The Aftermath of the Global Crisis: Policy Lessons and Challenges Ahead for Latin America

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OUTLINE

I. The Aftermath of the Global Crisis:
Outlook and Macro Policy Challenges for LAC

II. EMs Resilience to the Global Crisis: Towards a New International Financial Architecture for EMs?

External Factors and Economic Fluctuations in Latin America: A Benchmark Model*

Estimation Strategy

Vector Error Correction Model (VECM):

$$\Delta y_t = c + \alpha\beta' y_{t-1} + \Gamma \Delta y_{t-1} + \ldots + \Gamma_{p-1} \Delta y_{t-p+1} + \varepsilon_t$$

where

$$y_t = (\, GDP\_LAT_t \quad G7IP_t \quad TOT\_LAT_t \quad US\ T\text{-}BOND_t \quad HYS_t \,)'$$

GDP_LAT:	(the log of) an index of average GDP in LAC-7 countries
G7IP:	(the log of) an index of average industrial production in G7 countries
TOT_LAT:	(the log of) an index of regional terms of trade
US T-BOND:	return on 10-year US T-bonds
HYS:	spread on high yield bonds over US T-bonds

*Izquierdo, A., Romero, R. and Talvi, E. (2008): “Booms and Busts in Latin America: The Role of External Factors”, IADB and CERES Working Paper

External Factors and Economic Fluctuations in Latin America: A Benchmark Model*

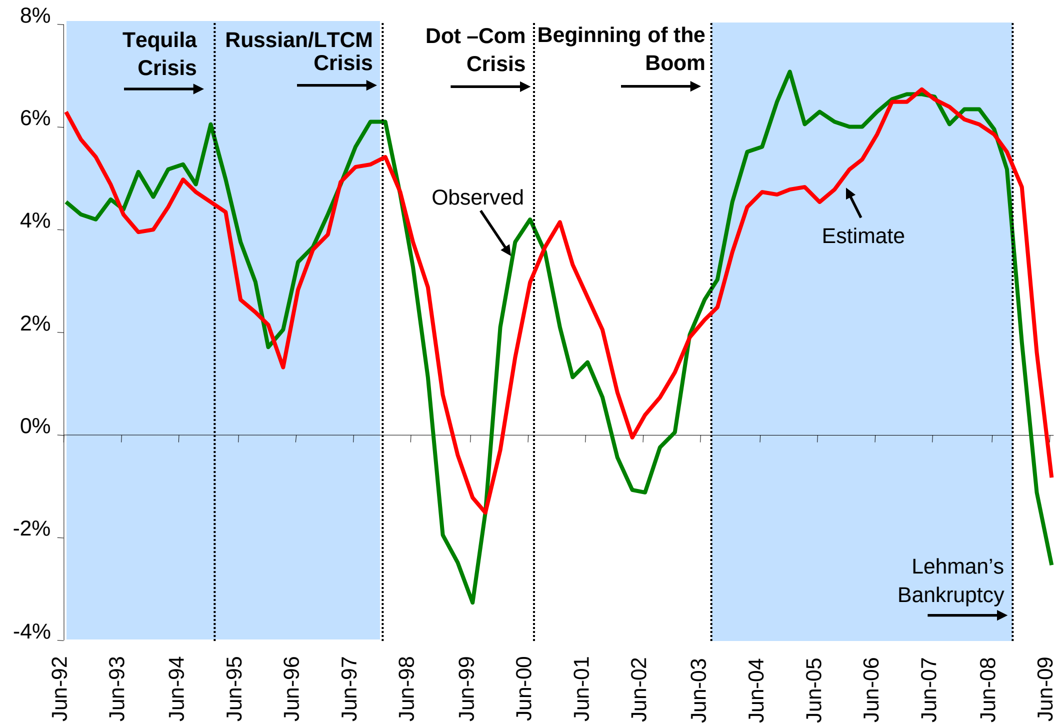
(LAC-7; Real GDP; Annual Growth Rate)

External Factors

Growth in Industrial Countries and China

Commodity Prices

International Financial Conditions



LAC-7 is the simple average of the seven major Latin American countries, namely Argentina, Brazil, Chile, Colombia, Mexico, Peru and Venezuela. These countries represent 91% of Latin America's GDP.

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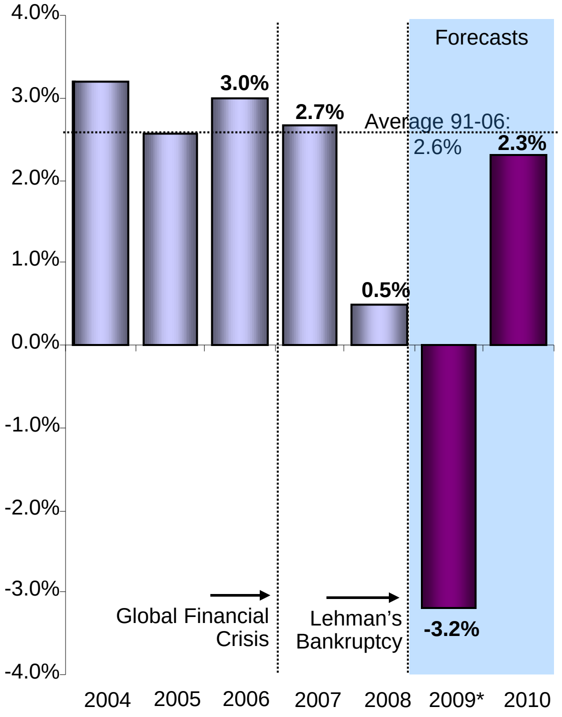
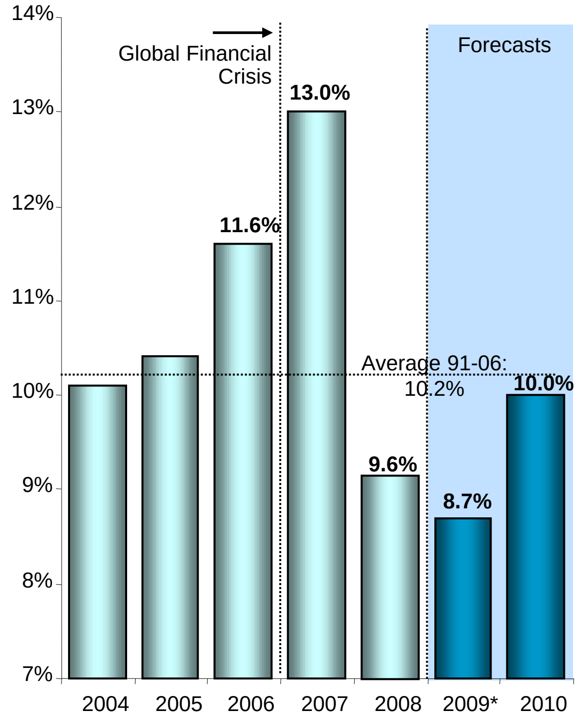
External Factors:
World Growth and Commodity Prices

Industrial Countries Growth
(GDP, Annual Variation)



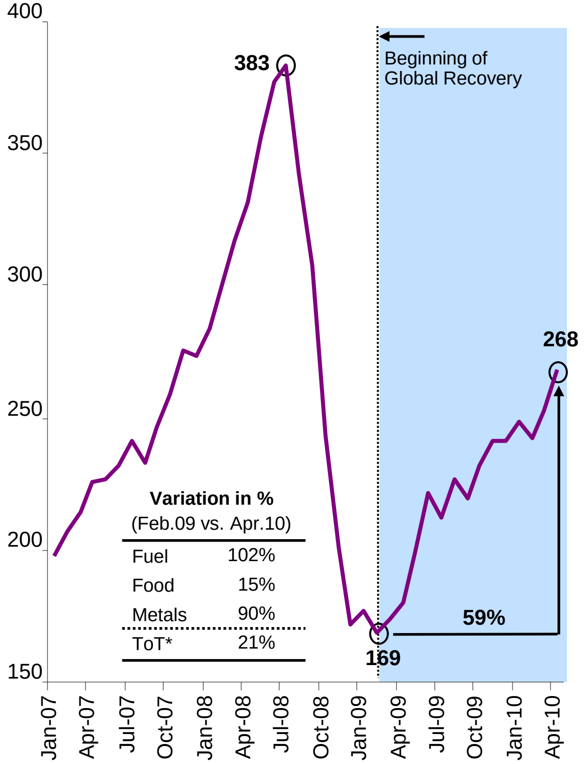
Source: WEO.
*Estimate

China Growth
(GDP, Annual Variation)



Source: WEO and JP Morgan.
*Estimate

Commodity Prices
(Index of Fuel and Non-Fuel Commodities,
Average 91-97=100)



Variation in %
(Feb.09 vs. Apr.10)

