Columbia Business School

How Collateral Laws Shape Lending and Sectoral Activity

Charles Calomiris

Mauricio Larrain

Jose Liberti

Jason Sturgess

Motivation

- Access to credit is limited in emerging markets
- Lack of sufficient collateral restricts credit
- Banks in emerging markets usually accept real estate as collateral, rarely machinery, inventory, etc.

Motivation

REPORT ON OBSERVANCE OF STANDARDS & CODES

CHILE

INSOLVENCY AND CREDITOR RIGHTS SYSTEMS

Prepared by a staff team[1] from the World Bank on the basis of information provided by the Chilean authorities

Executive Summary

The legal and institutional framework governing creditor rights and insolvency proceedings in Chile reasonably complies with expectations of a modern, credit-based economy, although some shortcomings affect the full effectiveness of credit risk management and resolution. Financial institutions over-rely on real estate as collateral. Pledges are not enough developed because legislation on secured interests over movable assets is fragmented and the publicity and registration mechanism for pledges are not sufficiently reliable. Individual enforcement proceedings are lengthy and complicated, both for secured and unsecured creditors. Enforcement proceedings using executory instruments take 1 to 3 years, whereas creditors not enjoying such instruments should utilize ordinary proceedings whose duration is even longer (3 to 5 years).

Movable Collateral Laws

- Root of problem lies on collateral laws: immovable versus movable assets
- Laws regarding movable assets are weak*:* restrict use of movables as collateral
- Reduces the debt capacity of movable assets
- Shrinks menu of external financing options

This Paper

- GlobalBank proprietary data, secured lending program in 12 emerging markets. Unique feature: liquidation value of collateral

- Calculate loan-to-value ratio for each loan: measure debt capacity of assets

$$B \leq \theta * qK$$

- Analysis of GlobalBank lending standards across assets and countries

Main Findings

1. Frequency of movable-backed loans is lower in weak-law countries
2. LTV movable-backed loans is lower than LTV of immovable-backed loans in all countries
3. Difference between LTV immovables and movables is higher in weak-law countries
4. Difference between LTV immovables and movables decreases after collateral reform in Slovakia
5. Suggestive evidence that weak laws tilt production towards immovable-intensive sectors

* Creation
* Perfection
* Enforcement

1. Law allows for non-possessory security interests over movable assets
2. Can grant non-possessory security interest in substantially all movable assets, without specific description of the collateral
3. A security interest may be given over future assets and may extend automatically to the replacements of the original assets
4. General description of debts and obligations permitted in collateral agreements

Creation

5. Secured creditors are paid first when a debtor defaults outside an insolvency procedure
6. An electronic collateral registry for security rights over movable property exists, unified geographically and by asset type

Perfection

7. The law allows parties to agree in a collateral agreement that the lender may enforce its security right out of court

Enforcement

Movable Collateral Law Index

Movable collateral law index: sum of 7 scores in 2002-2004

	Movable Law Index
Chile	2
Czech Republic	4
Hong Kong	7
Hungary	5
India	4
Malaysia	7
Pakistan	4
Romania	5
Singapore	7
Slovakia	4
Sri Lanka	1
Turkey	2

