Law, Development and Finance: Research Findings and Policy Applications

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Finding the Right Balance or Regulation for Economic Development: China and Western Regulatory Models

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Law as a barrier to development

- 'Despite well-known advantages, the legal system, as a monopolist institution, can be captured by interest groups and become a barrier to innovations. Moreover, in a dynamic environment alternative institutions can adapt and change much more quickly than when the law is used, as this process does not require persuading the legislature and the electorate to revise the law. We argue that in fast-growing economies and during early stages of economic growth, efficient alternative institutions are the main driver for finance, commerce and growth' (Franklin Allen, Q.J. Chan and Chenying Zhang, 2011).

Authoritarian alternatives

- In 'economically successful [developing] countries, the authoritarian regime managed a critical juncture in the country's development— entry into global commerce by the transition from smallscale, relational exchange, to exchange where performance is supported by government action, whether based on the potential for formal third party enforcement or by the threat of informal government sanctions. Compared to a weak democracy, a growth-favouring dictator may have an advantage in overcoming political economy obstacles to credibly committing that rent seeking will not dissipate private investment' (Ron Gilson and Curtis Milhaupt, 2011)

Sequencing effects

- 'legal protection is crucial to capital market development, but might not be necessary in the early stages. Informal mechanisms such as stock exchanges and investment bankers could foster capital markets to grow to a certain extent. But with the growth of the market, legal protection becomes necessary. In the absence of effective legal protection, informal enforcement mechanisms would incur substantial costs and endanger the sustained growth of the market in the long run'(Ding Chen, 2013)

Legal origin and growth

- Firms grow faster where they can access external finance (Levine, 1997)

- Thus legal origin theory supports the claims that (1) legal reform is a means of promoting financial and economic development, and that (2) common law systems are better placed than civil law ones to generate market-driven growth, underpinned by law

How law influences finance

- A higher level of shareholder protection in a given country is correlated with more dispersed share ownership, a larger listed company sector, and a higher ratio of stock market values to GDP (La Porta et al. 1998)

- 'Legal systems matter to corporate governance and... firms have to adapt to the limitations of the legal systems that they operate in' (ibid.)

- High scores on creditor protection index linked to growth of private (bank-based) credit: Djankov et al., 2007

- But, these findings mostly based on cross-sectional data and inadequate coding of laws

New evidence on law and financial development

- The datasets constructed by LLSV are deficient in presenting only a cross-sectional view of differences in the law across countries, as well as suffering from some coding errors

- The development of more recent, longitudinal datasets by the CBR (Cambridge Centre for Business Research) makes it possible to introduce time-series element into the analysis of law and financial development: http://www.cbr.cam.ac.uk/research/programme2/project2-20output.htm

- SPI, 25 countries, 1995-2005

Shareholder protection index

1. Powers of shareholder meeting
2. Agenda setting power
3. Proxy voting facilitated
4. One share one vote
5. Independent directors
6. Director dismissal
7. Derivative action
8. Action against majority shareholder
9. Mandatory bid
10. Block disclosure

Country-level data

|	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005
Var. 1	0	1	1	1	1	1	1	1	1	1	1
Var. 2	0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Var. 3	0	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Var. 4	1	1	1	1	1	1	1	1	1	1	1
Var. 5	0	0	0	0	0	0	0	0	0.6	0.6	0.6
Var. 6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Var. 7	0	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Var. 8	0	1	1	1	1	1	1	1	1	1	1
Var. 9	0	1	1	1	1	1	1	1	1	1	1
Var. 10	0	0.25	0.25	0.75	0.75	0.75	0.75	0.75	0.25	0.25	0.25
Russia	1.5	6.75	6.75	7.25	7.25	7.25	7.25	7.25	7.35	7.35	7.35

