

Latin America: crises and inflation: what have we learned?

ECON 3235 Economics of Latin America

Lecture notes Fall 2014

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And then there were two: Argentina and Venezuela still have “high inflation”

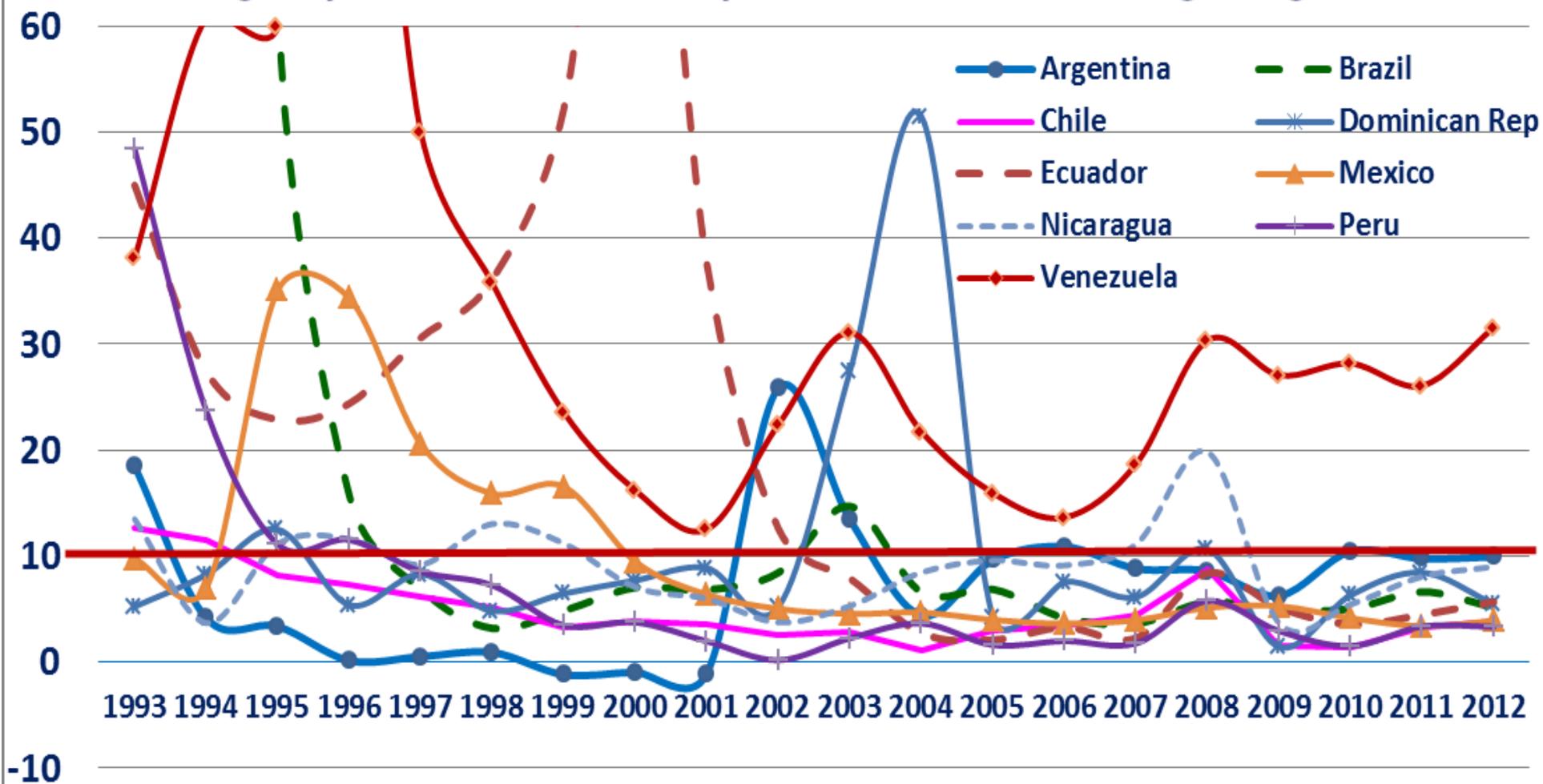
ANNUAL INFLATION

ARGENTINA AGGREGATE INFLATION SERIES
ANNUAL RATE (DECEMBER '07 - PRESENT)

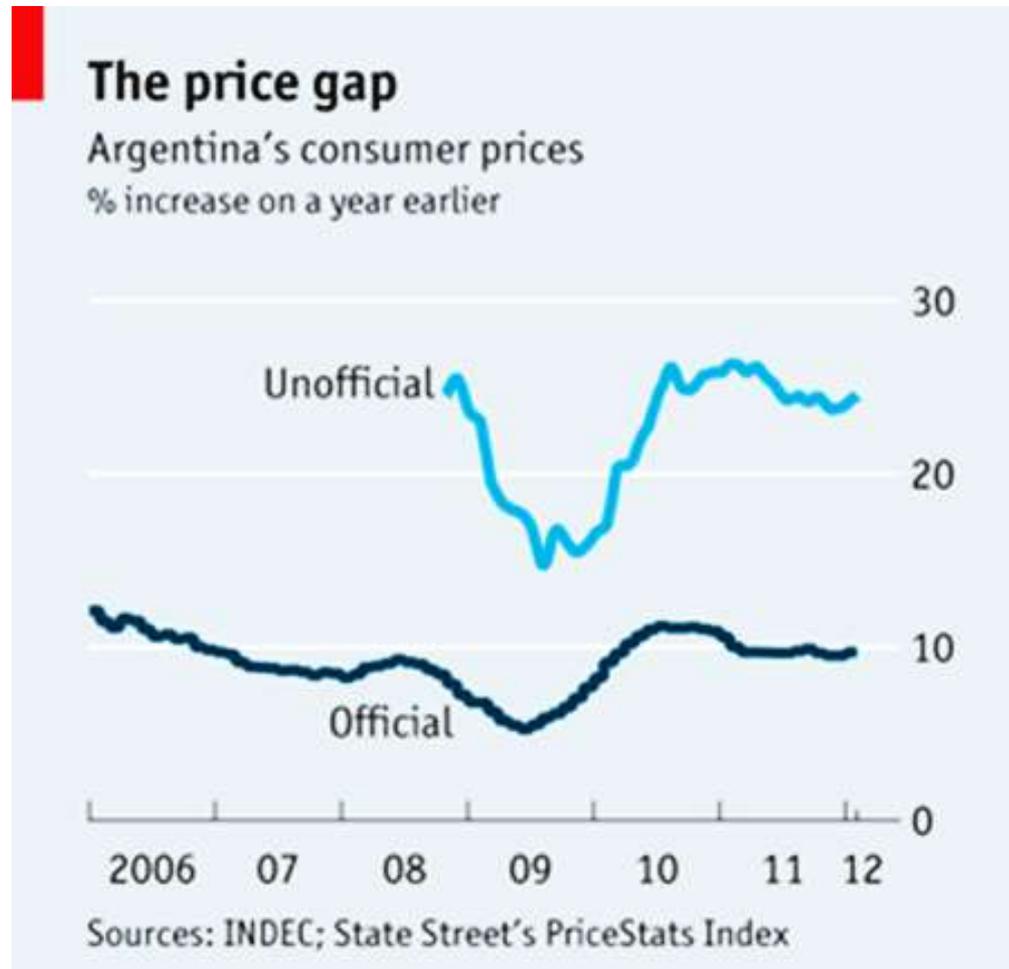


LatAm inflation now in single digits in all but two countries...

