



Financial Crisis



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Cutting Edge of Development Thinking

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Outline

Emerging Markets & Developing Countries in the Global Financial Crisis

- The 3rd capital inflow boom 2003-2008: Was it different?



- Lessons of 1994-2002 on avoiding crises: Did they hold up in 2008?

- Big emerging markets come of age in 2009

- Macroeconomics: decoupling

- Global governance: the G-20 replaces the G-7



- The case of the RMB: sterilized intervention of inflows

- Addenda

- Global current account imbalances



- Countercyclical fiscal policy



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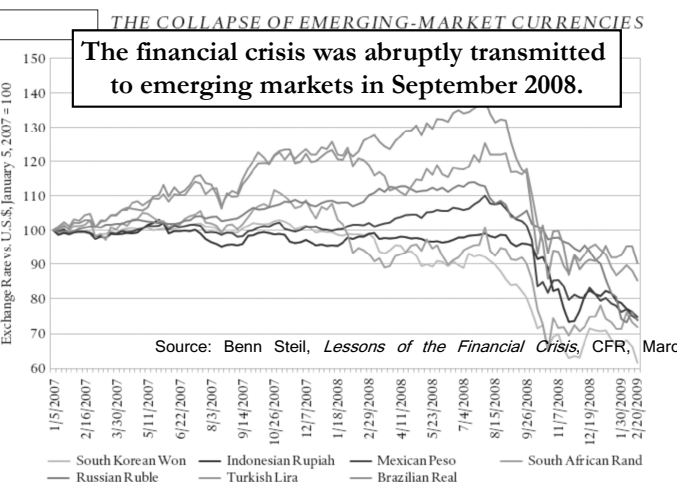
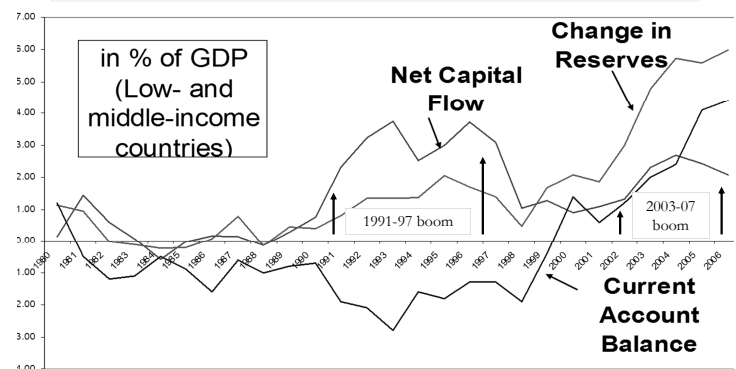
Cycle in capital flows to emerging markets



- 1st developing country lending boom ("recycling petro dollars"): 1975-1981
 - Ended in international debt crisis 1982
 - Lean years ("Lost Decade"): 1982-1989
- 2nd lending boom ("emerging markets"): 1990-96
 - Ended in East Asia crisis 1997
 - Lean years: 1997-2003
- 3rd boom (incl. China & India this time): 2003-2008
 - Global financial crisis of 2008-09

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This time, many countries used the **inflows** to build up **forex reserves**, rather than to finance **Current Account** deficits



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What characteristics have helped emerging markets resist financial contagion in the past?

- High FX reserves and/or floating currency
- Low foreign-denominated debt (currency mismatch)
- Low short-term debt (maturity mis-match)
- High Foreign Direct Investment
- Strong initial budget, allowing room to ease.
- High export/GDP ratio,
 - Sachs (1985); Eaton & Gersovitz (1981), Rose (2002); Calvo, Izquierdo & Talvi (2003); Edwards (*AER*, 2004); Cavallo & Frankel (*JIMF*, 2008).

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Are big current account deficits dangerous?

Neoclassical theory – if a country has a low capital/labor ratio or transitory negative shock, a large CAD can be optimal.

In practice – Developing countries with big CADs often get into trouble. Traditional rule of thumb: “CAD > approx. 4% GDP” is a danger signal.

“*Lawson Fallacy*” – CAD not dangerous if government budget is balanced, so borrowing goes to finance private sector, rather than BD.

Amendment after 1994 Mexico crisis – CAD not dangerous if $BD=0$ and S is high, so the borrowing goes to finance private I , rather than BD or C .

Amendment after 1997 East Asia crisis –

CAD not dangerous if $BD=0$, S is high, and I is well-allocated, so the borrowing goes to finance high-return I , rather than BD or C or empty beach-front condos (Thailand) & unneeded steel companies (Korea).

Amendment after 2008 financial crisis – yes, all CADs are dangerous.

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Lessons of the 1994-2002 crises

- Many emerging markets after the 1990s learned to
 - (1) float or hold large reserves *or both*
 - (2) use capital inflows to finance reserve accumulation (“self-insurance”), rather than current account deficits
 - (3) take capital inflows more in the form of FDI or local-currency-denominated debt flows;
 - avoiding the currency mismatch of \$ liabilities
 - and avoiding short-term bank loans.
- The ratio of reserves to short-term debt is the most robust predictor of crisis likelihood & severity.
 - e.g. the Guidotti Rule: Keep ratio >1

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Early Warning Indicators:

Some references on statistical predictors of crises among developing countries

- Jeffrey Sachs, Aaron Tornell & Andres Velasco, “Financial Crises in Emerging Markets: The Lessons from 1995” (1996): Combination of weak fundamentals (changes RER or credit/GDP) and low reserves (relative to M2) made countries vulnerable to tequila contagion.
- J. Frankel & Andrew Rose, “Currency Crashes in Emerging Markets” (1996): Composition of capital inflow matters (more than the total): short-term bank debt raises the probability of crash; FDI & reserves lower the probability.
- Graciela Kaminsky, Saul Lizondo & Carmen Reinhart, “Leading Indicators of Currency Crises” (1998). Best predictors: Real ex. rate, M2/Res, GDP, equity prices.
- A. Berg, E. Borensztein, G.M. Milesi-Ferretti, & C. Pattillo, “Anticipating Balance of Payments Crises: The Role of Early Warning Systems,” IMF (1999). The early warning indicators don’t hold up as well out-of-sample.

