Bankruptcy law, bank liquidations and the case of Brazil

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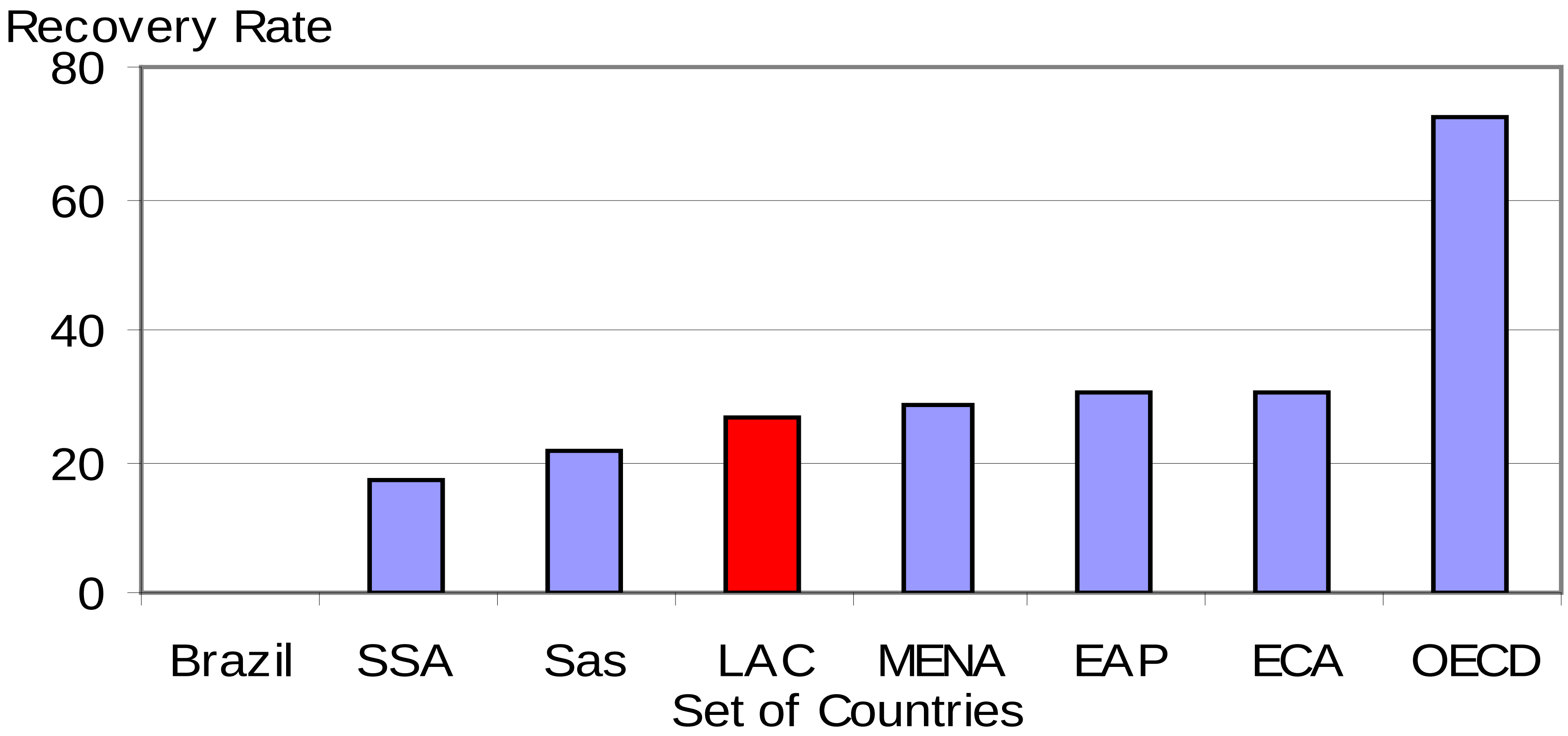
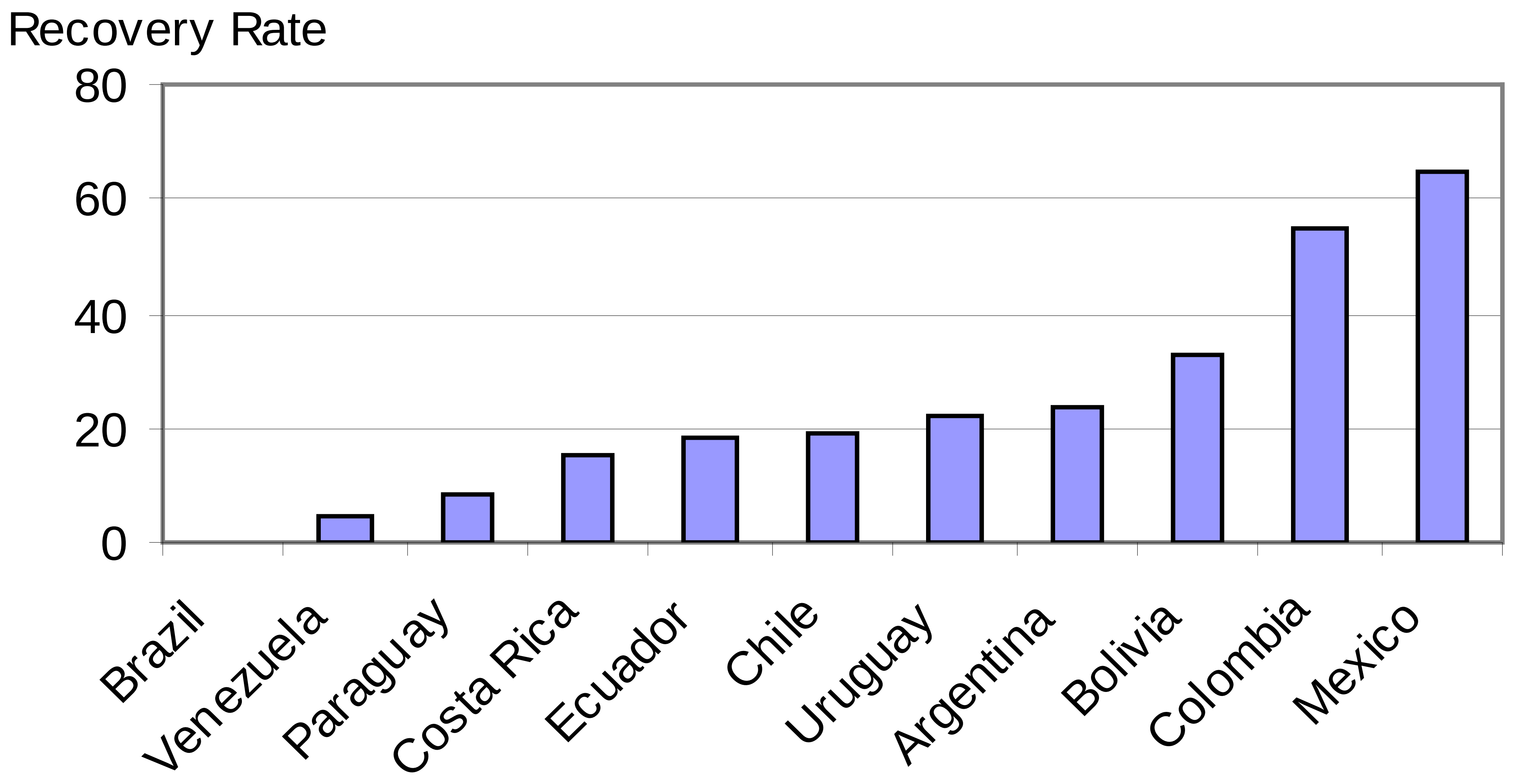
Description of the talk

- A. Corporate bankruptcy law reform in Brazil
- How bad is Chapter 11?
- C. Bankruptcy law for banks

