

Timo Korkeamäki – Yrjö Koskinen – Tuomas Takalo

**Phoenix rising:  
Legal reforms and changes  
in valuations in Finland  
during the economic crisis**



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The views expressed are those of the authors and do not necessarily reflect the views of the Bank of Finland.

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# Phoenix rising: Legal reforms and changes in valuations in Finland during the economic crisis

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## Abstract

Finland experienced an extremely severe economic depression in the early 1990s. In the midst of this crisis, significant new legislation was passed that increased supervisory powers of financial market regulators and reformed bankruptcy procedures, significantly decreasing the protection of creditors. We show that the introduction of these new laws resulted in positive abnormal stock returns. The new laws also lead to increases in firms' Tobin's  $q$ , especially for more levered firms. In contrast to previous studies, our results also suggest that public supervision of financial markets fosters rather than hampers financial market development.

Key words: corporate governance, bankruptcy, financial supervision, shareholder protection, creditors' rights, corporate valuations, political economy

JEL classification numbers: G34, K22

# Feeniks-lintu nousee: Lakiuudistukset ja yritysten arvostusten muutos Suomen 1990-luvun suuressa lamassa

## Suomen Pankin tutkimus Keskustelualoitteita 1/2007

Timo Korkeamäki – Yrjö Koskinen – Tuomas Takalo  
Rahapolitiikka- ja tutkimusosasto

### Tiivistelmä

Suomen sodanjälkeinen kasvun kausi päättyi 1990-luvun alussa rajuun talouskriisiin. Kriisin keskellä toteutettiin monia merkittäviä sijoittajansuojaa koskevia lakiuudistuksia: esimerkiksi sekä rahoitustarkastus- että yrityssaneerauslainsäädäntö uudistettiin perusteellisesti. Tässä tutkimuksessa osoitetaan, kuinka osakemarkkinat reagoivat positiivisesti lakiuudistuksiin ja kuinka yritysten, erityisesti velkaisen, arvostus koheni lakiuudistuksen myötä. Vastoin aikaisempia tutkimuksia, julkinen rahoitustarkastus tämän tutkimuksen mukaan pikemminkin edistää kuin haittaa rahoitusmarkkinoiden kehitystä.

Avainsanat: hyvä hallintotapa, konkurssi, rahoitustarkastus, sijoittajansuoja, politiikan taloustiede, kriisin hallinta

JEL-luokittelu: G34, K22

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# 1 Introduction

Finland went through an economic depression in the early 1990s that was unprecedented in its severity for a highly developed modern economy<sup>1</sup>. An integral part of this depression was a banking crisis, where the government was forced to give massive bailouts to all the banks and to guarantee their contractual obligations. At the end of this crisis, one banking group was liquidated and two major banks were forced to merge. Finland's bank-dominated financial system was in ruins.

Between 1991 and 1993, during the crisis, the government introduced new laws that resulted in complete transformation of the country's financial system. The change in securities law improved the integrity of the stock markets by establishing the new Financial Supervisory Authority with enhanced resources and regulatory powers. The other central piece of the legislation was a new bankruptcy procedure that made the reorganization of companies easier, mirroring the US Chapter 11 process. The legal reforms improved the enforcement of shareholders' rights while weakening creditors' rights. By the end of 1990s a new financial system had emerged, based on more prominent role for the stock market and less dependence on banks.<sup>2</sup>

The introduction of the new bankruptcy and securities laws provides us a unique opportunity to study how changes in creditor and shareholder protection affect corporate valuations. Typically, the relationship between investor protection laws and corporate valuations is studied using cross-sectional multi-country regressions (see for example La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2002). Those regressions are open to criticism of reverse causality: it is plausible that higher valuations lead to better investor protection laws. In addition, cross-sectional regressions can potentially lead to spurious findings due to numerous macroeconomic factors that are difficult to control for in the empirical design. We address these problems by employing the short-term event study method in addition to estimating panel regressions. Results obtained from short-term event studies are less likely to suffer from omitted macroeconomic variables potentially biasing results. The fact that our short-term event study and panel data estimation

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<sup>1</sup> From 1990 to 1993 the GDP per capita declined by 14 percent and the unemployment shot up from 3 per cent of labor force up to 20 per cent (see Honkapohja and Koskela, 2000, for further details).

<sup>2</sup> See Hyytinen, Kuosa, and Takalo (2003) for further details.

produce internally consistent results eases the concern about omitted variable bias in the latter.<sup>3</sup>

The effect on corporate valuations of the decrease in creditor protection due to the bankruptcy reform is ambiguous a priori. On one hand, strong creditor protection can mean that illiquid but viable companies face a risk of unnecessary liquidation in bankruptcy processes. Therefore, weakening creditor protection could lead to increased share values. Similarly, a wealth transfer from creditors to shareholders would cause a positive stock price reaction. On the other hand, there is evidence that strong creditor protection is associated with strong shareholder protection and broader financial markets (La Porta et al, 1997) and that credit institutions and stock markets are complements in supporting economic growth (Levine, 2001). In particular, good creditor protection should improve availability of debt finance, which had been a major source of external finance in Finland. Thus a drastic weakening of creditor rights might constrain firms financially and therefore affect the value of common stock negatively.

Similar ambiguity applies to the effects of the creation of the Financial Supervisory Authority. It is widely thought that stronger supervisory powers of financial market regulators nurture financial market development. This notion underlies the second pillar of the Basel II financial market regulations. However, the positive effects arising from the establishment of Financial Supervisory Authority can also be questioned: the recent literature suggests that strengthening public supervision is at best irrelevant for financial market development (Barth, Caprio, and Levine, 2004, 2006; La Porta, Lopez-de-Silanes, and Shleifer, 2006). Hence the question of whether any of the reforms considered in this study increase or decrease corporate valuation is ultimately empirical.

We employ company level data from Worldscope, Helsinki Stock Exchange and Compustat spanning the years 1989 to 1993. First, we utilize the event study method and examine whether the legal changes result in abnormal returns for a portfolio of Finnish companies. We do not detect a market reaction when the newspapers first report that the government is considering new securities or corporate laws. Most likely, the first piece of news regarding the content of the planned legislation is so vague that the market reaction is muted for this reason.<sup>4</sup> However, we find a positive stock market reaction when the bills are first introduced to the parliament. This result applies to both improved enforcement of

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<sup>3</sup> There is also a large literature that studies the relationship between firm-level corporate governance measures and stock returns or valuations. For example, Gompers, Ishii, and Metrick (2003) show that investing in better governed firms earns superior returns and that better governed firms trade at higher valuations. However, also papers that study the relationship between firm-level governance and valuations suffer from reverse causality: low valuations may lead to bad governance. Indeed, Lehn, Patro, and Zhao (2006) show that after controlling for prior valuations, there is no relationship between contemporaneous valuations and firm-level corporate governance.

<sup>4</sup> The muted reaction is also in line with previous event studies on the effects of law changes such as Binder (1985), which point out the difficulties in specifying the appropriate first event date.

shareholders' rights (establishment of the new Financial Supervisory Authority) and weakening of creditors' rights (the new bankruptcy procedures). Our results regarding creditor right changes could in principle imply either a wealth transfer from creditors to shareholders, or alternatively a net positive wealth creation. We find support for the wealth creation hypothesis by showing that also financial institutions – by far the most important creditors in Finland during the time of the reforms – experienced a positive stock market reaction. In contrast to Barth et al (2004, 2006) and La Porta et al (2006) we find evidence that public enforcement of securities laws also matters, as the creation of the Supervisory Authority is met by a positive stock reaction.

There is no market reaction when the parliament passes the laws. When the government introduces the legislation to the parliament the laws are fundamentally in their final forms, thus resulting in significant market reactions. Since Finland had a strong majority government at the time of the reforms, the final passing of the laws was just a mere formality with no new informational content.

