

# Upgrading Mexico's Economy: What Is in Store for the Texas Border Region?

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The views expressed in this presentation are strictly those of the authors and do not necessarily reflect the positions of the Federal Reserve Bank of Dallas or of the Federal Reserve System.

# Outline

1. Mexico's improvements in macroeconomic policy framework
  - The role of an independent central bank
  - Sound fiscal policy
2. Structural reforms underway
  - Recent reforms passed in Mexico
  - Economic implications of reforms
3. Mexico's economic update
  - Recent economic trends
4. What is in store for the Texas border region?
5. Concluding remarks



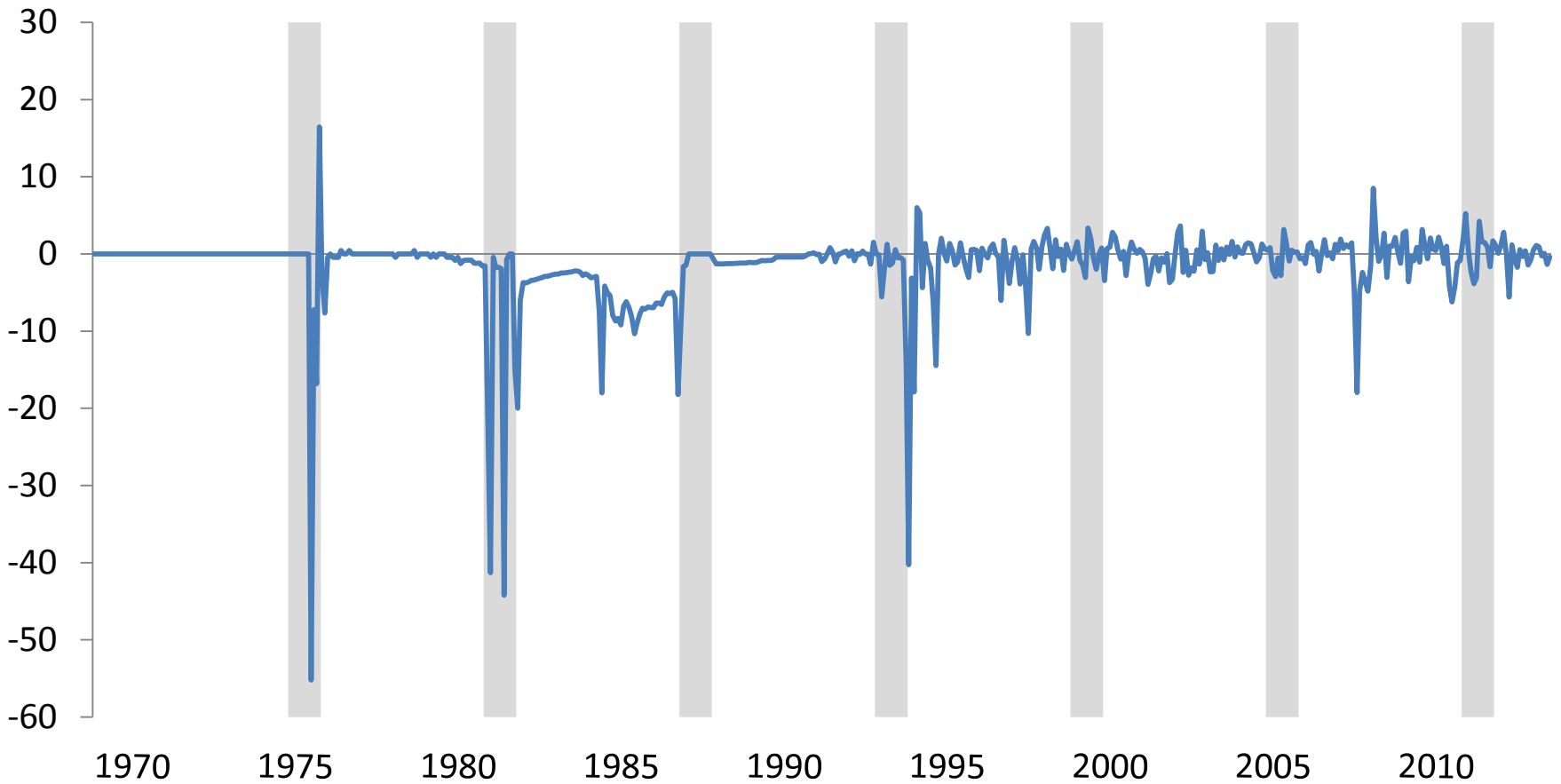
# 1. Mexico's improvements in macroeconomic policy framework

This part of the presentation is based on "*The Conquest of Mexican Inflation*," by Mark Wynne and Edward C. Skelton, Federal Reserve Bank of Dallas, Globalization and Monetary Policy Institute, 2011 Annual Report

<http://www.dallasfed.org/assets/documents/institute/annual/2011/annual11c.pdf>



# Mexico has a long history of recurring crises (US\$/peso exchange rate, % change in monthly average)

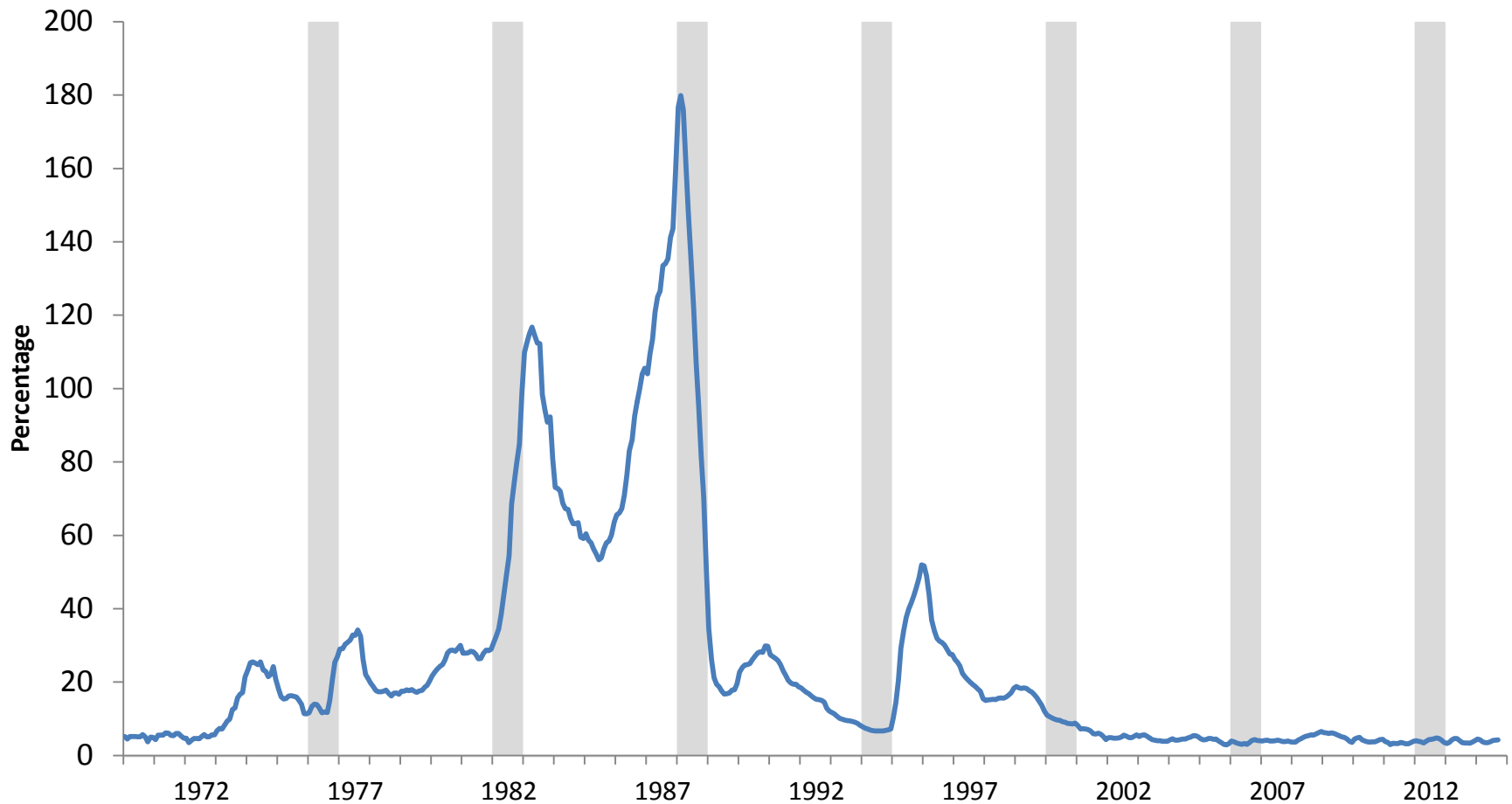


Note: Shaded bars denote election years.

Source: Banxico



# The rise and fall of inflation (12-month inflation rate)

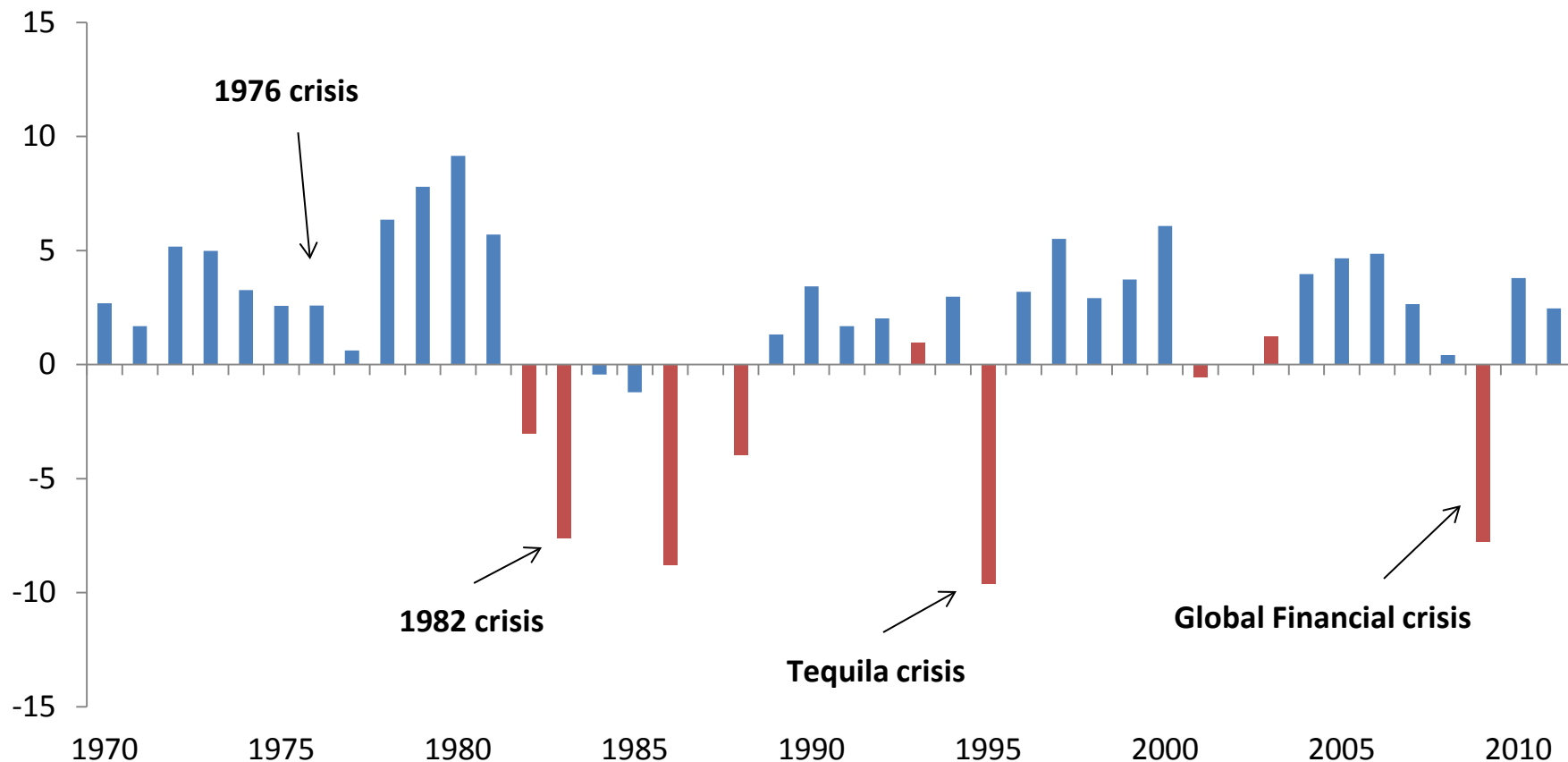


Note: Shaded bars denote election years

Source: INEGI



# Crises came along with severe consequences (Real GDP per capita growth, PPP-adjusted, percent)



Sources: Penn World Table Version 8.0

Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2013), "The Next Generation of the Penn World Table"