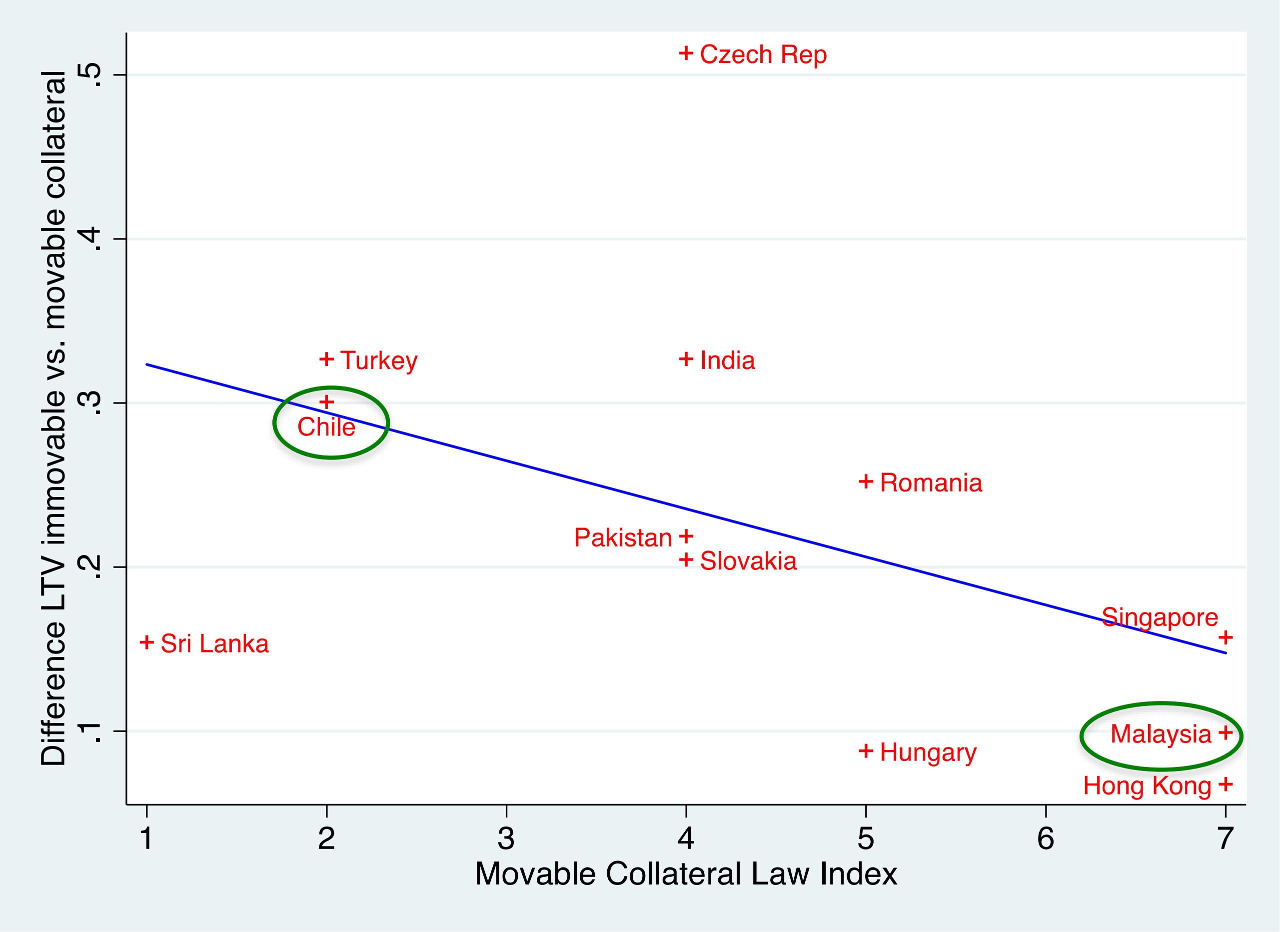
GlobalBank Data

- Data available for 2002-2004, 12 emerging markets. Cross-sectional analysis: one loan per firm
- Immovable: real estate; Movable: machinery, inventory, AR
- Liquidation value: independent appraiser determines price that informed buyer would pay, without hurry
- 4,224 loans: 1,128 backed by movables; 3,096 by immovables

Loan-to-Value by Collateral Type

	(1)	(2)	(3)
Collateral =	Immovable Assets	Movable Assets	Difference Immovable - Movable Assets
Chile	0.783	0.482	0.301
Czech Republic	0.784	0.271	0.513
Hong Kong	0.928	0.861	0.068
Hungary	0.902	0.814	0.088
India	0.833	0.506	0.327
Malaysia	0.840	0.741	0.099
Pakistan	0.838	0.619	0.219
Romania	0.877	0.625	0.252
Singapore	0.894	0.737	0.157
Slovakia	0.876	0.672	0.204
Sri Lanka	0.899	0.745	0.154
Turkey	0.804	0.477	0.327