Figure 3: In 2005 LatAm's high & volatile inflation era largeley ended: all but 2 cty's rates are now in single digits



Argentina inflation is worse than IMF/WB or government says it is...



Argentina's inflation problem *The price of cooking the books*
Economist Feb 25th 2012 | BUENOS AIRES print edition
<http://www.economist.com/node/21548229>

Why has inflation been such a persistent problem for Latin America?

1. What is inflation, is it a symptom of bad fiscal policy, bad luck or lack of credible financial sector.
2. How does inflation affect the poor vs. the rich... does reducing inflation also reduce inequality
3. How much inflation is too much? (a slippery slope) most LatAm ctys are in single digits, Venezuela and Argentina have 20-30% is this too high?
4. Does inflation reduce or increase growth? What is the “best” inflation rate, 0%, 2%, 4-5% what is good about having some inflation?

Hyperinflation: a special case of social and economic Collapse

1. What is hyperinflation: Classic Cagan money demand is 50% per month, that is over 12500% annual inflation (take 1.5^{12} and subtract one).
2. See Calvo and Vegh, Carlos (1994), "[Nominal Anchors: An Analytical Overview](#)," International Monetary Fund Staff Papers, vol. 39, pp. 626–695.

How did Latin America defeat high inflation (especially Brazil & Chile)?

- a) With Orthodox IMF “Chicago boys” reduction of money growth (is inflation “always and everywhere a monetary phenomenon”)?
- b) With anti-orthodox wage and price controls?
- c) By managing expectations? (the Tablita?)
- d) By reducing fiscal deficits and hence the need for seigniorage revenues?
- E) all of the above?

How did Latin America defeat high inflation? (almost)

1. Orthodox Money based: high interest rates
2. Heterodox: managed expectations via Tablita
3. Neo-conservative “Chicago boys” shock treatment why Milton Friedman was wrong,
 - Money not key, managing expectations (Tablita good idee right idea) but indexation (Friedman) bad idea...
 - Rapid liberalization of finance and trade can be hazardous (CDOs and Wall Street...)
 - Free trade/open capital markets have benefits, but can't stop high inflation, (nontraded goods (real estate booms))

How did Latin America defeat the high inflation dragon

2. Heterodox Exchange based: dangerous but effective in democracies...

-- Fx rate is key to managing expectations: Tablita great idea, but not enough— wage & price control...

-- Fiscal adjustment is key, fiscal illusion is danger, Talvi and Olivera-Tanzi effects...

-- Tight money is a bad idea... raises real interest rates invites speculative capital flows...

-- Inflation ends with a boom not a bust, great for democratic leaders: e.g., Menem and Cardoso

Neo-conservative Chile Program

1. 1973-76 output and inflation declined
2. 1976-81, inflation declined output rose
3. 1982-83 Deep recession due to banking and balance of payments crisis, see Diaz-Alejandro
4. Unemployment rose to over 20% in early 1980s, not a model stabilization program....

Box 6.1**The Monetarist/Structuralist Debate****Monetarists**

1. Inflation is bad.
2. The main source of inflation is excess demand due to budget deficits financed by money creation.
3. To reduce inflation, one must cut domestic credit creation.
4. Monetarists prefer to work with full employment models.
5. Monetarists are usually identified with conservative groups in society.

Structuralists

1. Inflation is not as bad as the slow growth that accompanies tight monetary policy.
2. The main sources of inflation are structural imbalances and rigidities accommodated by passive money.
3. Costs of reducing inflation are large. Use of incomes policy and price freezes are recommended.
4. Structuralists emphasize unemployment.
5. Structuralists are thought to be progressive reformers.

**Views of
inflation**

At high rates of inflation, money demand falls (velocity rises) reducing seigniorage revenues

See page 109 of Franko, 2007, monetarist

$$M * v(\pi) = P * Q$$

Where v is velocity of Money,
so money demand is,

$$M = (P * Q) / v(\pi)$$

so money demand & seigniorage rise with P , up to a point, then HH and business get rid of money faster so v rises with inflation, π

At high rates of inflation, money demand falls (velocity rises) reducing seigniorage revenues

Table 6.4

Seigniorage and inflation, Argentina, Brazil, Chile, and Mexico, 1978–1986
[percentage]

Year	Argentina		Brazil		Chile		Mexico	
	$\Delta H/\text{GDP}$	Inflation						
1978	4.2	175.5	2.0	38.7	3.4	40.1	3.6	17.5
1979	3.2	159.5	3.3	52.7	2.5	33.4	4.3	18.2
1980	3.0	100.8	2.0	82.8	2.4	35.1	4.9	26.4
1981	2.5	104.5	2.0	105.6	-0.7	19.7	5.5	27.9
1982	3.9	164.8	2.1	97.8	-1.7	9.9	10.9	58.9
1983	5.5	343.8	2.0	142.1	0.7	27.3	6.7	101.8
1984	5.1	626.7	2.7	197.0	0.8	19.9	5.8	65.5
1985	4.3	672.1	2.7	226.9	1.0	30.7	1.8	57.7
1986	2.6	90.1	3.6	145.2	n.a	19.5	1.8	86.2

Note: Seigniorage, ΔH , is the increase in the money base, H , defined as line 14 in *International Financial Statistics*, except for Argentina, where it is line 14a. Inflation is the annual change in consumer prices, line 64.

Source: Ibid.

We can see this inflation laffer curve in the Argentine data (C&H p. 157)

