

NOTES ON A GLOBAL BLITZ SUDDEN STOP

Guillermo Calvo

April 29, 2020



“Are you talking about the new normal of an hour ago, or is there a new new normal right now?”

**HOWEVER, THERE ARE IMPORTANT
PARALELLS WITH PREVIOUS CRISES**

CASTING LIGHT ON CURRENT SITUATION
which I label Global Blitz Sudden Stop

GLOBAL BLITZ SUDDEN STOPS ARE SEVERE SYSTEMIC SUDDEN STOPS
THAT OCCUR IN THE BLINK OF AN EYE GENERATING FINANCIAL AND
REAL PANDEMONIUM!

- **Global Blitz Sudden Stops, GBSS**, generate, mostly, **Flight to US Official Obligations (Flight to Quality)** because the **USD is the dominant global unit of account** and the USD global price level is expected to be stable. (This relates to the ***Price Theory of Money***).
- **Flight to Quality triggers Sudden Stops in the rest of the global economy**, especially in weak Emerging Market economies, EMs.
- **The global redirection of flows is, on the whole, assymetric and favorable to Advanced Markets.**

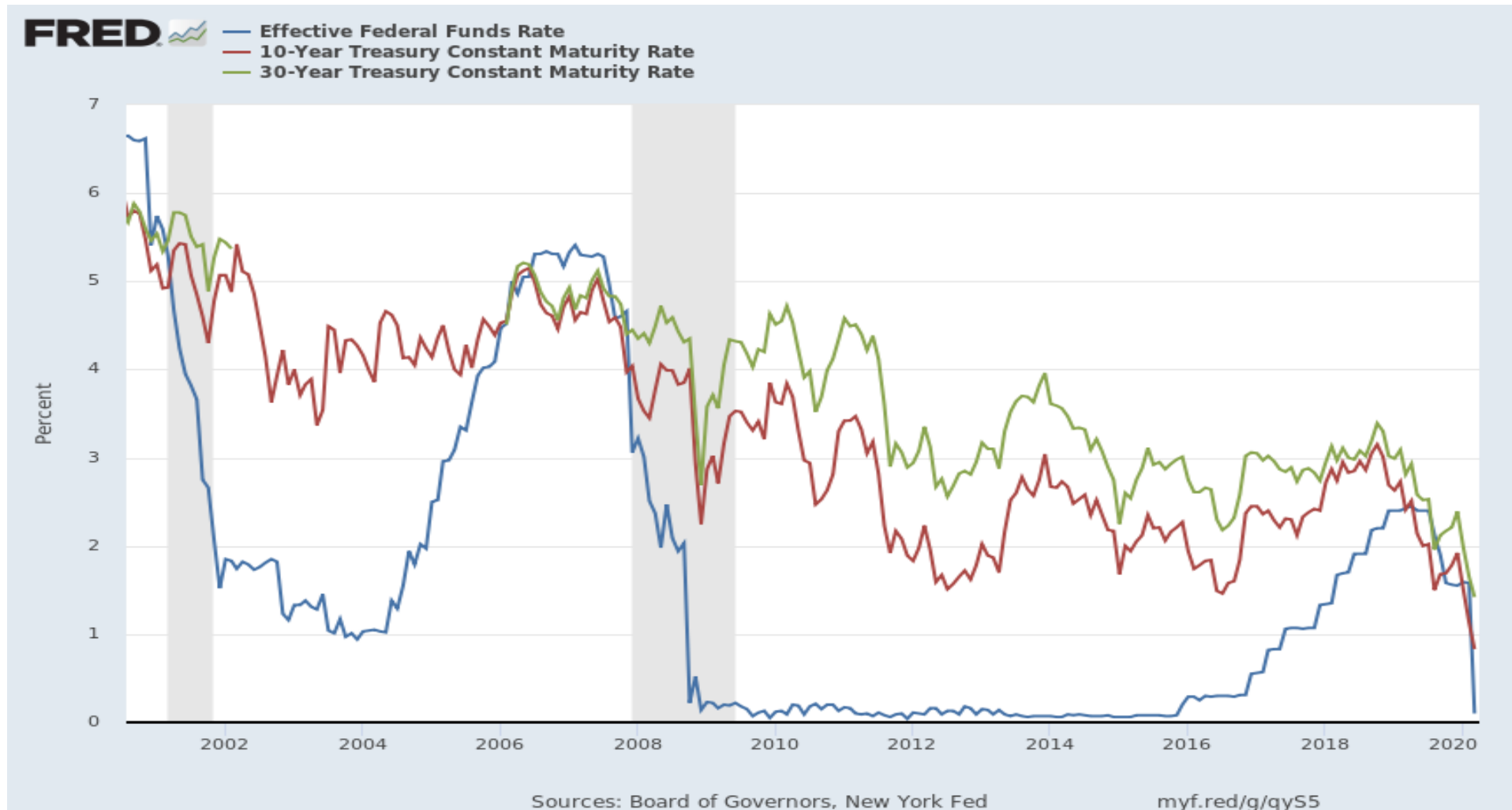
FLIGHT TO QUALITY

Two Sides of the Same Coin!

- **STRONGER CURRENCIES IN ADVANCED MARKETS**
 - **Deflation, Fisher's Debt Deflation/
Domestic-Debt Ballooning**
- **WEAKER CURRENCIES IN EMERGING MARKETS**
 - **Systemic Sudden Stop, Inflation**

