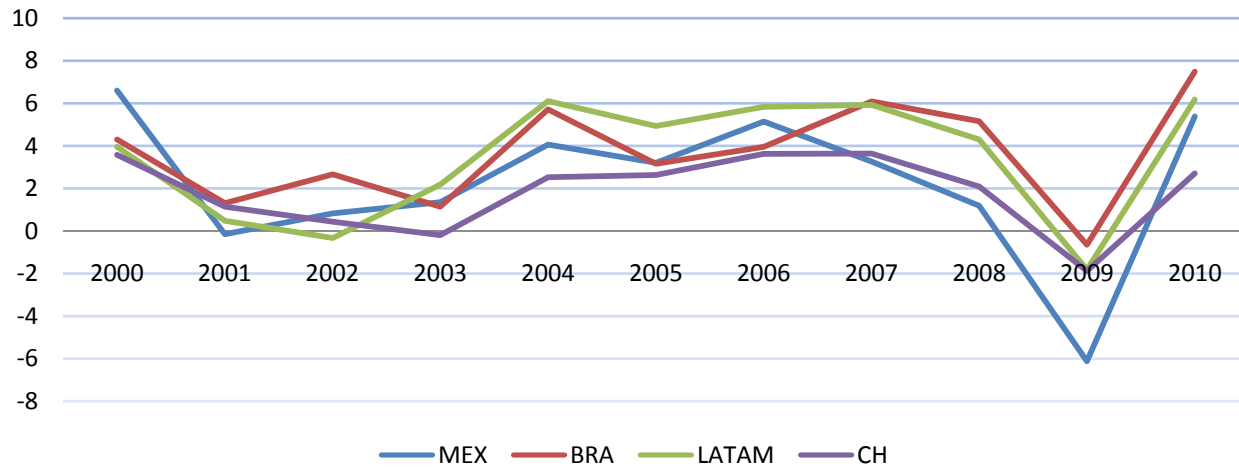


Where does the money come from? Financing firms in Mexico

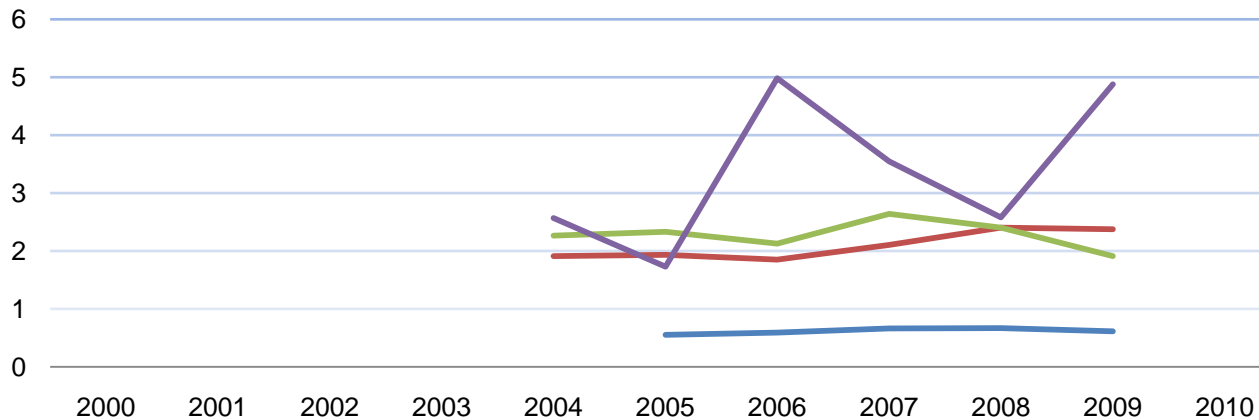
Emilia Garcia-Appendini
Jornada Mexicana
University of St Gallen
March 9, 2012

Growth indicators

Annualized GDP growth (%)



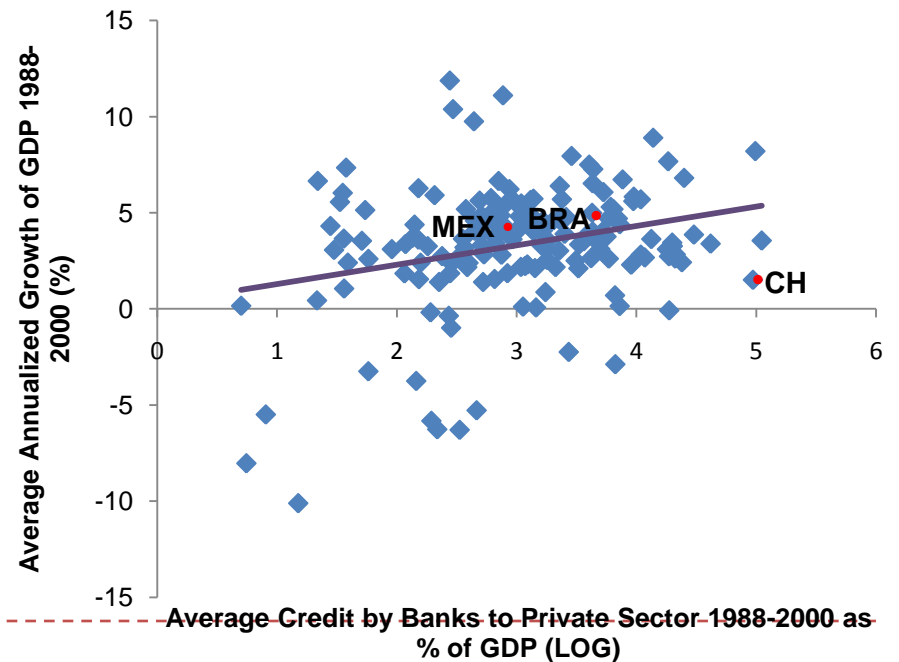
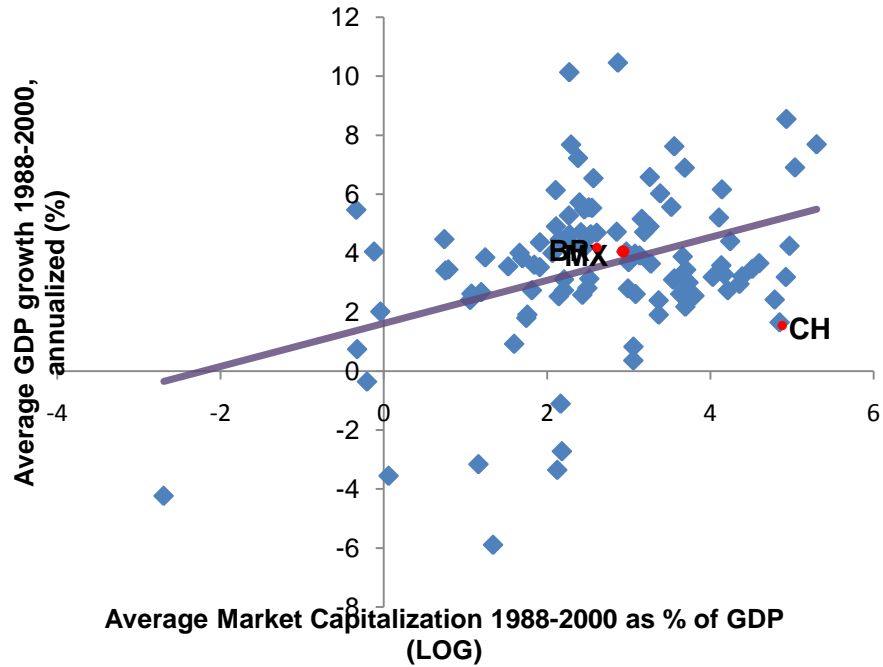
New business registrations per 1,000 people ages 15-64