Country level trends
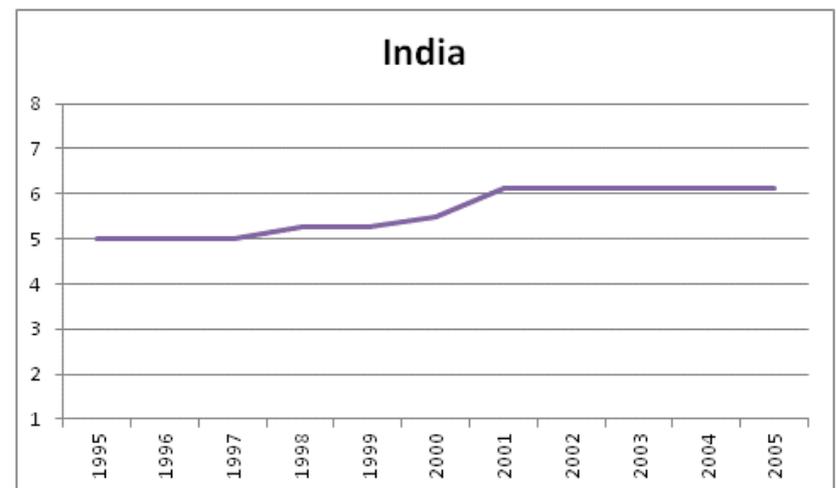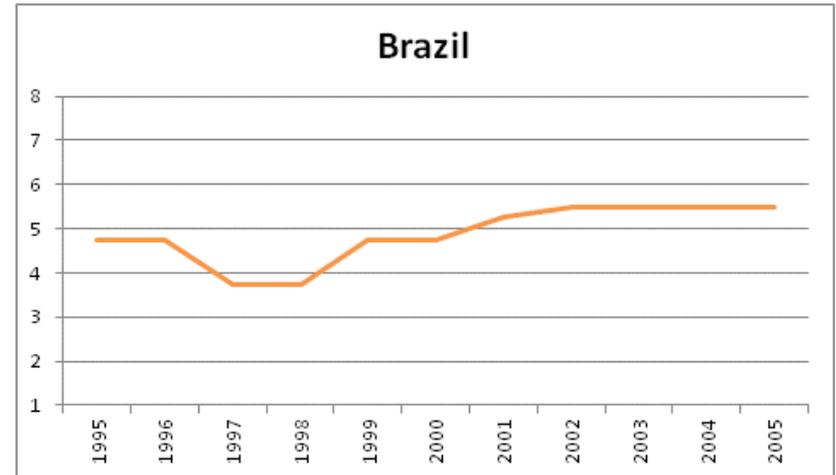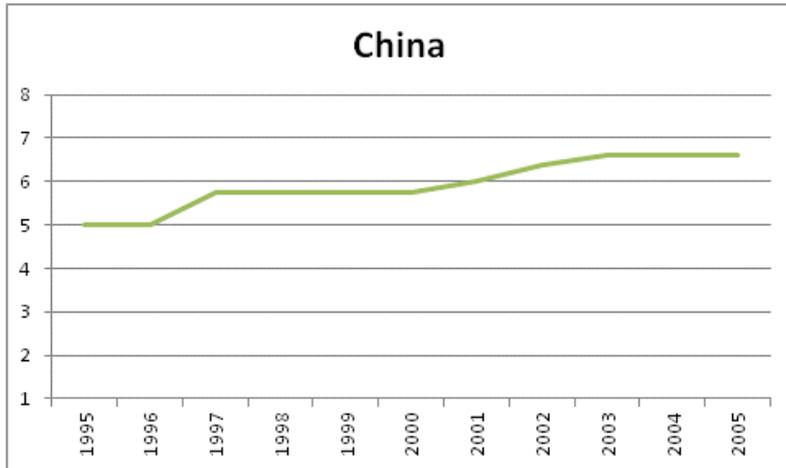