In seeking the determinants of the abnormal returns, we find that levered firms experience more positive abnormal returns when laws that weaken creditors' rights are introduced to the parliament. This result suggests that stockholders of more levered firms reap greater benefits from the new, more lenient bankruptcy procedures. Lastly, we study the effects of the four legal reforms considered on Tobin's  $q$ . Our panel regression results confirm that more levered firms experience higher valuations as a result of the legal reforms.

Besides supporting the connection between law and finance, we also contribute to the recent political economy literature that considers motivations behind legal reforms (Pagano and Volpin, 2005, 2006, Perotti and von Thadden, 2006). It can be argued that the far reaching corporate governance reforms in Finland were made possible by the deep crisis that caused labor to lose its rents.<sup>5</sup> This reduced labor's incentive (and ability) to resist reforms. The reforms were passed under a right-wing government that did not include – for the first time in 25 years – left-wing parties closely associated with labor unions.

Besides labor unions, the banks had traditionally been an influential interest group in Finland. The worsening of creditor rights was thought to run against their interests. However, the banking crisis and subsequent reorganization of the banking sector meant a deterioration of banks' previously strong industrial and political power. For example, the Act on Reorganization of Companies was adopted despite protests by the Finnish Bankers' Association (whose objection to the Act is documented in Government bill 182/1992). In sum, the financial crisis in Finland significantly worsened the bargaining power of two powerful interest

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<sup>5</sup> This loss is manifested by the above-mentioned change in unemployment, from 3% in 1990 to 20% in 1993 (cf. footnote 1).

groups, labor and banking sector, which seemed to open the door for more shareholder friendly legislation.

The paper is organized as follows: Section two reviews the legal changes in Finland that occurred during the crisis years. Section three provides a discussion of the connection between investor protection and stock valuation. Section four presents the data and section five the results. Section six discusses the political economy implications, and section seven concludes.

## 2 Changes in investor protection in Finland

### 2.1 Legal and institutional background before the reforms of 1991–1993

The Finnish legal system has developed in close connection with other Nordic countries. Especially Swedish legislation has been influential due to Finland's union with Sweden which lasted for more than 700 years. Since the 1980s, the strong Nordic influence on Finnish regulations has been replaced by cooperation within the European Union.

Like the other Nordic countries, Finland was highly advanced in terms of overall legal development at the start of the 1980s. As Demirgüç-Kunt and Maksimovic (1998) report, the International Country Risk Guide gave Finland the highest possible score for the years preceding the economic crisis, 1985–1991, in its law and order index, which measures reliance on the legal system in mediating disputes and enforcing contracts. The IMD's World Competitiveness Yearbook placed Finland fourth in 1990 on fair administration of justice (IMD, 1990). The level of the legal system has remained excellent also after the economic crisis. Finland is ranked fifth in the IMD yearbook of 2005 for the state of the general legal and regulatory framework.<sup>6</sup> The World Economic Foundation's Global Competitiveness Report 2004–2005 generally echoes these results, placing Finland first in the general growth competitiveness index and emphasizing judicial independence and property rights as major sources of competitive advantage (Porter, Schwab, Sala-i-Martin, and Lopez-Claros, 2004).

Although the foundations of the legal system were solid, Hyytinen et al (2003) document that Finnish legislation concerning minority shareholder protection, based on The Companies Act of 1978, was underdeveloped in the 1980s. The main determinants of creditor rights before the reforms in the early

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<sup>6</sup> Regarding the fair administration of justice, Finland's score in the 1990 World Competitiveness Yearbook is 84.17 (of 100) and in the 2005 Yearbook 8.75 (of 10). Finland's score regarding the state of the legal and regulator framework in the 2005 Yearbook is 6.82 (of 10).

1990s in Finland were the more than century-old Liquidation Bankruptcy Code of 1868, and the Act on Compositions of 1932. Until 1993, the principal route of resolution of financial distress was liquidation bankruptcy. When a firm was declared bankrupt, a trustee took over the firm and sold its assets. The firm could either have been sold as a going-concern or liquidated piecemeal. The proceeds were then distributed to creditors according to priority of claims. The Liquidation Bankruptcy Code of 1868 was amended after its initial passing, but the changes were minor compared to the reforms considered in this study. Workouts, or compositions established by a court, provided an alternative way of resolution until 1993. However, they were rarely used, as documented in Government bill 182/1992.

## 2.2 Legal reforms in 1991–1993

During the early 1990s, the government implemented a number of reforms of the Finnish economic and financial system. We focus on the changes in investor protection legislation that can be captured by indexes developed by La Porta et al (1997, 1998), Pistor (2000), and Pistor, Raiser and Gelfer (2000).<sup>7</sup>

Three pieces of legislation affecting creditor rights were passed in 1991 and 1992: the Act on Restitution of Assets in Bankruptcy 758/1991 (effective January 1, 1992), the Act on Claim Priorities 1578/1992 (effective January 1, 1993), and the Act on Reorganization of Companies 47/1993 (effective February 8, 1993). Act on Restitution of Assets in Bankruptcy extended the time limits when pre-bankruptcy transactions could be revoked. The Act on Claim Priorities simplified priority rules in liquidation. The Act on Reorganization of Companies introduced court supervised reorganization for financially distressed firms. As Ravid and Sundgren (1998) demonstrate, it is similar to the US Chapter 11 bankruptcy procedure.

The Act on the Financial Supervisory Authority 503/1993 (effective June 11, 1993) significantly increased the resources and the regulatory powers of financial supervision. In addition, it unified the dispersed banking supervision to one organization, which operates in connection with the Bank of Finland.

These reforms altered La Porta et al's and Pistor et al's index values as follows:

- The Act on Restitution of Assets in Bankruptcy of 1991 improved creditors' rights, as measured by an increase in Pistor et al's index for creditors' legal possibilities to punish management (REMEDY) index from 1.5 to 2 (max 3).

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<sup>7</sup> See the Appendix for a more detailed discussion.

- The Act on Financial Supervisory Authority of 1993 improved shareholder protection, as measured by an increase in the value of Pistor et al's stock market integrity index (SMINTEGR) from 5 to 6 (max 6).
- The Act on Reorganization of Companies of 1993 weakened creditors' rights, as measured by a decrease in La Porta et al's creditor right index from 4 to 1 (max 4), the extended La Porta et al's creditor right index from 4 to 1 (max 5),<sup>8</sup> and Pistor et al's index for creditors' control of the bankruptcy (CREDCON) from 3 to 1 (max 5).

As the indices suggest, the Act on Reorganization of Companies in 1993 was detrimental for creditor protection. The reform weakened the restrictions on going into reorganization and expanded the scope of the automatic stay on assets. It also diluted creditor rights by enabling management to remain in charge during the reorganization. Since a purpose of Pistor et al's CREDCON is to create a La Porta et al – type creditor right index that is useful in circumstances where legislation does not recognize the US style reorganization, it provides a robustness check for our coding. Because this index value also drops, we can be more confident that the Act on Reorganization of Companies drastically weakened creditor protection.

As a result of the deterioration of creditor rights, Finnish legislation currently provides a lower level of creditor protection than most common or civil law countries, as reported in La Porta et al (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. The comparisons to La Porta et al results should, however, be interpreted cautiously, because the legislation may also have been changed in other countries.

Other creditor rights measures have remained strong or even improved. Measured by Pistor et al's index for collateral rules (COLLAT), Finnish legislation continues to provide a maximum level of investor protection. Due to the passing of the Act on Restitution of Assets in Bankruptcy in 1991, it has become easier to nullify transactions that preceded the initiation of bankruptcy proceedings. The Act increased possibilities to punish the management (as measured by Pistor et al's REMEDY-index).