Why is Mexico lagging?

- ▶ Large reforms to economy after 1982 sovereign default
 - ▶ Reduction of state in the economy
 - ▶ Privatization of 1000+ firms including communication and banks
 - ▶ Liberalization of foreign trade and investment
 - ▶ General Agreement on Trade and Tariffs
 - ▶ North American Free Trade Agreement
 - ▶ Geographical proximity to US
 - ▶ Competitive advantage in transportation costs and times vs. e.g. China
 - ▶ Political stability
 - ▶ Until 2006 drug-related violence was relatively contained
-

Finance – growth nexus



Does finance cause growth?

NO

- ▶ Joan Robinson (1952): “where enterprise leads, finance follows”
- ▶ Robert Lucas (1988): finance is an “over-stressed” determinant of growth

YES

- ▶ Merton Miller (1988): “the idea that financial markets contribute to economic growth is a proposition too obvious for serious discussion”
- ▶ Bagehot (1893), Schumpeter (1912), Gurley and Shaw (1955), McKinnon (1973)

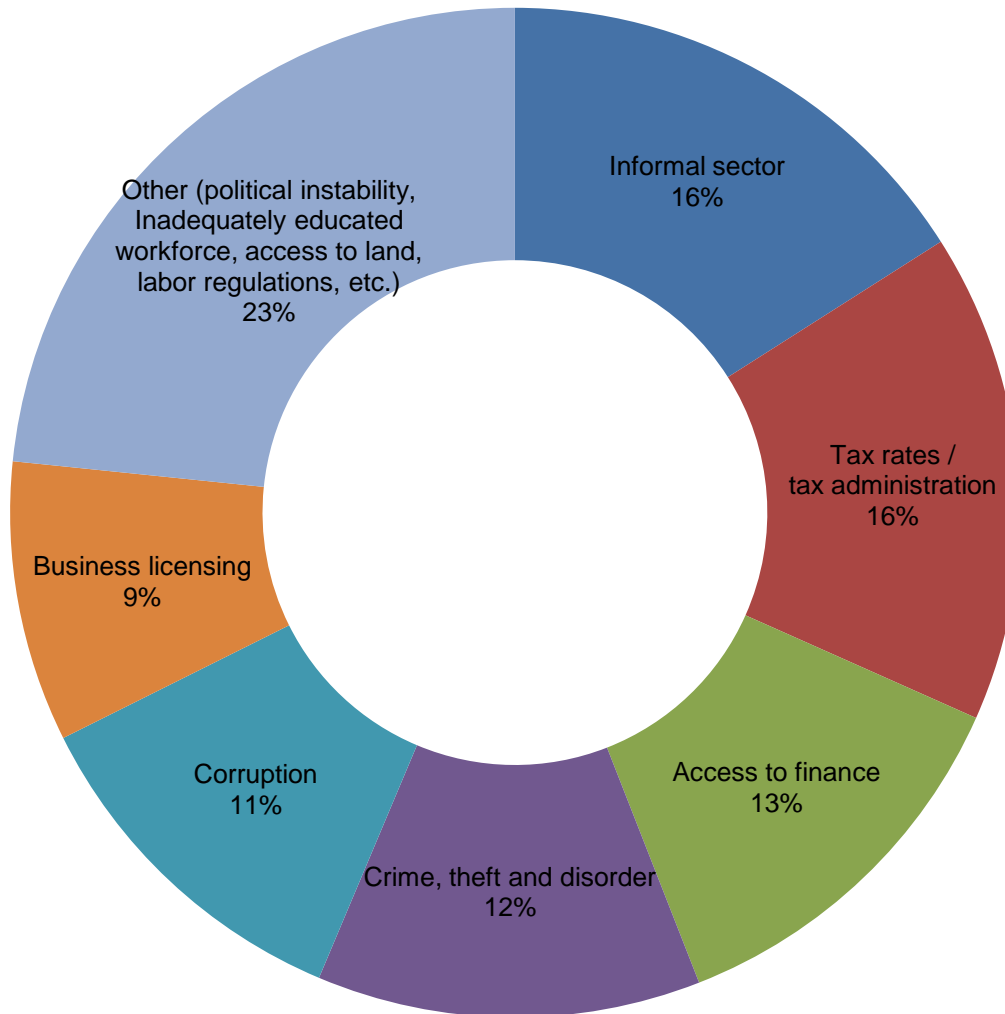


How could finance cause growth?

- ▶ Markets and banks reduce transaction costs related to seeking & providing credit
 - ▶ Finding a suitable financier/entrepreneur,
 - ▶ Designing a suitable contract
- ▶ Banks are better able than average individuals in deciding which projects / firms should receive credit
 - ▶ Information, specialization, monitoring
- ▶ Markets and banks make it possible to invest in large-scale projects
 - ▶ Pooling funds
- ▶ Markets and banks allow agents to share risks
 - ▶ Diversification (mutual funds), insurance contracts, ...



