

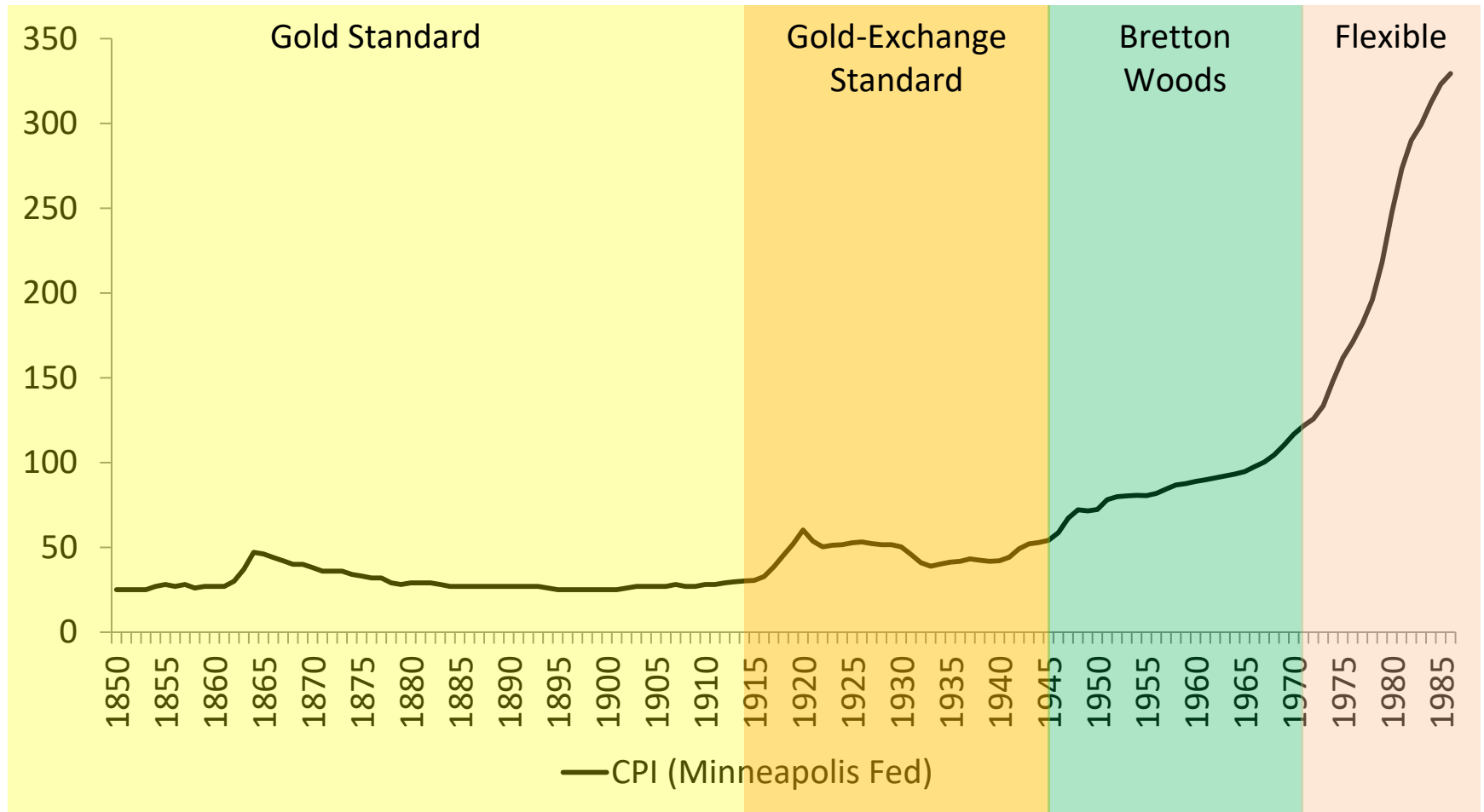
Central Banking and Inflation in LATAM

MSc. Iván Carrino

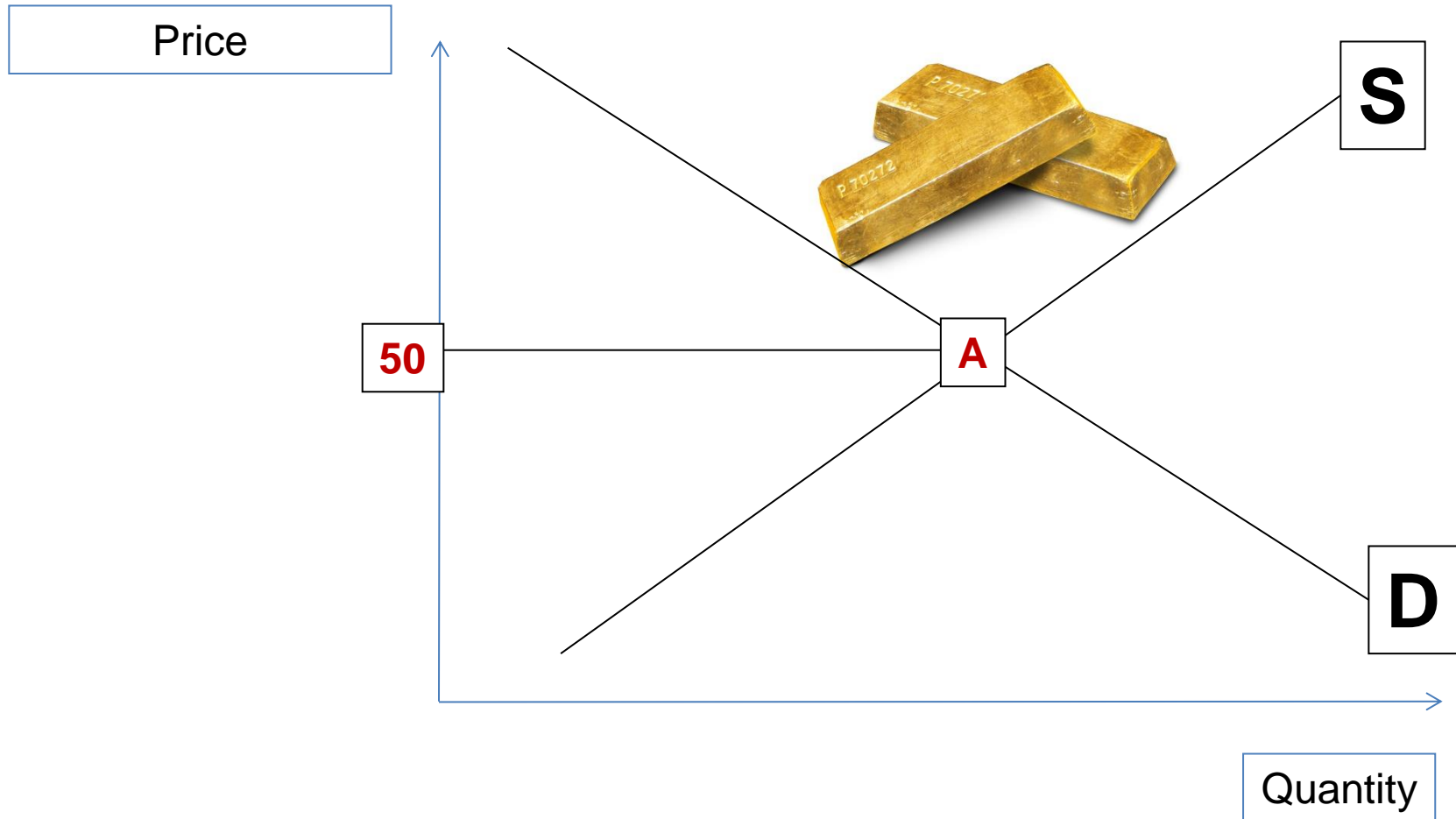


Adam Smith (1723-1790)

