Not a Financial Crisis: Revisiting Old and New risks to Financial Stability in the Recovery

BIS–SARB Centenary Conference

Comments

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Original Sin

Eichengreen, Hausmann, Panizza (2004)

- *"Inability of a Country to Borrow Abroad in its Own Currency"*
  - "Thus, the fact that the **external debts of emerging markets are disproportionately** denominated in **foreign currency** goes a long way toward explaining why their economies are **more volatile and crisis prone** than those of their advanced-country counterparts.
  - A key challenge is thus to identify and distinguish the **channels and mechanisms** through which inability to borrow in the domestic currency creates this additional volatility.

- *Footnote:* In earlier work, Eichengreen and Hausmann (1999) used the term to refer to both the difficulty that countries experience when attempting to borrow abroad in their **own currencies** and the difficulty they face when attempting to borrow at home **at long maturities**. In subsequent work we came to conclude that the first of these two problems is particularly difficult.

Original Sin

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- *"Inability of a Country to Borrow Abroad in its Own Currency"*
  - "Thus, the fact that the **external debts of emerging markets are disproportionately** denominated in **foreign currency** goes a long way toward explaining why their economies are **more volatile and crisis prone** than those of their advanced-country counterparts.
  - A key challenge is thus to identify and distinguish the **channels and mechanisms** through which inability to borrow in the domestic currency creates this additional volatility.

Table 3.2 **Measures of original sin (OSIN) by country groupings (simple average)**

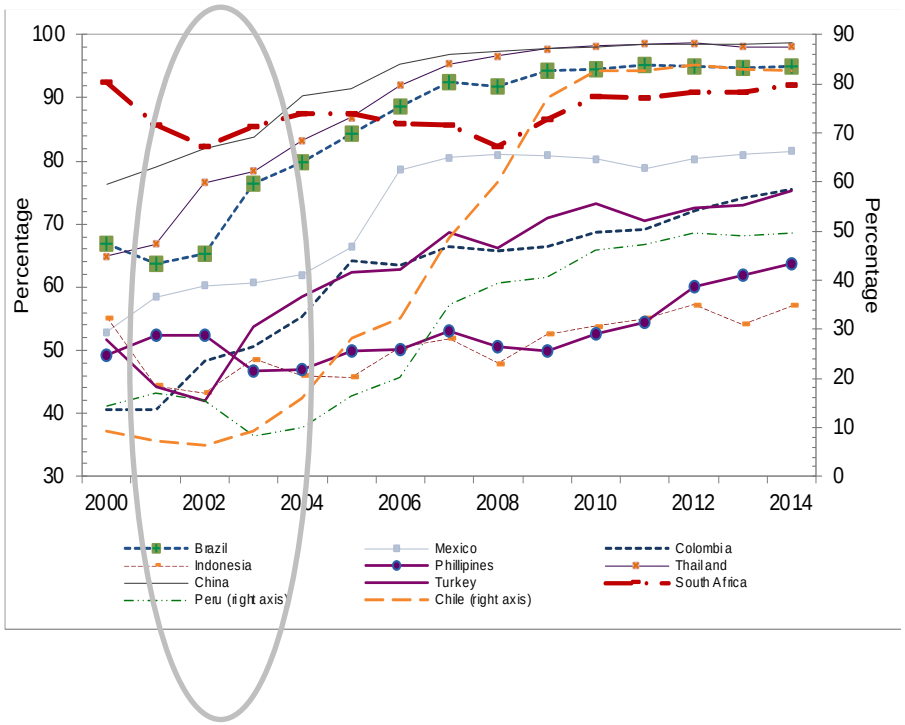
	1993–1998	1999–2001
Financial centers	0.07	0.08
Euroland	0.53	0.09[a]
Other developed	0.78	0.72
Offshore	0.96	0.87
Developing	0.96	0.93
Latin America	0.98	1.00
Middle East and Africa	0.95	0.90
Asia and Pacific	0.99	0.94
Eastern Europe	0.91	0.84

Source: Authors' calculations.

