuosa, Iikka; Takalo, Tuomas (2001) : Law or finance: Evidence from Finland, ETLA Discussion Papers, No. 775, The Research Institute of the Finnish Economy (ETLA), Helsinki

This Version is available at:

<https://hdl.handle.net/10419/63926>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Keskusteluaiheita – Discussion papers

No. 775

Ari Hyytinen – Iikka Kuosa – Tuomas Takalo

LAW OR FINANCE: EVIDENCE FROM FINLAND*

First version: November 2001

This revised version: September 2002

Forthcoming: European Journal of Law and Economics

* Addresses of the authors: Ari Hyytinen, The Research Institute of the Finnish Economy, Lönnrotinkatu 4B, 00120 Helsinki, Finland. e-mail: ari.hyytinen@etla.fi, Iikka Kuosa, Helsinki School of Economics, P.O. Box 1210, 00101 Helsinki. Tuomas Takalo, Bank of Finland, Research Department, P.O. Box 160, 00101 Helsinki, Finland. e-mail: tuomas.takalo@bof.fi. We thank Simon Johnsson, Timo Kuisanlahti, Antti Kuusterä, and Pekka Timonen for thorough discussions. For useful comments, we would also like to thank two anonymous referees, Manne Airaksinen, Elke J. Jahn, Karlo Kauko, David Mayes, Matti Pohjola, Heli Tikkunen, Kostas Tsatsaronis, seminar participants at the Helsinki School of Economics and Business Administration, the Bank of Finland, and the National Technology Agency, the Academy of Finland, as well as participants in the Launching Workshop of the ECB-CFS Research Network on Capital Markets and Financial Integration in Europe, the 2002 Meeting of the European Public Choice Society, and the XXIV Symposium of Finnish Economists. Hyytinen gratefully acknowledges financial support from the National Technology Agency (TEKES) and the Finnish National Fund for Research and Development (SITRA), and Kuosa and Takalo in their part thank the Academy of Finland.

HYYTINEN, Ari – KUOSA, Iikka – TAKALO, Tuomas. LAW OR FINANCE: EVIDENCE FROM FINLAND. Helsinki: ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 2001, 36 p. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; No. 775).

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

HYYTINEN, Ari – KUOSA, Iikka – TAKALO, Tuomas. LAW OR FINANCE: EVIDENCE FROM FINLAND. Helsinki: ETLA, Elinkeinoelämän Tutkimuslaitos, The Research Institute of the Finnish Economy, 2001, 36 s. (Keskusteluaiheita, Discussion Papers, ISSN 0781-6847; No. 775).

TIIVISTELMÄ: Yrityksen ja sen rahoittajien väliset eturistiriidat sekä epäsymmetrinen informaatio vaikeuttavat yritysten mahdollisuuksia saada ulkoista rahoitusta rahoitusmarkkinoilta ja joskus jopa estävät sen täysin. Uusi ns. law and finance -traditio rahoitus-tutkimuksessa on osoittanut, että rahoitussopimuksien sopimusehtojen tehokas täytäntöön panto oikeusjärjestelmässä sekä lainsäädännön tarjoama suoja sijoittajille ovat yksi keskeisimmistä mekanismeista, jotka antavat rahoittajille mahdollisuuden rajoittaa ja valvoa yrityksen ja sen sisäpiirin toimia niin, että ulkoinen rahoitus on mahdollista.

Tässä tutkimuksessa tarkastellaan ja arvioidaan yritysten johtamis- ja valvontajärjestelmissä ja erityisesti niitä ja sijoittajien suojaa sääntelevässä lainsäädännössä tapahtuneita muutoksia Suomessa. Aikaisempaa kirjallisuuteen perustuen luomme useita kvantitatiivisia muuttujia kuvaamaan osakesijoittajien ja velkojen suojan muutoksia vuosina 1980–2000. Muuttujat paljastavat, että osakesijoittajien suoja on vahvistunut kun taas velkojen suoja on heikentynyt. Osoitamme, että nämä muutokset ovat yhdenmukaisia Suomen rahoitusjärjestelmän rakennemuutoksen kanssa, jonka seurauksena pankkikeskeinen rahoitusjärjestelmä on muuttunut osakemarkkinapainotteisemmaksi. Tutkimuksen tulokset osoittavat, että osakesijoittajien suojassa tapahtuneet muutokset ovat olleet osaltaan myötävaikuttamassa rahoitusjärjestelmän rakennemuutokseen, kun taas velkojen suojassa tapahtuneet muutokset ovat enemmänkin heijastelleet rahoitusmarkkinaolosuhteiden muutoksia. Tutkimuksessa arvioidaan myös näiden rahoitusjärjestelmän ja lainsäädännön viimeaikaisten muutosten vaikutuksia suomalaiselle yritysrahoitusympäristölle.

AVAINSANAT: sijoittajien suoja, yritysrahoitus, oikeusjärjestelmä, lainsäädäntö

1 Introduction

The growing law and finance literature, including the contributions by La Porta, Lopez-de-Silanes, Shleifer, and Vishny (LLSV) (1997, 1998, 2000, 2002), Levine, Loyza and Beck (2000), Beck and Levine (2002a), 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 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 2002) 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, e.g., 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), for measuring investor protection in Finland for the period 1980–2000. This exercise shows that shareholder rights have recently been strengthened while creditor rights have been considerably weakened.

¹ A summary of changes in the Finnish corporate governance beyond the legal reform can be found from a previous version of this paper (see Hyytinen, Kuosa and Takalo 2002).

Besides describing the changes in investor protection, we draw on Beck and Levine (2002b) 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 also LLSV 1998). Compared with Johnson (2000) and Pistor et al. (2000) and the bulk of the other recent literature on corporate governance reforms (e.g., 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 (e.g., 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. 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 has increased and Germany, Sweden, United Kingdom and United States have become the most important trade partners.

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.

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,

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).

