

Exchange rate Policy in Latin America: overcoming fear of floating

ECON 3235 Economics of LatAm

Lecture 3C notes Fall 2017

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Real exchange rate flexibility a serious problem in LatAm (and the Euro zone...)

- *At the end of Chapter 6 Edwards, 2010 argues, “In the story of Latin American economic reform, then, one variable more than any other plays a crucial role. It is not inflation, wages, or economic growth; it is not privatization or the extent of openness and globalization; it is not even foreign debt. The key variable is the exchange rate, or the value of the local currency-the peso, the bolivar, the quetzal, the real, or the cordoba-in relation to the United States dollar. Repeated mistakes in exchange-rate policy will be singled out as the most important cause behind the region's economic travails, the waning support for modernizing reforms, and the eventual revival of populism during the twenty-first century. Sebastian Edwards. Left Behind: Latin America and the False Promise of Populism Kindle Edition (chapter 6).*
- **Some good news:** with a few exceptions, exchange rate management has improved greatly and region has learned to cope with commodity price instability and “sudden stops” in private capital flows.

Key exchange rate management challenges for Emerging Market countries

1. **Dutch Disease (DD) natural resource booms and busts:** *Populist spending and public and private capital inflows amplify the boom bust-cycle....*
2. **Devaluing nominal exchange rate counters DD:** but can be inflationary... almost all LatAm countries used “nominal anchors” to stop inflation in 1990s (ABC &M).
3. **Capital inflows and Financial liberalization can aggravate DD:** CA deficit, followed by capital inflows, real estate boom, more credit expansion, more imports, they collapse of banks and external debt crisis (and inflation) follow... This is the “proto-typical” Reinhart and Rogoff financial crises, see Chile in 1982 and Mexico in 1995 newly privatized banks aggravate crisis

Policy responses to external shocks

Four ways to reverse a CA deficit: (two shift, two move along S&D):

1. **External devaluation:** changes in the nominal exchange rate
2. **Internal devaluation:** changes in domestic prices—deflation
3. **Stabilization policy:** demand side, cut fiscal spending and deficit/ tight money policy (raise interest rates)
4. **Structural Adjustment:** supply side, make exports more competitive

Good neighbor policy responses to external shocks

Contagion and beggar thy neighbor policies:

- **Internal devaluation** low contagion (populist backlash?)
- **External devaluation: can be** contagious, beggar thy neighbor
- **Using stabilization policy** reduces contagion (why?)
- Labor mobility helps mitigate crises (Haiti, SLV TPS) creates remittances
- Fiscal transfers: aid, debt relief, debt guarantees emergency funds (FEMA now in Puerto Rico...)

Four external adjustment options in the market for dollars diagram

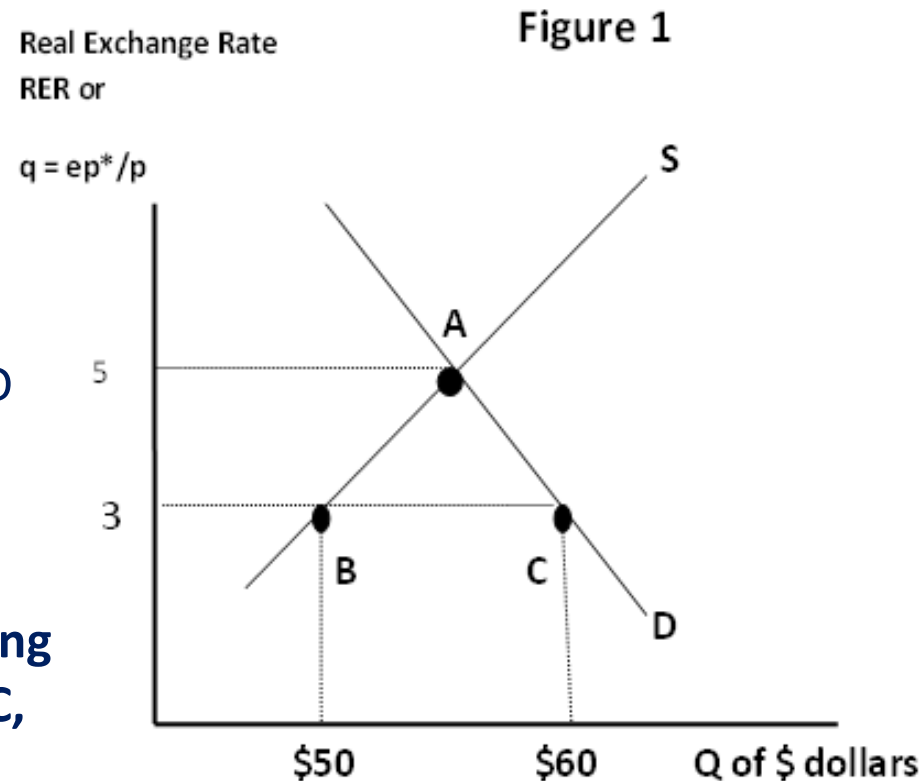
Four Adjustment Options again:

1. External Devaluation: raise e to raise q , moving along S & D curve to point A....

2. Internal Devaluation: raise q by reducing domestic prices/wages, p , until q reaches point A (5 as in #1 but with e fixed....)

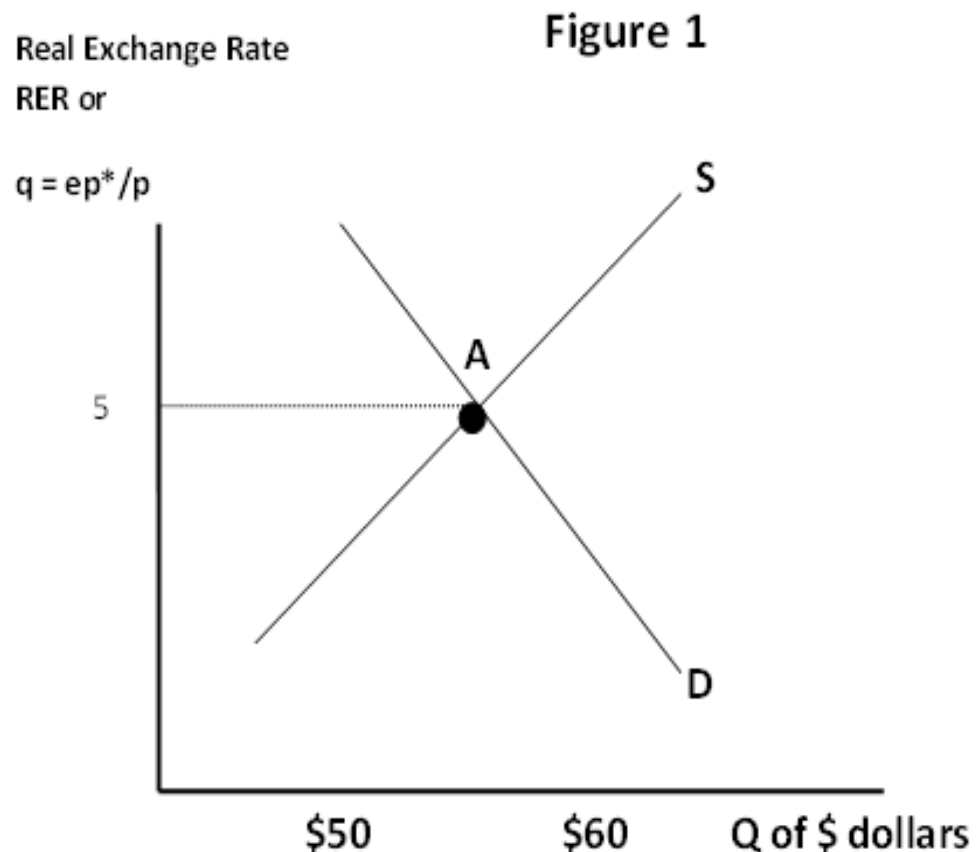
3. Stabilization Policy: shift Demand Curve D to left, reducing CA deficit to zero at B with RER & exchange rate unchanged.

4. Structural Adjustment labor market reform: find a way to shift S to right, lowering costs, raising productivity moving to point C, no CA deficit at same $q=3$...



Pure floating (automatic adjustment) or pure fixed (the gold standard) never worked that well, see [DeVries](#))

No need for government or the IMF, but for better or worse it never worked... automatically, governments cannot resist intervening, stopping automatic adjustment, with surplus countries the worst offenders... (19th century UK and 21st century China, for example)



Armendariz & Larrain, 2017 Chapter 9

Exchange rate regimes and monetary arrangements in contemporary Latin America

Exchange rate arrangement

Monetary policy framework	Floating	No separate legal tender, currency board, or conventional peg	Intermediate regimes/other exchange rate arrangements
Inflation-targeting	Brazil Chile Colombia Mexico Paraguay Peru		Guatemala
Monetary aggregate target	Uruguay		
Exchange rate anchor (US dollar)		Ecuador El Salvador Panama Venezuela	Honduras Nicaragua
Other			Argentina Bolivia Costa Rica

Authors' own construction, based on IMF 2014a.