Main business environment obstacle



• Respondents: Owners / managers of Mexican firms

• Year: 2010

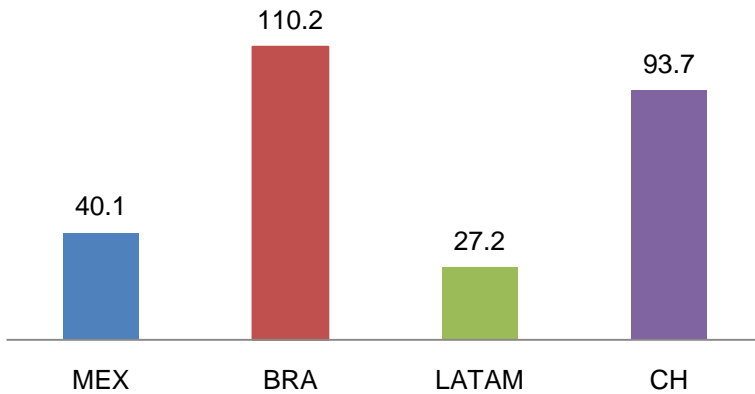
• Sample size: 1,400 formal (registered) firms with at least 5 employees

• Private ownership: 99.2% (5.3% of which is foreign private capital)

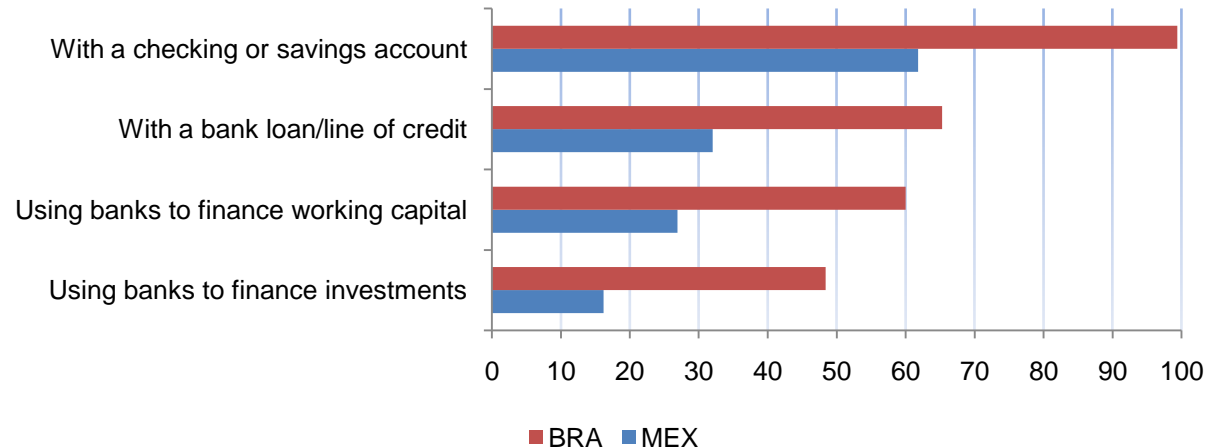
• Sectors: manufacturing, construction, retail, hotels, wholesale, restaurants, transport, storage, communications, and IT.

Banking indicators (2010)

ATMs per 1000 adults

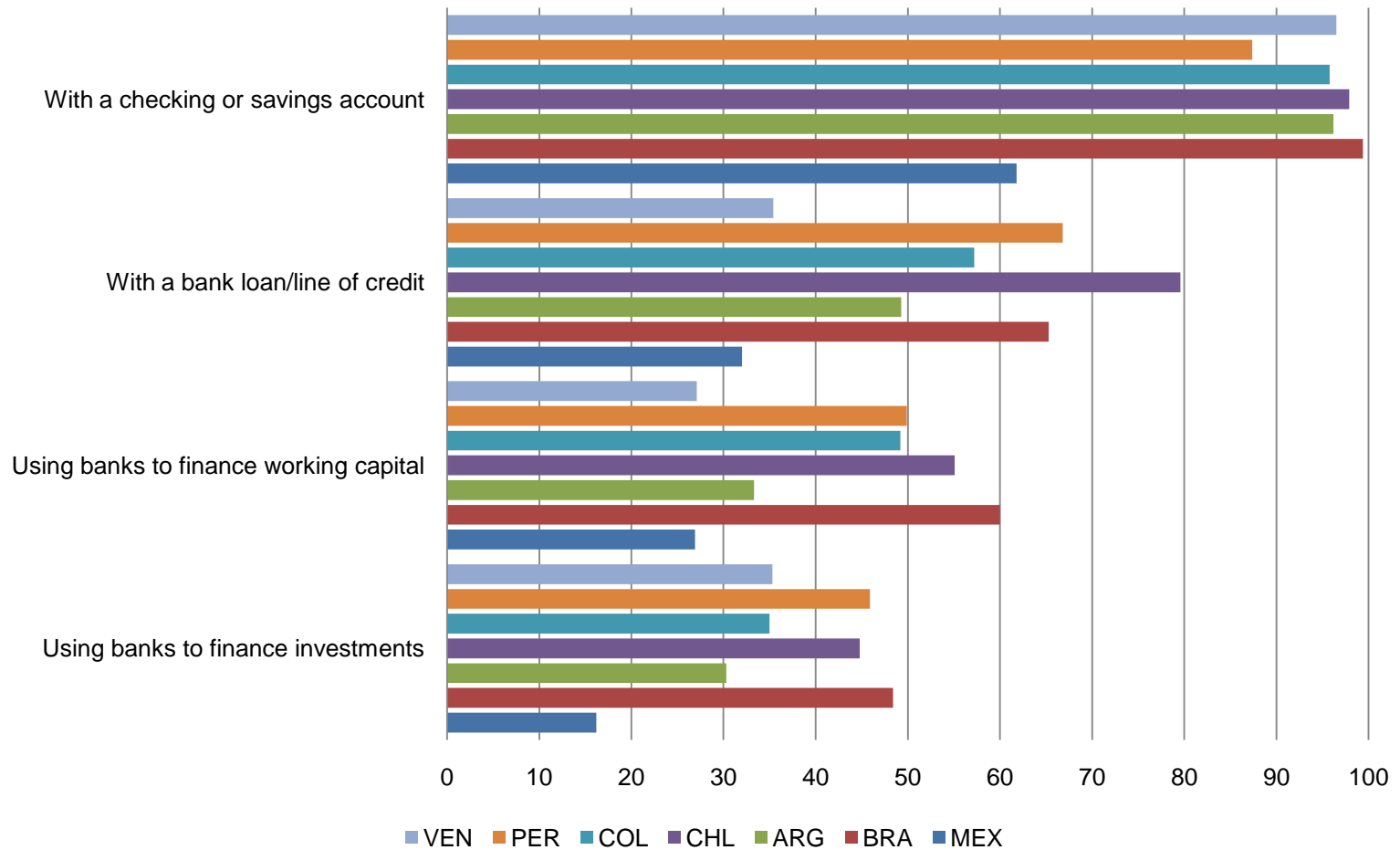


% of firms...



