Financial Crises

Econ 434 Lecture

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  - recycling of surpluses to fuel export-led growth in emerging economies
  - But it presents possibility of currency crises that become financial crises

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- Other emerging markets follow similar strategy

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- How and whether to reform international financial system?
- Why are financial crises bad?
  - Huge losses in GDP and consumption? Much larger than most Harberger triangles. Loss of capital, physical and human. Bad policies.

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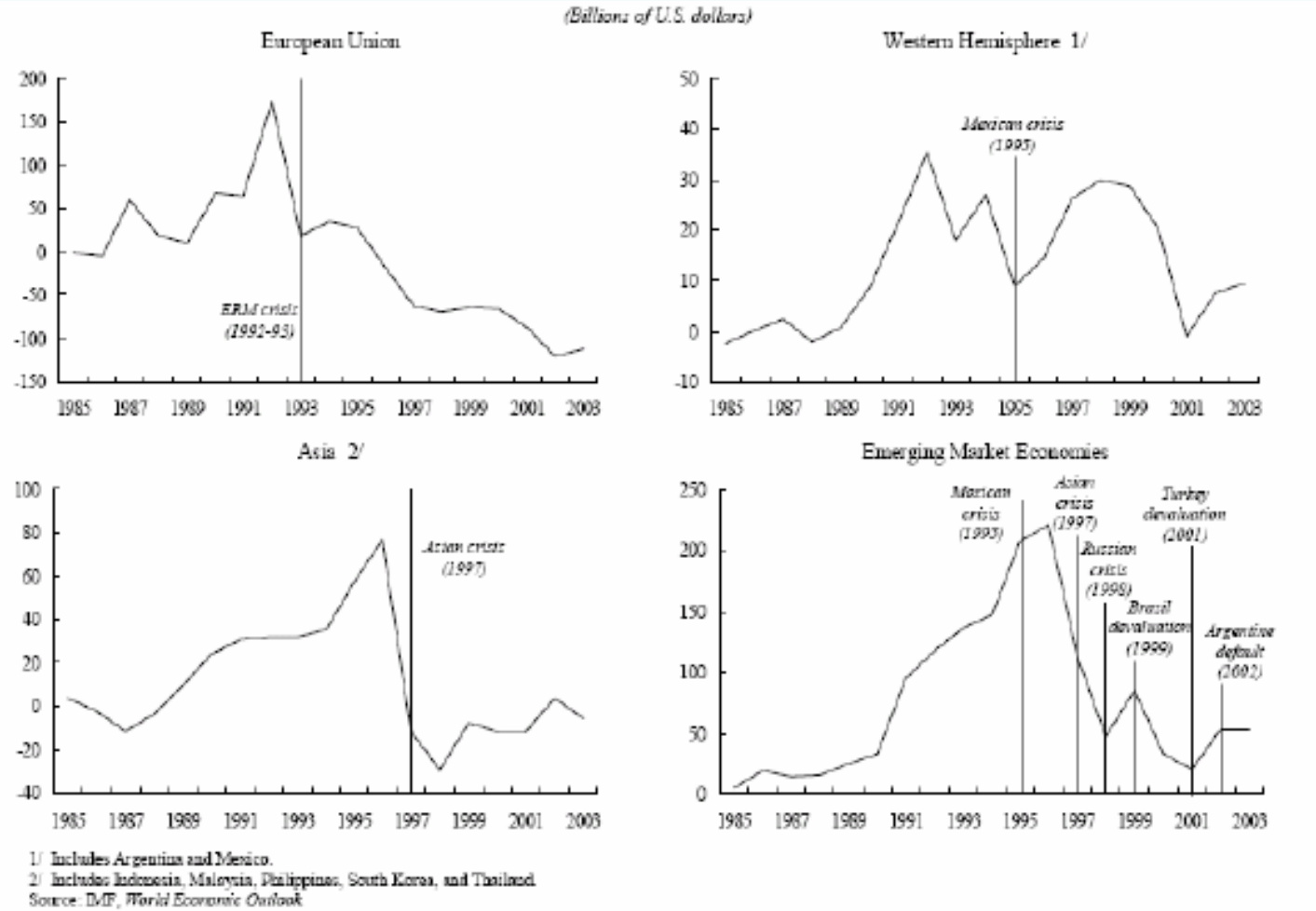
- One important factor in this is *original sin*
  - Original sin is what transforms currency crises into full-blown banking financial crises.