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 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

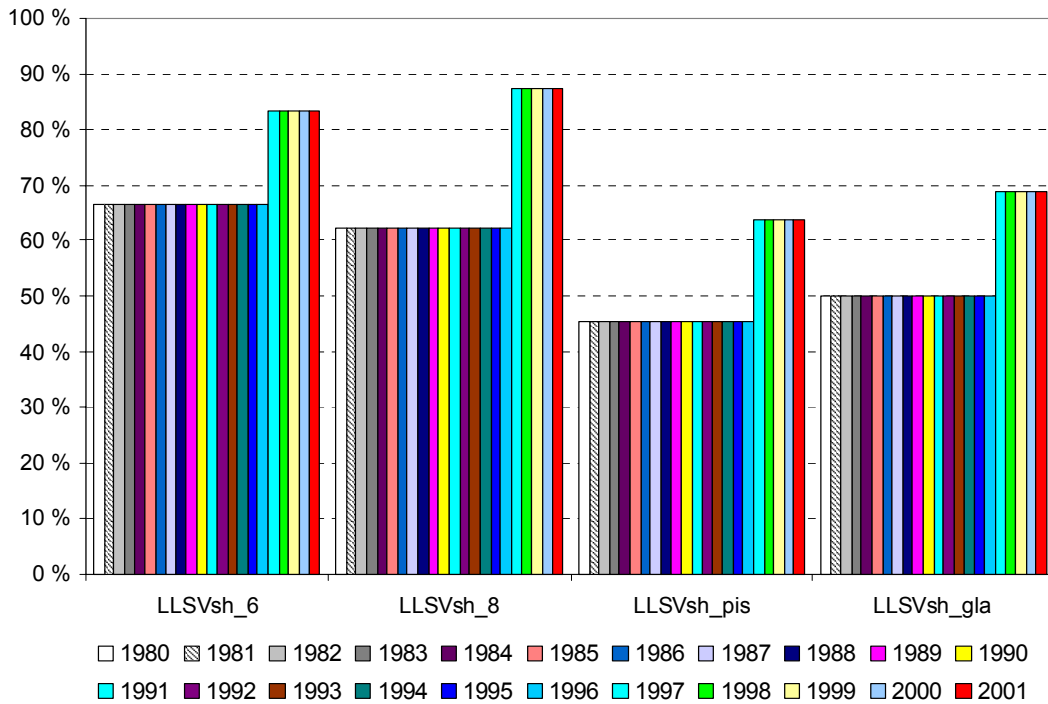
We consider four shareholder rights indices, two of which were developed by LLSV (1997, 1998). The shorter version is also known as the antidirector index, but we label it LLSVsh_6, because it consists of six measures of minority shareholder protection provided by company law or commercial code: 1) one-share-one 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, e.g., 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.

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.

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.

The rationale for constructing the VOICE and EXIT indices emerges from the influential work of Hirschmann (1970), who argues that shareholders may exercise their con-

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.

trol 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, i.e., 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 (2002) 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.

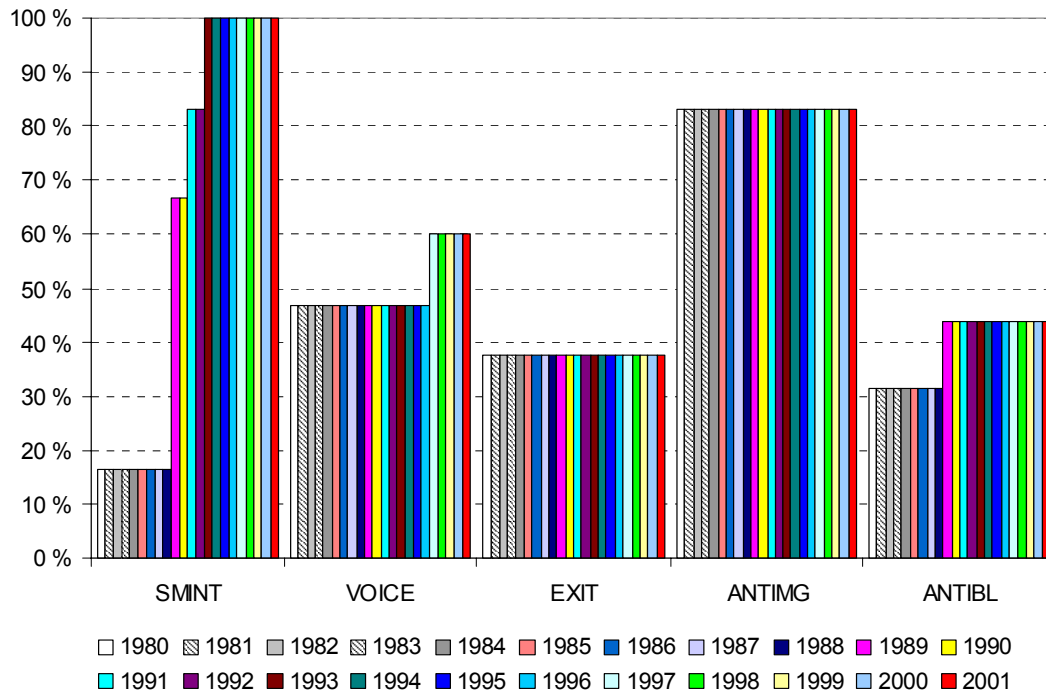
Finally, we code a stock market integrity index called SMINTEGR. It includes six measures of the protection of market liquidity: 1) conflict of interest rules, including rules on disclosing conflict and abstaining from voting, are included in the law; 2) shareholder register must be maintained by an 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 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.

⁸ See the previous version of the paper (Hyytinen et al. 2002) for a detailed account of the development of financial market supervision in Finland.

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.

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.