Chapter 6

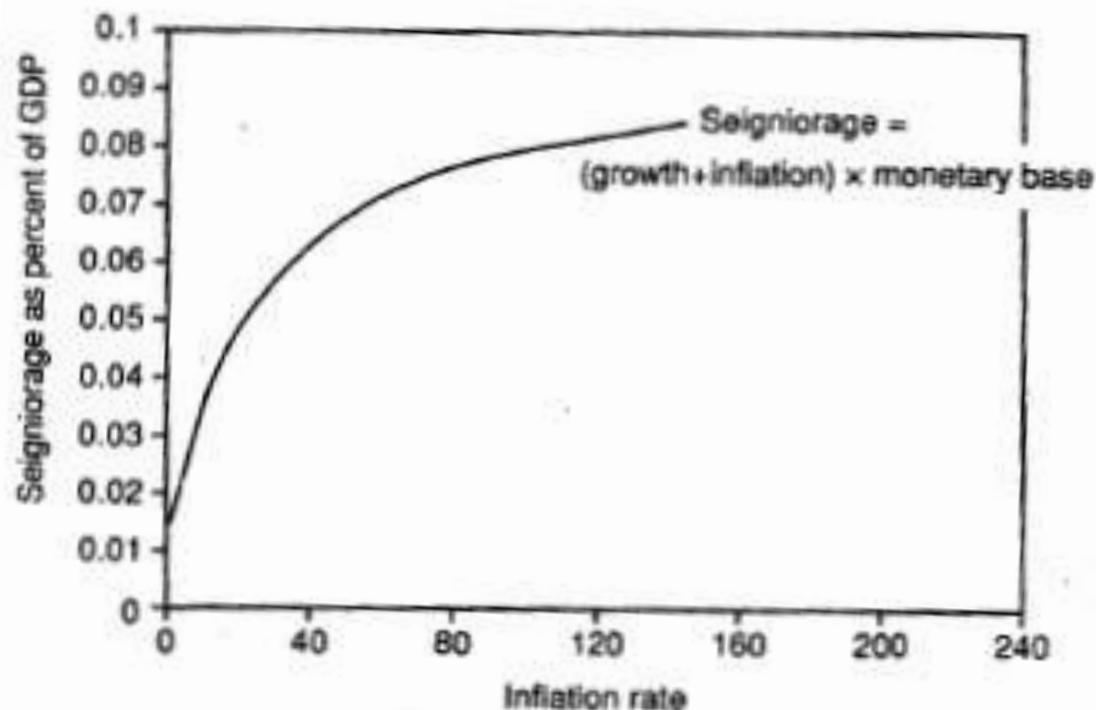


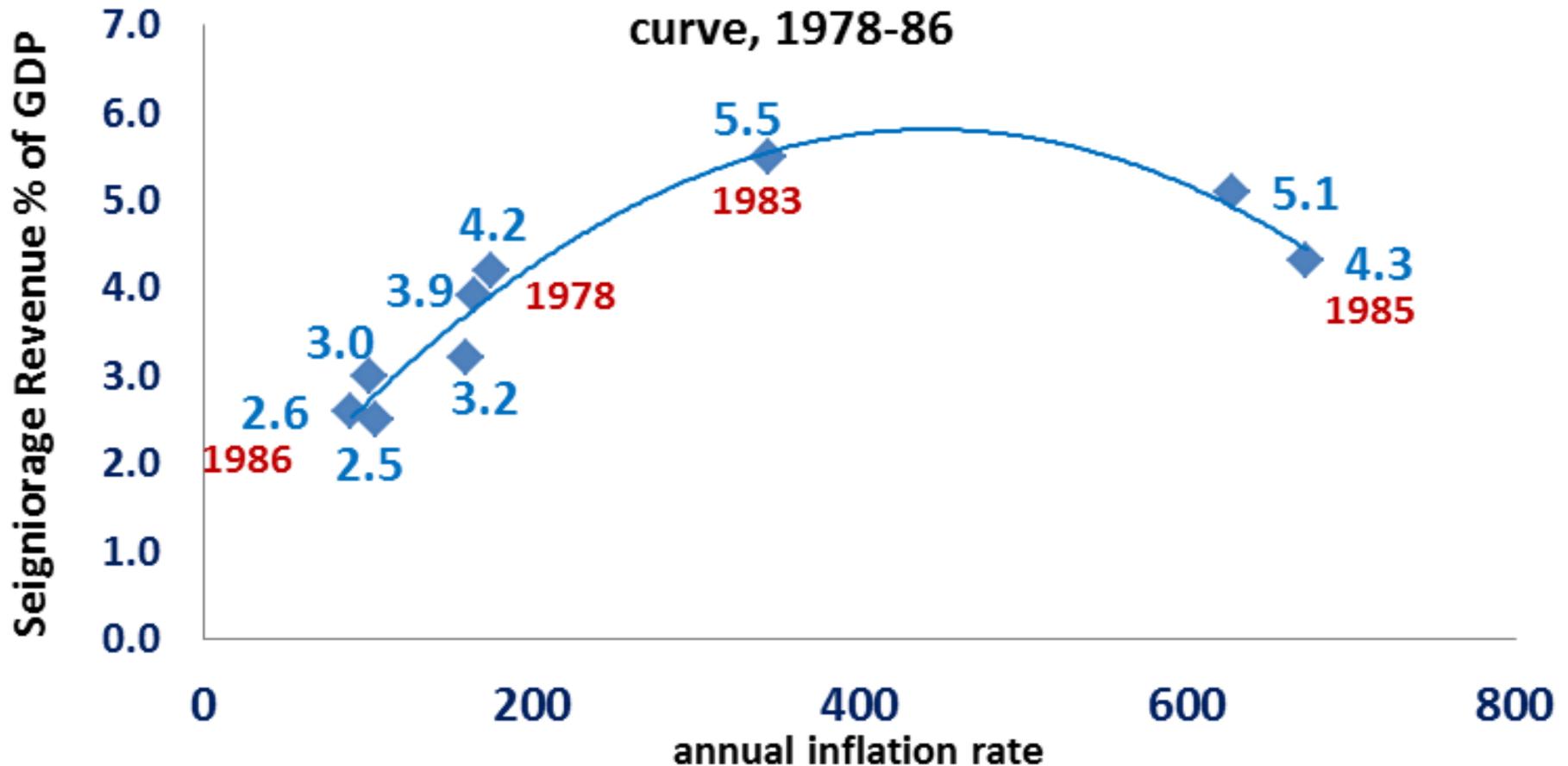
Figure 6.5

Seigniorage.

Source: IMF *International Financial Statistics* (Washington, D. C.: International Monetary Fund, various issues).

We can see this inflation laffer curve in the Argentine data (From C&H)

Figure 4-2- Argentina Seigniorage/Inflation tax Laffer curve, 1978-86



Source: Cardoso and Helwege, Chapt 6, Table 6.4, p. 153

Latam Stbz Lessons: many failures then success in all major countries

1. Inflation tax regressive & destabilizing, a tax that falls on the poor, informal sector,
2. Orthodox programs fail because deep recession
3. Hetrodox/neo conservative programs fail because of balance of payments crisis, see handout.
4. Fiscal adjustment key to Heterodox success, but **Talvi effect** (higher VAT collections due to Cons boom) and **Olivera-Tanzi effect** (higher tax collections when inflation falls) and seigniorage boom create temporary revenue surge, but

Latam Stbzl Lessons: Brazil, Arg and NIC had hyperinflation... Which is?