Armendariz & Larrain, 2017 Chapter 9

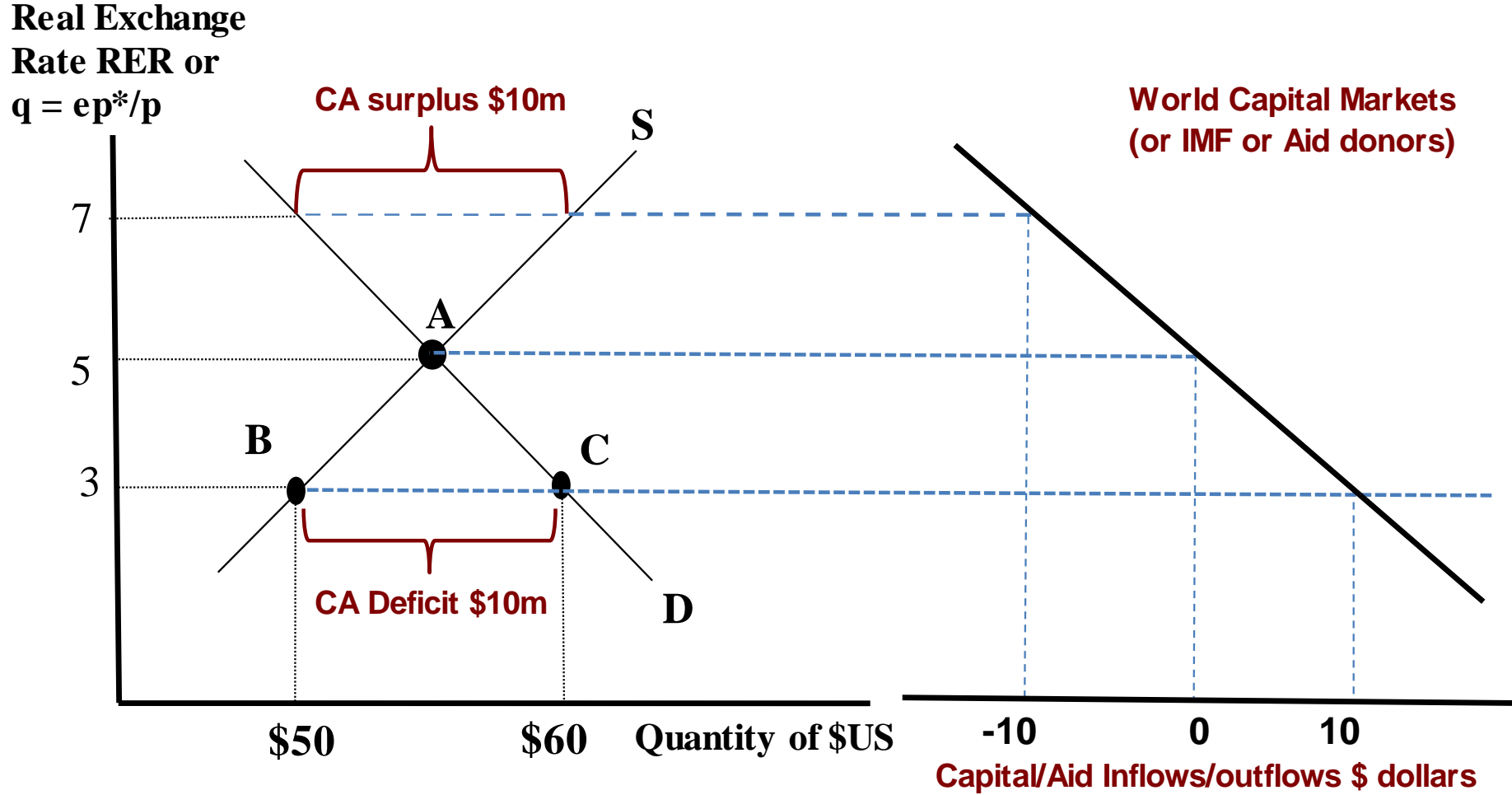
Table 9.2
Exchange rate regimes in Latin America, 1985–2014

	1985	2000	2014
Countries currently using inflation targeting			
Brazil	Intermediate	Floating	Floating
Chile	Intermediate	Floating	Floating
Colombia	Intermediate	Floating	Floating
Guatemala	Pegged	Floating	Intermediate
Mexico	Floating	Floating	Floating
Paraguay	Pegged	Floating	Floating
Peru	Intermediate	Floating	Floating
Countries currently without inflation targeting			
Argentina	Floating	Pegged	Intermediate
Bolivia	Pegged	Intermediate	Intermediate
Costa Rica	Floating	Intermediate	Intermediate
Ecuador	Floating	Pegged	Pegged
El Salvador	Floating	Pegged	Pegged
Honduras	Pegged	Intermediate	Intermediate
Nicaragua	Pegged	Intermediate	Intermediate
Panama	Pegged	Pegged	Pegged
Uruguay	Floating	Intermediate	Floating
Venezuela	Pegged	Intermediate	Pegged

Source: IMF 2008.

In Latin America, the tail often wags the dog: dollar inflows often determine the CA balance and RER, mainly private capital flows... some FDI, China increasingly important after 2000

Figure 2: capital flows and the RER in a small open economy

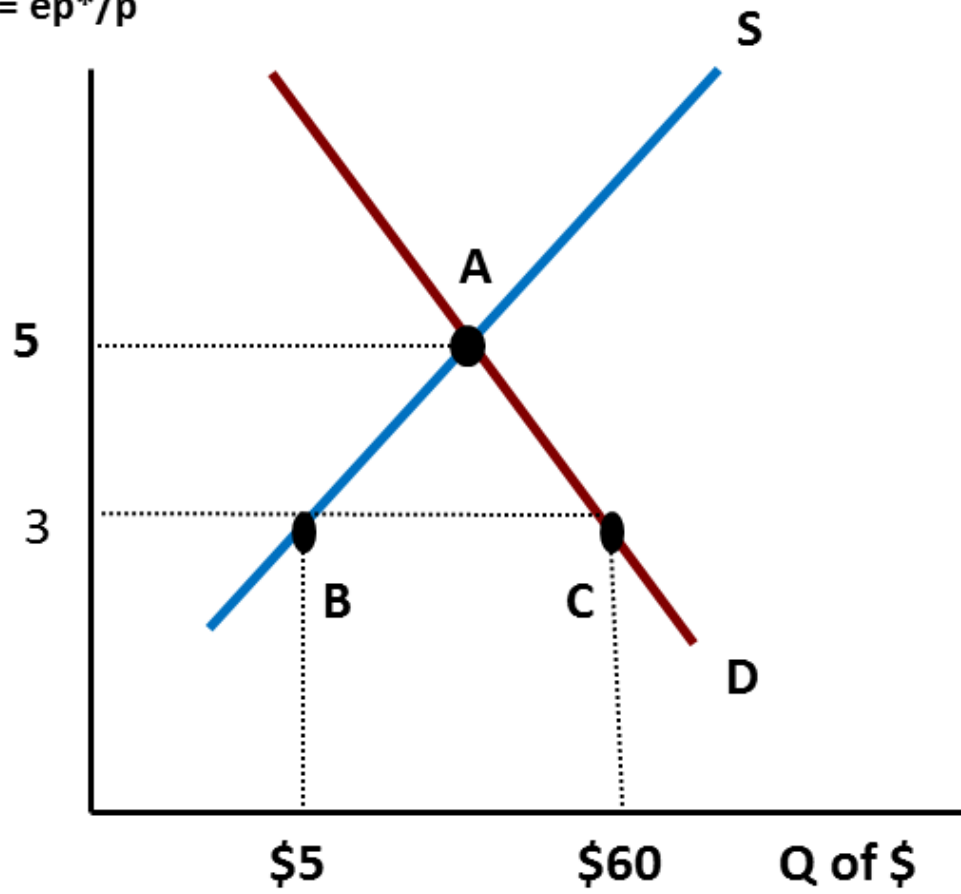


In small open (developing) economies Fx inflows often determine the RER & CA balance

Suppose international markets determine, dollar inflows must end which means CA balance must shrink to zero (or become a surplus to pay down debt). What can a country do? 4 policy options

**Figure 1A Policy option #1:
Devalue q (go from C-B to A)**

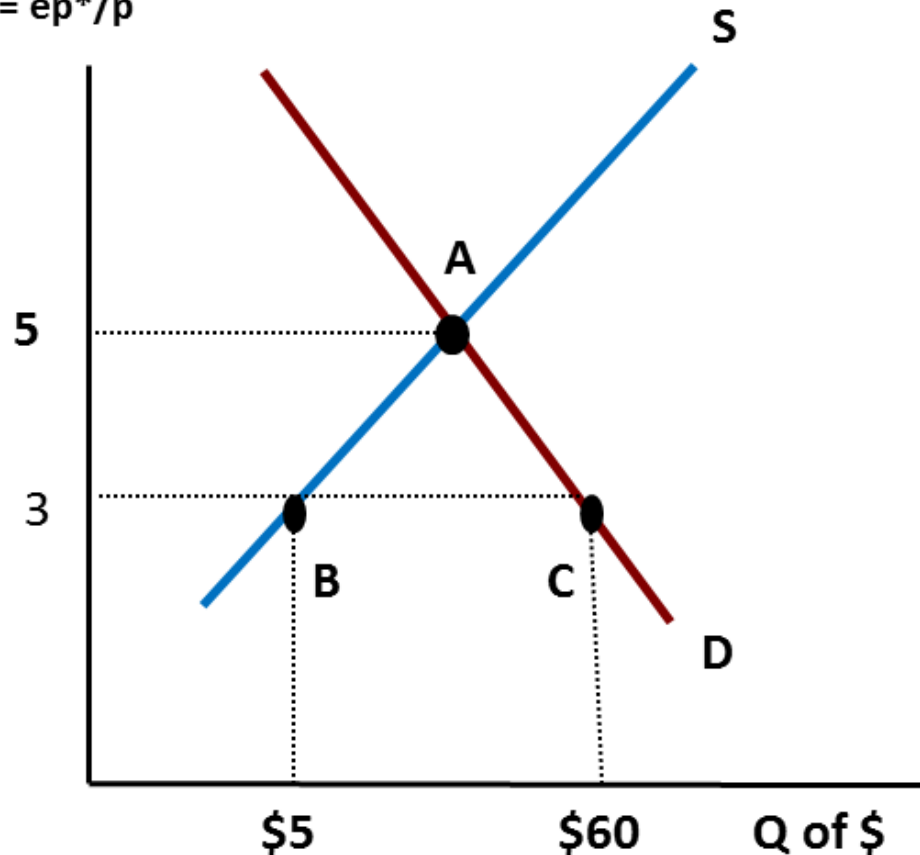
Real Exchange
Rate RER or
 $q = ep^*/p$



Does Internal Devaluation work?

Figure 1B Policy option #2: reduce p to raise q (internal devaluation)