Crisis Effect on Capital Flows



Crisis Effect on Output

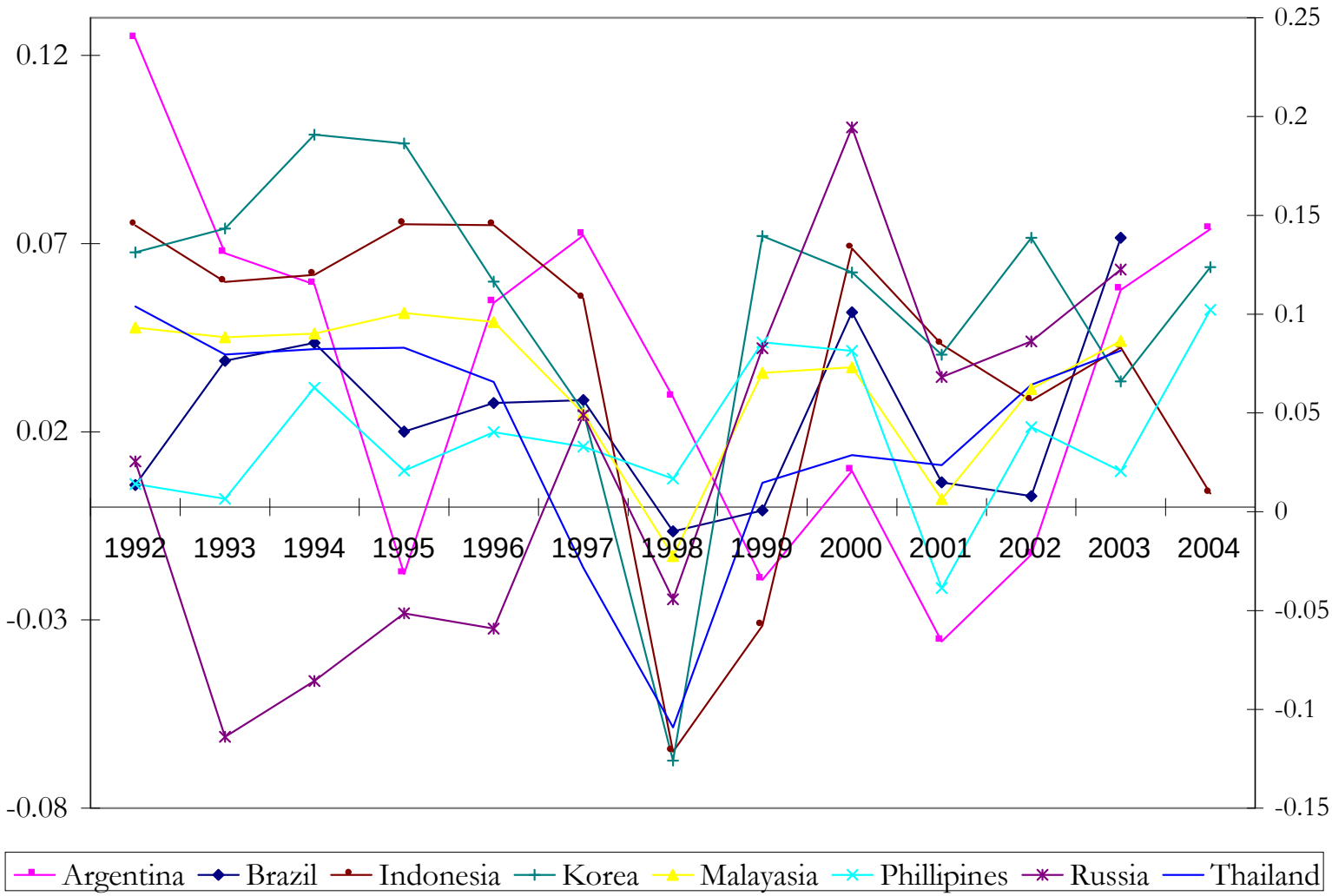
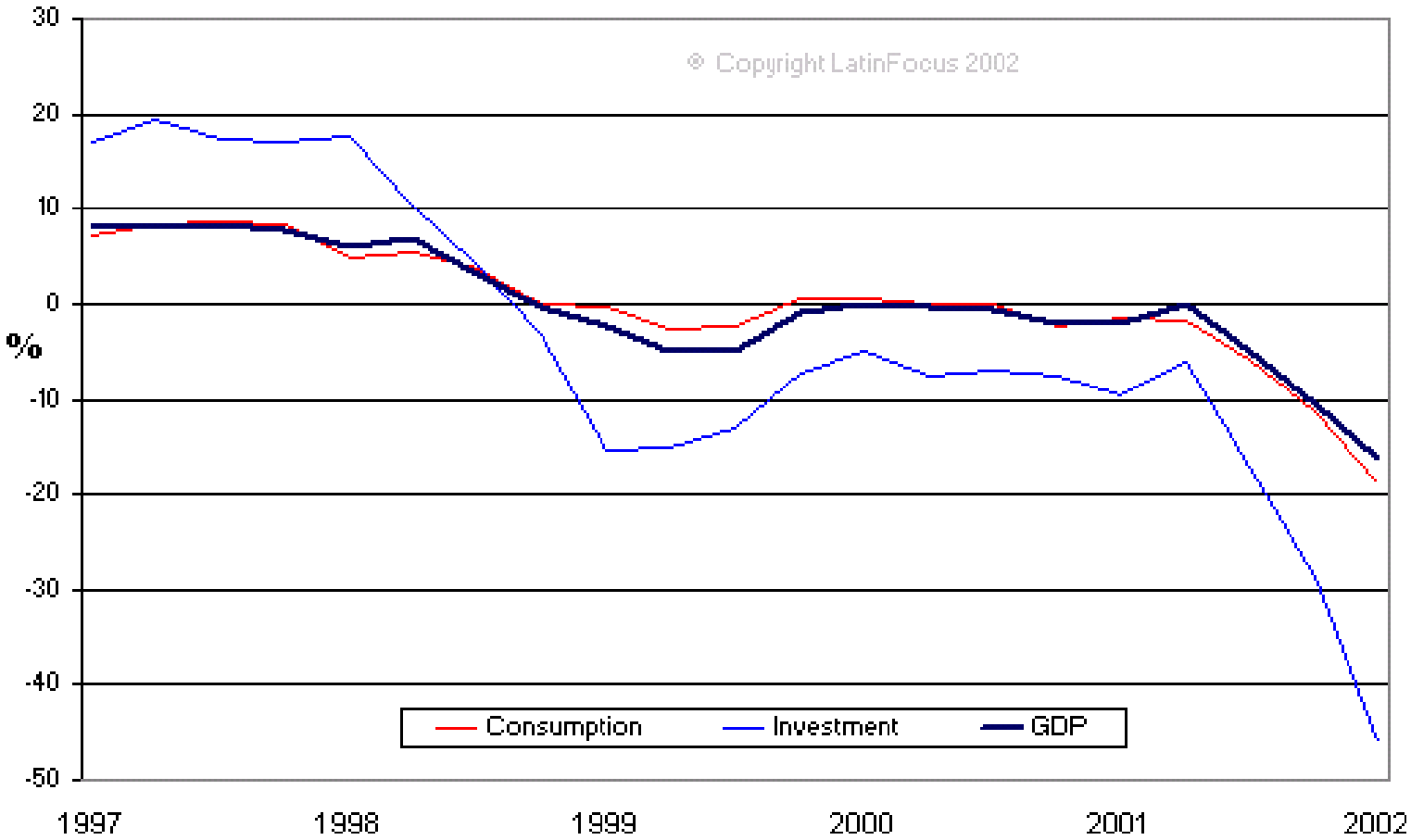
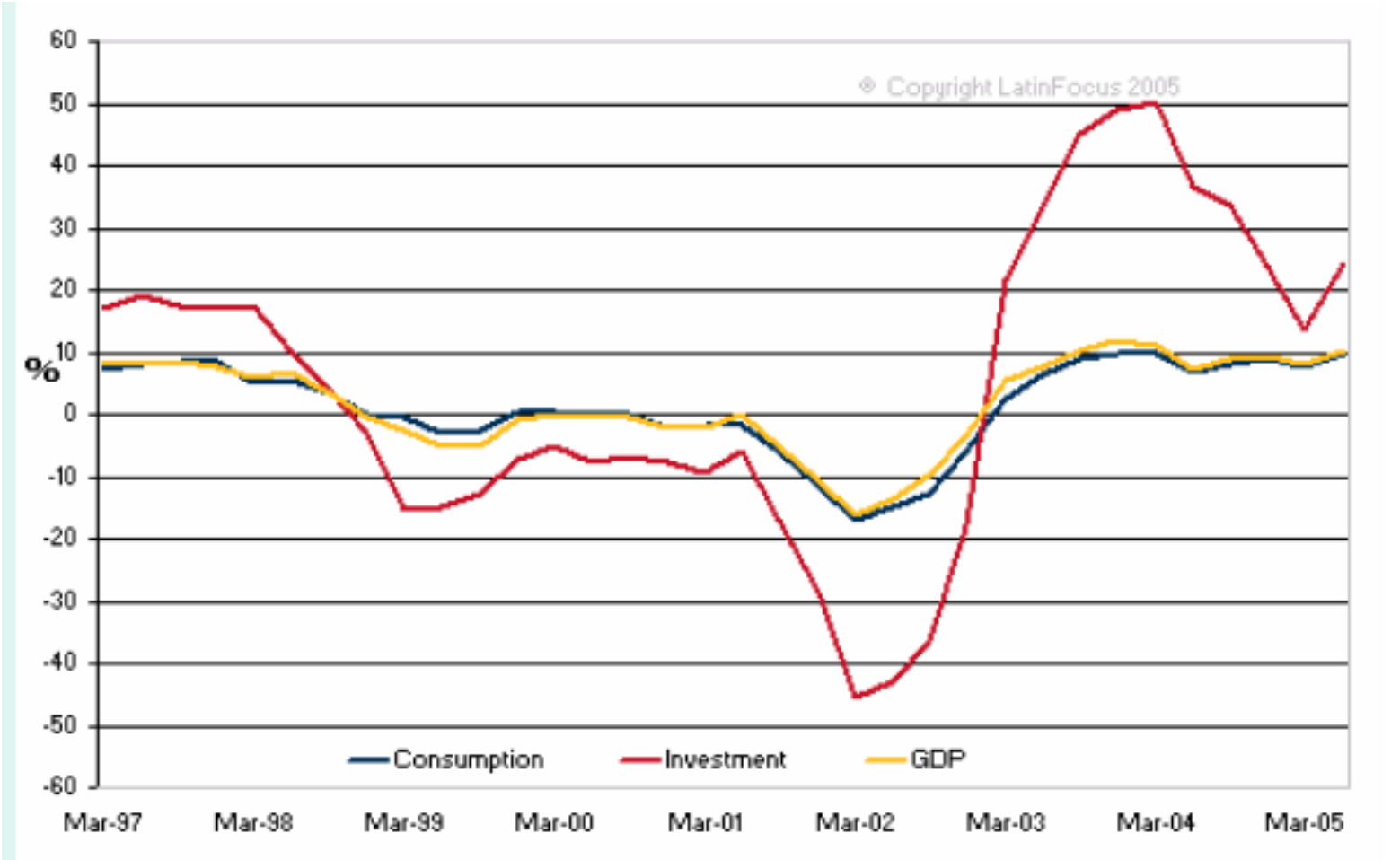