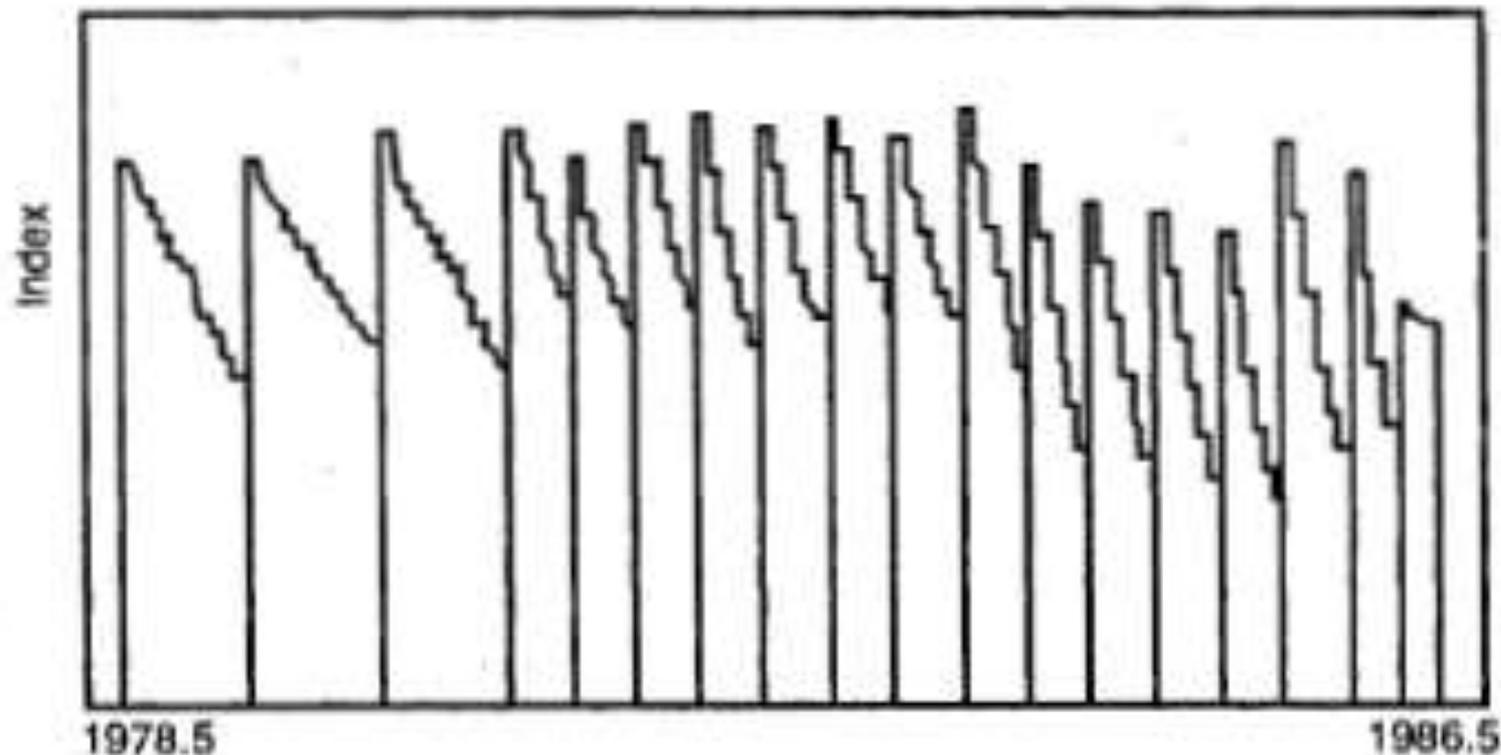


Figure 6.10

Real minimum wage, Brazil, 1976–1986.

Source: Fundação Getúlio Vargas, *Conjuntura Econômica*, various issues.

Rio de Janeiro: Fundação Getúlio Vargas.

Latam Stbz Lessons: Brazil, Arg and NIC had hyperinflation... Which is?

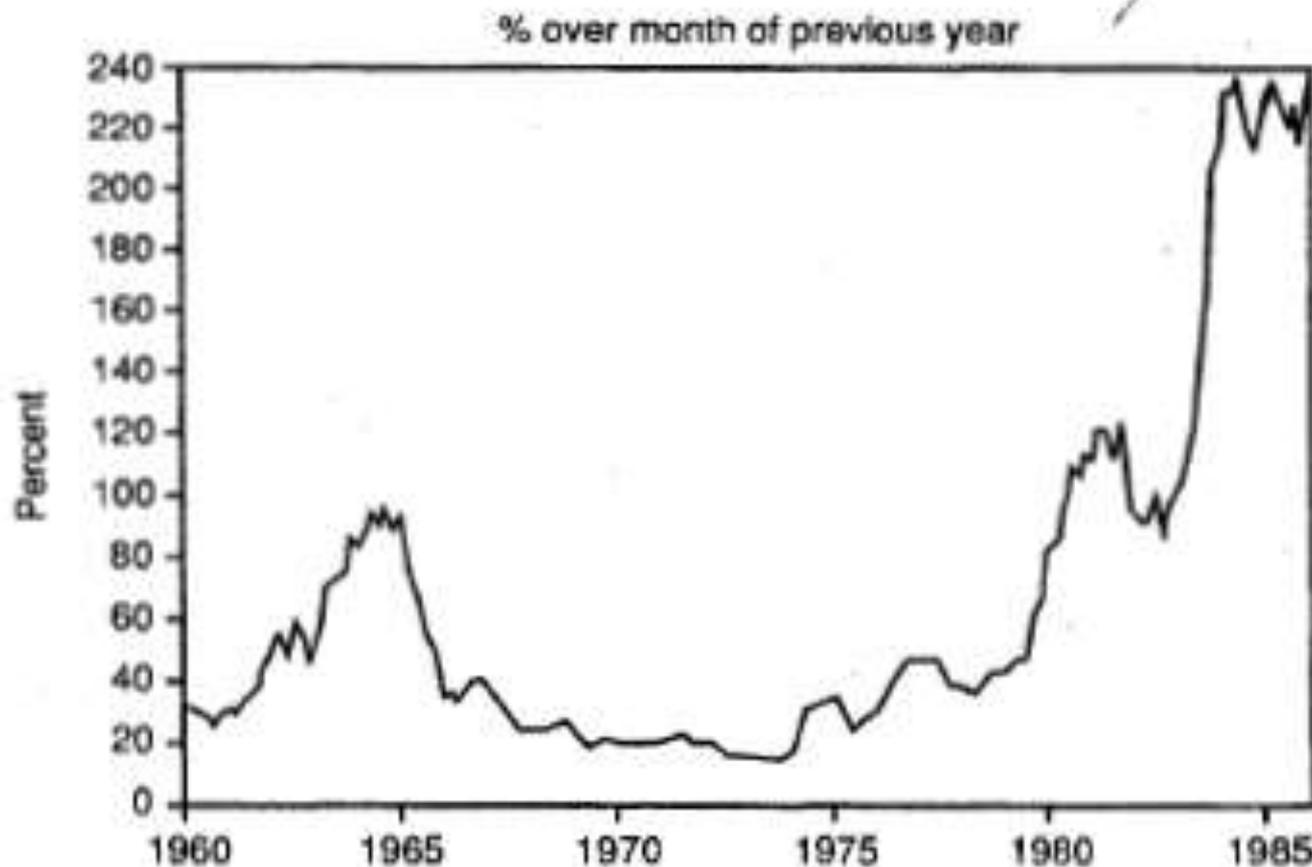


Figure 6.9

Inflation rate, Brazil, 1960–1985.

Source: Fundação Getúlio Vargas, *Conjuntura Econômica*, various issues.

Rio de Janeiro: Fundação Getúlio Vargas.