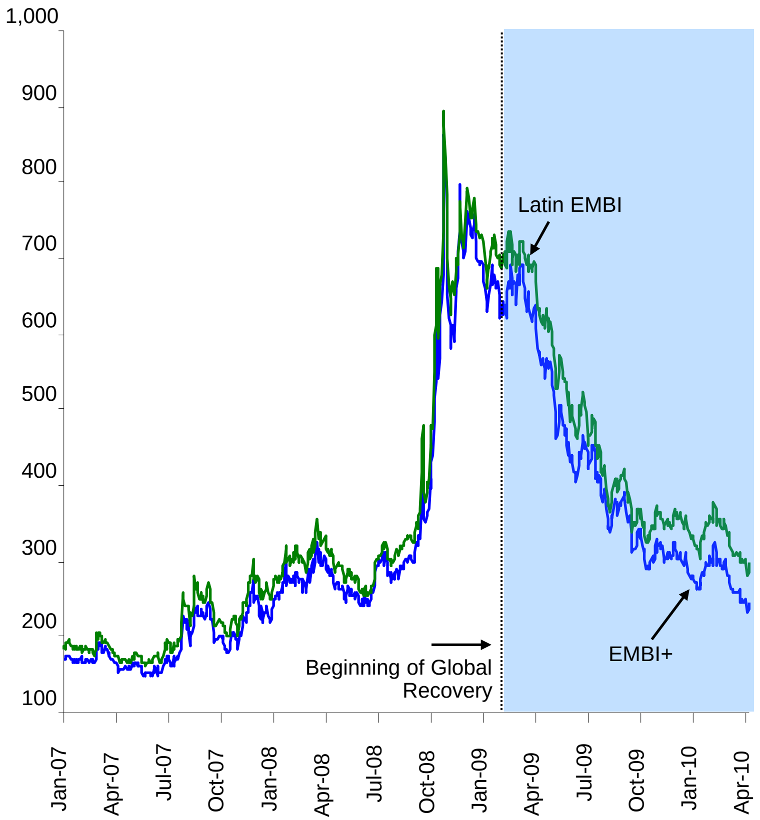
Fuel	102%
Food	15%
Metals	90%
ToT*	21%

Source:IMF and National Sources
* TOT LAC-7 Variation Mar.09 vs Dec.09

External Factors:
International Financial Conditions

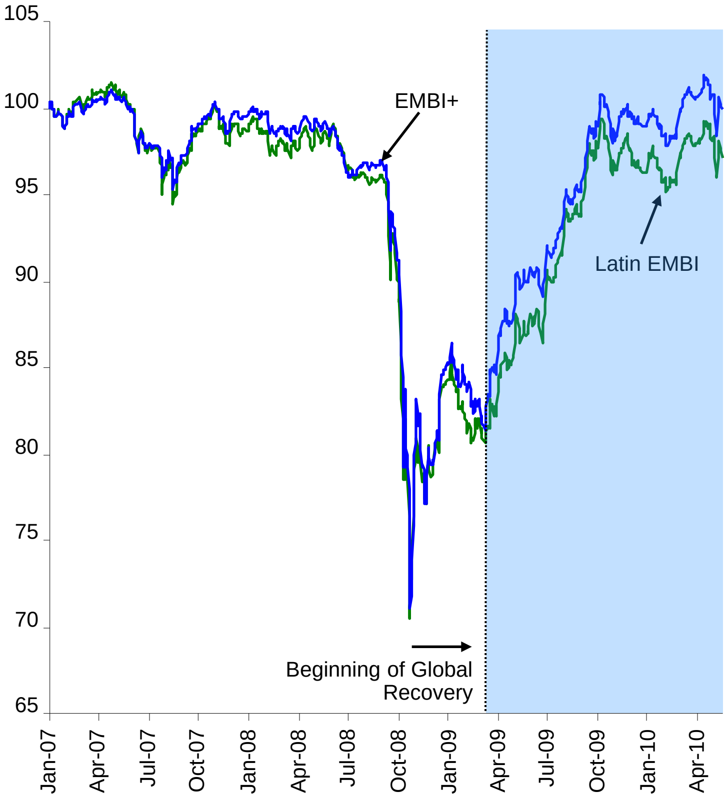
Sovereign Bond Spreads

(EMBI+ and Latin EMBI; in bps)



Sovereign Bond Prices

(EMBI+, Bond Price Equivalent*; 01-Jan-07 = 100)

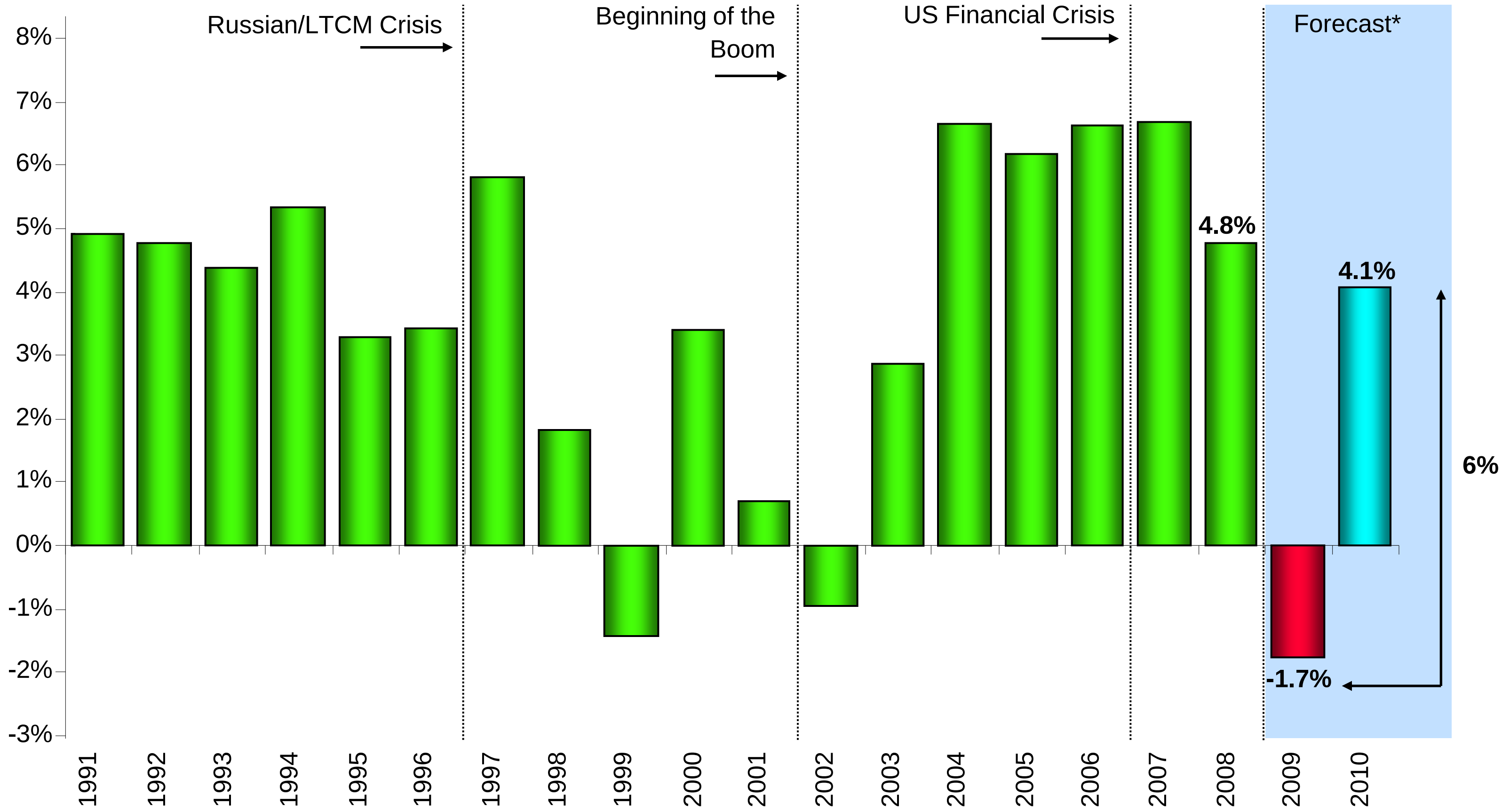


*Assumes an 11% cupon and 10 year maturity

LatinMacroWatch

Real Impact of the Global Crisis: *Economic Activity*

(LAC-7, Real GDP, Annual Variation)



*Source: JPMorgan. Estimate values for 2009.

ALTERNATIVE GLOBAL SCENARIOS: ASSUMPTIONS

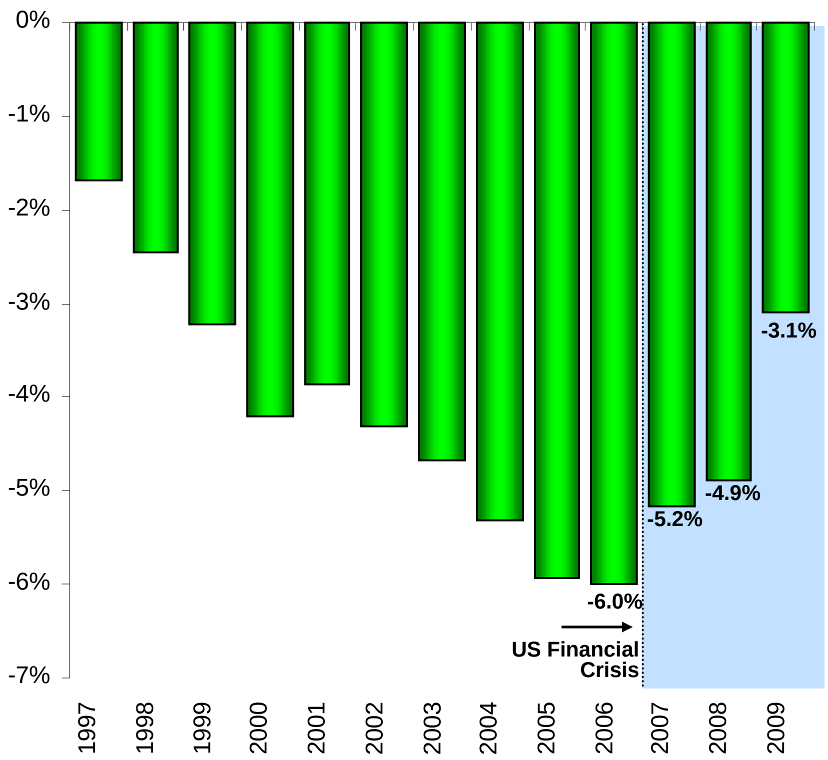
Strong Recovery / Strong Growth in the US with Excess World Savings Scenario (EWS)