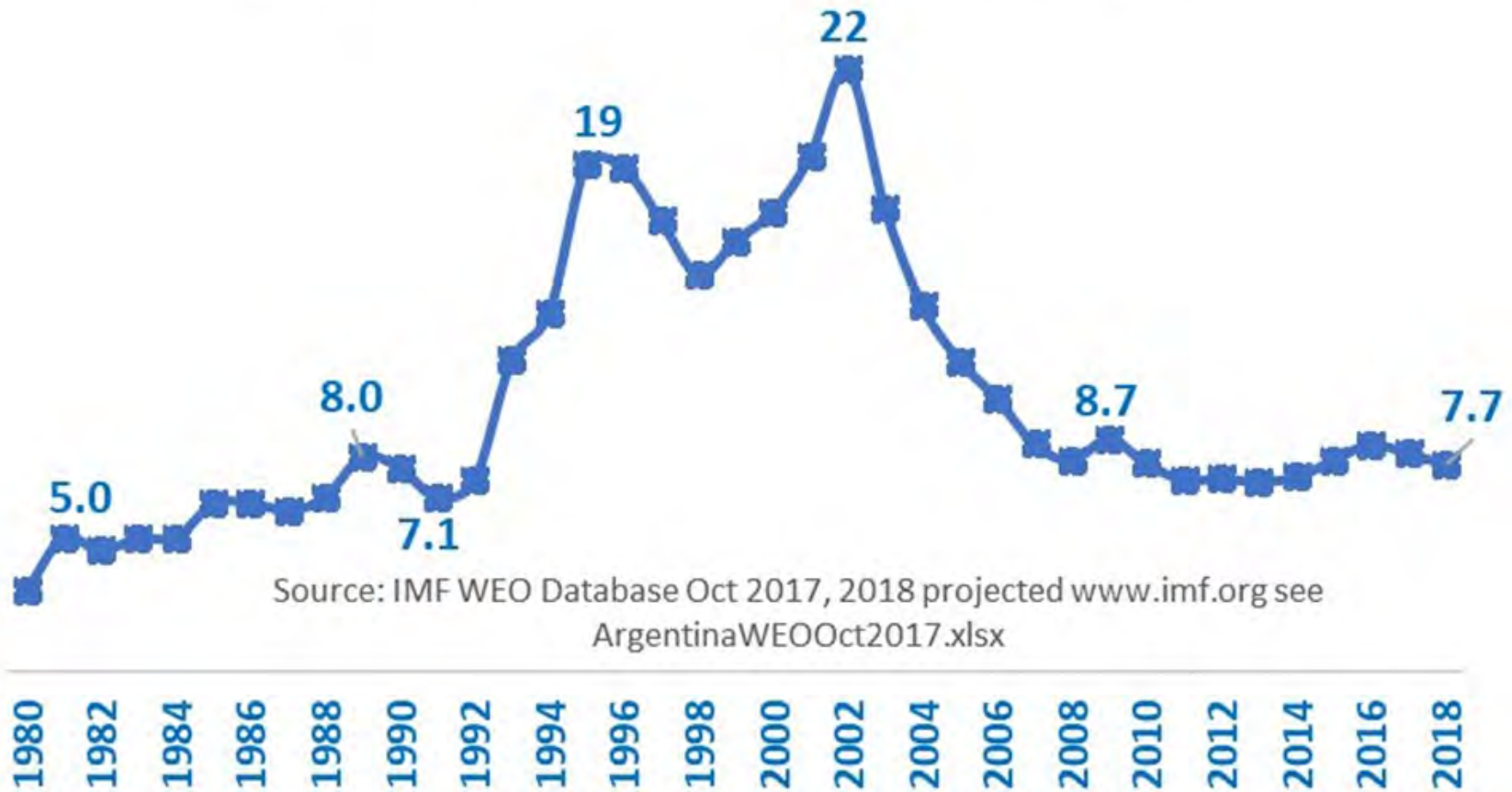
Real Exchange Rate RER or $q = ep^*/p$



Internal devaluation is much harder, leave e fixed but reduce p (domestic prices and wages) so that q falls., harder and slower and usually starts with sharp recession, see next slide

Does Internal Devaluation work? not in Argentina during 1990s

Figure U-3 Argentina Unemployment Rate



Source: IMF WEO Database Oct 2017, 2018 projected www.imf.org see ArgentinaWEOOct2017.xlsx

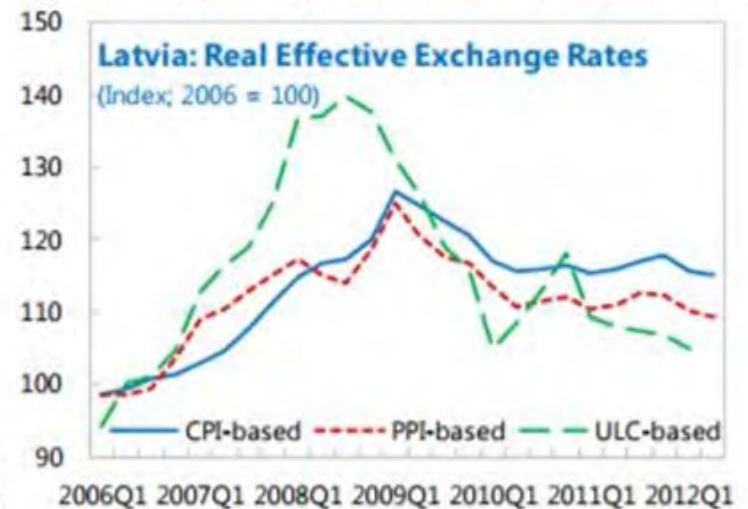
Does Internal Devaluation work?

Latvia is EU-IMF success story

Box 4. Latvia: Internal Devaluation

Internal devaluation policies aimed at improving competitiveness through wage cuts in the government and state-owned enterprises, promotion of wage restraint in the private sector, (e.g., via actions by a new Committee to Promote Wage Restraint created within the National Tripartite Cooperation Council), and structural measures to improve the ease of doing business and productivity.

These policies along with significant economic slack helped factor prices decline relative to trading partners. The real effective exchange rate depreciated as wages and prices declined. Notably, the ULC-based real effective exchange rate depreciated by about 24 percent from the peak in mid 2008 to end-2011. The CPI- and PPI-based RER depreciated by about 7 and 10 percent respectively from their peaks till end 2011. According to



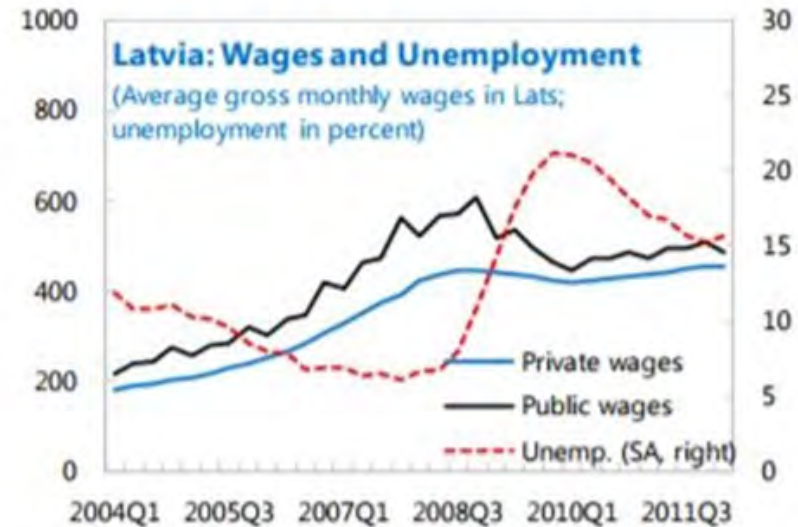
Sources: National authorities; and IMF staff estimates

Does Internal Devaluation work?

Latvia again very high unemployment

From the peak at the height of the crisis in end-2008 to trough at early 2010, public wages fell by 27 percent while private wages fell by 6 percent and started growing again in mid 2010 (although anecdotal evidence suggests that the true private wage decline is larger). Much of the adjustment to the drop in demand was achieved through layoffs rather than wage reduction. Unemployment rose even as emigration increased (about 4 percent of the population emigrated during 2008-2010). Job losses were concentrated in the non-tradable sector, notably construction, where roughly a third of all job losses took place.

The unemployment rate is now declining rapidly despite increasing participation in the labor market, underpinned by strong job creation. Nonetheless the level of unemployment – mainly structural unemployment – remains high, suggesting mismatches in the labor market that will likely take time to unwind.



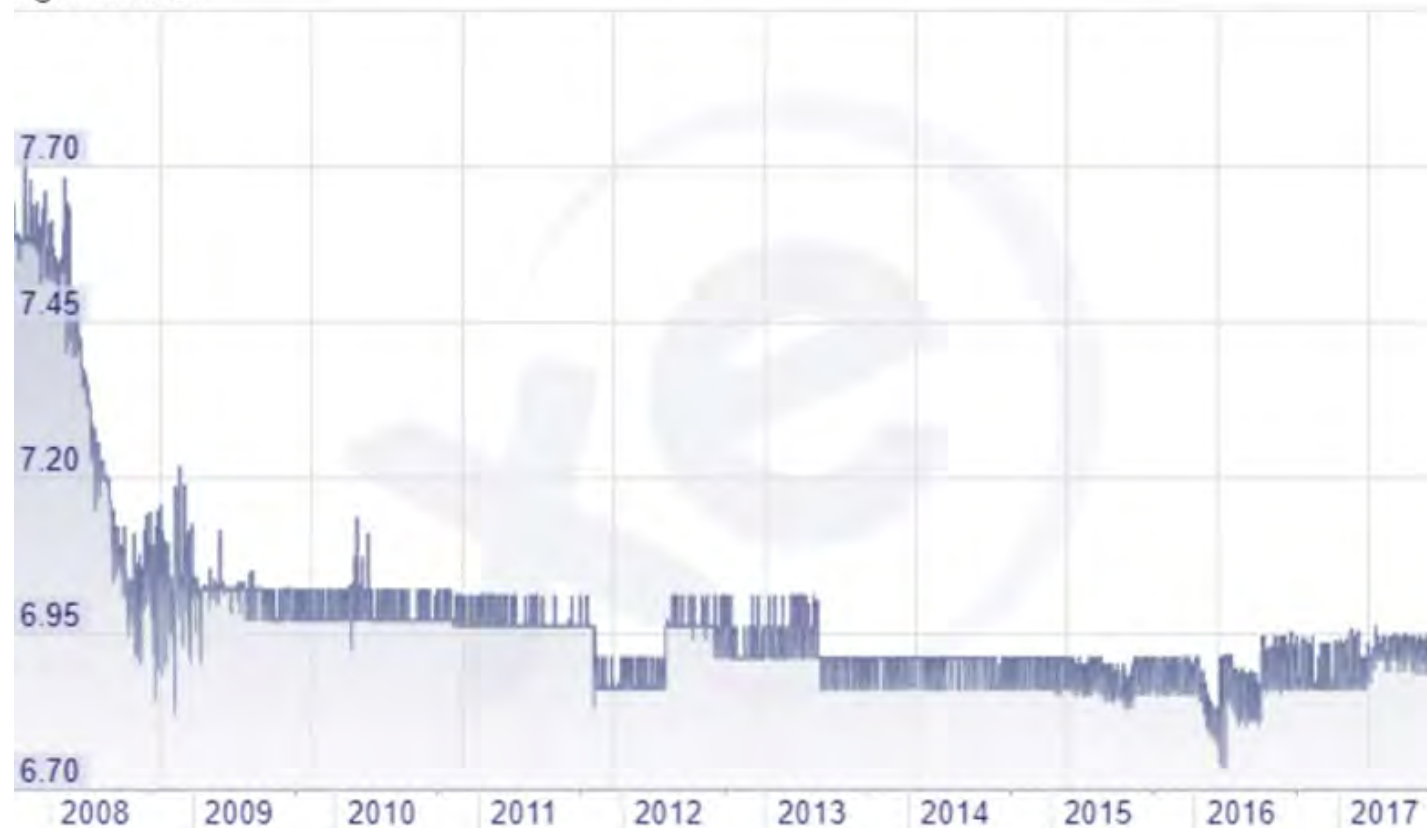
Sources: National authorities; and IMF staff estimates

Still Puerto Rico, Ecuador, Panama & El Salvador have hard pegs and the Bolíviano largely pegged to the dollar: why?