FLIGHT TO QUALITY

Federal Funds and Treasuries

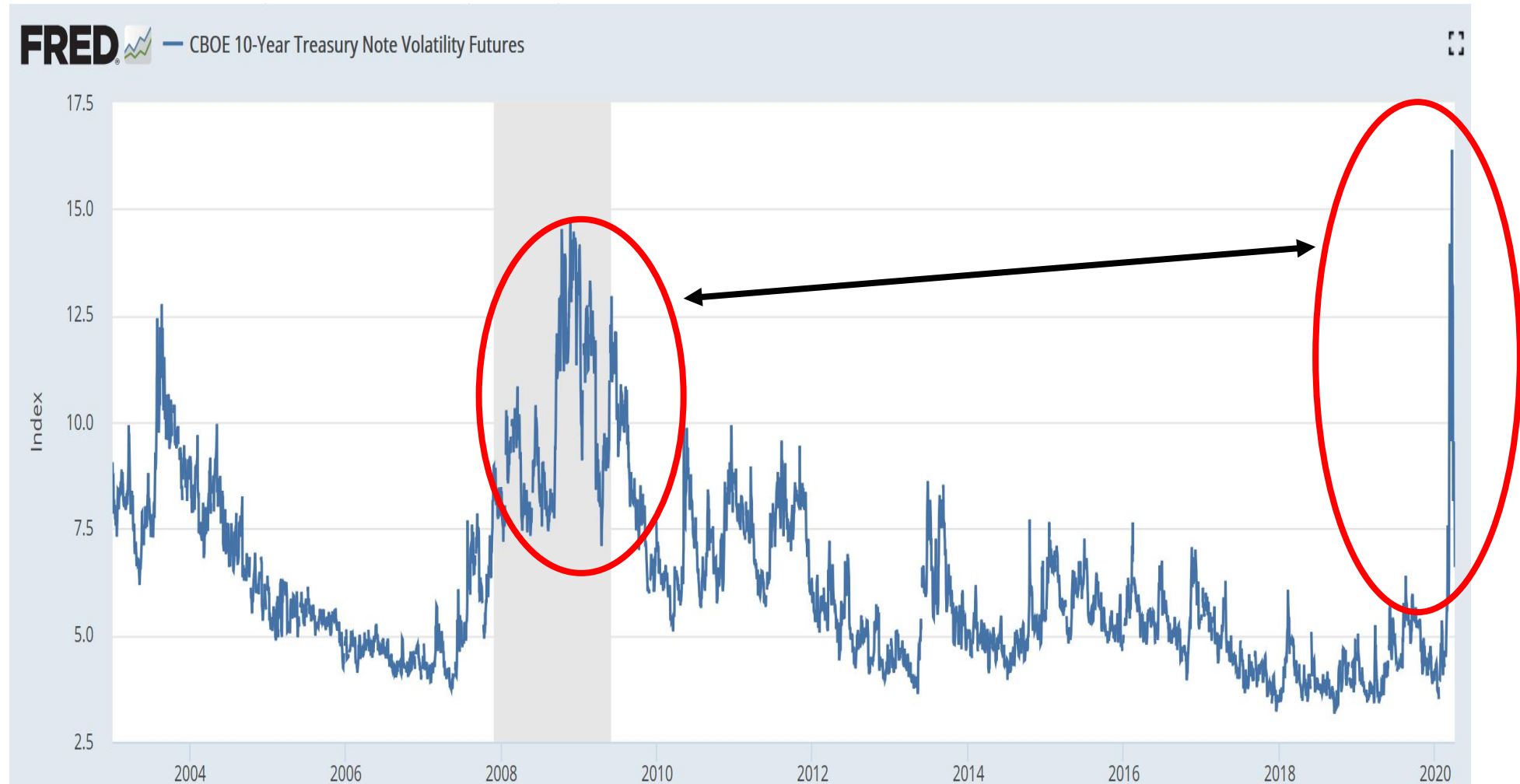


PANDEMONIUM IN US TREASURIES

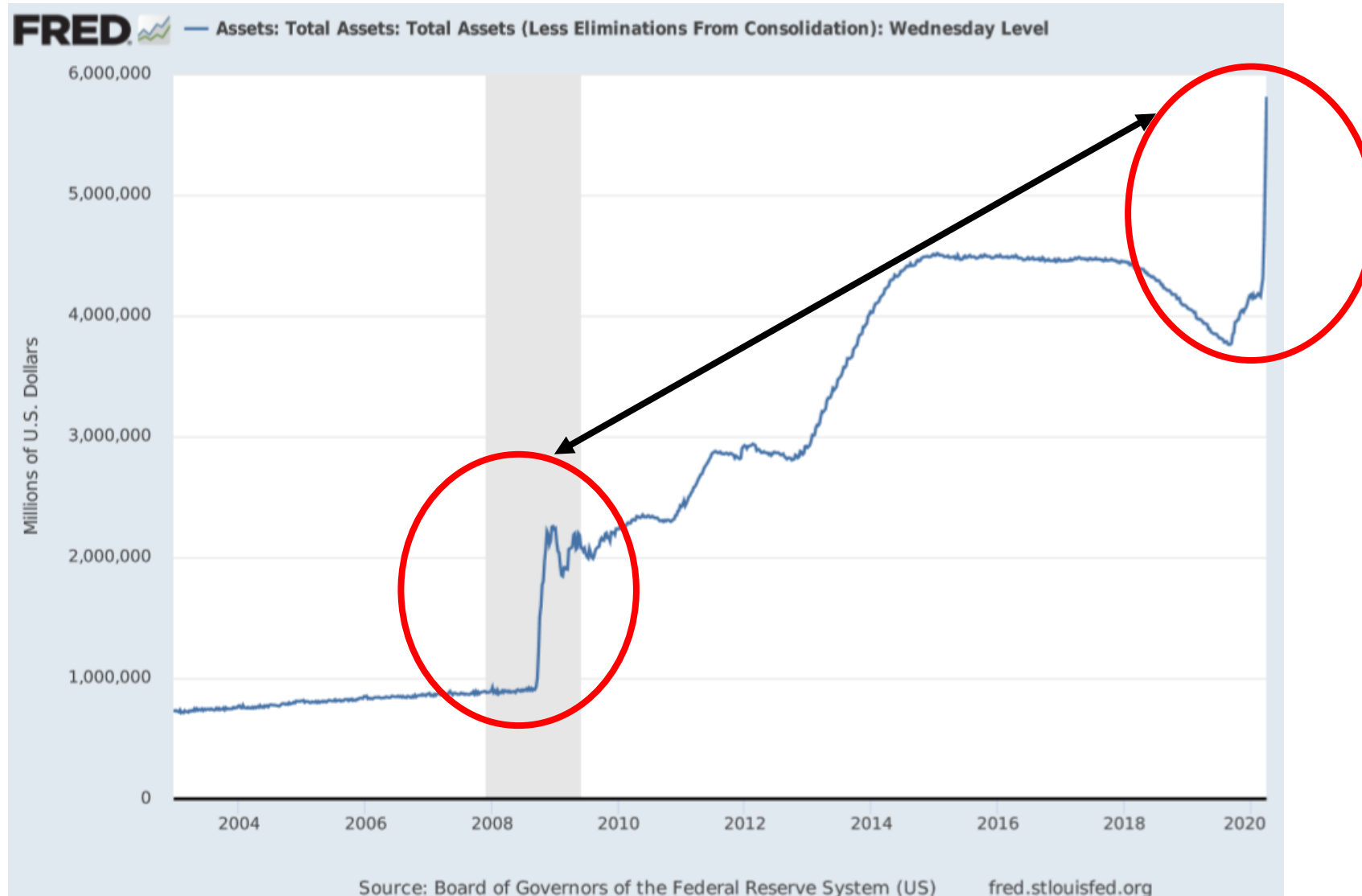
- **As GBSS hits, US real monetary balances and prices hardly react and, thus, Flight to Quality swerves towards US Treasury Obligations,**
- **At the same time, however, EMs hit by Sudden Stop, sell international reserves, mostly US Treasuries.**
- **This generated price volatility and lowered Treasuries' liquidity.**
- **Triggering the intervention of the Fed, which in Lehman's and the present cases amounted to a large infusion of base money (Mo).**