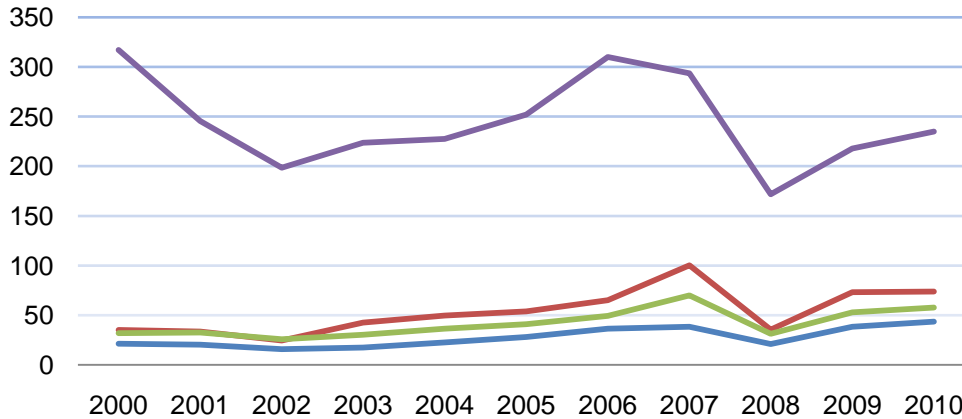
Banking indicators vs. Latin America (2010)

Percentage of firms...

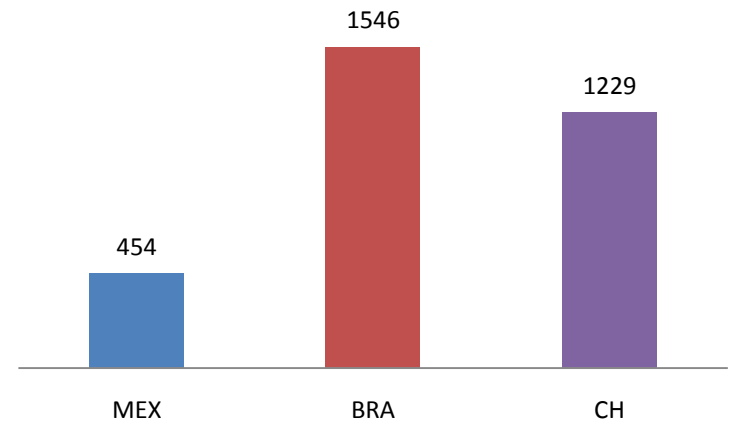


Market depth indicators

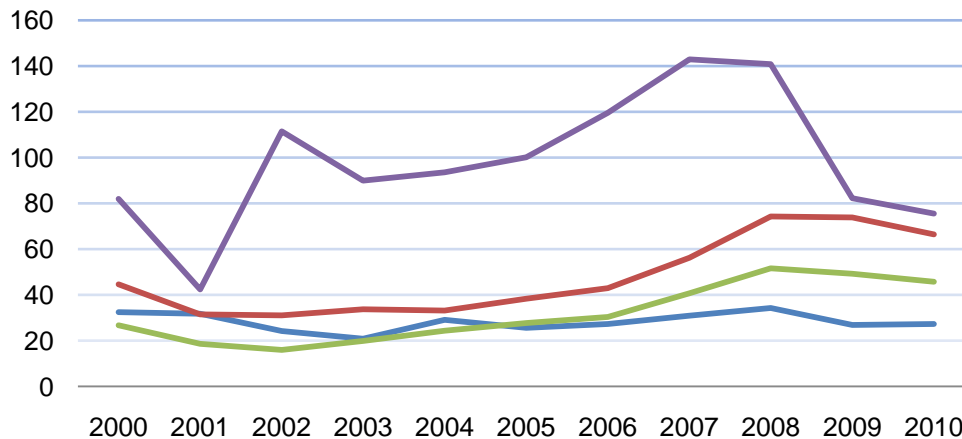
Market capitalization as % of GDP



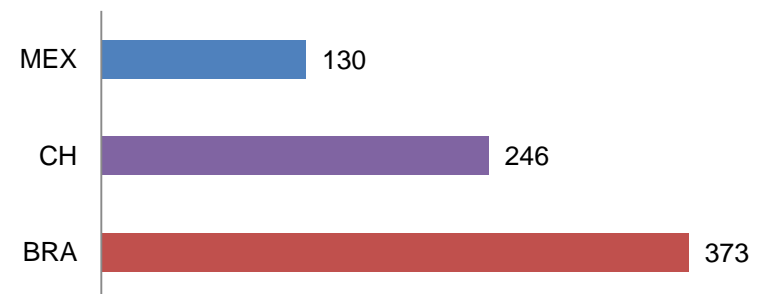
Market capitalization of listed companies (Current US\$, 2010)



Market capitalization, turnover ratio (%)

