Trend of Legal Globalisation and Stock Market Development

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Abstract

The purpose of this paper is to analyze some leximetric data for a number of developed and less developed countries hitherto unavailable to examine (i) the changing state of shareholder protection and (ii) its connection with stock market development and capital accumulation. It finds a strong evidence of legal globalisation but no evidence of its favourable link with stock market development and capital formation.

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Introduction

Gone are the days of state investment in a mixed economic framework. New *mantra* of the present day world under the so-called Washington Consensus is liberalization, privatization and globalisation (LPG). Countries that already have a large public sector are advised to privatize by selling shares of the public sector to private individuals and/or companies. The role of government is to provide a proper legal framework under which stock market can flourish and provide the necessary private finance for capital formation and growth. One aspect of this is to provide an adequate protection of the rights of the shareholders under the aegis of corporate governance. Since the end of the 1980s or the beginning of the 1990s, both the developed and the less developed countries have been trying to improve their laws relating to shareholder protection. Apart from the capitalist ethics concerning property rights there is a concern for stock market development for the sake of capital accumulation and growth.

The purpose of this paper is to analyze some leximetric data for a number of developed and less developed countries hitherto unavailable to examine (i) the changing state of shareholder protection and (ii) its connection with stock market development and capital accumulation.

Shareholder Protection and Stock Market Development

Following mainly the pioneering work of LLSV (La Porta et al., 1998), some legal scholars are now-a-days involved in quantifying the laws for easy comparability

across different countries over time – known as leximetric study. One such project has been undertaken by a team of legal scholars at the University of Cambridge (Centre for Business School, CBR). It has produced a comprehensive dataset for shareholder protection in four developed countries such as France, Germany, UK and USA and one less developed country, India over a long span of time, 1970-2005 (see Lele and Siems, 2006 for details). For each country time series data for 60 indicators of stock market development are available. Subsequently ten important indicators were chosen to reflect the changing state of shareholder protection and these data are available for 20 countries (including the above mentioned 5 countries) over the period, 1995-2005. Details of the procedure of constructing these series are available in Appendix.

The sample of 20 covers 9 developed countries-DCs (that include the above mentioned four and Canada, Italy, Japan, Spain and Switzerland) and 11 other less developed countries-LDCs (Argentina, Brazil, Chile, Czech Republic, China, India, Latvia, Malaysia, Mexico, Pakistan and South Africa). In Table 1 the average state of shareholder protection (simple aggregation of 10 variables in each point of time averaged over 1995-2005) is shown for each country. These data show that Canada has the highest level of shareholder protection with a score of 7.25 (out of the maximum possible score of 10) followed by Japan, UK, France and USA (the last three countries are very close to each other). Among the LDC group Malaysia has the highest level of protection with a value above 6 followed by China, South Africa and India.

In Figure 1, the trends in the over-all shareholder protection in the 9-country group of DCs, the 11-country group of LDCs and all of the 20 countries are shown. The graph shows a clear improvement in shareholder protection in both DCs and LDCs. There is a clear evidence of intra-DCs and intra-LDCs convergence between 1995 and 2002 as the graph of the coefficients of variation shows (Figure 2). There was a strong tendency towards convergence across the DC-LDC divide between 1997 and 2002 followed by a slight tendency towards divergence. In fact law changes in the DCs with an eye to better corporate governance and improved shareholder protection and the LDCs follow with a lag. Legal globalisation is thus another facet of the present LPG regime.

In this perspective we examine the link between shareholder protection (SP) and development of stock market in these countries. From World Bank Financial Structure Dataset we get data on stock market turnover ratio. It is one of the most important indicators of stock market development. It is constructed by deflating the value of stock trade by real market capitalization and so it contains the information of the general price level, stock market capitalization and also the value of stock trading. No other indicators are considered, as the relevant data are not available for all the countries for all the years.

From World Bank World Development Indicators we get capital accumulation data - gross capital formation as percentage of GDP (GKFGDP) up to 2002. All these data averages are presented in Table 1 along with the data on shareholder protection.