- **The US displays a <u>strong recovery and continues</u> with the deleveraging process of the private sector, closing its current account deficit as private sector savings exceed public sector deficits**

- **Reallocation of world demand sustains a high global growth equilibrium with <u>strong growth in China, recovery in commodity prices and remittances</u>**

- **Excess world savings lead to <u>high capital inflows to EMs and declining spreads</u>**

US Current Account
(Last 4 quarters, % of GDP)



ALTERNATIVE GLOBAL SCENARIOS: ASSUMPTIONS

Strong Recovery / Strong Growth in the US with Excess World Savings Scenario (EWS)

- The US displays a strong recovery and continues with the deleveraging process of the private sector, closing its current account deficit as private sector savings exceed public sector deficits
- Reallocation of world demand sustains a high global growth equilibrium with strong growth in China, recovery in commodity prices and remittances
- Excess world savings lead to high capital inflows to EMs and declining spreads

Strong Recovery / Sluggish Growth in the US with Shrinking World Savings Scenario (SWS)

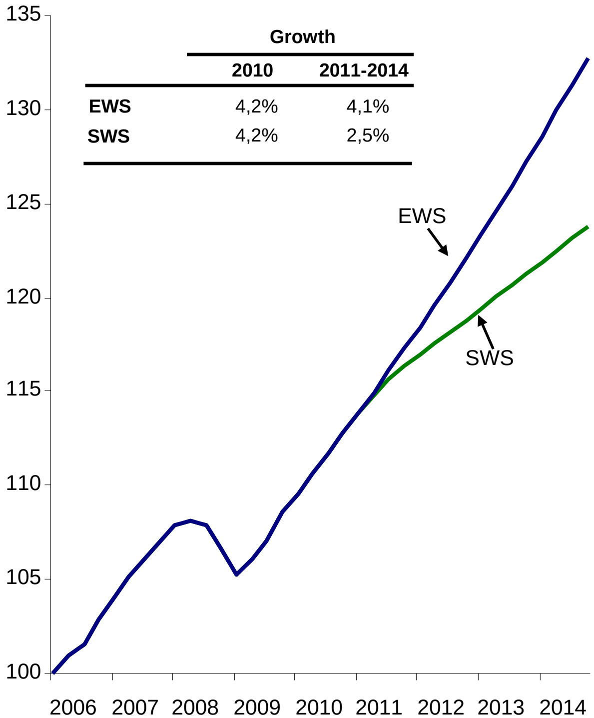
- The US displays a strong recovery followed by sluggish growth, while it continues with the deleveraging process of the private sector, closing its current account deficit as private sector savings exceed public sector deficits
- Slower growth in China, cooling-off in commodity prices and weaker remittances as reallocation of world demand fails to sustain a high global growth equilibrium
- Excess world savings is eliminated mainly through slower growth in China leading to declining capital inflows to EMs and higher spreads

ALTERNATIVE GLOBAL SCENARIOS: ASSUMPTIONS

EXTERNAL FACTORS

World Growth

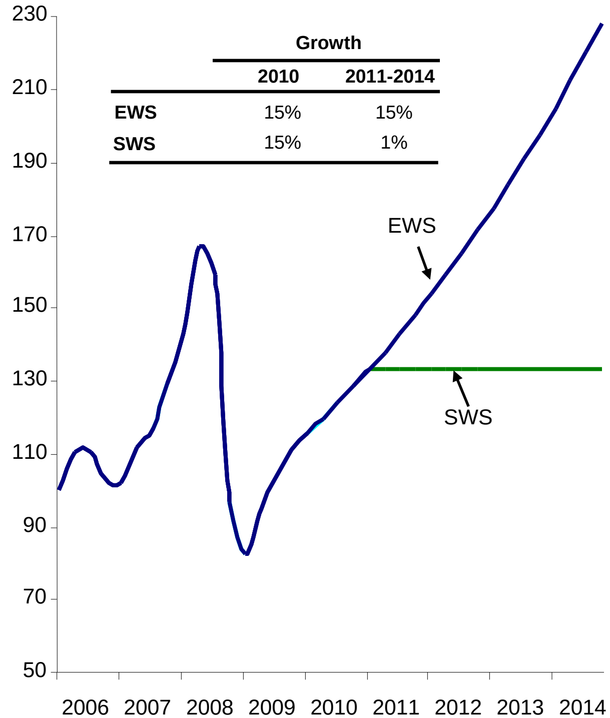
G-7 and China Economic Activity
(2006 = 100)



	Growth	
	2010	2011-2014
EWS	4,2%	4,1%
SWS	4,2%	2,5%

Commodity Prices

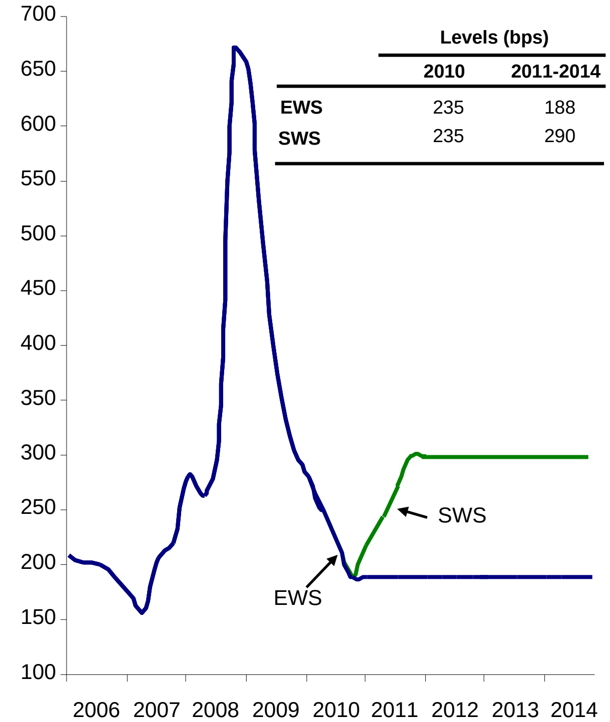
Global Commodity Prices
(2006 = 100)



	Growth	
	2010	2011-2014
EWS	15%	15%
SWS	15%	1%

International Financial Conditions

Sovereign Bonds Spreads
(EMBI +, bps)



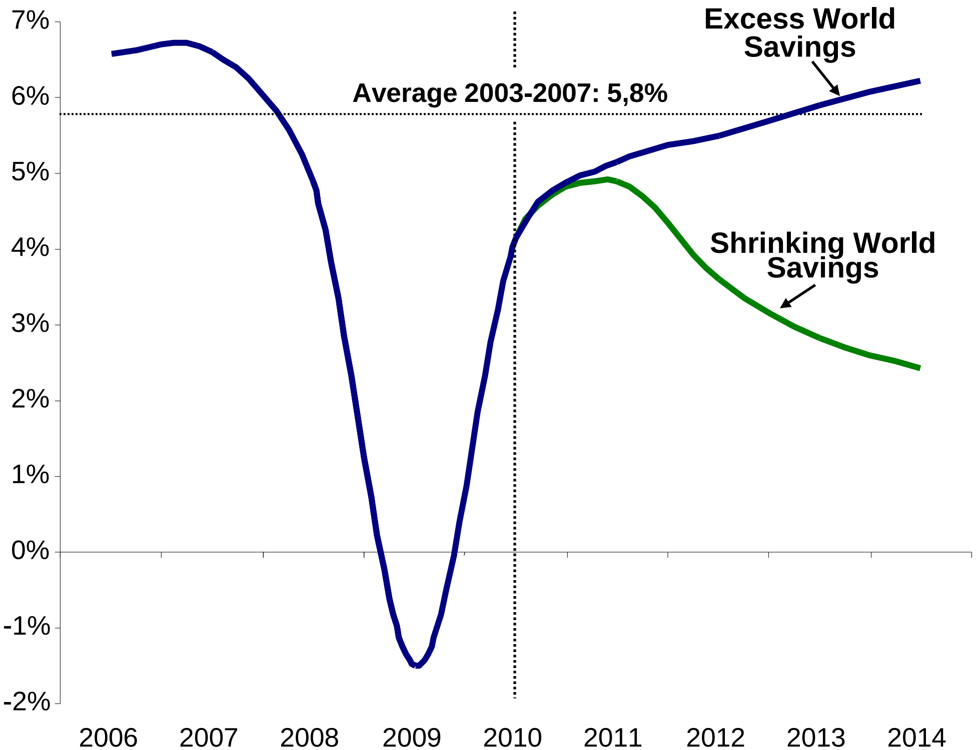
	Levels (bps)	
	2010	2011-2014
EWS	235	188
SWS	235	290