JSD to BOB Chart

Send Money Now

20 Oct 2007 00:00 UTC - 16 Oct 2017 16:38 UTC **USD/BOB** close: **6.90858** low: **6.73000**
high: **7.70920**



Options for fixed exchange rate countries and territories:

- Keep domestic prices increases low to avoid overvaluation
- Manage capital inflows carefully, FDI only?
- Find a lender/patron (Ecuador has China)
- Fiscal transfers
- Structural Adjustment (supply side policies):
- Reduce prices and wages? This is what the WSJ suggests for Puerto Rico (next slide)

Options for fixed exchange rate territories: WSJ & the Krueger report say U.S. min wage is too high for Puerto Rico

An Island Apart

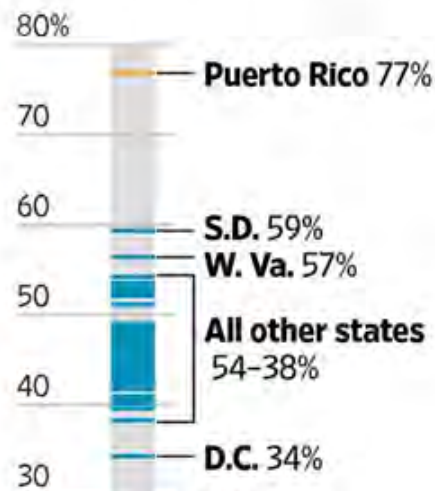
Compared to the U.S. economy, Puerto Rico has struggled to attract jobs and has much lower rates of labor-force participation, which economists say is partly due to a high minimum wage that depresses labor demand and generous benefit payments that reduce supply.

■ Puerto Rico ■ United States average

Percentage change in nonfarm employment since 1990
monthly, seasonally adjusted



Minimum wage* as a percentage of median hourly wage, by state



Labor force participation rate annually, seasonally adjusted



*Minimum wage uses federal minimum wage (\$7.25/hour) or state minimum wage, whichever is higher

Sources: Labor Department (employment, minimum wage); World Bank (labor participation)

Lack of jobs leads to outmigration (despite well established Pharma industry)

see also El Salvador and East Germany in 1990s... WSJ, 2015, Puerto Rico's

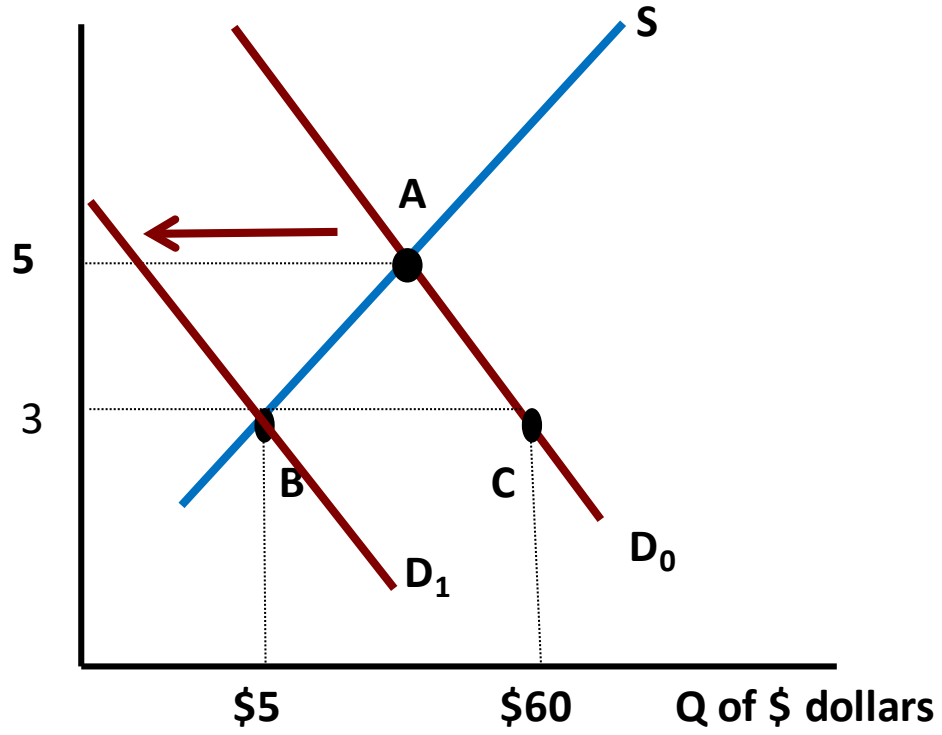
Pain Is Tied to U.S. Wages: Economists say island's use of the mainland's minimum pay helps crimp its economy <http://on.wsj.com/1Cb3BBY> Movers pack up Yessenia Puente's San Juan apartment Wednesday as she prepares to move to Orlando, Fla., this weekend. People are fleeing the island amid a financial crisis that has resulted in an estimated \$72 billion public debt for the Puerto Rican government. PHOTO:JOE RAEDLE/GETTY IMAGES



Suppose international markets determine, dollar inflows must end which means CA balance must shrink or become surpluses to pay down debt). What can a country do? three policy options

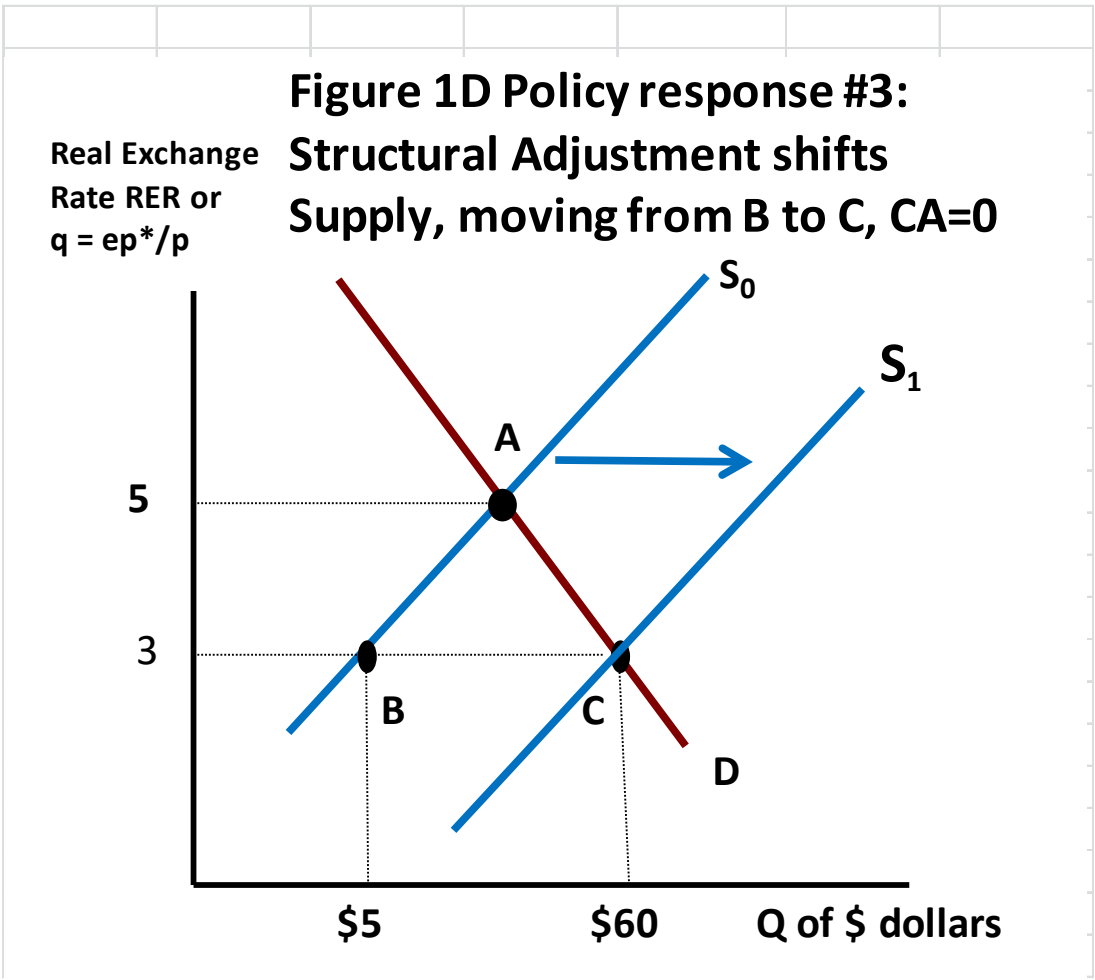
**Figure 1C Policy response #2:
Stbz Policy, Demand shifts from C to B, CA = 0**

Real Exchange Rate RER or $q = ep^*/p$



Stabilization or “good” vs. beggar thy neighbor Policy use fiscal and monetary policy to put Shift import demand to the left and put downward pressure on wages and prices (internal devaluation). Impact is same for q, but internal devaluation less likely to trigger retaliatory devaluation (contagion) this is why IMF wants some internal adjustment, almost always, especially reductions in G.

Suppose international markets determine, dollar inflows must end which means CA balance must shrink to zero (or become a surplus to pay down debt). What can a country do? 4 policy options



Structural adjustment passes productivity on to trading partners.. use trade and labor market policies or public infrastructure investment to reduce costs and increase TFP..... Hard to do, takes time, but silver lining of rebalancing or crisis response: structural reforms reduce costs for consumers at home and abroad, increase demand for exports at all levels of q....

Real exchange rate = ep^*/p_d

- Inflation adjusted price of dollars or real exchange rate
- **Internal devaluation**: p falls (deflation)
- **External devaluation**: e rises, but inflation may too, and often causality runs from
- Can also be interpreted as the price of traded over nontraded goods P_T/P_N