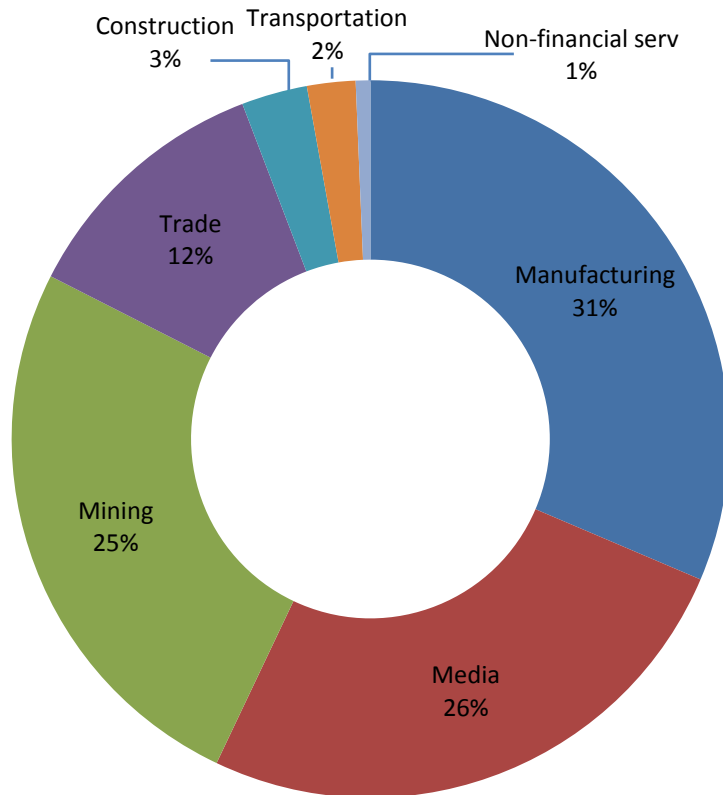


Number of listed firms



— MEX — BRA — LATAM — CH

Firms accessing debt or capital markets



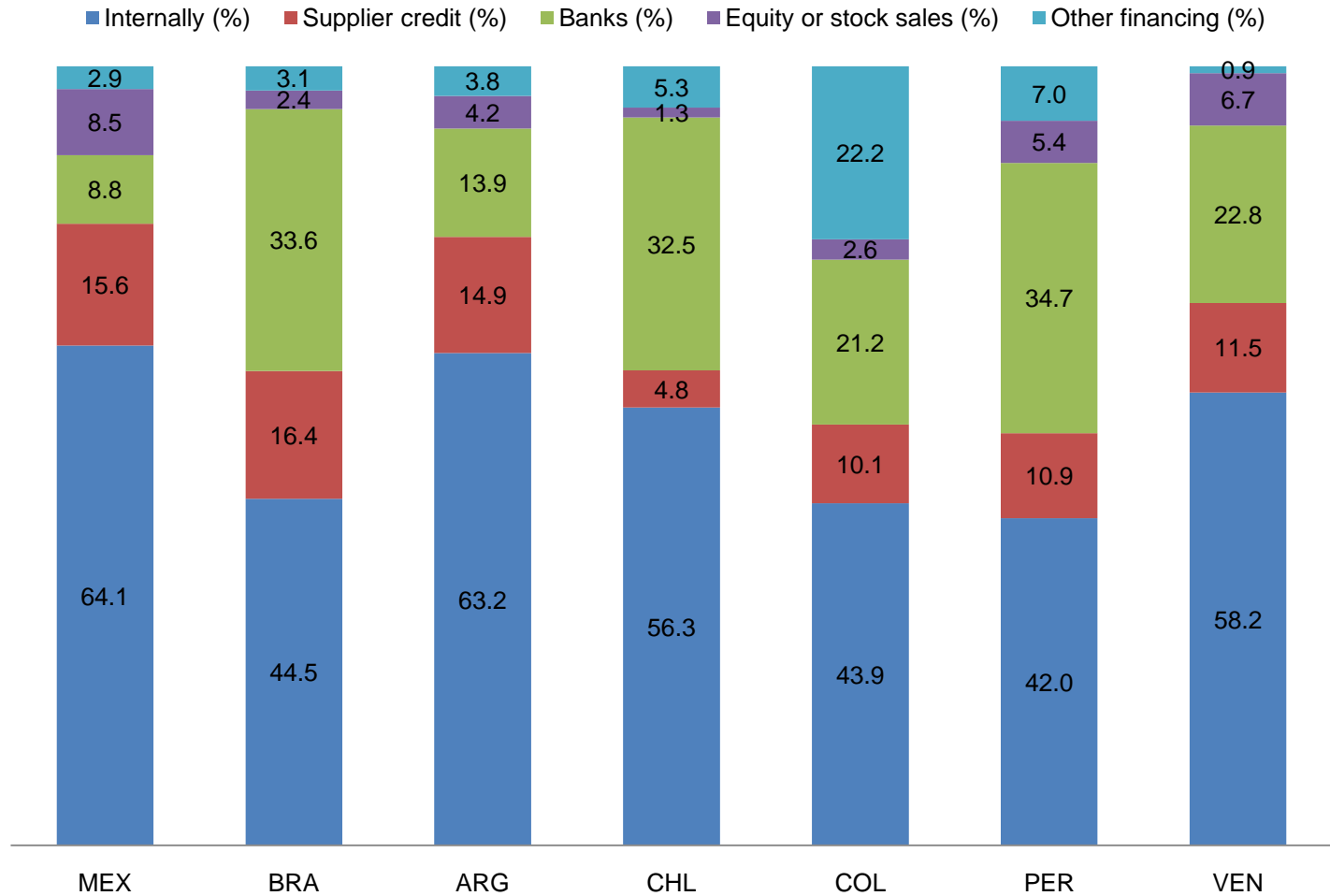
PETROLEOS MEXICANOS	24.7%
AMERICA MOVIL SA DE CV	15.6%
CEMEX SAB DE CV	9.1%
FOMENTO ECONOMICO MEXICANO	4.0%
WAL MART DE MEXICO SA	3.5%
TELMEX INTERNACIONAL SAB DE	3.3%
TELMEX-TELEFONOS DE MEXICO	2.8%
GRUPO TELEVISA SAB	2.4%
GRUPO MODELO S.A.B. DE C.V.	2.2%
GRUPO ELEKTRA SA DE CV	2.1%
COCA-COLA FEMSA SAB DE CV	2.0%
ALFA SAB DE CV	2.0%
GRUPO BIMBO SA DE CV	1.8%
GRUPO CARSO SA DE CV	1.4%
EMPRESAS ICA SAB DE CV	1.3%
ORGANIZACION SORIANA SA DE C	1.2%
EL PUERTO DE LIVERPOOL SA	1.2%
OTHER (CA. 90 FIRMS <1% ASSETS)	19.3%

Why are credit mkts underdeveloped?