PANDEMONIUM IN US TREASURIES

Volatility of 10-Year Treasury Notes



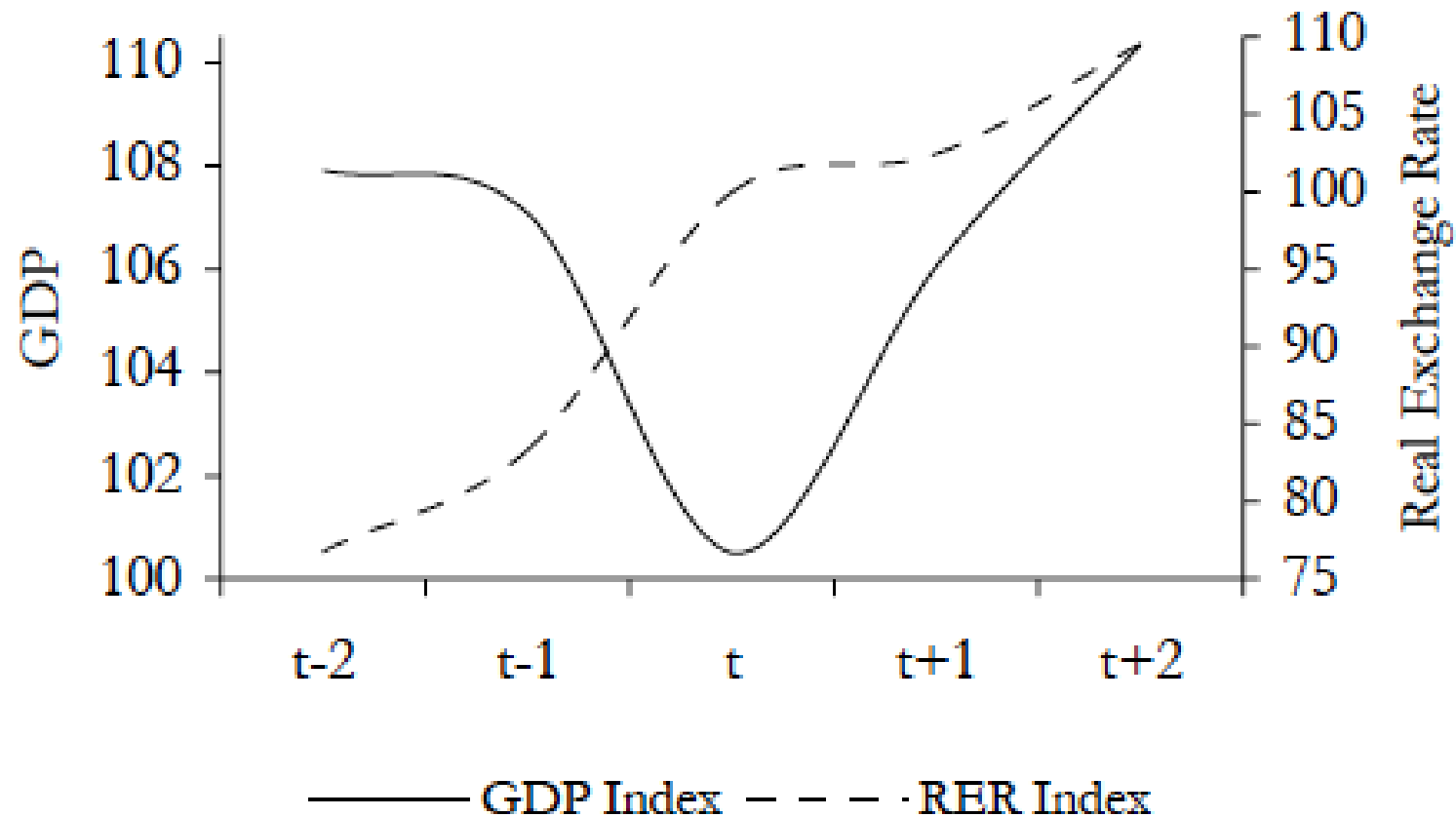
FEDERAL RESERVE: TOTAL ASSETS



EMERGING MARKETS

FLIGHT TO QUALITY

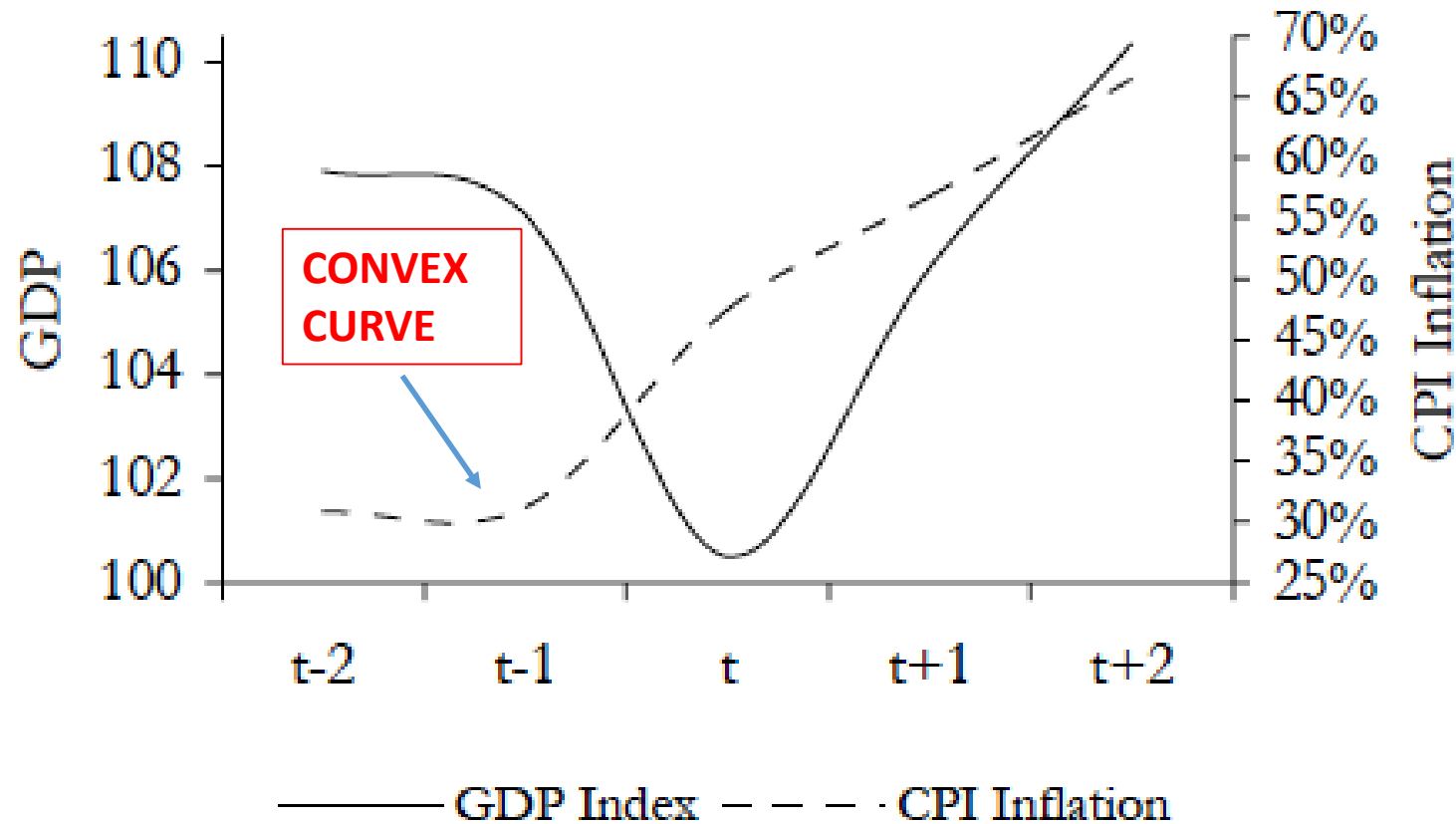
EM Systemic Sudden Stop and Real Devaluation



Source: G. Calvo, A. Izquierdo, E. Talvi, "Phoenix Miracles in Emerging Markets: Recovering without Credit from Systemic Financial Crises," NBER WP 12101, March 2006

FLIGHT TO QUALITY

EM Systemic Sudden Stop and Inflation

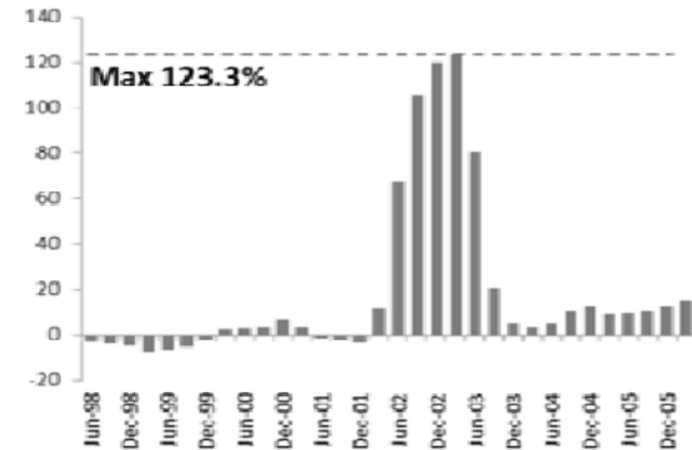
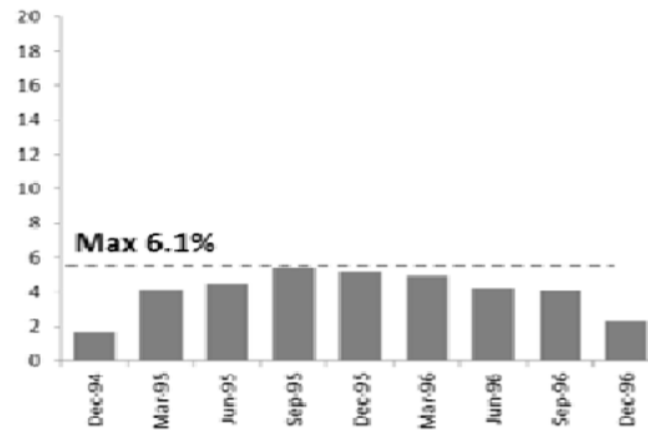