A. Corporate bankruptcy law reform in Brazil

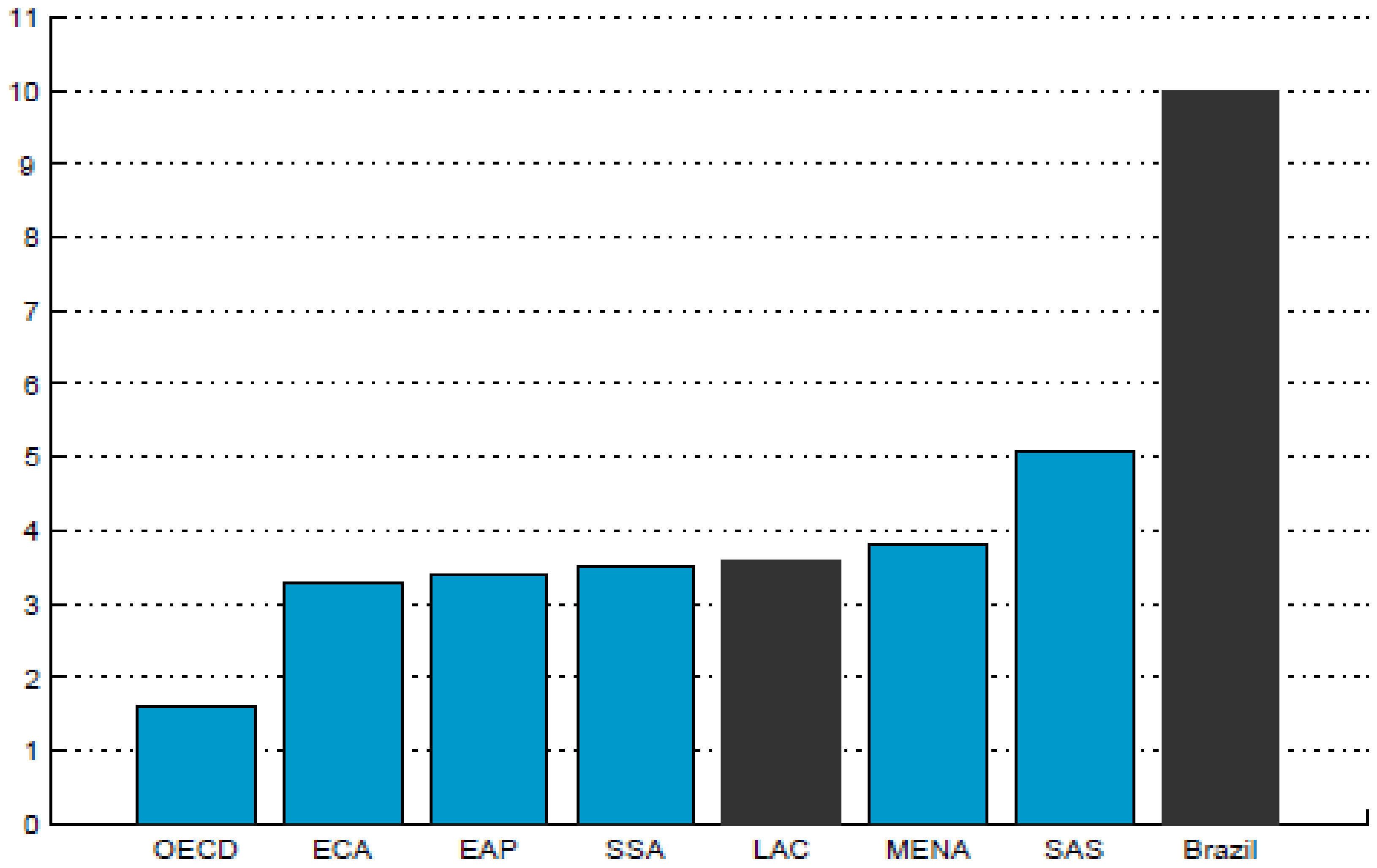
Creditors' Recovery Rate in case of bankruptcy





Recovery Rate
80
60
40
20
0
Brazil
Venezuela
Paraguay
Costa Rica
Ecuador
Chile
Uruguay
Argentina
Bolivia
Colombia
Mexico

Figure: Average length of insolvency procedures (2004)



Main changes brought by the Bankruptcy Reform (1)

- 1. Secured creditors are now given priority over tax credits;
- 2. Labor claims are limited to 150 times the minimum wage;
- 3. The insolvent firm can be sold (preferably as a whole) before the creditors' list is formed;

Main changes brought by the Bankruptcy Reform (2)

- Automatic stay period;
- 5. Only creditors holding claims higher than 40 minimum monthly wages can start a bankruptcy procedure;
- 6. Tax, labor and other liabilities are no longer transferred to the buyer of a liquidated asset (succession problem)

Main changes brought by the Bankruptcy Reform (3)

- 7. Any new credit extended to the firm during reorganization is given first priority in case of liquidation.

- 8. Creditors now play a more important role in reorganization, different from the *concordata*