- ▶ Risk of expropriation
 - ▶ 1970, increase in required reserves at Central Bank with interest rates lower than inflation
 - ▶ 1982, nationalization
- ▶ Poor lending oversight after privatization in 1991
 - ▶ Large portfolio of non-performing loans
 - ▶ + peso collapse in 1994 → banking failures
- ▶ Weak protection of lenders
 - ▶ According to World Bank this is true until 2004

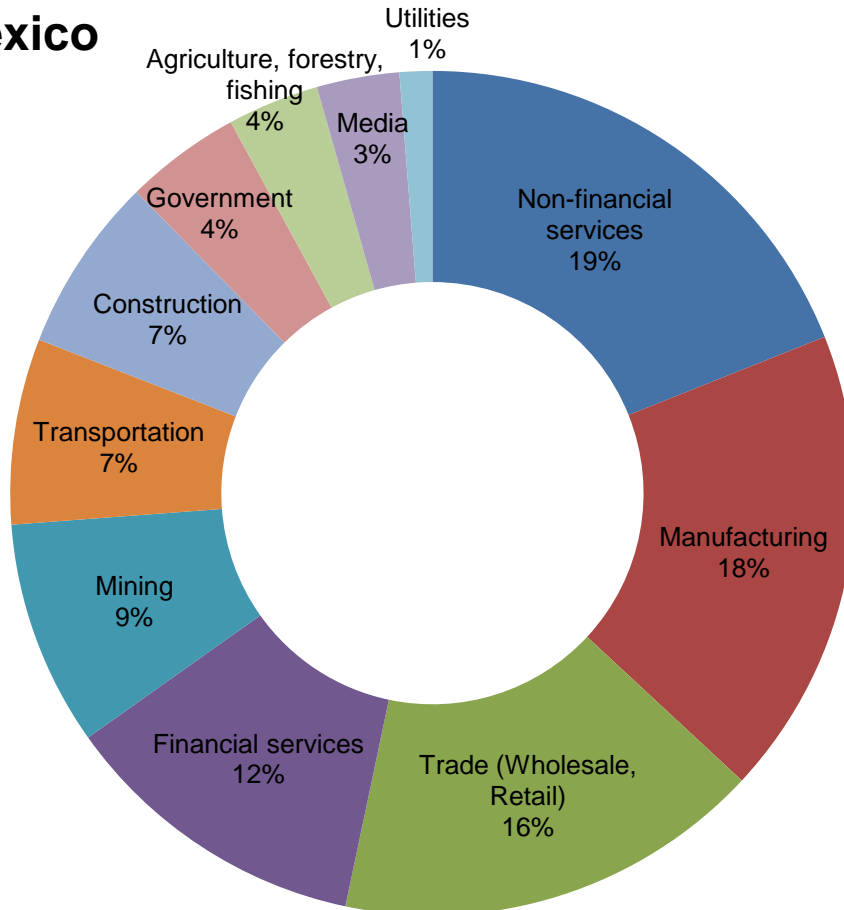


Where does the money come from?



External finance dependence

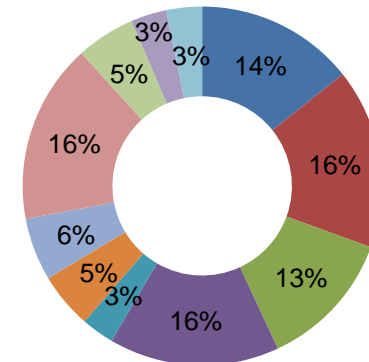
Mexico



EFD weighted index=0.53

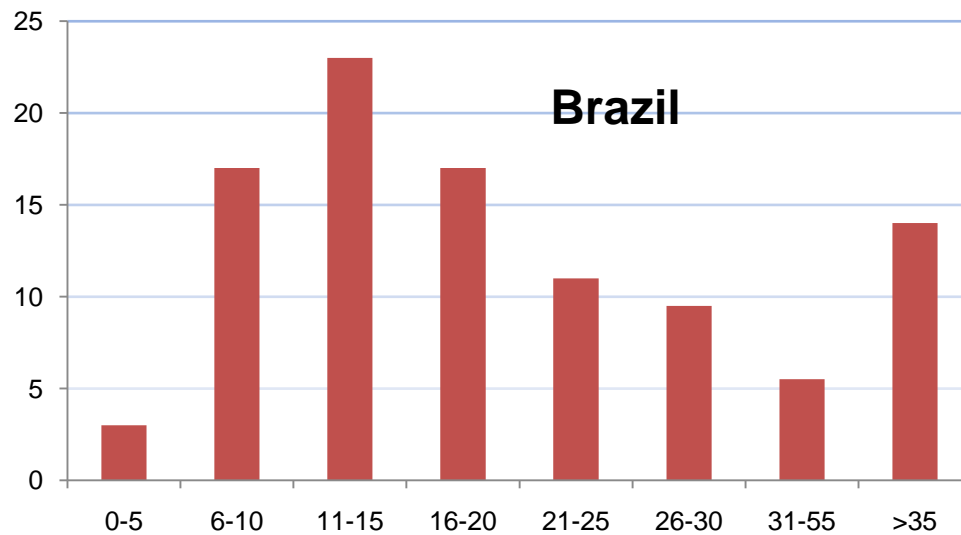
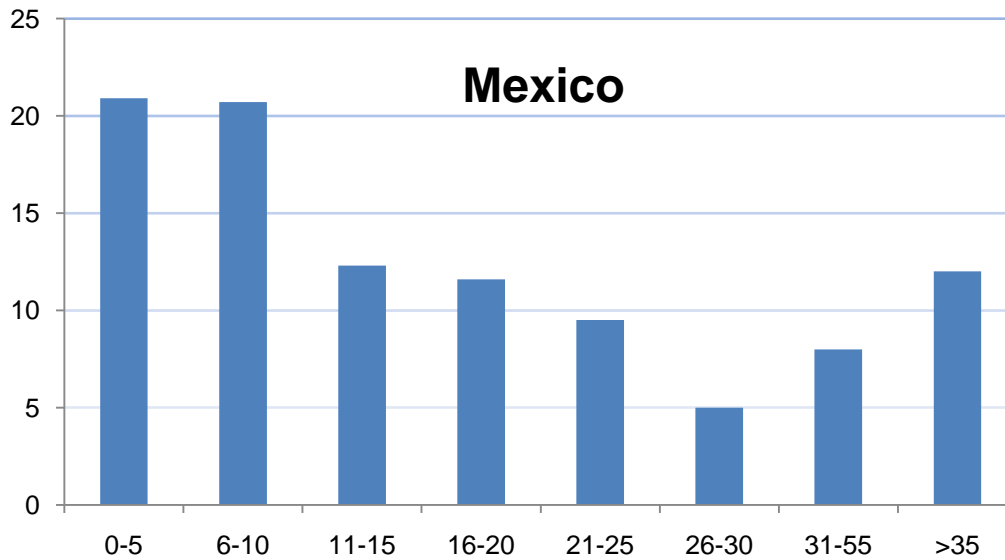
Sector	EFD index*
Utilities	0.85
Construction	0.82
Mining	0.74
Trade	0.69
Transportation	0.61
Non financial services	0.58
Media & communications	0.56
Manufacturing	0.53
Agriculture	0.23
Financial services	0.11