Collateral Laws and Loan-to-Values



Differences in Loan-to-Values

Loan-to-Value	Immovable Assets	Movable Assets	Difference
Weak-law countries	0.817	0.454	$\boxed{0.363}$
Strong-law countries			
Difference-in-differences			

Slovakia Collateral Reform

The Economist   World politics   Business & finance   Economics
Blogs   Debate   Multimedia   Print edition

Secured lending

Slovak solution

Why Slovakia has the world's best rules on collateral

Jan 23rd 2003 | From the print edition

WHO would have imagined that Slovakia is at the forefront of reforms to simplify lending to companies that are short of cash? Its new rules governing how companies big and small can offer collateral to secure loans came into force on January 1st. In a few years, say people familiar with the reforms, Slovakia has set up a better system than those that have taken centuries to evolve in western countries.

* Creation
* Perfection
* Enforcement

Changes in Loan-to-Values

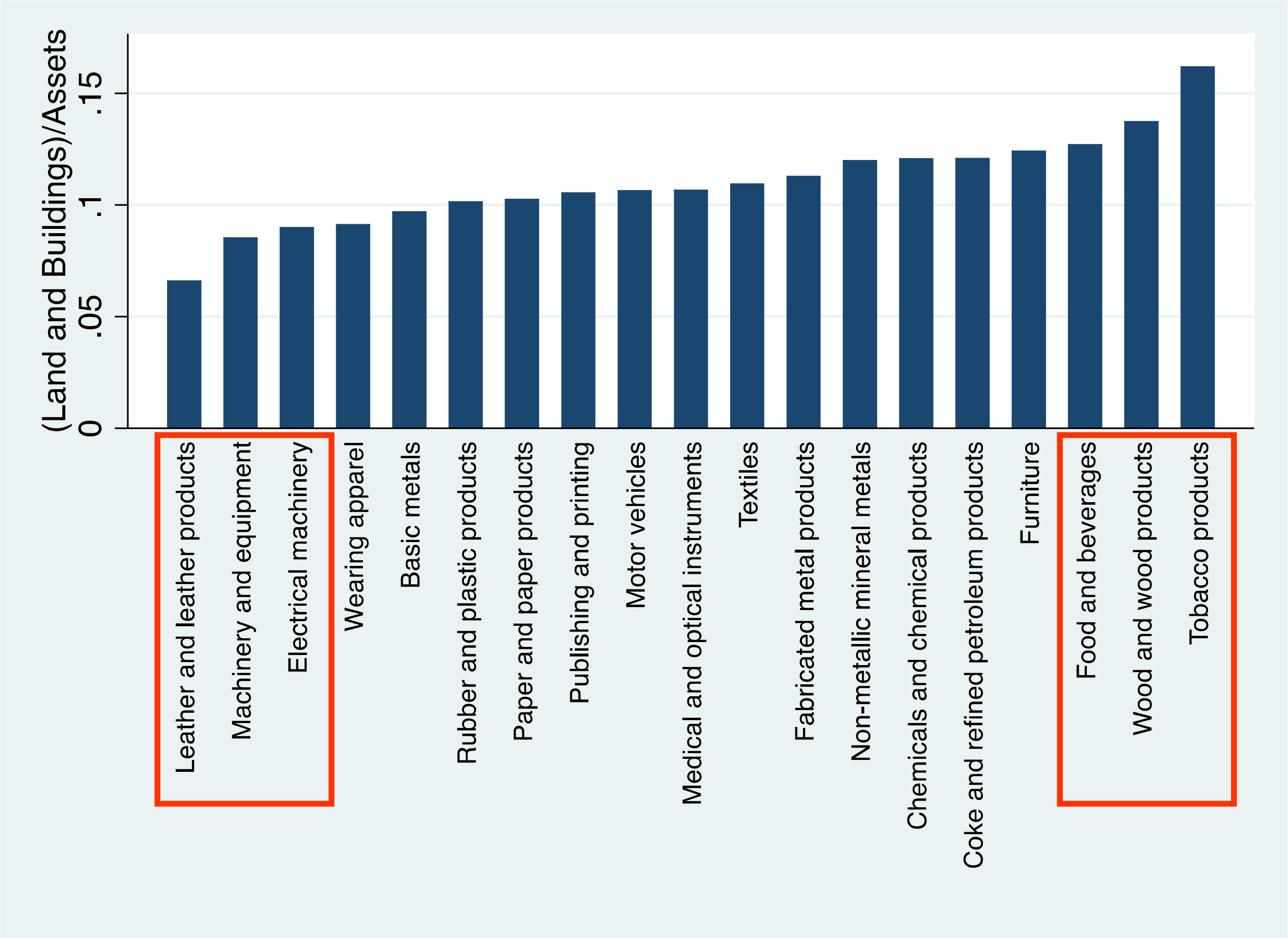
Loan-to-Value	Immovable Assets	Movable Assets	Difference
Pre-reform	0.876	0.672	$\boxed{0.204}$
Post-reform			
Difference-in-differences			