EWS: Excess World Savings Scenario
SWS: Shrinking World Savings Scenario

Medium Term Outlook for Latin America Under Alternative Global Scenarios

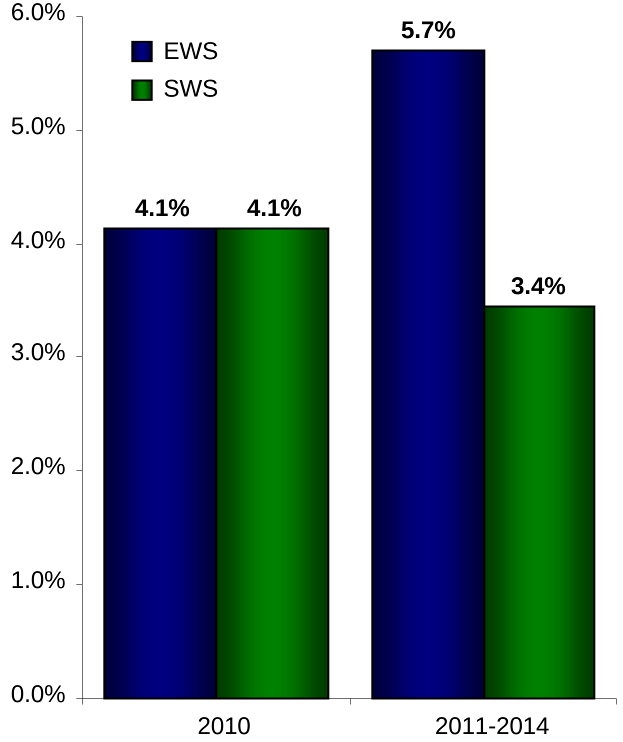
GDP Growth

(LAC-7, annual growth rate)



Growth Forecasts

(LAC-7)



EWS: Excess World Savings Scenario

SWS: Shrinking World Savings Scenario

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LatinMacroWatch

SHORT-TERM MACRO MANAGEMENT

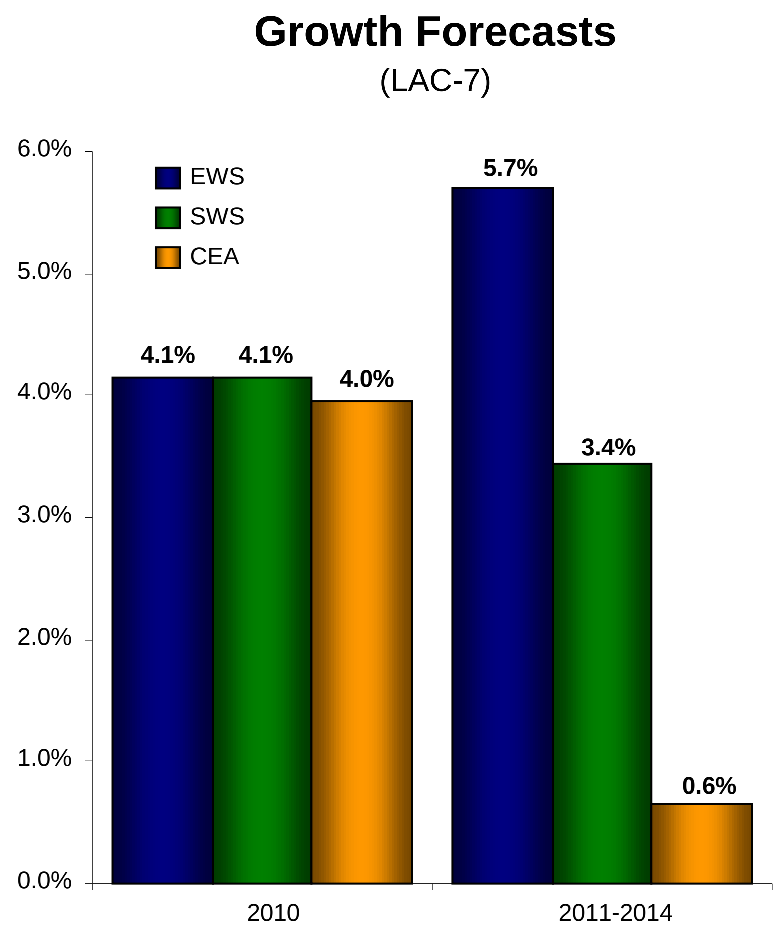
Policy	EWS New Expansionary Phase	SWS Short Run Bonanza	Policy Actions SWS Scenario
Liquidity Management	Gradually rebuild optimal levels of international reserves	Rebuild optimal levels of international reserves throughout the bonanza	Reserve accumulation Reprofiling of debt maturities Fluent relationship with the IMF and MDBs
Intertemporal Fiscal Management	Manage the new bonanza by: ➢ Increasing expenditure ➢ Reducing tax rates ➢ Reducing debt accumulation or retiring debt	Save the bonanza for a “rainy day”	Contain expenditure growth Avoid premature tax reductions
Inflation and RXR Management	Control Inflation and ensure gradual convergence to the new equilibrium RXR	Control Inflation and avoid excessive RXR appreciation	Sterilized Intervention Tighter fiscal policy Tighter credit policy Capital Controls

EWS: Excess World Savings Scenario
SWS: Shrinking World Savings Scenario

AN ALTERNATIVE GLOBAL SCENARIOS CRISIS IN THE EURO-AREA

Crisis in the Euro-Area Scenario (CEA)

- **The global recovery is interrupted by the <u>fiscal crisis in Europe with systemic implications</u> that revert the world back to a 'Lehman Crisis Mode'**
- **<u>Severe drop in commodity prices and remittances</u> as a result of global demand contraction**
- **Flight to quality, <u>sudden stop in capital inflows to EMs and rising spreads</u> as a result of global financial distress**



OUTLINE

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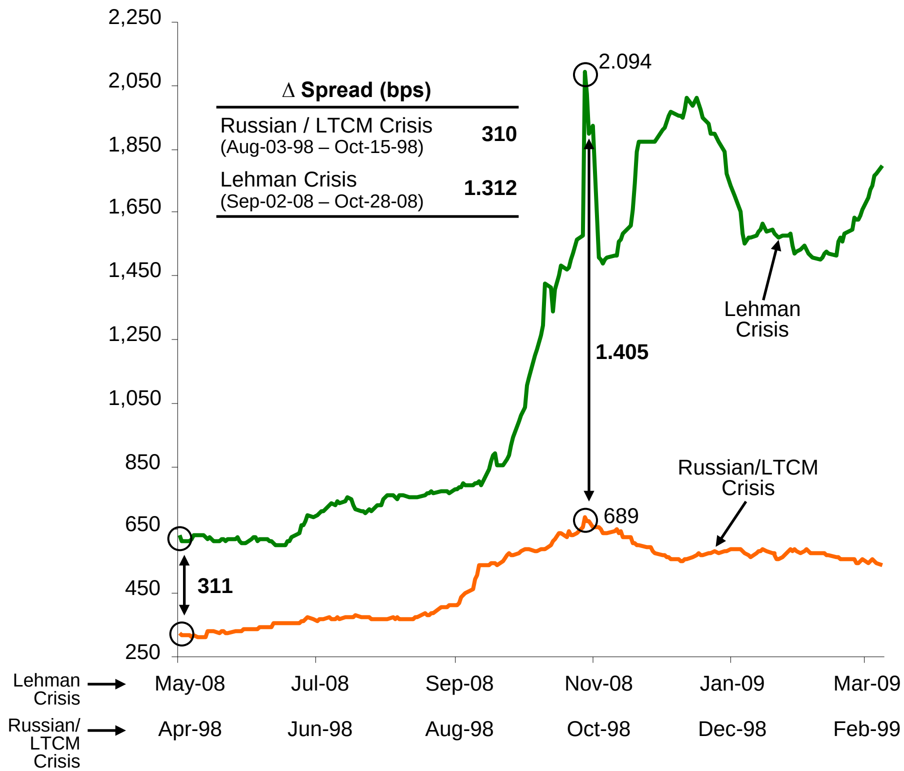
II. EMs Resilience to the Global Crisis: Towards a New International Financial Architecture for EMs?

Assessing EM's Resilience at the Peak of the Global Crisis: *Russian/LTCM Crisis versus Lehman Crisis*

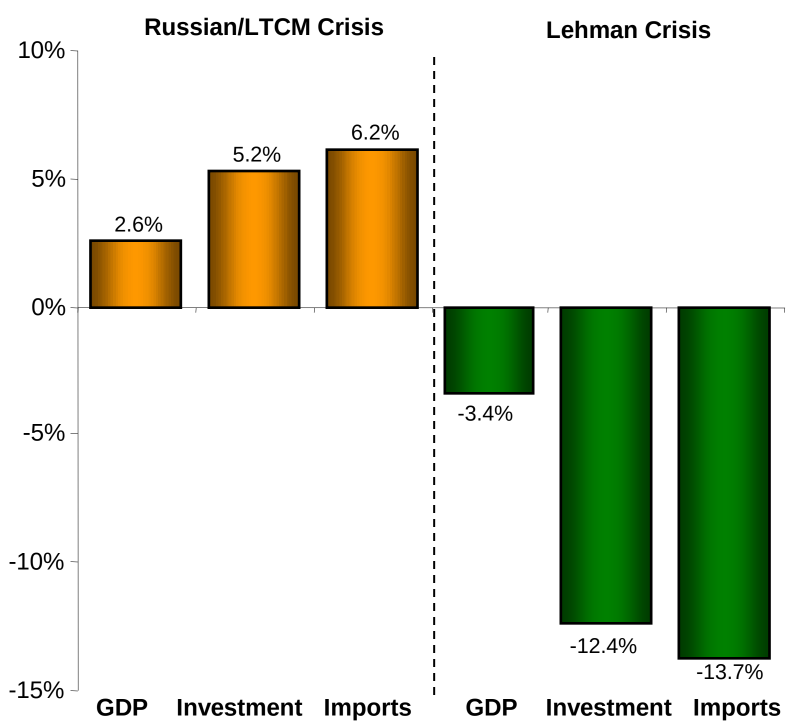
US High Yield Spreads Reaction

(US High Yield spread, in bps)