SPI by level of development
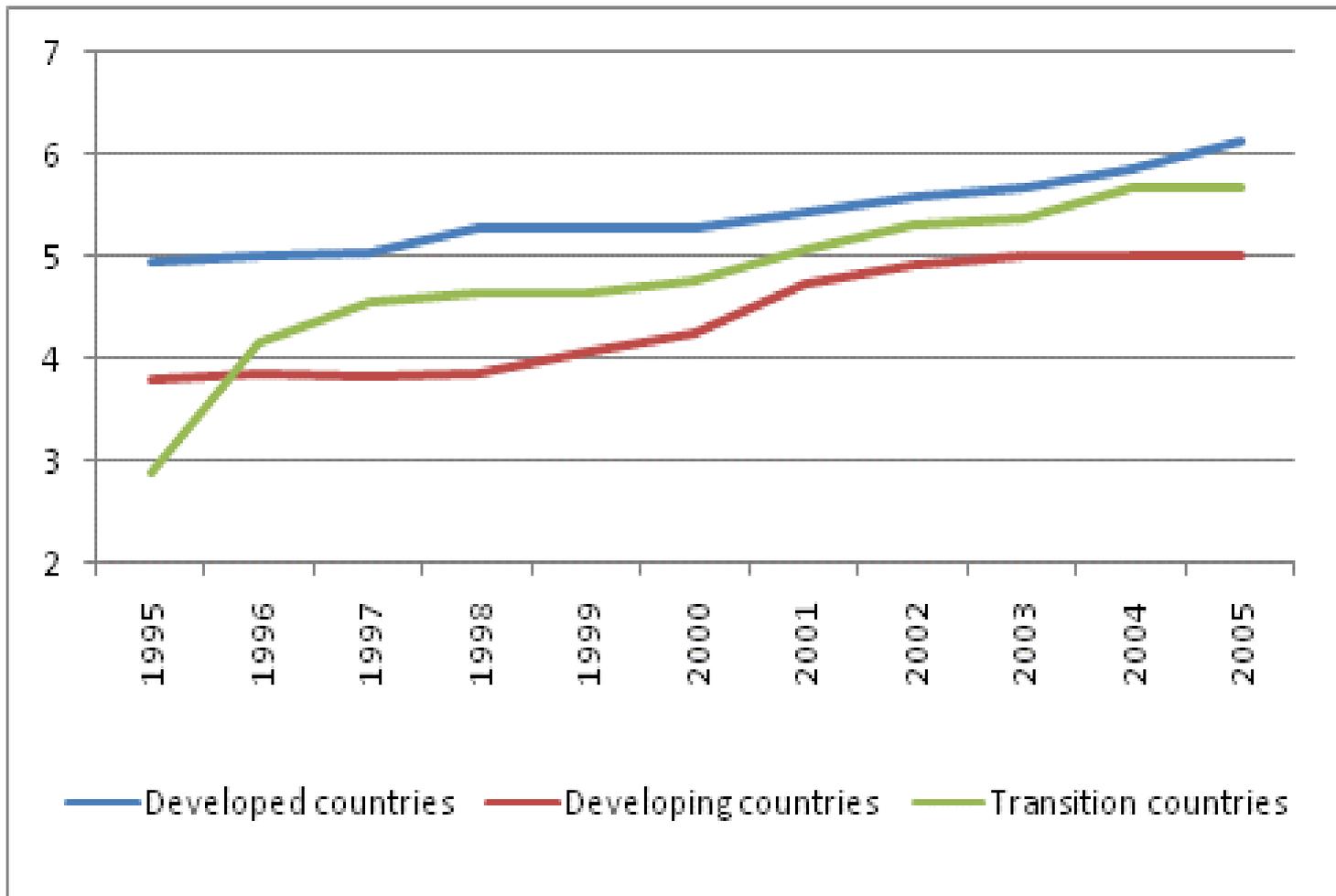
SPI by legal origin