Monetary Systems

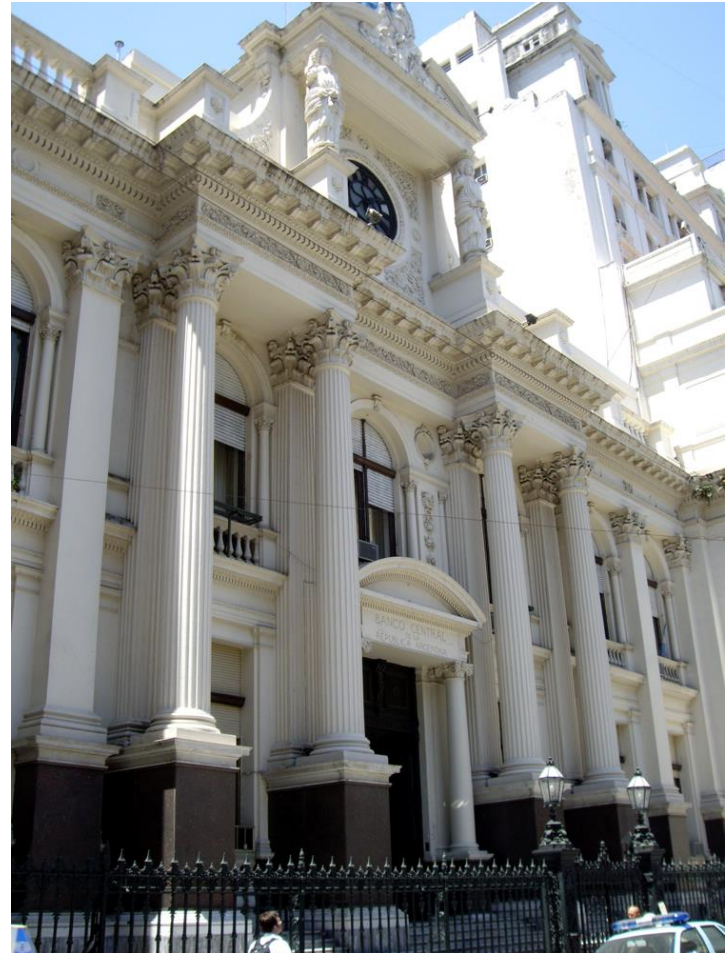


Money and Inflation

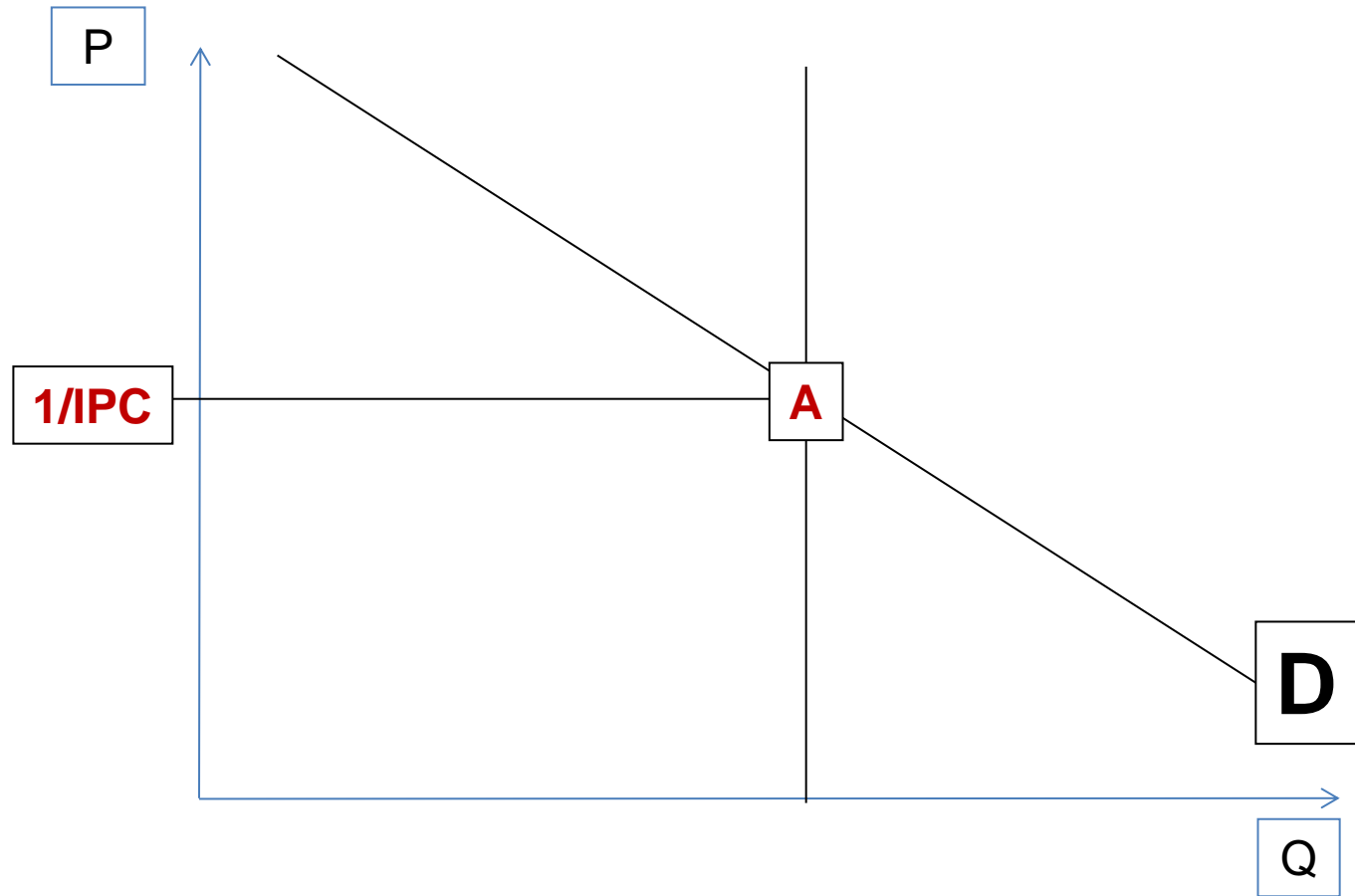


Central Bank

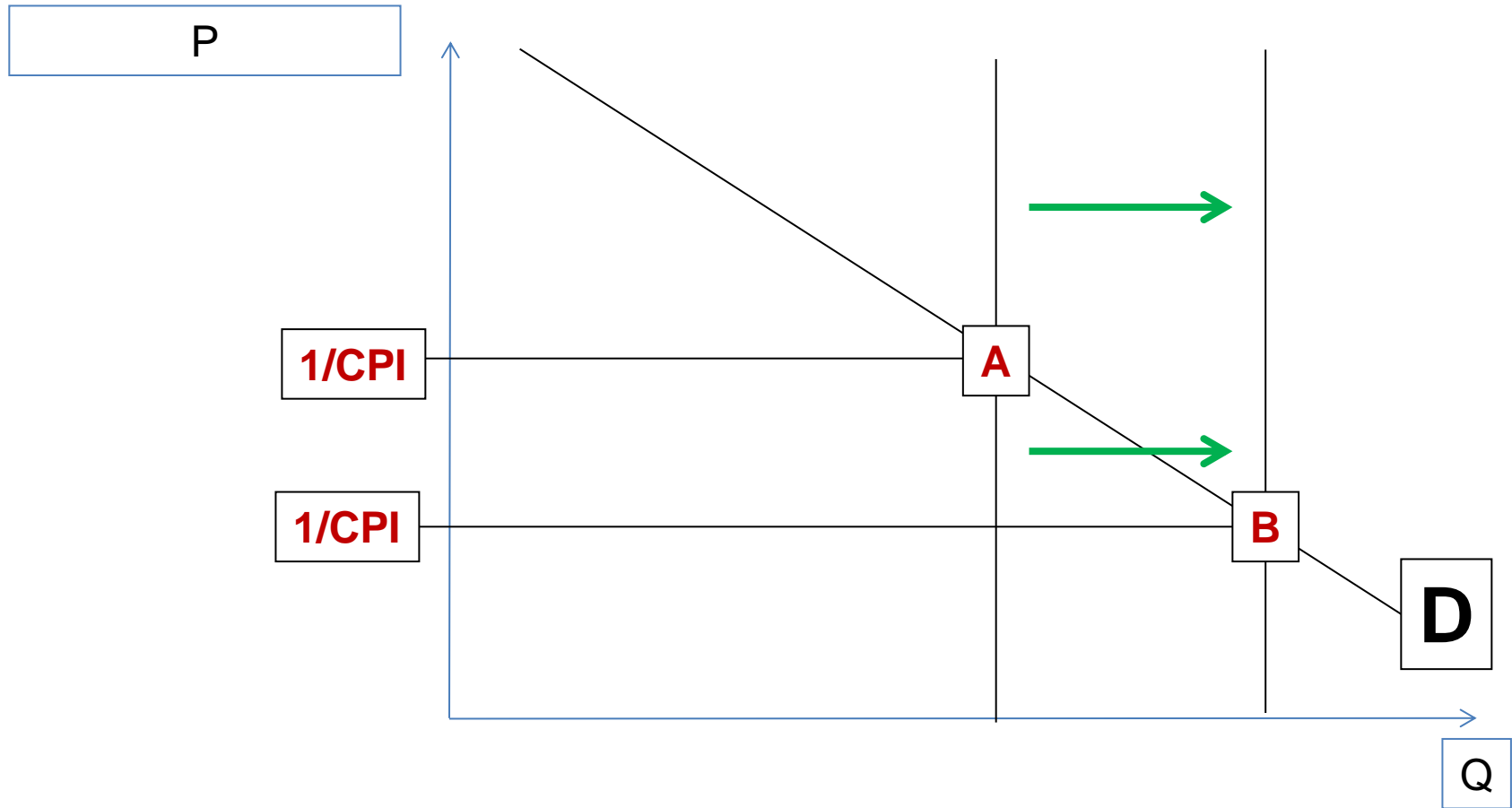
- Supervising Role for the financial system.
- Lender of last resort.
- Monopoly of legal printing of currency.
- Commands Monetary Policy
- Financial agent of the Treasury