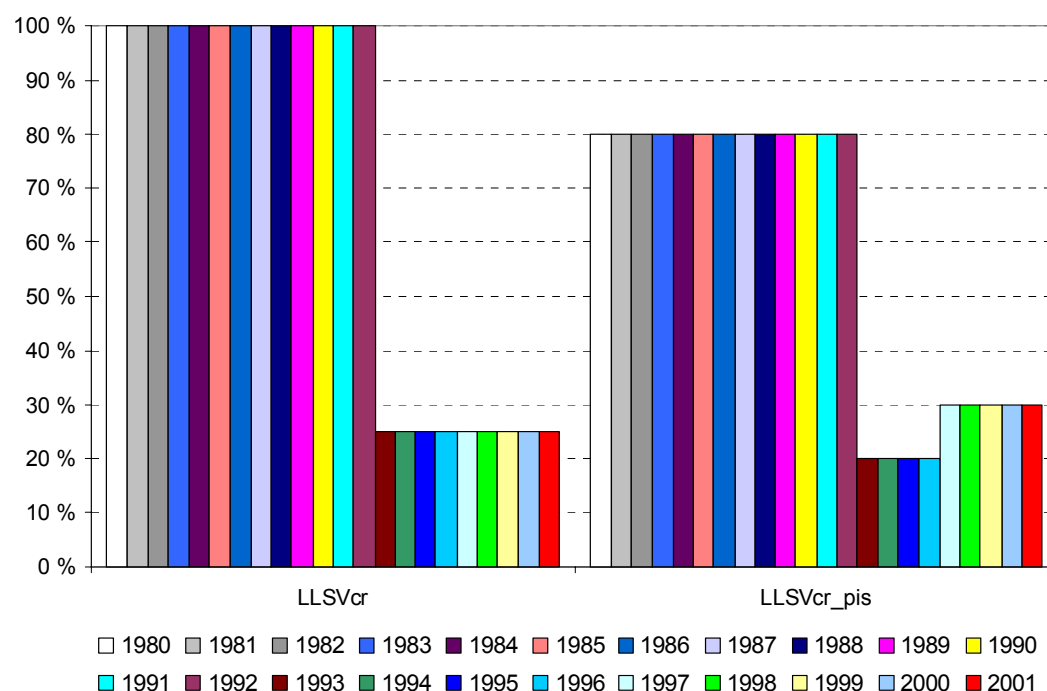
Until the start of 1993, the principal route of resolution was liquidation bankruptcy. When a firm is declared bankrupt, a trustee takes over the firm and sells its assets. The firm may be sold as a going-concern or liquidated piecemeal. The proceeds are then distributed to creditors according to priority 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 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 an 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, i.e., 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%.

Figure 3. Creditor rights



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. It was possible for members of the pre-bankruptcy management to be selected to run the company, though.

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.

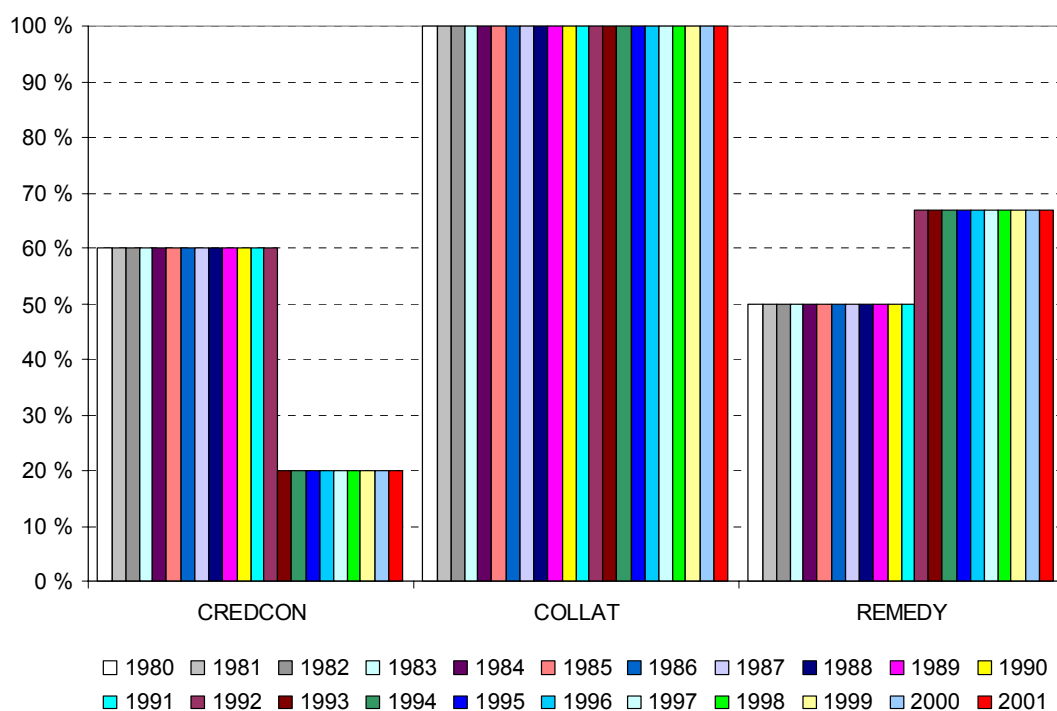
The CREDCON index measures the degree of creditors' control of the bankruptcy. It includes the LLSVcr indicators, except for the provision on restrictions for going into reorganisation, and two additional variables: 1) automatic trigger to file a bankruptcy (debtor unable to meet obligations for more 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 1993.¹¹ 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. 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.

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 Pis-

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.