- 9. Pre-package provision

Figure 2-A: Liquidation Requests before and after the Reform

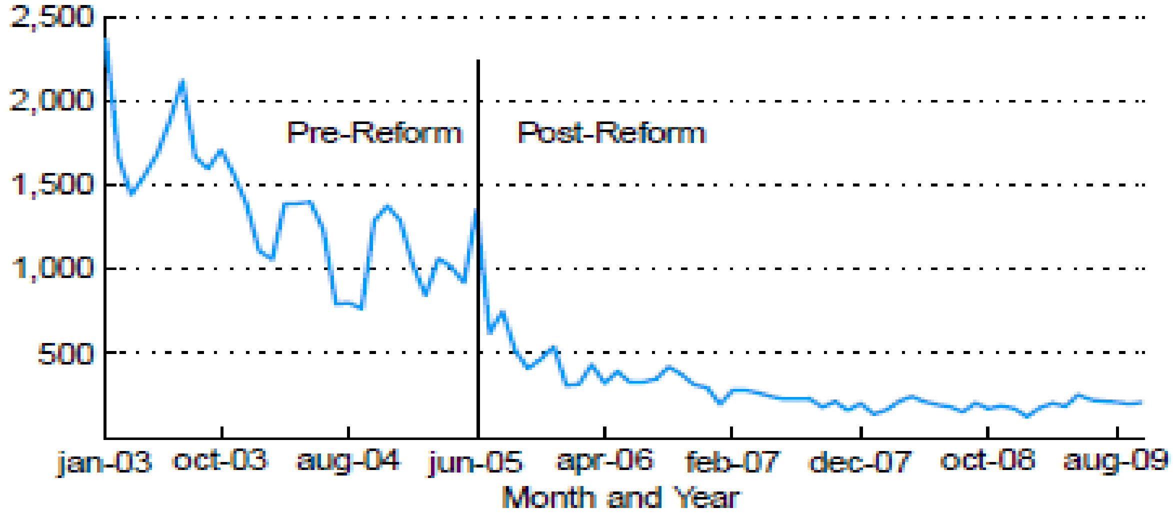


Figure 2-B: Reorganization Requests before and after the Reform

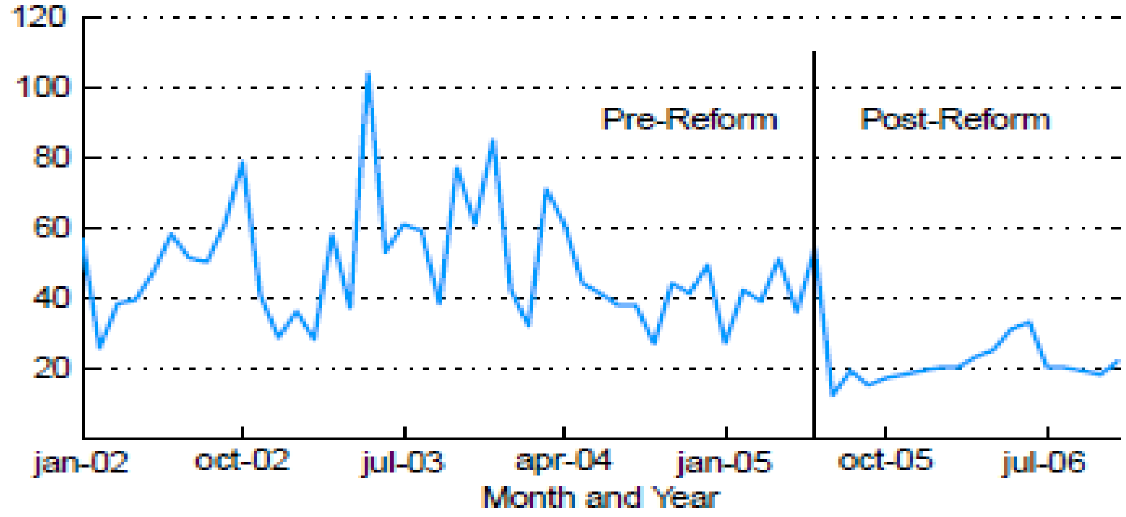
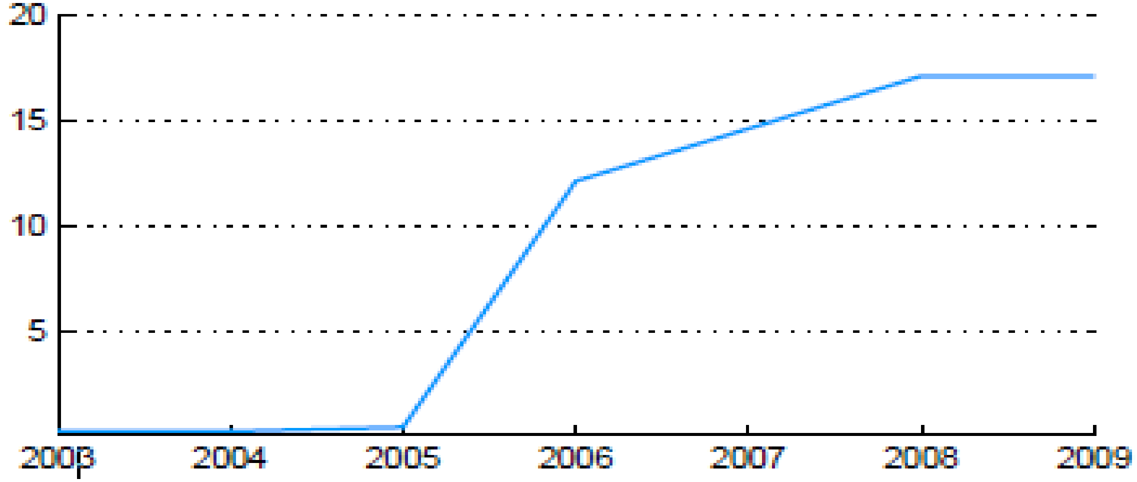
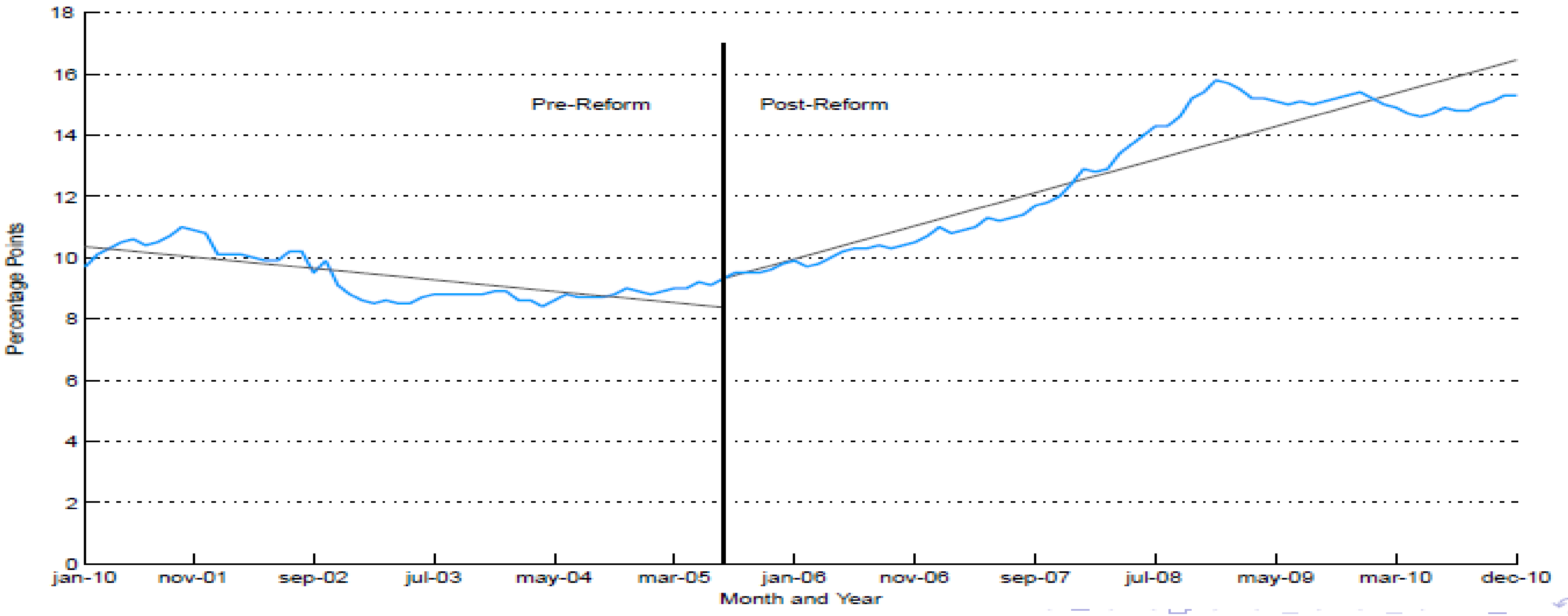


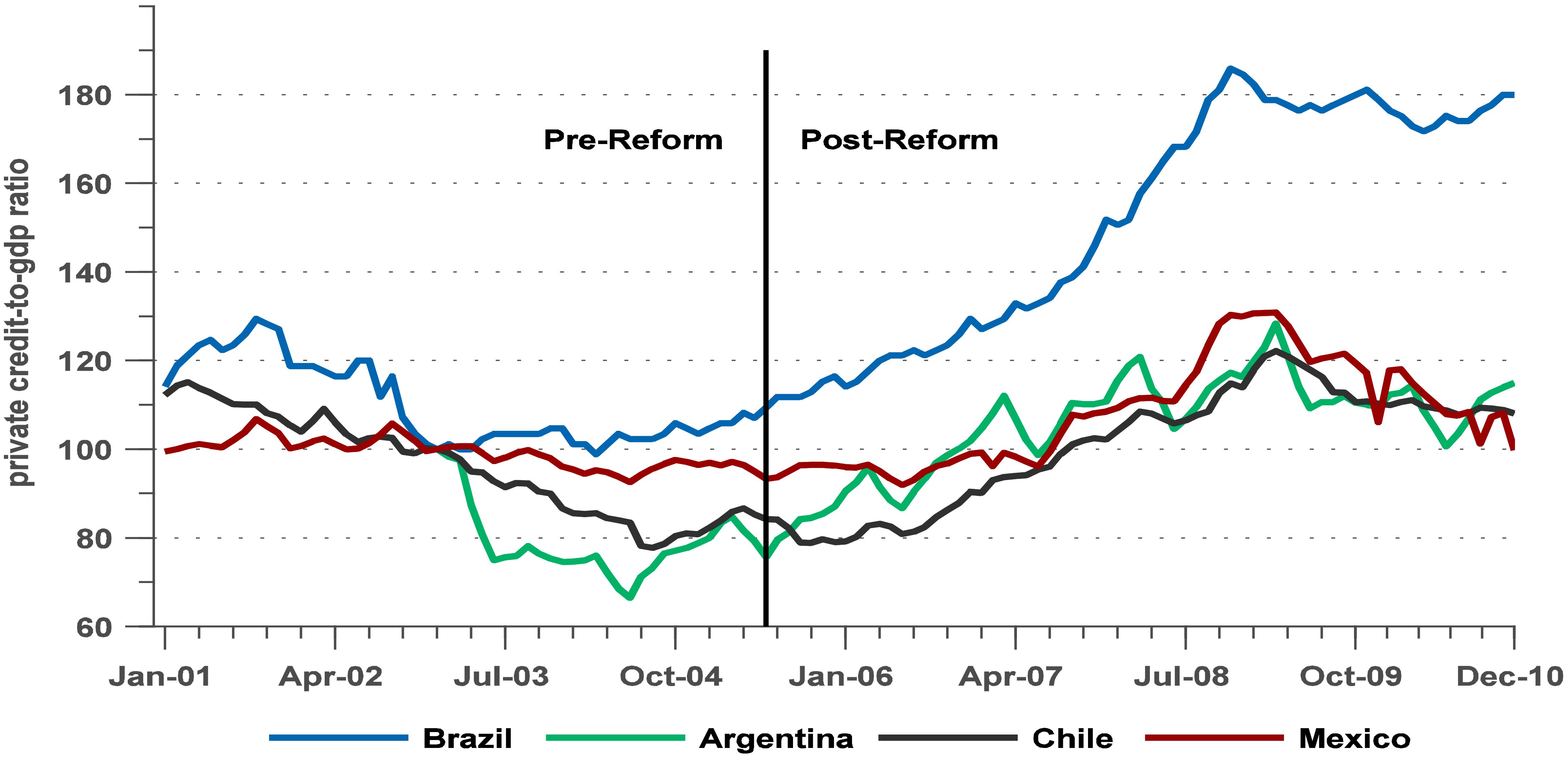
Figure 2-D: Creditors Recovery Rate



Private Credit to Firms to GDP ratio



Private Credit to Firms to GDP ratio



Other consequences of the bankruptcy reform

- Average time to resolve insolvency drop from 10 to 4 years;
- Increase in the total debt (also found in micro data);
- Decrease in the cost of debt;
- Increase in the average maturity of credit;
- More credit to riskier firms;