With the aid of STATA program we have considered two alternative types of panel regression analysis between the turnover ratio (log-values) and the shareholder protection index: the country-fixed effect model (FE) and the random-effect model (RE). The FE is designed to control for omitted variables that differ across countries but are constant over time. This is equivalent to generating dummy variables for each country-cases and including them in a standard linear regression to control for these fixed country-effects. The RE is used if there is a reason to believe that some omitted variables may be constant over time but vary between cases, and the others may be fixed between cases but vary over time. The Breusch-Pagan Lagrange Multiplier test has been conducted to choose the appropriate model. It strongly supports the RE model.

The estimates are reported in Table 2. These show that there is no significant relationship between the turnover ratio and the shareholder protection index. We have re-run the regression with intercept and/or slope dummy for the developed countries (DC and SDC). None of the dummies is significant and the basic conclusion of no relationship between the turnover ratio and the shareholder protection index remains unaltered (in these cases also the RE model is found to be appropriate).

Instead of using binary dummy variable, DC, we have also considered the 1990-94 average per capita GDP (measured in internationally comparable purchasing power parity constant dollar), PCY90-94 (available from World Bank data on World Development Indicators), in the regression. Inclusion of this initial condition of high income (developed countries tend to have higher initial per capita income) in

our analysis does not tell a different story and it also does not have an effect on the turnover ratio.

It appears from our analysis that the shareholder protection law and stock market development as indicated by the turnover ratio are not related at the cross-country level – even across the developed countries (with more shareholder protection) covered in our sample. Our earlier time series analysis involving four developed countries (France, Germany, UK, USA) and India over a long span of time, 1970-2005 also observed the same thing for a more detailed dataset of shareholder protection laws (Fagernäs et al., 2007 and Sarkar, 2007).

Next we examine whether stock market developments as measured by the turnover ratio has any relationship with fixed capital formation - gross capital formation as percentage of GDP (GKFGDP). We replicate the earlier study with and without dummies for developed countries and the initial per capita GDP (PCY90-94). In each case the RE model is found to be the appropriate one. In no case do we get a significant relationship between the stock market developments and capital formation even after taking into account the development status of the countries and the initial per capita income (Table 3).

Conclusion

To sum up our study, the country-wise variation in shareholder protection has no relationship with the turnover ratio. It cannot be said that the countries belonging to this DC group having a higher shareholder protection tend to have a higher stock

market development. Nor can we say that a higher stock market development is associated with a higher rate of capital formation (GKFGDP). So our study contradicts the convention wisdom in this field (as reflected in Djankov et al., 2005)

As the data on shareholder protection is available only for a short period, 1995-2005, no time series study of individual countries is done. It is available for a long period 1970-2005 for five countries and these data are analysed elsewhere and these studies show (Fagernäs et al., 2005, Sarkar 2007) that shareholder protection does not have a positive long-term link with stock market development. It is also observed that stock market development has by and large no long-term positive relationship with capital accumulation for a number of less developed countries (Sarkar, 2006).

Table 1

Per Capita GDP, Capital Formation, Shareholder Protection and Stock Market Turnover Ratio: Selected Countries

(annual averages)

Countries	Per Capita GDP (Purchasing Power Parity Constant Dollar (1990-94)	GKFGDP (1995-2002)	Shareholder Protection Index[1] (1995-2005)	Turnover Ratio[2] (1995-2005)
Developed Countries				
Canada	23000	20.05	7.25	61
Japan	23900	26.58	7.16	66
UK	20300	17.23	6.75	77
France	22300	19.36	6.64	74
USA	29000	19.22	6.59	135
Spain	16300	23.89	5.07	159
Germany	23000	21.05	4.73	107
Italy	22200	19.46	4.49	92
Switzerland	28100	22.48	4.05	89
Less Developed Countries				
Malaysia	6340	31.52	6.05	39
China	1980	21.88	5.93	138
South Africa	9430	16.32	5.49	92

India	1760	22.96	5.35	140
Brazil	6490	21.12	4.89	47
Argentina	10400	16.96	3.91	19
Czechoslovakia	11700	22.00	3.48	53
Chile	6630	24.22	3.25	10
Latvia	6700	24.6	3.14	20[3]
Mexico	7760	22.76	2.67	30
Pakistan	1680	16.88	2.23	262