Figure: Growth Rates of per-capita GDP

Argentine Crisis



Argentina Recovery



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- By this criterion, Frankel examined a sample of 103 developing countries during 1971-2003, found 188 currency crashes. Examine at the six month window after the devaluation.
  - The chief executive lost office 22.8 % of the time versus 11.6 % of the time otherwise. $\Longrightarrow$ currency crash doubles the probability of a change in the top leadership within the following 6 months.

Political Costs

	6-Months Period Following a Devaluation	All Other 6-Month Periods
Change observed	31	492
	(22.0%)	(11.5 %)
No change observed	110	3,792
	(78.0%)	(88.5%)
Total	141	4,284

Note: "Own turnover"—reference set is only for those developing countries which have experienced currency crash at some point. *P*-value for the difference is **0.002.**

Figure: Devaluations and Regime Changes

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  - Recall the story of the British Chancellor of the Exchequer "singing in the bath" after the 1992 devaluation of the pound.
- Developing countries are different, however. The question is to explain why. We shall see that a major reason is *original sin*.

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  - The big issue is the fall of the real wage. Because finance is repressed there is no chance for balance sheets to get in bad shape.
  - In a world with fixed nominal exchange rates and limited capital mobility, excessive domestic credit creation leads to a trade deficit, the depletion of international reserves and, eventually, a devaluation crisis.

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  - Hence, it is the conflict of internal and external balance all over again. For this reason we need to look to second generation models.