The Act on the Financial Supervisory Authority of 1993 enhanced shareholder protection, albeit indirectly, by improving the enforcement of existing regulation. However, effects of such supervisory improvements have been questioned in existing literature. A reason for the establishment of the new Financial Supervisory Authority was the lack of resources in the old Banking

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<sup>8</sup> The extended La Porta et al's creditor right index was initiated by Pistor (2000) and Pistor et al (2000). This index adds to La Porta et al's creditor right index a discrete variable for the provision for a legal reserve, ie, the minimum percentage of total shares required to avoid dissolution of the company. This variable appears originally also in La Porta et al (1997, 1998) but is not a part of their index.

Supervision, which hampered the effective supervision of the Finnish banking and financial system in the 1980s.

### 3 Investor protection and stock values

As described in the Introduction, the valuation effects of legal changes that took place in Finland are *ex ante* ambiguous. First, creditor right reductions and shareholder protection improvements could produce positive stock reactions. Stock values could rise either through wealth transfer from creditors to shareholders, or through wealth creation by relaxation of overly stringent creditor rights and improving shareholder protection. Accordingly, our observed stock prices should react positively to three law changes out of the four that we study, since two of them represent a decrease in creditor rights and one is an increase in shareholder protection. The Act on Restitution of Assets in Bankruptcy of 1991 marks an improvement in creditor rights, so that the stock price reaction to that law should be negative. Similarly, we would expect that Tobin's  $q$  increases in the panel data estimations using annual data, especially for more levered firms.

However, reductions in creditor rights could constrain firms financially, resulting in a net value loss. This would imply a negative stock price reaction to the two dilutions of the creditor rights, and a positive reaction to the creditor right improvement. One could also argue that the creation of the Financial Supervisory Authority further constrains financing. In addition, stock values could also suffer if the demand for equity by controlling shareholders is reduced due to diminished access to control benefits (see Giannetti and Koskinen, 2005).

The above discussion implies that weakening of creditor rights and the creation of the Financial Supervisory Authority can also have opposite effects on financial market development: the former having a positive and the latter a negative effect or vice versa.

In sum, signing the effects of the legal changes *a priori* is difficult, as each of them can go either way. We therefore first explore the effects with the event study methodology, which allows identification of law change-specific events, before proceeding to panel regressions.

## 4 Data description

We utilize two different main data sources. Our Finnish stock return data were obtained directly from the Helsinki Stock Exchange. That data set contains the entire universe of Finnish publicly traded firms. The accounting data that we use in the cross sectional analysis comes from Worldscope. Since the Worldscope coverage is limited compared to our returns data, our sample size varies depending on which tests we perform. However, our return results are robust to exclusion of firms that are not part of the Worldscope sample.

Table 1 provides some descriptive statistics for our Worldscope sample across the five years (1989–1993) included in this study. Panel A contains the entire sample, and Panel B includes only firms that are present in all five sample years. Notably, the medians of revenues and assets in Panel A have significantly decreased during our sample, as smaller companies have entered the Worldscope dataset each year. According to both Panels A and B, following the drastic reduction in creditor protection leverage (calculated as long-term debt divided by total assets) dropped significantly from 1992 to 1993. Panel C indicates that our sample is dominated by manufacturing and financial sectors.

Table 1. **Descriptive statistics**

<b>Panel A: Median Values – Full Sample</b>					
	Number of obs.	Revenues	Assets	Leverage	Tobin's q
1989	61	1,353	1,768	0.233	1.168
1990	69	1,126	1,222	0.256	1.013
1991	79	768	1,010	0.303	0.981
1992	83	646	732	0.299	0.984
1993	88	593	778	0.240	1.168
<b>Panel B: Median Values – Balanced Panel</b>					
	Number of obs.	Revenues	Assets	Leverage	Tobin's q
1989	57	1,353	1,768	0.233	1.168
1990	57	1,558	2,290	0.256	1.015
1991	57	1,558	2,197	0.288	0.985
1992	57	1,721	1,998	0.287	0.992
1993	57	1,957	1,959	0.207	1.178
<b>Panel C: Industry Distribution – Balanced Panel</b>					
Mining			1		
Construction			3		
Manufacturing			27		
Transportation			4		
Wholesale Trade			4		
Retail Trade			3		
Finance, Insurance and Real Estate			12		
Services			3		

Panels A and B report sample medians by observation year. Revenues = net sales in FIM millions, assets = total assets in FIM millions, and leverage = long-term debt/total assets. Tobin's q = (total assets – book value of common stock + market capitalization)/total assets.

We also report the median Tobin's q values for our sample in Table 1. We calculate Tobin's q according to equation (4.1). If the reductions in creditor protection result in wealth transfers from creditors to stockholders, we would expect to observe economy-wide increases in Tobin's q. As Panel B of Table 1 shows, we detect an improvement of almost 19% in Tobin's q between 1992 and 1993 for firms in our balanced panel. In fairness, it should be noted that the result for 1993 indicates a return in Tobin's q values to the pre-crisis levels of 1989. The lack of improvements in Tobin's q over the entire sample horizon could be explained by the severity of the economic crisis.

$$\text{Tobin's } q = (\text{total assets} - \text{bv common stock} + \text{market capitalization}) / \text{total assets} \quad (4.1)$$

## 5 Results

### 5.1 Event study results

We begin a more rigorous analysis by conducting an event study around events related to the four law changes that we study. For each law change, we identify three dates of interest – 1) the first announcement date identifying the first mention of each law in *Kauppalehti*, the leading Finnish daily business newspaper, 2) the date when each law change was introduced by the government to the parliament, and 3) the date when the law was enacted by the parliament.<sup>9</sup>

As documented in Hyytinen et al (2003) the Finnish stock market was relatively small in size and liquidity in the early 1990s. Our event window of  $(-2, +1)$  should allow time for any new information to be assessed. Also, by including two trading days prior to the public announcement, we hope to capture information leakages prior to the events. Potential for such leakages exists in markets where information amongst market participants may be superior to that observable by the general public (or a researcher).

Common with prior research into law changes, such as Binder (1985), and several others, we have an extreme case of event date clustering amongst our sample firms, which is likely to cause the abnormal returns to be correlated in the cross-section. Therefore, we are unable to test for significance using the ‘traditional’ event study methodology as outlined by Brown and Warner (1985). When the entire sample shares the event date, Schwert (1981) and Campbell, Lo, and MacKinlay (1997) suggest aggregating individual stock returns into a portfolio and analyzing abnormal returns of that portfolio. We follow their suggestion and compile an equally-weighted portfolio of all stock returns available around each of our events.<sup>10</sup> This ‘portfolio method’ is also used by Ali and Kallapur (2001), Karpoff and Malatesta (1989) and others. The abnormal returns for our portfolio are measured by the coefficient  $\beta_2$  in equation (5.1).

$$R_{pf,t} = \alpha + \beta_1 R_{mkt,t} + \beta_2 D_{(-2,+1)} + \varepsilon \quad (5.1)$$

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<sup>9</sup> We also considered several other events related to each law, such as the steps that the law proposals took through the parliament committees. Not surprisingly, those events did not convey new information to the market, evidenced by insignificant event study results. Also, the press coverage of each law after the first announcement was largely inconsequential, judged by abnormal returns.

<sup>10</sup> Using equal weights in Finland would be problematic for more recent years due to the relative size of Nokia. However, in our 1989 sample Nokia has only third largest market capitalization.

where

$R_{pf}$  = Return on the equally-weighted Finnish stock portfolio on day  $t$ ;

$R_{mkt}$  = Return on the MSCI World index on day  $t$ ;

$D_{(-2,+1)}$  = Dummy variable that takes on value of one during the event window, zero otherwise.