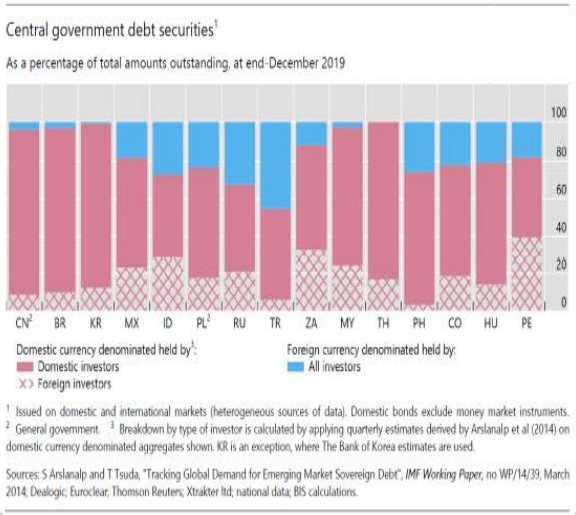
[a]In the 1999–2001 period it is impossible to allocate the debt issued by nonresidents in euros to any of the individual member countries of the currency union. Hence, the number here is not the simple average, but is calculated taking Euroland as a whole.

Redemption of Original Sin

Domestically-Denominated Debt as a Fraction of Total Government Debt (%)



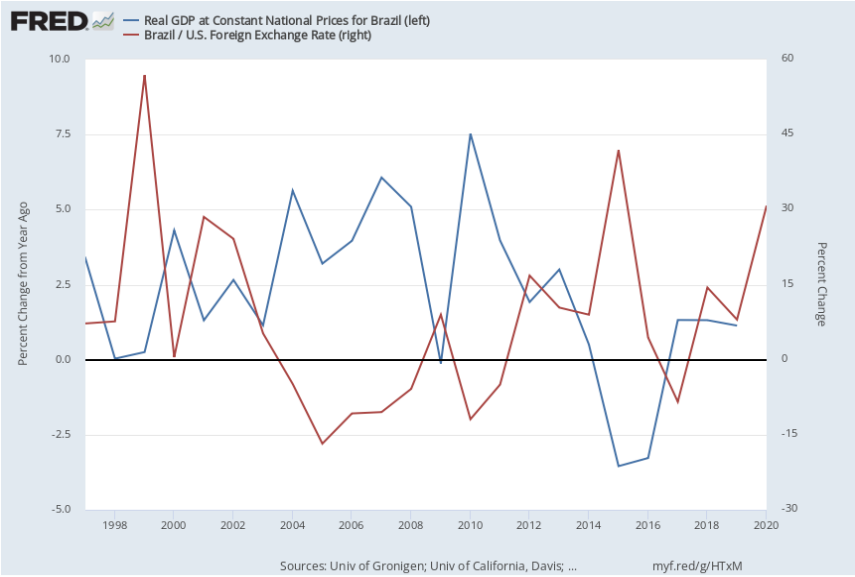
Most emerging market governments have overcome "Original Sin" to borrow from global investors in domestic currency