Four external adjustment options in the market for dollars diagram

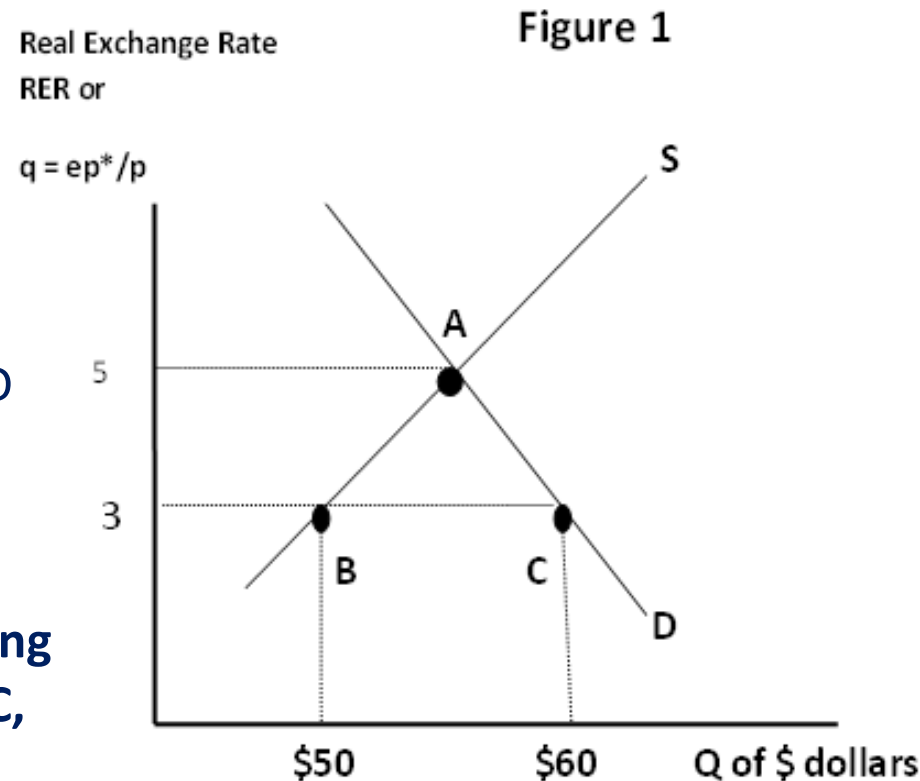
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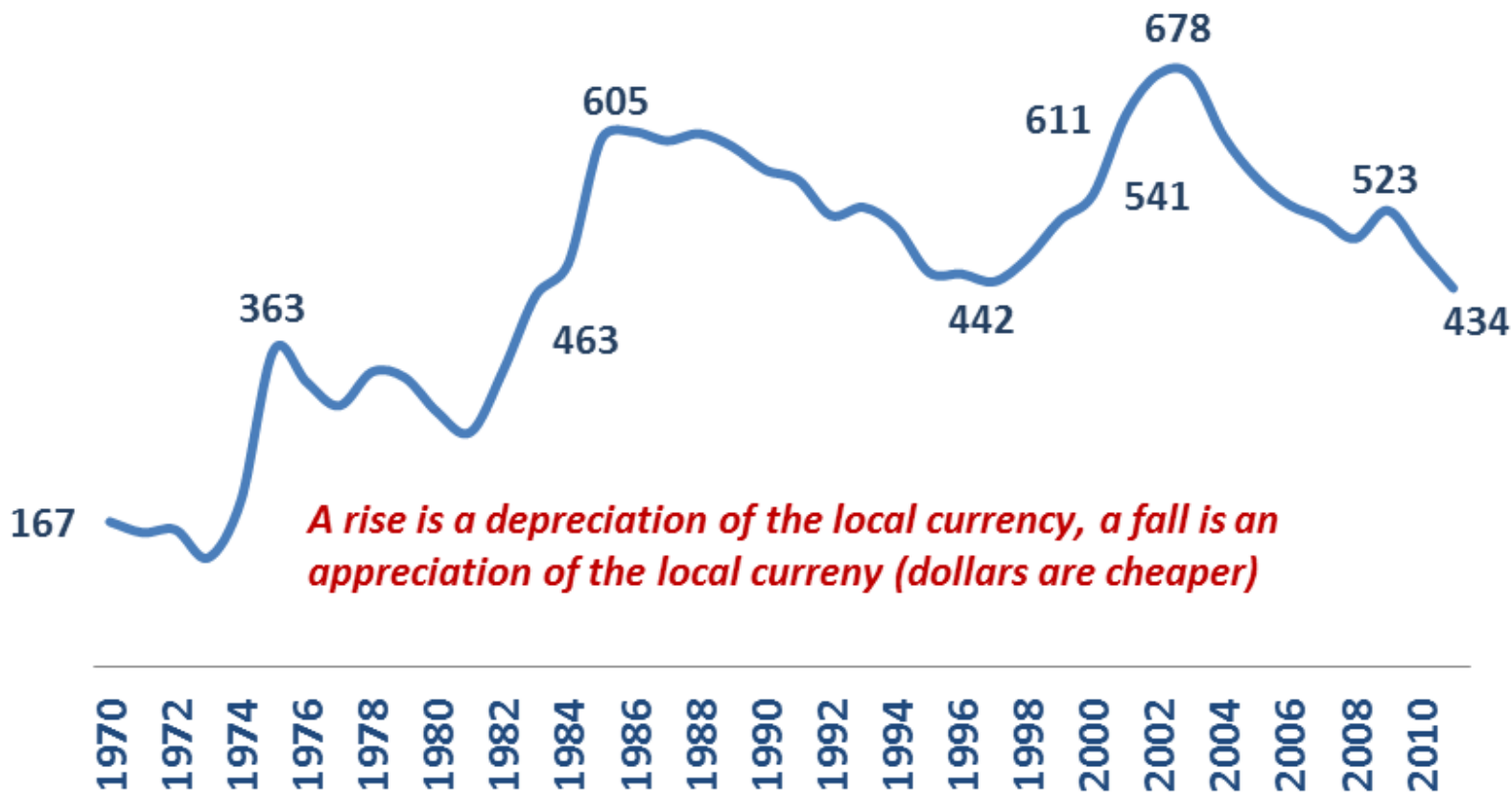
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Chile exchange rate weakens during crisis years, and remains much weaker than it was in 1970

Chile inflation adjusted "Real" Exchange Rate (pesos per dollar)

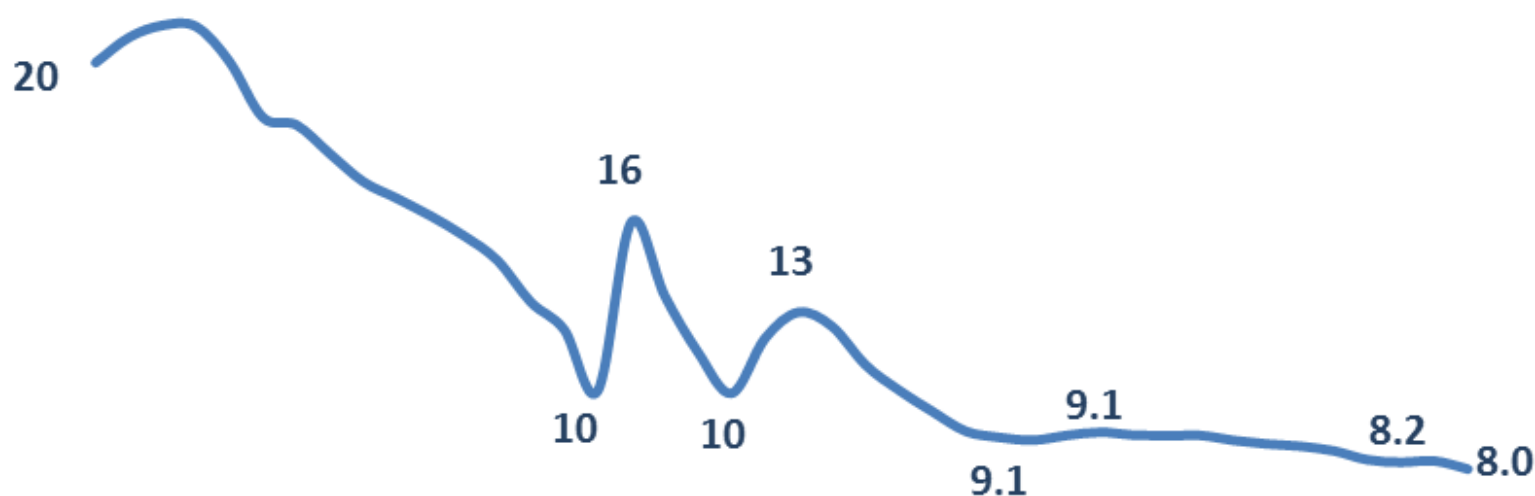


A rise is a depreciation of the local currency, a fall is an appreciation of the local currency (dollars are cheaper)

Source: Shane, M (2012) USDA Historical Exchange Rates (2005 base)

El Salvador's RER strengthened since the war years, and continued to do so even after it adopted the U.S. dollar as its currency in 2001, how and why? (recall the formula for the RER)

Figure RER-2 El Salvador inflation adjusted "Real" Exchange Rate (real price of a dollar in El Salvador)



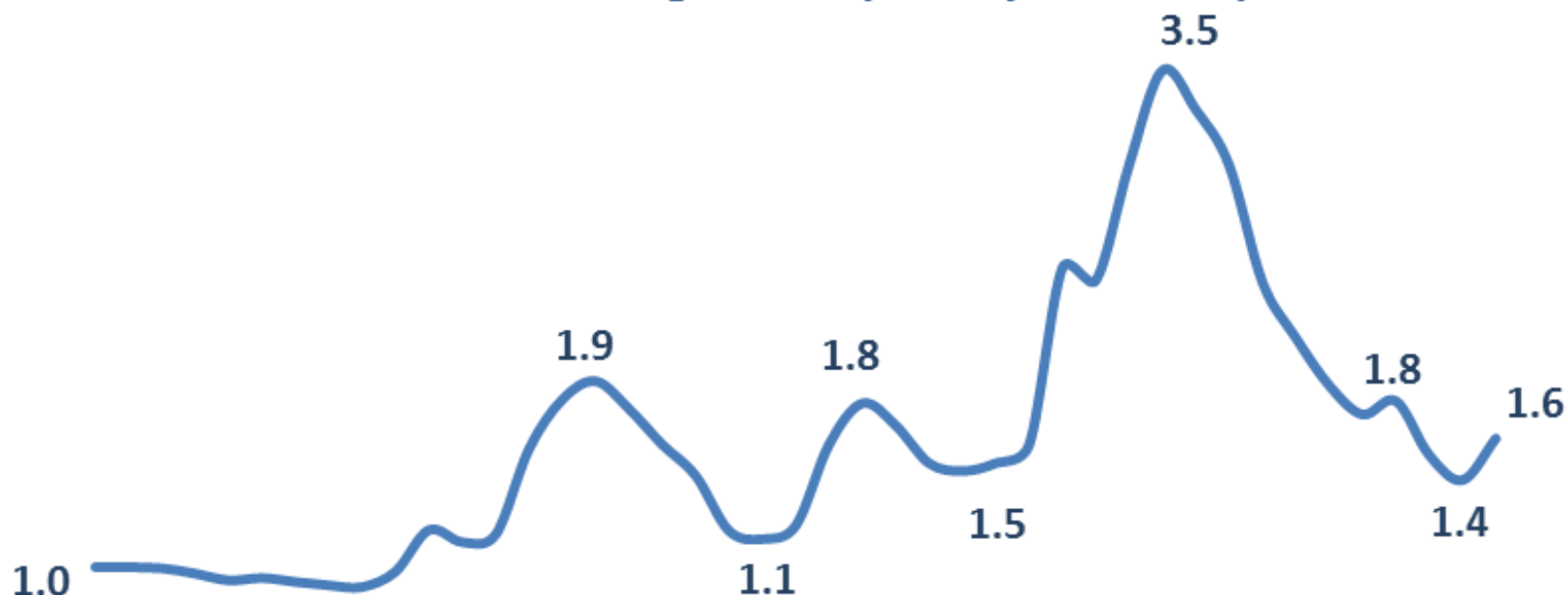
A rise is a depreciation of the local currency, a fall is an appreciation of the local currency (dollars are cheaper)

1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010

Source: Shane, M (2012) USDA Historical Exchange Rates (2005 base).

USDA computes real exchange rates for all Countries: why?