For each event, we use trading days  $(-250, -10)$  as the estimation period. In other words, we include  $(-250, -10)$  in each estimation, while excluding the days leading into each event  $(-9, -3)$ . For the market portfolio ( $R_{mkt}$ ), we use the MSCI World index. Our findings are essentially identical if we use alternative European indices instead.

Table 2. **Analysis of stock reactions to law change events**

	CAR	t-statistic
<b>The act on restitution of assets in bankruptcy of 1991</b>		
First announcement	0.0022	0.4077
Introduction to the parliament	0.0044	0.8729
Enactment	0.0014	0.3511
<b>The act on claim priorities of 1993</b>		
First announcement	0.0045	0.9015
Introduction to the parliament*	0.0209***	3.8111
Enactment	-0.0006	-0.0928
<b>The act on financial supervisory authority of 1993</b>		
First announcement	0.0105***	3.0356
Introduction to the parliament	0.0178***	2.6430
Enactment	-0.0174**	-2.2293
<b>The act on reorganization of companies of 1993</b>		
First announcement	-0.0022	-0.5364
Introduction to the parliament*	0.0209***	3.8111
Enactment	-0.0018	-0.2449

\* these two laws were introduced to the parliament on the same day.

CARs are estimated using equation  $R_{pf,t} = \alpha + \beta_1 R_{mkt,t} + \beta_2 D_{(-2,+1)} + \varepsilon$

The market portfolio is the MSCI World index. The data included in each regression covers days  $(-250, -10)$  and  $(-2,+1)$ , and the dummy variable  $D_{(-2,+1)}$  takes on value of 1 during the event window of  $(-2,+1)$ , zero otherwise. First announcements are identified from Kauppalehti, and the dates of Introduction to the parliament and Enactment by the parliament are obtained from the Finnish Parliament. \*\*\*, \*\*, and \* indicate statistical significance at one per cent, five per cent, and ten per cent level, respectively.

The abnormal portfolio returns are presented in Table 2. We report the  $\beta_2$  coefficient and the t-statistic for each event. If reductions in creditor protection and increases in shareholder protection are positive news to the stock market, the stock prices should react positively to three law changes out of the four that we consider, since two of the four law changes represent a reduction in creditor rights and one represents an improvement in shareholder protection. The Act on Restitution of Assets in Bankruptcy of 1991 represents an improvement in creditor rights. Thus, we expect the stock price to react negatively to that law.

Only one of the first announcements is met by a statistically significant stock reaction. This can be explained either by the events having no effect to the stock returns, or by the difficulty in observing the true event date in a market where the news may leak to market participants prior to public announcements.

However, introduction to the parliament is accompanied by a significant positive reaction in all of the three cases where we expect a positive reaction.<sup>11</sup> The date when the law is introduced to the parliament is the first date when a full version of the law is available to the public. While this is only the first introduction of the law, we emphasize that during our sample period, the parties in the Finnish government held a solid majority of the seats in the parliament, and therefore the eventual final version of the law was likely to be almost identical to the one that was originally introduced. It is also worth noting that two of our four law changes share the date of introduction to the parliament (September 25, 1992), one of those two law changes being the one that brought about the most significant reduction in creditor protection, namely the Act on Reorganization of Companies of 1993.

Given the strong majority government, the date when the law is enacted by the parliament is likely to be of limited importance in terms of conveyance of new information. Indeed, only one of the four enactment events is met by a significant reaction. Namely, the reaction to the Act on the Financial Supervisory Authority exhibits a negative sign.

Next, we analyze the cross-sectional determinants of individual cumulative abnormal returns around each event in Table 3. We estimate firm-specific cumulative abnormal returns, again using the estimation period of  $(-250, -10)$ , and the event window of  $(-2, +1)$ . We continue to use the MSCI World Index as the market portfolio.<sup>12</sup> Each column of Table 3 represents one of the four law changes. The dependent variable in each column is the cumulative abnormal return (CAR) of the three events related to each law; the first announcement, the introduction to the parliament, and the final enactment of the law. In testing whether the marginal effect of leverage around a law-change event affects the stock reaction to that event, our test variables are the interaction variables between

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<sup>11</sup> Using the MVRM method as outlined by Binder (1985) gives quantitatively similar results.

<sup>12</sup> The use of alternative market portfolios leaves our findings intact.

leverage and the event dummy. In each specification, we control for whether the firm is a financial institution, and for the firm's leverage, market-to-book, size (measured as log of assets), and dividend payout ratio. The financial institution dummy is intended to represent not only the difference in the balance sheet structure between financial and non-financial firms, but also the special role that financial institutions play as creditors. Market-to-book is set to control for potentially different reaction in industries with higher market multiples. The size variable controls for any difference in small vs. large firm stock reactions. Finally, the dividend payout ratio proxies the financial constraints of the firm, in the spirit of Fazzari, Hubbard, and Petersen (1988). All firm-specific variables are observed in the year-end preceding the event date.

While leverage does not appear to affect the stock reactions to the other three law changes, the reactions to both the first announcement and the introduction to the parliament of the Act on Claim Priorities of 1993 are significantly affected by firm leverage. The positive stock reaction to this regulation seems to be driven by levered firms.

Table 3.

**Cross-sectional analysis of abnormal returns**

<b>Law change</b>	<b>Bankruptcy 1991</b>	<b>Claim priorities 1993</b>	<b>Supervisory auth. 1993</b>	<b>Reorg. 1993</b>
Constant	-0.0946** (-1.976)	-0.0350 (-0.331)	-0.0073 (-0.152)	-0.0862 (-0.882)
Leverage	-0.0657 (-1.098)	-0.2475*** (-4.746)	0.0232 (0.425)	-0.0064 (-0.094)
Foreign listing	-0.0033 (-0.288)	-0.0047 (-0.202)	0.0303* (1.929)	-0.0224 (-1.025)
Institution	0.0063 (0.764)	0.0105 (0.477)	0.0127 (0.926)	-0.0026 (-0.124)
Market to book	-0.0009 (-0.770)	-0.0006 (-0.333)	0.0035 (1.001)	-0.2844 (-0.976)
Log(assets)	0.0081** (2.481)	0.0079 (1.061)	-0.0023 (-0.672)	0.0068 (0.976)
Dividend payout	-0.0004 (-0.519)	0.0006 (0.421)	0.0031 (0.862)	0.0060 (1.174)
First announcement	-0.0239 (-1.046)	-0.0633*** (-2.515)	0.0171 (0.689)	0.0438 (1.058)
Intro	-0.0162 (-0.657)	-0.0858** (-2.467)	0.0789*** (3.297)	-0.0021 (-0.060)
Leverage x First ann.	0.1074 (1.273)	0.2790*** (3.412)	0.0830 (1.239)	-0.1760 (-1.474)
Leverage x Introduction	0.0559 (0.549)	0.3746*** (3.083)	-0.0177 (-0.278)	0.1201 (0.973)
Adj. R-sq	-0.0216	0.0717	0.1962	0.0552
F-test p-value	0.641	0.046	0.000	0.082
n	102	124	127	126

The dependent variable in all specifications is the (-2,+1) CAR. Each column represents one of the four law changes considered. Leverage is calculated as total debt divided by total assets, foreign listing = 1 for firms that are listed on an exchange outside Finland, Institution = 1 for lending institutions, Market to book = market capitalization/book value of equity, Dividend payout = Cash dividends/EBT. Log(assets) is the natural log of total assets. First announcement and Introduction are dummy variables taking on the value of one for each type of event, law enactment serves as a control group in each specification. Leverage x First ann. and Leverage x Introduction are interaction variables between the two stated variables. The t-statistics (in parentheses) are calculated using White (1980) standard errors. \*\*\*, \*\*, and \* indicate statistical significance at one per cent, five per cent, and ten per cent level, respectively.