tor'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

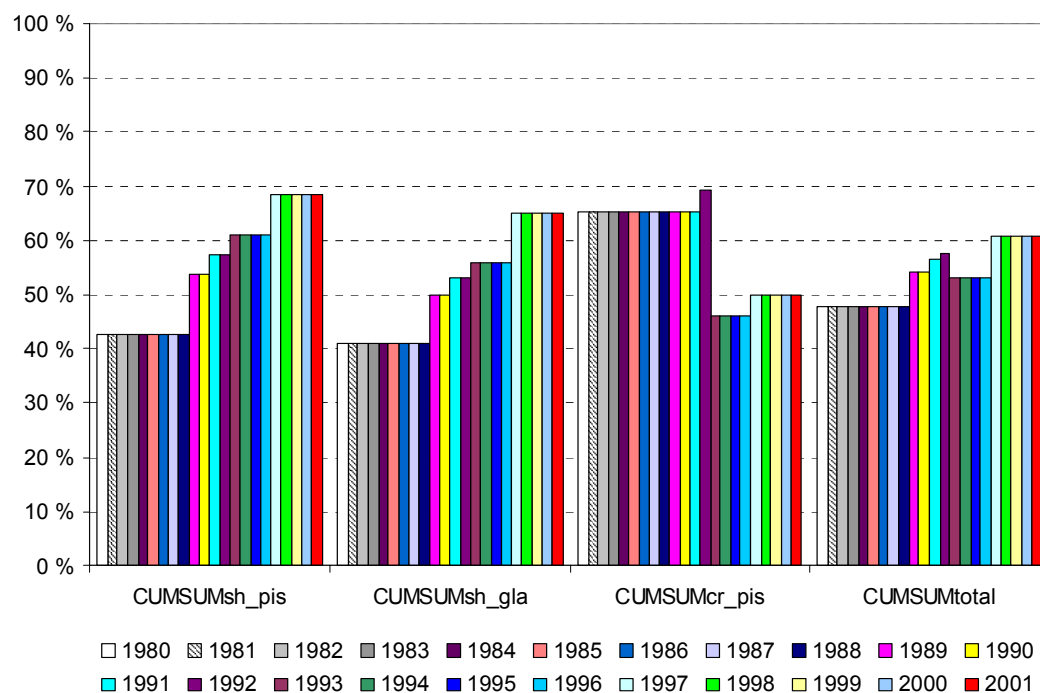


Figure 5 demonstrates that at the start of the 1980s creditors were better protected than shareholders but that the situation was reversed by 2000. As measured by the cumulative indices, Finnish legislation in 1980 covered about 80% of maximum creditor rights (as measured by the indices), but by 2000 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, e.g., the true-and-fair-view principle into Finnish legislation and reduced the scope for use of discretionary reserves. Although the reform was driven by national considerations, it also brought Finnish accounting legislation into line with the fourth and seventh Company Law Directives of the EU. European integration was, however, underlying another major reform of the accounting legislation in 1997, when the remnants of the peculiar cost-income theory were replaced. The use of IAS was also facilitated in connection with the revision.

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 (Keloharju 1993, Kinnunen, Niskanen and Kasanen 2000). Since then, a number of improvements have been made. Disclosure requirements and sanctions for

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.'

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. 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 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 discour-

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 Hyytinen et al. (2002).

¹⁴ See Hyytinen et al. (2002) for a concise description of the Finnish tax system.

aged 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.

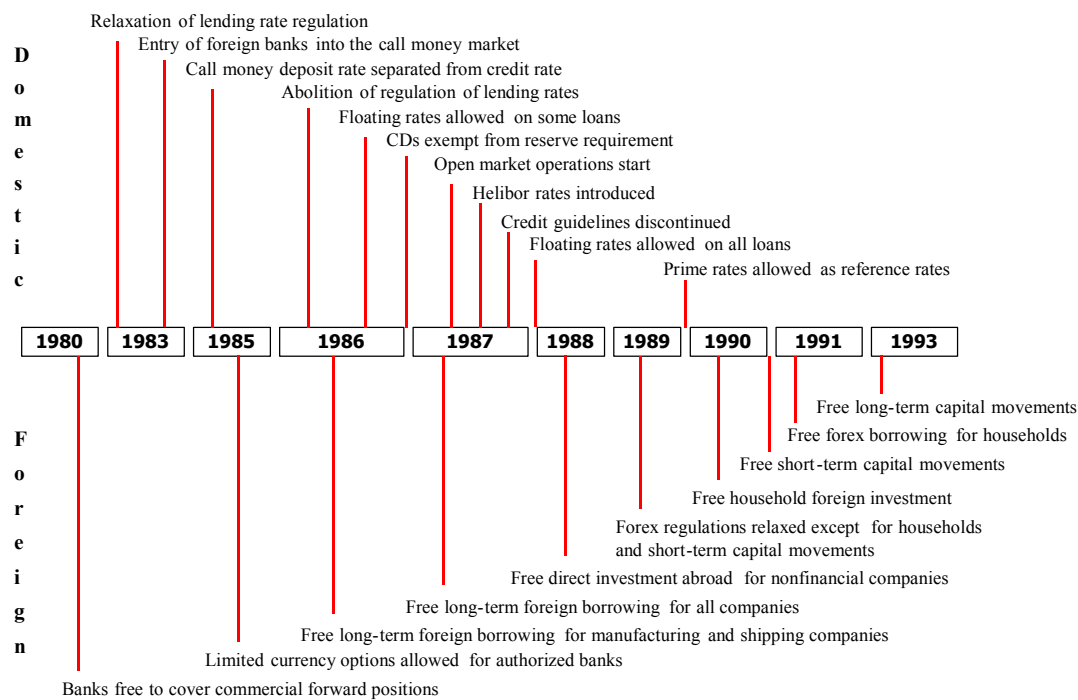
It however became increasingly evident that the old financial system, which relied on long-term relationships, was outdated. The gradual change in the industrial structure described in section 2 generated a need to move funds from declining to emerging industries. For example, between 1981 and 1985 the 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).

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, even more than 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.

¹⁵ See 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.

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 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.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 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 (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, e.g., 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, the development of the stock market that had begun in the late 1980s continued. In the 1990s, equity issuance on the stock market by the non-financial firms increased, clearly outpacing that of

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 The debt-equity ratios of non-financial enterprises rapidly declined in 1991–1993, to the level that had prevailed in the 1970s, i.e., prior to liberalisation. As Edey and Hviding report (1995), similar developments occurred in Denmark, Norway and Sweden.

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 (2002b)

We build on Beck and Levine (2002b) 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 (2002b) for further details.¹⁸

The Finance-Activity measure in Beck and Levine (2002b) 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 is the measure, the higher is 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).

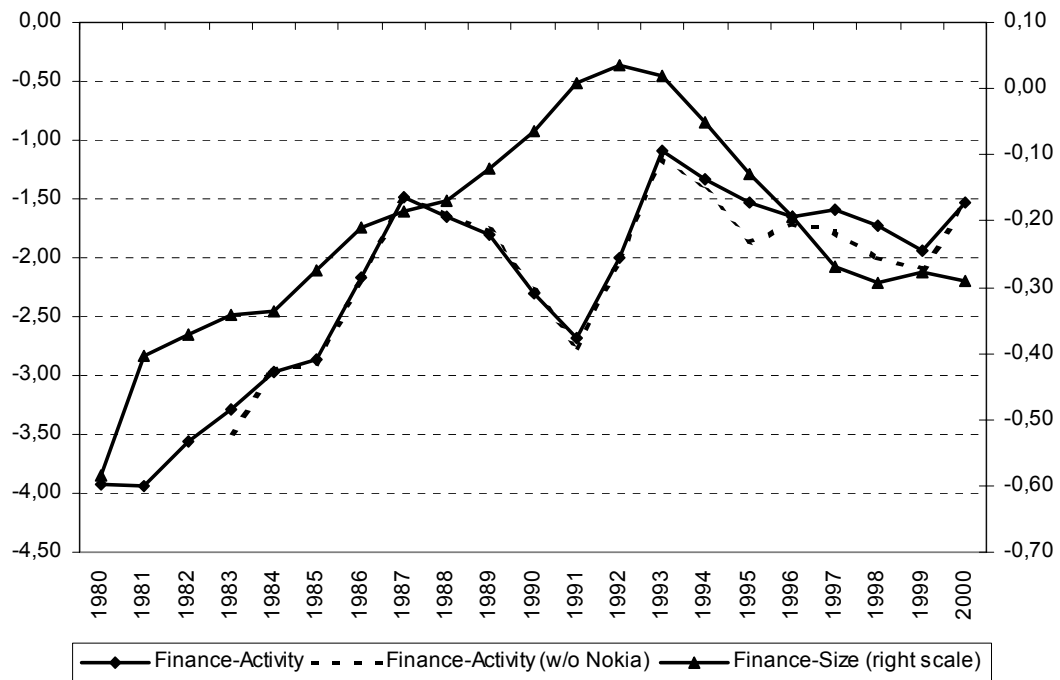
¹⁸ See also Beck, Demirguc-Kunt and Levine (2000) and Levine (2001), who construct and use similar indices. The indices are based on various stock and flow variables. In computing the ratio of a stock variable measured at the end of a period to a flow variable measured over a period, a bias may arise (see Beck and Levine 2002a). 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.