Source: G. Calvo, A. Izquierdo, E. Talvi, "Phoenix Miracles in Emerging Markets: Recovering without Credit from Systemic Financial Crises," NBER WP 12101, March 2006

ARGENTINA: Inflation and Real Wage

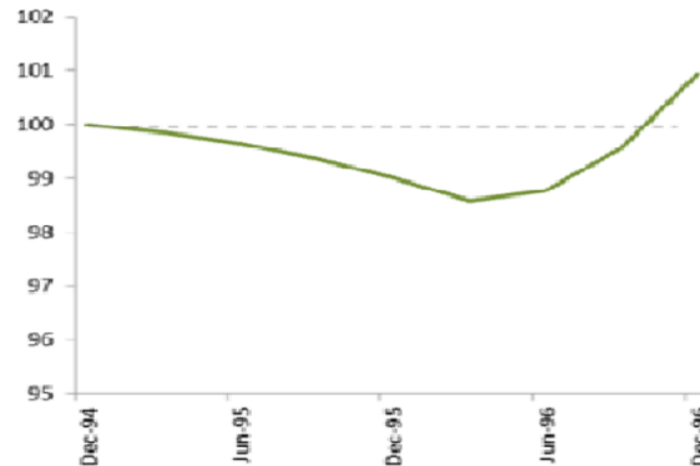
c) Inflation

(PPI, % change)



d) Real Wage

(Peak = 100)



LESSONS AND CAVEATS

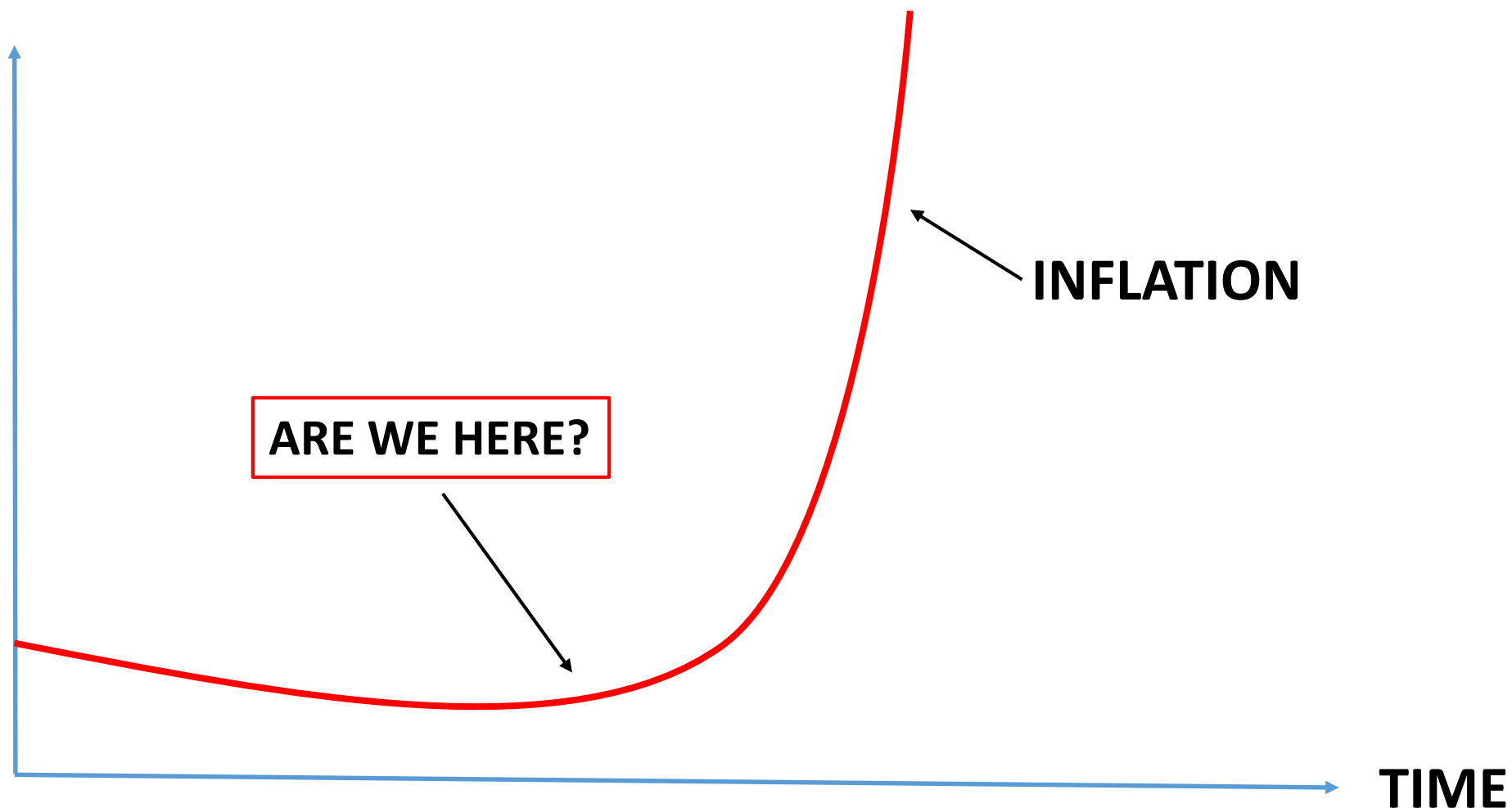
- **Inflation spikes** associated with Sudden Stops in previous episodes **did not give rise to high inflation.**
- Moreover, **inflation helped to recover full employment by means of real depreciation and lower real wages.**
- However, covid-19 fiscal constraints, and Convex Inflation Curve may induce Helicopter Money and more pronounced Monetary Complacency. (More on this below)