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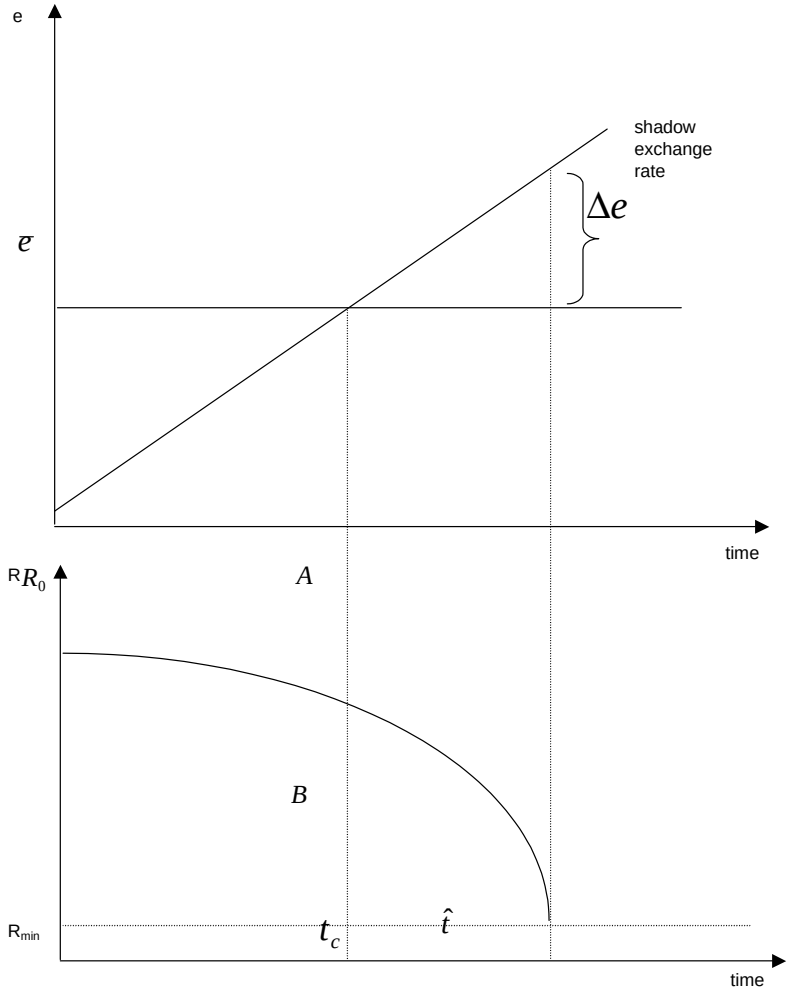

Figure: Time to Collapse

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  - games between governments and speculators

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- each speculator sells the currency for fear that he will be left "holding the bag" if he is the only one not to sell.

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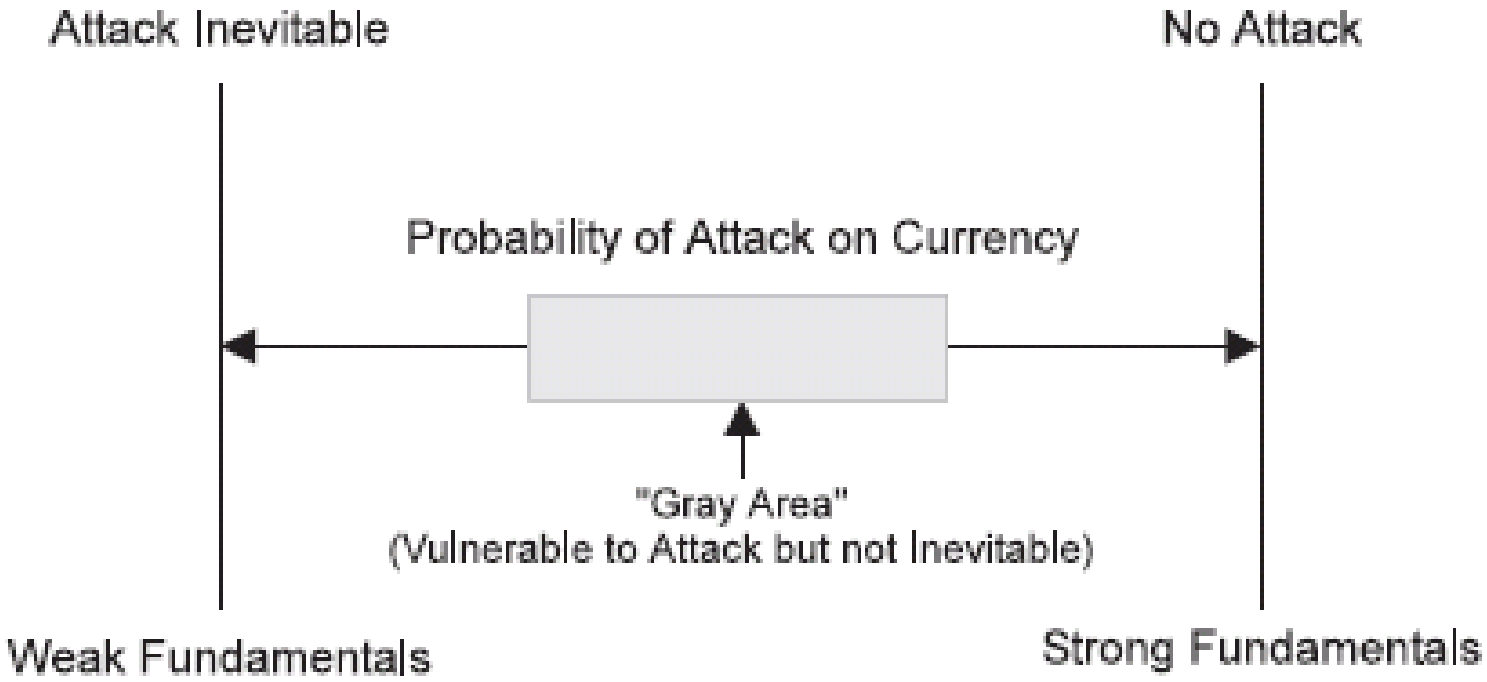

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  - This is where the bail-in idea stems from. But this requires coordination.

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  - associated with banking crises, and the economies suffered severe contractions.

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  - Well-connected banks are able to borrow from abroad to finance risky projects – such as real estate development or a new factory in the already-glutted steel industry. They are aware of the risk. But they believe that they will be bailed out by the government if things go badly.

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  - Consider a simple example: the peso-dollar exchange rate is 5:1,
- a hypothetical bank with 200 million pesos of capital has received 800 million pesos in deposits, and has loaned out all of the 1 billion pesos it has in sound, prudent loans to operating companies.

Assets	**Liabilities and Net Worth**
Loans: 1,000 million pesos	Deposits: 800 million pesos
	Capital: 200 million pesos

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  - Again the bank makes sound loans. The balance sheet:

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Loans: 1,500 million pesos	Deposits: 800 million pesos
	Borrowed: 100 million dollars
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Figure: Balance Sheet with Currency Mismatch

Currency Mismatch

- Bank borrows in New York at cheaper rates
  - borrows \$100 million. This will support 500 million pesos in loans, at the current exchange rate.
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- with $e = 5$, assets and liabilities are balanced. If the loans are sound so is the bank

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- Is there no risk associated with foreign borrowing – currency mismatch.