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Did those who obeyed the lessons of 1994-2002 done better in response to the 2008-09 shock?

- Some who had large current account deficits & foreign-currency debts did have the most trouble,
 - particularly in Central & E. Europe:
 - Hungary, Ukraine, Latvia...
 - Despite views of some economists that emerging market countries had been holding too many reserves, they appear to have turned out the ultimate insurance.
 - Aizenman (2009): “The deleveraging triggered by the crisis implies that countries that hoarded reserves have been reaping the benefits.”

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Systematic studies are only starting.

- Obstfeld, Shambaugh & Taylor (2009a, b):
 - Finding: A particular measure of countries’ reserve holdings just before the current crisis, relative to requirements (M2), predicts 2008 depreciation.
 - Current account balances & short-term debt levels are *not* statistically significant predictors, once reserve levels are taken into account.
- Rose & Spiegel (2009a, b) and Blanchard (2009) found no role for reserves in predicting who got into trouble.
- Frankel & Saravelos (May 2010): We get stronger results, because we consider crisis period to have gone thru March 2009.

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Top 8 categories of Leading Indicators in pre-2008-crisis literature

Table 1

Frankel & Saravelos (2010)

Leading Indicator ¹	KLR (1998) ²	Hawkins & Klau (2001) ³	Abiad (2003) ^{4,6}	Others ^{5, 6}	Total
Reserves^a	14	18	13	5	50
Real Exch. Rate^b	12	22	11	3	48
GDP^c	6	15	1	3	25
Credit^d	5	8	6	3	22
Current Acct.^e	4	10	6	2	22
Money Supply^f	2	16	1	0	19
Exports or Imports^{1a, g}	2	9	4	2	17
Inflation	5	7	1	2	15

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Next 9 categories of Leading Indicators in pre-2008-crisis literature

Table 1,	continued		Frankel & Sarvelos (2010)		
Leading Indicator ¹	KLR (1998) ²	Hawkins & Klau (2001) ³	Abiad (2003) ^{4,6}	Others ^{5,6}	Total
Equity Returns	1	8	3	1	13
Real Interest Rate ^h	2	8	2	1	13
Debt Compositr ^{1b, i}	4	4	2	0	10
Budget Balance	3	5	1	0	9
Terms of Trade	2	6	1	0	9
Contagion ^j	1	5	0	0	6
Political/Legal	3	2	1	0	6
Capital Flows ^{1c, k}	3	0	0	0	3
External Debt ^l	0	1	1	1	3
Number of Studies	28	28	20	7	83

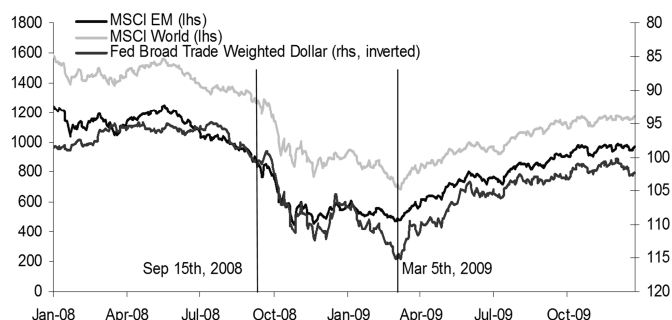
Notes

1. 1a, 1b, 1c Leading indicator categories as in Hawkins & Klau (2000), with exception of ^{1a}includes imports, ^{1b}debt composition rather than debt to international banks, ^{1c}capital flows rather than capital account.
²As reported in Hawkins & Klau (2000), but M2/reserves added to reserves, interest differential added to real interest rate.
³S&P, JP Morgan, IMF Indices, IMF Weo, IMF ICM, IMF EWS studies have been excluded due to lack of verifiability of results. The following adjustments have been made to the authors' checklist: significant credit variables reduced from 10 to 8 as Kaminsky (1999) considers level rather than growth rate of credit; significant capital account variables reduced from 1 to 0 as Honohan (1997) variable not in line with definition used here; Kaminsky (1999) significant variables for external debt reclassified to debt composition as these variables relate to short-term debt.
⁴10 out of 30 studies excluded from analysis. 7 included in Hawkins & Klau (2000) and 3 due to absence of formal testing of variables.
⁵Includes Berg, Borenstein and Pattillo (2004), Manasse and Roubini (2005), Shimpalee and Breuer (2006), Davis and Karim (2008), Bergmen et al. (2009), Obstfeld, Shambaugh and Taylor (2009), Rose and Spiegel (2009a).
⁶See App. 1 for criteria defining statistical significance in Abiad (2003) and Others studies. For rest see KLR (1998), Hawkins & Klau (2001)

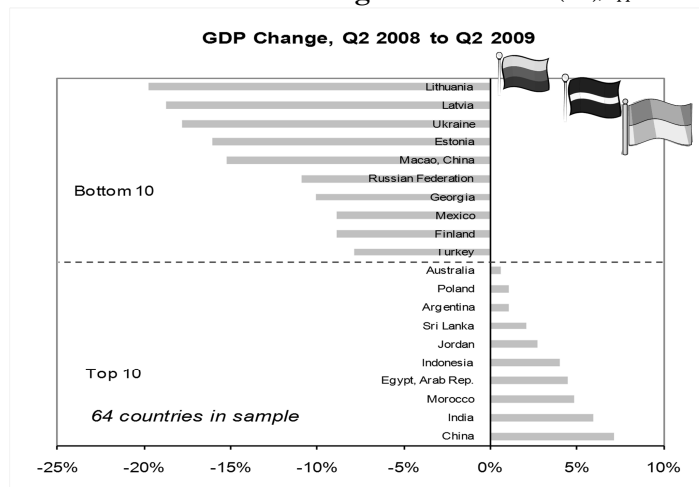
Variables included in the leading indicator categories:

^a Reserves: relative to GDP, M2, short-term debt, 12m change	^b Real Interest Rate: domestic or differential
^b Real Exchange Rate: change, over/under valuation	^c Debt Composition: commercial/concess./variable-rate/debt to internat. banks/short-term/multilat./official relative to total external debt. Short-term debt relative to reserves (rather than relative to total external debt) is in the reserves category
^c GDP: growth, level, output gap	^d Credit: nominal or real growth
^d Current Account: CA/GDP, Trade Balance/GDP	^e Contagion: dummies for crisis elsewhere
^e Money Supply: growth rate, excess M1 balances	^f Capital Flows: FDI, short-term capital flows
^f Exports or Imports: relative to GDP, growth	^g External Debt: relative to GDP

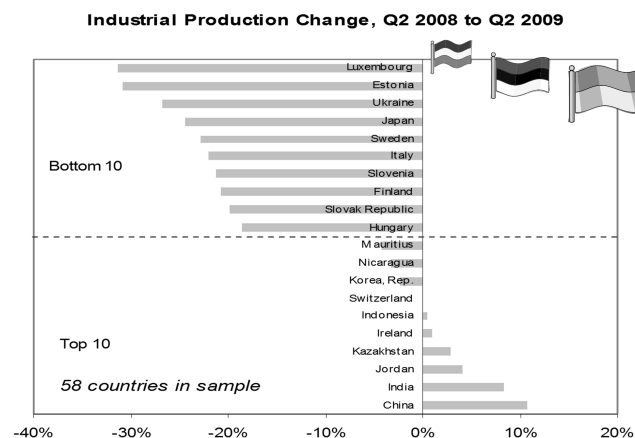
Equity prices suggest that the global financial crisis did not begin in earnest until Sept. 2008, nor end until March 2009 -- whereas Rose & Spiegel, Obstfeld et al, look simply at 2008



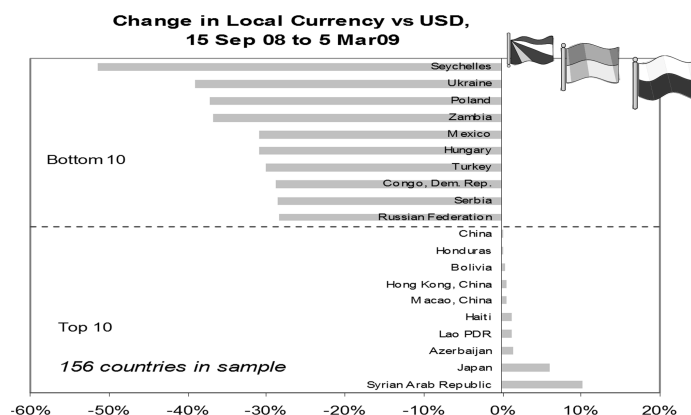
Best and Worst Performing Countries -- F&S (2010), Appendix 4



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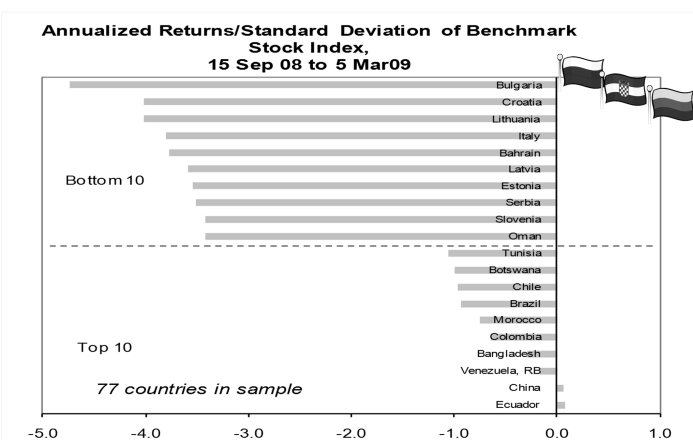


Table Appendix 6

F & Saravelos (2010): Bivariate

bolded number indicates statistical significance at 10% level or lower, darker color shading equivalent to higher statistical significance