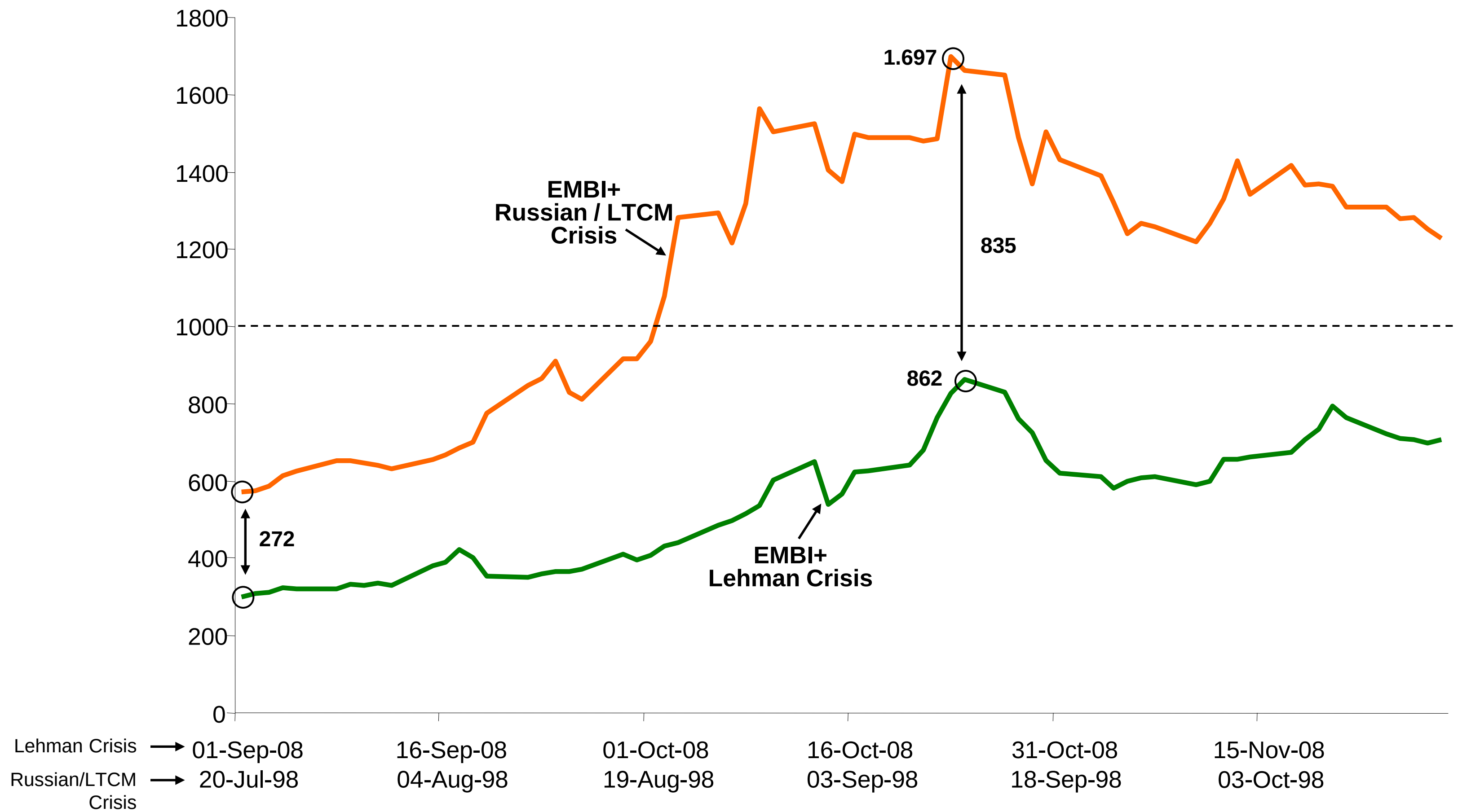
Real Impact on Advanced Economies

(Changes in %, 97–98 and 08–09)



EMBI Spreads Reaction:
Russian/LTCM Crisis versus Lehman Crisis

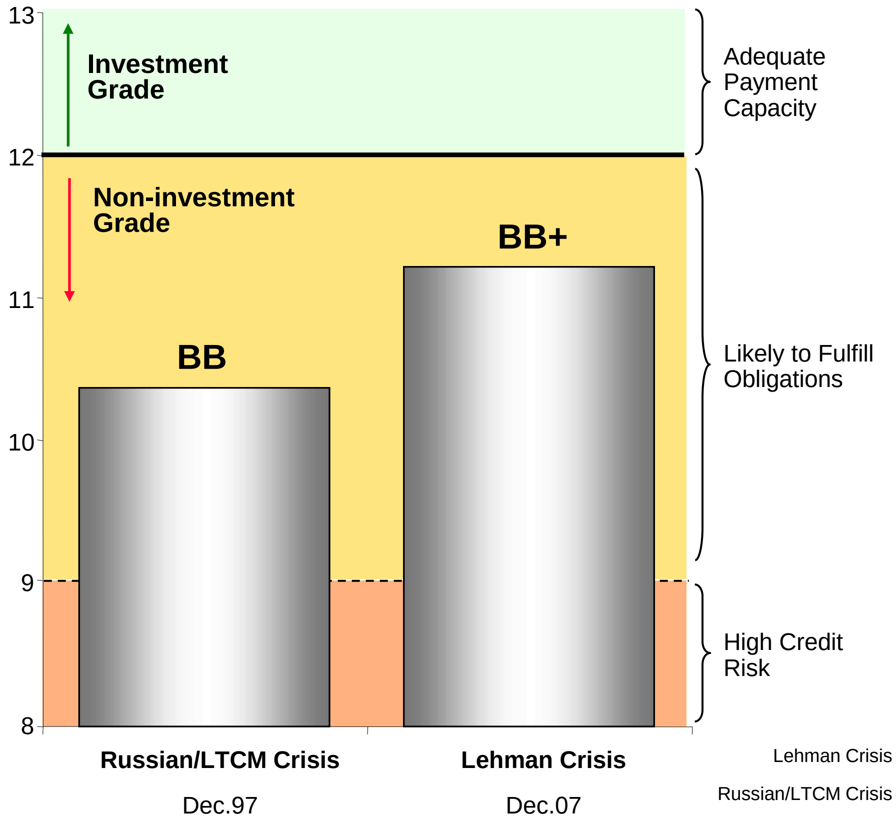
(EMBI+ Spread, in bps)



The Role of Fundamentals in the Lehman Crisis

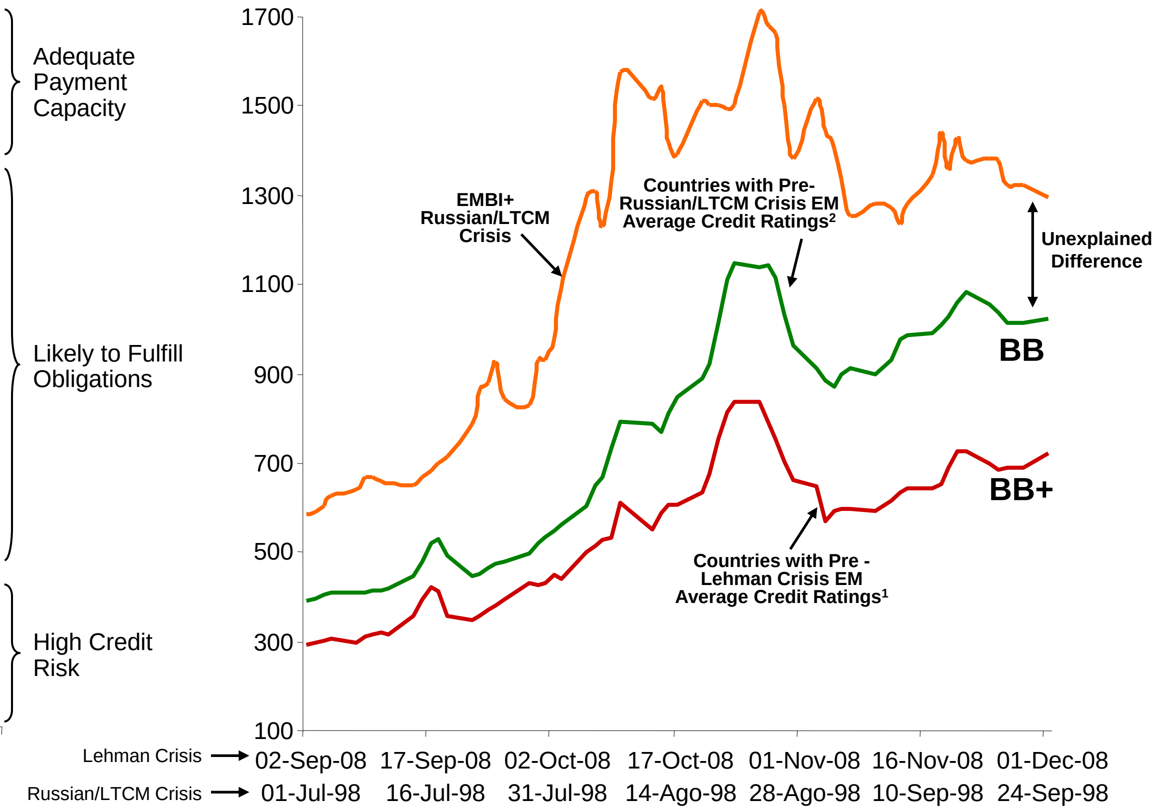
Emerging Markets' Fundamentals: Russian/LTCM Crisis vs. Lehman Crisis

(Emerging Markets*, Credit Rating, Numerical Scale)



Spreads Reaction: The Role of Fundamentals

(EMBI Spreads, in bps)



* Emerging markets include emerging countries included in JP Morgan's EMBI.