**Figure RER-3 Brazil inflation adjusted "Real"
Exchange Rate (reals per dollar)**



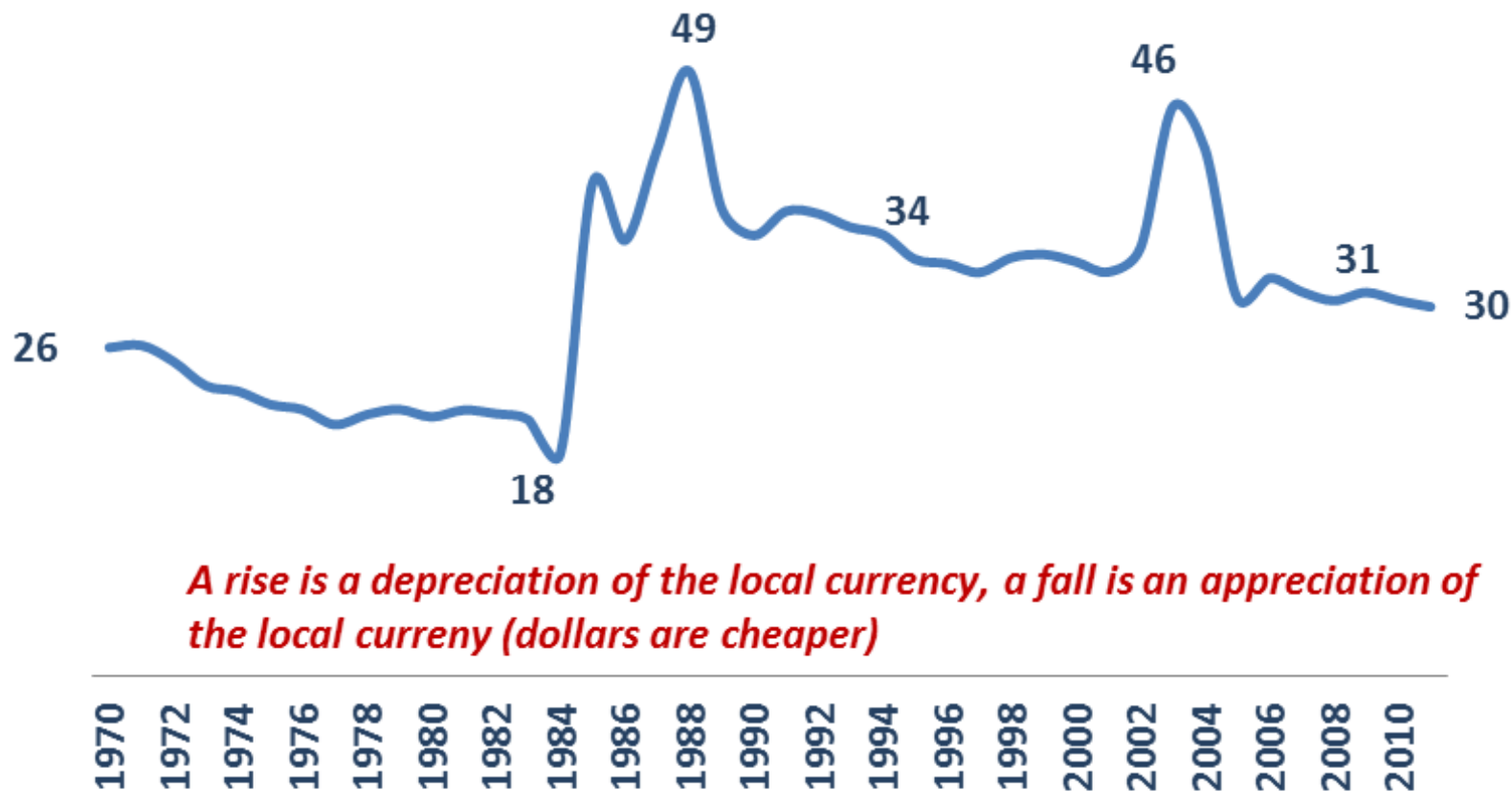
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1970 1972 1974 1976 1978 1980 1982 1984 1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012

Source: Shane, M (2012) USDA Historical Exchange Rates (2005 base).

USDA computes real exchange rates for all Countries: why?

**Figure RER-5: Dominican Republic inflation adjusted
"real" Exchange Rate**

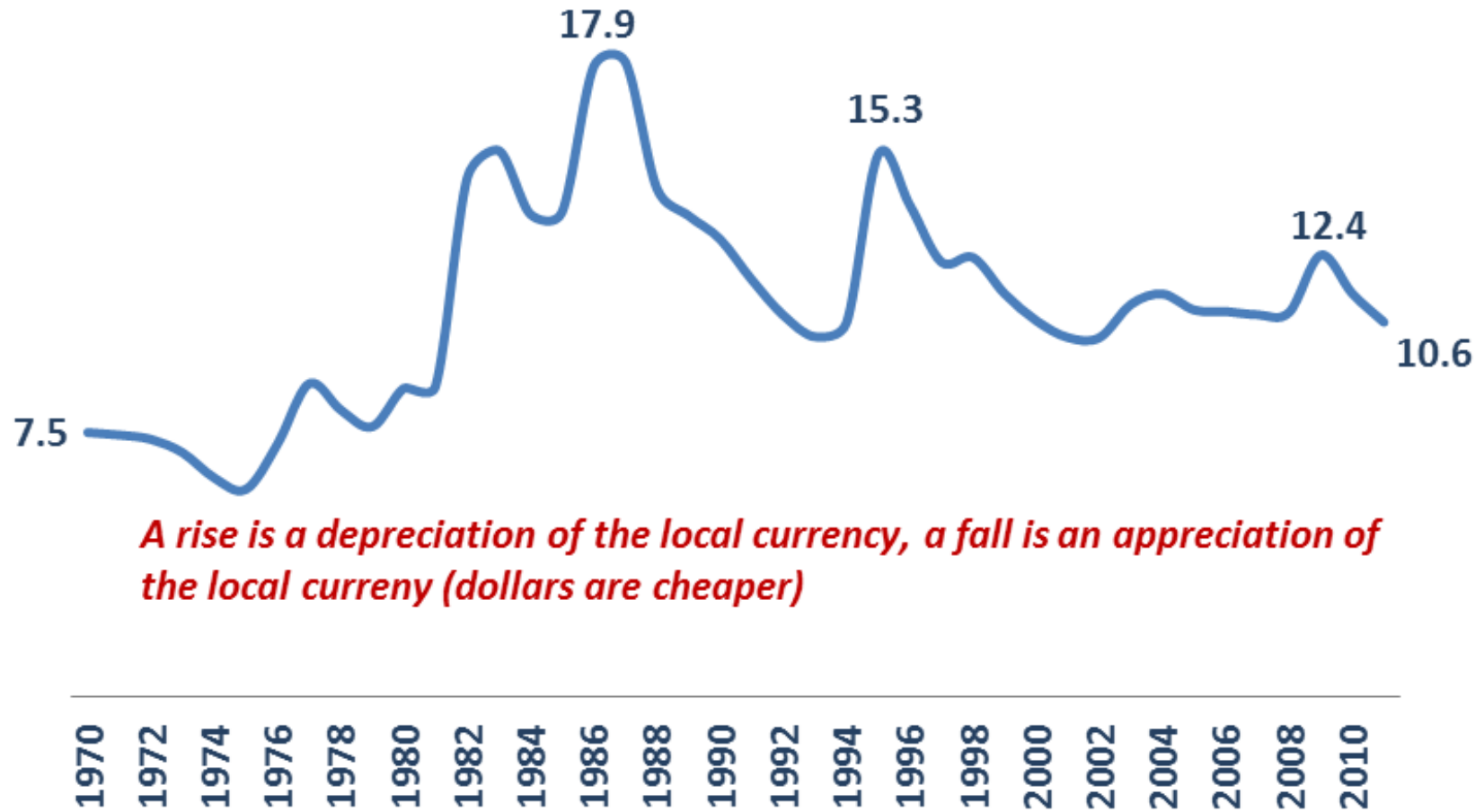


A rise is a depreciation of the local currency, a fall is an appreciation of the local currency (dollars are cheaper)

Source: Shane, M (2012) USDA Historical Exchange Rates (2005 base)

The USDA estimates real exchange rates for all Countries: why?

**Figure RER-4 Mexico inflation adjusted "Real"
Exchange Rate (pesos per dollar)**

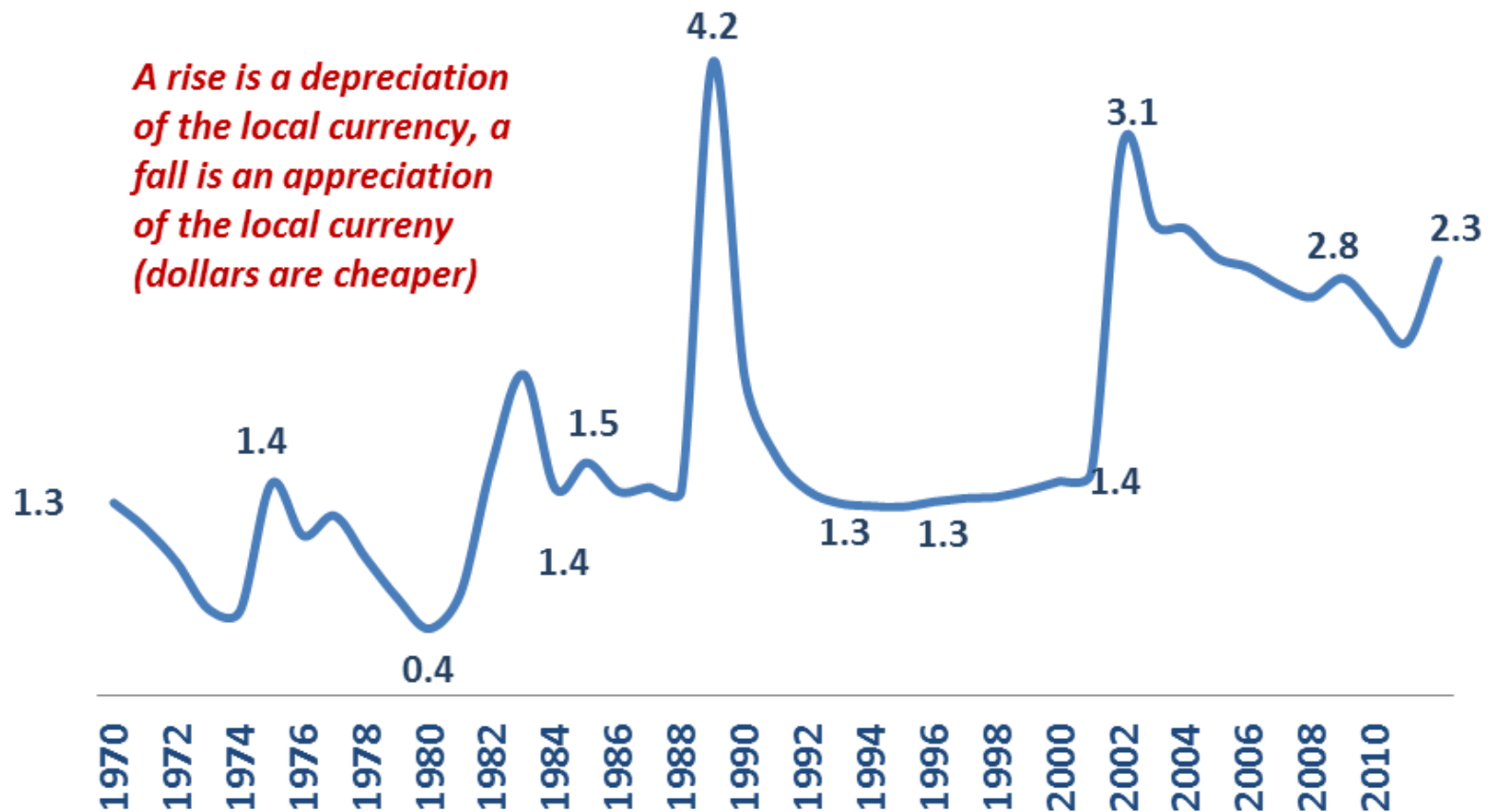


A rise is a depreciation of the local currency, a fall is an appreciation of the local currency (dollars are cheaper)

Source: Shane, M (2012) USDA Historical Exchange Rates (2005 base).