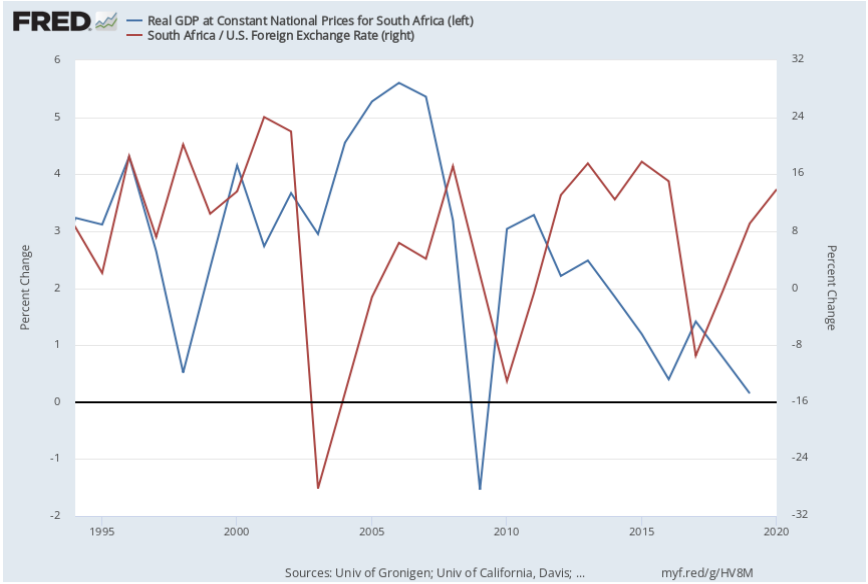


Do EMEs Gain if Foreigners Bear Exchange Rate Risk? Type of Shock, Correlation of Shocks

- **Simple case:** Consumption only in second period. $u(c^N, c^T) = E\,[\log(c^N) + \log(c^T)\,]$
- First period, no endowment; sovereign debt, D, for the second period.
  - Non tradable: $y^N = 1$ $(= c^N)$;
  - Tradable good: $y^T_G = (1 + \sigma)$ (good state); $y^T_B = (1 - \sigma)$, (bad state); prob. =½.
- **Domestic Denominated Debt, pays r.** Risk neutral investors. Default cannot be used to smooth consumption. Riskless bonds.
- Good: $c_G^T = (1 + \sigma) + \frac{D(1+r)}{e_G}$ Bad: $c_G^T = (1 - \sigma) + \frac{D(1+r)}{e_B}$
  - Differences: endowment shock and value of domestic denominated debt
- If the exchange rate appreciates in good states of nature, then the second term offsets the effect of the first term.
  - Valuation effects work as an "insurance" device by paying out more in worse states of nature: reduce volatility (Alfaro and Kanczuk, 2019, 2009).

Exchange Rate and GDP: "Rough" Correlation Brazil and South Africa





Do EMEs Gain if Foreigners Bear Exchange Rate Risk? General Equilibrium

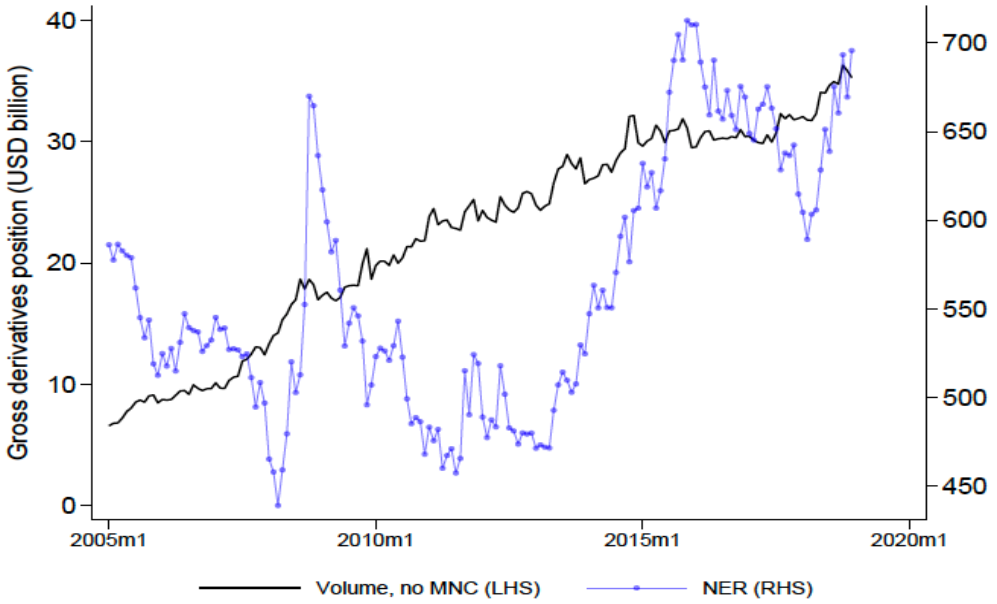
- Depends on type of shock, correlation of shocks
- "Bad luck": e.g. ↓ P commodities
  - GDP ↓
  - Debt in LC Debt; Debt in FC Debt ↑ (EXR adjustment)
    - Better if foreigners bear exchange rate risk
- But will they hold overall more debt if they hold the exchange rate risk?
  - Quantitative Issue
- More options:
  - Domestic Currency and they can still buy Foreign Currency Debt
  - "Pain Vanilla" Nominal Bonds and they can buy Indexed
  - Extended Maturity: Longer term bonds and they can still buy Short Term
  - Issue under local courts or abroad
  - Hedging