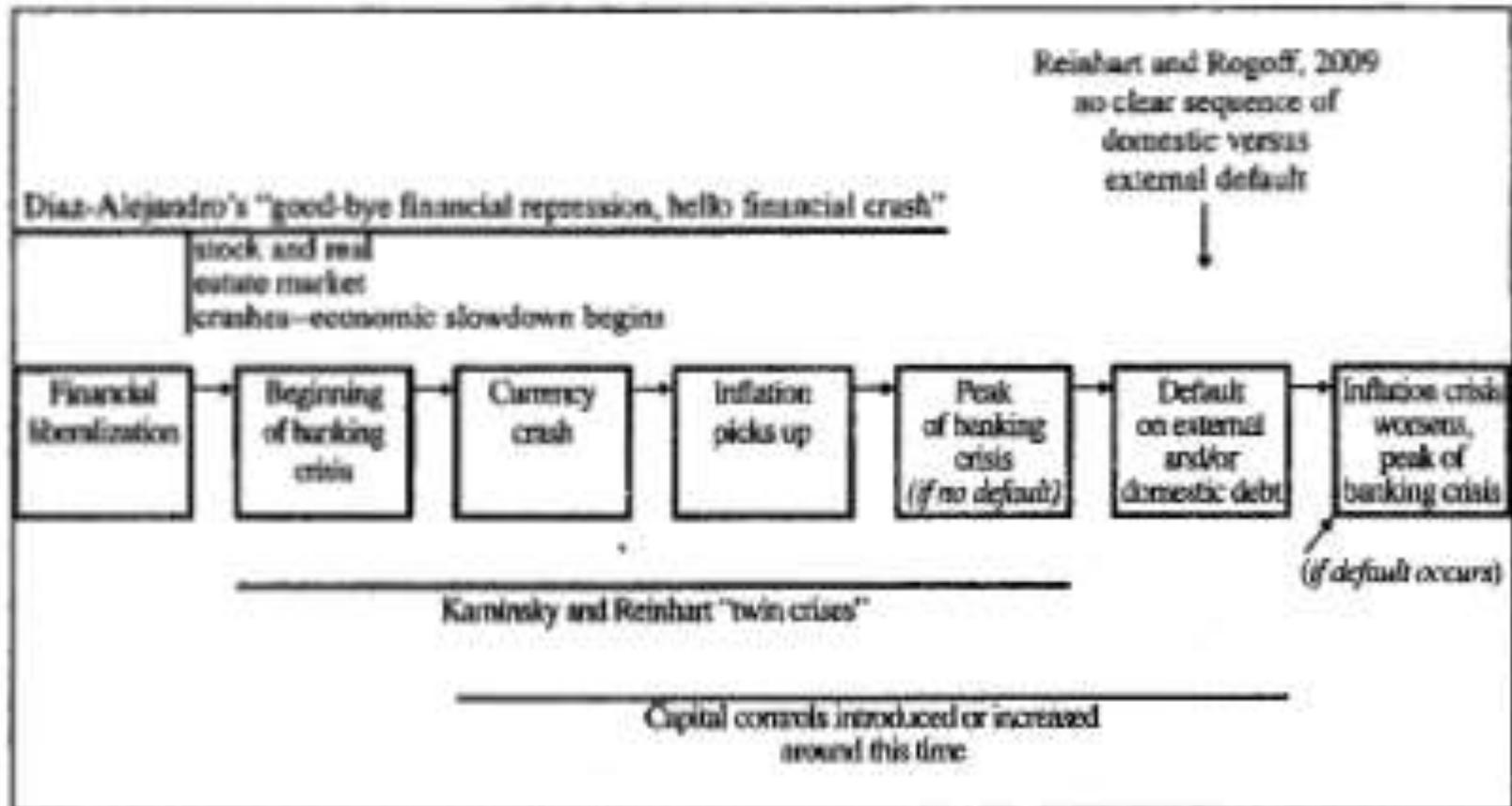
Typical Crises: all the same or always a little different

1. Krugman, 2008: problems is too much faith in financial sector and bailout plans (see Chapter 2)
2. Edwards, 2010: just avoid pegged exchange rates, all will be fine...
3. Reinhart and Rogoff, 2012: we are condemned to re-live the same crises again and again...

Typical Crises: is this time different?

CARMEN M. REINHART AND KENNETH S. ROGOFF

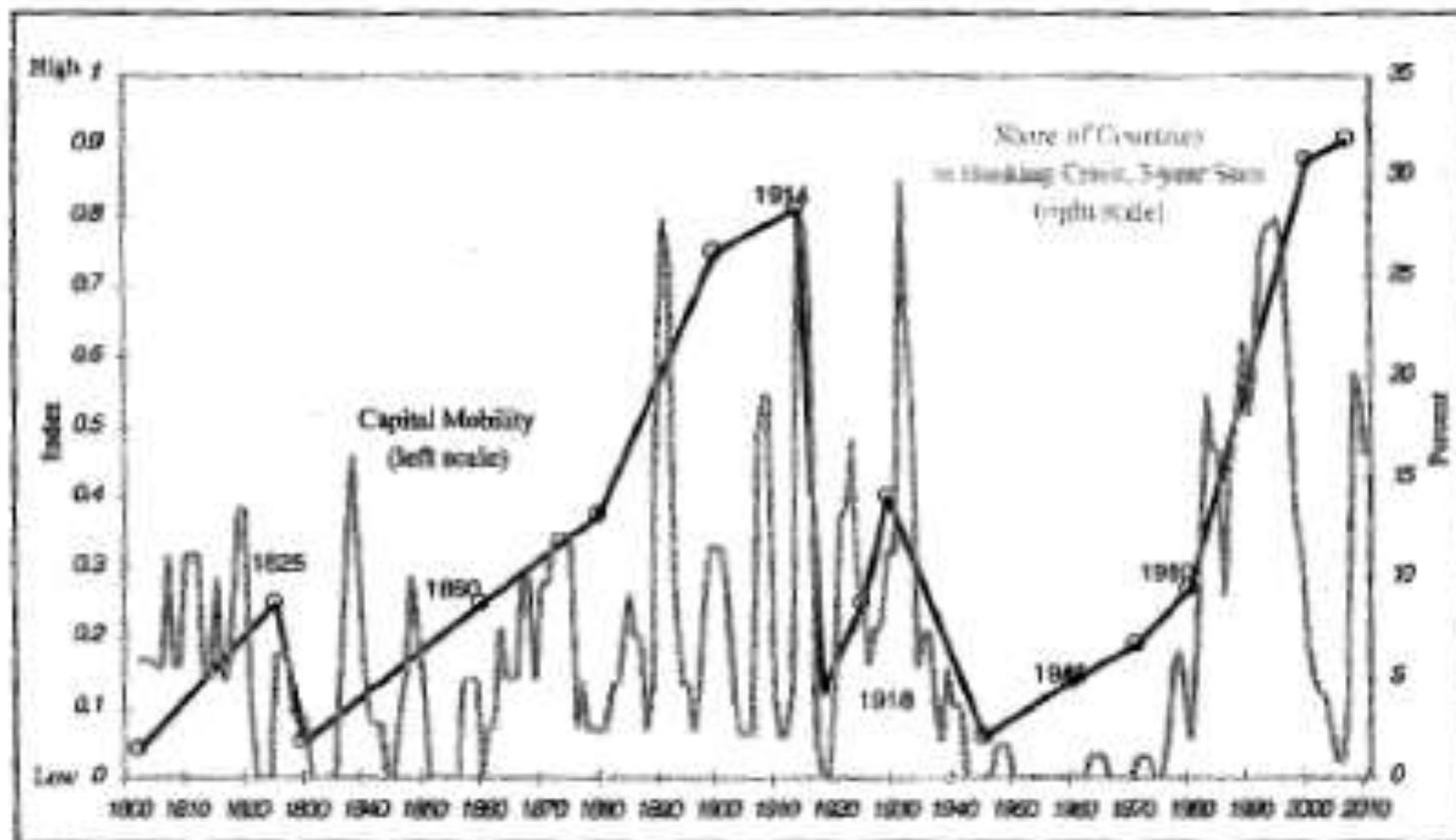
Figure 3. The Sequencing of Crises: A Prototype



Source: Reinhart and Rogoff (2009) and sources cited therein.

Typical Crises: is this time different?

Figure 1. Capital Mobility and the Incidence of Banking Crises:
All Countries, 1800–2010



Sources: Updated from Reinhart and Rogoff (2009) and sources cited therein.