RISKS OF FEAR OF FLOATING

CAPITAL FLIGHT & BOP CRISIS

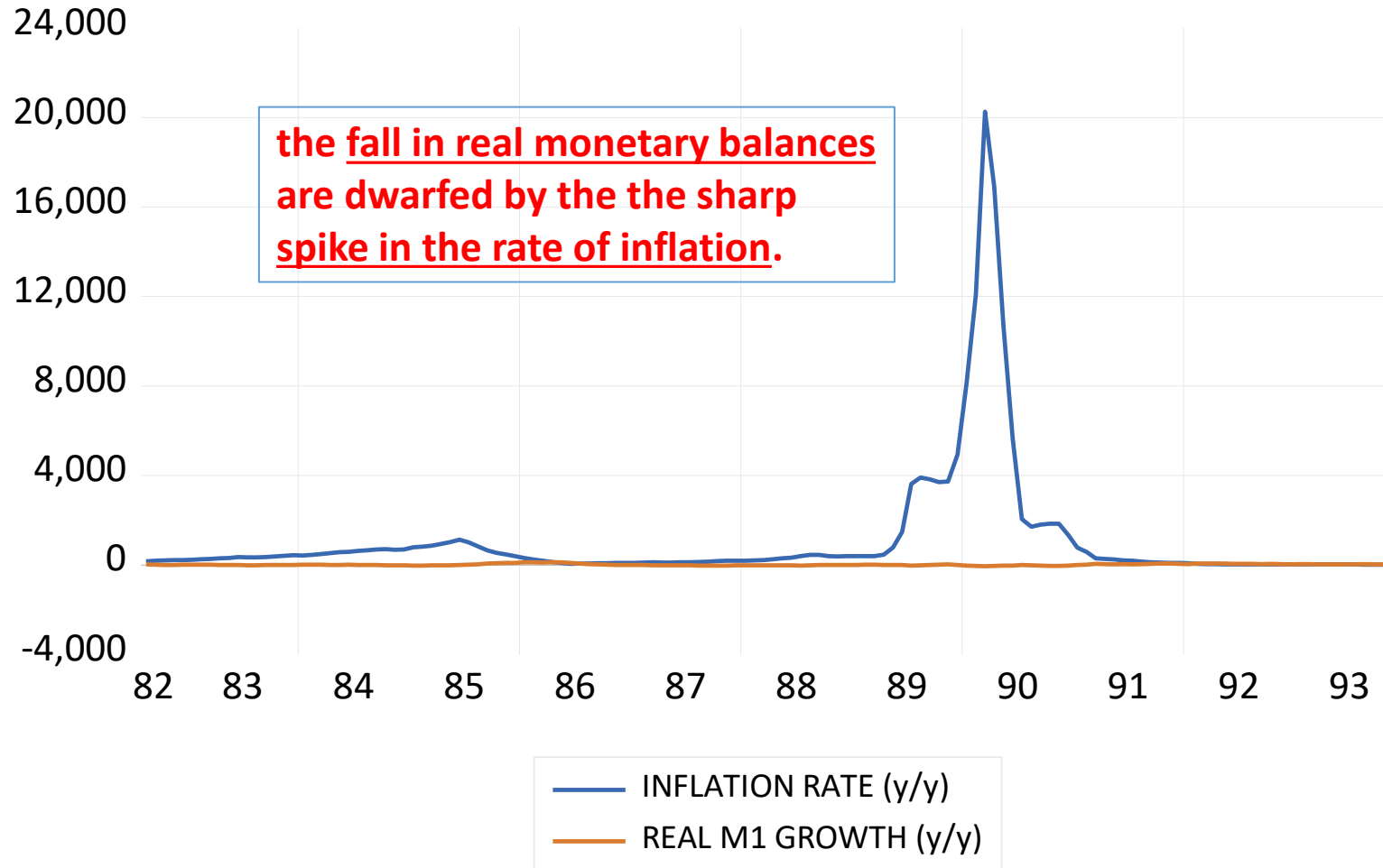
HYPERINFLATION

INFLATION TRAP 1: THE CONVEX CURVE !!



INFLATION TRAP 2: Interest-Bearing Money

ARGENTINA: 1989 'Primavera' Hyperinflation

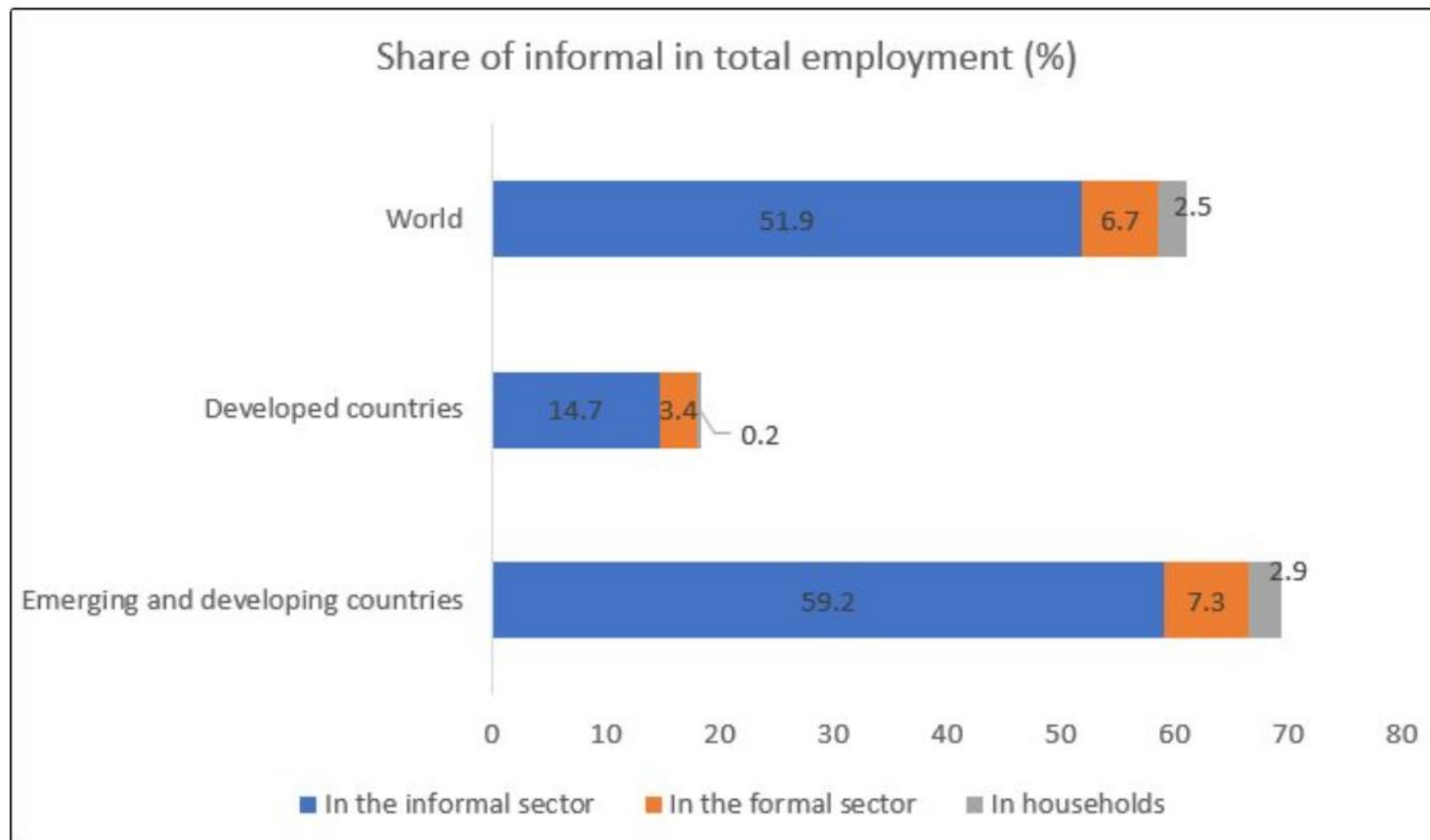


Source: BCRA, monthly observations

LOCKDOWN AND FISCAL POLICY IN EMs

- Massive unemployment and sharp income redistribution against informal sector, especially, **wage earners and SMEs.**
- In the short run, Central Bank finance is the primary option.
 - **Without fiscal space, this may give rise to**
 - **Controls on Capital Outflows,**
 - **Debt Default or**
 - **Interest-Bearing Money → Hyperinflation.**

Figure 1: Informal workers form the bulk of total employment across the world



Source for all figures: *Women and Men in the Informal Economy: A Statistical Picture*, Geneva: ILO, 2018.