Argentina experienced two sharp depreciations of its currency

Figure RER-6 Argentina's inflation adjusted "Real"
Exchange Rate (pesos per dollar)



Source: Shane, M (2012) USDA Historical Exchange Rates (2005 base)

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

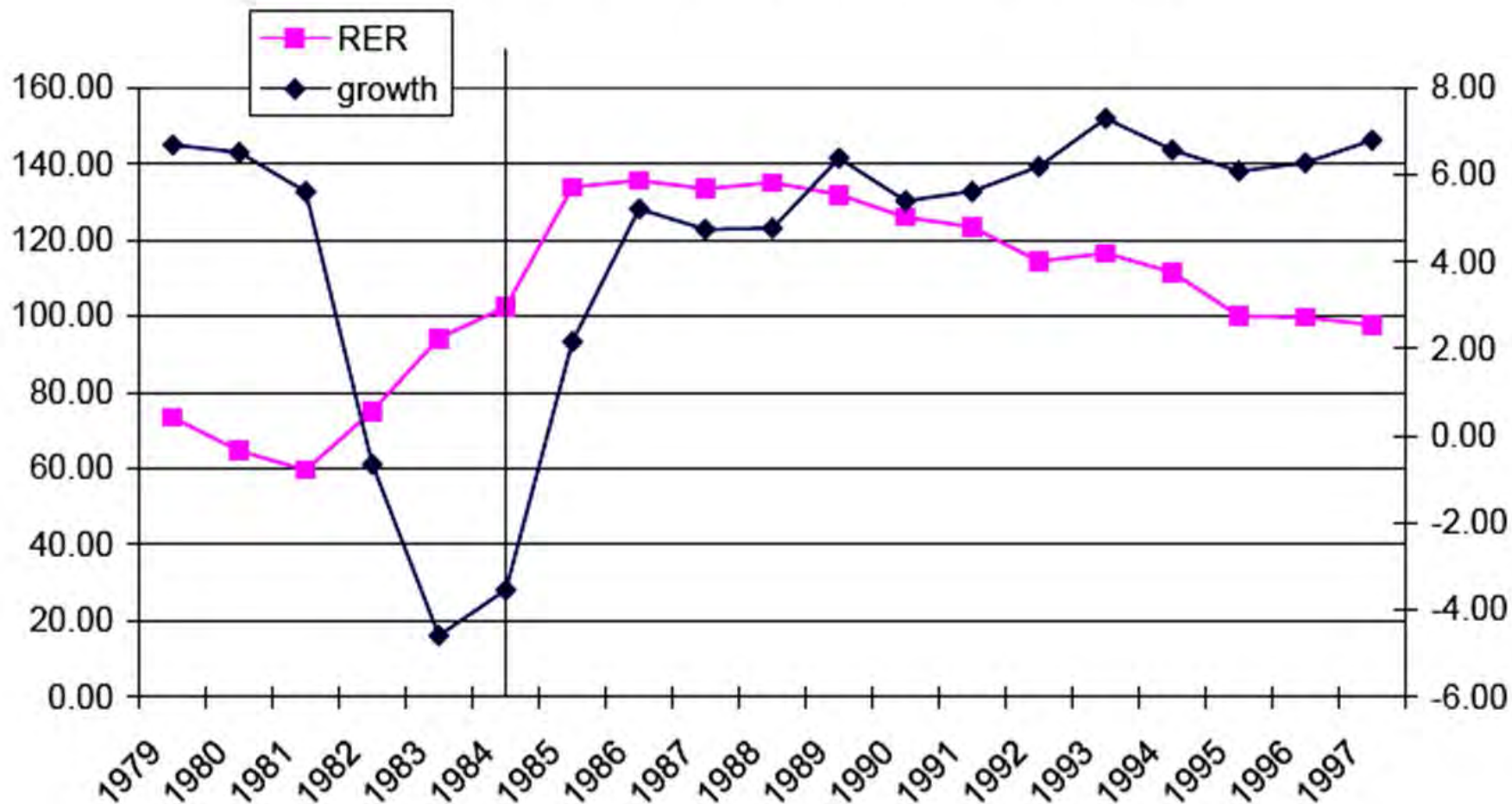
Even worse supervision

Outright fraud

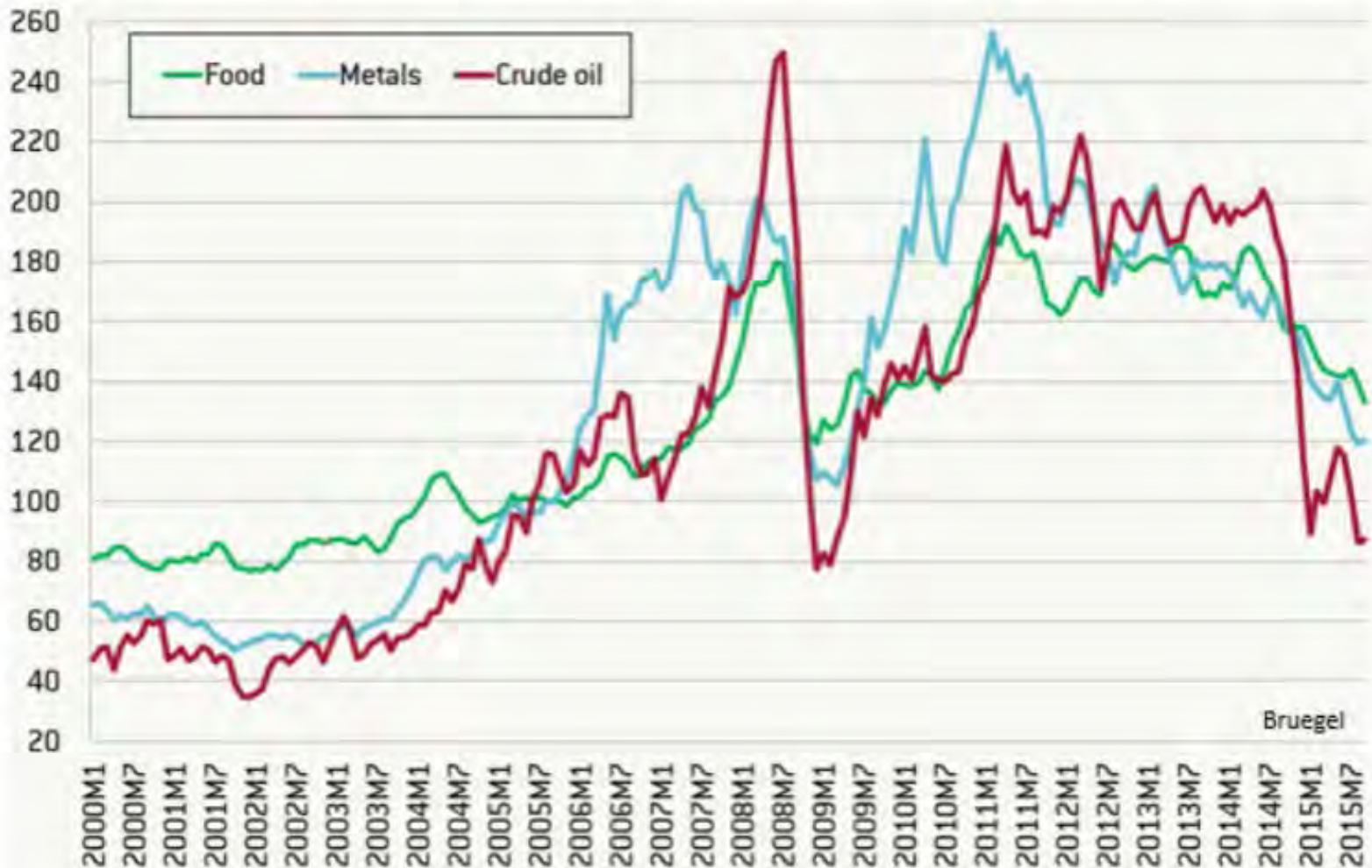
Myopic credit rating agencies

Chile

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

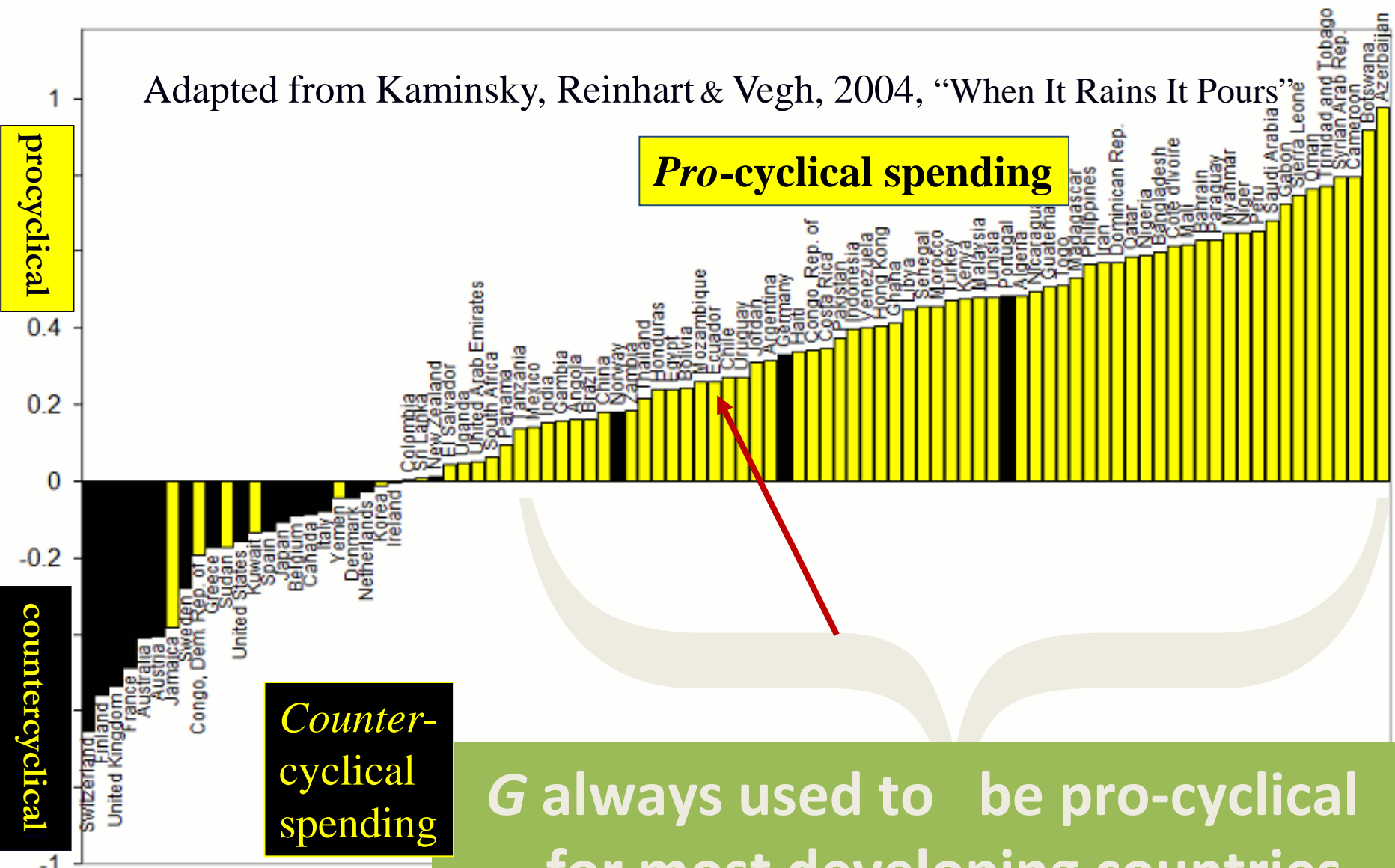


Commodity prices over the last decade have been even more volatile than usual.



Correlations Gov Spending & growth 1960-1999

Adapted from Kaminsky, Reinhart & Vegh, 2004, "When It Rains It Pours"



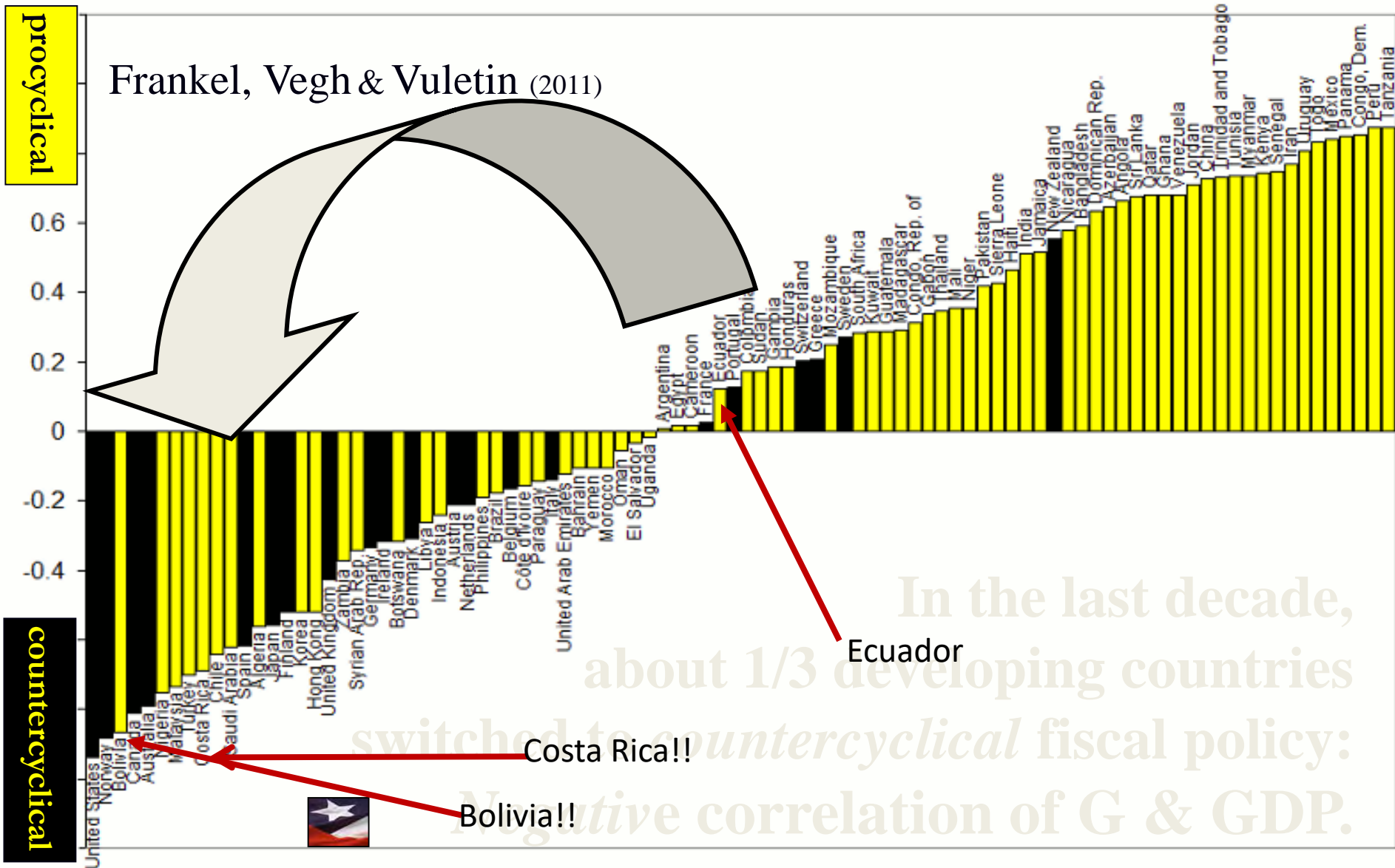
G always used to be pro-cyclical for most developing countries.

- Procyclicality has been especially strong in commodity-exporting countries.
- An important development -- some developing countries, including commodity producers, were able to break the historic pattern in the most recent decade:
 - taking advantage of the boom of 2002-2008
 - to run budget surpluses & build reserves,
 - thereby earning the ability to expand fiscally in the 2008-09 crisis.
 - Chile is the outstanding model;
 - also Botswana, China, Indonesia, & Korea.



Correlations between Government & GDP Reversed in many ctys

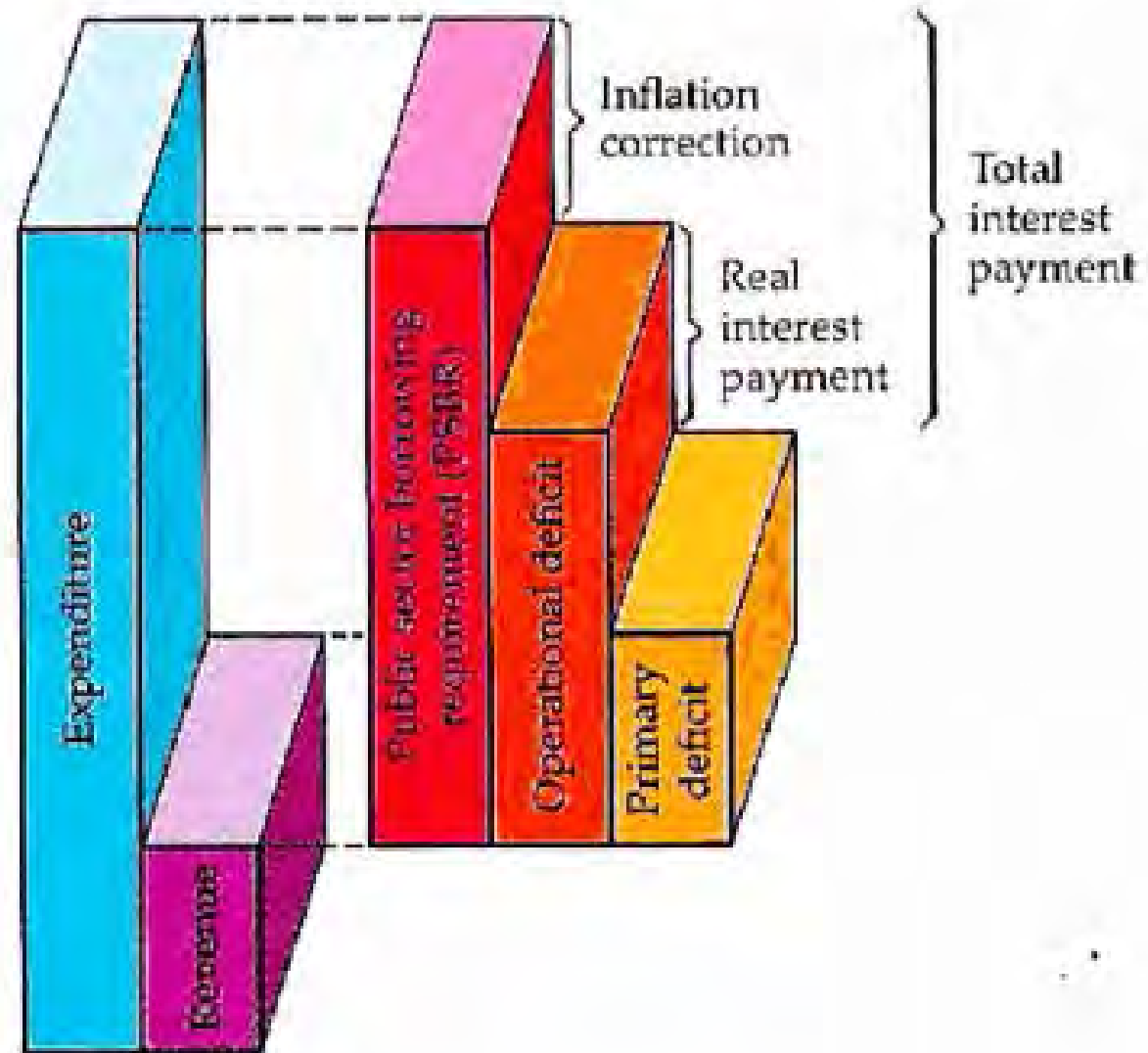
“Graduation”



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



Appendix I: The Natural Resource Curse

Seven possible channels that some have suggested could lead to sub-standard economic performance:

- * Long-term trends in world commodity prices
(Prebisch-Singer hypothesis, 1950. But negative trend has not been borne out.)
- * Volatility (e.g., Hausmann & Rigobon, 2003)
- * Permanent crowding out of manufacturing (Matsuyama, 1992)
- * Unsustainability
- * Civil war (Collier, 2007...)
- * Poor institutions (Auty, Sachs-Warner, Engerman-Sokoloff...), and
- * Cyclical Dutch Disease.