## 5.2 Panel regression results

Another way to observe the effect of creditor protection on the stock values is to measure changes in Tobin's q during the period of law changes. In Table 4, we report results from panel data estimation, where we have used measures related to Tobin's q as dependent variables. While Table 1 gave some evidence of increases in the Finnish stock values in 1989–1993, firm-specific variables might shed more light to the factors behind changes for individual companies.

Table 4. **Panel estimation results**

Dep. var. Model	Log(Tobin's q) Fixed eff.	Log(Tobin's q) Random eff.	Tob vs US Fixed eff.	Tob vs US Random eff.
Constant		0.0114 (0.075)		-0.7477 (-1.442)
Leverage	-0.4806*** (-3.580)	-0.4278*** (-3.381)	-1.0160* (-1.761)	-0.8390 (-1.620)
Log (assets)	-0.0406 (-0.899)	0.0139 (1.293)	0.2291 (1.146)	0.0739** (2.009)
Year 91	-0.2474*** (-5.225)	-0.2356*** (-5.388)	-0.6925*** (-4.434)	-0.6478*** (-3.406)
Year 92	-0.2328*** (-4.959)	-0.2151*** (-5.070)	-1.0303*** (-5.202)	-0.9804*** (-5.319)
Year 93	0.0278 (0.564)	0.0515 (1.300)	-0.9631*** (-4.106)	-0.9704*** (-5.670)
Year 91 x Lev	0.4599*** (3.716)	0.4090*** (2.979)	0.7963* (1.818)	0.6852 (1.148)
Year 92 x Lev	0.4611*** (3.830)	0.3926*** (2.988)	1.4759*** (2.816)	1.4018** (2.464)
Year 93 x Lev	0.1891 (1.506)	0.1159 (0.896)	1.1584* (1.744)	1.1358** (2.043)
Adj. R-sq	0.7069	0.1267	0.5670	0.1213
Hausman test p		0.633		0.0000

Tobin's q = (total assets - book value of equity + market capitalization)/total assets. Tobin Chg. =  $\text{Tobin's } q_{\text{year } t} / \text{Tobin's } q_{\text{year } t-1} - 1$ . Tob vs US = Tobin's q – US median Tobin's q within the firm's two-digit SIC code. Leverage = non-equity liabilities/total assets. Log (assets) = Log (total assets). Year 91 and Year 92 = 1 for observations in each year, respectively, zero otherwise. Year 91 x Lev and Year 92 x Lev are interaction variables between the year dummy variables and Leverage. T-statistics (in parentheses) are calculated using heteroscedasticity-consistent standard errors. \*\*\*, \*\*, and \* indicate statistical significance at one per cent, five per cent, and ten per cent level, respectively.

In the first two columns of Table 4, we report the panel regression results when the natural log of Tobin's q is used as the dependent variable. We control for leverage, firm size (Log of total assets), and also for macro effects that took place in years 1991, 1992, and 1993 (dummy variables for each year, respectively) on Tobin's q. However, our main interest is in the interaction variables Year 91 x leverage, Year 92 x leverage, and Year 93 x leverage. These variables should capture the marginal effect of higher leverage on Tobin's q in each of the three years.

We report both firm-level fixed effects and random effects results. In the first panel regression, Hausman test fails to reject the random effects model, and therefore we should focus on the results in column 2. The results in column 2 suggest a strong positive connection between Tobin's q and leverage in years 1991 and 1992. Both coefficients are statistically significant at the 1% level or

better. These results support the wealth transfer view, or the alternative view that overly strong creditor protection hampers financial market development.

In the last two columns of Table 4, we control for industry-specific changes in stock values. We obtain US data within each company's two-digit SIC code from Compustat, and calculate the US industry median for each Finnish firm. The US makes a good point of comparison as creditor protection remained unchanged in the US during the period of interest. The dependent variable in our last panel regression is the difference between the sample firm's Tobin's  $q$  and its US industry median. The Hausman test indicates that we should this time focus on the fixed effects model. While the 1991 and 1993 results are only marginally significant, year 1992 results exhibit a positive and significant sign, providing further backing for the connection between leverage and value changes.

### 5.3 Robustness checks

As mentioned above, empirical studies of this nature suffer from the suspicion that findings are ultimately driven by some other macroeconomic variables that have not been considered in the empirical design. The fact that Finland was living through a very deep economic crisis during our sample period heightens such suspicion.

Finnish banking sector went through a major crisis during the early 1990s. While a low number of banks in our sample limits the concern, these bank stocks could be biasing our results. In our cross-sectional analysis in Table 3, we utilize a dummy variable for financial institutions to control for any extraordinary effects caused by such institutions. Also, our event study results reported in Table 2 are robust to exclusion of financial institutions, which is shown in the first column of Table 5. Each event that was statistically significant in Table 2, receives the same sign at the same level of statistical significance when financial institutions are left out of the portfolio.

Table 5. Stock reactions of sub-sample portfolios

	No financials CAR <sub>t</sub>	Financials only CAR <sub>t</sub>	Non-exporters CAR <sub>t</sub>
<b>The act on restitution of assets in bankruptcy of 1991</b>			
First announcement	0.0021	0.3883	0.0009
Introduction to the parliament	0.0047	0.8652	-0.0004
Enactment	0.0011	0.2679	0.0023
<b>The act on claim priorities of 1993</b>			
First announcement	0.0049	0.9052	0.0041
Introduction to the parliament*	0.0201***	3.6588	0.0141**
Enactment	-0.0006	-0.0921	0.0043
<b>The act on financial supervisory authority of 1993</b>			
First announcement	0.0113***	3.2153	0.0023
Introduction to the parliament	0.0180***	2.8445	0.0212**
Enactment	-0.0200***	-2.6841	-0.0009
<b>The act on reorganization of companies of 1993</b>			
First announcement	-0.0016	-0.3757	-0.0003
Introduction to the parliament*	0.0201***	3.6588	0.0141**
Enactment	-0.0016	-0.2284	-0.0053

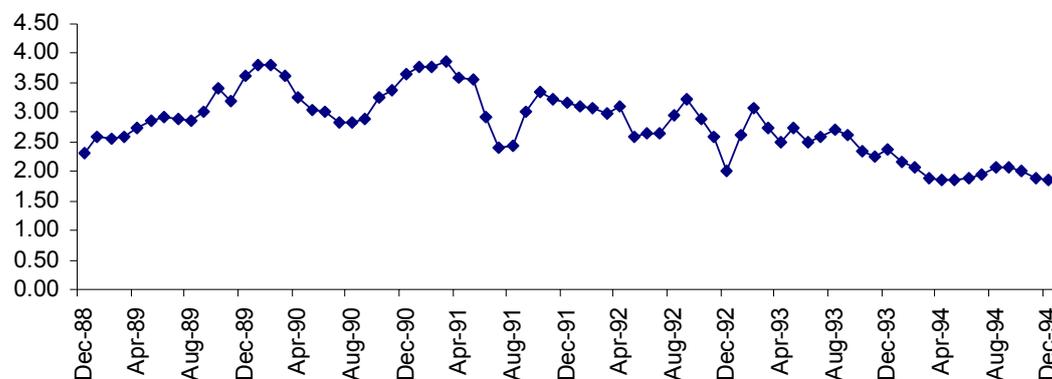
\* these two laws were introduced to the parliament on the same day.

CARs are estimated using equation  $R_{pt,t} = \alpha + \beta_1 R_{mkt,t} + \beta_2 D_{(-2,+1)} + \varepsilon$

The market portfolio is the MSCI World index. The data included in each regression covers days (-250, -10) and (-2, +1), and the dummy variable  $D_{(-2,+1)}$  takes on value of 1 during the event window of (-2, +1), zero otherwise. First announcements are identified from Kaupalehti, and the dates of Introduction the parliament and Enactment by the parliament are obtained from the Finnish Parliament. \*\*\*, \*\*, and \* indicate statistical significance at one per cent, five per cent, and ten per cent level, respectively.