[1] Includes countries with Pre-Global crisis credit ratings: Brazil, Colombia, Egypt, El Salvador, Kazakhstan and Peru.

[2] Includes countries with Pre-Russian/LTCM crisis credit ratings : Indonesia, Panama, Philippines, Turkey, Ukraine, Uruguay and Venezuela.

Measures of the International Community to Ensure Liquidity Provision for Emerging Markets

Before G-20 London Summit

2008	
April-June	Japan signs swap agreement with Indonesia (US$6 bn) and India (US$3 bn)
October	The US Federal Reserve opens swap lines with Brazil, Mexico, South Korea, Singapore (US$120 bn)
	IMF launches the Short-Term Liquidity Facility
November	Bank of Japan and the People's Bank of China signed swap agreements with South Korea (US$43 bn)

G-20 London Summit

2009	
April	Recapitalization of IMF(US$500 bn) and Development Banks (US$100-300 bn)
	IMF launched the Flexible Credit Line and the High-Access Precautionary Arrangements
	New Special Drawing Rights allocation (U$S250 bn)
	New Support for Trade Finance (U$S250 billion)

After G-20 London Summit

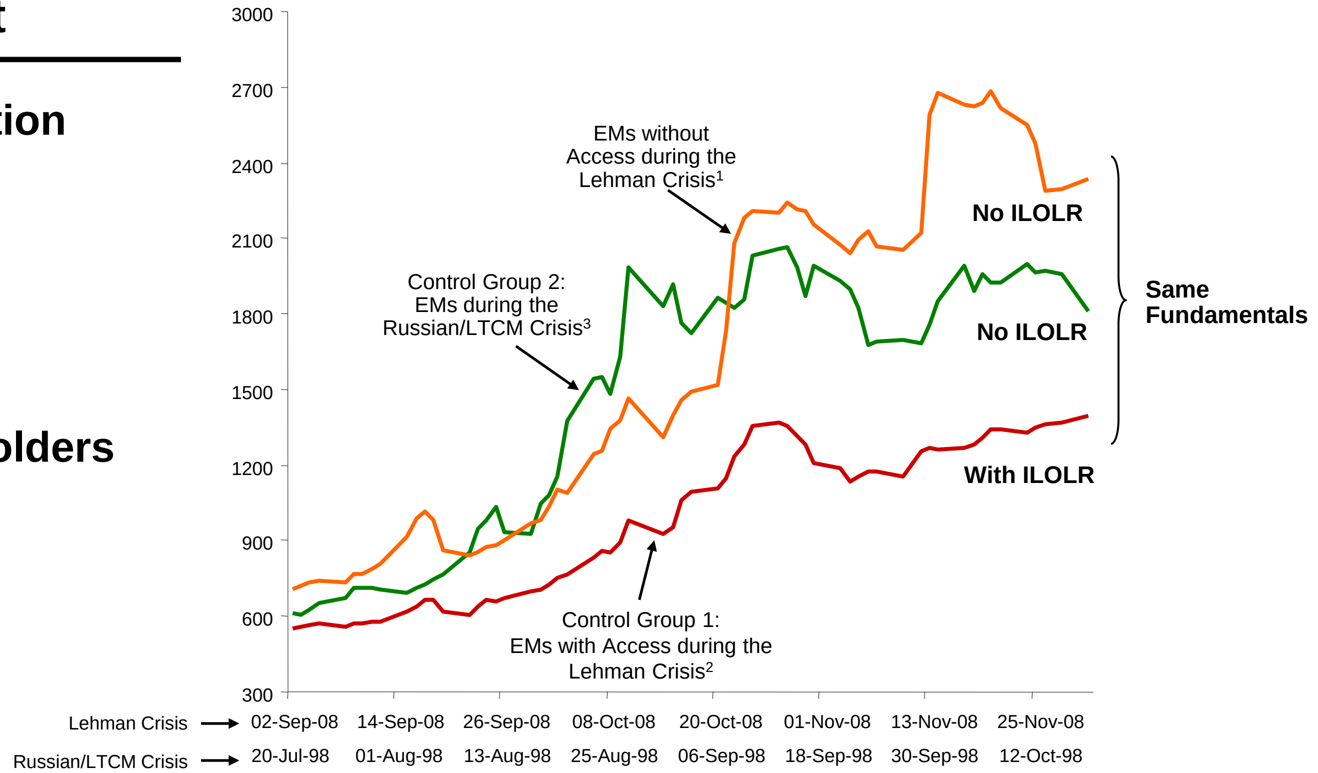
April	IMF Flexible Credit Line agreement with Mexico (US$47 bn)
May	Effective recapitalization of the Asian Development Bank
August	Effective allocation of new Special Drawing Rights
September	Effective recapitalization of the IMF

The Role of International Lender of Last Resort (ILOLR) in the Global Crisis

No Access to Multilateral Financial Support

- No Article IV Consultation for the last two years
- In arrears with the IMF
- In default with bond holders

Spreads Reaction: The Role of Access to ILOLR Facilities
(EMBI +, in bps)



[1] Includes Argentina, Ecuador and Venezuela

[2] Countries with access to ILOLR during the Lehman Crisis with the same credit rating as countries without access during the Lehman Crisis. Includes Belize, Dominican Republic, Georgia, Ghana, Indonesia, Jamaica, Lebanon, Pakistan, Philippines, Serbia, Sri Lanka, Turkey, Ukraine and Uruguay.

[3] Countries that during the Russian/LTCM Crisis had the same credit ratings as countries without access during the Lehman Crisis. Includes Brazil, Bulgaria, Lebanon, Ecuador, Russia, Turkey and Venezuela.

Econometric Estimations

Benchmark Equation

$$\Delta S_i = \beta_0 + \beta_1 CR_i + \beta_2 NA_i + \varepsilon_i$$

Where:

- **ΔS is the change in spreads in the 60-day window following the Lehman crisis**
- **CR represents pre-Lehman crisis credit ratings (Dec.07)**
- **NA is a dummy variable indicating lack of access to ILOLR facilities**

Estimation Results

	Benchmark Regression	Regression with Interaction Term
Constant (C)	**1286****	**1222****
Credit Rating (CR)	**-65****	**-59****
No Access Dummy (NA)	**718****	**3421****
Interaction Term (NA*CR)	**n.a.**	**-350****
R^2	**45%**	**53%**

	Predicted	**Observed**
Spread increase for the average country (with BB+ CR and access to ILOLR facilities)	597 bps	582 bps

Regression Controlled By:

	Political Rights Index	Economic Freedom Index	Historical Defaults		Trend Growth	Financial Integration	Trade Integration	Lagged Change in Spreads
			Sum	Present Value				
Constant (C)	1430**	2222**	1219**	1191**	1308**	1326**	1275**	1088**
Credit Rating (CR)	-67**	-55**	-59**	-59**	-57**	-56**	-57**	-51**
No Access Dummy (NA)	3310**	3698**	3406**	3406**	3469**	3347**	3437**	3135**
Interaction Term (NA*CR)	-342**	-406**	-349**	-334*	-361**	-344**	-355**	-317*
Control Variable	-16	-17*	2.3	37	-2637	-80	-0.83	1.37
R^2	56%	58%	53%	53%	54%	55%	53%	56%

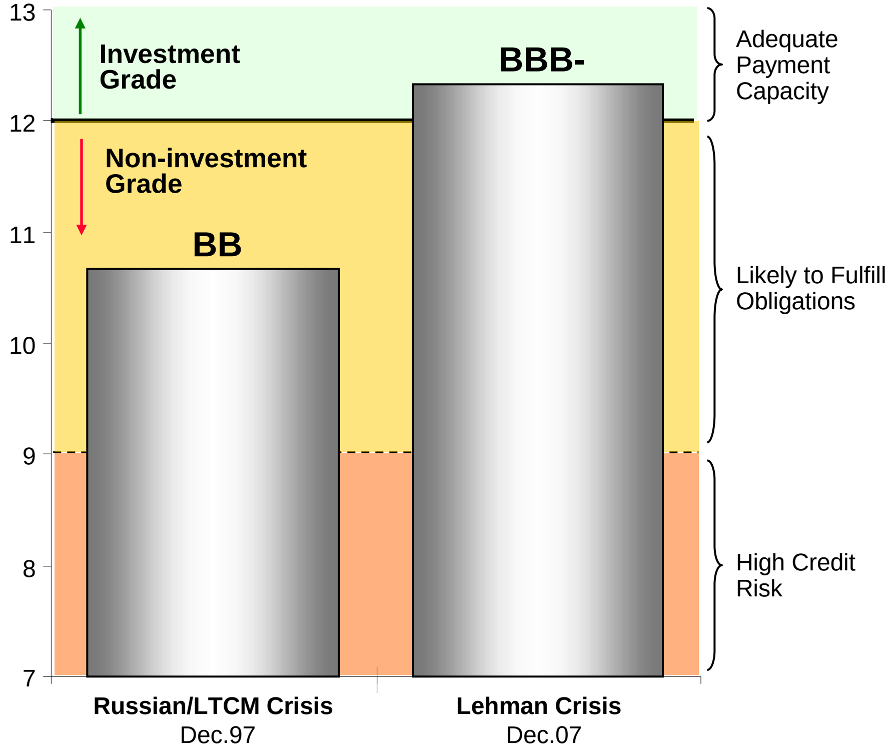
Sample: 35 Observations

*** Significant at 10%   ** Significant at 5%**

Assessing the Relevance of Stronger Fundamentals and Access to ILOLR in Latin America