Brazil



EFD weighted index=0.47

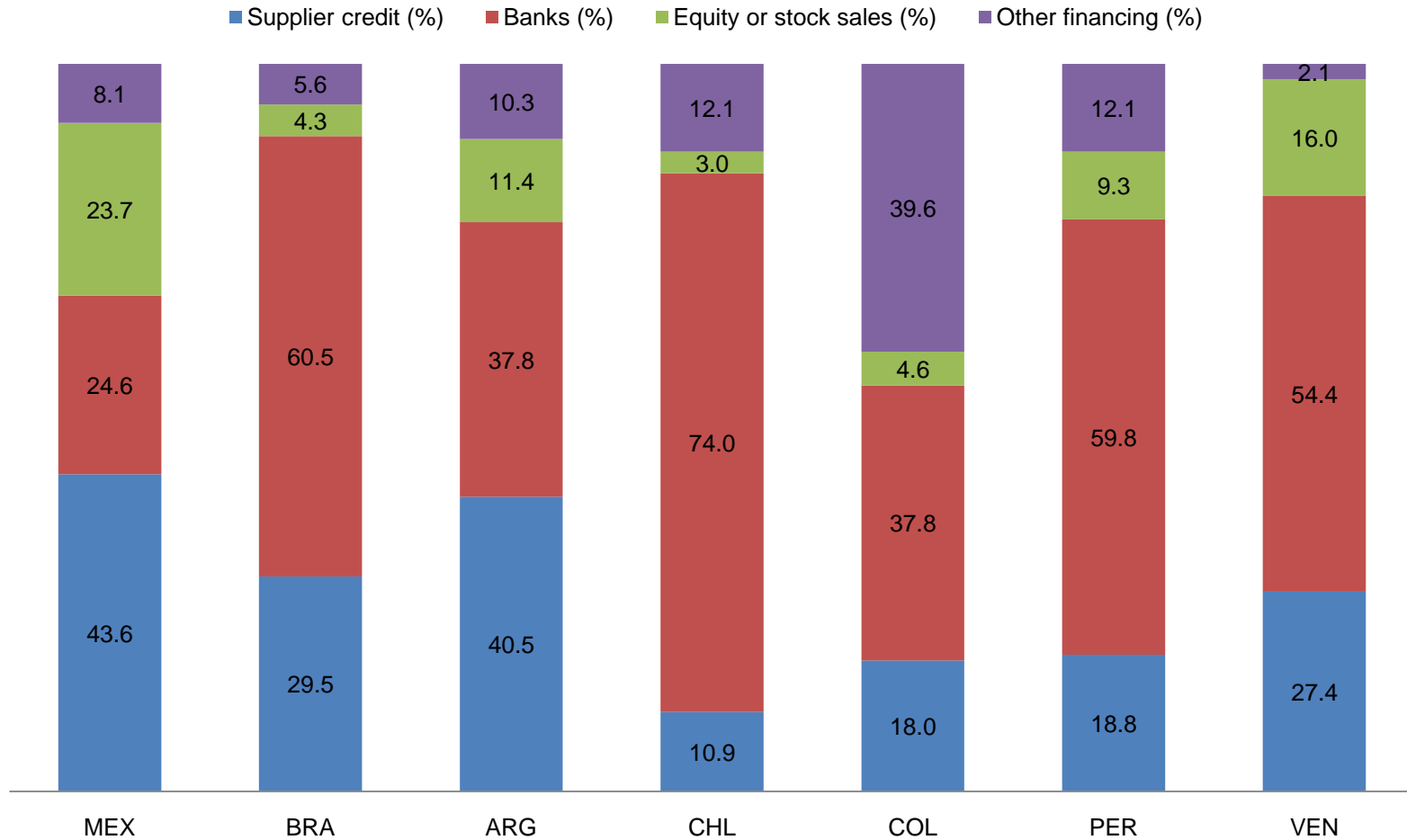
▶ *Index of external finance dependence. 0=less EFD (forestry), 1=most EFD (pipelines)



Age structure of firms (2010)

- Significant portion of firms are in early stages
- Firms in early stages are more in need of external financing, as immature firms are not able of producing cashflows
- Downward spiral. No financing in early stages → firms fail and do not survive to mature ages → need more firm creation → young firm structure requires more external financing
- If anything, Mexico requires **MORE** external capital than Brazil

Sources of external financing

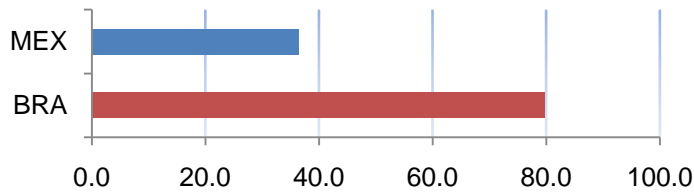


Which suppliers are providing credit?