The Finance-Size measure in Beck and Levine (2002b) 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, i.e., increases in the discounted value of companies' expected cash flows. To measure the size of the stock market in real terms – i.e., 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.

Figure 7. Financial developments

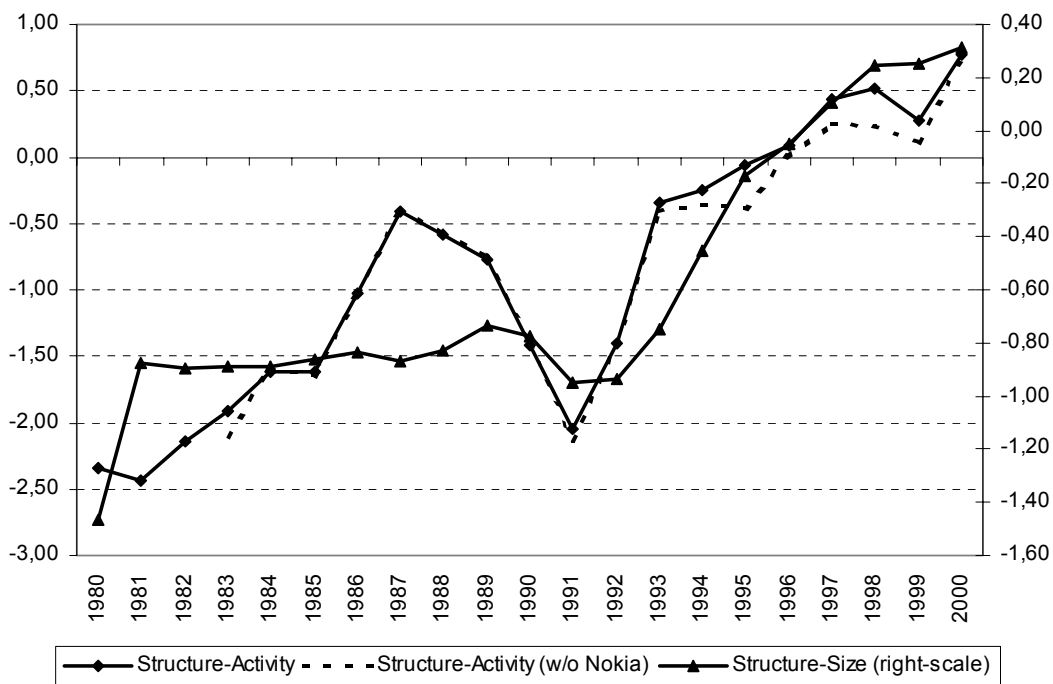


This then raises the question of why financial market activity has been stagnant. The individual components of the Financial-Activity and Finance-Size measures reveal that the liquidity of the stock exchange has improved during the latter half of the 1990s, but financial intermediaries' corporate lending 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 (2002b) 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.

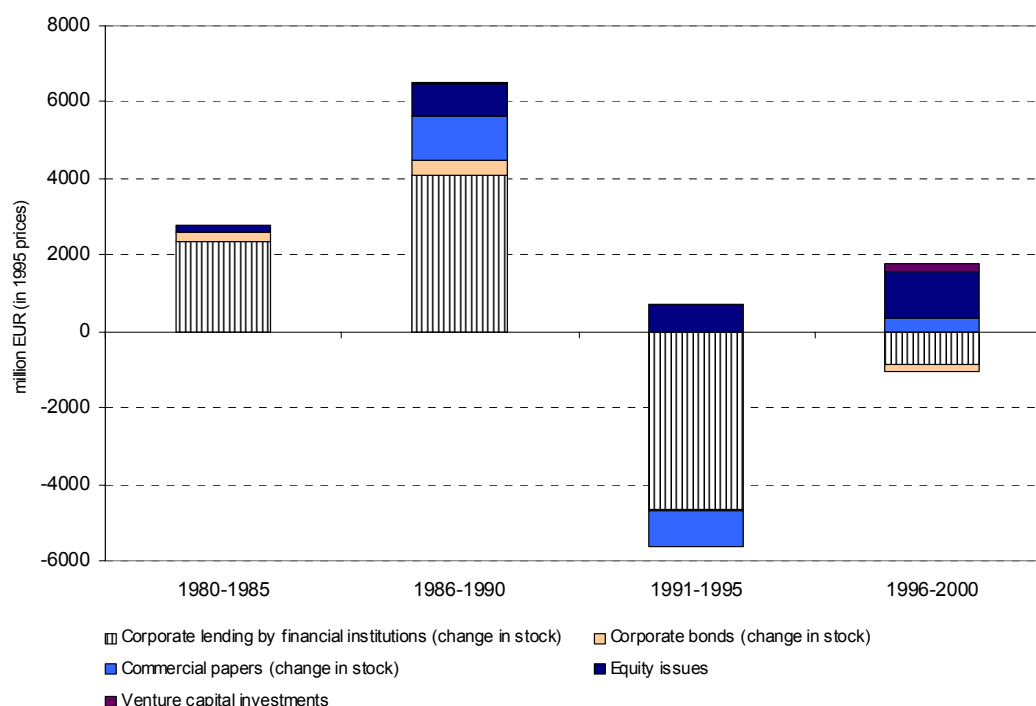
Figure 8 illustrates developments in the Structure-Activity and Structure-Size indicators. They demonstrate how the Finnish financial system has over the past twenty years disengaged from debt finance towards increasing dominance of stock markets. The trend is clear, although the crisis of the early 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 shifted 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, e.g., 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 ownership development 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 (see also Karhunen and Keloharju 2001).