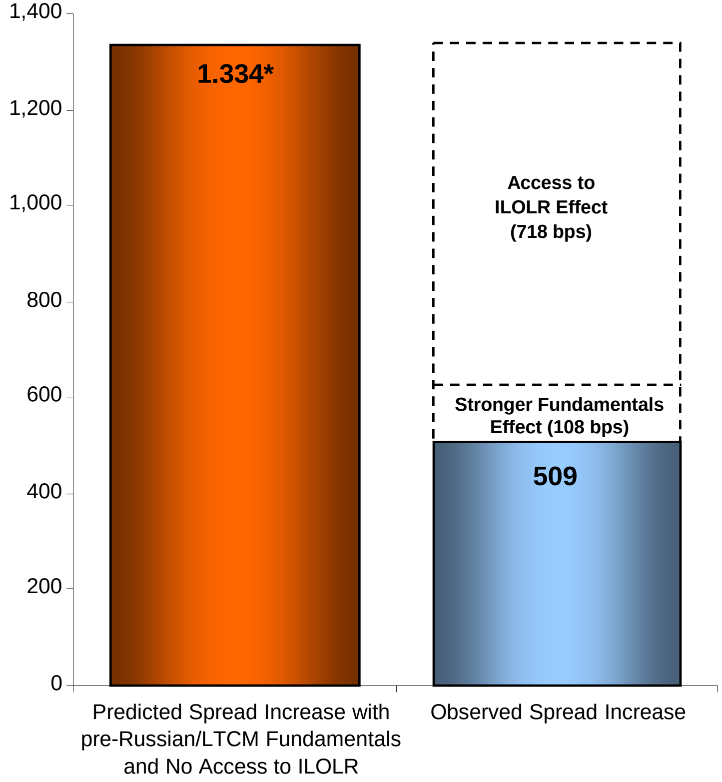
Latin America's Fundamentals: Russian/LTCM Crisis vs. Lehman Crisis

(LAC-7[2], Credit Rating, Numerical Scale)



EMBI Spread Reaction during the Lehman Crisis: A Decomposition[1]

(LAC-7[2], EMBI Spread, in bps)



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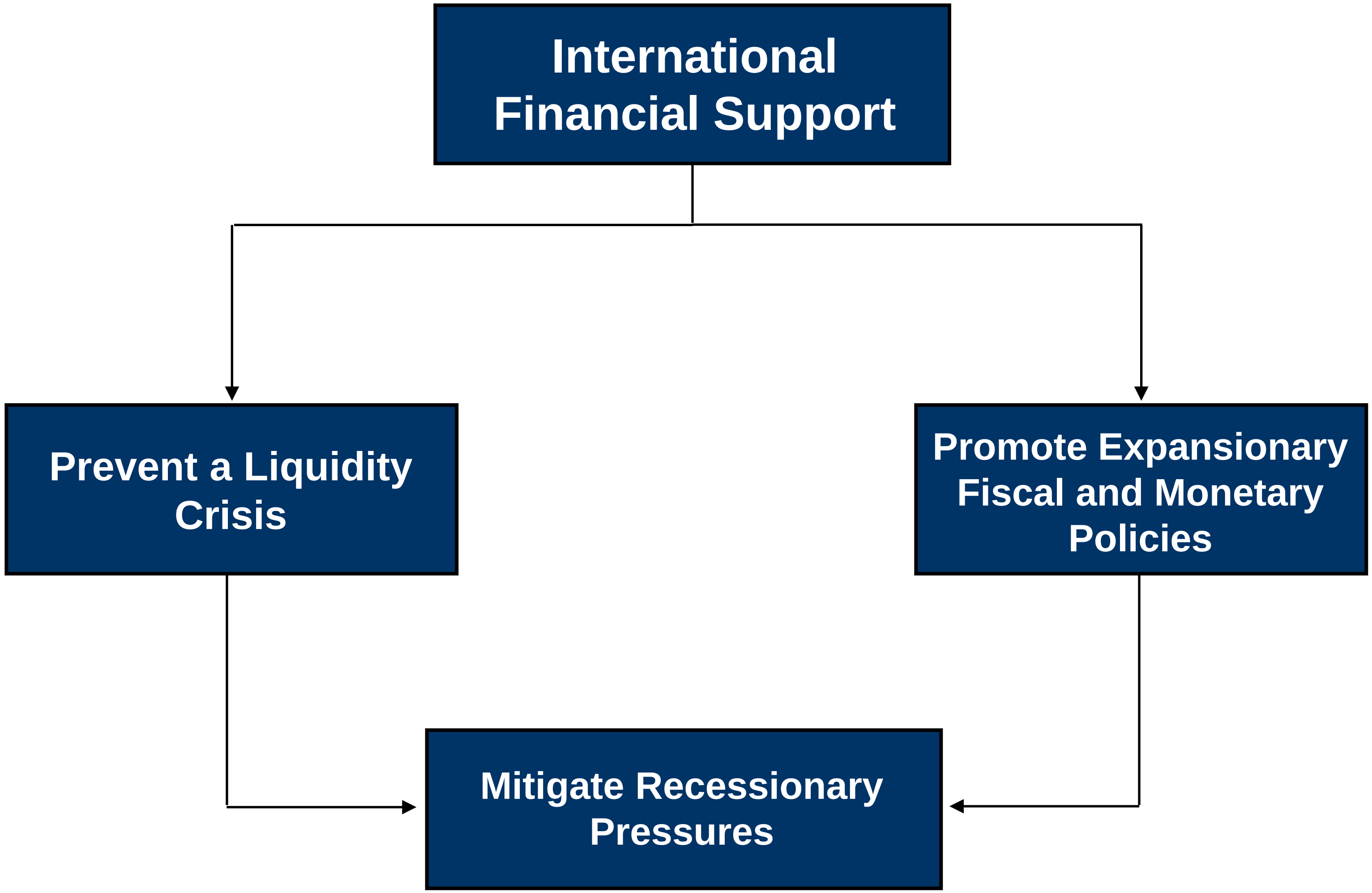
[1] For a formal discussion of this exercise see IDB (2010)