Notes: This sample includes all countries. On the left scale, we updated our favorite index of capital mobility, admittedly arbitrary, but a concise summary of complicated forces. The smooth dark line shows the judgmental index of the extent of capital mobility given by Obstfeld and Taylor (2004), backcast from 1800 to 1859.

Typical Crises: is this time different?

Table 1. Quantitative Antecedents of Financial Crises: The "Lead" of the Leading Indicators

Large capital inflows

Sharp run-ups in equity prices

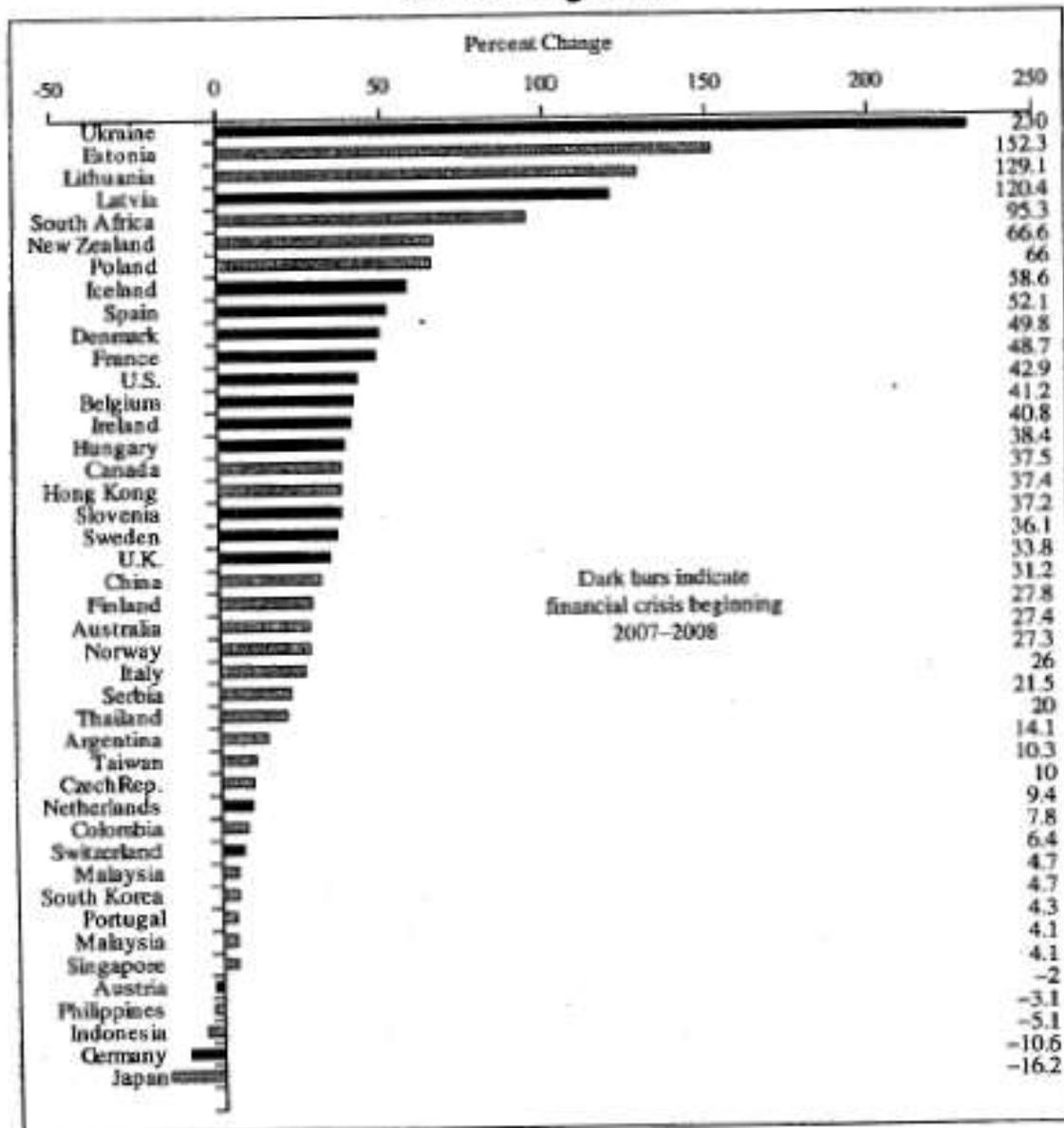
Sharp run-ups in housing prices

Inverted V-shaped growth trajectory

Marked rise in indebtedness

Real estate boom reinforces credit boom

Figure 2. Percent Change in Real Housing Prices (2002–2006) and Banking Crisis



Source: Reinhart and Rogoff (2009).

Amplified boom-bust cycle

Table 3. Amplifiers of Boom-Bust Cycles: The Usual Suspects

Procyclical macroeconomic policies

Hidden debts (implicit guarantees)