Table 3. Ownership by type of owner, % of share capital

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 stakes. Table 4 shows

²¹ As we argue in Hyytinen et al. (2002), 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).

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, 2002).²²

Table 4. Ownership concentration

Panel A. Ownership shares of largest owner

Year	Cash-flow rights*		Voting rights**		C/V***	
	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

Year	Cash-flow rights*		Voting rights**		C/V***	
	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, i.e., 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 were preceded by 1997 reform of the Companies Act and its preparatory work. 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 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

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 (Hyytinen et al. 2002).

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 (2002b) 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

Table 5. Predictability analysis (Granger causality tests)

Regression Equation (Granger-causality)	p-values of F-tests	
	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

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.

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 that different aspects of the legislation may have different degrees of sensitivity 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, e.g., chapter 10 in Drazen 2000, and Drazen and Easterly 2001). The traditional version of the hypothesis

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).

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 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.

Our final qualification concerns the independence of the Finnish development from international developments and particularly the effect of Finland joining the European Union.²⁵ In all but two cases, the legal changes have been driven by internal Finnish dynamics. Even in the two exceptions, the revisions of the Companies Act and accounting legislation in 1997, national considerations were important. The beginning of Government bill 89/1996 for the revision of the Companies Act is quite illustrative:

"The bill includes amendments to the Companies Act and other legislation concerning it so as to implement the Company Law Directives of the EU. In addition the bill includes several amendments stemming from national needs." (Translated from Finnish by the authors)

As mentioned in section 5.1, a principal national target of the revision was to improve companies' possibilities to raise external capital. The background to the revision of accounting legislation was similar. The revision incorporated the EU-directives, but, for instance, the use of IAS was simultaneously facilitated because of the national needs. Moreover, in negotiations on the European scene the Finnish position on investor protection has been in advocating 'national autonomy'. Finnish negotiators have considered EU-directives overly rigid and have wanted to maintain possibilities to modify legislation, either proactively or retrospectively, according to financial market developments.

²⁵ The discussion in this paragraph is based on relevant Government bills and our correspondence with Mr. Manne Airaksinen, Counsellor of Legislation, Ministry of Justice and LL.D. Timo Kaisanlahti, Head of Legal Affairs, Capital Markets, Varma-Sampo Mutual Pension Insurance Company (formerly Chief Counsellor, Ministry of Trade and Industry).

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 (in terms of our indices) 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, e.g., 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 in Finland at the end of the 1860s and in the early 1930s.

References

- Ali-Yrkkö, J. and Hermans, R. (2002). "Nokia in the Finnish Innovation System." The Research Institute of the Finnish Economy Discussion Papers No. 811.
- Bebchuk, L. and Roe, M. (1999). "A Theory of Path Dependence in Corporate Ownership and Governance." *Stanford Law Review*. 52, 127–170.
- Becht, M. (1999). European corporate governance: Trading off liquidity against control. *European Economic Review*, 43, 1071–1083.
- Becht, M. and Röell, A. (1999). "Blockholdings in Europe: An International Comparison." *European Economic Review*. 43, 1049–1056.
- Beck, T. Demirgüç-Kunt, A. and Levine, R. (2000). "A New Data Base on Financial Development and Structure." *World Bank Economic Review*. 14, 597–605.
- Beck, T. and Levine, R. (2002a). "Stock Markets, Banks, and Growth: Panel Evidence." Forthcoming in *Journal of Banking and Finance*.
- Beck, T. and Levine, R. (2002b). "Industry Growth and Capital Allocation: Does Having a Market- or Bank-Based System Matter?" *Journal of Financial Economics*. 64, 147–180.
- Berger, A.N. and Udell, G.F. (1998). "The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle." *Journal of Banking and Finance*. 22, 613–673.
- Berger, A.N., Miller, N.H., Petersen, M.A., Rajan, R.G. and Stein, J.C. (2002). "Does Function Follow Organisational Form? Evidence from the Lending Practices of Large and Small Banks. NBER Working Paper Series No. 8752.
- Berglöf, E. (1997). "Reforming Corporate Governance: Redirecting the European Agenda." *Economic Policy*. 12, 91–123.
- Booth, A.W.A. and Thakor, A.V. (2000). "Can Relationship Banking Survive Competition?" *Journal of Finance*. 55, 679–713.
- Coffee, J. (1999). "The Future as History: The Prospects for Global Convergence in Corporate Governance and Its Implications." *Northwestern University Law Review*. 93, 631–707.
- de Meza, D. and Webb, D.C. (2001). "Advantageous Selection in Insurance Markets." *RAND Journal of Economics*. 32, 249–262.
- Demirgüç-Kunt, A. and Maksimovic, V. (1998). "Law, Finance, and Firm Growth." *Journal of Finance*. 53, 2107–2137.
- Drazen, A. (2000). *Political Economy Macroeconomics*. Princeton University Press: Princeton, NJ.
- Drazen, A. and Easterly, W. (2001). "Does Crisis Induce Reform? Simple empirical Test of Conventional Wisdom." *Economics and Politics*, 13, 129–157.
- Drees, B. and Pazarbasioglu, C. (1995). "The Nordic Banking Crisis: Pitfalls in Financial Liberalisation." International Monetary Fund Occasional Paper No. 161.