As mentioned above, the stock value increases reported above could be explained by a wealth transfer from creditors to shareholders, rather than by value creation. To explore this proposition, we rerun the event study tests of Table 2 with a portfolio that contains only financial institutions. These results are reported in the center column of Table 5. If the overall value gain is explained by a wealth transfer, we should expect financial institutions – the predominant creditors in Finland at the time – to experience a value reduction upon the law-changing events. However, the financial institution portfolio results are very similar to those reported in Table 2, with t-statistics of 4.1977 for the September 25, 1992 event.<sup>13</sup> Finally, we observe the interest rates on corporate lending in Finland during our sample period.<sup>14</sup> According to the wealth transfer argument, the law changes considered in this paper could potentially affect the cost of bank lending, which alone could result in stock valuation changes. As Figure 1 illustrates, no significant shifts in the spread between the corporate bank loan rates and the prime rate occurred. Lack of reaction on the borrowing side thus further suggests that the law changes of 1991–1993 created value, rather than shifting it to shareholders from other claimants.

Figure 1. **Spread between corporate loans and the prime rate in Finland**



Amid the economic crisis in Finland, the European Monetary System experienced tumultuous times in 1992, and Finland played a significant role in those developments. Speculative attacks on the Finnish Markka caused the Bank of

<sup>13</sup> Interestingly, the stock prices of financial institutions do not react positively to the Act on Financial Supervisory Authority, like other companies do. Perhaps the reason for this finding is that financial institutions were already very closely monitored since the beginning of the banking crisis.

<sup>14</sup> The data come from the Bank of Finland.

Finland to float the currency on September 8, 1992<sup>15</sup>. Since the decision to float Markka resulted in an immediate devaluation of the currency by about 15%, the stock reaction to the currency regime change might vary depending on whether the firm is involved in export trade or not. Therefore, we define a dummy variable NONEXP, which takes on value of one for firms that are in the service sector or in domestic retail or wholesale trade.

In the right-most column of Table 5, we rerun the portfolio method test in Table 2 with a portfolio that includes only the NONEXP firms. The results regarding September 25, 1992 law change event remain significant, with the t-statistic of 2.165. As mentioned earlier, same is true for the findings reported in Table 3. When only the September 25, 1992 event is included in the cross-sectional analysis, the t-statistic for LEVERAGE is 1.954, even though the sample size is smaller when the export firms are excluded (results not reported).

Annual data used in our panel estimation is more likely to reflect effects of the currency regime change. Therefore, we re-estimate the models in Table 4 with additional interaction variables added, and the results are reported in Table 6. The added variables, YEAR 91 x NONEXP, YEAR 92 x NONEXP, and YEAR 93 x NONEXP enter with negative signs, the findings regarding years 1992 and 1993 being statistically significant. This suggests that stock values in non-export sectors suffered from the currency regime change, as expected. However, when Table 6 results are compared to those reported in Table 4, very little change can be detected regarding the effect of leverage on value change.

Another significant change in the Finnish financial market regulation during our study period was the removal of the restrictions on the foreign investment in the Finnish stock market in 1993. While we do not have data on foreign ownership of our sample companies, we attempt to control for the effect of the liberation of foreign ownership with an additional set of interaction variables between the year dummy variables and total assets. This is based on an assertion that larger firms are likely to attract more foreign investors (as documented by Kang and Stulz, 1997, for example). Adding these additional interaction variables to the specifications reported in Table 5 leaves our findings intact, while the coefficients on the added interaction variables are weakly positive (results not reported).

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<sup>15</sup> Some minor changes in the wording of this currency regime change were even introduced to the parliament on September 25, 1992 – the same day when two of the four law changes studied in this paper were also introduced to the parliament. The prevailing law allowed the Bank of Finland to float the currency temporarily. The proposed modification implied that the Bank of Finland could, besides floating the currency temporarily, also ask the government's permission to float the currency permanently.

Table 6.

**Panel estimation with non-export industry indicators**

Dep. var. Model	Log(Tobin's q) Fixed eff.	Log(Tobin's q) Random eff.	Tob vs US Fixed eff.	Tob vs US Random eff.
Constant		0.0792 (0.525)		-0.6234 (-1.186)
Leverage	-0.3975*** (-2.786)	-0.3615*** (-2.820)	-0.3340 (-0.499)	-0.4947 (-0.940)
Log (assets)	-0.0688 (-1.503)	0.0080 (0.737)	0.0367 (0.179)	0.0590 (1.579)
Year 91	-0.2437*** (-5.012)	-0.2327*** (-4.850)	-0.5595*** (-2.995)	-0.5626*** (-2.678)
Year 92	-0.1882*** (-3.897)	-0.1745*** (-3.735)	-0.8220*** (-3.860)	-0.8558*** (-4.205)
Year 93	0.1006* (1.764)	0.1248*** (2.716)	-0.4569* (-1.887)	-0.5018*** (-2.531)
Year 91 x Lev	0.4749*** (3.694)	0.4254*** (3.017)	0.5388 (1.132)	0.4620 (0.746)
Year 92 x Lev	0.4558*** (3.559)	0.3951*** (2.942)	1.2007** (2.146)	1.2441** (2.123)
Year 93 x Lev	0.1119 (0.822)	0.0506 (0.380)	0.5267 (0.753)	0.7042 (1.225)
Year 91 x Nonexp	-0.0311 (-0.739)	-0.0328 (-0.810)	-0.2103 (-1.238)	-0.1026 (-0.589)
Year 92 x Nonexp	-0.1262*** (-2.712)	-0.1238*** (-3.049)	-0.4258** (-2.048)	-0.2868* (-1.657)
Year 93 x Nonexp	-0.1004** (-1.973)	-0.1080*** (-2.655)	-0.7618*** (-2.738)	-0.7879*** (-4.565)
Adj. R-sq	0.7197	0.1469	0.5864	0.1390
Hausman test p		0.0000		0.9755

Tobin's q = (total assets - book value of equity + market capitalization)/total assets. Tobin Chg. = Tobin's q<sub>year t</sub> / Tobin's q<sub>year t-1</sub> - 1. Tob vs US = Tobin's q - US median Tobin's q within the firm's two-digit SIC code. Leverage = non-equity liabilities/total assets. Log (assets) = Log (total assets). Year 91 and Year 92 = 1 for observations in each year, respectively, zero otherwise. Year 91 x Lev and Year 92 x Lev are interaction variables between the year dummy variables and Leverage. Nonexp is a dummy variable that takes on the value of one for firms that are in service, domestic wholesale, or domestic retail industries. T-statistics (in parentheses) are calculated using heteroscedasticity-consistent standard errors. \*\*\*, \*\*, and \* indicate statistical significance at one per cent, five per cent, and ten per cent level, respectively.

## 6 Political economy of the reforms

Current level of financial development is not permanent, as shown by Rajan and Zingales (2003, 2004). Finland is an excellent example of this. Rajan and Zingales argue that financial markets will develop only when a country's political structure changes or incumbents allow development to take place. The Finnish case also illustrates the benefits of legal reform of corporate governance and its obstacles arising from interest group politics as emphasized by La Porta et al (2000). The subsequent literature of political economy and corporate governance tries to further isolate the reasons of why and how investor protection laws and financial development evolve as a result of political process. In Pagano and Volpin (2005, 2006), workers align themselves with existing owners against outside financiers when workers do not participate in stock markets, resulting in low level of investor protection and high level of employment protection. Similarly, Perotti and von Thadden (2006) show that median voters are likely to support conservative bank-dominated financial system when they do not own stocks, but switch to supporting more risky market-based financial system when they become owners.