Central Banks and Inflation

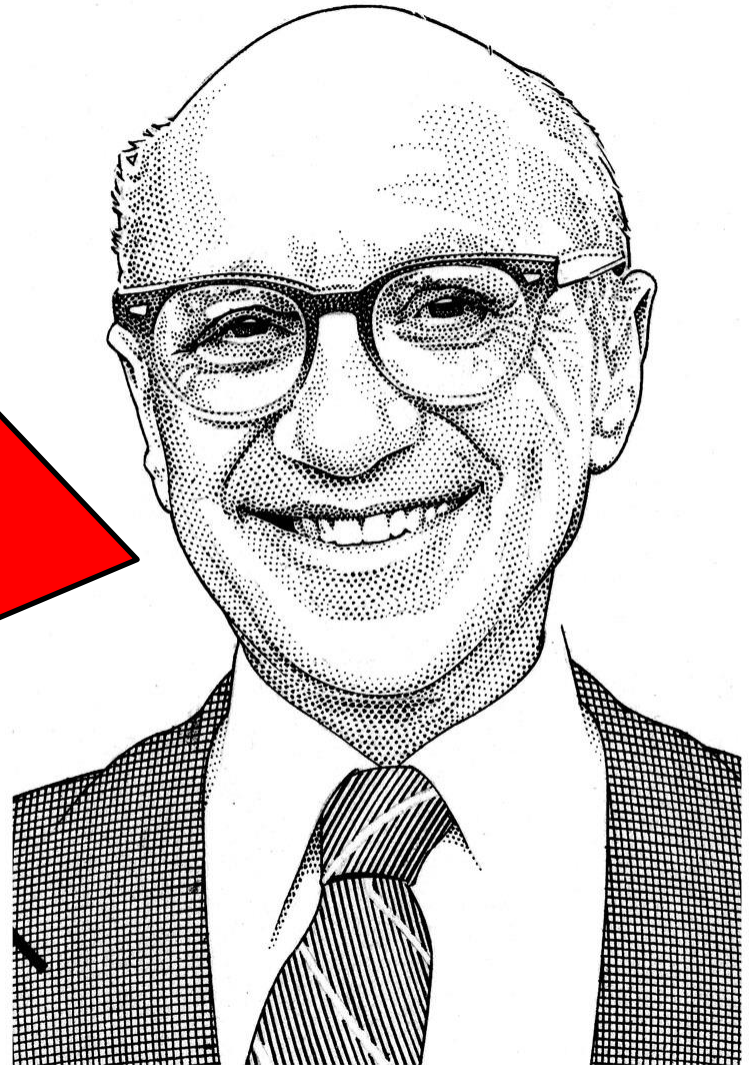


Expansionary Monetary Policy



“...businessmen are greedy, that the tradeunionists are grasping, that consumers are spendthrifts. But none of these groups possesses a printing press on which it can turn out those multi-coloured pieces of paper you call money.

The direct cause of inflation is too much money relative to output. There is no inflation in history which has not been preceded by a rapid increase in the quantity of money per unit of output”

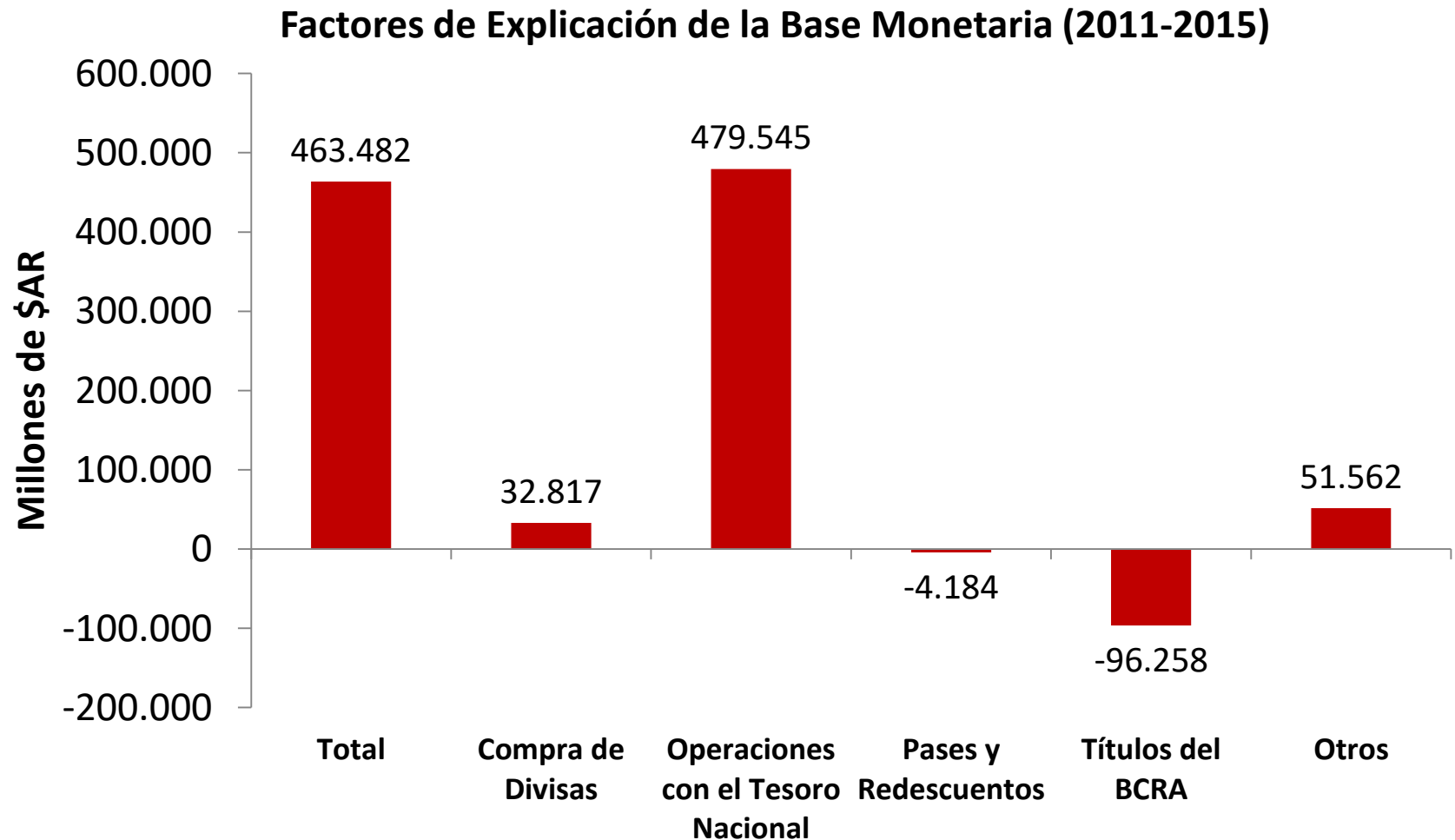


Why Does Money grow?

- **Milton Friedman (1976):** “The first and most important, thing to be said is that inflation is produced by government...”
- Inflation has a special feature that recommends it particularly to governments when they are subject to strain in their budgets, and that feature is that it is the one form of taxation that can be imposed without anybody voting for it – a form of taxation without any representation”

[Friedman, Milton: “Inflation: Is It an Incurable Disease?”](#)

Why Does Money grow?

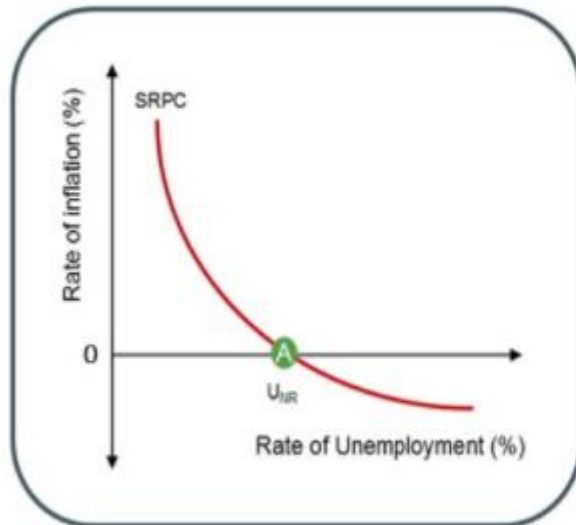


The Costs of Inflation

- **Reduces Income:** if you receive a fixed income and are not able to adjust in time, then real purchasing power will be reduced.
- **Punishes Savings:** a savings account that pays 2% annually may be a bad idea when inflation is 3-4%.
- **Distorts Production:** inflation affects the price system and its signals to production as explained by the Cantillon-Hume-Austrian tradition.
- **Leads to Price Controls:** since governments don't face the real root of the problem, they attack its symptoms.