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- Indeed, the bank's net worth has been wiped out: $NW = -P300$ million.

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Conventional Case

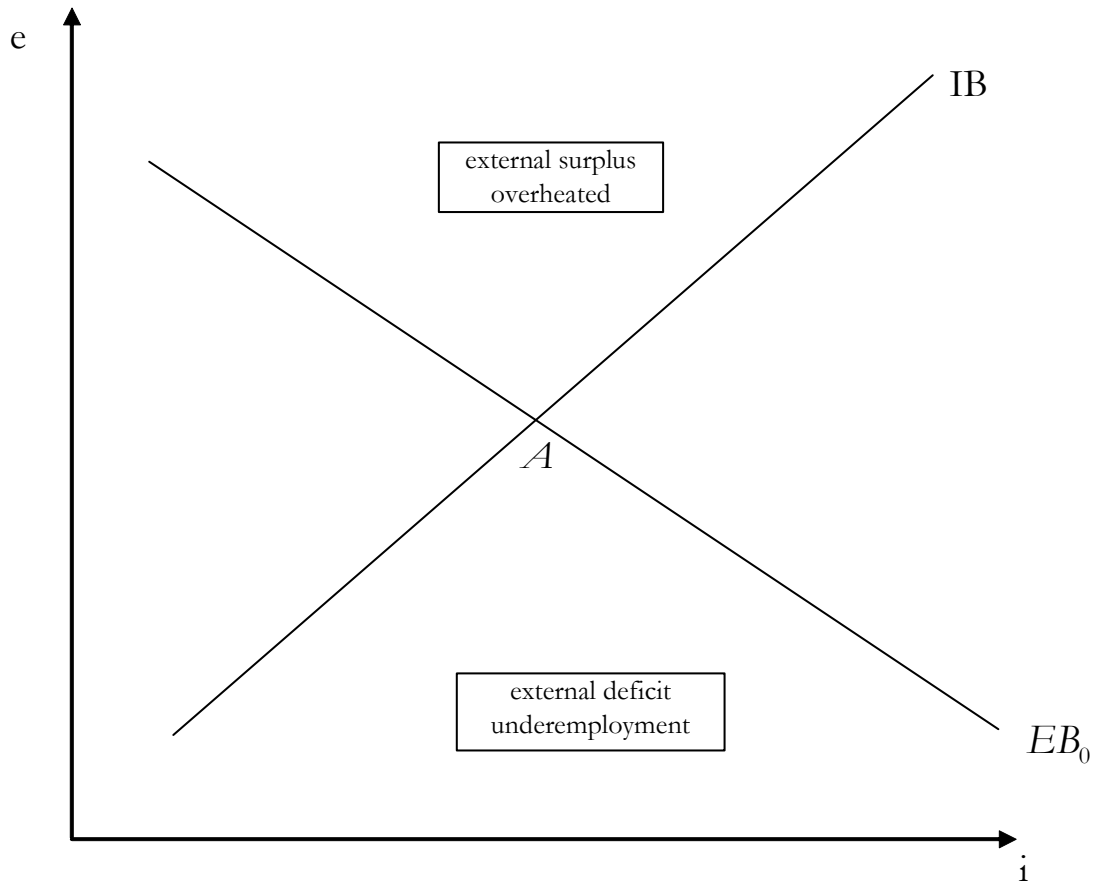

Figure: Conventional Situation

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- we converge to point B.

Conventional Response to Shock

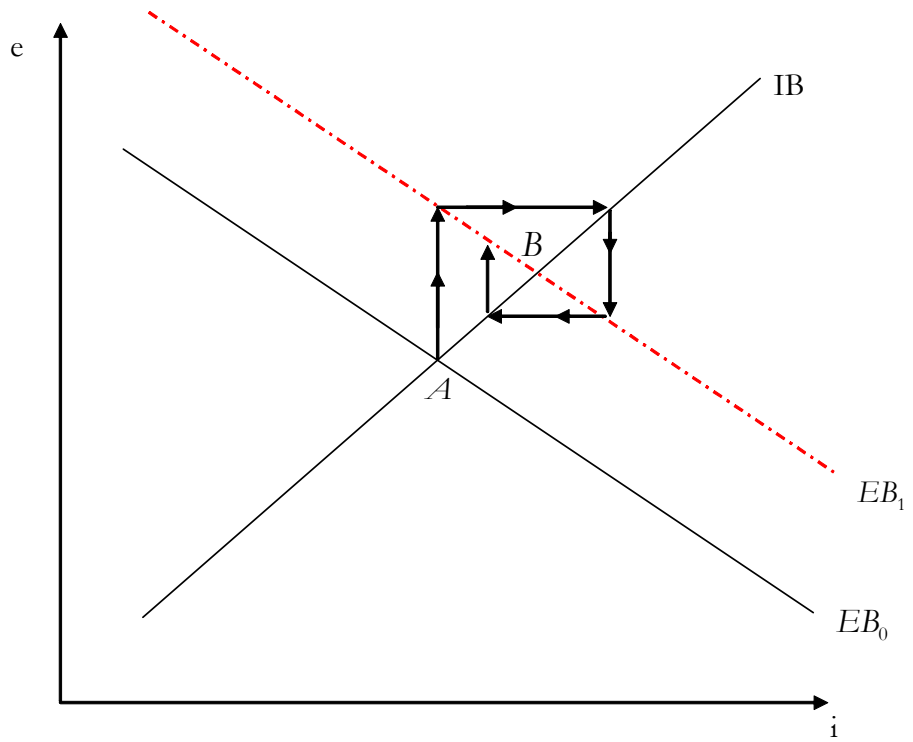

Figure: Adjustment to an external shock in the standard model

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- Key point: if the *IB* schedule is negatively sloped, if currency collapses we have no good options.