EMERGING MARKETS' BALANCING ACT

In general, EMs have small conventional fiscal space. Thus,

- Seigniorage is a convenient and possibly efficient instrument,
 - but it runs the risk of causing hyperinflation. **Beware of Inflation Traps!**
- Fiscal policy will involve controversial income redistribution
- Seigniorage + Fiscal: (1) inflation spike that lowers real official obligations **plus** (2) transfers to the informal sector.
 - Warning: **trade unions may throw a wrench in the works!**

INFLATION TARGETING

- After the initial shakeups, it will be very important to keep inflationary expectations under control.
- EMs will likely keep depending on seigniorage. Thus, falling into a **severe Inflation Trap could be devastating.**
- **It may destroy the domestic payment system**, interfering with, e.g.,
 - Firms' working capital
 - Domestic transfers to the informal sector that are likely to persist
- **IT need not be rigid but it has to be able to send a credible message about the target inflation rates** that the central bank and the rest of government are seriously committed to achieve.

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COMPLEMENTARY MATERIAL

BLITZ SUDDEN STOPS: Examples

These are cases in which SS happen in a blink of an eye, and can paralyze the payments grid. Hard to anticipate by policymakers!

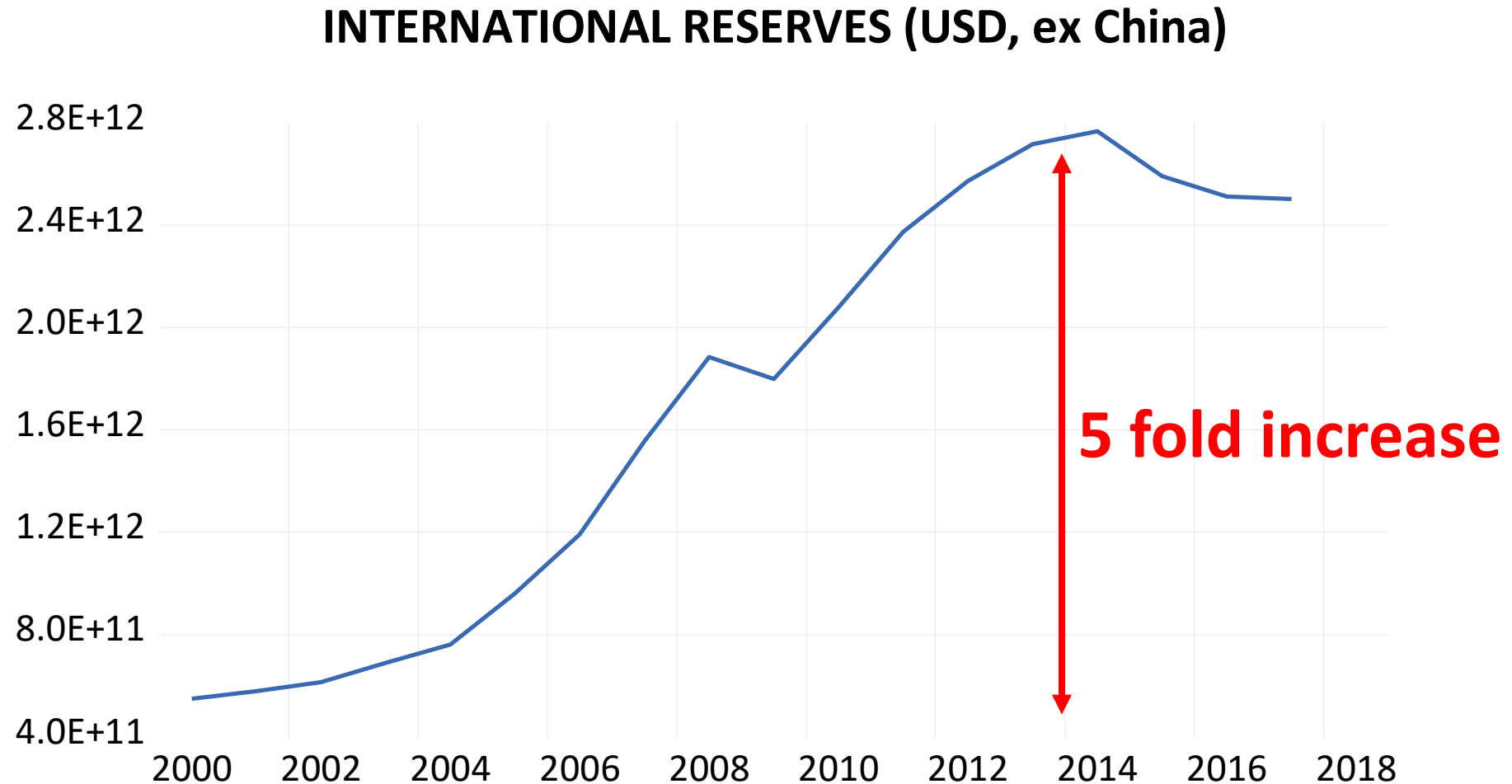
- Repo interest rate spike in September 2019. [See hyperlink.](#)
- High volatility of T-Notes during Flight to Quality ([see hyperlink](#)), which prompted sizable Fed Currency Swaps, etc.
- Liquidity crunch on mortgage originators while they wait for Freddie Mac *et al* guarantees. [See hyperlink.](#)
- Liquidity crunch on recently US unemployed who do not have health insurance coverage until their unemployment is certified. [See hyperlink.](#)
- Long lines of retirees in Argentina are formed to get cash from banks because many retirees are cyber-averse, and informal outlets do not accept credit/debit cards. [See hyperlink.](#)

CURRENT ACCOUNT IN EMs (% GDP) 1998/2019

Country Group Name	Subject Descriptor	Units	Scale	Series-specific Notes	1998
Emerging and developing Asia	Current account balance	Percent of GDP			2.711
Emerging and developing Europe	Current account balance	Percent of GDP			-2.278
Latin America and the Caribbean	Current account balance	Percent of GDP			-4.026
Middle East and North Africa	Current account balance	Percent of GDP			-3.476
Sub-Saharan Africa	Current account balance	Percent of GDP			-3.021

Country Group Name	Subject Descriptor	Units	Scale	Series-specific Notes	2019
Emerging and developing Asia	Current account balance	Percent of GDP			-0.080
Emerging and developing Europe	Current account balance	Percent of GDP			-0.925
Latin America and the Caribbean	Current account balance	Percent of GDP			-1.947
Middle East and North Africa	Current account balance	Percent of GDP			-0.534
Sub-Saharan Africa	Current account balance	Percent of GDP			-3.694

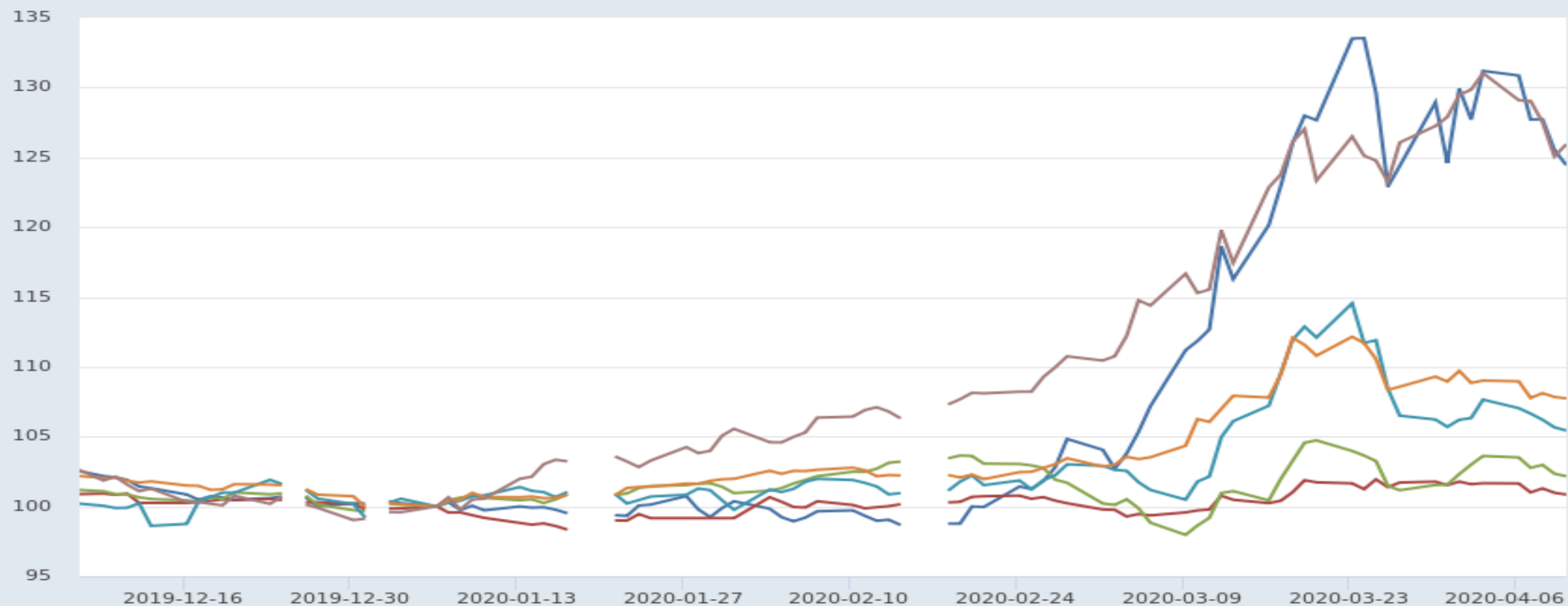
INTERNATIONAL RESERVES (excluding China)