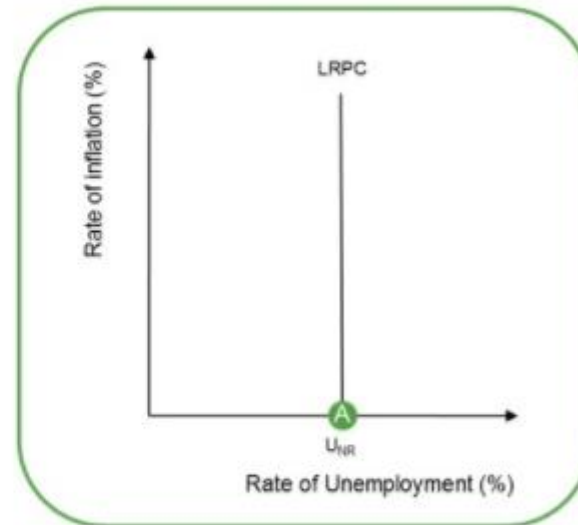
Phillips Curve

Short Run



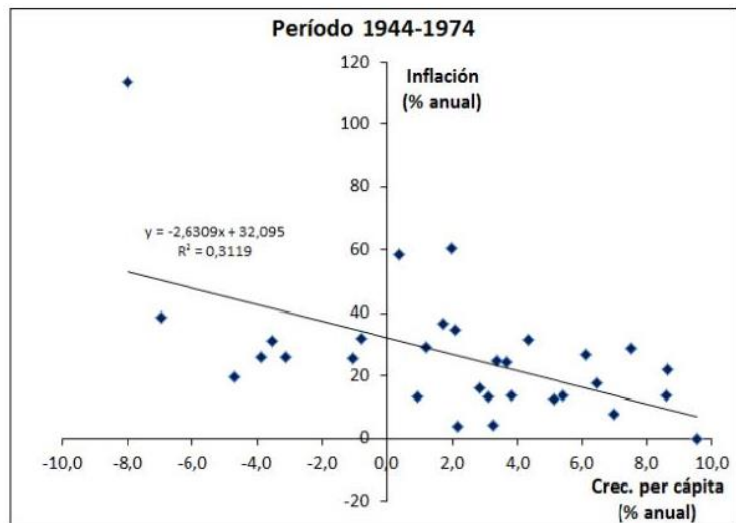
Trade-off

Long Run

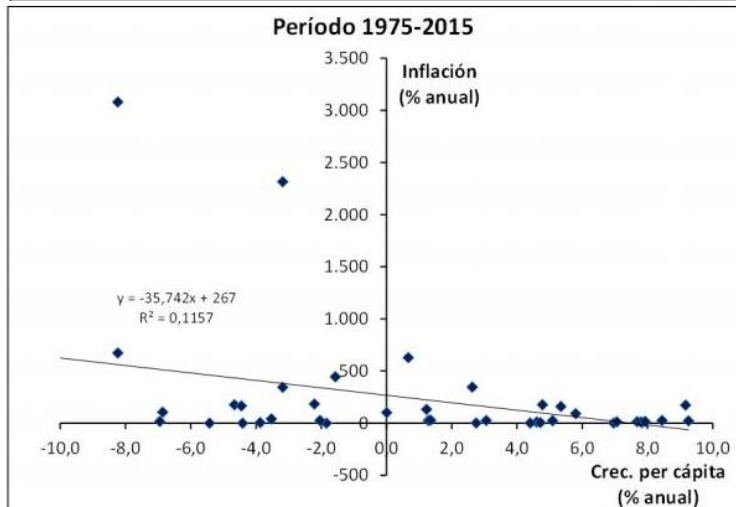


No Trade-off

Phillips Curve in Argentina



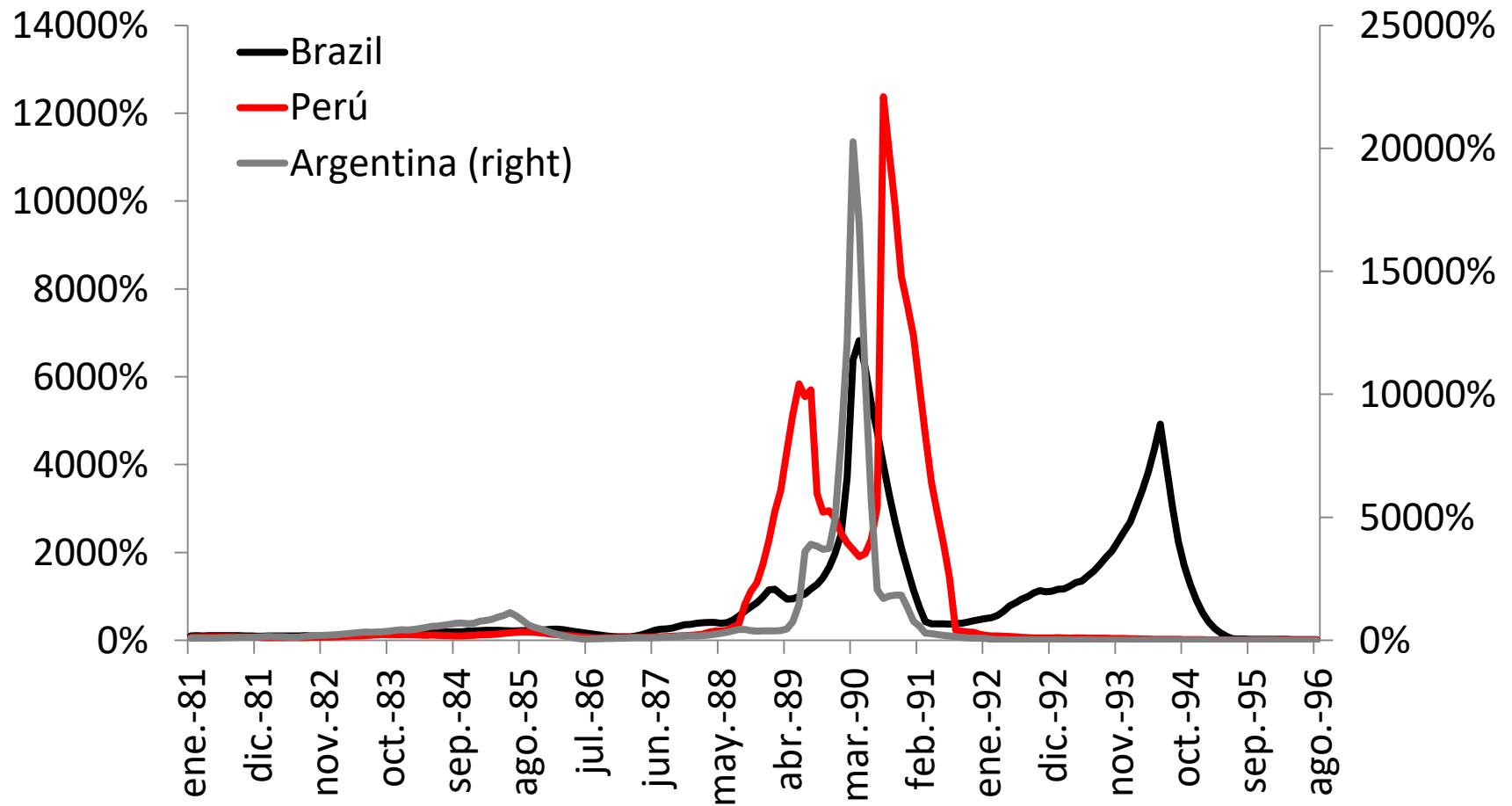
“The slope in general has been negative (which would imply a Phillips Curve with a positive slope). We may say that the years of the littlest growth rates happened when inflation was the highest, not the other way around.”



While the Phillips Curve may have sense in economies with years of stability, like developed countries have, it doesn't have much of a relevance in the Argentinian context. It looks like the situation is the exact opposite, in fact. It is the lowering of inflation which is associated with economic recovery.”