Redemption: More Policy Tools Reduce Effects of Adverse Shocks

- Debt Management: choices over currency, maturity, indexation
- Flexible Exchange Rates (Calvo-Reinhart "Fear of Floating")
- Monetary policy: Interest Policy!
    - Inflation Targeting (CGFS paper 66, BIS (2021) Box 4A)
- Deepening of financial markets in EMEs
    - Some Corporate-Original-Sin Redemption: Abraham, Cortina, Schmukler (2019)
    - Financial hedging: Last decade has seen impressive growth in size and scope, 60% (2016-2019), BIS (2019); Alfaro, Calani, Varela (2020).

Currency Hedging: Cash Flow Management
Alfaro, Calani, Varela (2021)

Fig: FX Derivative Position and Exchange rate (peso to US dollars)



- Rich detailed firm-level data (2005-2018) for Chile linking: combined via Tax IDs.
  - 1. Foreign currency (FX) derivatives (transaction-data)
  - 2. Foreign and local currency debt (registry, census data)
  - 3. Custom's international trade (operation level, currency); trade credits
  - 4. Employment/sales;
- Focus on Firms: Comprehensive firms' joint decision on trade, financing and hedging Policy reform pension fund regulation: role of financial intermediaries in affecting forward exchange rate markets

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- Macroprudential (Graph 4.1, 50% effective; fostering shift away from bank flows, THFC, search for yield; Alfaro et al. (2020).
- Capital Controls (Not used as in models, Acosta, Alfaro, Fernandez, (2020); limit development financial markets; BIS (2021) survey: not viewed as effective as in models).

But: Double Whammy
Exchange Rate Risk and Duration Risk

- Are EME better if Foreigners bear exchange rate risk?
  - Depends on type of shock, correlation of shocks
  - General Equilibrium

- Concerns willingness to pay ("Debt Intolerance")
  - Does it matter who bears the exchange rate risk?
    - Probably still better to "sin" in colones …
  - But won't hedge "institutional capacity"