- Edey, M. and Hviding, K. (1995). "An Assessment of Financial Reform in OECD Countries." *OECD Economic Studies*. 25: 7–36.
- Gilson, R. (2001). "Globalizing Corporate Governance: Convergence of Form or Substance." *American Journal of Comparative Law*. 49, 329–357.
- Glaeser, E., Johnson, S. and Shleifer, A. (2001). "Coase versus the Coasians." *Quarterly Journal of Economics*. 116, 853–899.
- Heine, K. and Kerber, W. (2002). "European Corporate Laws, Regulatory Competition and Path Dependence." *European Journal of Law and Economics*. 13, 47–71.
- Hietala, P. (1989). "Asset Pricing in Partially Segmented Markets. Evidence from the Finnish Market." *Journal of Finance*. 44, 697–718.
- Hirschmann, A. (1970). *Exit, Voice and Loyalty*, Cambridge, MA: Harvard University Press.
- Holmström, B. and Kaplan, S. (2001). "Corporate Governance and Merger Activity in the United States: Making Sense of the 1980s and 1990s." *Journal of Economic Perspectives*. 15, 121–144.
- Honkapohja, S. and Koskela, E. (1999). "The Economic Crisis of the 1990s in Finland." *Economic Policy*. 14, 400–436.
- Hyttinen, A., Kuosa, I. and Takalo, T. (2002). "Law or Finance? Evidence from Finland." Bank of Finland Discussion Papers No. 8/2002.
- Hyttinen, A. and Pajarinen, M. (2001). "Financial Systems and Venture Capital in Nordic Countries: A Comparative Study." The Research Institute of the Finnish Economy Discussion Papers No. 774.
- IMD, World Competitiveness Yearbook 1990, Lausanne.
- IMD, World Competitiveness Yearbook 2000, Lausanne.
- Jensen, M. (1993). "Modern Industrial Revolution." *Journal of Finance*. 48, 831–880.
- Johnson, S. (2000). "Which Rules Matter? Evidence from Germany's Neuer Markt." Manuscript, Sloan School of Management.
- Johnson, S., Boone, P., Breach, A. and Friedman, E. (2000). "Corporate Governance in the Asian Financial Crisis." *Journal of Financial Economics*. 58, 141–186.
- Karhunen, J. and Keloharju, M. (2001). "Shareownership in Finland 2000." *Finnish Journal of Business Economics*. 50, 188–226.
- Kasanen, E., Kinnunen, J. and Niskanen, J. (1996). "Dividend-Based Earnings Management: Empirical Evidence from Finland." *Journal of Accounting and Economics*. 22, 282–312.
- Kinnunen, J., Niskanen, J. and Kasanen, E. (2000). "To Whom are IAS Earnings Informative? Domestic versus Foreign Shareholders Perspectives." *European Accounting Review*. 9, 499–517.
- Kinnunen, H. and Vihriälä, V. (1999). "Bank Relationships and Small-Business Closures During the Finnish Recession of the 1990s." Bank of Finland Discussion Papers 13/99.

- Keloharju, M. (1993). "The Winner's Curse, Legal Liability and the Long-Term Price Performance of Initial Public Offerings in Finland." *Journal of Financial Economics*. 34, 251–277.
- Kiander, J. and Vartia, P. (1996). "The Great Depression of the 1990s in Finland." *Finnish Economic Papers*. 9, 72–88.
- Lantto, R. (1990). *Owners and Power in Finland's Listed Companies*, Kajaani: Startel Oy.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (1997). "Legal Determinants of External Finance." *Journal of Finance*. 52, 1131–1150.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (1998). "Law and Finance." *Journal of Political Economy*. 106, 1113–55.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (2000). "Investor Protection and Corporate Governance." *Journal of Financial Economics*. 58, 2–27.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A. and Vishny, R. (2002). "Investor Protection and Corporate Valuation." *Journal of Finance*. 57, 1147–1171.
- Levine, R. (2001). "Bank-Based or Market-Based Financial Systems: Which is Better?" Forthcoming in *Journal of Financial Intermediation*.
- Levine, R., Loyoza, N. and Beck, T. (2000). "Financial Intermediation and Growth: Causality and Causes." *Journal of Monetary Economics*. 46, 31–77.
- Maliranta, M. (2001). "Productivity Growth and Micro-Level Restructuring: Finnish Experiences During the Turbulent Decades." The Research Institute of the Finnish Economy Discussion Papers No. 757.
- Mitton, T. (2002). "A Cross-Firm Analysis of the Impact of Corporate Governance on the East Asian Financial Crisis." *Journal of Financial Economics*. 64, 215–241.
- Pagano, M. and Volpin, P. (2001). "The Political Economy of Finance." *Oxford Review of Economic Policy*. 17, 502–519.
- Petersen, M.A. and Rajan R.G. (1994). "The Benefits of Lending Relationships: Evidence from Small Business Data." *Journal of Finance*. 49, 3–37.
- Petersen, M.A. and Rajan R.G. (1995). "The effects of credit market competition on lending relationships." *Quarterly Journal of Economics*. 110, 407–443.
- Pistor, K. (2000). "Patterns of Legal Change: Shareholder and Creditor Rights in Transition Economies." *European Business Organisation Law Review*. 1, 59–108.
- Pistor, K., Reiser, M. and Gelfer, S. (2000). "Law and Finance in Transition Economies." *Economics of Transition*. 8, 325–368.
- Pohjola, M. (1988). "Concentration of Shareholder Voting Power in Finnish Industrial Companies." *Scandinavian Journal of Economics*. 90, 245–253.
- Ravid, S.A. and Sudgren, S. (1998). "The Comparative Efficiency of Small-Firm Bankruptcies: A Study of the US and Finnish Bankruptcy Codes." *Financial Management*. 27, 28–40.

- Rousseau, P.L. and Wachtel, P. (2000). "Equity Markets and Growth: Cross-country Evidence on Timing and Outcomes 1980–1995." *Journal of Banking and Finance*. 24, 1933–1957.
- Saarenheimo, T. (1995). "Credit Crunch Caused Investment Slump? An Empirical Analysis Using Finnish Data." Bank of Finland Discussion Papers 6/95.
- Schmidt, R. and Spindler, G. (2000). "Path Dependence, Corporate Governance, and Complementarity." Goethe University in Frankfurt Working Papers No. 27.
- Seppänen, H. (1999). *Discretionary Disclosure and External Financing: Evidence from a Relationship Financing Environment*, Helsinki School of Economics Doctoral Dissertations A:161.
- Swoboda, A.K. (1986). *Ongoing Changes in Finnish Financial Markets and Their Implications for Central Bank Policy*, Bank of Finland Series A:62.
- Troberg, P. (1992). "Recent Developments in Financial Reporting in Finland." *Advances in International Accounting*. 5, 25–45.
- Valkonen, T. (1999). *The Finnish Corporate and Capital Income Tax Reform: A General Equilibrium Approach*, The Research Institute of Finnish Economy Studies A:29.
- Vihriälä, V. (1997). *Banks and the Finnish Credit Cycle 1986–1995*, Bank of Finland Studies E:7.
- World Economic Forum, Global Competitiveness Report 2000, Davos.