1 Legal scholars of Centre for Business Research (CBR), University of Cambridge have compiled a large time-series dataset on shareholder protection as a part of the ESRC project on Law, Finance and Development. For details of the construction of these leximetric data see Lele and Siems (2006). In these CBR data, originally 60 indicators of shareholder protection were considered and finally these were reduced to 10 important (judged by the legal scholars involved in the project) variables. We have derived the aggregate index of a particular country by adding each of the legal variables at a point of time (year). Then it is averaged over the period for which the data are available. For maximum protection the index would assume the value 10 (as 1 is the maximum value for each of the 10 indicators). So the lower the value the lower is the level of protection.

2 Value of Stock trade as percentage of real market capitalization.

3 Average of 1996-2005.

Sources: GKFGDP from World Bank World Development Indicators, Turnover Ratio from World Financial Market Dataset of World Bank and Shareholder Protection Index from the CBR project mentioned in the note 1 of this table.

Table 2

Shareholder Protection and Stock Market Development[1]:

Panel Data Analysis, 1995-2005

c	Shareholder Protection Index (SP)	Intercept Dummy for Developed Countries (DC) [2]	Slope Dummy for Developed Countries (SDCSP)	Initial Per Capita Income-log values (PCY90-94)	R-Sq	LM test statistic for RE Model[3]
-1.01**	0.09				0.06	491.85
-1.19**	0.06	0.7			0.17	436.94
-0.46	0.09			-0.06	0.07	483.46
-0.91*	-0.01	-0.31	0.19		0.12	412.23

* Significant at 5 per cent level.

** Significant at 1 per cent level.

1 As stock market development indicator, we have used stock market turnover ratio. Its log value is the dependent variable.

2 Intercept dummy, DC = 1 for developed countries and = 0 for less developed countries. Slope dummy, SDCSP = DC x SP.

3 The Breusch-Pagan Lagrange Multiplier (LM) test statistic. It supports the random-effect model (RE) model in every case.

Table 3

Stock Market Development and Capital Formation[1]:

Panel Data Analysis, 1995-2005

c	Turnover Ratio-log values (LTURN)	Intercept Dummy for Developed Countries (DC) [2]	Slope Dummy for Developed Countries (SDCTRN)	Initial Per Capita Income –log values (PCY90 -94)	R-Sq	LM test statistic for RE Model[3]
3.11**	0.02				0.01	381.57
3.17**	0.03	-0.12			0.08	361.54
3.17**	0.03	-0.13	-0.03		0.09	361.68
3.71**	0.02	-0.06		-0.06	0.08	370.79

* Significant at 5 per cent level.

** Significant at 1 per cent level.

1 Log value of gross fixed capital formation as percentage of GDP is the dependent variable.

2 Intercept dummy, DC = 1 for developed countries and = 0 for less developed countries. Slope dummy, SDCTRN = DC x LTURN.

3 The Breusch-Pagan Lagrange Multiplier (LM) test statistic. It supports the random-effect model (RE) model in every case.

Figure 1

Aggregate Shareholder Protection Index, 1995-2005:

