THE MONETARY AND FISCAL HISTORY OF MEXICO 1960-2016

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Mexico under fiscal dominance (Sargent-Wallace 1981): *In data debt dynamics match model*

![Figure 1. Dynamics Primary Deficit and Seigniorage 1960-1983, % of GDP](image-url)
Figure 2. Dynamics of Foreign and Domestic Debt, % of GDP
Why did Mexico default in 1982 with low levels of primary deficit and debt?

Two main problems: Growing **FISCAL** and current account deficits under fixed exchange rate regime

Plus external shocks

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**Figure 3. Role of Exogenous Shocks: Oil Price, Dollars per Barrel**
Interest rates channel. Almeida, Esquivel, Kehoe and Nicolini working on this

Figure 4. Role of Exogenous Shocks: US T-Bill 3-Month Rate, in %
Political Factor Pre 1982
Miguel de la Madrid: Secretario de Programación y Presupuesto (SPP), elected President 1982-1988
David Ibarra: Secretario de Hacienda y Crédito Público (SHCP)
José Andrés de Oteyza: Secretario de Patrimonio y Fomento Industrial (SEPAFIN)
Gustavo Romero: Director General of Banco de México (BM)

How big was the deficit?: SPP reported deficit of 9% of GDP, versus SHCP which calculated 12%

Disagreement on reduction of deficit:
SHCP and BM wanted to reduce its growth, versus SEPAFIN which opposed

Disagreement on whether Mexico should devalue peso:
SHCP and BM wanted to devalue to reduce current account deficit
SEPAFIN opposed, proposing instead restricting imports of consumption goods

Competition to become presidential candidate of PRI in 1982 elections:
Choice was made not to adjust deficit before 1982
Exchange rate remained fixed; restrictions on imports imposed to reduce current account deficit
Figure 5. Monetary Impact of 1982 Crisis: Inflation in % (left axis), Inflationary Tax % GDP (right axis)
Figure 6. Decomposition of Foreign Debt / GDP Keeping RER Constant, 1981=1

Sustained effort to achieve macro stability. Independence of Banco de México. 1994 Crisis

Figure 7. Fiscal and Monetary Variables 1977-2016, % of GDP
Can my version of Sargent and Wallace (1981) account for 1994 Crisis? No
Primary surplus of 2.4% of GDP in 1994. Total debt had fallen for years to 15.1% in 1993
→ We knew that. My contribution was to collect data consistent with model

Complementary theories based on banking sector

1. Prospective deficits (BER 2001): Expectation bailout financed via future seigniorage caused crisis
2. Banking system self-fulfilling: Given liabilities in dollars, devaluation would hurt bank balances.
   At same time, bailout would hurt public finances, reducing ability to defend fixed exchange rate

1988-1994: Foreign short-term bank debt: from 8.6 billion dollars to 24.8; avg growth of bank credit 25%
1991-1994: Increase in delinquency rates from 4.1% to 7.3%
1995: Large increase in real interest rates led to more default on bank credit
Was there bailout guarantee in 1994-1995? Yes
Guillermo Ortiz, then Secretario de Hacienda: No saver would lose deposits

Cost of bank bailout: 15% of GDP in 1998; very strong political opposition
Figure 8. BER Theory: Looking for Spike in Seigniorage, All Variables as % of GDP
3. 1995-2016: RESPONSE TO CRISIS. MACRO STABILITY ACHIEVED. CHANGES POST 2008

Figure 9. Primary Deficit and Total Debt as % of GDP
Did monetary dominance prevail in 1995? Yes, primary surplus *increased*. Other data:

![Figure 10. Yield Curves Before and After 1994 Crisis, %](image-url)
Some evidence against:

Figure 11. Growth Rate of Monetary Base, Before and After 1994, and in 1999, in %
Evolution of monetary policy: From *El Corto* to interest rate target and inflation targeting

**Figure 12.** Annual Inflation versus Inflation Target with Band, in %
2007-2016: Switch to Primary Deficit and Higher Debt Ratio

Plus changes in pass-through and tax revenue

Figure 13. Inflation, and Percentage Change in Nominal Exchange Rate
Figure 14. Dynamics of Oil Revenue and Federal Tax Revenue, % of GDP
How did financial markets react to expansionary fiscal policy in 2009?

Figure 15. Emerging Markets Bond Index Spreads, in %, End of Year
4. CURRENT POLICY CHALLENGES FOR MEXICO

1. Reduce public debt (SHRFSP) / GDP
Primary surplus needed. Reduction would allow for countercyclical fiscal policy if needed in future

2. Analyze effects of Fiscal Reform in United States on foreign investment in Mexico
Current Account does not show large outflow. There has been no clear policy response

3. Conclude NAFTA renegotiation
Trump won, from his protectionist perspective: Less competitive and more expensive North America
Necessary to sign new NAFTA to reduce uncertainty

4. Reduce inflation to bring it back to Banco de México range
Banco de México has raised target rate. Energy prices have kept inflation persistently above range

5. Monitor spending programs of future government
Promises of new social programs, to be financed with spending cuts, without raising taxes or debt.
Will need to reduce spending plans to have primary surplus (Meza, Sánchez and Zamarripa 2018)
5. TO CONCLUDE: WHY IS MEXICO STAGNATED?

Figure 16. GDP Per Capita and 2% Trend, in logs, 1960=100
Sources of growth XX Century: Increase in health, education, migration to cities, small initial capital
Forces had decreasing marginal returns, they were exhausted (Kehoe and Meza 2011)
Mexico needs new forces, such as 2013 Energy Reform. Might be blocked by new government

Having said that: Why is 1982 such a clear watershed for growth?
Mechanical response: Because productivity stops growing in 1982 (Kehoe and Meza 2011)

Why is Mexico almost stagnated after 36 years?
Although note regional dimension: North and Center grow -NAFTA positive effect?-; South contracts

Hypotheses that I propose:
1. Make research question easier to answer: 1977-81 artificial growth, pre & post 1982 not so different
   • Artificial: Based on unsustainable public spending
   • How to model? How does that eliminate growth?
3. Risk of expropriation, because of nationalization:
   • How to model? See Olivella (2012). But misallocation theory cannot explain change in trend, only level
APPENDIX

Different Measures of the Deficit of the Public Sector, % of GDP