[2] Excludes Argentina

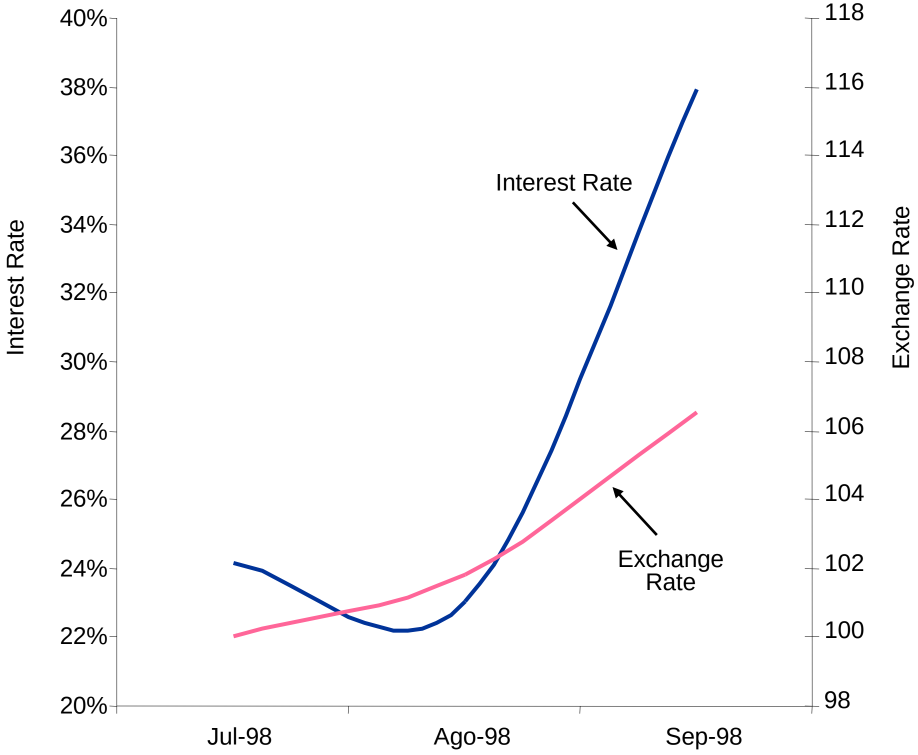
*** Includes error prediction**

The Role of International Liquidity in Latin America during the Global Crisis

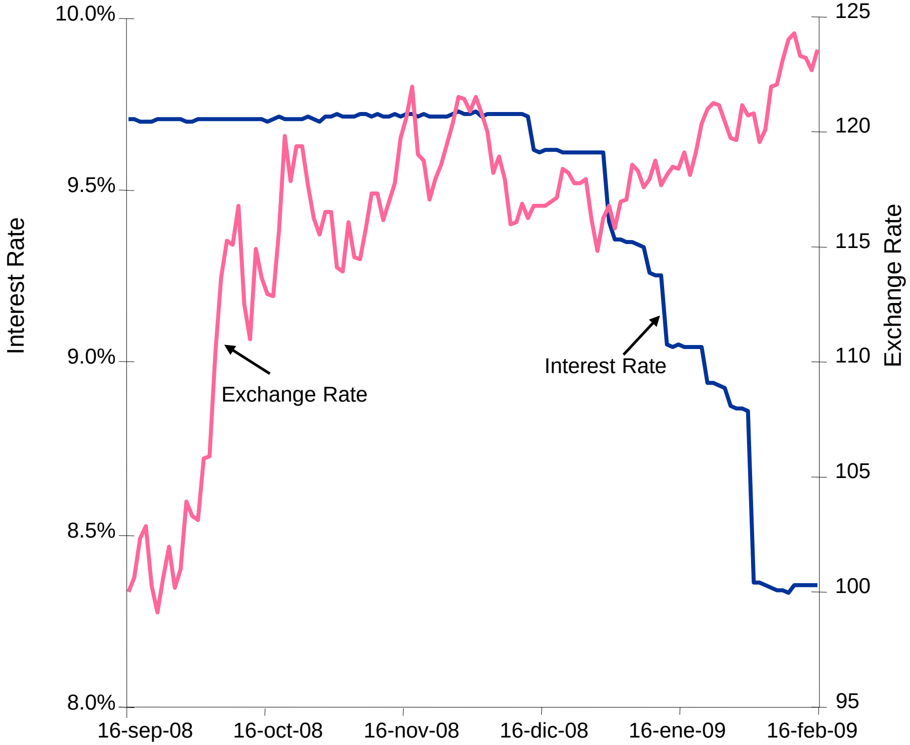


Monetary Policy in Latin America:
Russian/LTCM Crisis versus Current Crisis

Russian/LTCM Crisis
(LAC-7*, Interbank Interest Rate and Nominal Exchange Rate, in % and Jul-98=100)



Current Global Crisis
(LAC-7*, CB Reference rate and Nominal Exchange Rate, in % and Sep-15-08=100)



*Excludes Argentina and Venezuela

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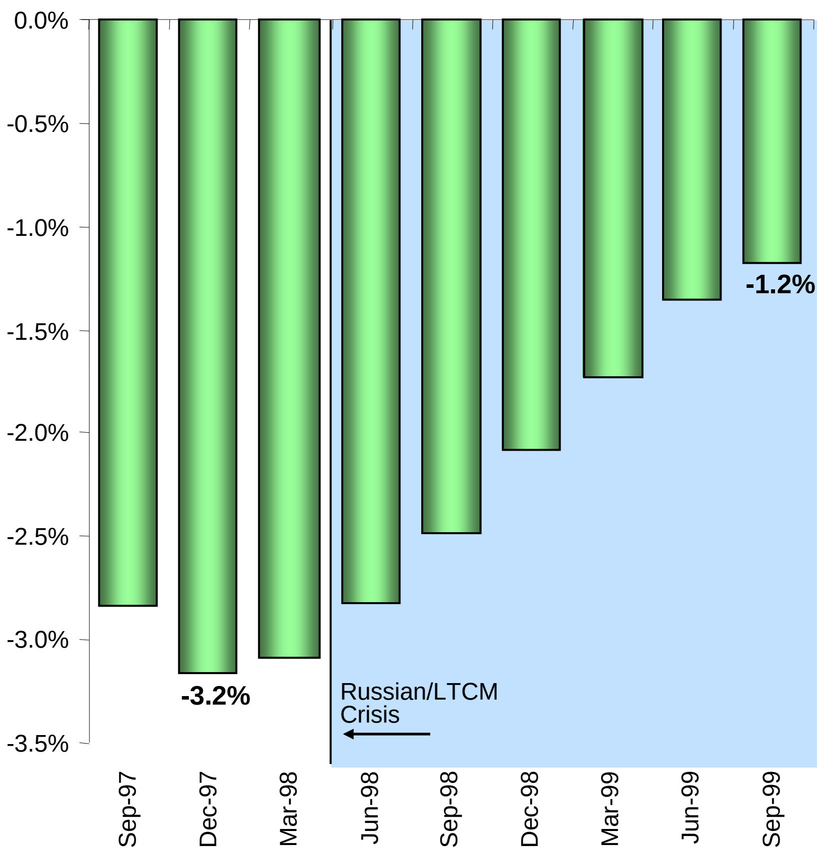
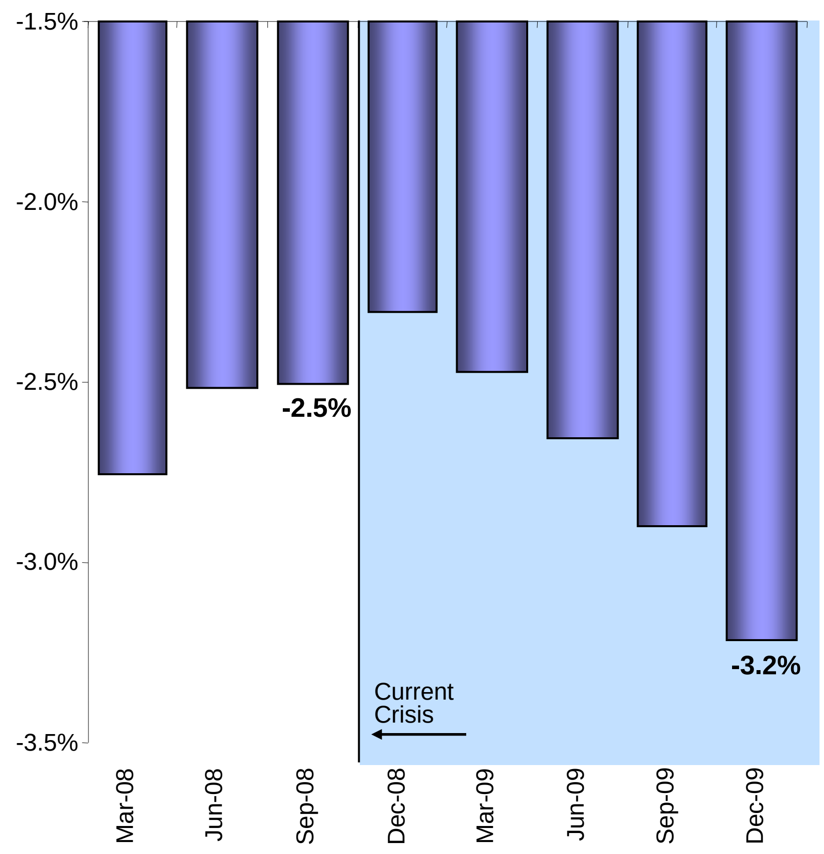
Fiscal Policy in Latin America:
Russian/LTCM Crisis versus Current Crisis

Russian/LTCM Crisis
(LAC-7, Structural Fiscal Balance, % of GDP)



Current Global Crisis
(LAC-7*, Structural Fiscal Balance, % of GDP)



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EMs RESILIENCE TO THE GLOBAL CRISIS: THE ROLE OF INTERNATIONAL LIQUIDITY

Conclusions

- **Stronger macroeconomic fundamentals in the region played a significant role in preventing financial distress at the peak of the global crisis**

- **However, the *key innovation* in this episode of global financial turbulence was the readiness of the international community to act as international lender of last resort by providing timely, unconditional, preventive, and sizeable assistance to emerging markets at the height of the financial crisis, and preventing otherwise sound economies from entering into financial distress**

- **The combination of stronger fundamentals with access to international financial support allowed countries to pursue expansionary monetary and fiscal policies -that according to empirical evidence are useful to mitigate recessionary pressures- without risking a liquidity crisis**

- **These findings have far-reaching implications for the future of EMs with sound macroeconomic fundamentals and access to ILOLR facilities**

TOWARDS A NEW FINANCIAL ARCHITECTURE FOR EMERGING MARKETS?

- At the multilateral level, <u>institutionalization and improvement of ILOLR mechanisms</u> used during the global crisis, with the following features:
  - Ex-ante eligibility
  - Speed
  - Automaticity
  - Power
- At the country level, adoption of <u>macroeconomic policy frameworks to promote stability</u> and <u>gain ex-ante access to ILOLR facilities</u>, such as:
  - Flexible Inflation Targeting regimes, that allow temporary deviations from long-term inflation targets as well as exchange rate intervention, during episodes of global financial turmoil
  - Structural fiscal rules to tame pro-cyclical behavior and target prudent levels of public debt
  - Countercyclical prudential regulation in line with the Spanish model of dynamic provisioning
- The <u>IMF and MDBs are endowed with adequate resources</u> for the task
- These features would constitute the basis for a *de facto* incentive-compatible <u>'Long-Term Stability Pact'</u> for EMs

TOWARDS A NEW FINANCIAL ARCHITECTURE FOR EMERGING MARKETS?

Implications

- **Reduction of the risk of contagion from other EM crises, for EM with sound fundamentals and access to ILOLR facilities**
- **Reduction of the probability of disruptive liquidity crises in otherwise fundamentally sound economies (so prevalent in the past)**
- **Significant improvements in long-term prospects as the incidence of disruptive liquidity crises diminishes**
- **Reallocation of world capital in favor of EM with sound fundamentals and access to ILOLR facilities**
- **Massive inflows of capital that will pose severe challenges for EM policy makers**

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