	Currency Market	Equity Market	Resourse to IMF	Industrial Production	GDP	Significant and Consistent Sign?
R E S E R V E S						
Reserves (% GDP)	0.082 (2.82)	0.050 (1.6)	-1.020 (-1.92)	0.155 (2.22)	0.008 (0.27)	Yes
Reserves (% external debt)	-0.000 (-1.42)	0.000 (2.11)	-0.010 (-3.42)	0.000 (3.82)	0.000 (3.07)	Yes
Reserves (in months of imports)	0.002 (1.50)	0.103 (4.71)	-0.089 (-2.21)	0.006 (1.44)	0.001 (0.76)	Yes
M2 to Reserves	0.000 (0.14)	-0.026 (-3.81)	-0.067 (-1)	-0.001 (-2.46)	0.000 (1.77)	Yes
Short-term Debt (% of reserves)	-0.000 (-2.8)	-0.007 (-4.49)	0.000 (0.30)	-0.000 (-1.7)	-0.000 (-2.82)	Yes
R E E R						
REER (5-yr % rise)	-0.293 (-5.4)	-0.303 (-0.32)	0.889 (0.99)	-0.000 (-0.01)	-0.029 (-0.85)	
REER (Dev. from 10-yr av)	-0.293 (-2.92)	-0.920 (-0.91)	0.671 (0.30)	-0.000 (-0.01)	-0.041 (-0.91)	
G D P						
GDP growth (2007, %)	0.003 (1.7)	0.078 (1.58)	0.039 (1.63)	0.010 (2.59)	-0.002 (-1.21)	Yes
ULM* growth (last 5 yrs)	0.000 (1.00)	0.118 (2.14)	0.055 (1.89)	0.000 (2.14)	-0.003 (-1.21)	
GDP Growth (last 10 yrs)	0.005 (1.59)	0.087 (1.06)	0.042 (1.2)	0.016 (2.63)	-0.004 (-0.76)	
GDP per capita (2007, constant 2000\$)	-0.003 (-0.7)	-0.006 (-4.49)	-0.022 (-3.23)	-0.007 (-2.45)	-0.016 (-1.74)	
C R E D I T						
Change in Credit (5-yr rise, % GDP)	-0.029 (-0.83)	-1.979 (-4.42)	0.139 (0.37)	-0.002 (-1.67)	-0.065 (-2.34)	Yes
Change in Credit (10-yr rise, % GDP)	-0.024 (-2.54)	-0.004 (-3.9)	-0.011 (-0.08)	-0.006 (-1.58)	-0.019 (-1.13)	Yes
Credit Depth of Information Index (higher-more)	-0.005 (-1.34)	-0.115 (-1.72)	0.009 (0.19)	0.006 (0.57)	-0.003 (-0.47)	
Bank liquid reserves to bank assets ratio (%)	0.000 (1.52)	0.022 (1.51)	-0.000 (-13.97)	0.002 (2.34)	0.001 (2.58)	Yes
C A C C O U N T						
Current Account (% GDP)	0.001 (1.57)	0.032 (5.18)	-0.032 (-3.48)	0.000 (0.42)	0.000 (0.76)	Yes
Current Account, 5-yr Average (% GDP)	0.001 (1.31)	0.000 (1.56)	-0.032 (-2.76)	0.000 (0.53)	0.000 (0.42)	
Current Account, 10-yr Average (% GDP)	0.000 (0.72)	0.034 (1.46)	-0.038 (-2.83)	0.000 (0.16)	0.001 (1.59)	
Net National Savings (% GNI)	0.000 (0.9)	0.048 (4.5)	-0.020 (-1.88)	0.002 (2.42)	0.002 (2.92)	Yes
Gross National Savings (% GDP)	0.000 (0.76)	0.047 (5.0)	-0.025 (-2.54)	0.003 (2.58)	0.002 (2.58)	Yes

Table Appendix 7

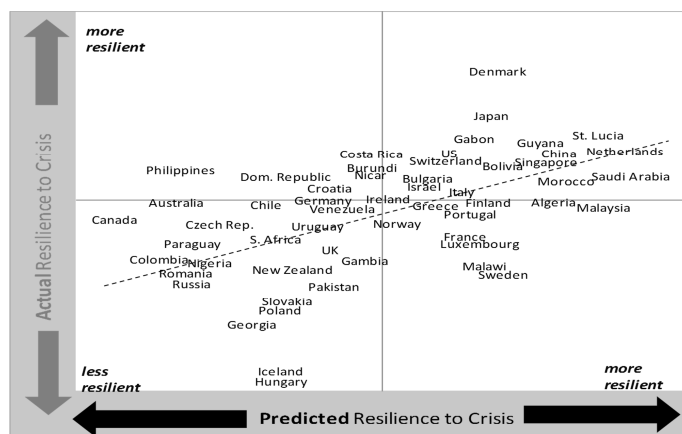
F & Saravelos (2010): Multivariate

bolded number indicates statistical significance at 10% level or lower

Independent Variable	Exchange Market Pressure	Currency % Changes (H208-H109)	Resourse to IMF (SBA only)	%Chng (Sep08-Mar09)	%Chng (H208-H109)	Significant and Consistent Sign?
R E S E R V E S						
Reserves (% GDP)	0.164 (3.63)	0.007 (2.98)	-1.069 (-1.66)	0.011 (0.12)	0.010 (0.14)	Yes
Reserves (% external debt)	0.000 (1.06)	0.000 (1.1)	-0.006 (-2.29)	0.000 (1.81)	0.000 (2.60)	Yes
Reserves (in months of imports)	0.004 (2.26)	0.003 (1.95)	-0.119 (-3.01)	0.006 (1.32)	0.009 (2.32)	Yes
M2 to Reserves	0.000 (0.27)	0.000 (0.76)	-0.044 (-0.91)	0.000 (0.02)	-0.000 (-0.09)	
Short-term Debt (% of reserves)	-0.000 (-1.97)	-0.000 (-4.22)	0.000 (2.13)	-0.001 (-2.89)	-0.001 (-3.11)	Yes
R E E R						
REER (5-yr % rise)	-0.440 (-5.55)	-0.210 (-3.19)	1.728 (2.15)	-0.182 (-1.24)	-0.185 (-1.51)	Yes
REER (Dev. from 10-yr av)	-0.475 (-3.96)	-0.230 (-2.47)	2.054 (2.56)	-0.316 (-1.71)	-0.316 (-2.1)	Yes
G D P						
GDP growth (2007, %)	-0.000 (-0.2)	0.001 (0.94)	0.070 (2.59)	-0.001 (-0.1)	-0.007 (-0.71)	
GDP Growth (last 5 yrs)	-0.003 (-0.81)	0.000 (0.26)	0.064 (2.4)	-0.003 (-0.26)	-0.014 (-1.15)	
GDP Growth (last 10 yrs)	0.000 (0.14)	0.001 (0.43)	0.064 (1.66)	-0.012 (-0.87)	-0.020 (-1.12)	
C R E D I T						
Change in Credit (5-yr rise, % GDP)	-0.021 (-0.36)	-0.035 (-0.98)	0.052 (1.02)	-0.274 (-2.97)	-0.248 (-4.13)	Yes
Change in Credit (10-yr rise, % GDP)	-0.017 (-0.93)	-0.011 (-1.05)	0.210 (1.03)	-0.089 (-1.55)	-0.089 (-2.35)	
Credit Depth of Information Index (higher-more)	-0.008 (-1.06)	0.000 (0.05)	0.224 (2.4)	-0.006 (-0.37)	-0.018 (-1.33)	
Bank liquid reserves to bank assets ratio (%)	0.000 (3.49)	0.000 (0.6)	-0.000 (-11.44)	-0.002 (-0.54)	-0.002 (-0.79)	Yes
C A C C O U N T						
Current Account (% GDP)	0.001 (1.48)	0.002 (2.7)	-0.023 (-2.09)	0.009 (3.84)	0.007 (3.95)	Yes
Current Account, 5-yr Average (% GDP)	0.000 (0.48)	0.001 (1.52)	-0.025 (-1.72)	0.007 (2.4)	0.006 (2.74)	Yes
Current Account, 10-yr Average (% GDP)	0.000 (0.14)	0.002 (1.39)	-0.035 (-2.11)	0.008 (2.21)	0.007 (2.44)	Yes
Net National Savings (% GNI)	0.002 (1.0)	0.001 (2.33)	-0.013 (-1.22)	0.006 (2.92)	0.004 (2.26)	Yes
Gross National Savings (% GDP)	0.003 (2.01)	0.001 (2.53)	-0.015 (-1.36)	0.008 (3.42)	0.006 (3.03)	Yes