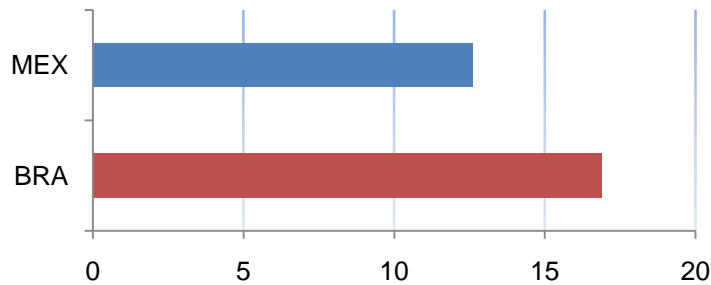
- ▶ Private firms
 - ▶ Internal cash flows
 - ▶ Few firms with access to bank finance pass on credit to their clients (redistribution)
- ▶ Public firms
 - ▶ Internal cash flows
 - ▶ Externally provided funds (debt / equity from banks or markets)
- ▶ International firms
- ▶ Informal firms



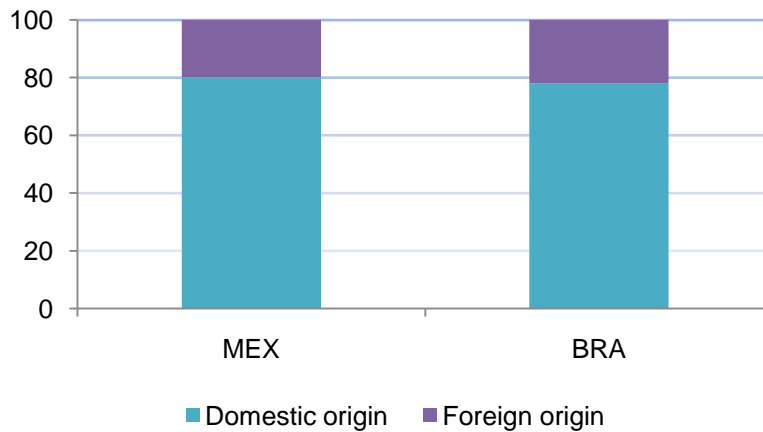
Sales sold on credit, % (private firms)



Receivables to sales (public firms)



Proportion of inputs of...



Which suppliers provide credit?

- Only aggregate data available
- Some evidence of redistribution, but much less than in Brazil
- Marginal role of international firms
- Conjecture: Informal sector provides credit



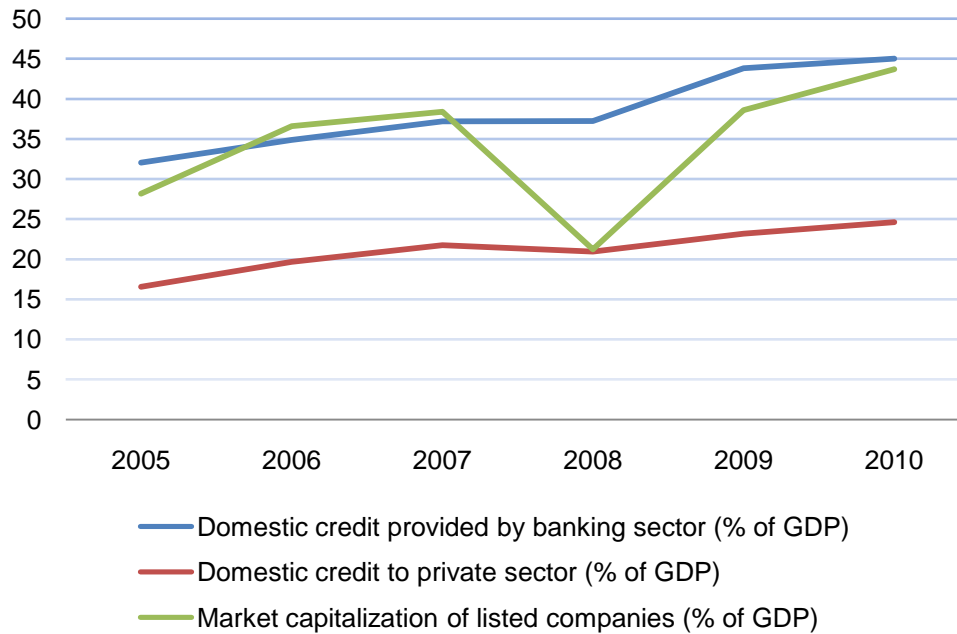
Conclusions

- ▶ Most investment in Mexico is financed by internally generated cash flows
- ▶ Needs for external capital in Mexico are larger than in other countries
 - ▶ Economic sectors are more external capital-intensive
 - ▶ Many firms in early stages of development, requiring external capital
- ▶ Large part of external capital is provided by suppliers
 - ▶ Redistribution. Suppliers accessing credit markets pass on their liquidity to their constrained firms
 - ▶ Conjecture: some credit comes from informal sector suppliers

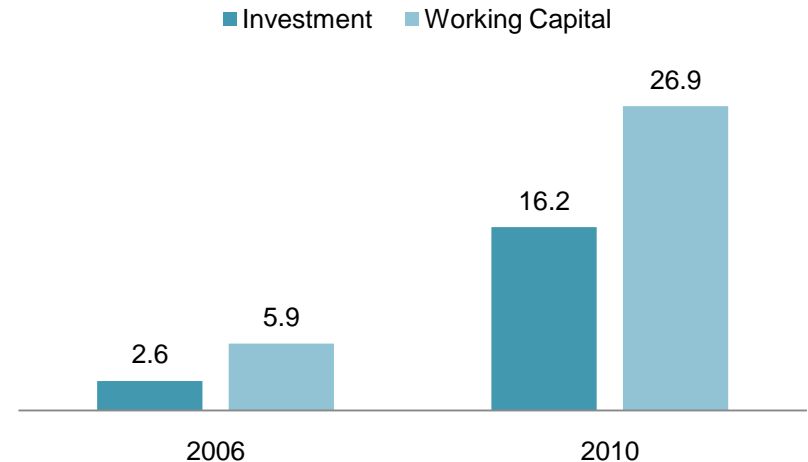


The good news is...

Bank and market development



% firms using banks to finance



Data sources

- ▶ WorldBank Enterprise Surveys for information on sources of funding, bank and market development, law and finance
- ▶ INEGI for sectorial distribution of GDP in Mexico
- ▶ IBGE for sectorial distribution of GDP in Brazil
- ▶ Compustat for information about firms accessing public debt and equity markets in Mexico and Brazil



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- ▶ Rajan, R. and L. Zingales, 1998, “Financial dependence and growth,” American Economic Review 88, pp. 559-587