Effects on Real Economic Activity

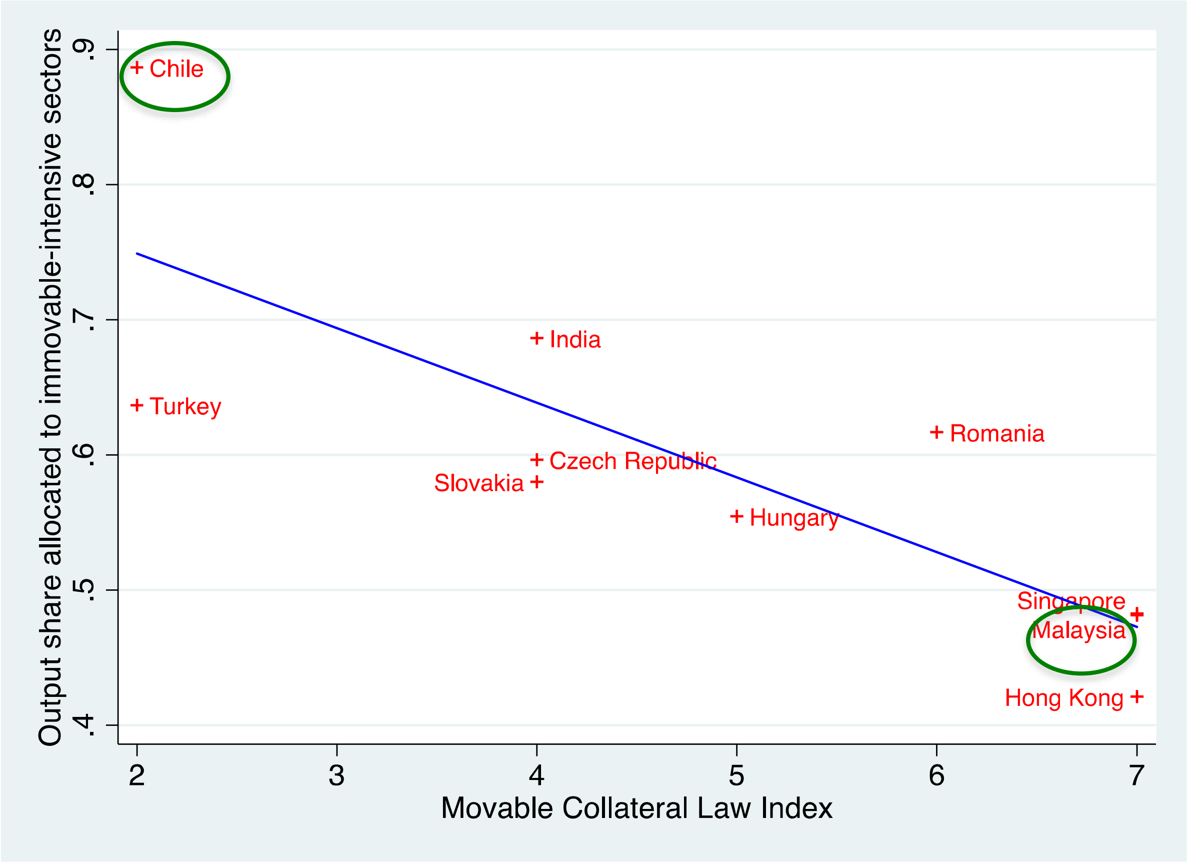
- UNIDO: sector-level data on output and investment for 22 two-digit manufacturing sectors
- Data available for 2002-2004, covering all firms
- Some sectors in the economy are naturally more intensive in real estate than others
- Do weak-law countries invest more in real estate-intensive sectors?