Other Financial Reforms

- Consumer credit (payroll loans)
- Mortgage (new type of leasing)

Reasons for Chapter 11

- In Brazil we introduce Chapter 11 also for political reasons. Congress wanted to save firms. Otherwise the law would be difficult to pass.

- Credit reform that were too pro creditor did not work in Latin America.

Reasons for Chapter 11

- Mexico judiciary rejected a law that was too pro-creditor, and a bureaucratic law that included the visitadores and conciliadores was created.

- Argentina during the 2002 crisis , banks were taking over too many firms. Congress changed the law that had provisions of passing the firms in distress automatically to banks.

Reasons for Chapter 11

- Lesson: Congress and Judiciary think there are residual property rights of owner of the firm in case of distress.

- Chapter 11 provides an organized way of taking care of it.

B. How bad is Chapter 11?

Araujo and Funchal (2005)

- The usefulness of Chapter 11 depends on the characteristics of the economy such as:
  - Structure of the productive sector:
    - physical capital vs. variable inputs (like materials)
  - Cost of liquidation (Chapter 7) vs. cost of reorganization (Chapter 11)

Cost of Bankruptcy

- Chapter 11: higher recovery rates and better preservations of the firm’s value;

- Pre-packaged reorganizations: lower costs;

- Bris et al (2006): Chapter 7 takes almost as long to resolve, requires similar fees and provides creditors with lower recovery rates (often zero) than a comparable Chapter 11 procedure.

Theoretical Framework

- General Equilibrium model with incomplete markets and bankruptcy.

- Three agents:
  - Managers;
  - Secured creditors finance the fixed inputs;
  - Unsecured creditors sell the variable input.

- Two states of nature (solvency and insolvency);
- Two periods;
- One good;
- Two assets.

Pro-Reorganization Bankruptcy Law

- Automatic stay.
- Managers have the right to choose between liquidation and reorganization.
- Empirical Evidence:
  - UK: only 20% of bankrupted firms do not go to liquidation (no automatic stay);
  - Germany: less than 1% (no automatic stay);
  - US: more than 85% goes to reorganization (automatic stay).

Simulation Results

- **For sectors intensive in physical capital the best procedure is pro-liquidation**, since it permits secured creditors to recover their claims immediately, making the cost of capital lower;
- **For sectors intensive in variable input the best procedure is pro-reorganization**, since it gives trade creditors another chance to recover their credit, making the cost lower;
- For extremely high levels of liquidation costs the best procedure is pro-reorganization, independent of the physical capital proportion.

The Optimal Bankruptcy Law (to 44 countries)

Empirical hypotheses:

1. we use the estimated value of the bankruptcy cost for the U.S. (Bris et al. (2006): (cost of reorganization, cost of liquidation)= (0, 0.58)
2. we use the U.S. sectorial spent share of materials and physical capital to calibrate the proportion of physical capital and variable input. (source: NBER-CES Manufacturing Industry Database)

   Using data from U.S. industry sector (that we interpret as industry representative) we hope to identify the technical component - common to the industry in every country - of industry physical capital intensity.

To analyze the optimal bankruptcy law for each country we use the following method:

- first, we calculate the value added share of each industry sector for each country (to infer the size of each sector),
- then we sum the share of each sector that should have a pro-liquidation (or pro-reorganization) procedure.
- If the share of the pro-liquidation sectors is bigger than 50%, then the best for the country is a pro-liquidation bankruptcy law, otherwise the best is a pro-reorganization bankruptcy law.

Main Results:

- 27 in a sample of 44 countries (or approximately 61%) apply a procedure aligned with our suggestions.
- Approximately 80% of the countries (35 out of 44) should apply a pro-reorganization bankruptcy law.
- Managers always put a higher proportion of their capital when reorganization is available.

- The result depends on our hypothesis of bankruptcy costs, which we assume to be equal to the U.S.

- For countries with lower bankruptcy-liquidation costs (as Sweden) the result should move toward the pro-liquidation procedure.

- For countries with higher costs of liquidation (like Brazil and other developing countries) the result should move toward the pro-reorganization procedure.

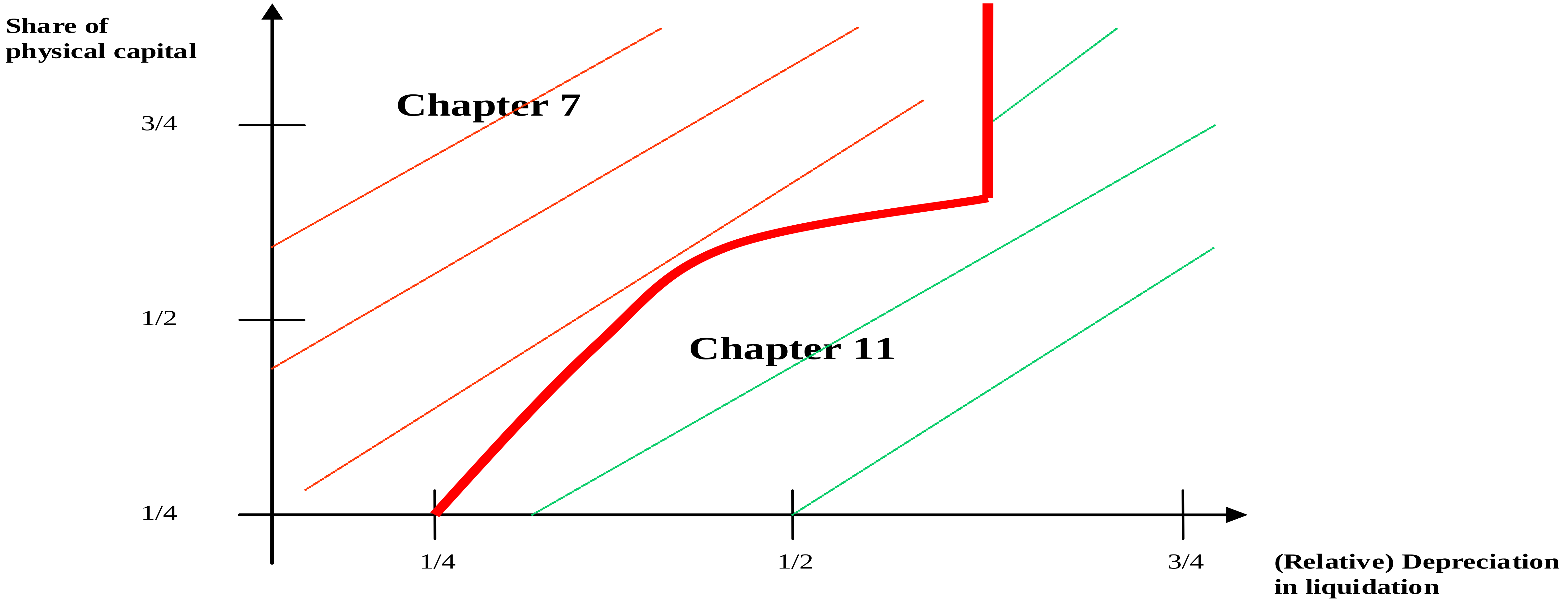

Share of
physical capital
3/4
1/2
1/4
Chapter 7
Chapter 11
1/4
1/2
3/4
(Relative) Depreciation
in liquidation