Groups of 20 Countries

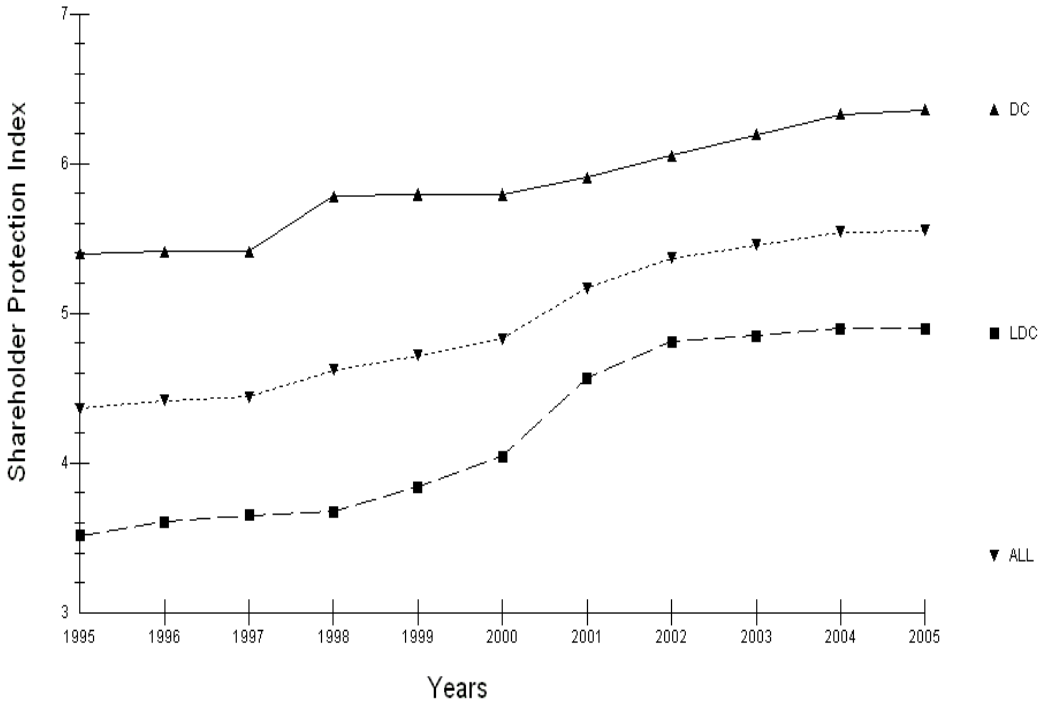
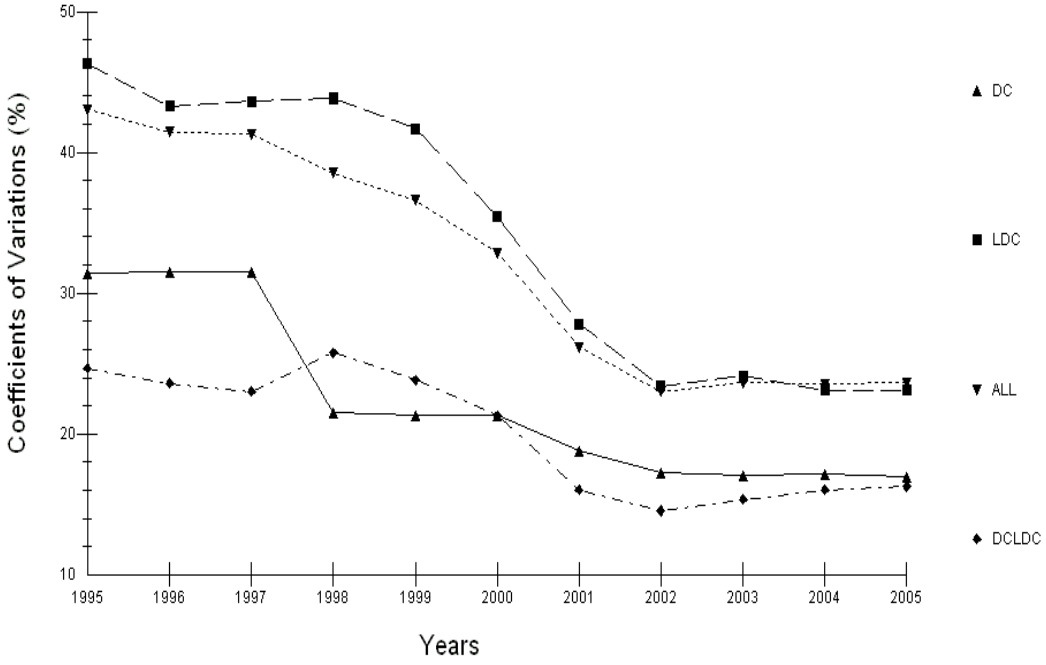


Figure 2

Variations in Shareholder Protection Index within and across the Different Groups of 20 Countries, 1995-2005