Source: World Bank and FRED. Countries: Australia, Brazil, Canada, Eurozone, India, Korea, Mexico, Poland, Saudi-Arabia, Turkey.



- (Mexico / U.S. Foreign Exchange Rate), 2020-01-06=100
- (China / U.S. Foreign Exchange Rate), 2020-01-06=100
- (1/U.S. / Euro Foreign Exchange Rate), 2020-01-06=100
- (1/U.S. / U.K. Foreign Exchange Rate), 2020-01-06=100
- (Canada / U.S. Foreign Exchange Rate), 2020-01-06=100
- (Brazil / U.S. Foreign Exchange Rate), 2020-01-06=100



Source: Board of Governors of the Federal Reserve System (US)

myf.red/g/qlol

SELF-INFLICTED HYPERINFLATION

Interest-Bearing Money

$$\text{FISCAL DEFICIT} + \text{INTEREST ON MONEY} = g + sm \quad (1)$$

$$\text{SEIGNIORAGE} = \pi m = \pi e^{-\gamma(\pi-s)} \quad (2)$$

AT STEADY STATE: (1) = (2)

m =real monetary balances
 s =interest rate on money
 g =fiscal deficit
 π =rate of inflation

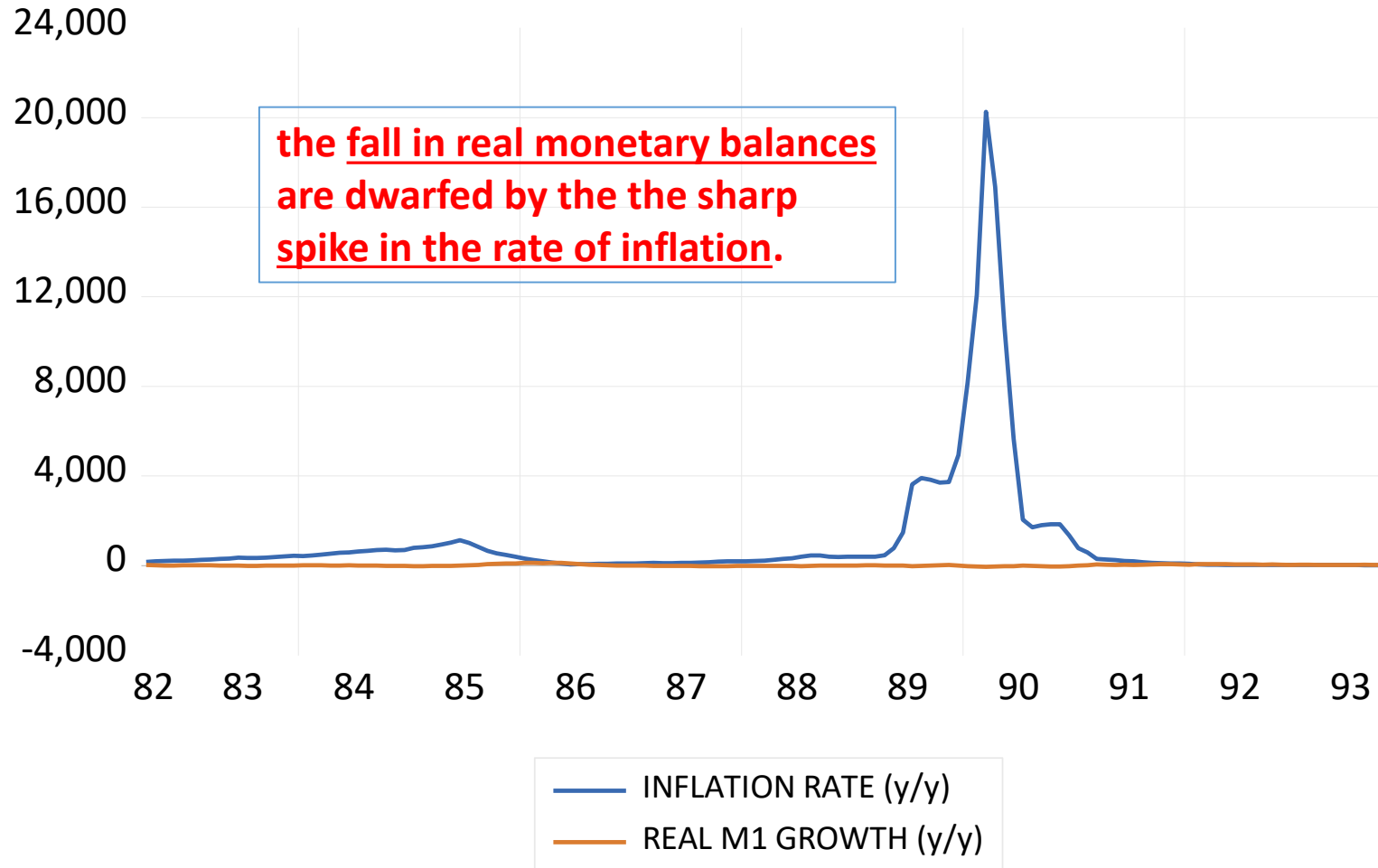
$$g = (\pi - s)e^{-\gamma(\pi-s)} \quad (3)$$

SUPPOSE THAT $\alpha = \pi - s$, solves equation (3),
 and $s = \theta\pi$, $0 < \theta < 1$, then $\alpha = \pi(1 - \theta)$, and

$\pi = \alpha / (1 - \theta) \rightarrow \infty$, as $\theta \rightarrow 1$
 but $m = e^{-\gamma\alpha}$ is **CONSTANT!!**