Table 1: Bankruptcy Law Analysis

Countries	Optimal Bankruptcy	Current Bankruptcy Law	Proposed Changes
Australia	pro-reorganization	pro-liquidation	auto stay
Austria	pro-reorganization	pro-liquidation	auto stay
Bangladesh	pro-reorganization	pro-reorganization	none
Belgium	pro-reorganization	pro-reorganization	none
Brazil	pro-reorganization	pro-reorganization	none
Canada	pro-reorganization	pro-reorganization	none
Chile	pro-reorganization	pro-liquidation	auto stay
Colombia	pro-reorganization	pro-reorganization	none
Costa Rica	pro-reorganization	pro-reorganization	none
Denmark	pro-reorganization	pro-liquidation	auto stay
Egypt	pro-reorganization	pro-reorganization	none
Finland	pro-reorganization	pro-reorganization	none
France	pro-reorganization	pro-reorganization	none
Greece	pro-reorganization	pro-reorganization	none
India	pro-reorganization	pro-reorganization	none
Indonesia	pro-reorganization	pro-reorganization	none
Israel	pro-liquidation	pro-liquidation	restrictions on entering
Italy	pro-reorganization	pro-reorganization	none
Jamaica	pro-reorganization	pro-liquidation	auto stay
Japan	pro-liquidation	pro-reorganization	no auto stay and restr. on entering
Jordan	pro-reorganization	pro-reorganization	none

Kenya	pro-reorganization	pro-liquidation	auto stay
Korea	pro-liquidation	pro-liquidation (no restr.)	restrictions on entering
Malaysia	pro-liquidation	pro-liquidation	none
Mexico	pro-reorganization	pro-reorganization	none
Morocco	pro-liquidation	pro-reorganization	no auto stay and restr. on entering
Netherlands	pro-reorganization	pro-liquidation	auto stay
New Zealand	pro-reorganization	pro-liquidation	auto stay
Nigeria	pro-liquidation	pro-liquidation	none
Norway	pro-reorganization	pro-reorganization	none
Pakistan	pro-reorganization	pro-reorganization	none
Peru	pro-reorganization	pro-reorganization	none
Philippines	pro-reorganization	pro-reorganization	none
Portugal	pro-reorganization	pro-reorganization	none
Singapore	pro-liquidation	pro-liquidation (no restr.)	restrictions on entering
South Africa	pro-reorganization	pro-reorganization	none
Spain	pro-reorganization	pro-liquidation	auto stay
Silence	pro-reorganization	pro-reorganization	none
Sweden	pro-reorganization	pro-reorganization	none
Turkey	pro-reorganization	pro-liquidation	auto stay
UK	pro-reorganization	pro-liquidation	auto stay
US	pro-reorganization	pro-reorganization	none
Venezuela	pro-reorganization	pro-liquidation	auto stay
Zimbabwe	pro-reorganization	pro-liquidation	auto stay

How bad is Chapter 11?

- La Porta et al (1997, 1998) creditors rights index:
  1. There is no automatic stay on assets;
  2. Managers are removed in case of reorganization;
  3. Reorganization petitions are restricted;
  4. Secured creditors come first in case of liquidation;

- Three of these four features are related to reorganizations;

- Using this index in empirical works confounds the effects of these individual features. Also, the index treats all features as equally important.

Data set

- **Loan Pricing Corporation's Dealscan:** database on syndicated loan contracts (loan size, spread, maturity, security and number of lenders);
- **Compustat Global**: database on firm's financial indicators (total assets, total liabilities, PP&E, equity, net income, etc.)
- **Standard & Poors:** firm-level long term credit rating;
- **World Bank:** country-level economic indicators (GDP per capita, interest rate spread, risk premium, domestic credit to private sector and share of domestic credit supplied by banks);
- **La Porta et al (JPE 1997)**: country-level information on legal features of bankruptcy laws. (restrictions on reorganization procedures; automatic stay on assets; share of secured creditors required to approve reorganization plan; legal origin; etc.).

removing managers

- **punishment for incompetent managers and higher probability of a successful reorganization;**
- **However:**

manager might be more prepared and experienced than a creditor-appointed one.

restricting reorganizations

- **If any firm under distress may file for reorganization it may lead to moral hazard and expropriation of creditors.**

- If, however, the restrictions on reorganization are too severe, they might make it too hard for firms to file for reorganization and lead to inefficient liquidations.

allowing for an automatic stay on assets

- How does having automatic stay in the firm's country of origin affect loan contractual variables?

- **Automatic Stay without creditor protection leads to Moral Hazard, lowering credit supply;**

- **Creditor protection without Automatic Stay may lead to inefficient liquidations due to lack of coordination,"firm run"**
- The net result should point to which effect is more important: the moral hazard or the bad state of nature;

Some preliminary results (1)

- **Removing managers leads to:**
  - **lower** volume of credit;
  - **lower** loan maturity;
  - **lower** number of creditors on syndicated loans.

- **Restricting reorganization petitions:**
  - **higher** volume of credit
  - **higher** number of creditors on syndicated loans;
  - **higher** loan maturity (weaker result);

Some preliminary results (2)

- **Demanding unanimity for reorganization approval: lower**
  - **lower** volume of credit;
  - **lower** loan maturity;
  - **lower** number of creditors on syndicated loans.
  - **higher** loan spread (weaker result);

- **Automatic stay on assets** (weaker results)**:**
  - **lower** volume of credit and maturity;
  - **higher** loan spread;

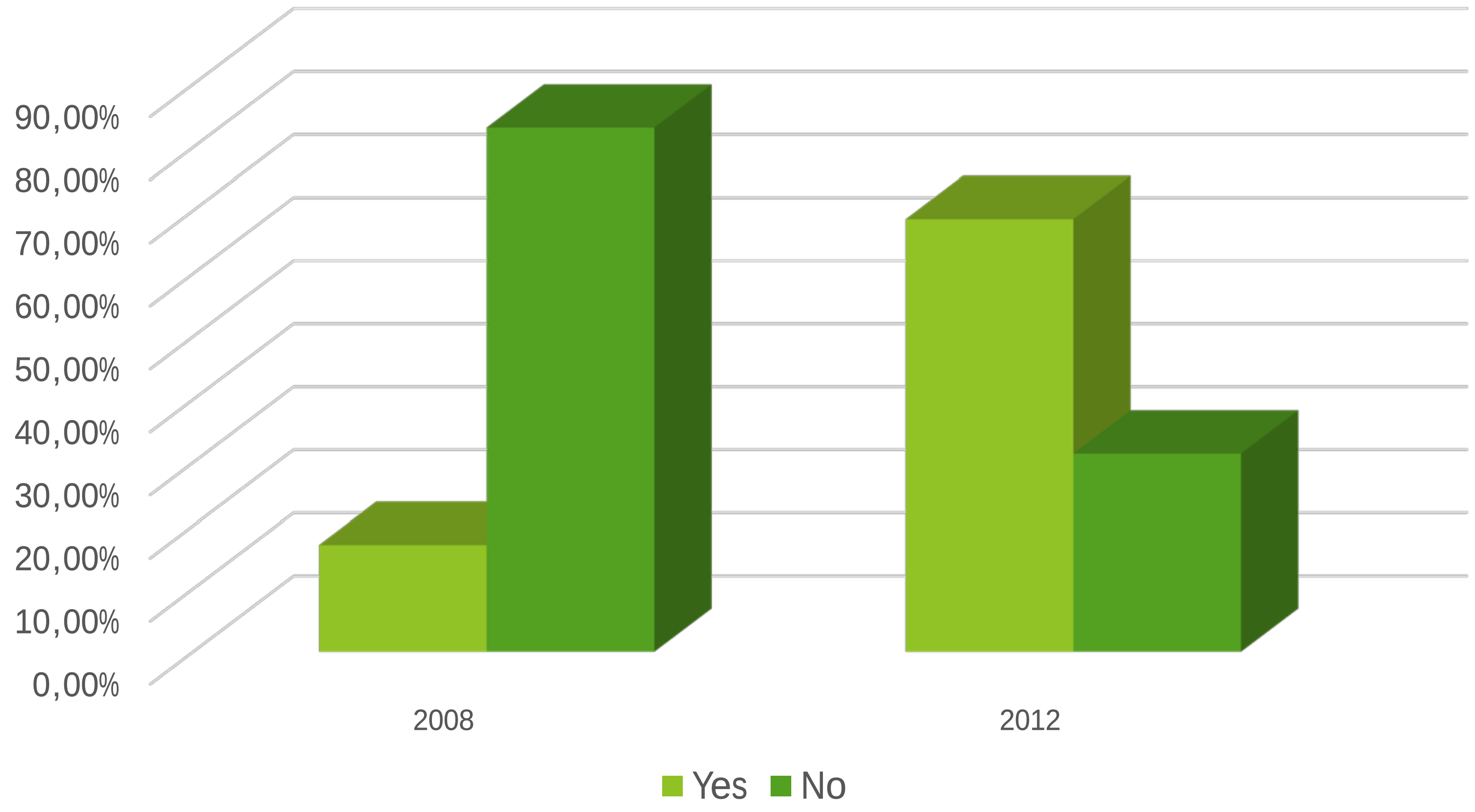
Banks

- Institutions whose current operations consist in granting loans and receiving deposits from the public.
- Banks provide unique services (liquidity and means of payment) to the general public.
- Banks finance a significant fraction of their loans through the deposits of the public.
- This is the main explanation for the fragility of the banking sector and the justification for banking regulation.