Actual versus Predicted Incidence of 2008-09 Crisis

Frankel & Saravelos (2010)



Conclusions from Frankel & Saravelos (May 2010)

- Early Warning Indicators *were* useful in predicting which countries were hit by the 2008-09 global financial shock,
- especially the most tried-and-true EWIs:
 - Reserves (e.g., as a ratio to short-term debt),
 - Preceding real exchange rate appreciation (relative to a long-run average RER).
- Among others that do the best: CA & Natl. Saving

Big emerging markets



Big emerging markets came of age in 2009

- **Macroeconomics: decoupling**
- **Global governance: the G-20 replaces the G-7**
- **The RMB issue**



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De-coupling turned out to be real after all

- at least with respect to East Asia, which has rebounded very strongly over the last year,
 - after a sharp loss of exports over the preceding year,
 - from 2008 Q1 to 2009 Q1.
- China's growth
 - has not only returned to its blistering pace of 10%
 - but by now is a source of *global* growth
 - because China is now a much larger share of the world economy than in the 1980s or 90s.
- India, Indonesia, & other Asian countries also weathered the global recession well, and are growing strongly.



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Asian exports were especially hard-hit

Year-over-Year Export Growth in Asia (%)

Country	November 2008	December 2008	January 2009	February 2009
India	-9.89	-1.05	-15.87	-21.70
China	-2.20	-2.80	-17.50	-25.70
Hong Kong	-5.30	-11.40	-21.80	-23.00
Taiwan	-23.30	-41.90	-44.10	-28.60
Malaysia	-4.90	-14.94	-27.85	-15.91
Singapore	-17.50	-20.80	-34.90	-23.70
Thailand	-17.71	-15.65	-25.25	-11.10
Indonesia	-2.10	-20.00	-35.50	-32.80
Philippines	-11.90	-40.30	-40.60	n.a.
Vietnam	34.00	29.50	-24.20	-5.10
South Korea	-19.50	-17.90	-34.20	-18.30

Data Source: Bloomberg via RGE Monitor 2009 Global Outlook

WEO
forecasts,
April 2010



Year over Year
(2010-2011 are projections)
2008 2009 2010 2011 2009 2010 2011

Emerging & Developing Economies

Emerging & Developing Economies	6.1	2.4	6.3	6.5	5.2	6.3	7.3
Central & E. Europe	3.0	-3.7	2.8	3.4	1.9	1.3	4.1
Russia	5.6	-7.9	4.0	3.3	-3.8	1.7	4.2
Developing Asia	7.9	6.6	8.7	8.7	8.6	8.9	9.1
China	9.6	8.7	10.0	9.9	10.7	9.4	10.1
India	7.3	5.7	8.8	8.4	6.0	10.9	8.2
ASEAN-5	4.7	1.7	5.4	5.6	5.0	4.2	6.2
Middle East & N. Africa	5.1	2.4	4.5	4.8			
Sub-Saharan Africa	5.5	2.1	4.7	5.9			
Western Hemisphere	4.3	-1.8	4.0	4.0			
Brazil	5.1	-0.2	5.5	4.1	4.3	4.2	4.2
Mexico	1.5	-6.5	4.2	4.5	-2.4	2.3	5.2

The G-20 in 2010



Canada & Korea will host the summit meetings in June & November, respectively.

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The true significance of the G-20 in 2009

- The G-20 accounts for 85% of world GDP
 - The developing countries are the ones with strong fiscal positions!
- A turning point: The more inclusive group has suddenly become central to global governance, eclipsing the G-7, and thereby at last giving major developing/emerging countries some representation,
- after decades of fruitless talk about raising emerging-market representation in IMF & World Bank.



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Four possible G-20 agenda items for 2010

- Financial regulatory reform
 - Capital adequacy ratios should be higher, and less procyclical
 - Surcharges on banks with large liabilities.
 - Most stays at the national level: mortgages, exec.compensation...
- Macroeconomic exit strategies
- Global imbalances between developing countries and industrialized
 - US and China should both admit responsibility
 - US: the budget deficit is too big. Needs to be fixed.
 - China: RMB is too low. Needs to be unfixed.
- Post-Copenhagen progress toward new agreement on climate change, ideally to take effect 2012.



Two principles of multilateral institutions

1. It is inevitable that more power go to large-GDP/creditor countries than small.
 - This is why the IFIs work better than the UN .
 - The problem is that China, India, Korea, Brazil, etc., *are* large enough to be included... Hence the G-20.
2. Conversation is not possible with more than 20 in the room.