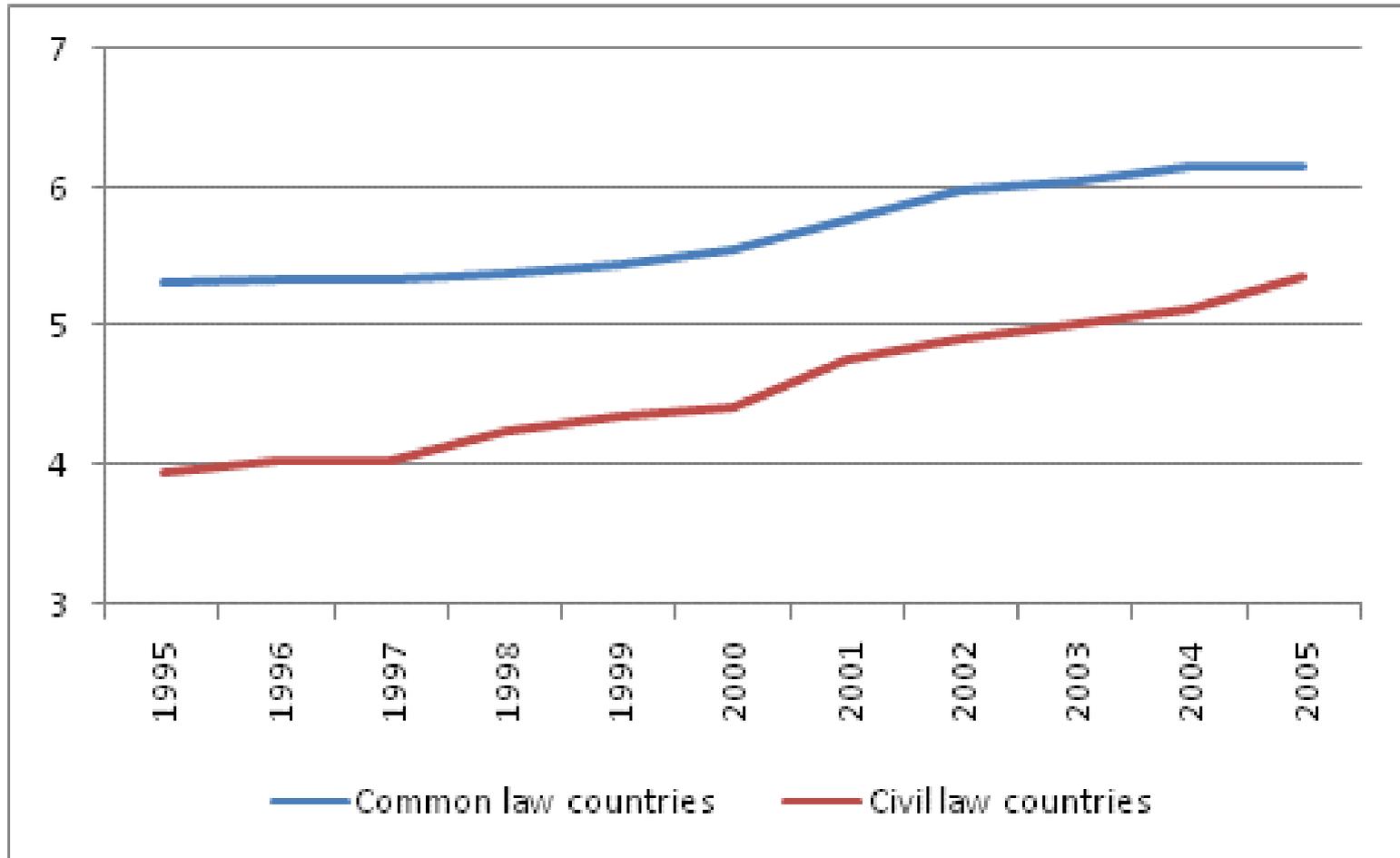
Change in indicators over time
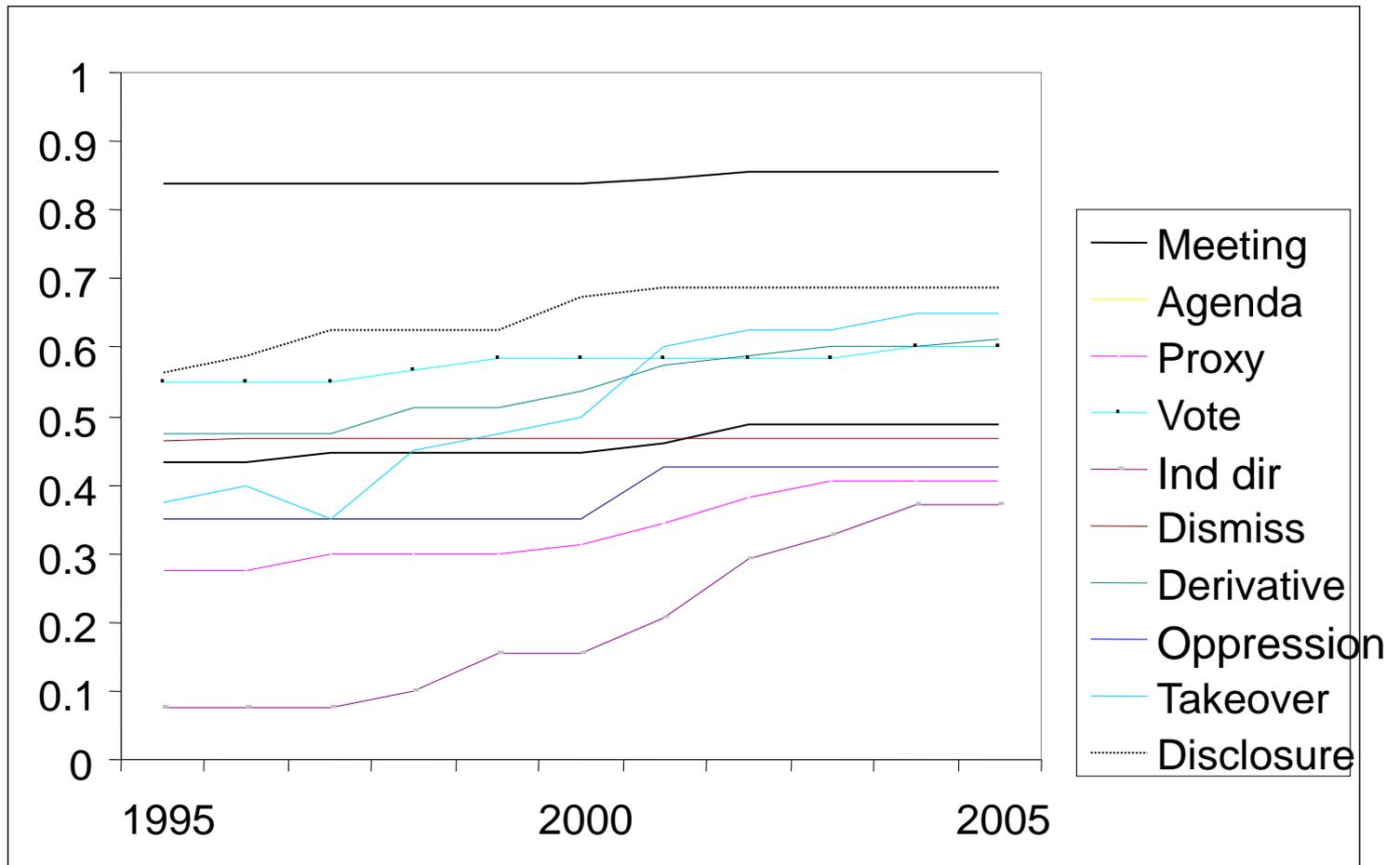
Econometric analysis