Sectoral Index of Immovable Intensity

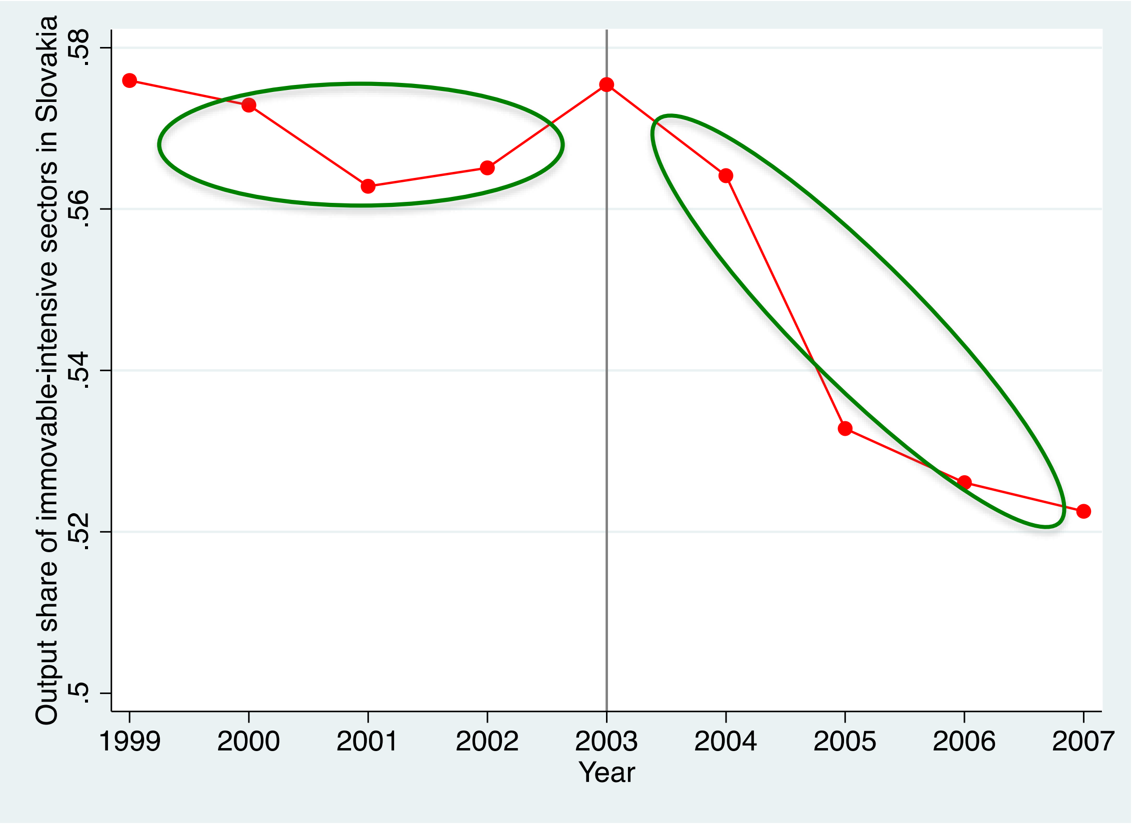
Median of (Land & Buildings)/Assets across publicly traded U.S. firms in each sector



Collateral Laws and Sectoral Allocation



Sectoral Allocation in Slovakia



Concluding Remarks

- Movable assets are important source of collateral

- Weak movable collateral laws prevent use of movables as collateral -> reduces debt capacity of movables

- Show GlobalBank lends less against movable assets in weak-law countries

- Movable collateral reforms can increase access to credit and potentially improve economic efficiency

Obrigado!