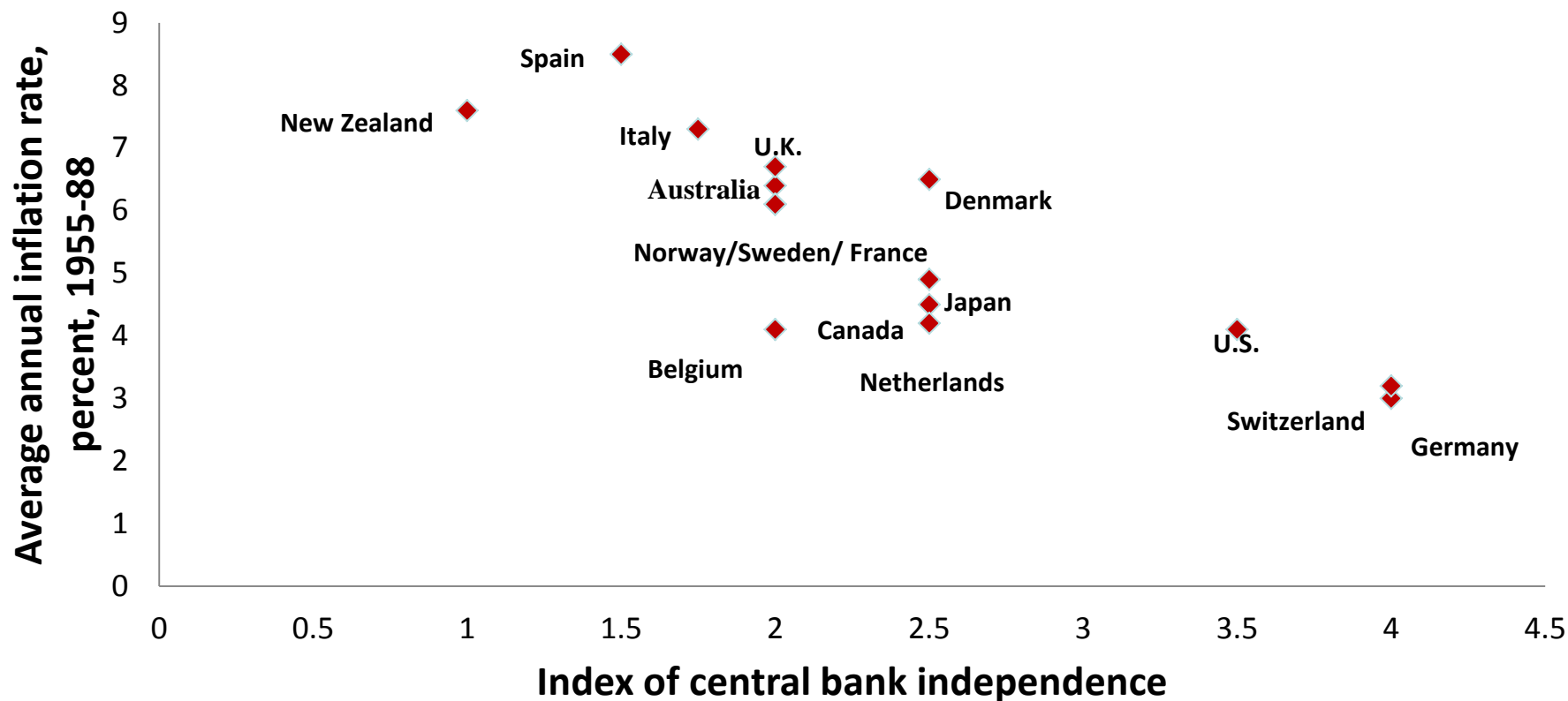


# Banco de México evolution

- Founded on September 1, 1925.
- Central bank independence given on April, 1994.
  - Banxico has only one mandate: price stability
- Inflation targeting scheme implemented in 2001.
- Taylor-Rule as a guide to policy decisions.



# Independent central banks deliver better inflation outcomes

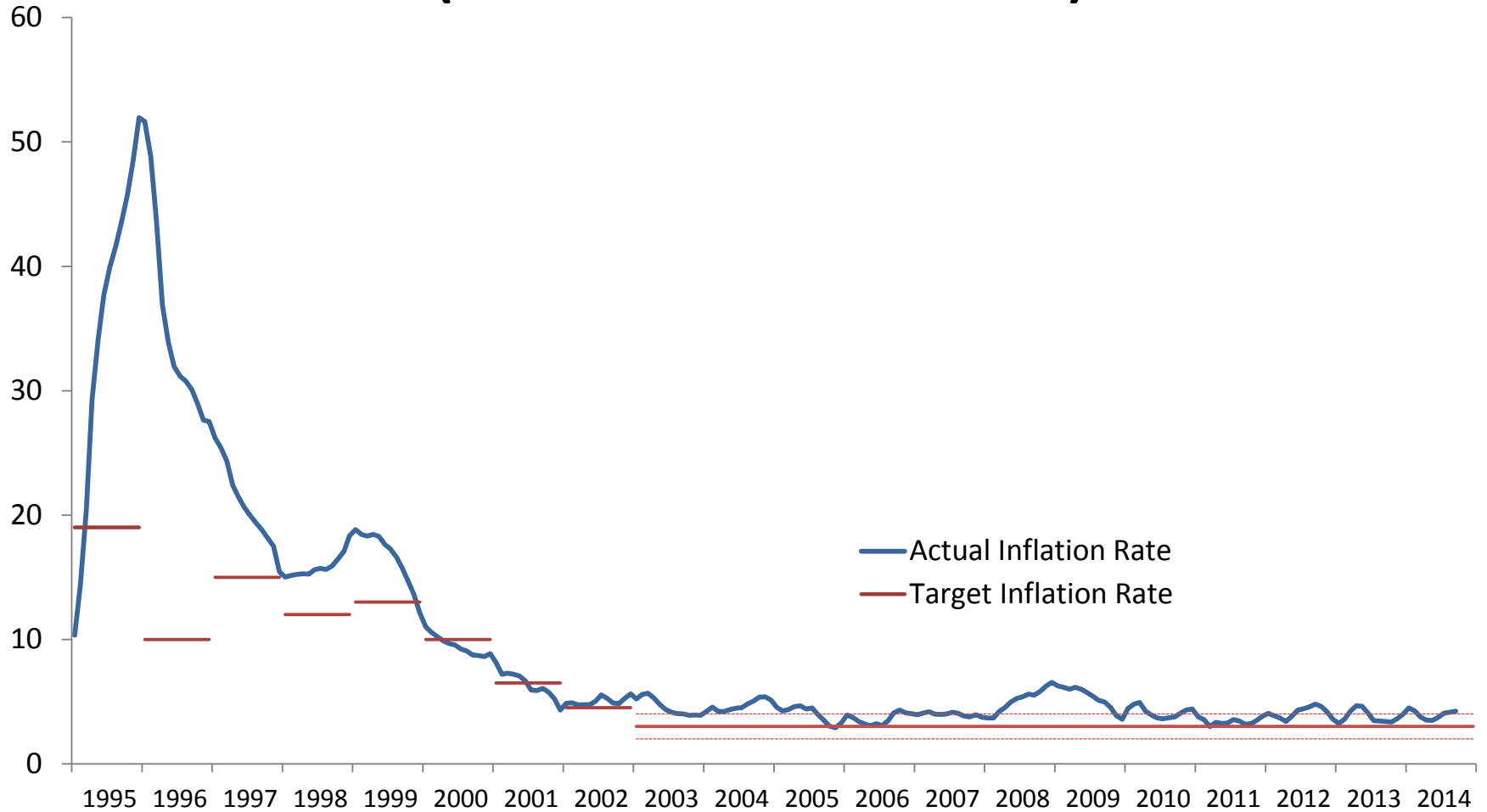


Source: "Central Bank Independence and Macroeconomic Performance: Some Comparative Evidence," by Alberto Alesina and Lawrence H. Summers, *Journal of Money, Credit and Banking*, vol. 25, no. 2, 1993, pp. 151-62.





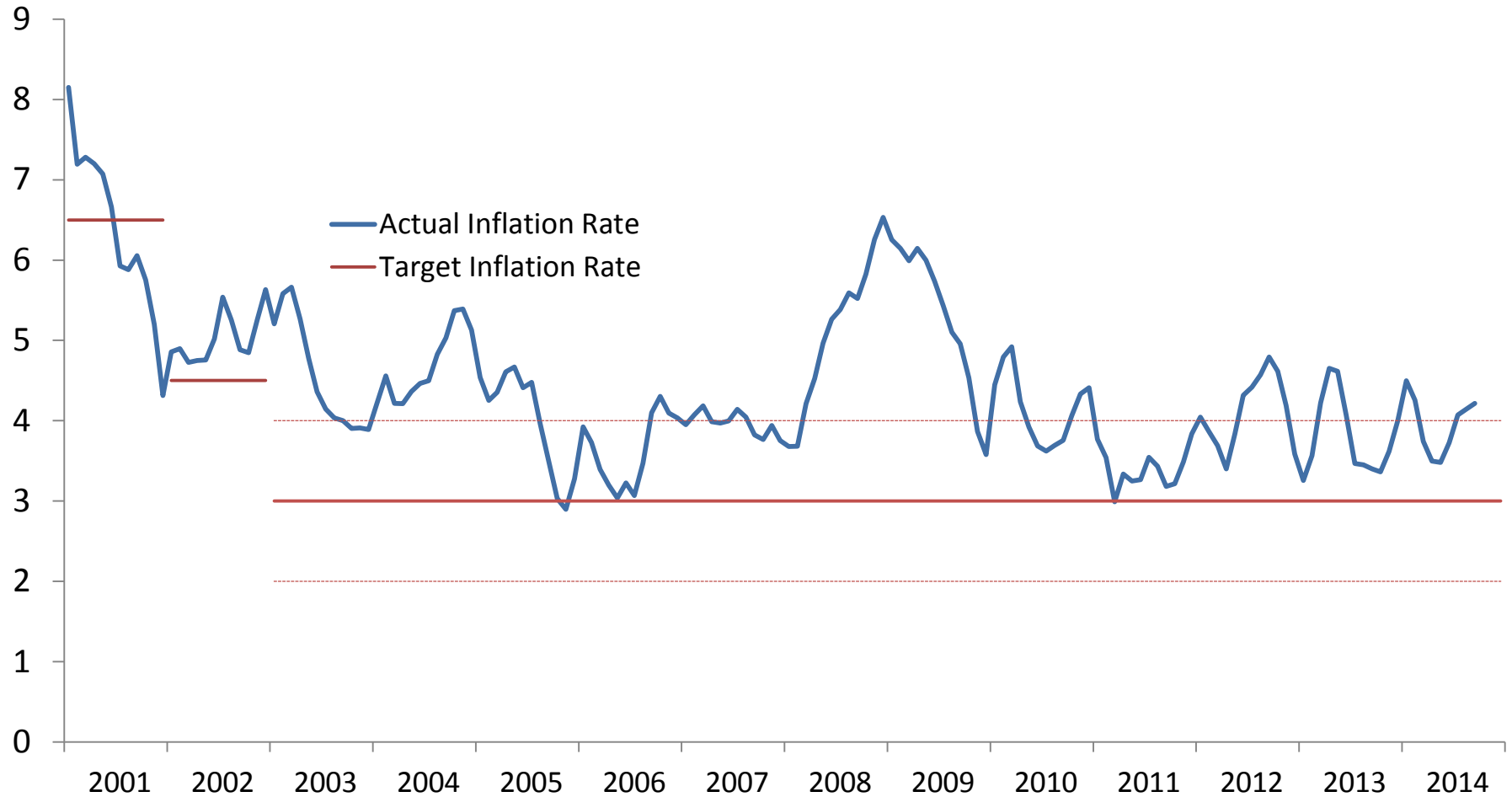
# Mexican inflation post-independent central bank (12-month inflation rate)



Source: INEGI/Banxico



# Recent trends in Mexican inflation (12-month inflation rate)



Source: INEGI/Banxico



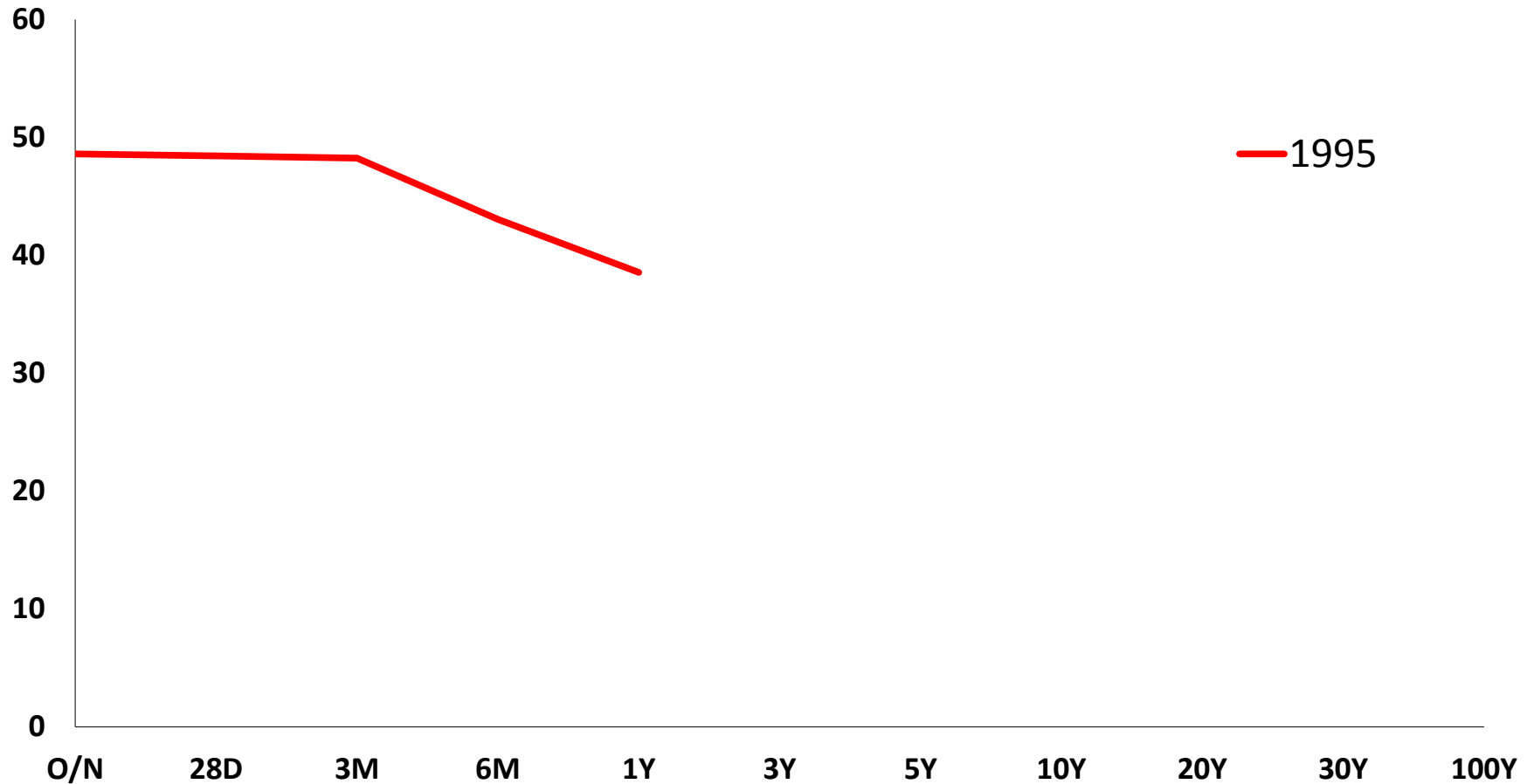
# Central bank independence is paying-off