- Panel VAR Granger causality tests carried out to see whether changes in the SPI or CPI cause or are caused by financial development (as measured by stock market capitalisation/turnover and bank credit respectively), after controlling for rule of law, GDP level

- Panel data estimation (GMM) technique used to clarify the nature of impacts (positive or negative)

Model

$$p \qquad\qquad q \qquad\qquad r$$

$$(1) \quad X_{it} = \Sigma \lambda_j \, X_{i,\,t-j} + \Sigma \psi_k \, Y_{i,\,t-k} + \Sigma \pi_j \, Z_{i,\,t-l} + \alpha + \beta.RULE_{it} + \gamma.DOT_t + \varepsilon_{it}$$

$$j = 1 \qquad\qquad k = 1 \qquad\qquad l = 1$$

where Y is GDP per capita (in natural log), LPCY, RULE is the rule of law index, DOT is a dummy for dotcom bubble which takes the value zero for 1995-2000 and 1 for the period, 2001-2005, a is the fixed effect common across the panels and e_{it} is the error term varying across time and panels. To choose the lags (p, q and r in the regression model) which indicate how many past years are to be considered, a number of possible approaches available (such as the sequential modified LR test statistic (LRM), the final prediction error approach (FPE), the Akaike information criterion (AIC), the Schwarz information criterion (SC), and the Hannan-Quinn information criterion (HQ)). Different criteria often choose different lag lengths and we have considered the maximum lag length. Similarly, to test whether X causes Z we interchange the position of X and Z in the above equation.