A New Shock: Heterogeneity
Fiscal Space to Institutional Capacity

Box Table 2.1. General Government Fiscal Balance and Gross Debt, 2018–21

	Overall Fiscal Balance						Gross Debt			
				Current Projections		Difference from April 2021 WEO Projections				Current Projections
	2018	2019	2020	2021	2020	2021	2018	2019	2020	2021
World	**-3.0**	**-3.7**	**-10.3**	**-8.8**	**0.5**	**0.5**	**82.3**	**83.7**	**98.7**	**98.8**
Group of Twenty (G20)	**-3.6**	**-4.3**	**-11.3**	**-9.7**	**0.5**	**0.6**	**89.7**	**91.5**	**108.4**	**108.7**
Advanced Economies	**-2.5**	**-3.0**	**-10.9**	**-9.9**	**0.8**	**0.4**	**102.5**	**103.7**	**122.8**	**122.5**
Advanced G20	-3.1	-3.6	-11.8	-11.0	0.8	0.6	**111.2**	**112.7**	**133.9**	**133.5**
United States[1,3]	-5.4	-5.7	-14.7	-13.3	1.1	1.8	106.6	108.2	133.6	134.5
Euro Area	-0.5	-0.6	-7.2	-7.9	0.4	-1.2	85.8	84.0	98.0	100.1
Germany	1.8	1.5	-4.5	-7.2	-0.3	-1.8	61.8	59.7	69.7	73.0
France	-2.3	-3.1	-9.2	-9.3	0.7	-2.1	98.0	97.6	115.1	117.2
Italy	-2.2	-1.6	-9.5	-11.1	0.0	-2.3	134.4	134.6	155.8	157.8
Spain[2]	-2.5	-2.9	-11.0	-8.6	0.5	0.4	97.4	95.5	120.0	120.1
Japan	-2.7	-3.1	-10.7	-9.2	1.9	0.2	232.5	235.5	254.6	256.5
United Kingdom	-2.2	-2.3	-13.5	-11.7	0.0	0.0	85.8	85.2	103.7	107.0
Canada[3]	0.3	0.5	-10.9	-7.4	-0.2	0.4	88.8	86.8	117.8	111.0
Australia[4]	-1.3	-4.4	-9.6	-8.7	0.3	1.7	41.7	46.6	58.1	62.6
Korea	2.6	0.4	-2.2	-2.9	0.6	0.0	40.0	42.1	47.9	51.8
Emerging Market Economies	**-3.8**	**-4.7**	**-9.7**	**-7.1**	**0.1**	**0.5**	**52.5**	**54.8**	**64.0**	**65.1**
Excluding MENAP Oil Producers	-3.9	-4.9	-9.8	-7.3	0.1	0.6	54.3	56.3	66.0	67.6
Emerging G20	-4.3	-5.4	-10.3	-7.5	0.1	0.8	**53.3**	**55.9**	**65.4**	**67.2**
Asia	-4.5	-5.9	-10.8	-8.5	0.1	0.8	54.4	57.3	67.3	71.0
China	-4.7	-6.3	-11.2	-8.3	0.2	1.3	53.8	57.1	66.3	70.3
India	-6.3	-7.4	-12.8	-11.3	-0.5	-1.3	70.2	73.9	89.4	90.1
Indonesia	-1.8	-2.2	-5.9	-6.2	0.0	0.0	30.4	30.6	36.6	41.9
Europe	0.3	-0.7	-5.6	-3.7	0.3	-0.2	29.7	29.2	37.9	37.5
Russia	2.9	1.9	-4.0	-1.1	0.1	-0.3	13.6	13.8	19.3	18.0
Turkey	-3.8	-5.6	-5.3	-5.9	0.1	-0.2	30.2	32.6	39.5	40.2
Latin America	-5.1	-4.1	-8.8	-5.3	0.0	0.4	67.5	68.4	78.3	73.5
Brazil[5]	-7.1	-5.9	-13.4	-6.3	0.0	2.0	85.6	87.7	98.9	91.8
Mexico	-2.2	-2.3	-4.5	-3.3	0.1	0.1	53.6	53.3	61.0	59.9
MENAP	-2.7	-3.9	-9.7	-5.7	0.2	0.0	44.1	49.0	54.9	50.7
Saudi Arabia	-5.9	-4.5	-11.3	-3.5	-0.2	0.3	19.0	22.8	32.5	30.0
South Africa	-4.1	-5.3	-12.0	-9.2	0.2	1.3	56.7	62.2	77.1	77.5
Low-Income Developing Countries	**-3.4**	**-3.8**	**-5.5**	**-5.2**	**0.0**	**-0.3**	**42.7**	**44.2**	**49.0**	**48.5**
Nigeria	-4.3	-4.7	-5.8	-5.5	0.1	-1.2	27.7	29.2	35.0	32.9
Oil Producers	**0.0**	**-0.5**	**-8.3**	**-4.5**	**0.0**	**-0.2**	**44.1**	**45.5**	**57.9**	**54.7**
Memorandum										
World Output (percent)	**3.6**	**2.8**	**-3.2**	**6.0**	**0.1**	**0.0**				

Source: IMF staff estimates and projections.