Period	Average annualized monthly inflation	Standard deviation
Prior to independence (1970 -1994)	37.8%	43.2
Since independence (1994 – current)	9.8%	12.6
Since inflation targeting (2001 – current)	4.3%	1.69

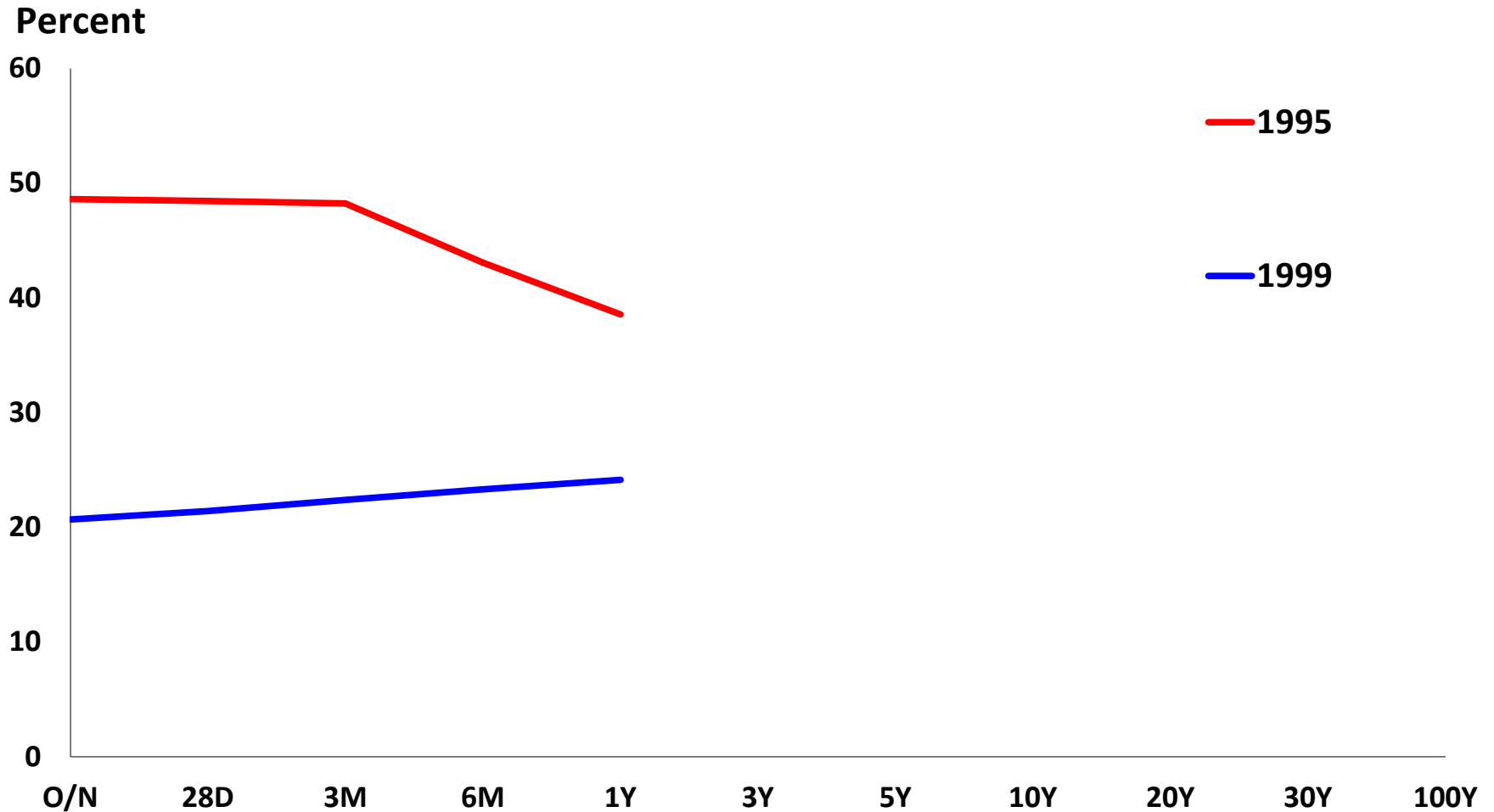


# Mexico grows a yield curve

Percent

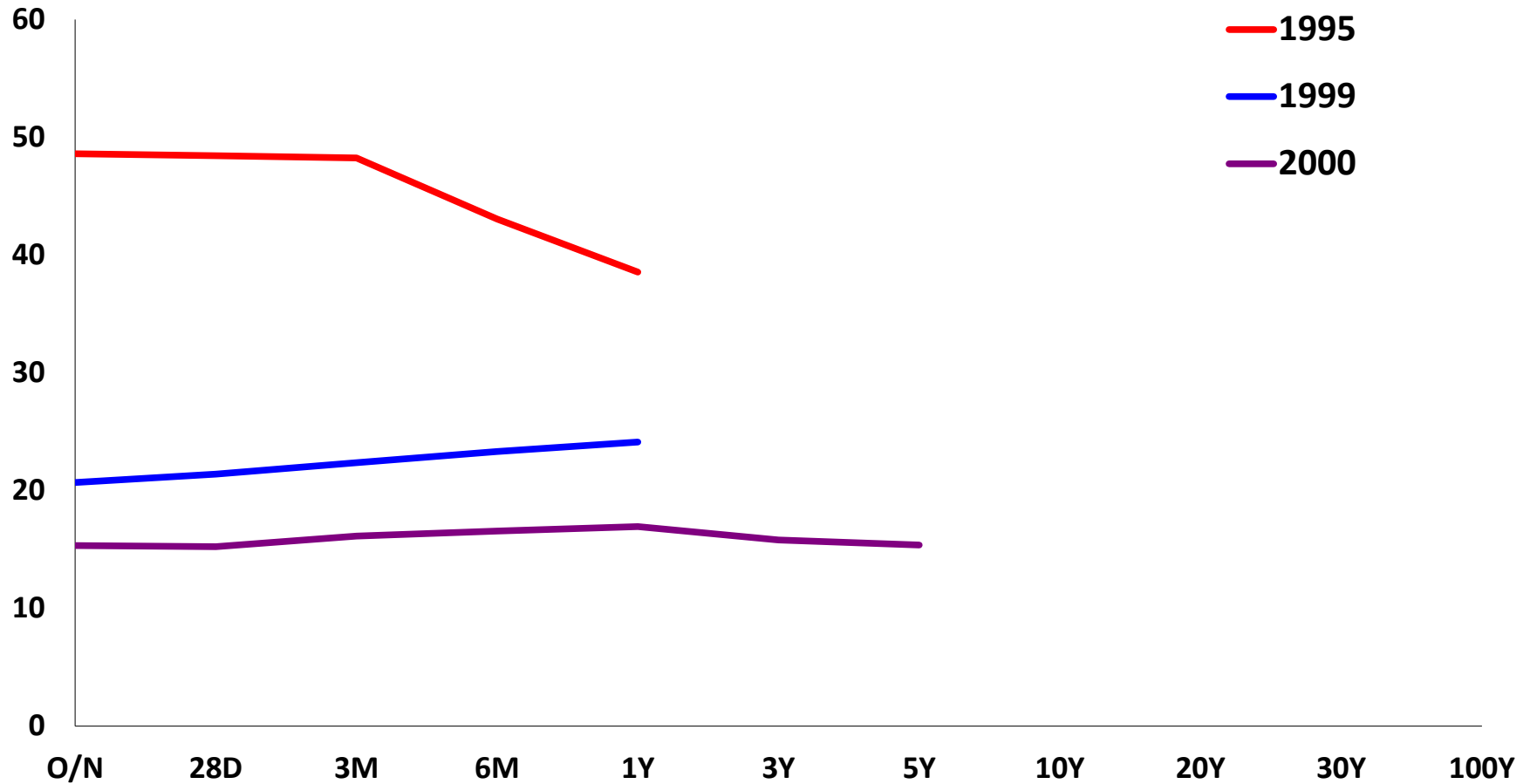


# Mexico grows a yield curve



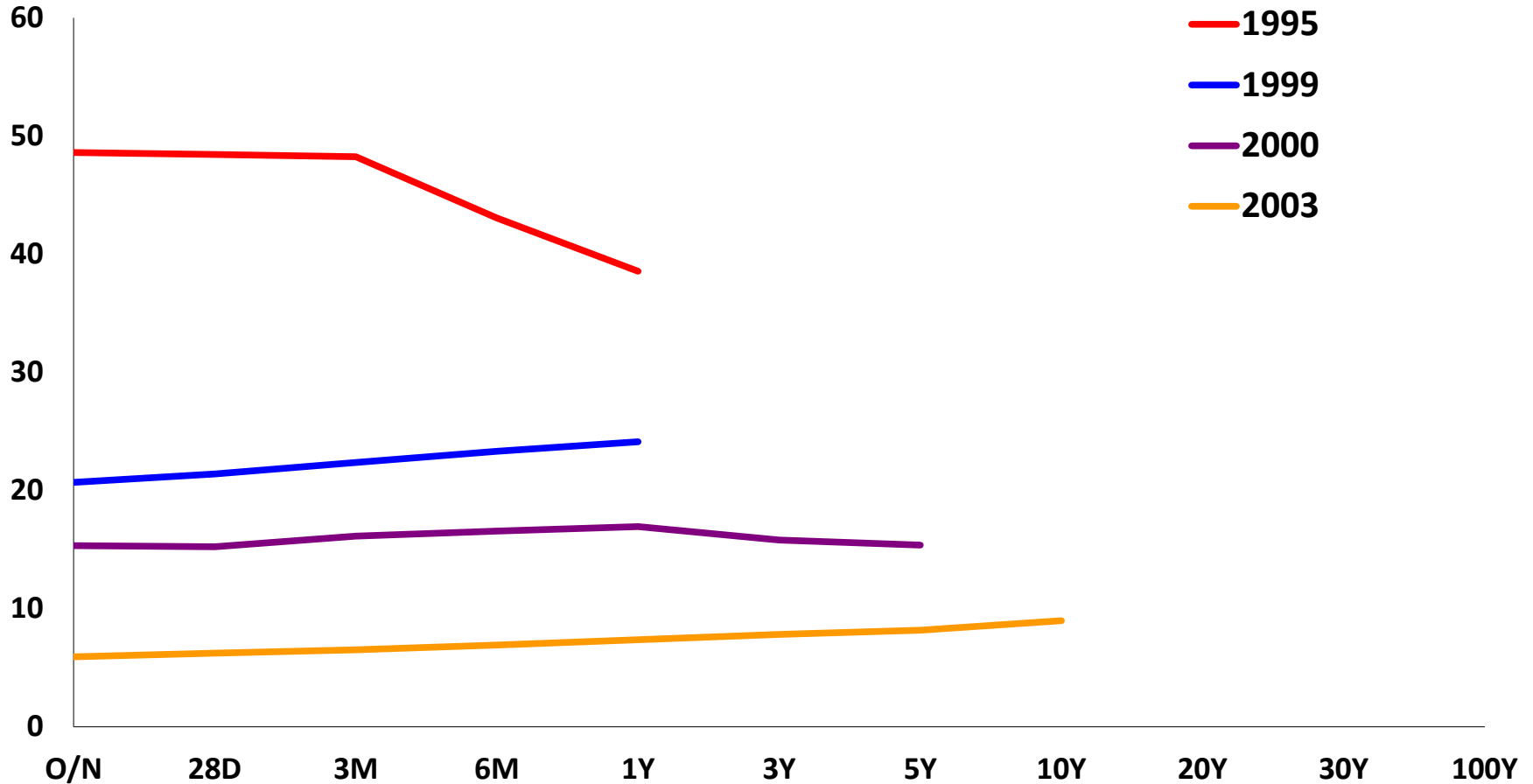
# Mexico grows a yield curve

Percent



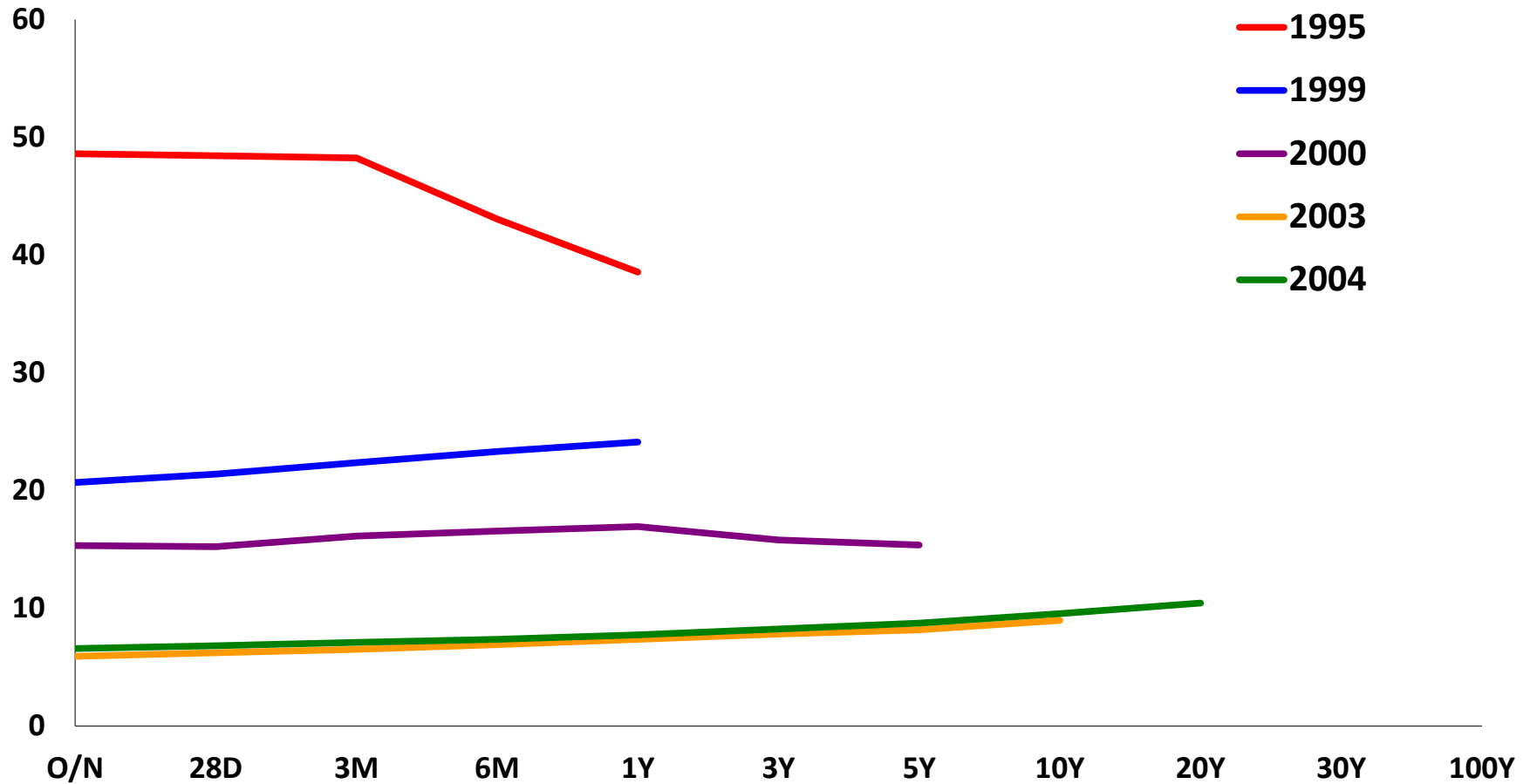