Appendix

Coding Shareholder Protection

Variables	Description
1. Powers of the general meeting for de facto changes[1]	If the sale of more than 50 % of the company's assets requires approval of the general meeting it equals 1; if the sale of more than 80 % of the assets requires approval it equals 0.5; otherwise 0.
2. Agenda setting power[2]	Equals 1 if shareholders who hold 1 % or less of the capital can put an item on the agenda; equals 0.5 if there is a hurdle of more than 1 % but not more than 5%; equals 0.25 if there is a hurdle of more than 5% but not more than 10 %; equals 0 otherwise. Please also indicate the exact percentage
3. Anticipation of shareholder decision facilitated[3]	Equals 1 if (1) postal voting is possible or (2) proxy solicitation with two-way voting proxy form[4] has to be provided by the company (i.e. the directors or managers); equals 0.5 if (1) postal voting is possible if provided in the articles or allowed by the directors, or (2) the company has to provide a two-way proxy form but not proxy solicitation; equals 0 otherwise.
4. Prohibition of multiple voting rights (super voting rights) [5]	Equals 1 if there is a prohibition of multiple voting rights; equals 2/3 if only companies which already have multiple voting rights can keep them; equals 1/3 if state approval is necessary; equals 0 otherwise.

5. Independent board members[6]	Equals 1 if at least half of the board members[7] must be independent; equals 0.5 if 25 % of them must be independent; [8]equals 0 otherwise
6. Feasibility of director's dismissal	Equals 0 if an important or good reason is required for the dismissal of directors; [9] equals 0.5 if there are no such requirements but the directors can claim for compensation on dismissal; equals 1 if dismissal of directors is easily feasible.
7. Private enforcement of directors duties (derivative suit, shareholder action) [10]	Equals 0 if this is typically excluded (e.g., because of strict subsidiarity requirement, hurdle which is at least 10 %; cost rules); equals 0.5 if there are some restrictions [e.g., certain percentage of share capital (unless the hurdle is at least 10 %); cost rules; demand requirement]; equals 1 if private enforcement of directors duties is readily possible.
8. Shareholder action against resolutions of the general meeting	Equals 1 if every shareholder can file a claim against a resolution by the general meeting; [11] equals 0.5 if there is a threshold of at least 10 % voting rights; equals 0 if this kind of shareholder action does not exist.
9. Mandatory bid[12]	Equals 1 if there is a mandatory public bid for the entirety of shares in case of purchase of 30% or 1/3 of the shares; equals 0.5 if the mandatory bid is triggered at a higher percentage (such as 40 or 50 %); further, it equals 0.5 if there is a mandatory bid but the bidder is only required to buy part of the shares; equals 0 if

	there is no mandatory bid at all.
10. Disclosure of major share ownership[13]	Equals 1 if shareholders who acquire at least 3 % of the companies capital have to disclose it; equals 0.75 if this concerns 5 % of the capital; equals 0.5 if this concerns 10 %; equals 0.25 if this concerns 25 %; equals 0 otherwise

1 Other powers of the general meeting (e.g. for amendments of the articles, mergers and division) are not included because they usually do not differ between countries.

[2] If the law of a country does not provide the right to put an item on the agenda of a general meeting (including annual general meeting), one may code the right to call an extraordinary general meeting provided the minority shareholders can utilize this right to discuss any agenda.

3 It is not enough that proxy voting is possible (which is the case in most countries).

4 A two-way proxy form refers to a form which can be used in favor and against a proposed resolution.

5 This may be regulated in securities law (including listing requirements).

6 This may be regulated in a corporate governance code.

7 It is to be noted: (1) in a two-tier system this concerns only member of the supervisory board (not the management board); (2) legal scholars involved in data compilation are only interested in the composition of boards, not in the independence of members of committees.

8 Other intermediate scores are also possible. They are calculated in the same way, i.e. *score = percentage of independent board members*/2; If the law requires a fixed number of independent directors (e.g., always 2 independent directors), the (estimated) average size of boards is used in order to calculate the score.

9 If the law of one country follows a two-tier-system, both the management and the supervisory board are considered.

10 Variables 7 and 8 only concern the law. The efficiency of courts in general are not considered while coding these variables.

11 The substantive requirements for a lawful decision of the general meeting are not coded.

12 This may be regulated in securities law or take over code/law.

13 This may be regulated in securities law.

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