Overvalued currencies

Poor regulation

Even worse supervision

Outright fraud

Myopic credit rating agencies

Capital flows lead to real estate boom and trade deficit

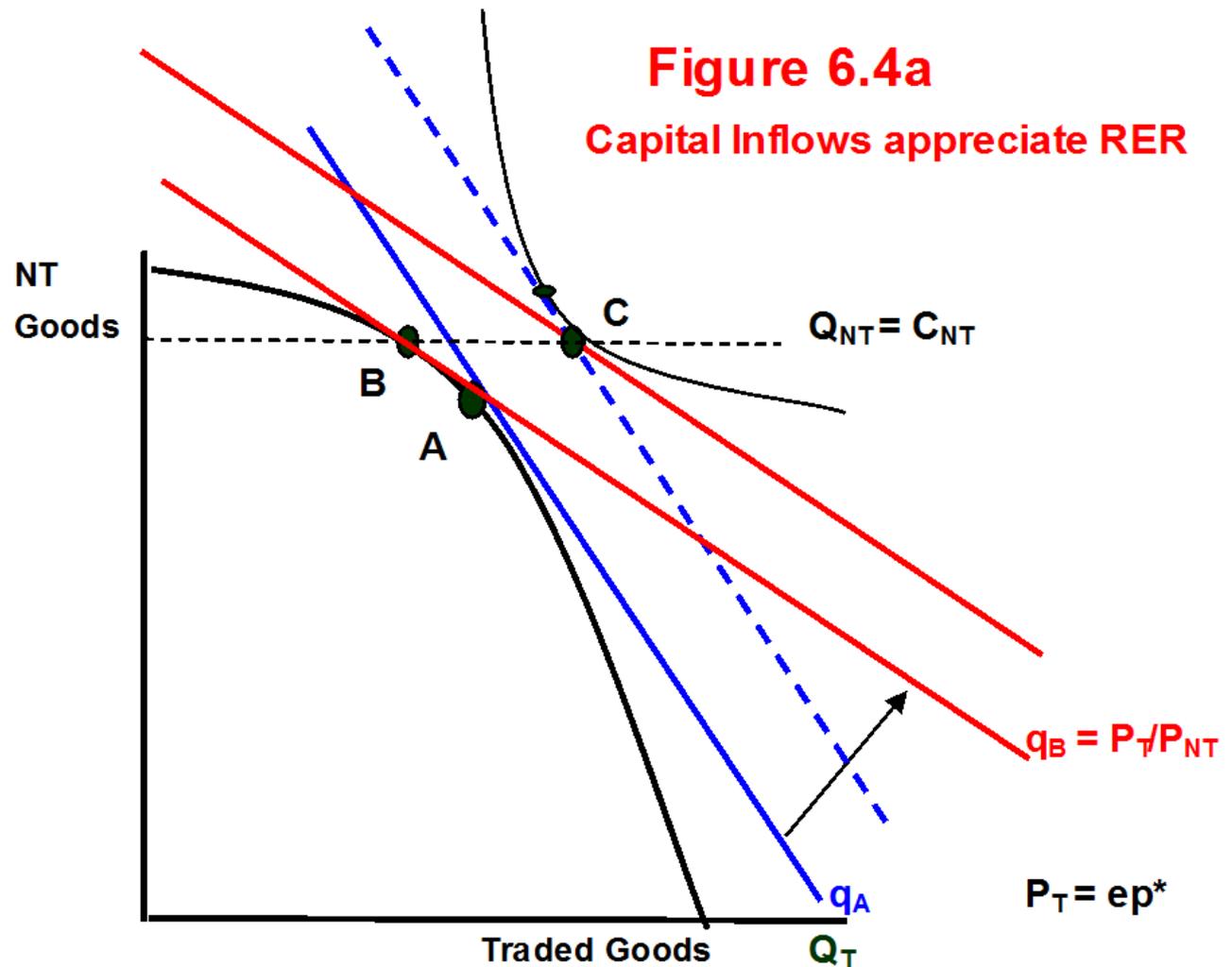


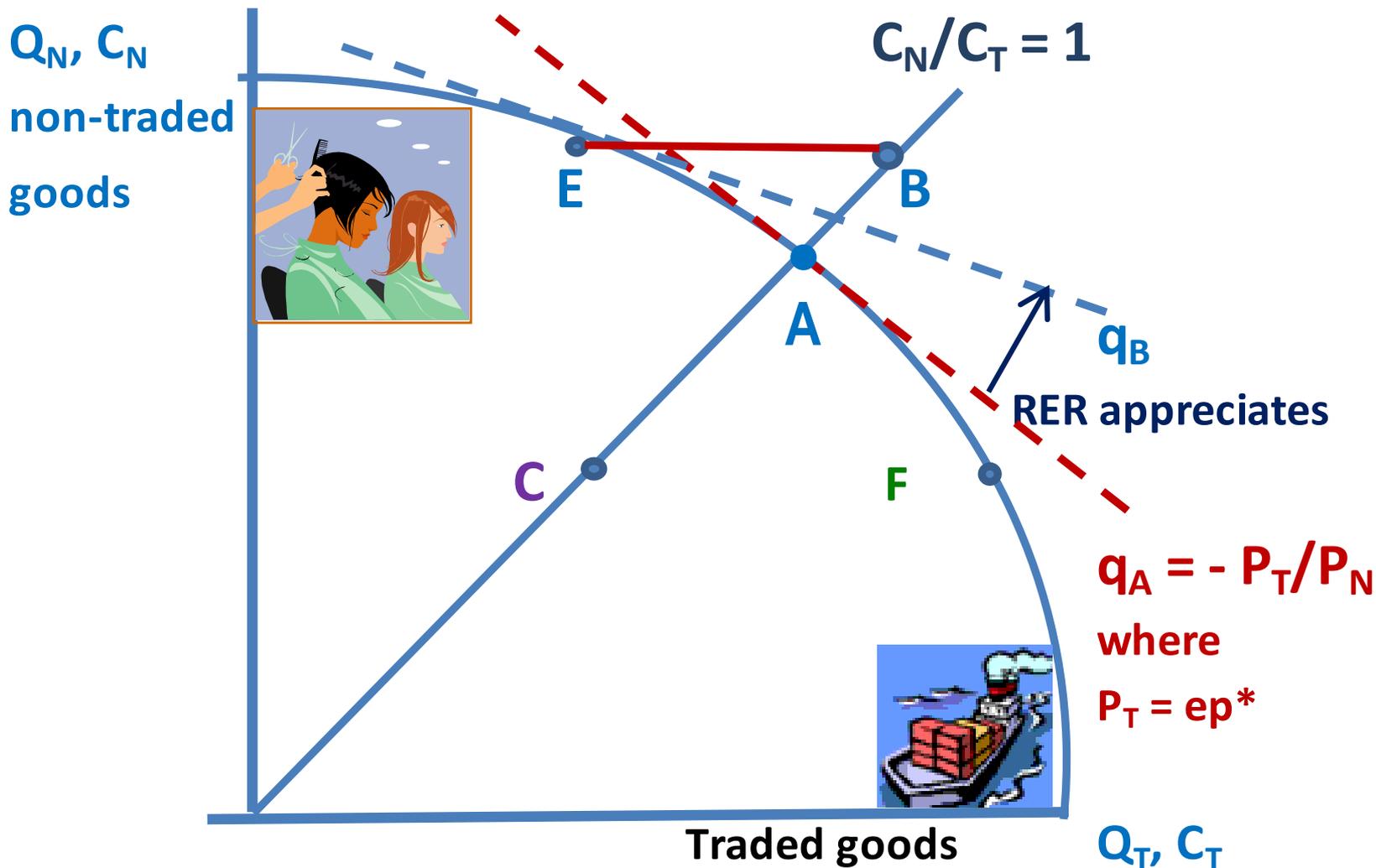
Figure 6.4: Capital Inflows always cause an appreciation of the real exchange rate, RER or $q = P_T / P_{NT}$ where $P_T = ep^*$.

Fixed Exchange Rate: P_T is fixed so P_N must increase.
(capital inflows are generally inflationary)

Flexible Exchange rate: $P_T = ep^*$ may fall, or P_N may increase.
(capital flows cause Inflation to rise or fall)