# Mexico grows a yield curve

Percent



# Mexico grows a yield curve

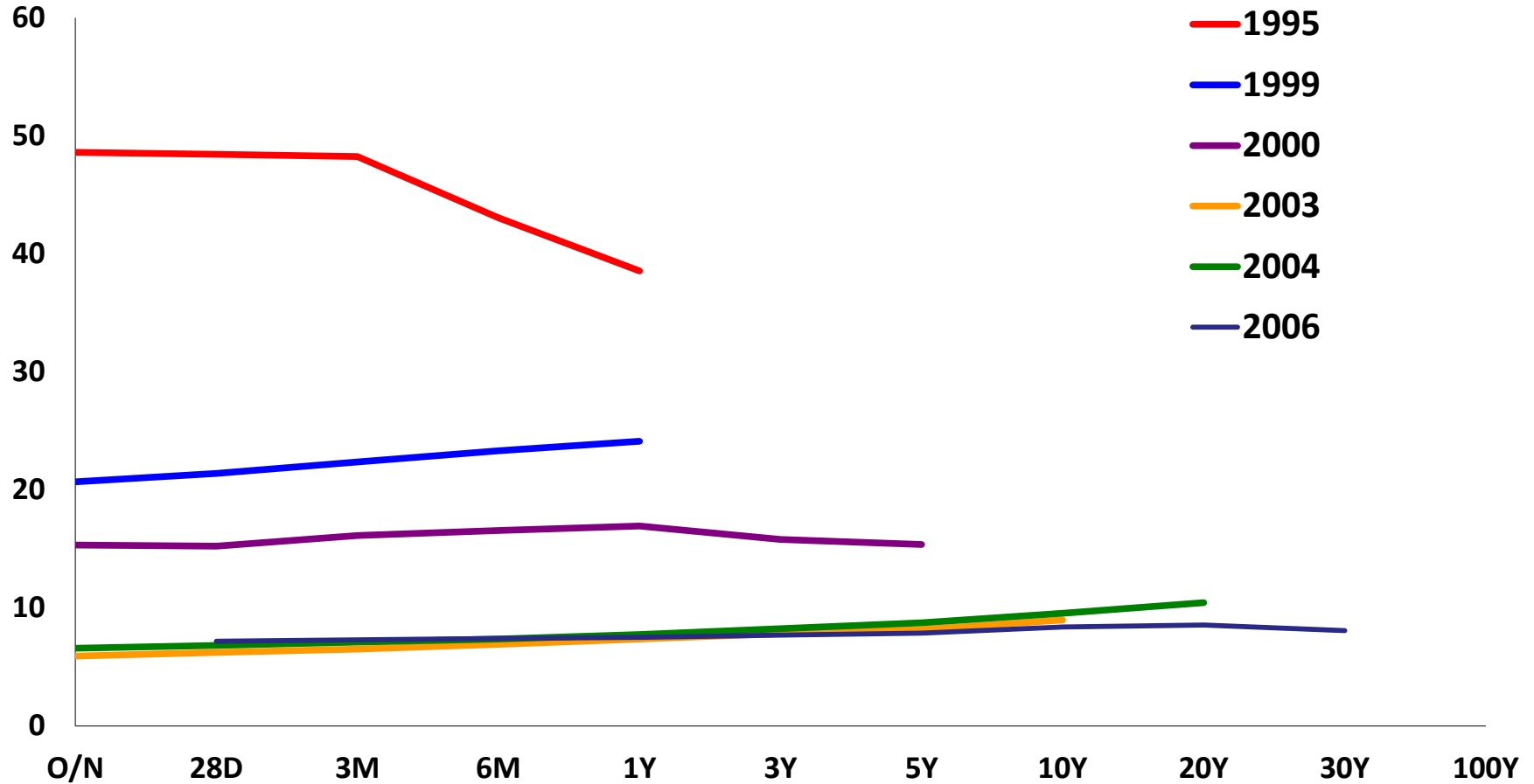
Percent





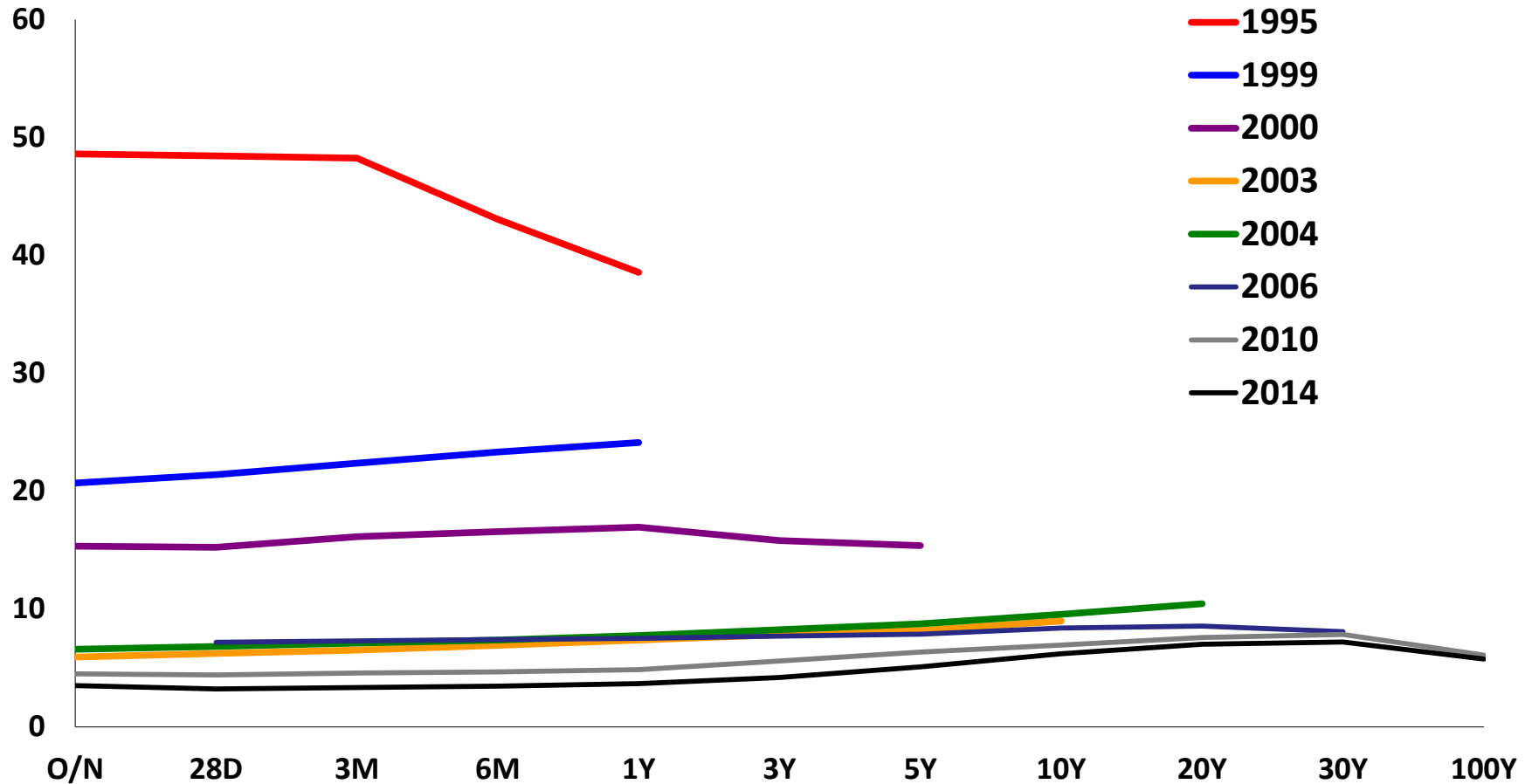
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# Mexico grows a yield curve

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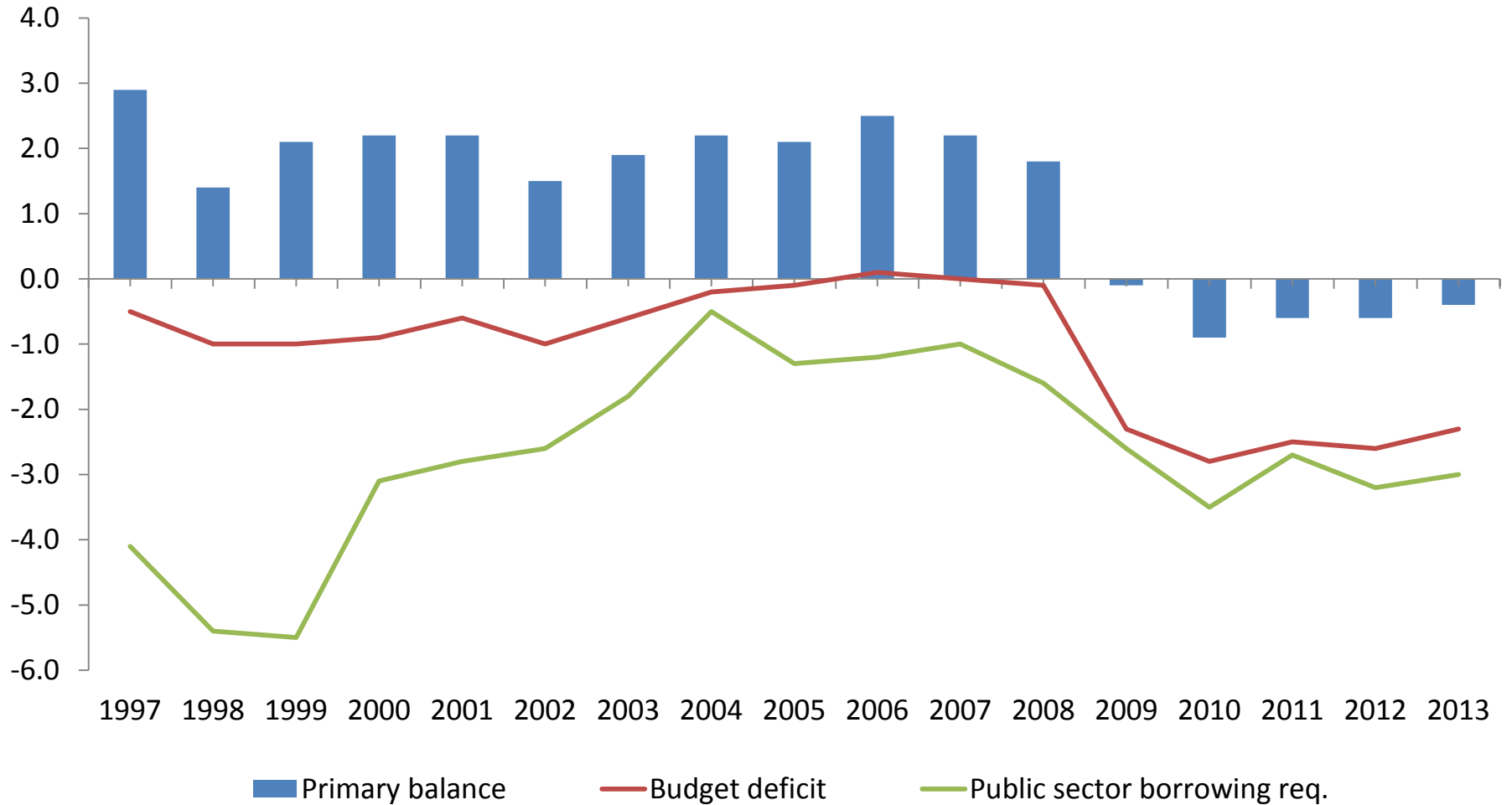


Note: 2010 - 100 yr Bonds were issued in US Dollars,  
2014 - 100 yr Bonds were issued in British Pounds