Federico Sturzenegger - [Conferencia Anual organizada por la Fundación de Investigaciones Económicas Latinoamericanas \(FIEL\)](#)

Inflation in LATAM



Not an Emerging Market Phenomena

THE HANKE-KRUS HYPERINFLATION TABLE

LOCATION	START DATE	END DATE	MONTH WITH HIGHEST INFLATION RATE	HIGHEST MONTHLY INFLATION RATE	EQUIVALENT DAILY INFLATION RATE	TIME REQUIRED FOR PRICES TO DOUBLE	CURRENCY	TYPE OF PRICE INDEX
Hungary ¹	Aug. 1945	Jul. 1946	Jul. 1946	$4.19 \times 10^{16}\%$	207%	15.0 hours	Pengő	Consumer
Zimbabwe ²	Mar. 2007	Mid-Nov. 2008	Mid-Nov. 2008	$7.96 \times 10^{10}\%$	98.0%	24.7 hours	Dollar	Implied Exchange Rate*
Yugoslavia ³	Apr. 1992	Jan. 1994	Jan. 1994	313,000,000%	64.6%	1.41 days	Dinar	Consumer
Republika Srpska† ⁴	Apr. 1992	Jan. 1994	Jan. 1994	297,000,000%	64.3%	1.41 days	Dinar	Consumer
Germany ⁵	Aug. 1922	Dec. 1923	Oct. 1923	29,500%	20.9%	3.70 days	Papiermark	Wholesale
Greece ⁶	May. 1941	Dec. 1945	Oct. 1944	13,800%	17.9%	4.27 days	Drachma	Exchange Rate‡
China§ ⁷	Oct. 1947	Mid-May 1949	Apr. 1949	5,070%	14.1%	5.34 days	Yuan	Wholesale for Shanghai
Free City of Danzig ⁸	Aug. 1922	Mid-Oct. 1923	Sep. 1923	2,440%	11.4%	6.52 days	German Papiermark	Exchange Rate**
Armenia ⁹	Oct. 1993	Dec. 1994	Nov. 1993	438%	5.77%	12.5 days	Dram & Russian Ruble	Consumer
Turkmenistan†† ¹⁰	Jan. 1992	Nov. 1993	Nov. 1993	429%	5.71%	12.7 days	Manat	Consumer
Taiwan ¹¹	Aug. 1945	Sep. 1945	Aug. 1945	399%	5.50%	13.1 days	Yen	Wholesale for Taipei
Peru ¹²	Jul. 1990	Aug. 1990	Aug. 1990	397%	5.49%	13.1 days	Inti	Consumer
Bosnia and Herzegovina ¹³	Apr. 1992	Jun. 1993	Jun. 1992	322%	4.92%	14.6 days	Dinar	Consumer
France ¹⁴	May 1795	Nov. 1796	Mid-Aug. 1796	304%	4.77%	15.1 days	Mandat	Exchange Rate
China ¹⁵	Jul. 1943	Aug. 1945	Jun. 1945	302%	4.75%	15.2 days	Yuan	Wholesale for Shanghai
Ukraine ¹⁶	Jan. 1992	Nov. 1994	Jan. 1992	285%	4.60%	15.6 days	Russian Ruble	Consumer
Poland ¹⁷	Jan. 1923	Jan. 1924	Oct. 1923	275%	4.50%	16.0 days	Marka	Wholesale
Nicaragua ¹⁸	Jun. 1986	Mar. 1991	Mar. 1991	261%	4.37%	16.4 days	Córdoba	Consumer
Congo (Zaire) ¹⁹	Nov. 1993	Sep. 1994	Nov. 1993	250%	4.26%	16.8 days	Zaïre	Consumer
Russia†† ²⁰	Jan. 1992	Jan. 1992	Jan. 1992	245%	4.22%	17.0 days	Ruble	Consumer
Bulgaria ²¹	Feb. 1997	Feb. 1997	Feb. 1997	242%	4.19%	17.1 days	Lev	Consumer

Fighting Inflation

- **Fixed Exchange Rates:** fixing your currency to a stronger one stabilizes inflation rate at the level of the other currency.
- **Inflation Targeting:** a system in which the CB establishes a target for inflation and seeks to achieve it through interest rate manipulation.
- **Dollarization:** abandonment of the currency and adopting a different (stronger) one.
- **Other proposals:** eliminating central bank, competing currencies, 100% reserve banking, return to gold...



Fighting Inflation in LATAM

- Since the 1990s, monetary policy in Latin America has achieved a remarkable transformation in terms of achieving price stability.
 - Central Bank Independence.
 - Restrict deficit financing.
 - Fixed exchange rates
 - Inflation Targeting

Central Bank Reform

1. Definition of a clear and narrow mandate
2. Formulation of central bank policies independent of executive branch
3. Autonomy of MP implementation
4. Accountability of Central Banks



Central Bank Reform

Table 1: Key features of central banks legislation in Latin America as of 2016

	Primary mandate		Political independence	Credit to the government		Accountability
	Price stability	Also economic development	Years of tenure Board members	Banned or restricted	Weak limitations	Formal report to Congress
Argentina	✓	✓	6		✓	✓
Bolivia	✓		6/5		✓	
Brazil		✓	Open	✓		✓
Chile	✓		5/10	✓		✓
Colombia	✓		4	✓		✓
Costa Rica	✓		4/8.5	✓		
Dominican Rep.	✓		2	✓		
Guatemala	✓	✓	4	✓		✓
Honduras	✓		4	✓		
Mexico	✓		6/8	✓		✓
Nicaragua	✓		4	✓		
Paraguay	✓		5	✓		✓
Peru	✓		5	✓		✓
Uruguay	✓		5	✓		
Venezuela	✓	✓	7		✓	

Source: Countries' central bank legislation.

Note: When they differ, the tenure is listed for presidents and for regular board members.

Central Bank Reform

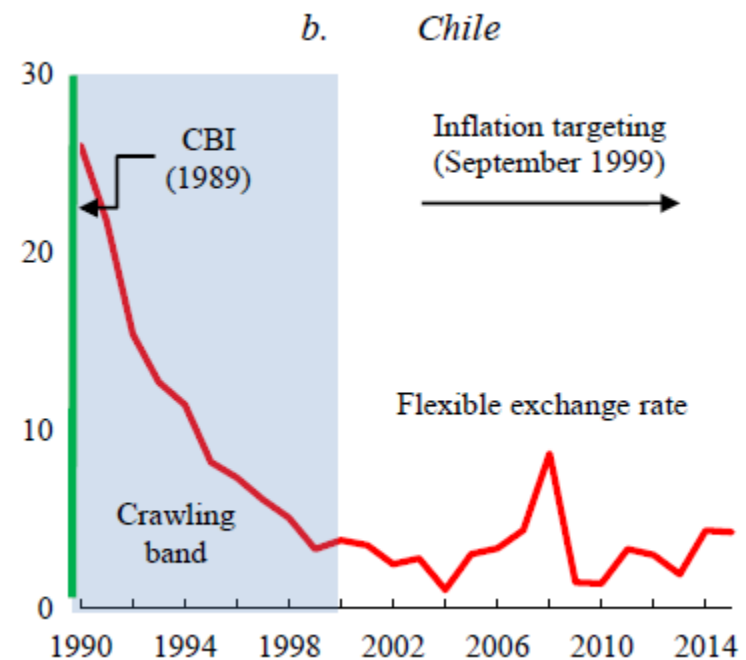
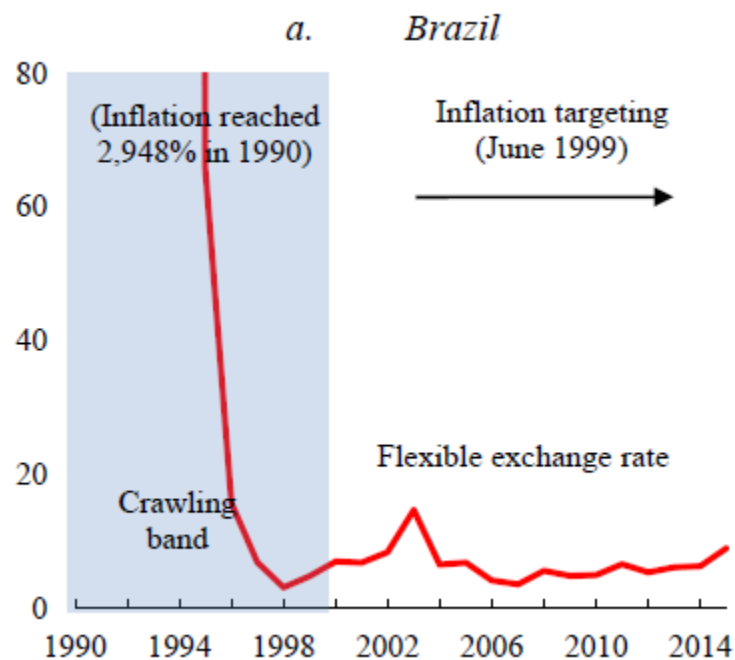
Table 2: Central bank independence in Latin America before and after the legal reform in selected countries