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Example: many rounds of trade negotiations under the GATT.

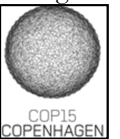
- Worked well for years,
 - with small steering groups
 - and few demands placed on developing countries.
- Failed when developing countries had become big enough to matter,
 - but were not given enough role:
 - Doha Round



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Conversation is not possible with more than 20 people in the room.

- Delegates just read their talking points.
- Latest evidence: The Climate Change CoP in Copenhagen
 - The UNFCCC proved an ineffectual vehicle
 - Incompetent management of logistics
 - Small countries repeatedly blocked progress
 - Obama was able to make more progress at the end with a small group of big emitters.
- To be honest, the G-20 is too big (30).
 - My recommendation: an informal steering group *within* the G-20.



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The Renminbi



Attempts at sterilization where emerging markets have faced large inflows

- In early 1990s, Colombia, Korea, Indonesia and others tried for a year or two and then gave it up.

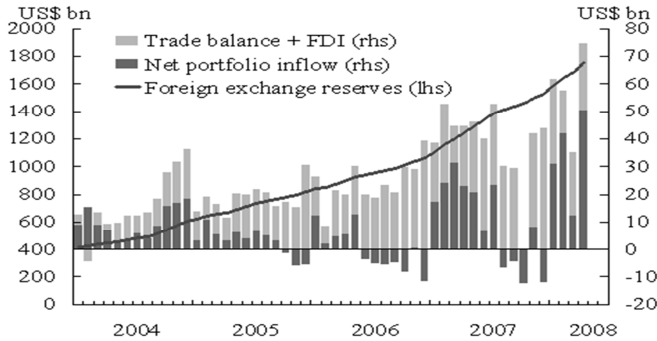



- In the past decade, China successfully sterilized for some years ... until 2007-08.
 - Now it is trying again.



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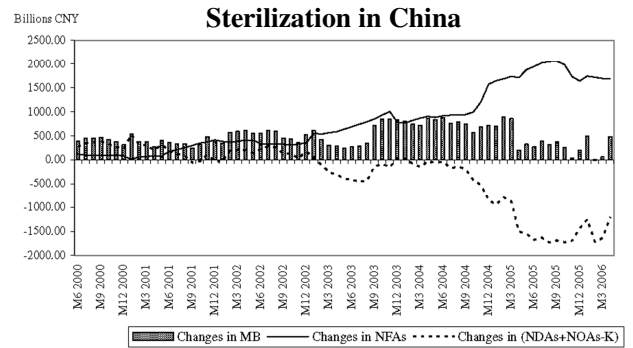
Components of China's rising balance of payments and the evolution of foreign exchange reserves



Source: HKMA, Half-Yearly Monetary and Financial Stability Report, June 2008

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Figure 4: Monthly Annual Change in NFAs, NDAs, and Reserve Money in China, 2000: M6 – 2006: M4

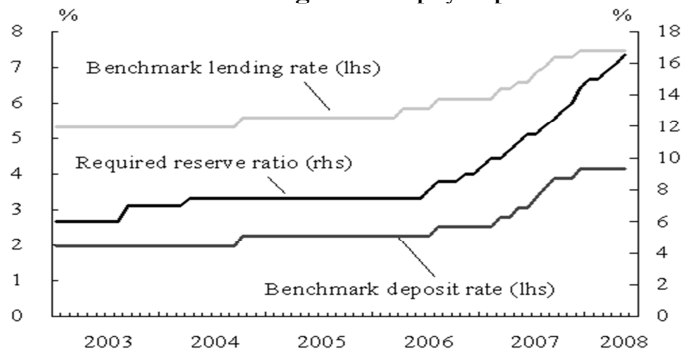


While reserves (NFA) rose rapidly, the growth of the monetary base was kept to the growth of the real economy – even reduced in 2005-06.

Source: IFS and the PBC's website.

Source: Alice Ouyang, Ramkishan Rajan, and Thomas Willett, "China as a Reserve Sink: The Evidence from Offset and Sterilization Coefficients," Claremont Graduate University, February 2007.

But to sterilize, the PBoC had to raise the reserve ratios required of banks and to raise lending rates while continuing to underpay depositors



Source: HKMA, Half-Yearly Monetary & Financial Stability Report, June 2008

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In 2007-08 China had more trouble sterilizing the reserve inflow (as predicted)

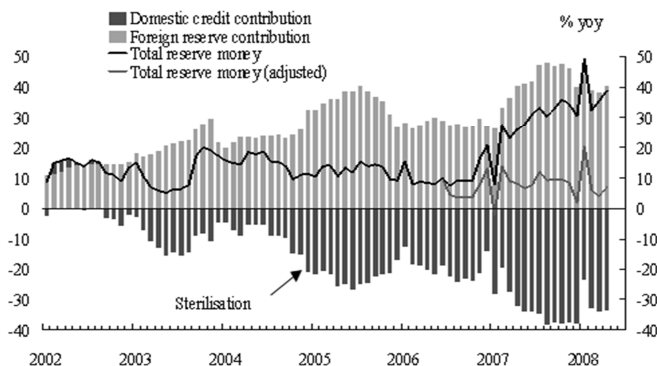
- PBoC began to have to pay higher domestic interest rates
 - and to receive lower interest rate on US T bills
 - => quasi-fiscal deficit.
- Inflation became a serious problem in 2007-08.
 - True, global increases in food & energy prices were much of the explanation.
 - But
 - China's overly rapid growth itself contributes.
 - Appreciation is a good way to put immediate downward pressure on local prices of agricultural & mineral commodities.
 - Price controls are inefficient and ultimately ineffective.