# Mexico has embraced fiscal discipline

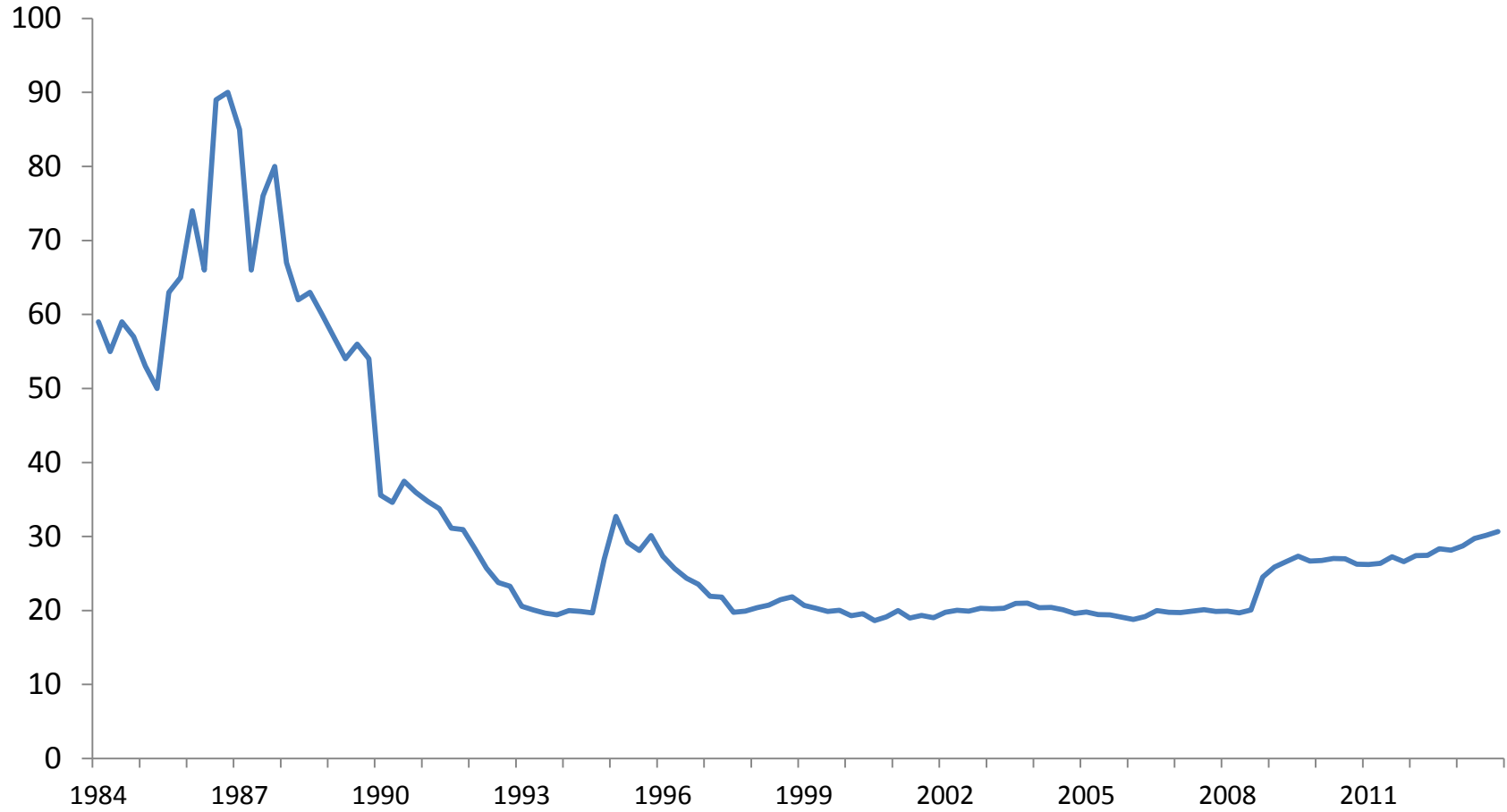
(percent of GDP)



Source: Secretaria de Hacienda y Credito Publico



# National debt is under control (and small) (percent of GDP)

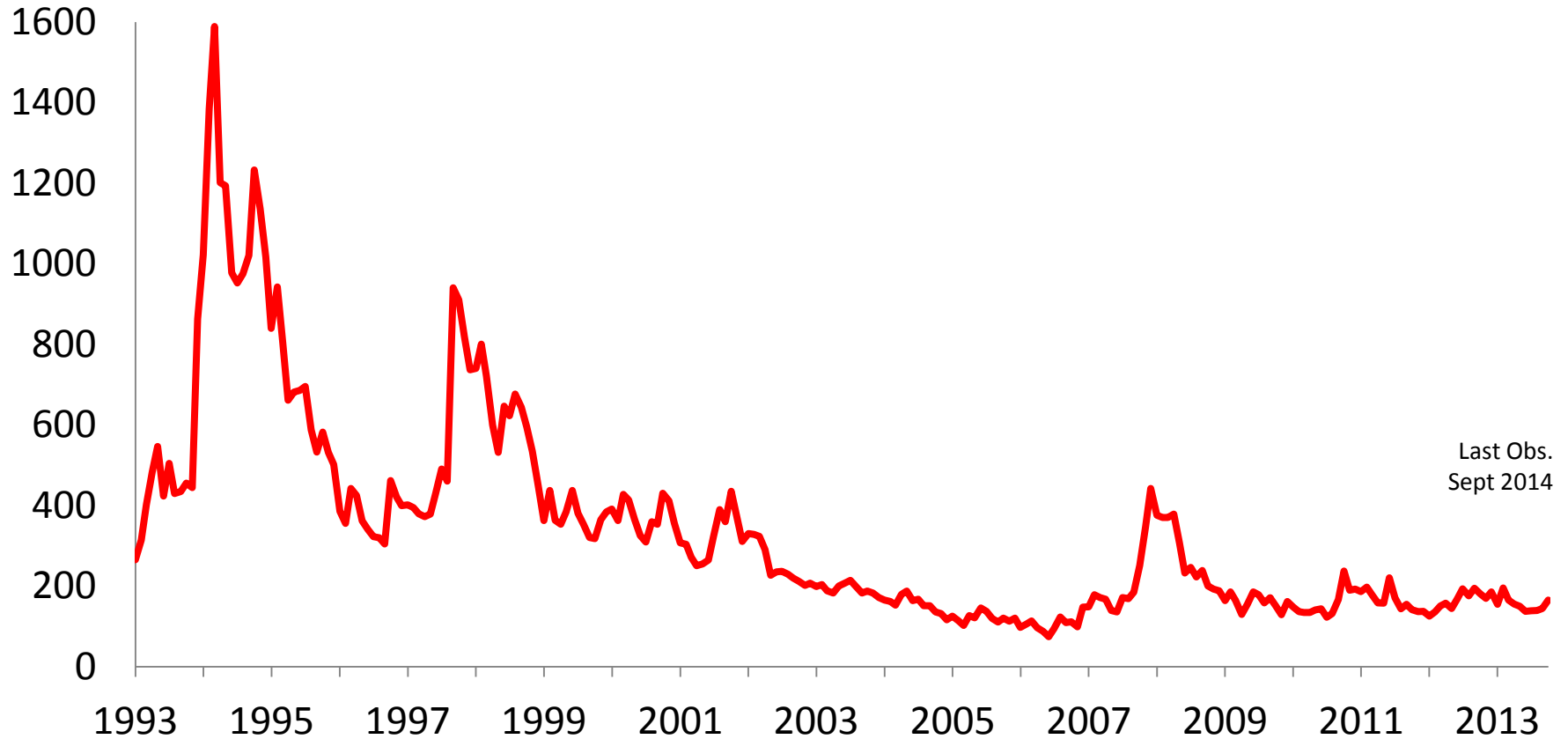


Source: SHCP



# Markets recognize Mexico's efforts

Interest rate spread



Last Obs.  
Sept 2014

Source: Bloomberg



# Independence and fiscal discipline are not enough for growth

Period	Average annualized quarterly growth	Standard deviation
Prior to independence (1970 -1994)	2.7%	5.4
Since independence (1994 – current)	2.6%	5.1
Since inflation targeting (2001 – current)	2.2%	3.9



## 2. Structural reforms underway



# Aggressive Structural Reform Agenda

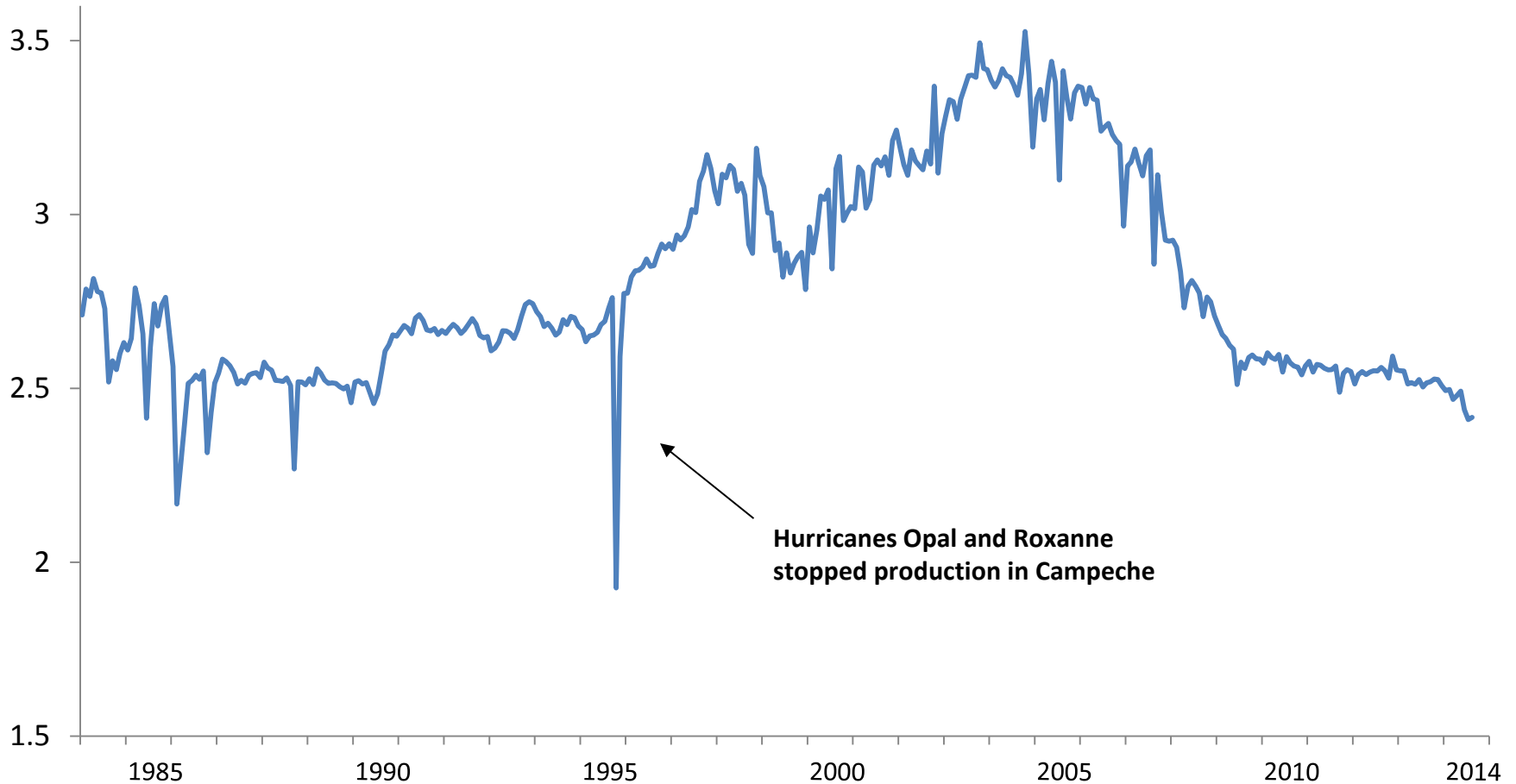
- **Energy**
  - Open whole production chain to private investment
- **Fiscal**
  - Increase tax revenue by increasing VAT and close loopholes
- **Financial**
  - Boost access to credit
- **Telecom and Competition**
  - Boost market competition and break dominant firms
- **Education**
  - Improve education quality
- **Labor**
  - Enhance flexibility in the labor market





# Mexican crude oil production

Millions Bbls/Day, SA



Source: INEGI

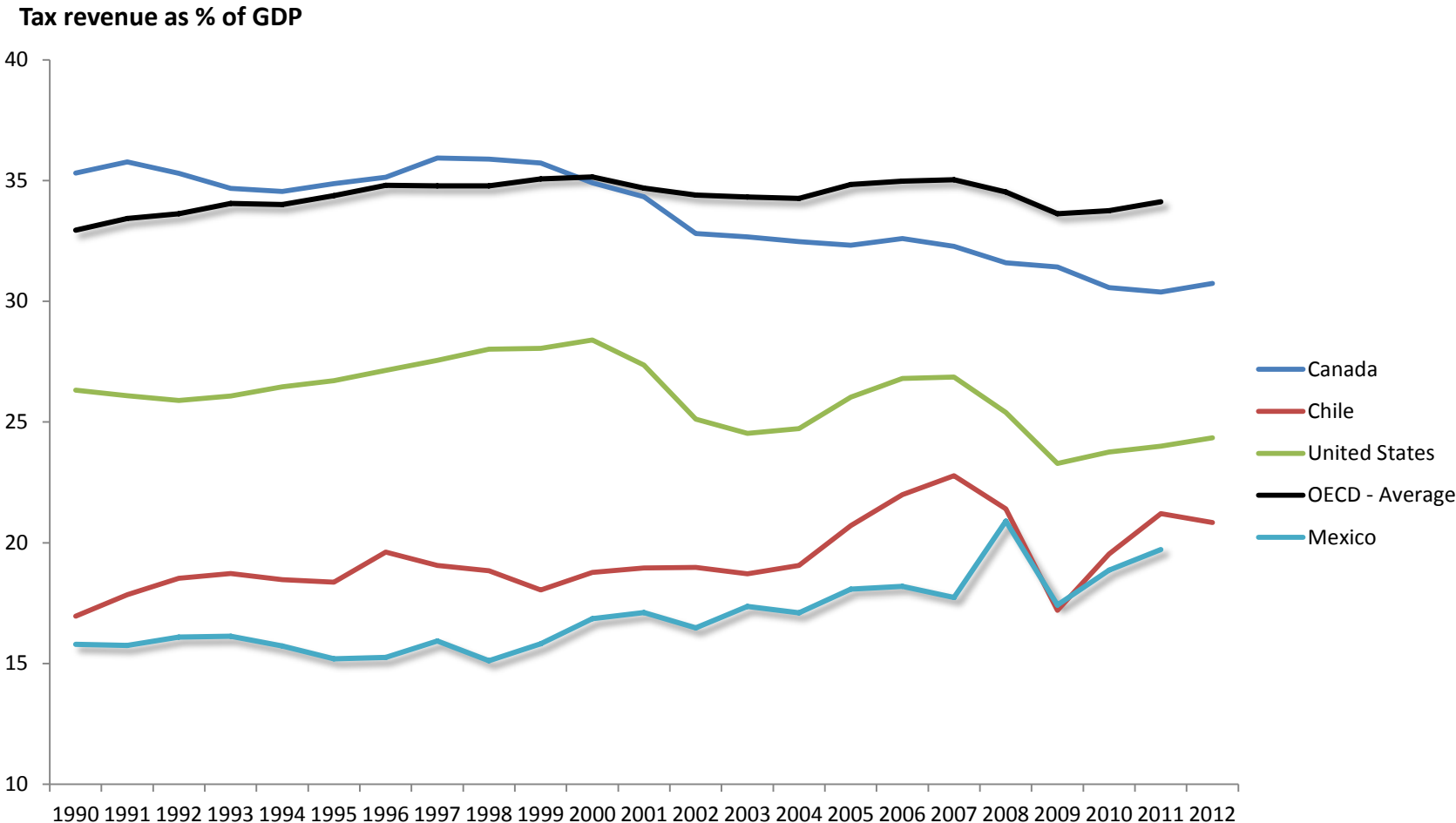


# Energy Reform

- PEMEX and CFE are both state owned
- Lack of investment into PEMEX and CFE
- Since 2000 electricity prices per kilowatt hour in Mexico have exceeded those in the United States
  - Ranging from 1.1 to 1.7 times
- Mexican oil production in decline
- Reform enacted into law in December 2013
  - Secondary laws enacted in August 2014
  - Reform maintains public ownership of energy resources
  - Opens supply chain
  - Firms can be paid in cash or oil
- PEMEX will now face competition
- CFE faces some competition
- A Mexican Petroleum Fund was created to manage the revenue generated