Why are banks different?

1. **Systemic risk**: externalities on other economic agents
2. **Liquidity provision**
3. **Coordination problems** (bank runs)

Is there a separate bank insolvency law/framework?



Source: World Bank

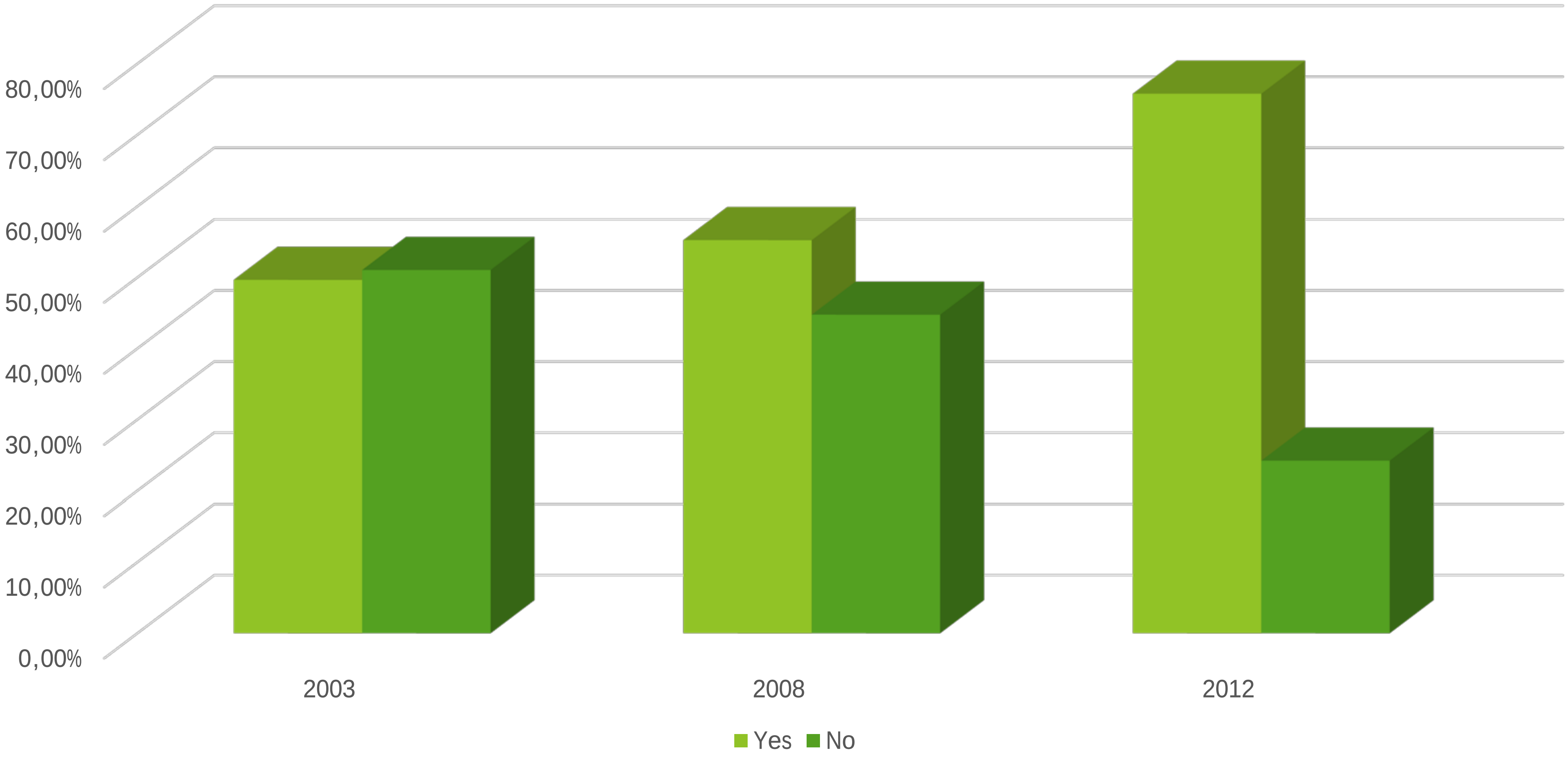
Bank fragility

- Diamond and Dybvig (1983)
- Banks pool deposits to provide insurance against idiosyncratic shocks.
- Shocks not perfectly correlated: fraction of deposits can finance profitable illiquid investments.
- If many depositors decide to withdraw for reasons unrelated to liquidity needs: run on banks.

Deposit insurance

- Provides partial solution to bank runs.
- How large?
- May be compulsory or voluntary; public (more common) or private.
- Drawback: reduced incentives for bank monitoring by depositors (see Calomires and Kahn (1991)).
- Moral hazard: excessive risk by managers.

Is there an explicit deposit insurance protection system?



Source: World Bank

Moral Hazard

- Bank owners and Government
- Bank creditors and Government
- CEO/Managers and Shareholders

Moral Hazard: Bank Owners vs. Government

- In the absence of institutional framework for orderly closure of banks, Central Banks usually prefers bailouts rather than risking contagion.
- Goodhart and Shoemaker (1995): out of 104 failing banks around the world, 73 were rescued; 31 were liquidated.
- Large banks are “too big to fail”
- **Moral Hazard**: Certainty of rescue leads to risky behavior.

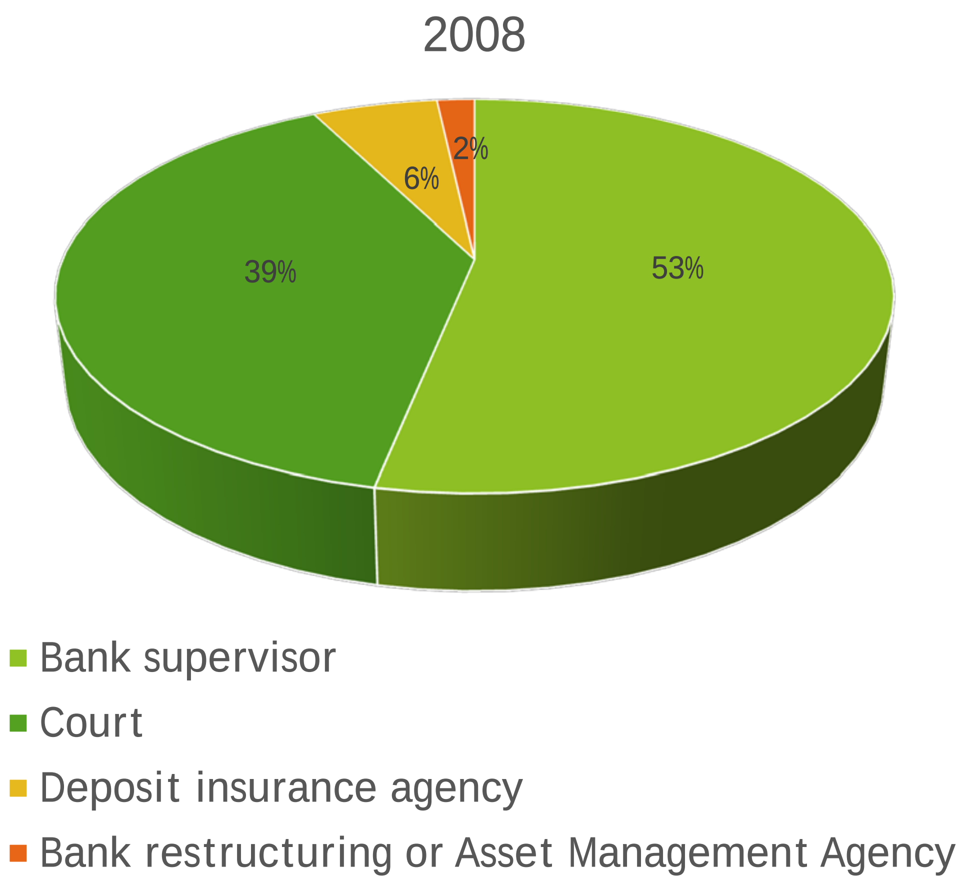
Moral Hazard: Bank Owners vs. Government