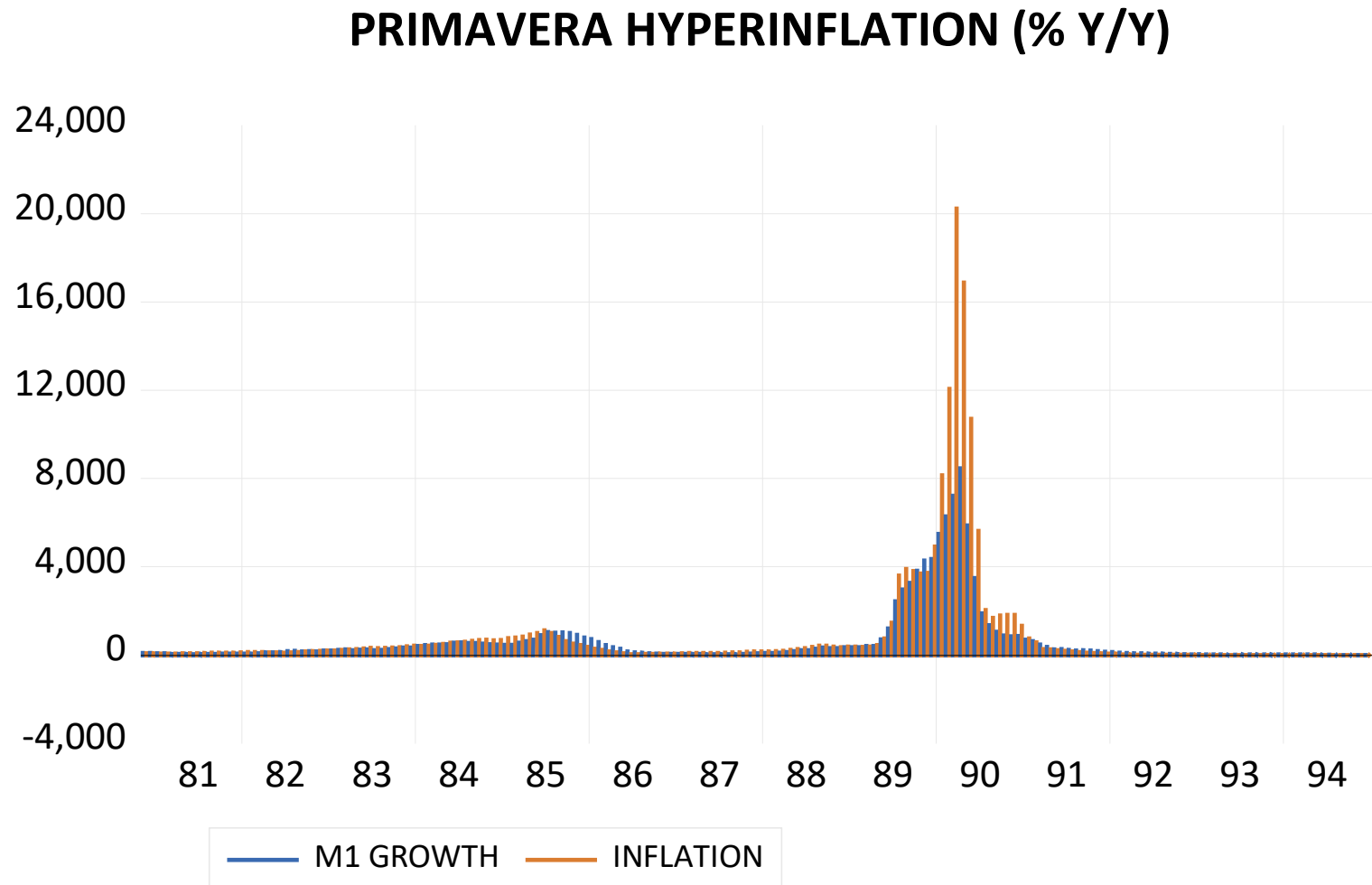
INFLATION TRAP 2: Interest-Bearing Money

ARGENTINA: 1989 'Primavera' Hyperinflation



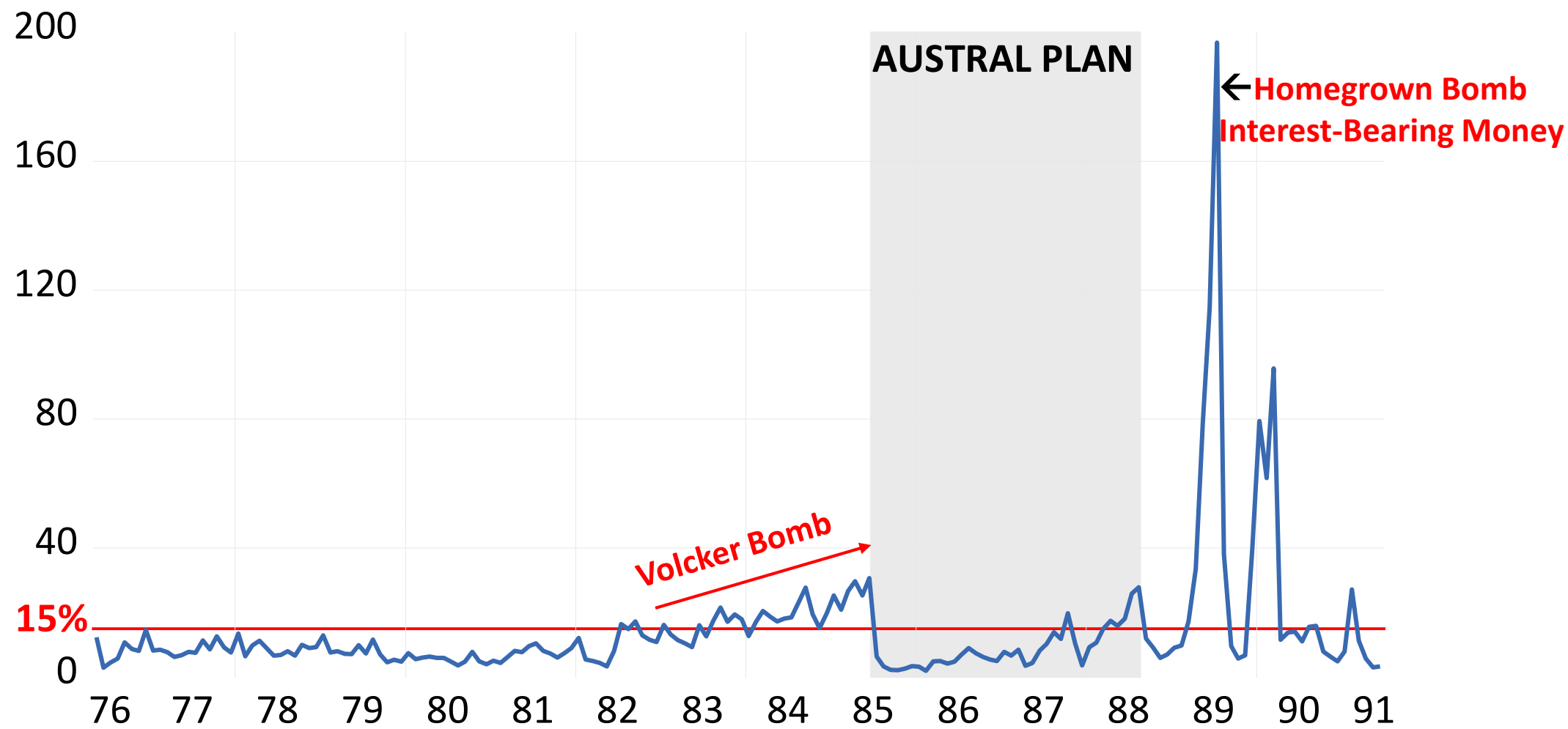
Source: BCRA, monthly observations

ARGENTINA: 1989 Hyperinflation



Source: BCRA, monthly observations

ARGENTINA HYPERINFLATION (m/m %)



Source: BCRA

CONCLUSIONS

- Interest-bearing money can help to protect money holders from high inflation,
- But it might generate hyperinflation.
- Inflation, per se, may not carry much cost under perfect foresight.
- However, if the demand for real monetary balances, m , or price setting are subject to random shocks—not only $\pi \rightarrow \infty$, but, in addition, $\text{var } \pi \rightarrow \infty$, which interferes with the effectiveness of the *payments system*, even under a clockwork labor market.