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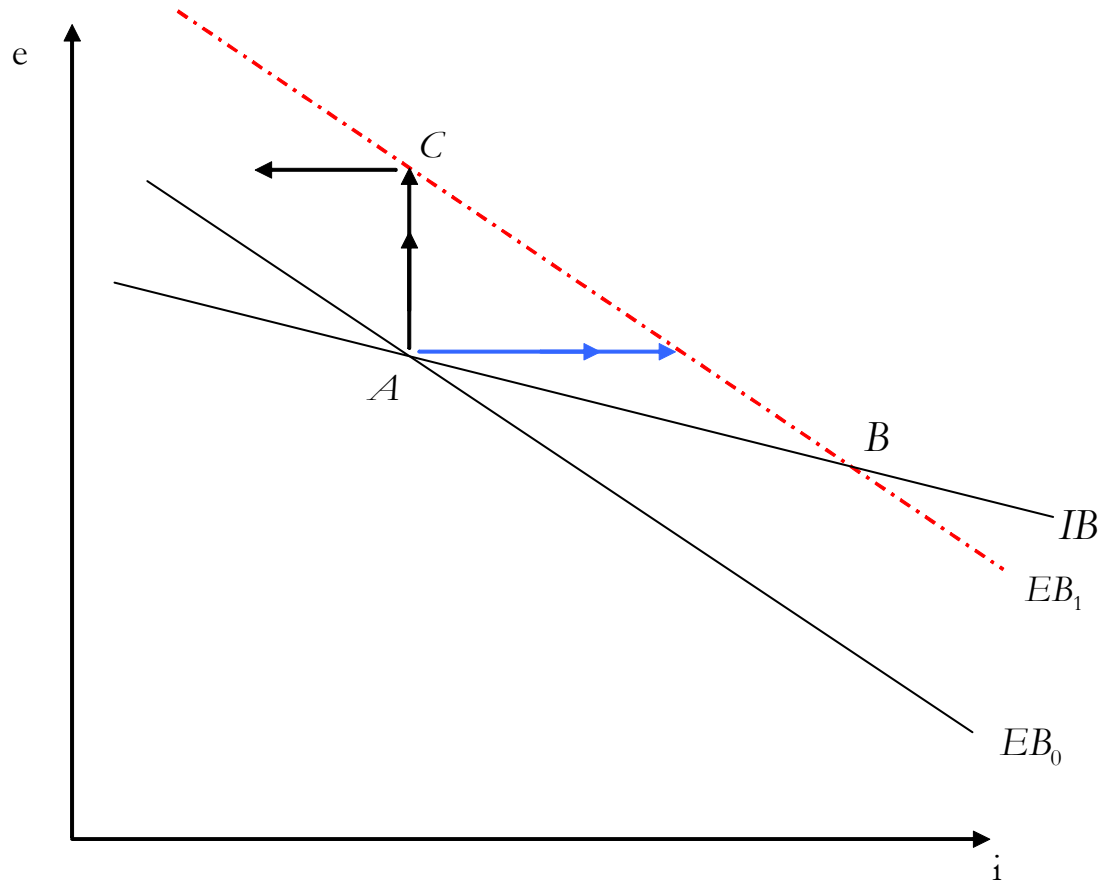

Figure: External Adjustment with Original Sin

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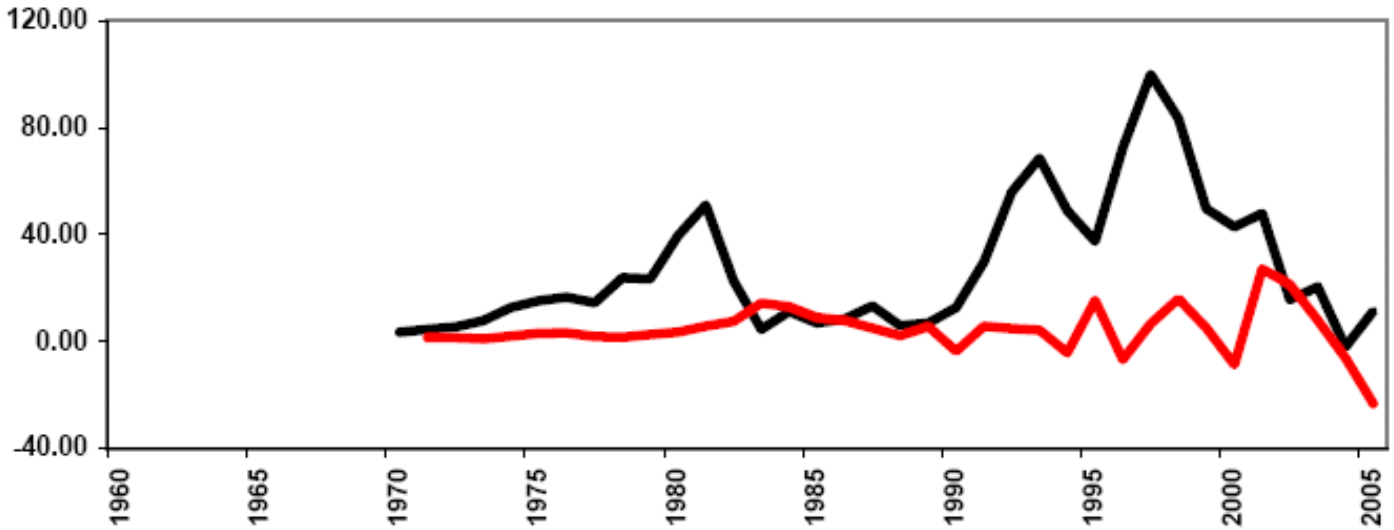
- Punishment is often worse than the crime

Capital Flows to Latin America

billions of dollars (official capital flows in red)



Notes: Total capital flows is the sum of official and private capital flows to twenty Latin American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela.
Source: World Economic Outlook, International Monetary Fund.