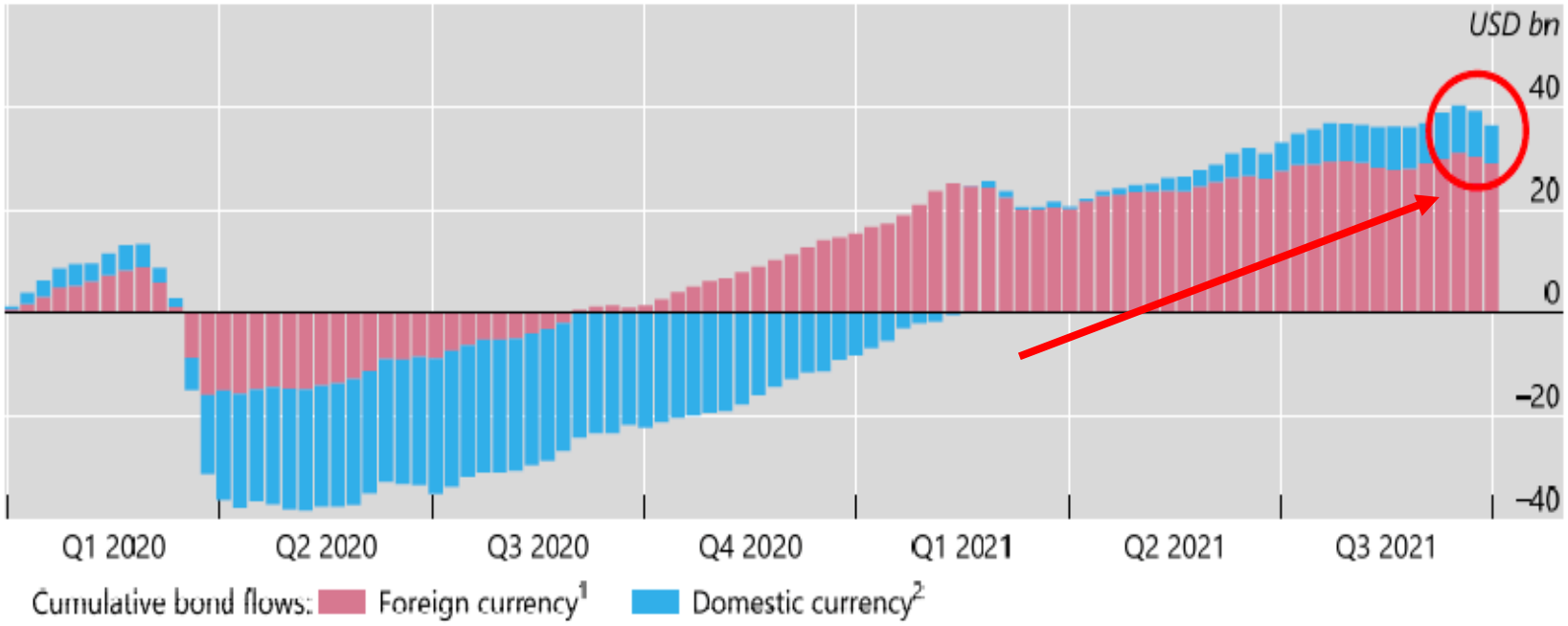
2021

- **Ecuador**: February 7, April 11 presidential runoff
- **El Salvador**: February 28
- **Chile**: *May 15–16—local elections and constitutional delegates, June 13 gubernatorial runoff; November 21—general election, December 19 presidential runoff
- **Peru**: April 11, June 6 presidential runoff
- **Mexico**: June 6
- **Argentina**: September 12 primaries, November 14 general election
- **Paraguay**: October 10
- **Nicaragua**: November 7
- **Honduras**: November 2

2022

- **Costa Rica** general election 6 February and 3 April 2022
- **Colombian** presidential election 29 May 2022
- **Brazilian** general election 2 October 2022
- **United States** elections 8 November 2022

A New Hope?



[1] Flows to foreign currency and blend bond funds. [2] Flows to local currency bond funds.
Sources: EPFR; BIS calculations.

Thanks