# Fiscal Reform



Source: OECD



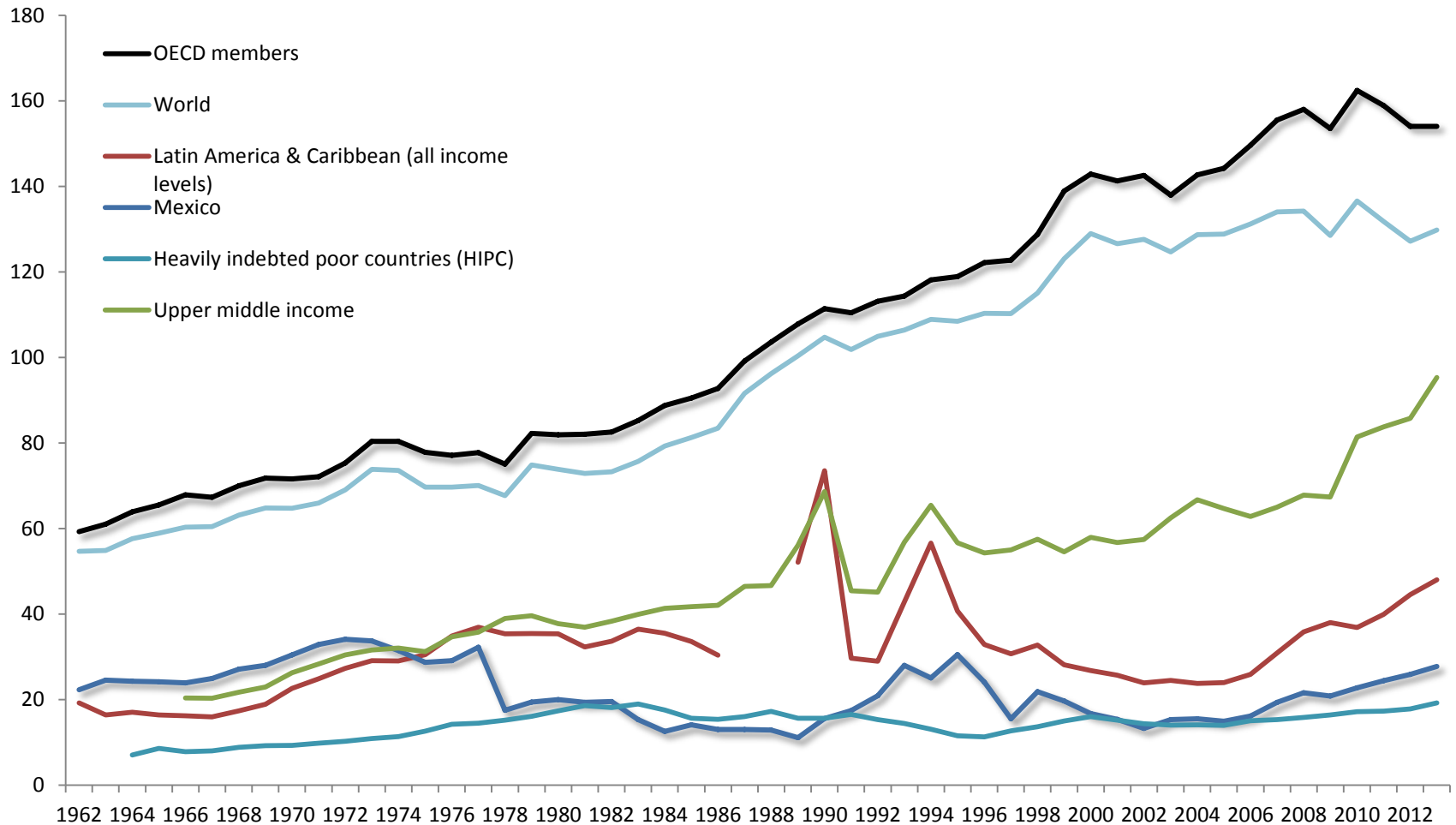
# Fiscal Reform

- Informal sector in Mexico is large compared to other OECD countries
- Government budget is overly dependent on oil revenue
- Reform enacted into law in November 2013
  - Creates a universal pension (social security) system
  - Sugar-tax of one peso per liter
  - 8 percent tax to high calorie foods (Chocolate, candy)
  - Value added tax in the border is raised from 11 to 16 percent
  - New 10 percent capital gains tax
  - Deduction of employment benefits limited to 53 percent
- Marginal income tax increases to 32 percent for those earning over \$750,000
  - A 34 percent rate for people earning over \$1 million
  - Highest tax rate is now 35 percent when earning over \$3 million
- Maquiladora industry also affected



# Financial reform

Domestic credit to private sector (% of GDP)



Source: World Bank



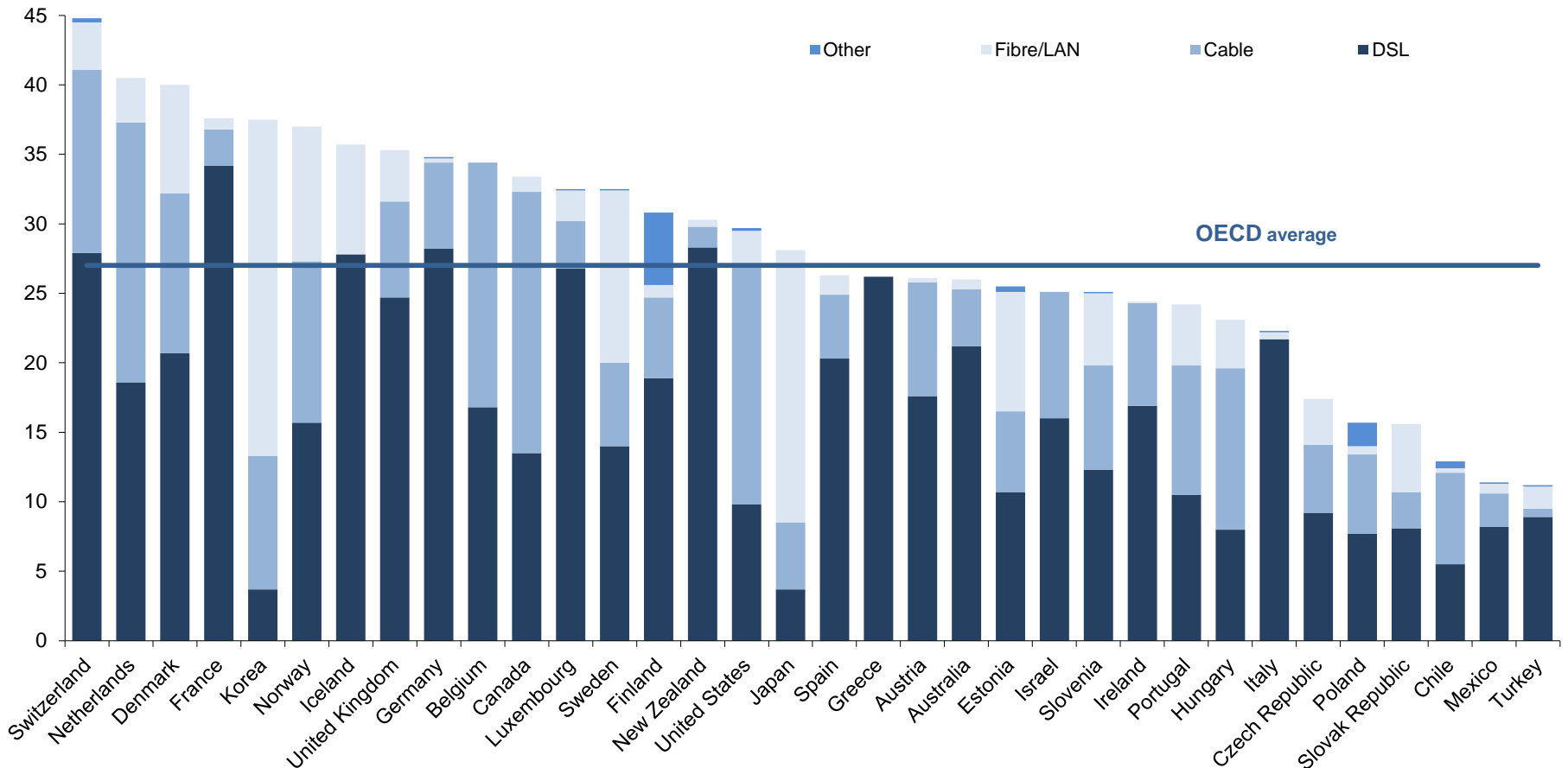
# Financial Reform

- After the 1994-95 banking crisis
  - Overhaul of the financial regulations
  - Foreign ownership of banks allowed
  - Did little to spur commercial lending
- Creditors have difficulties seizing assets
  - Hinders credit provision
- New reform enacted into law in January 2014
  - Facilitates the creditors to seize assets
  - A system of financial arbitration is created
  - A bureau of financial entities is created
  - Transfer of credit becomes easier to another financial institution
  - Banxico will regulate bank's fees and the interest rates banks charge for loans



# Telecommunications Reform

OECD Fixed (wired) broadband subscriptions per 100 inhabitants, by technology, June 2013



Source: OECD



# Telecommunications Reform

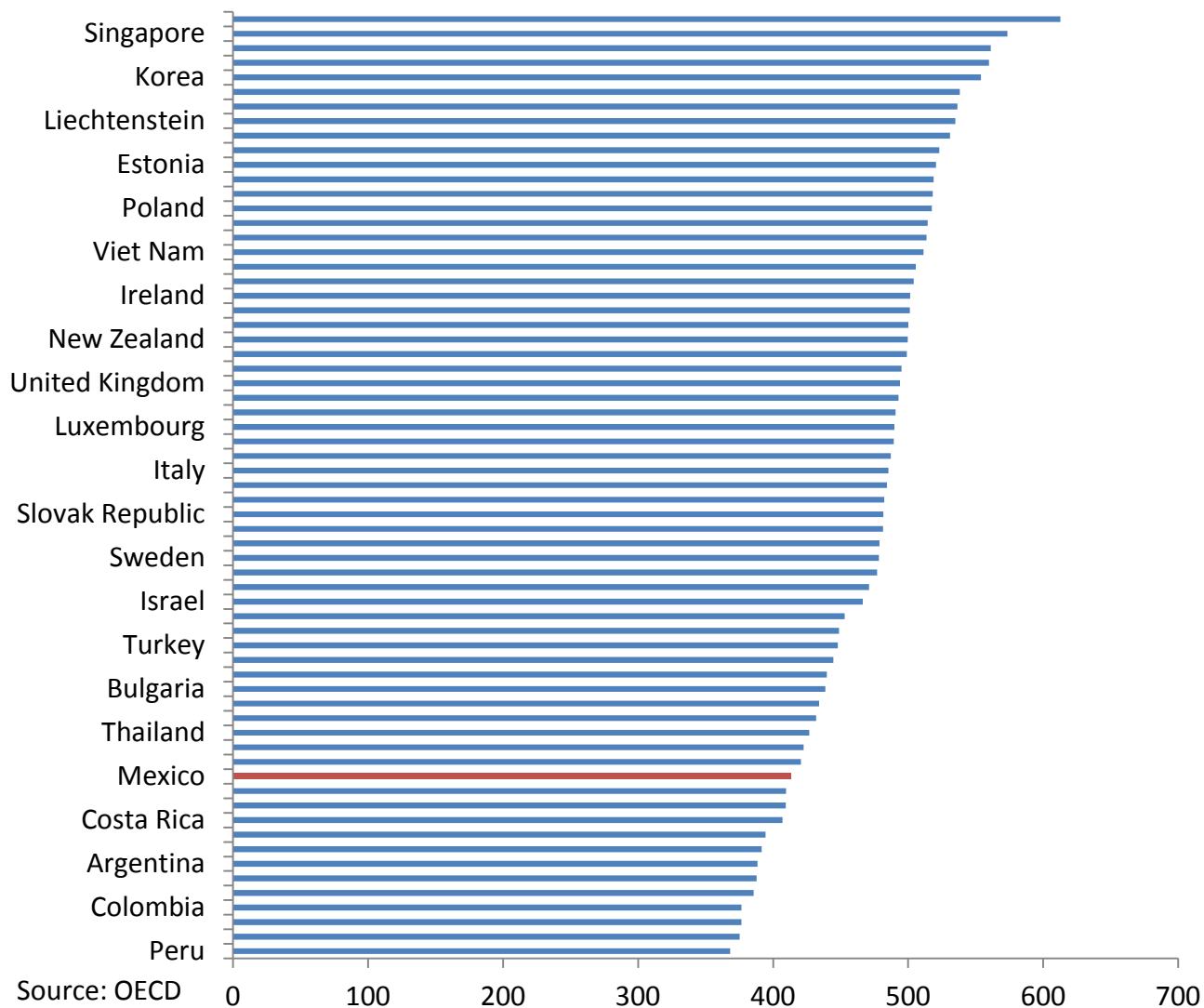
- Telecommunications market highly concentrated
- OECD estimates that lack of competition in the communication sector leads to significant welfare losses
  - \$129.2 billion from 2005 to 2009, a loss equivalent to 1.8 percent of Mexico GDP.
- Reform enacted into law in June 2013
  - Secondary laws enacted in July 2014
  - Instituto Federal de Telecomunicaciones (IFT) replaces COFETEL
  - Two new free-to-air TV channels will be licensed and set to launch by the end of 2015
- Televisa and America Movil were declared dominant market players by IFT in March 2014
  - Televisa and America Movil will have to share infrastructure with competitors