Countries	Reform year	Pre-reform	Post-reform	Countries	Reform year	Pre-reform	Post-reform
Argentina*	1992	0.31	0.83	Honduras	1996	0.39	0.68
Bolivia*	1995	0.33	0.83	Mexico	1993	0.39	0.81
Chile	1989	0.26	0.85	Nicaragua	1992	0.41	0.73
Colombia	1992	0.29	0.83	Paraguay	1995	0.37	0.70
Costa Rica	1995	0.51	0.74	Peru	1993	0.50	0.84
Dominican Republic	2002	0.44	0.77	Uruguay ^o	1995	0.44	0.70
Guatemala	2002	0.57	0.73	Venezuela*	1992	0.40	0.69

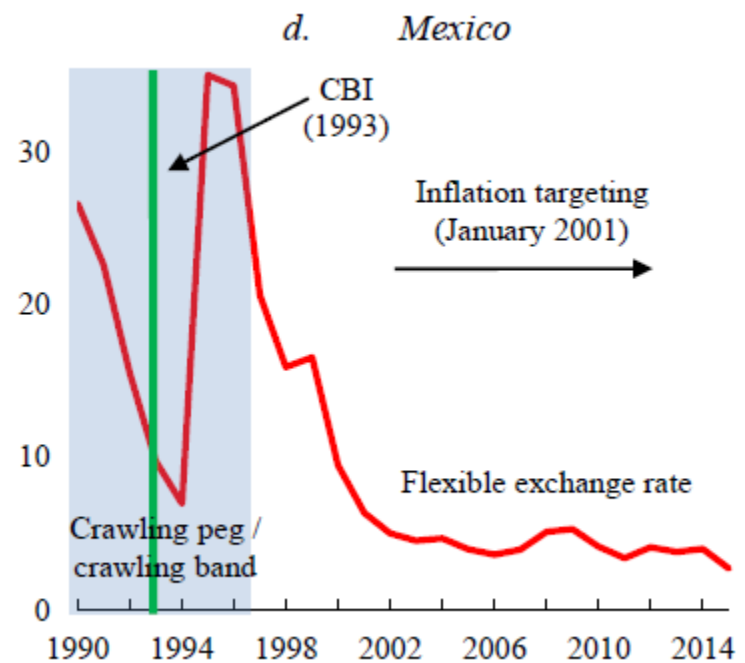
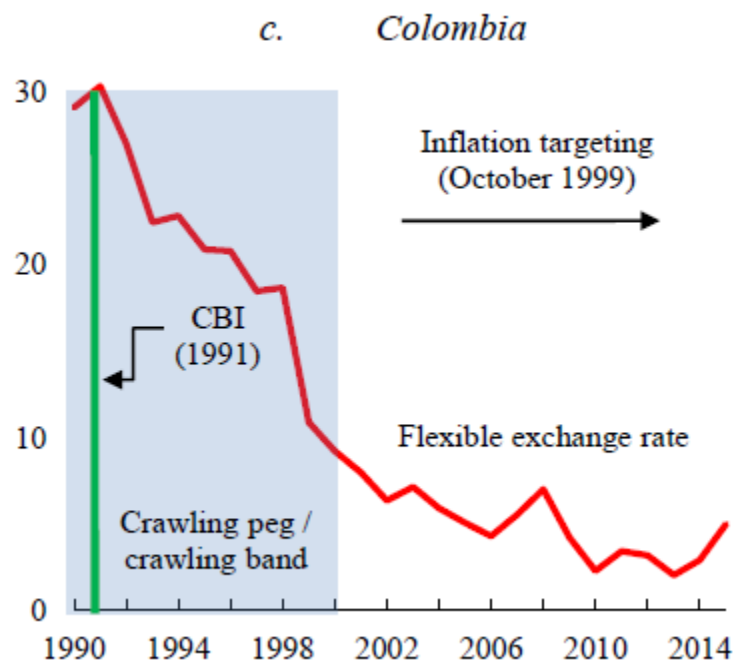
Source: Central banks' legislation and Jácome and Vázquez (2008).

Note: The index of central bank independence is based on the legal provisions of central bank laws and related legislation. The overall value of the index fluctuates on a continuous scale from zero to one, with higher values indicating stronger legal central bank independence. * denotes countries where subsequent legislation has reverted these reforms to some extent. ^o denotes countries where subsequent legislation furthered central bank independence.