Main finding

- No evidence of law influencing financial development (or vice versa) for sample as a whole, but there are impacts if the sample is split by reference to level of development and legal origin

Effects by level of development and legal origin

- Increased shareholder protection linked to stock market *growth* in developing countries
- But, increased shareholder protection linked to stock market *bubbles* in developed, common law countries

Table 1. Relationship between Shareholder and Creditor Protection and Financial Development, 1995-2005: Panel VAR Granger Causality Tests. Table 1c. Developing countries

Dependent variable: financial indicator	Excluded variable: legal index	Chi-square	Dependent variable: legal index	Excluded variable: financial indicator	Chi-square
marketcap lag =3	SPI	8.9586*	SPI	*marketcap*	4.8162
sharestraded lag = 5	SPI	4.5469	SPI	*sharestraded*	14.2443*
turnoverratio lag = 2	SPI	1.4009	SPI	*turnoverratio*	0.9437
listed lag = 2	SPI	0.7572	SPI	*listed*	0.8878
bankcredit lag = 5	CPI	6.8047	CPI	*bankcredit*	1.9443
privcredit lag = 5	CPI	8.6555	CPI	*privcredit*	26.8424*

Table 1d. Transition countries

Dependent variable: financial indicator	Excluded variable: legal index	Chi-square	Dependent variable: legal index	Excluded variable: financial indicator	Chi-square
marketcap lag = 4	SPI	2.0098	SPI	*marketcap*	6.0362
sharestraded lag = 5	SPI	6.4195	SPI	*sharestraded*	4.9790
turnoverratio lag = 4	SPI	6.5939	SPI	*turnoverratio*	7.1069
listed lag = 5	SPI	4.1690	SPI	*listed*	24.2963*
bankcredit lag = 5	CPI	11.3119*	CPI	*bankcredit*	5.9692
privcredit lag = 4	CPI	5.0256	CP1	*privcredit*	2.9792

Table 1e. Common law countries

Dependent variable: financial indicator	Excluded variable: legal index	Chi-square	Dependent variable: legal index	Excluded variable: financial indicator	Chi-square
marketcap lag = 5	SPI	16.6203*	SPI	*marketcap*	0.8783
sharestraded lag = 5	SPI	16.2740*	SPI	*sharestraded*	5.6352
turnoverratio lag = 2	SPI	8.7912*	SPI	*turnoverratio*	1.2399
listed lag = 2	SPI	0.1205	SPI	*listed*	0.9630
bankcredit lag = 2	CPI	4.4378	CPI	*bankcredit*	11.7242*
privcredit lag = 4	CPI	3.2676	CP1	*privcredit*	9.0261

Table 2. Relationship between Shareholder and Creditor Protection and Financial Development Indicators: Panel-data Estimation using the GMM Technique.

Table 2a. Dependent variable: stock market capitalization as a proportion of GDP (marketcap)

Independent variable	Common law countries	Developing countries
SPI	0.333***	0.301***
	(0.107)	(0.075)
GDP per capita (*gdppercap*)	0.222***	0.348**
	(0.123)	(0.139)
dotcom dummy (*dot*)	-0.171	0.019
	(-0.198)	(0.184)
intercept (a)	0.558	-0.699
	(0.814)	(1.281)
R^2	0.659	0.329

Table 2c Dependent variable: turnover ratio (turnoverratio)

Independent variable	Common law countries
SPI	-0.359**
	(0.144)
GDP per capita (*gdppercap*)	0.246
	(0.229)
dotcom dummy (*dot*)	0.585**
	(0.236)
intercept (a)	3.385
	(1.446)
R^2	0.227

Conclusions

- *A priori* indeterminacy of legal change in driving economic outcomes
- Formal, but not functional convergence
- Failure of transplanted laws to bed down in the civil law
- Negative effects (bubbles) of shareholder protection in the developed common law world
- But, some evidence of beneficial impacts of legally-driven shareholder protection in the developing world
- Some support for 'sequencing' hypothesis