# Education Reform

PISA 2012 Math scores



Source: OECD





# Education Reform

- Number of schools, teachers and students was unknown
- Reform enacted into law in February 2013
- Increase quality of education in Mexico
- Enhance the government's role in the education system
  - Hire and fire teachers based on standardized assessments
- Decrease the power of the labor unions
- National Institute for Educational Evaluation (INEE) created
  - Asses quality, performance, and results of the national education system
- First national census conducted by INEGI from September to December 2013
- CNTE has continued to not follow the law and protest against the reform





# Labor Reform

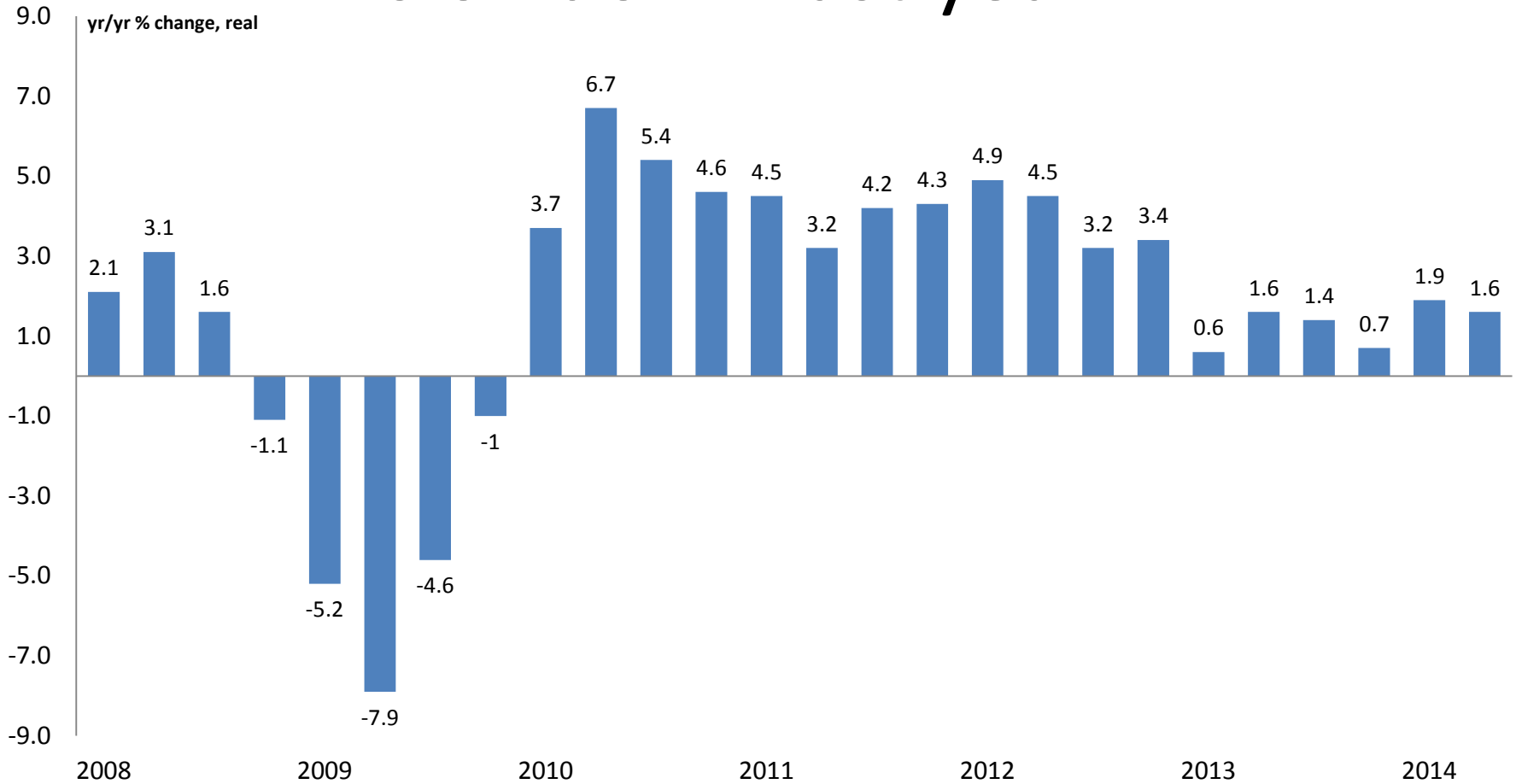
- Perverse incentives towards informal sector creates a drag on productivity growth
- Need to enhance the flexibility of the labor market
- Reform enacted into law in November 2012
  - Creates new employment regimes such as in training and temporary
  - Regulates hourly pay
  - Reform kept the three month salary severance payment when the employer fires and employee without cause
- Critics in the private sector believe the reform did not create a flexible labor market



# 3. Mexico's economic update



# Mexican economy is picking up after slowdown last year



Source: Banco de Mexico



# Deceleration of the Mexican economy in 2013

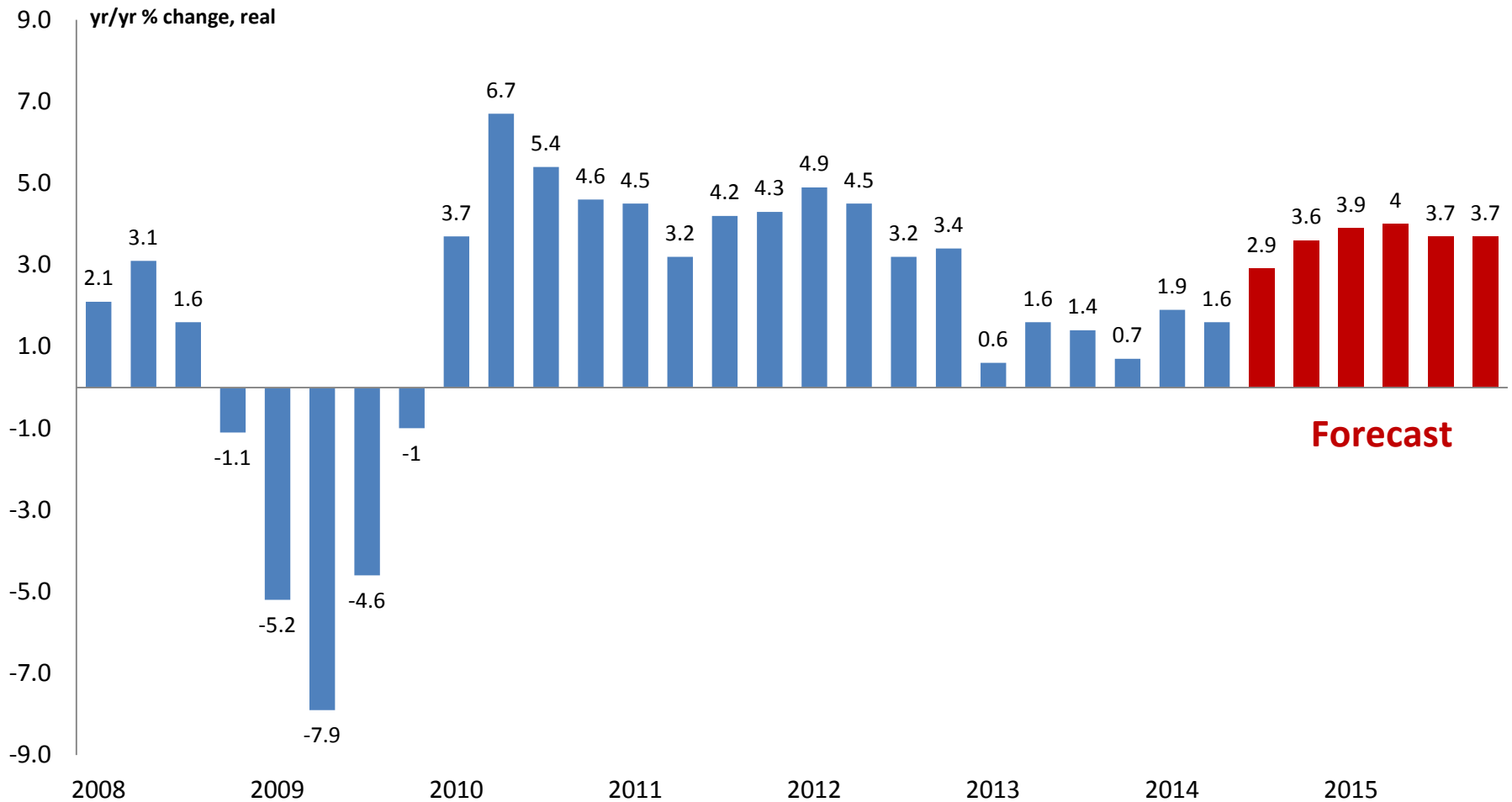
- Slowing preceded tapering

Due to:

- Low growth, weak trade in the global economy
- Lower public spending as new administration takes office
- Gas shortages slowing manufacturing in central Mexico
- Deep seated weakness in the construction sector



# Growth expected to come back



Source: Banco de Mexico

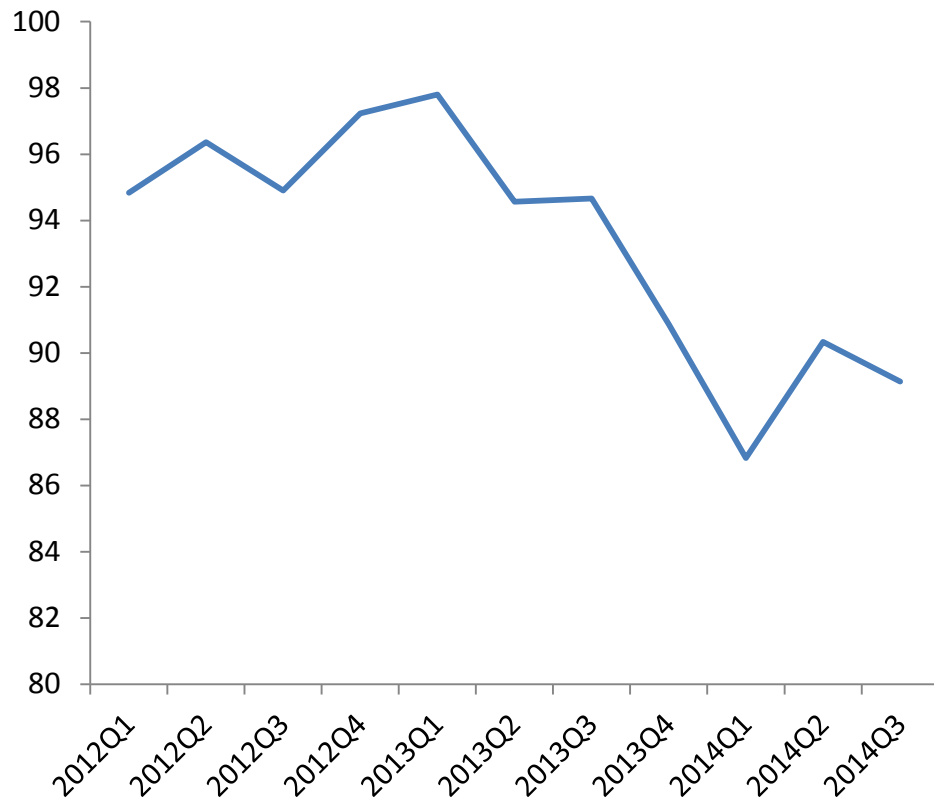


# Growing pains from the reforms in the short run

## Consumer confidence

(Quarterly observations, s.a.)

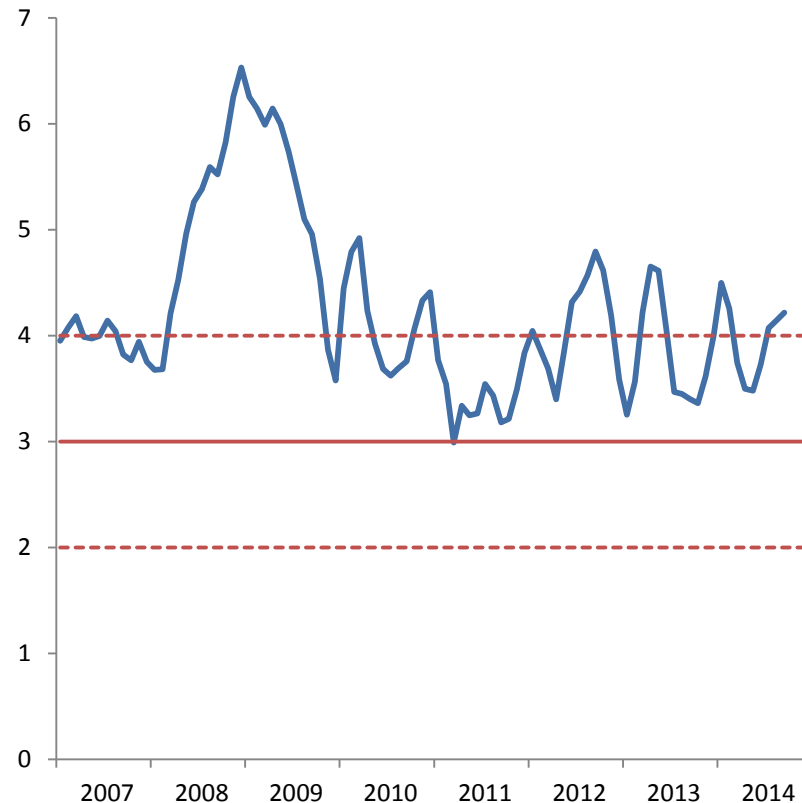
Index, Jan. 2003=100



Source: INEGI

## Consumer price index

(Year-over-Year growth, s.a.)