The mechanism for major reforms in Finland can be seen as the opposite of that in Pagano and Volpin (2005, 2006) and Perotti and von Thadden (2006), which would both predict that major reforms occur after workers or median voters have increased their stock ownership. In Finland, the reforms were preceded by workers' rents first dissipating through higher unemployment. After that legal reforms became possible as workers had nothing to lose and perhaps something to gain in the future from improved shareholder protection laws.

The developments in Finland during the early 1990s fit better the crisis-induced-reform hypothesis (see, eg chapter 10 in Drazen, 2000, and Drazen and Easterly, 2001). The traditional version of the hypothesis maintains that a sufficiently severe economy-wide crisis launches macroeconomic policy reforms. By restricting the availability of external finance to firms, a macroeconomic crisis may also 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, which was the case in Finland, as previously powerful labor and banking sectors lost some of their political power due to the crisis.

Since the economic crisis took place in the aftermath of liberalization of capital flows, the events in Finland also fit well the theory advanced by Rajan and Zingales (2003) that predicts that reforms and financial market development occur in an economy that has opened its borders to both trade and capital flows. Whether the Finnish legal reforms in 1991–1993 were caused primarily by

economic crisis or liberalization of capital flows is a question beyond the scope of this paper. However, the pace at which the reforms went through the legislative process suggests that the depth of the economic crisis was the major contributing factor in speeding these reforms into laws.

## 7 Conclusions

This paper shows that the major legal reforms in Finland have led to higher corporate valuations. We study two kinds of legal reforms: those that increase shareholder protection by improving public enforcement of securities market laws and those that weaken creditors' rights by facilitating reorganization of distressed companies. We show that both kinds of reforms lead to positive abnormal returns when the bills are introduced to the parliament, but only the latter reforms lead to more positive abnormal returns for levered firms. We obtain consistent results with panel regressions, where the dependent variable is the Tobin's  $q$ : more levered firms experience a higher increase in  $q$ .

The typical empirical study into investor protection laws uses cross-sectional data in an attempt to show that good investor protection and high stock prices are positively correlated. In these studies, the causation could go either way: high level of investor protection could indeed lead to high stock valuations, but it could be equally plausible that high stock valuations improve corporate governance, thus leading to good investor protection. Moreover, it is not a priori clear whether strong creditor protection is conducive for financial market development or not. Since we use the event study methodology, and the legal reforms were introduced in the midst of a deep recession when the stock prices were also in doldrums, we are able to show that improved shareholder and weakened creditor protection laws indeed lead to higher stock prices and not vice versa. We deem this to be the major contribution of our paper.

Our study also has bearings on the debate about whether public enforcement matters for financial market development. Based on cross-sectional data, the existing research suggests that public enforcement does not improve financial market development. Our results contrast this view: we find evidence that the stock market welcomed the introduction of an independent Financial Services Authority.

The severe economic crisis also sheds light on the politics of corporate governance reforms. The crisis took place in the aftermath of capital market liberalization, which has then been blamed for the crisis. However, Rajan and Zingales (2003) suggest that capital market liberalization in an open economy such as Finland should be conducive for financial market development, since incumbents have little reasons or capabilities to resist reforms. During the crisis

bankruptcies reached unprecedented levels and Finnish banks were struggling. The banking crisis implied a deterioration of banks' traditionally strong industrial and political power. They were in a weak position to oppose the substantial worsening of creditor rights which seemed to run against their interests. Moreover, their traditional clients, the established industrial firms, were either on the verge of bankruptcy or tapping foreign markets for cheaper finance, and so the banks needed to seek new profit opportunities among new entrepreneurs and younger firms. Since the incumbent financial institutions had no information advantage in new markets, they were gaining from stronger public supervision, and the creation of the new Financial Supervisory Authority was also in their interests.

From the ruins of Finland's previously bank-dominated financial system emerged a more equity finance-oriented system that has served Finnish companies well. The next logical step is to examine changes in equity issuance, in particular IPOs, ownership concentrations and dividend policies in Finland before and after the reforms. That is left for a further study.

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## Appendix

In this appendix we document and justify the changes in the values of five investor protection indices reported in section 2. Four of the indices deal with creditor rights and one deals with shareholder rights. Since the creditor rights were more heavily shaped by the reforms, we also explain their determinants more in detail than in the main text.

### **Changes in the creditor rights**

Prior to the reforms of the 1990s, creditor rights in Finland were largely determined by the Liquidation Bankruptcy Code 31/1868 (effective 9 Nov 1868), the Decree on Claim Priorities 32/1868 (effective 9 Nov 1868), the Act on Compositions 148/1932 (effective 10 May 1932), and the Companies Act 734/1978 (effective 1 Jan 1980). The three new creditor right laws introduced in the early 1990s were: the Act on Restitution of Assets in Bankruptcy 758/1991 (effective 1 Jan 1992), the Act on Claim Priorities 1578/1992 (effective 1 Jan 1993), and the Act on Reorganization of Companies 47/1993 (effective 8 Feb 1993). All new laws are relevant for our coding of the indices, although our analysis in the main body of the text focuses on the Act on Reorganization of Companies and the Act on Restitution of Assets in Bankruptcy. As we argue below, only these two laws resulted in changes in the creditor rights index values.

The most well known of the indices we study is the creditor rights index developed by La Porta et al (1998). It consists of four binary variables, each of which obtains value one if the law includes the provision and zero otherwise. The four variables are i) Restrictions for going into reorganization; ii) No automatic stay on secured assets; iii) Secured creditors ranked first; and iv) Management does not stay in reorganization. All four variables were touched by the reforms as indicated below.

i) *Restrictions for going into reorganization.* Equals one if the reorganization procedure imposes restrictions, such as creditor's consent to file for reorganization; equals zero if there are no such restrictions.

*Our coding:* The reforms reduce the variable value from 1 to 0.

*Justification:* Before the Act on Reorganization of Companies of 1993, reorganization procedure was unknown in Finland. In theory the closest equivalent was compositions of creditors, regulated by the Act of Compositions of 1932, in which junior unsecured creditors agreed to accept partial payment in full

settlement of their claims. An alternative, and in practice much more common route of resolution, was liquidation bankruptcy, governed by the Liquidation Bankruptcy Code of 1868. However, the goal of liquidation is fundamentally different than reorganization and, hence, it is not a proper point of reference here. This view is also shared by the Finnish lawmakers who explicitly made compositions rather than liquidation as the reference point to which the proposed reorganization procedure were assessed (Government bill 182/1992).

The Act of Compositions dictated that compositions procedure could not be started without an approval by a majority of junior creditors. However, the participation of senior secured creditors in compositions was entirely voluntary and required waiving of their priority. Because La Porta et al's creditor right index should be coded from the perspective of senior secured creditors, it is clear that the index value is one before the reform.

The Act on Reorganization of Companies replaced the Act of Compositions. There are some restrictions (6–7§) for going into reorganization: The procedure can be started only if the debtor together with creditors representing at least one fifth of total claims apply for it or if the debtor is either insolvent or threatened by insolvency. Because senior secured debt could not, without permission, be subjected to compositions but could be subjected to reorganization, we judge that the reform reduced the value of this variable from 1 to 0. Arguably, the index value could perhaps remain one, but it is clear that the reform substantially weakened the senior creditors' control over the initiation of debt rescheduling process. Zero is also the value for Finland reported by La Porta et al (1998)

ii) *No automatic stay on secured assets.* Equals one if the reorganization procedure does not impose an automatic stay on the assets of the firm filing for the reorganization petition. Equals zero if such a restriction does exist in the law.

*Our coding:* The reforms reduce the variable value from 1 to 0.