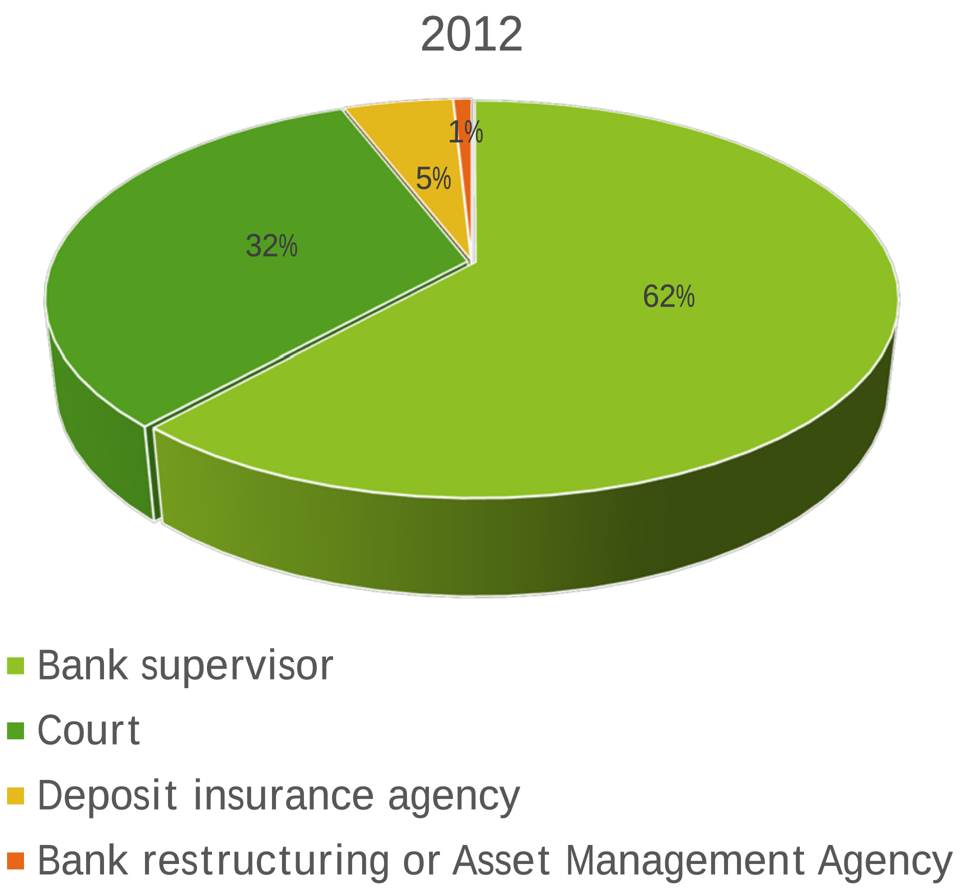
- Possible solutions:
  - debt to equity conversion (capital dilution),
  - stockholders should lose their entire capital;
  - come last in priority order.
  - Restricting operations of large banks

Moral Hazard: Bank creditors vs. Government

- **Moral hazard**: creditors will be more lenient in providing credit to unworthy banks if they believe in rescue.
- Possible solutions:
  - increased haircut,
  - “COCO bonds” issues.
  - Hart and Zingales (2009): automatic conversion of debt into equity creates instability and raises cost of capital for banks.
  - forced equity conversion

Which authority has the powers to supersede shareholders' rights?



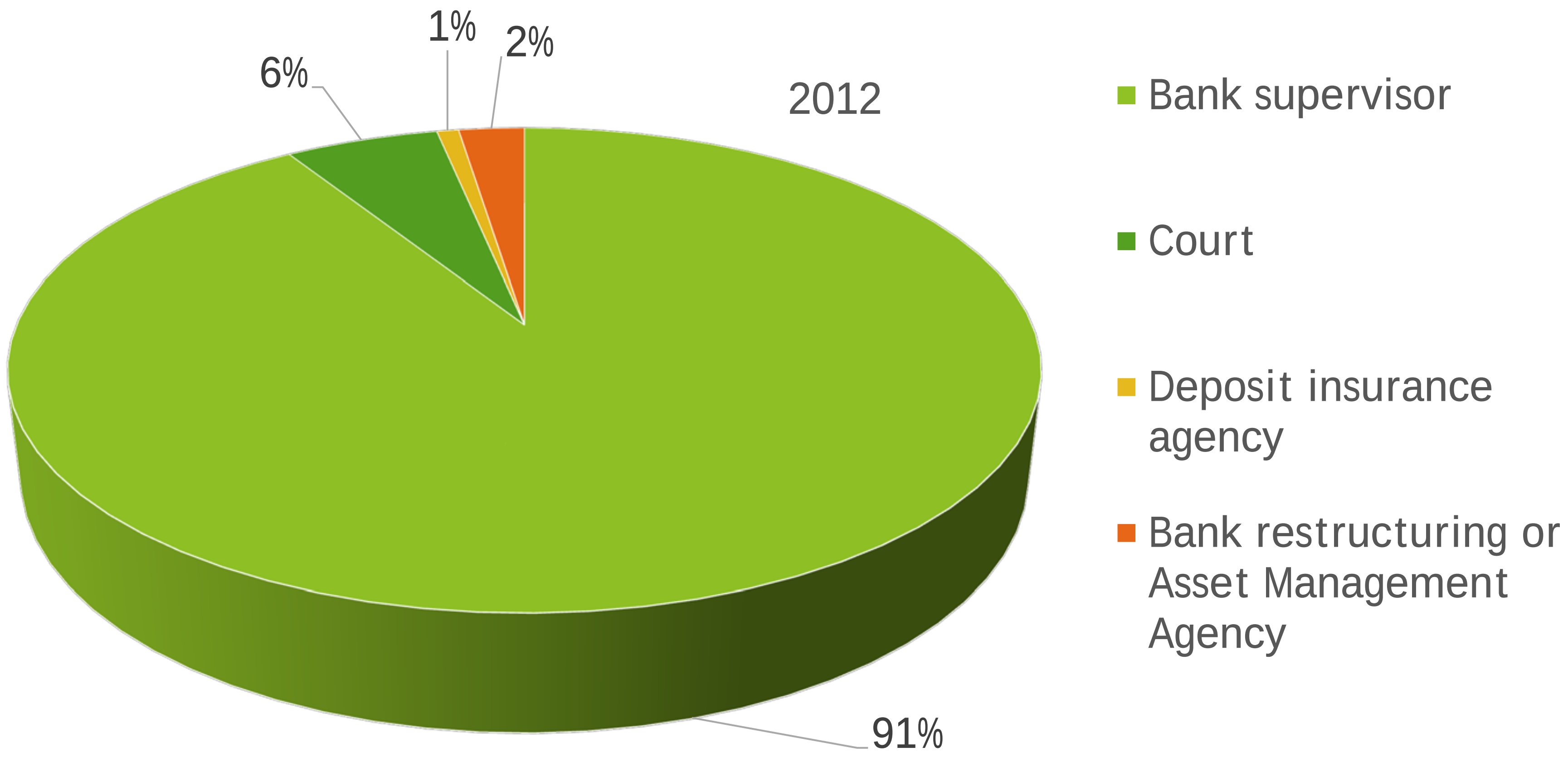


Source: World Bank

Moral Hazard: CEO vs. Bank owners

- High bonuses increase managers’ expected payoff in taking too much risk.
- Golden parachutes reduces managers’ punishment following bad outcomes.
- Unlimited gains, limited losses.
- **Yet, eliminating performance incentives altogether is a bad idea.**

Which authority has the powers to remove and replace bank senior management and directors?