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Sterilization faltered in 2007 & 2008

Growth of China's monetary base, & its components

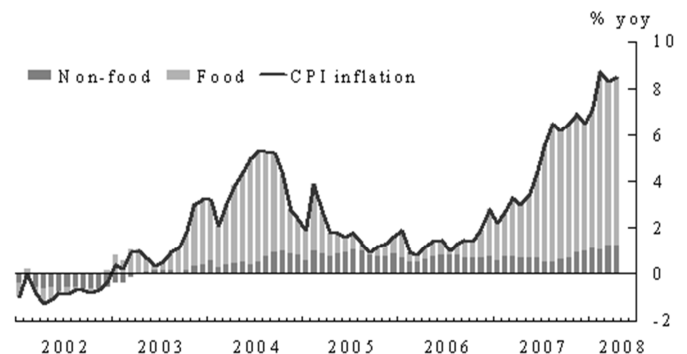


Source: HKMA, Half-Yearly Monetary and Financial Stability Report, June 2008

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China's CPI accelerated in 2007-08

Inflation 2002 to 2008 Q1



Source: HKMA, Half-Yearly Monetary and Financial Stability Report, June 2008

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Three reasons why China should move to a more flexible exchange rate regime, in its own interest

- Excessive reserves (\$2 1/2 trillion as of mid 2010)
 - Though a useful shield against currency crises, by now China has enough reserves
 - Harder to sterilize inflows over time, as it learned in 2007-08.
- Attaining internal & external balance.
 - To attain both, need 2 policy instruments.
 - In a large country like China, the expenditure-switching policy should be the exchange rate.
 - Along with expenditure-increasing policies (2009).
- RMB undervalued, judged by Balassa-Samuelson relationship.

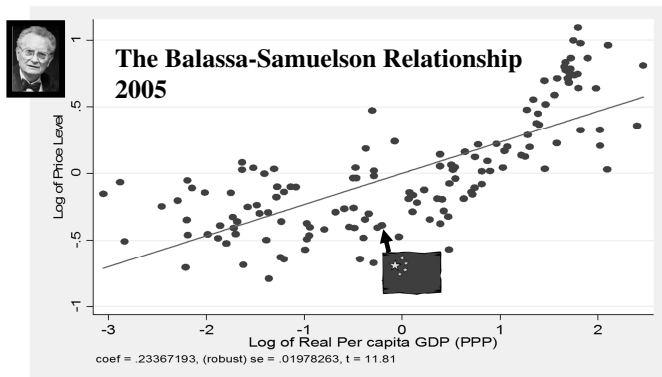
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Longer-run perspective: Balassa-Samuelson relationship



- For every 1% increase in real income/capita (relative to US), prices increase .38% (relative)
- Prices of goods & services in China are low
 - not just low relative to the United States (.23)
 - but also low by standards of Balassa-Samuelson relationship estimated across countries (which predicts .36).
 - before Dec. 2007 statistical revisions by IPC project
- In this specific sense, the yuan was undervalued by an estimated 35% in 2000
 - and is by at least as much today.
 - But doesn't imply need for sudden change of this size

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Source: Arvind Subramanian, April 2010, "New PPP-Based Estimates of Renminbi Undervaluation and Policy Implications," PB10-08, Peterson Institute for International Economics

Undervaluation of RMB in the regression estimated above = 26%.
 Estimated undervaluation averaging across four such estimates = 31%.
 Compare to Frankel (2005) estimate for 2000 = 36%.

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What about China's currency reform announced in July 2005?



China did not fully do what it implied,

- i.e., basket peg (with cumlatable +/- .3% band).
- Frankel & Wei (2007) & Frankel (2009) estimates:
 - De facto weight on \$ still very high in 2005-06.
 - Little appreciation against the implicit *basket*,
 - but appreciation against \$ in 2007, as the basket gave substantial weight to the € which appreciated against \$.
 - Beijing responded to pressure on exporters in 2008 by switching back to a dollar peg. Just in time to ride the \$ up in its year of reverse-trend appreciation !



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The Beijing-Washington standoff



- was deftly defused April 1-9.
- The probable deal, saving face on both sides
 - US Treasury agreed to postpone report that was due to Congress April 15, thus saving China face.
 - I bet China announces a change in its currency regime, around June (SED & G-20 mtgs.), thus saving US face.
 - The coming currency reform won't amount to much more than the 2005 change.

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Addenda

- Current account imbalances
- The problem of procyclical fiscal policy



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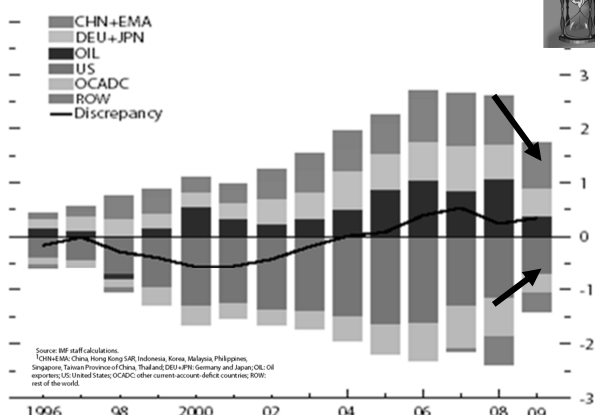
The problem of global current account imbalances,

- especially the US CA deficit & China's surplus,
- was the most salient global macroeconomic issue on the eve of the financial crisis.
- Imbalances narrowed sharply in 2009;
 - the US deficit fell by almost $\frac{1}{2}$;
 - China's CA fell by almost $\frac{1}{2}$.
 - Its trade surplus actually dipped to 0 in March 2010.
- Problem solved?
- The imbalances will now resume widening.



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Global imbalances narrowed sharply in 2009 owing to both cyclical and more lasting developments. Imbalances are projected to widen once again as the global recovery takes hold.



Economists were (are) split between

those who saw the US deficit as unsustainable, requiring a \$ fall, and those who saw (see) no problem.