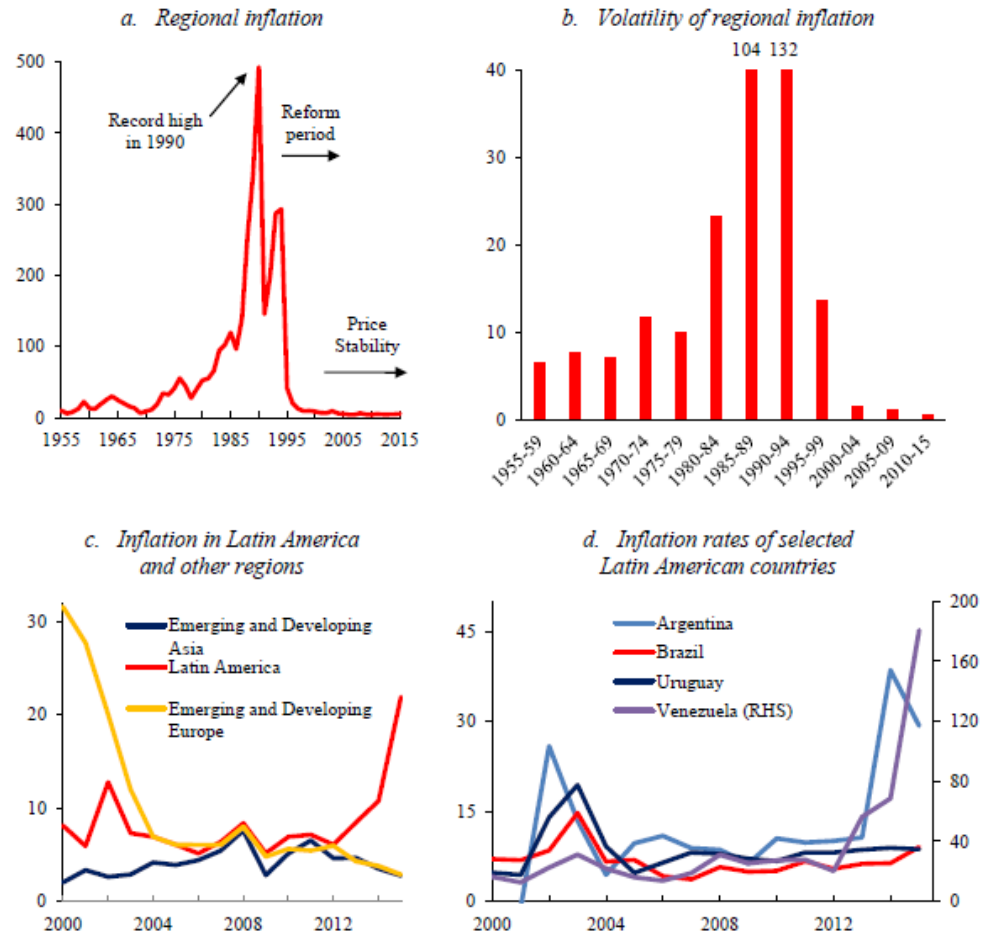
Some Results



Some Results



Some Results

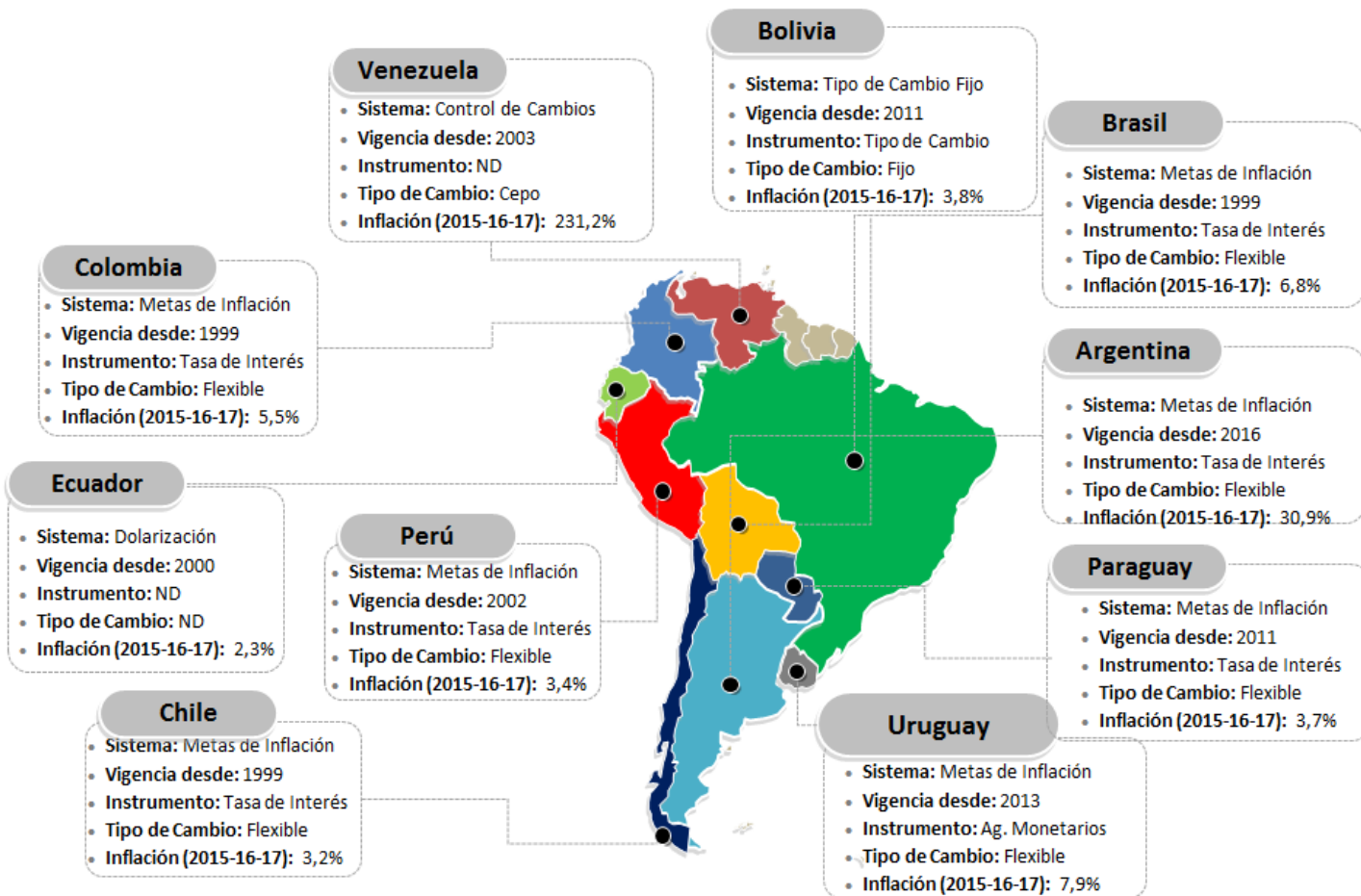


Conclusions

- The institutional and *policy reform of central banks paid off*, as inflation plunged across the region by the mid-1990s. After decades of very high inflation, most Latin American countries brought inflation down to single digits and eventually achieved low and stable inflation
- As exchange rates became more flexible, inflation targeting also became more prevalent in the region. With a clear mandate on price stability and *after having already reduced inflation—often via exchange rate targeting—an increasing number of central banks adopted inflation targeting to preserve* price stability gains.

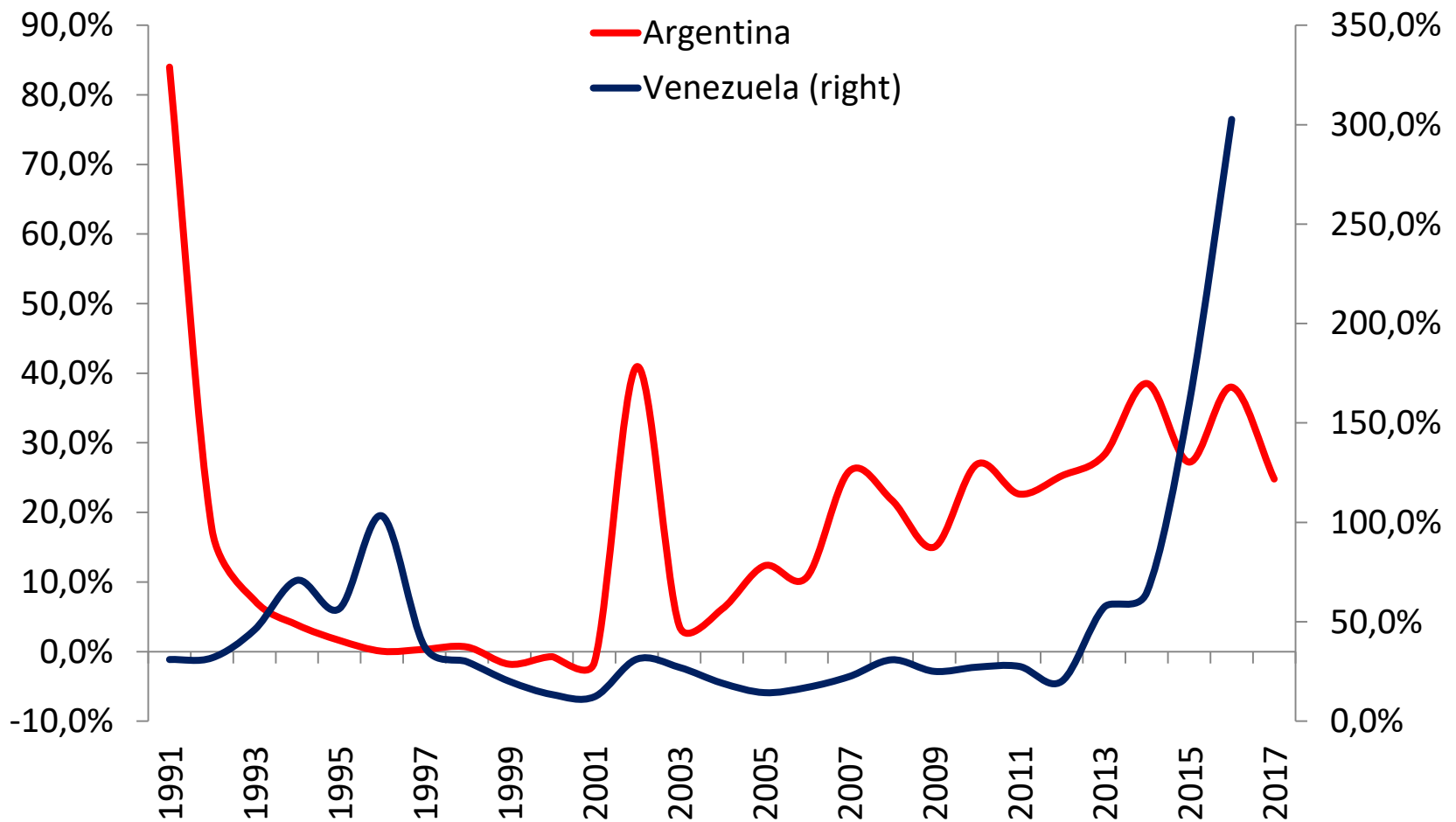
Can it work in Argentina?

Sistemas Monetarios e Inflación en Sudamérica



Fuente: Iván Carrino en base a Bancos Centrales, FMI, e Indec + CABA para Argentina

Can it work in Argentina?



Can it work in Argentina?

1. Clear and narrow mandate
2. Central bank policies independent of executive branch
3. Autonomy of MP implementation
4. Accountability

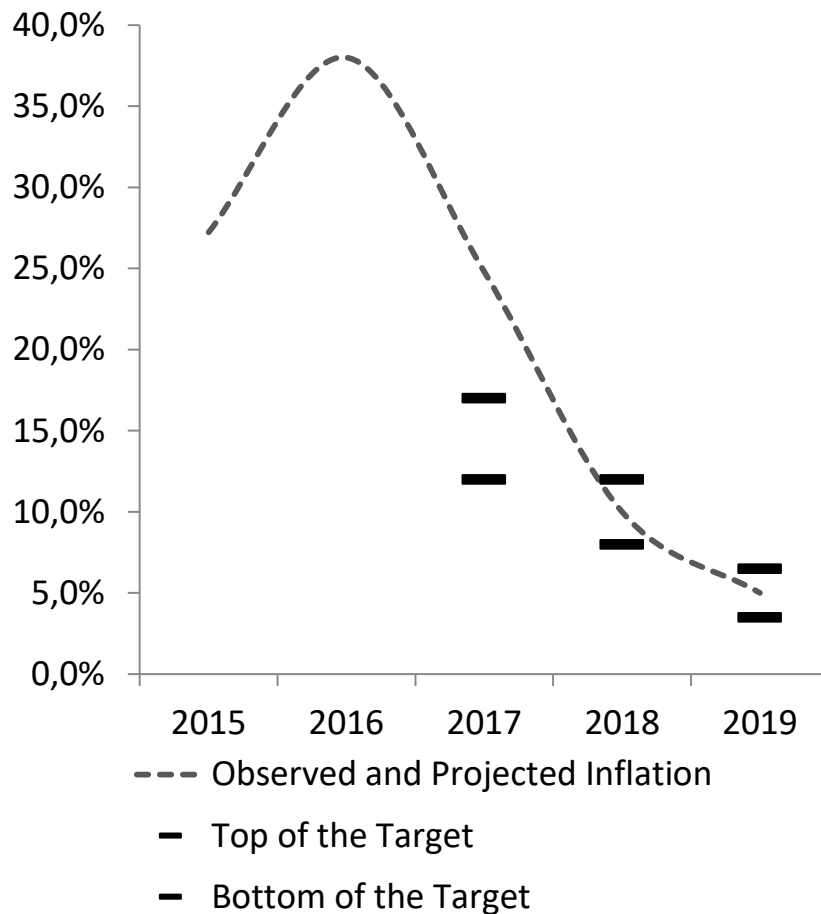
Can it work in Argentina? (1)