Source: World Bank

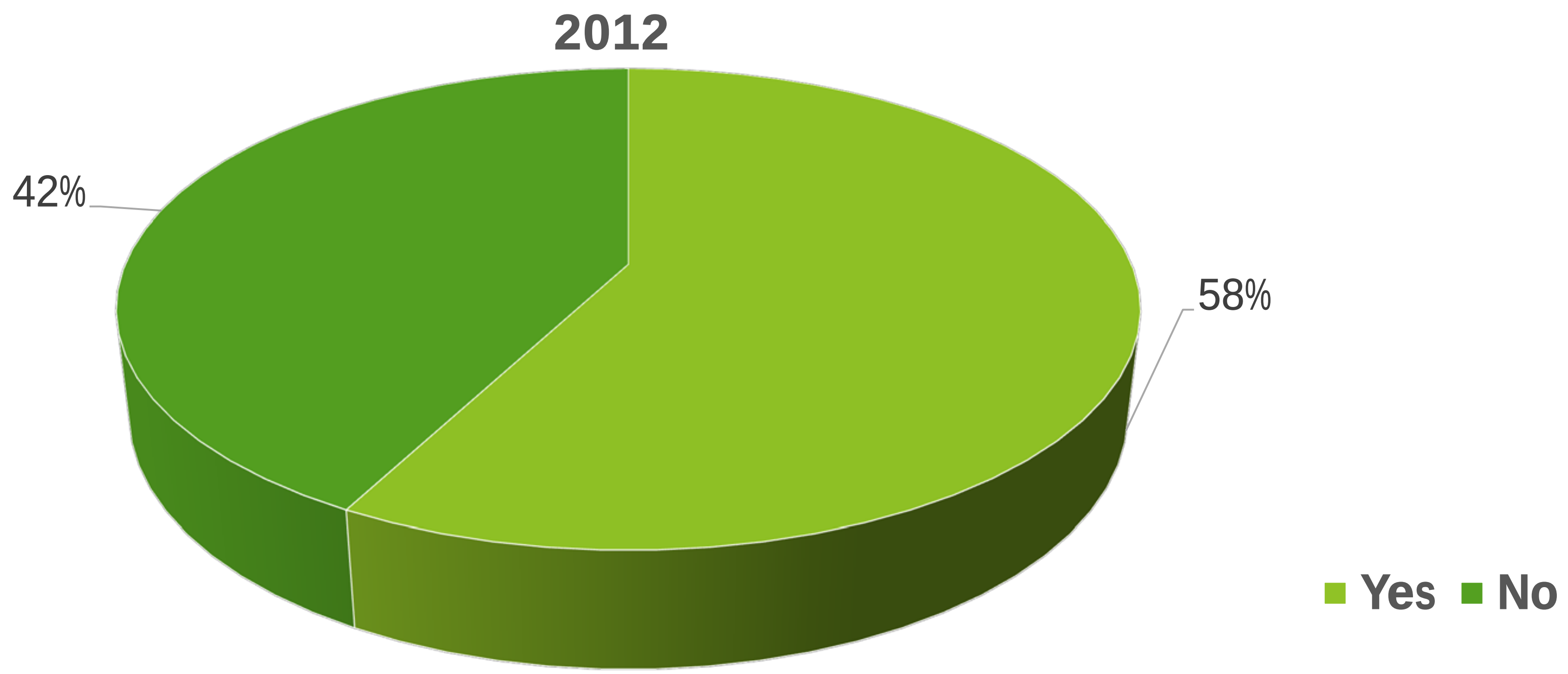
Chapter 11 for banks?

- The role of the Judiciary vs. the role of the regulators;
- Bank regulators are more proficient and are faster, but are afraid of potential lawsuits leading to moral hazard
- Judiciary: no legal suits, but slower

- OLA: Orderly Liquidation Authority (Dodd-Frank)
  - liquidation of insolvent systemically important financial institutions (“SIFIs”)
  - Good Bank / Bad Bank
- Chapter 11F (Jackson)
  - FDIC, SEC, or other agency would have the authority to file an involuntary bankruptcy, participate in the proceedings, and power to lend debtor-in-possession financing .
  - a special set of judges be designated as expert masters
  - automatic stay: derivatives 3 days only, covering net agreement,

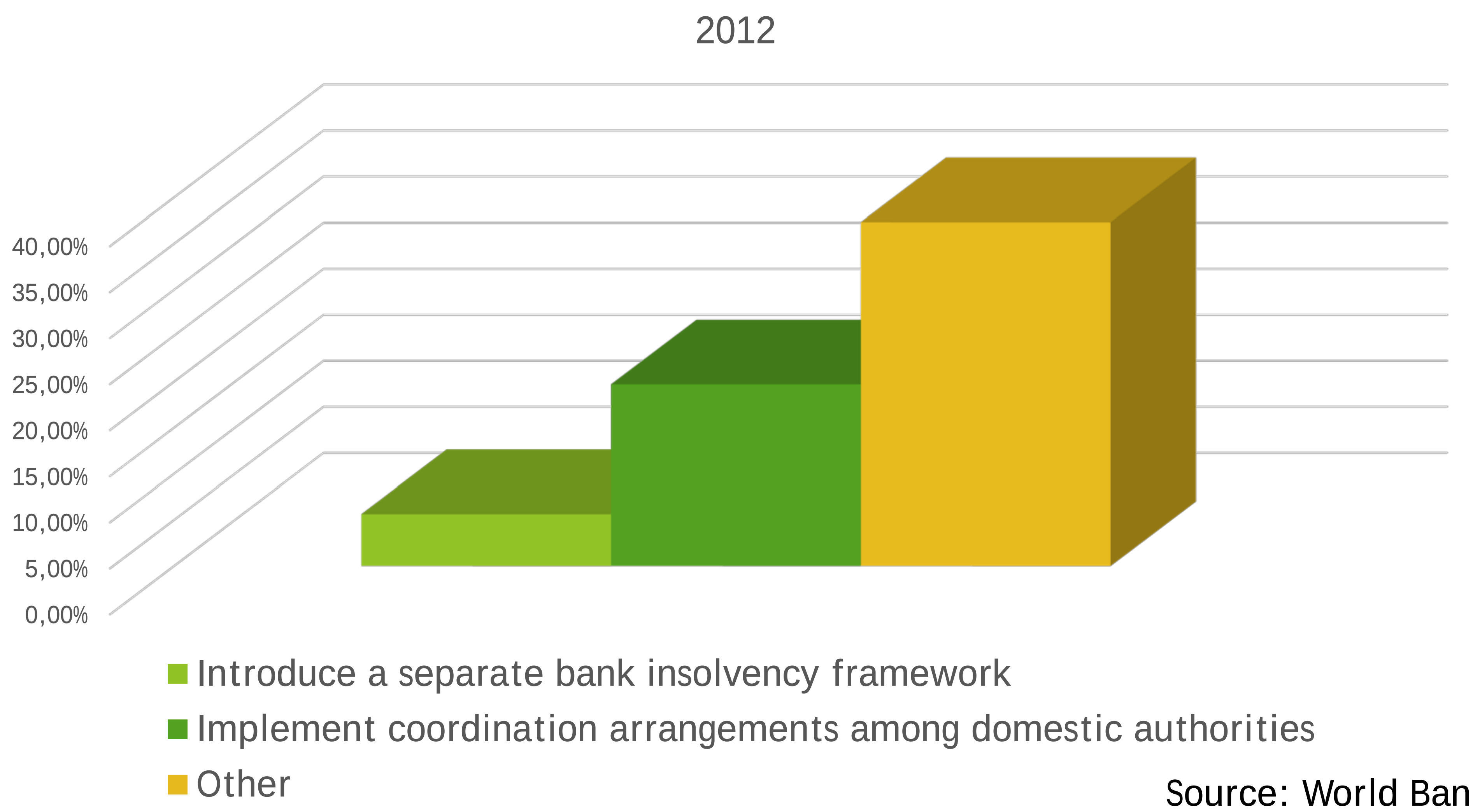
    non-cash repos would be included

Have your country introduced significant changes to the bank resolution framework as a result of the global financial crisis?



Source: World Bank

What kind of changes?



Source: World Bank