- | | |
|--------------------|-----------------------------|
| ■ Ken Rogoff * | ■ Ben Bernanke |
| ■ Maury Obstfeld | ■ Ricardo Caballero * |
| ■ Larry Summers | ■ Richard Cooper |
| ■ Martin Feldstein | ■ Michael Dooley |
| ■ Nouriel Roubini | ■ Pierre-Olivier Gourinchas |
| ■ Menzie Chinn | ■ Alan Greenspan |
| ■ Me | ■ Ricardo Hausmann |
| ■ Lots more | ■ Lots more |

* Some claim that the financial crisis of 2007-09 fits their theories.

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The events of 2007-09 struck major blows against *both* interpretations of CA.

- Most of us in the **unsustainability camp** would have predicted that something like the US sub-prime mortgage crisis would cause a big fall in the \$.
- Instead, the \$ strengthened.
- Most of those in the **sustainability camp** had been arguing that the US has uniquely superior assets (corporate governance, securities markets, bank regulation...)
- Instead, the crisis showed the US system to suffer serious flaws
 - of crony capitalism like other countries (Simon Johnson, Ragu Rajan)
 - or – worse – excessive deregulation (Joe Stiglitz)
- The answer, for the moment: The \$ and US Treasury bills still play unique roles in the world monetary system.

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When will the day of reckoning come?

- It didn't come in 2008:
 - The financial crisis caused a flight to quality
- which evidently still means a flight to US \$.
- Nor in May 2010: The Greek debt crisis has demonstrated
 - European policymakers still don't have their act together,
 - And the \$ remains the safe haven



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2009: Chinese warnings

- Premier Wen worries US T bills may lose value.
Urges the US to keep its deficit at an “appropriate size” to ensure the “basic stability” of the \$ (again on 11/10/09).



- PBoC Gov. Zhou, proposes replacing \$ as international currency, with the SDR (March 09).

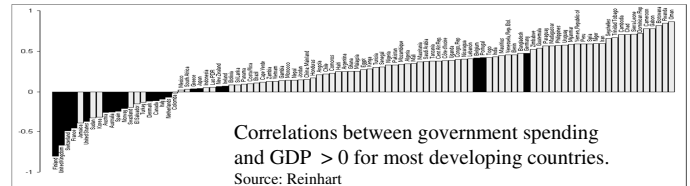


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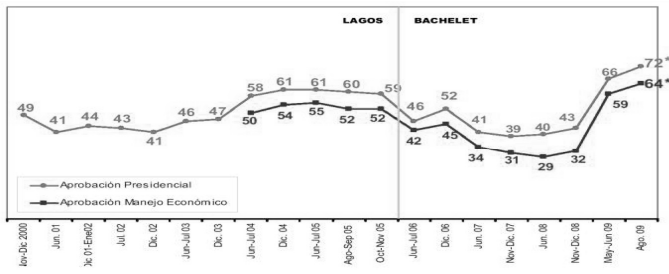
The problem of procyclical fiscal policy

In developing countries, unfortunately, fiscal policy has tended to be *procyclical*: expanding in booms, contracting in recessions.

- Especially in Latin America & among commodity producers.
- The US made the same mistake 2003-07: failed to take advantage of the expansion to cut structural budget deficit.
- References for procyclical fiscal policy: Mendoza & Oviedo (2006), Talvi & Vegh (2005), Gavin & Perotti (1997), Kaminsky, Reinhart & Vegh (2004), Alesina & Tabellini (2005).



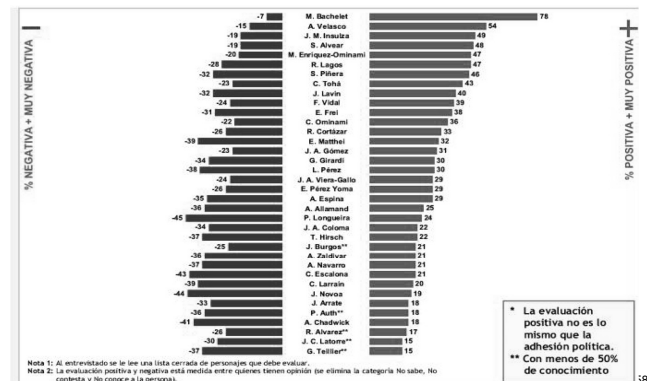
As recently as June 2008, President Bachelet and Fin.Min. Velasco had the lowest popularity rating of any ministers since the restoration of democracy to Chile



Why such a change in approval of economic performance?

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A year later, they had the highest popularity rating of any ministers Why?



Nota 1: Al entrevistado se le lee una lista cerrada de personajes que debe evaluar.
Nota 2: La evaluación positiva y negativa está medida entre quienes tienen opinión que elimina la categoría 'No sabe, No contesta y No conoce a la persona'.

• La evaluación positiva no es lo mismo que la adhesión política.
• Con menos de 50% de conocimiento

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Developing countries in 2009, for the 1st time, were able to run countercyclical fiscal policies:

- those that had wisely saved during the boom
 - Often in the form of ForEx reserves or a SWF.
- On a global scale, China's fiscal expansion was the most important example.
- Chile's institutional reform could be a model for all:
 - Structural surplus of 1% of GDP (reduced to ½ %, then 0)
 - if economy is at full employment & price of copper at its long-run level.
 - Estimates of full employment & LR price of copper are made by commissions of experts, *not* politicians.



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Further thoughts on macro policy in mineral-exporting countries

- “The Natural Resource Curse: A Survey,” forthcoming in *Export Perils*, edited by B. Shaffer (U.Penn. Press). March 2010.
- A Comparison of Monetary Anchor Options for Commodity-Exporters in Latin America and the Caribbean,” *Myths and Realities of Commodity Dependence: Policy Challenges and Opportunities for Latin America and the Caribbean*, World Bank, Sept. 2009.
- “Peg the Export Price Index: A Proposed Monetary Regime for Small Countries,” *Journal of Policy Modeling*, June 2005.

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