*Justification:* The Act on Reorganization of Companies (17§) states that the debtor is prohibited from paying debt upon entering into reorganization. Only the interest on senior secured debt can be paid (18§). Neither can any collateralized assets be seized to recover the debt (19§, 21§). These provisions automatically enter in force once reorganization process begins. Prior to the reform, the situation was different, because composition procedure did not concern senior secured debt. While the Act of Compositions imposed restrictions on creditors' ability to recover their debt during a compositions procedure, they did not apply to secured assets. For these reasons, the introduction of the Act of Reorganization of Companies changed the index value from 1 to zero. La Porta et al (1998) also report the value of Finland to be equal to zero.

iii) *Secured creditors first*. Equals one if secured creditors are ranked first in the distribution of the proceeds that result from the disposition of the assets of a bankrupt firm. Equals zero if unsecured creditors, such as the government and workers, are given absolute priority.

*Our coding:* The variable value is 1 and it was unaffected by the reforms.

*Justification:* While the Act on Reorganization (18§) gave priority to workers' salaries in reorganization, the Act did not affect the priority rankings in liquidation bankruptcy. These priorities were reformed at the same time by the Act on Claim Priorities of 1993, which simplified the complex priority rankings derived from the Decree on Claim Priorities of 1868. The Decree implied that a secured creditor had a 'special' priority right to the collateralized asset backing the claim but if the asset was insufficient to recover the full value of the debt, the secured creditor had no priority over other groups holding 'general' priority rights such as government and workers. In the reform all numerous general priorities (except for maintenance allowance) were abolished and even maintenance allowance was strictly placed below the collateralized debt in the ranking. While the reform improved the position of senior secured creditors, they held absolute priority rights to collateralized assets already before the reform. Hence, our view is that the reform did not change the variable value. La Porta et al (1998) also report the value of one for Finland. However, there is potential for confusion, since La Porta et al (1998, p. 1135) suggest that the variable should assess the secured creditors' right to collateral in reorganization rather than in liquidation bankruptcy.

iv) *Management does not stay*. Equals one when an official appointed by the court, or by the creditors, is responsible for the operation of the business during reorganization. Equivalently, this variable equals one if the debtor does not keep the administration of its property pending the resolution of the reorganization process. Equals zero otherwise.

*Our coding:* The reforms reduce the variable value from 1 to 0.

*Justification:* The purpose of the Act of Reorganization of Companies is to keep the debtor or management in charge of daily business operations of a company and the company's assets during reorganization (29§). There are restrictions on the debtor's and management's authority over the use of a company's property, assets and liabilities in such a way that would hurt creditors interest (29–30§). The Act also requires the courts to appoint an official to monitor the debtor and management to protect creditors' rights (8§). Despite the restrictions, however, it is clear that the index value is zero after the reform.

To assess the situation before the establishment of the proper reorganization procedure is difficult. Neither the management nor the debtor was able to control the company's assets during liquidation procedure but remained in control during composition procedure. Above we suggest that the right point of reference is the composition procedure, in which case the right index value would be zero also prior to the reform. However, compositions were rare because main (secured) creditors were unwilling participate in them and preferred liquidation. Moreover, since compositions did not pertain to senior secured debt, which is the base for coding, the reform enabled the debtor or management to control collateralized assets in reorganization. It is thus justifiable to think that the index value was 1 before the introduction of the Act of Reorganization of Companies, and that the introduction changed the value of the variable from 1 to 0. Zero is the value also in La Porta et al (1998).

v) *Legal Reserve*. This is the fifth creditor protection variable coded by La Porta et al (1998). It is given by the minimum percentage of total share capital mandated by corporate law to avoid the dissolution of an existing firm. The value of this variable is continuous and it is not part of their creditor rights index. The variable was beyond the scope of the reforms of the early 1990s, since this provision was included in the Companies Act of 1978 (Ch. 13, 2§).

The other three creditor protection indices we study are developed by Pistor (2000) and Pistor et al (2000). With respect to these indices, we below focus on the changes in the aggregate index values rather than go through the variables one by one.

*LLSVcr index*, ie, the extended La Porta et al creditor right index, includes all four variables from La Porta et al and their additional variable, legal reserve, transformed to a discrete form. The legal reserve variable obtains value 0.5 if a simple majority is required and 1 for a qualified majority.

*Our coding*: The reforms reduce the index value from 4 to 1.

*Justification*: We code the value of the discrete legal reserve variable to be zero in the case of Finland, since the legal reserve only amounted to one third of total shares (Companies Act 734/1978, Ch. 13, 2§). As mentioned, there was no change in this variable. So this index should take exactly the same values as the basic La Porta et al's creditor right index.

*CREDCON index*, which aims at measuring creditors' control of bankruptcy process, includes five variables. Three variables come from La Porta et al (variables ii–iv) from above). In addition, there are two new variables: automatic

trigger to file for a bankruptcy and creditors' consent required for an adoption of liquidation or a reorganization plan.

*Our coding:* The reforms reduce the index value from 3 to 1.

*Justification:* The implementation of a reorganization plan under the Act on Reorganization of Companies is much easier the implementation of a compositions proposal under the Act on Compositions. However, the reform did not affect the requirements for adopting a liquidation plan.

The question of whether and when one should or could file for a bankruptcy were in turn covered by the Liquidation Bankruptcy Code of 1868 and the Companies Act of 1978, which were also untouched by the reforms. So the change in the index value is entirely driven by the change in the La Porta et al's creditor right index variables ii) and iv).

*REMEDY index*, which measures rules that empower creditors with ex post control rights, consists of three variables: i) Legal provision that allow creditors to pierce the corporate veil; ii) The management can be held liable for violating the provisions of insolvency law (lower threshold than criminal activities required) and iii) transactions preceding the opening of the bankruptcy process can be declared null and void. The two first variables are binary variables but the third variable takes values 0.25, 0.5, 0.75 or 1 if transactions up to 3, 6, 12 or more than 12 months, respectively, prior to bankruptcy can be annulled.

*Our coding:* The reforms raised the index value from 1.5 to 2.

*Justification:* The Act on Restitution of Assets in Bankruptcy of 1991 changed value of the third variable. Preceding the Act, the Liquidation Bankruptcy Code postulated several time limits concerning revoking transactions that occur prior to the beginning of the bankruptcy process. For example, the transactions could be cancelled up to one year before the launch of bankruptcy process if they were taken by management or other insiders closely tied to the bankrupt company. But the limit was only six months for transactions by others. The reform raised these limits to three and one years, respectively. Therefore we argue that the variable value changed from 0.5 to 1. One could argue for the value of one already prior to the reform. However, while the issue is debatable before the reform, the conditions for the value of one are clearly satisfied after the reform. Therefore, a change in this respect is evident.

## **Changes in shareholder rights**

The reforms of the early 1990 did not affect the shareholder indices developed by La Porta et al (1998) but they did affect Pistor et al' s stock market integrity index (SMINTEGR) measuring the protection of market liquidity. It consists of six variables: i) Conflict of interest rules, including rules on disclosing conflict and abstaining from voting are included in the law; ii) Shareholder register must be conducted by an independent firm (not by issuing company); iii) Insider trading prohibited by law; iv) Acquisitions of larger blocs of shares triggers mandatory disclosure (threshold); v) A state agency conducts capital market supervision; vi) Capital market supervision is formally independent.

*Our coding:* The reforms raised the index value from 5 to 6.

*Justification:* The Act on Financial Supervision Authority of 1993 changed the sixth variable. Since the year 1989 capital markets were supervised by the Banking Supervision Agency, which operated under the control of the Ministry of Finance. The creation of the FSA made capital market supervision independent from government. The FSA operates in connection with the Bank of Finland and both the FSA and the Bank of Finland are directly overseen by the Parliament. We thus argue that reform upgraded the value of the sixth variable from 0 to 1.

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