- Central Bank Mandate (2012): “to promote, in the context of the policies imposed by the national government, financial and monetary stability, employment and economic development with social inclusion”
- Sturzenegger (2016): “the absolute priority of this administration: to induce a systematic and sustainable decrease in the inflation rate (...) To achieve a reliable money with stable purchasing power is the main thing this CB can do in order to accomplish the other goals written in the mandate”

Can it work in Argentina? (4)

- Quarterly Report of Monetary Policy and Press Conference
- Press Conferences and Speeches are streamed live
 - Monthly Survey of Market Expectations
 - Monthly Monetary Report
- Twice a Month meeting and communication for Interest Rate Decision

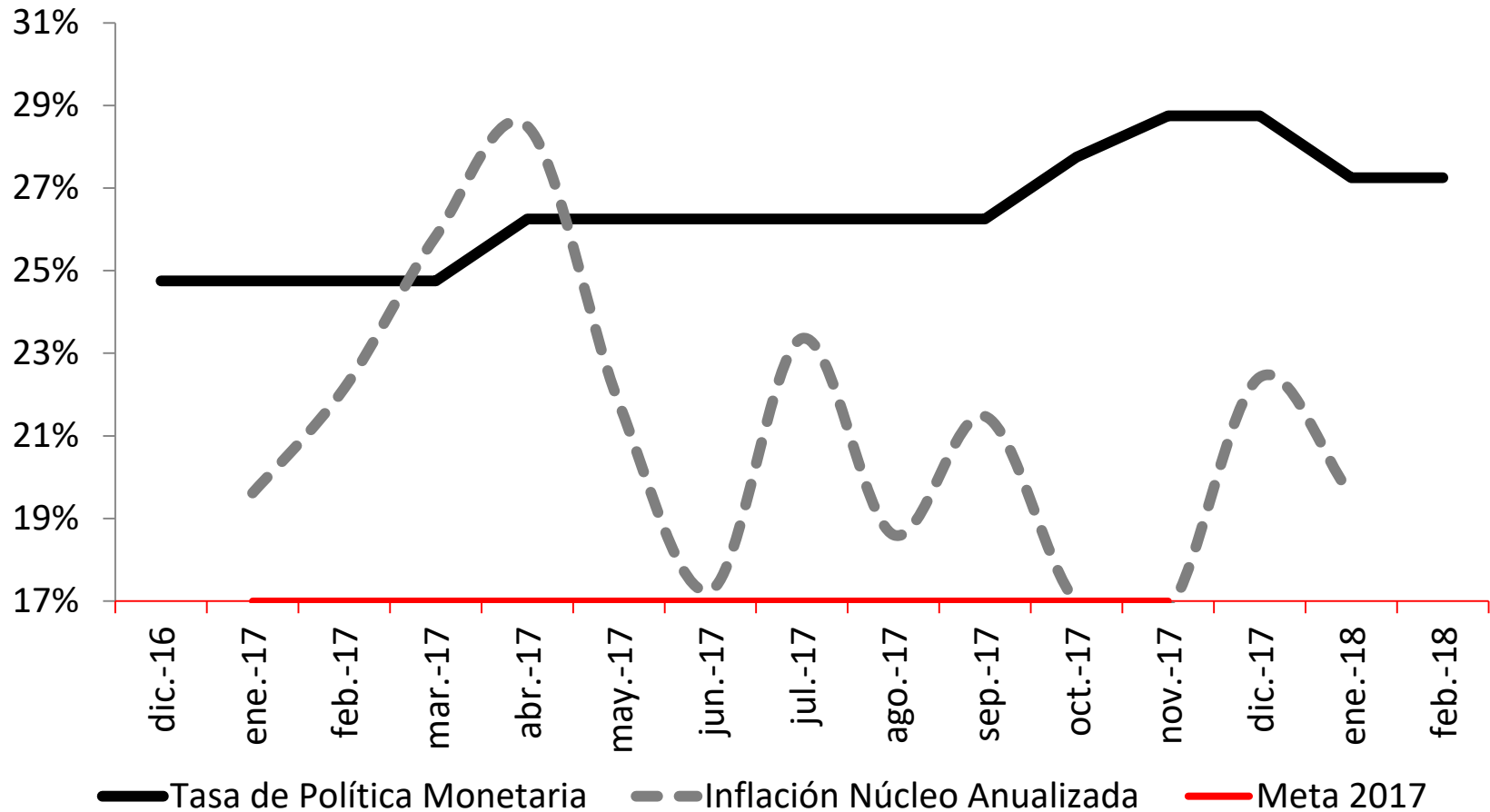
Can it work in Argentina? (3)



D28



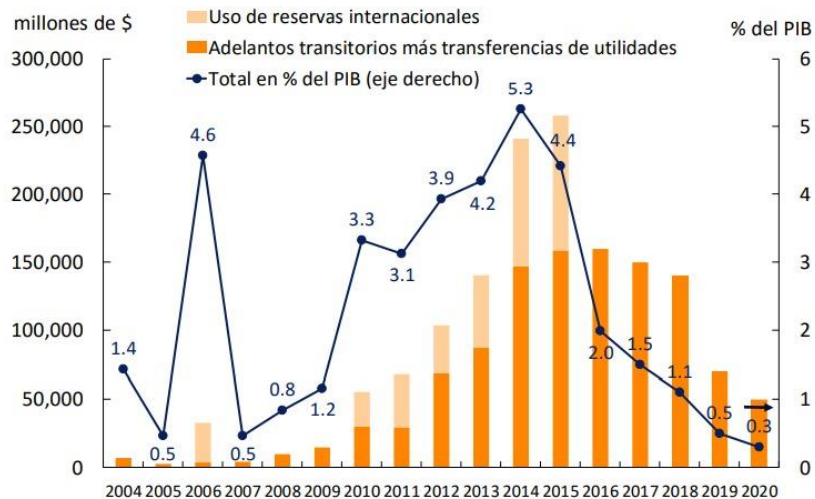
Can it work in Argentina? (3)



Can it work in Argentina? (2)

Deficit Financing

Gráfico 5.8 | Transferencias del Banco Central al Tesoro Nacional

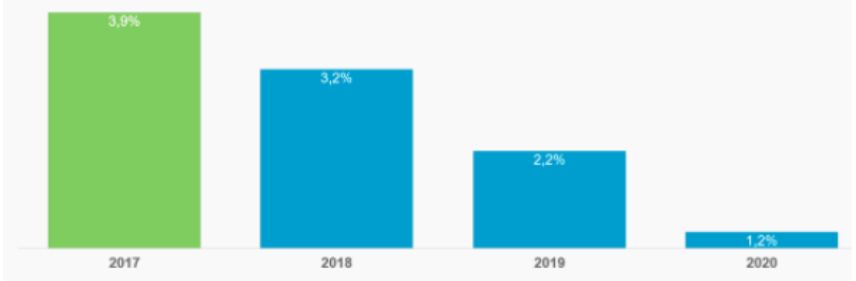


Fuente: BCRA e INDEC

Fiscal Targeting

Metas Fiscales Trianuales

Déficit Primario (% del PBI)
Base caja del SPNF



Summary

- Inflation is a *monetary* phenomena, fueled by *fiscal* needs.
- Emerging Markets in general and LATAM in particular managed to *successfully fight inflation*.
- This was achieved by *monetary reform*.
- Exceptions are Argentina and Venezuela.
- Argentina implemented IT in *September 2016*.
- Still not on the good path, but *struggling* to get there...

Questions/ Debate

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