Capital in-flows lead to real estate boom and trade deficit

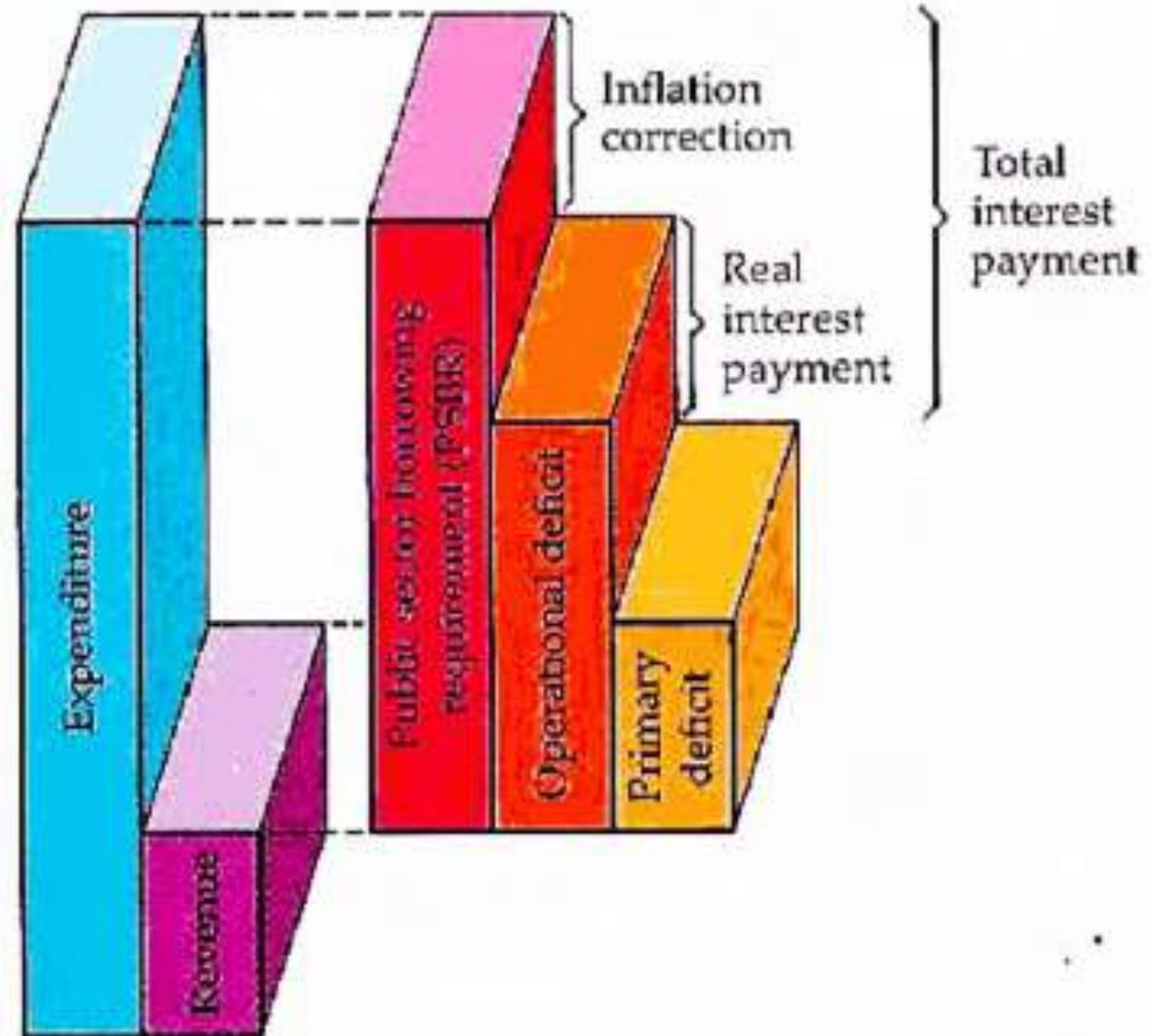
Figure TNT-4: PPF for a small Open Economy



Box figure 3.1 The relation between different deficit concepts

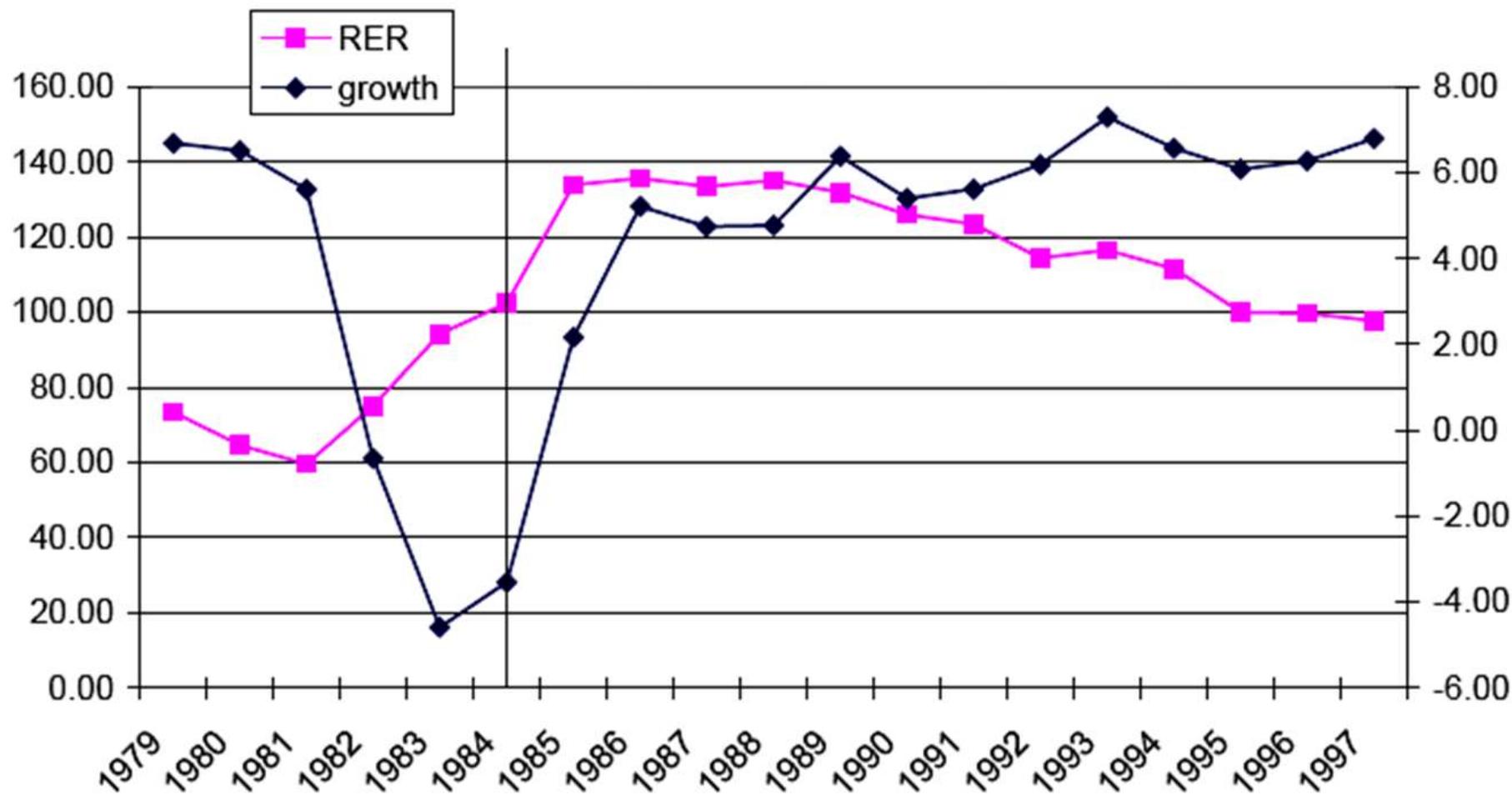
Primary deficit

excludes interest payments, a reduction in inflation reduces deficit, still need primary surplus to stabilize



Chile

real exchange rate and per-capita GDP growth (growth is shown as 3-year moving average)



People to know

- [Evita \(and Juan\) Peron](#)
- [Fernando Enrique Cardoso](#) (talk at the [Clinton Foundation](#))
- [Michelle Bachelet](#) ([Beyond equal rights](#))
- Dilma Rousseff ([before she was President...](#))
- [Subcomandante Marcos](#)
- [Ernesto Zedillo](#), accidental President of Mexico
- [Camila Vallejo](#) (Chilean student movement)
- [Naomi Klein](#) (Canadian [Shock Doctrine](#), [TED](#))

Films about/from Latin America

- Commanding Heights “[The Agony of Reform](#)”
- [South of the Border](#) (Oliver Stone, 2010)
- Fitzcaraldo (Werner Herzog)
- [The Carbon Hunters](#) (PBS Frontline)
- The Burning Season (the Chico Mendes Story)
- Evita
- Motorcycle Diaries