ELINKEINOELÄMÄN TUTKIMUSLAITOS (ETLA)

THE RESEARCH INSTITUTE OF THE FINNISH ECONOMY

LÖNNROTINKATU 4 B, FIN-00120 HELSINKI

Puh./Tel. (09) 609 900

Int. 358-9-609 900

<http://www.etla.fi>

Telefax (09) 601753

Int. 358-9-601 753

KESKUSTELUAIHEITA - DISCUSSION PAPERS ISSN 0781-6847

- No 744 MATTI VIRÉN, Fiscal Policy, Automatic Stabilisers and Policy Coordination in EMU. 21.12.2000. 30 p.
- No 745 JAAKKO KIANDER – MATTI VIRÉN, Measuring Labour Market Flexibility in the OECD Countries. 21.12.2000. 15 p.
- No 746 HANNU HERNESNIEMI – PEKKA LINDROOS, Socio-economic Impact of European Single Market on Lithuanian Companies. Methodology Manual. 27.12.2000. 73 p.
- No 747 PEKKA ILMAKUNNAS – MIKA MALIRANTA, The Turnover of Jobs and Workers in a Deep Recession: Evidence from the Finnish Business Sector. 08.01.2001. 20 p.
- No 748 ARI HYYTINEN, Loan Market Equilibrium with Difference of Opinion and Imperfect Competition. 18.01.2001. 41 p.
- No 749 ARI HYYTINEN, Information Production, Banking Competition and The Market Structure of The Banking Industry. 18.01.2001. 43 p.
- No 750 PASI HUOVINEN – HANNU PIEKKOLA, Unemployment and Early Retirements of the Aged Workers in Finland. 07.02.2001. 40 p.
- No 751 ERKKI KOSKELA – MARKKU OLLIKAINEN – MIKKO PUHAKKA, Renewable Resources in an Overlapping Generations Economy without Capital. 12.02.2001. 26 p.
- No 752 KARI ALHO – COLIN HAZLEY– HANNU HERNESNIEMI – MIKA WIDGRÉN, EU:n itälaajenemisen vaikutukset Suomen tuotantorakenteeseen. 22.02.2001. 34 s.
- No 753 RITA ASPLUND, Mobility and Earnings. An analysis of Finnish manufacturing and services. 08.03.2001. 48 p.
- No 754 OLAVI RANTALA, Toimialojen ja avainklustereiden tuotannon ja työllisyyden pitkän ajan kehitys. 15.03.2001. 52 s.
- No 755 JUHA HONKATUKIA – MARKKU OLLIKAINEN, Towards Efficient Pollution Control in the Baltic Sea. An anatomy of current failure with suggestions. 29.03.2001. 26 p.
- No 756 GREGORY S. AMACHER – ERKKI KOSKELA – MARKKU OLLIKAINEN, Optimal Forest Policies in an Overlapping Generations Economy with Timber and Money Bequests. 17.04.2001. 24 p.
- No 757 MIKA MALIRANTA, Productivity Growth and Micro-level Restructuring. Finnish experiences during the turbulent decades. 20.04.2001. 67 p.
- No 758 ERKKI KOSKELA – RONNIE SCHÖB, Optimal Factor Income Taxation in the Presence of Unemployment. 23.04.2001. 16 p.

- No 759 JUHA FORSSTRÖM – JUHA HONKATUKIA, Suomen ilmastostrategian kokonaistaloudelliset kustannukset. 24.04.2001. 28 s.
- No 760 PETRI BÖCKERMAN, Tietokone- ja informaatioteknologian vaikutukset työmarkkinoihin. 12.06.2001. 16 s.
- No 761 COLIN HAZLEY, EU Enlargement and Finnish Forest Industry: A Special Emphasis on the Packaging Industry. 22.06.2001. 110 p.
- No 762 KARI E.O. ALHO, Catching up and Unemployment in the EU. 05.07.2001. 10 p.
- No 763 PIA WALDEN – PEKKA YLÄ-ANTTILA, Skenaariot ja kansantalous 2026. Kansainvälisten skenaarioiden tulevaisuuskuvia Suomen näkökulmasta. 30.07.2001. 21 s.
- No 764 OLAVI RANTALA, EU:n itälaajenemisen vaikutus Suomen väestökehitykseen. 03.09.2001. 15 s.
- No 765 JUKKA LASSILA – TARMO VALKONEN, Ageing, Demographic Risks, and Pension Reform. 03.09.2001. 34 p.
- No 766 PERTTI HAAPARANTA – HANNU PIEKKOLA, Taxation and Entrepreneurship. 26.09.2001. 39 p.
- No 767 REIJO MANKINEN – JYRKI ALI-YRKKÖ – PEKKA YLÄ-ANTTILA, Palveluiden vienti ja kansainvälistyminen. 25.09.2001. 42 s.
- No 768 ARI HYYTINEN – OTTO TOIVANEN, Asymmetric Information and the Market Structure of the Venture Capital Industry. 03.10.2001. 13 p.
- No 769 MINNA SEPPÄLÄ, Vihreä veroreformi: Laskelmia Suomen aineistolla. 05.10.2001. 28 s.
- No 770 PEKKA MANNONEN, Advancing Information Technology and Financial Intermediation. 10.10.2001. 20 p.
- No 771 MIKA WIDGRÉN – STEFAN NAPEL, The Power of a Spatially Inferior Player. 23.10.2001. 20 p.
- No 772 TEEMU HAUKIOJA – JARMO HAHN, The Emergence of the New Economy, and its Challenge to Financial Intermediation and Banking: A Survey. 01.11.2001. 30 p.
- No 773 MIKKO MÄKINEN – MIKA PAJARINEN – PEKKA YLÄ-ANTTILA, Hyvinvointiklusterin vientimenestys ja merkitys kansantaloudessa 1990-luvun jälkipuoliskolla. 06.11.2001. 31 s.
- No 774 ARI HYYTINEN – MIKA PAJARINEN, Financial Systems and Venture Capital in Nordic Countries: A Comparative Study. 14.11.2001. 57 p.
- No 775 ARI HYYTINEN – IIKKA KUOSA – TUOMAS TAKALO, Law or Finance: Evidence from Finland. 25.09.2002. 36 p.

Elinkeinoelämän Tutkimuslaitoksen julkaisemat "Keskusteluaiheet" ovat raportteja alustavista tutkimustuloksista ja väliraportteja tekeillä olevista tutkimuksista. Tässä sarjassa julkaistuja monisteita on mahdollista ostaa Taloustieto Oy:stä kopiointi- ja toimituskuluja vastaavaan hintaan.

Papers in this series are reports on preliminary research results and on studies in progress. They are sold by Taloustieto Oy for a nominal fee covering copying and postage costs.