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  - different from the left critique of IMF – that they punish too much

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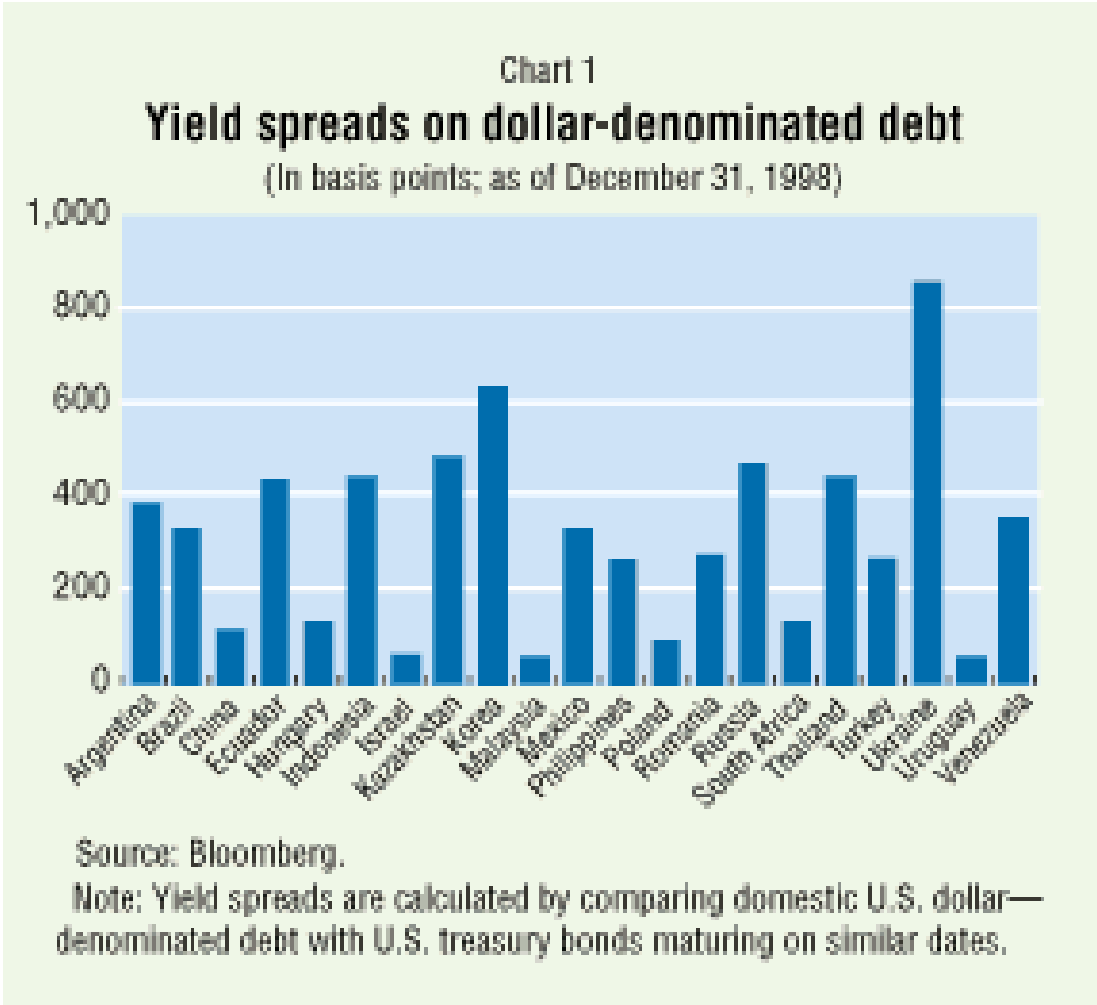

Figure: Interest Spreads on Dollar-Denominated Debt

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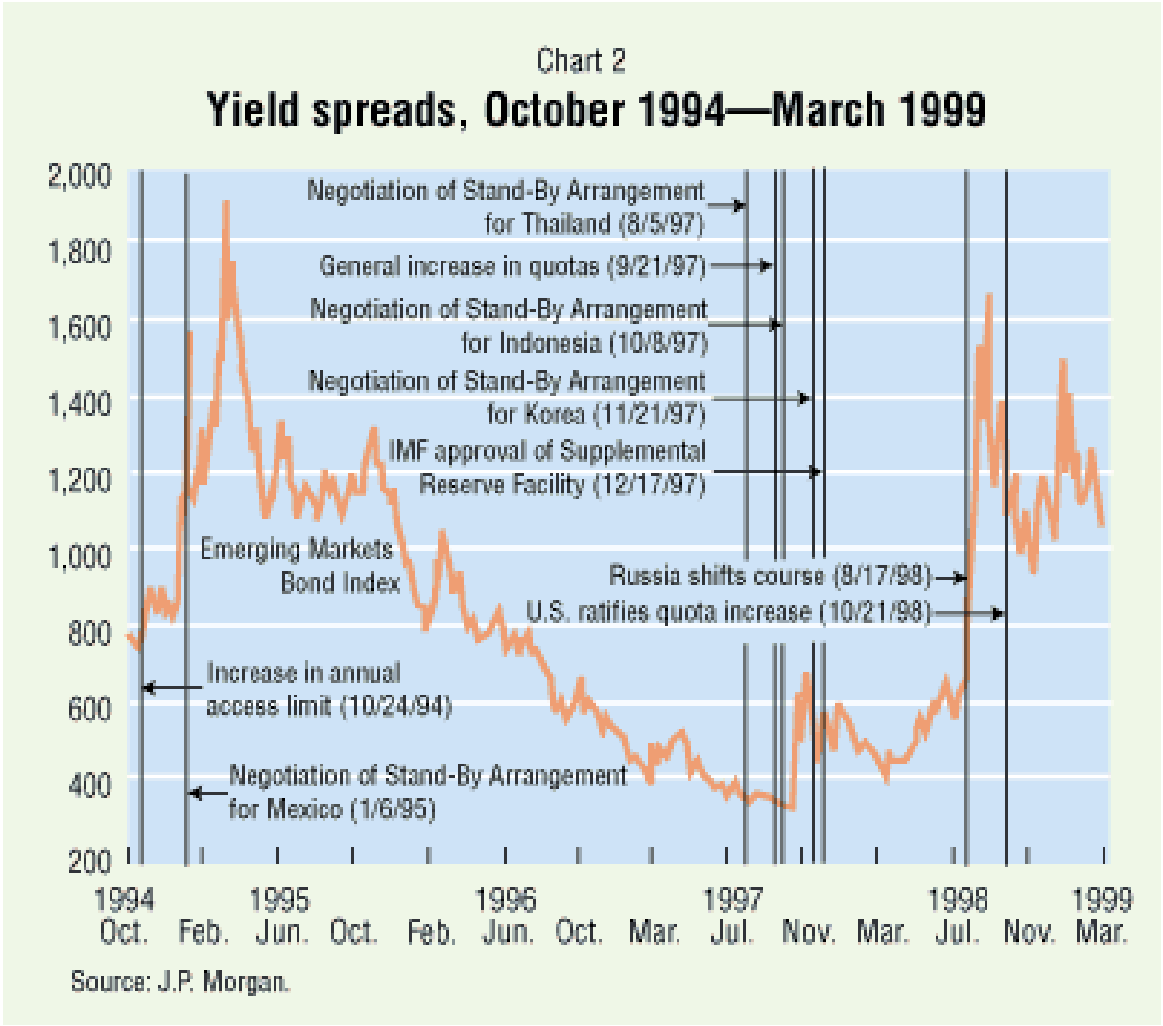