Source: INEGI/Banxico



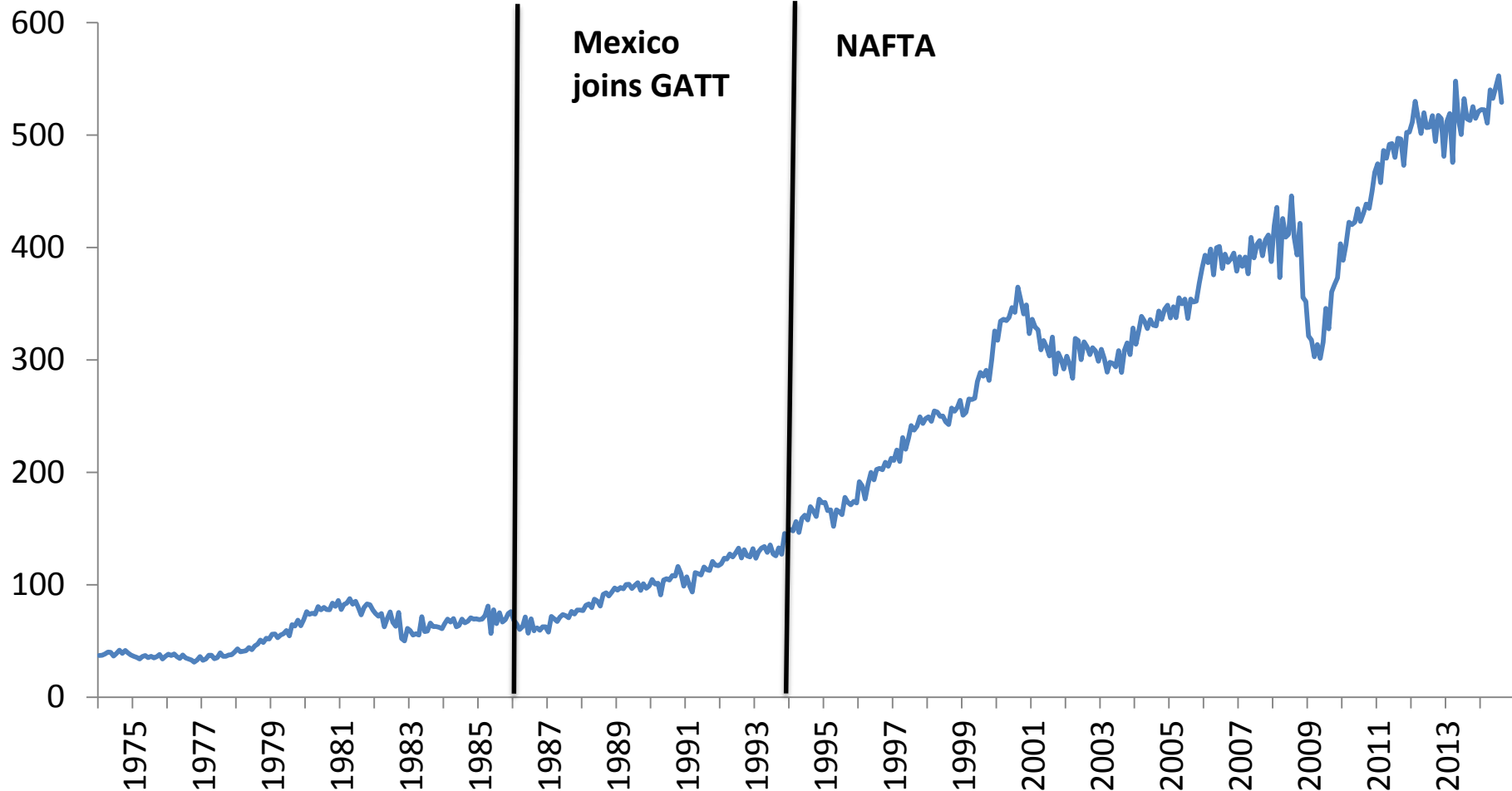


# 4. What is in store for the Texas border region?



# U.S.-Mexico trade

Billions of real \$, SA, annual rates



Source: U.S. Census Bureau, Bureau of Labor Statistics



# How relevant is Mexico in the North America auto production?

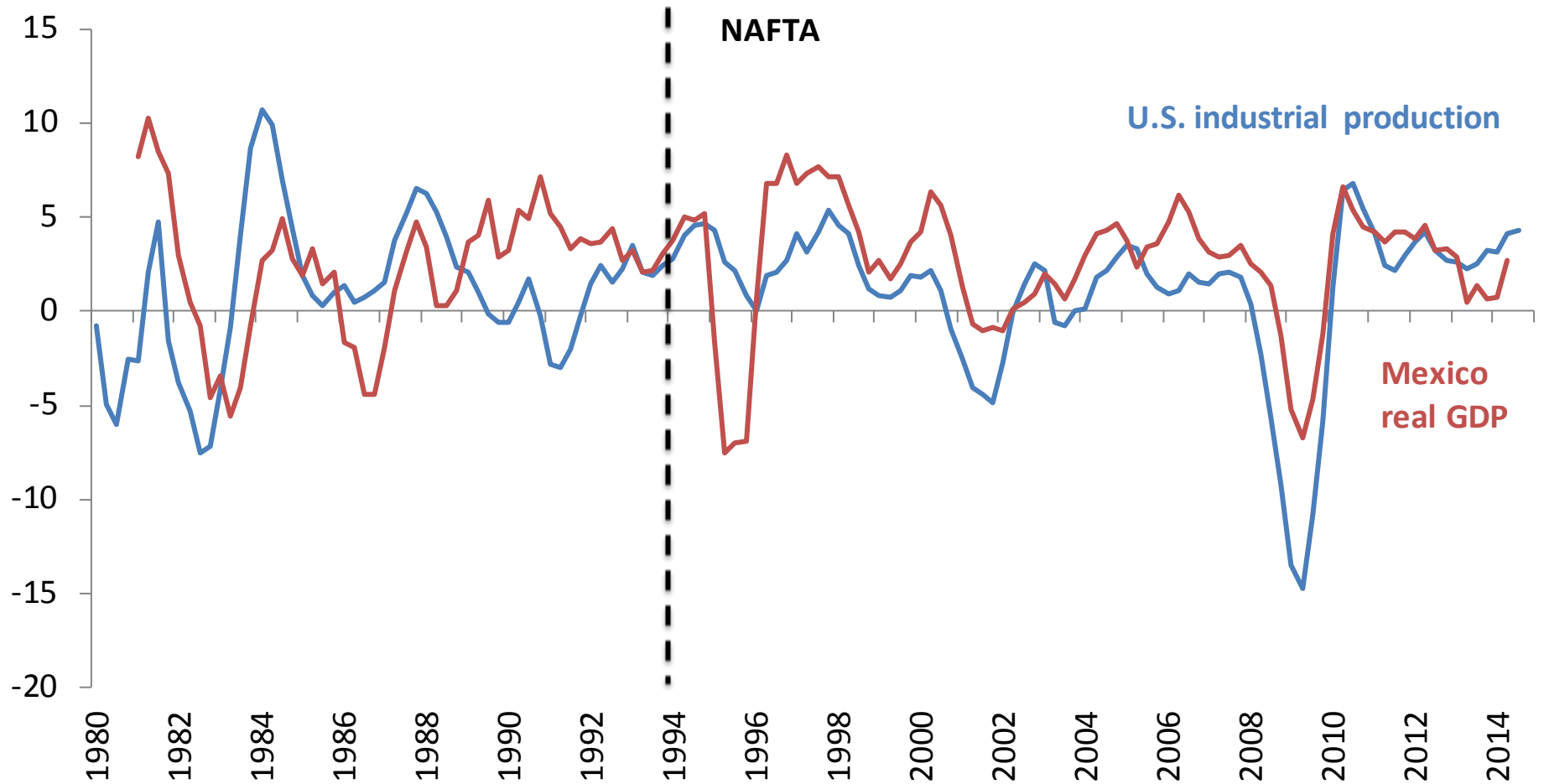
- Today, roughly 1-in-5 light vehicles produced in North America come from Mexico.
- Mexico surpassed Canada as the second largest vehicle producer in North America in 2008.
- Mexico also plays a crucial role in auto parts.
- One-third of the auto parts imported into the U.S. come from Mexico.

**Source:** Thomas H. Klier and James Rubenstein, “The Growing Importance of Mexico in North America’s Auto Production,” *Chicago Fed Letter*, May 2013, No.310.



# NAFTA brought stronger economic integration

Year/year % change



Source: Federal Reserve Board, Instituto Nacional de Estadística Geografía e Informática





# Is Mexico important to the border states?

- Mexico is the third most important trading partner for the U.S.
- For U.S. border states, Mexico is a key trading partner:
  - Arizona ---- \$7.1 billion (37%)
  - California ---- \$23.9 billion (14%)
  - New Mexico ---- \$0.8 billion (29%)
  - Texas ---- \$100.9 billion (36%)



# US-Mexico trade by top 10 land ports in 2013

Rank	City	Total Land Trade (billions of U.S. \$)	Share of Total (%)
1	Laredo, TX	174.6	42.4
2	El Paso, TX	66.6	16.2
3	Otay Mesa – San Ysidro, CA	36.1	8.8
4	Nogales, AZ	27.7	6.7
5	Hidalgo, TX	27.4	6.7
6	Eagle Pass, TX	21.4	5.2
7	Santa Teresa, NM	18.9	4.6
8	Brownsville – Cameron, TX	14.6	3.6
9	Calexico, CA	13.2	3.2
10	Del Rio, TX	4.5	1.1
11	Other	6.6	1.6
	<b>Total</b>	<b>411.6</b>	

Source: Texas Center for Border Economic and Enterprise Development, Texas A&M International University





# The role of the border region

- The U.S.-Mexico border region has played a critical role as both nations integrate even further
- *Maquiladoras* are a major vehicle for this cross-border movement of industrial goods
- According to Dallas Fed research, *maquiladoras* drive significant economic activity in U.S. border cities:
  - El Paso: 1-in-4 jobs
  - McAllen: 1-in-3 jobs
  - Laredo & Brownsville: 1-in-10 jobs



# Border economy in transition

- Economic activity migrating from manufacturing to services

	1990 Mfg.	2012 Mfg.	1990 Services	2012 Services
El Paso	20%	6%	73%	85%
Laredo	4%	1%	86%	86%
McAllen	14%	3%	74%	88%
Brownsville	16%	6%	76%	88%

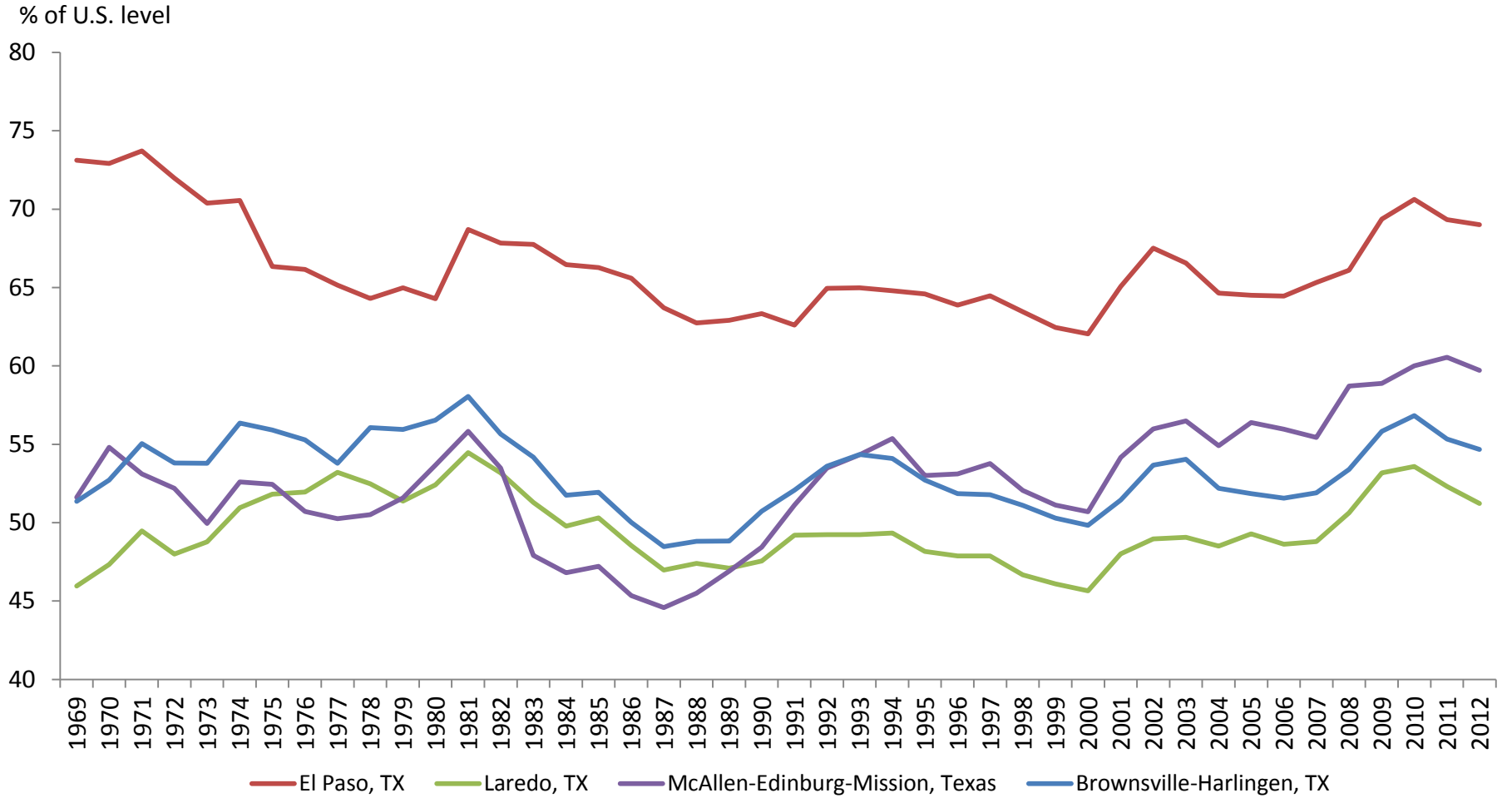
Source: Bureau of Economic Analysis

- Per capita income closing gap with national levels





# Per Capita income in TX border region



Source: Bureau of Economic Analysis



# Concluding remarks

- Mexico has been working on structural reforms since the 1980's; process accelerated since 2012
- Macroeconomic stability achieved; but per capita GDP growth remains weak
- New reforms are needed to spur growth
- Reform process has caused uncertainty resulting in an economic slowdown
- Brighter future for the Texas border region



# Upgrading Mexico's Economy: What Is in Store for the Texas Border Region?

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