Figure: Emerging Market Yields and Selected Events, 1995-1999

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- Prior to Asian Crisis capital flowed in all forms, not just those likely to be bailed out (i.e. portfolio investment)

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  - That is the payoffs are based on the probabilities and nature of the states.

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- Of course there may be disagreements about the likelihood of states, but this contract has the virtue of producing the same repayments as a normal debt contract with one big plus – repayment is more likely.

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  - risk premia rise, making debt/gdp grow faster, recessions reinforce this doubly, by reducing tax revenues and slowing growth

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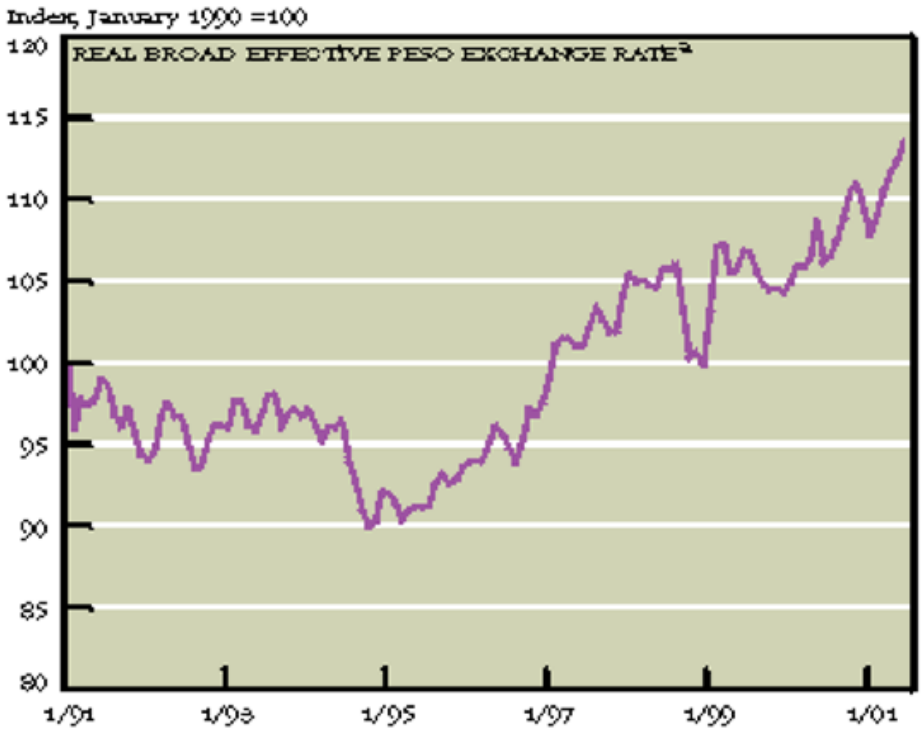
- Rapid deterioration of external situation is common in EME crises

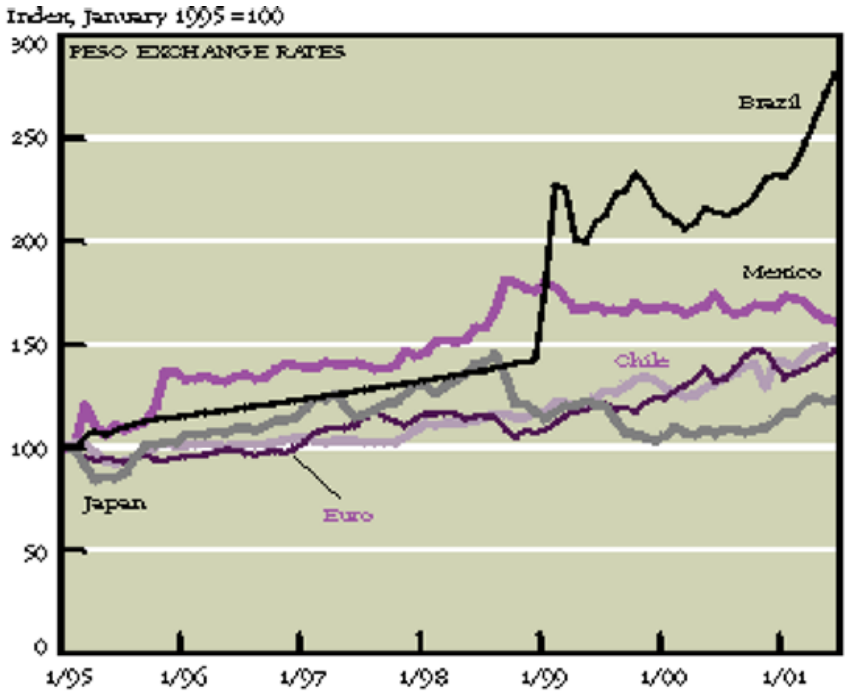
Argentina Real GDP

Figure: Argentina's Real GDP

Argentina Real Exchange Rate



Peso Against Partners



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  - Perhaps but look at Chile. It has very good institutions and policy yet it borrows only in dollars. Same for Asian Tigers.

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- The essential idea is to create an ordered bankruptcy system rather than the competition for the exits.
- crises in emerging markets will keep happening until the focus is put more squarely on the missing or poorly functioning international market and not just in domestic moral failings.