



FROM COUNTRY RISK, TO VOLATILITY, TURMOIL AND DEBT CRISIS

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EXTERNAL DEBT ANALYSIS

5 Objectives:

1. Examining the robustness of debt-driven **growth** and the sources of **vulnerability**
2. Tackling the **structure** of the external liabilities
3. Assessing debt servicing **sustainability** , i.e., **liquidity & solvency** prospects
4. Identifying **warning indicators** of upcoming debt crisis?
5. Analyzing **debt restructuring** workouts

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WHAT WILL BE THE TRIGGERS OF A DEBT CRISIS?

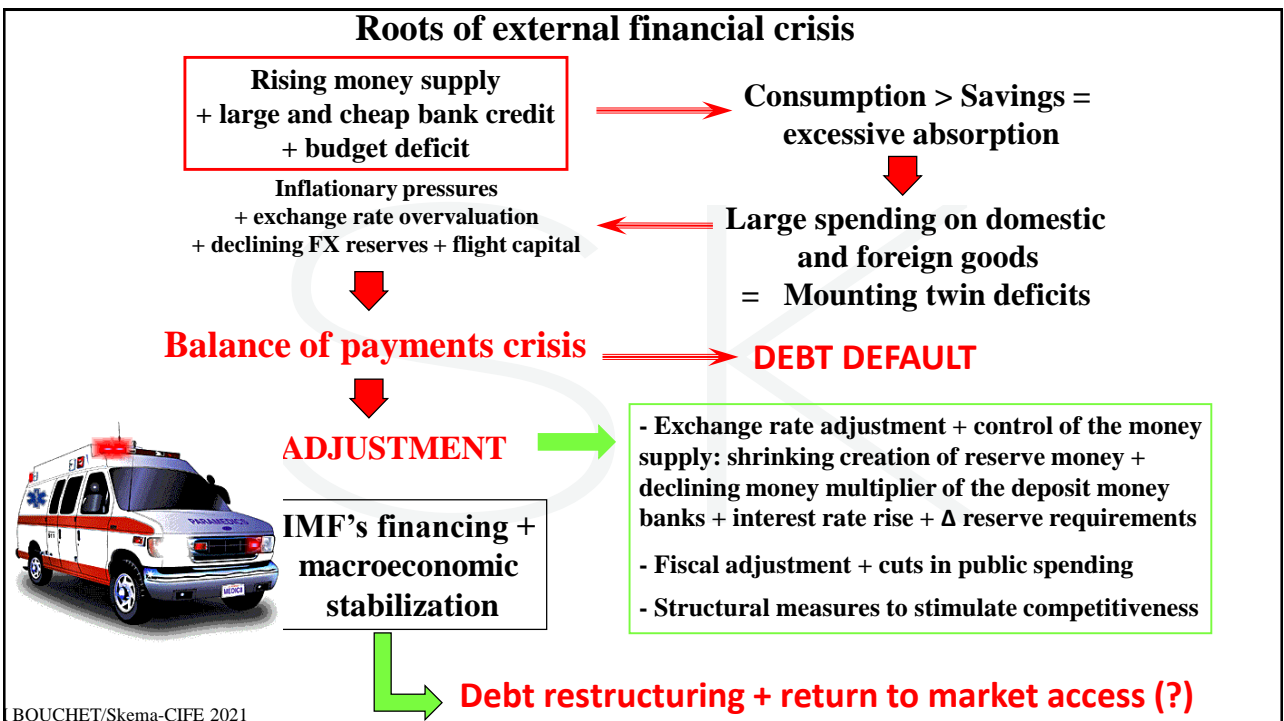
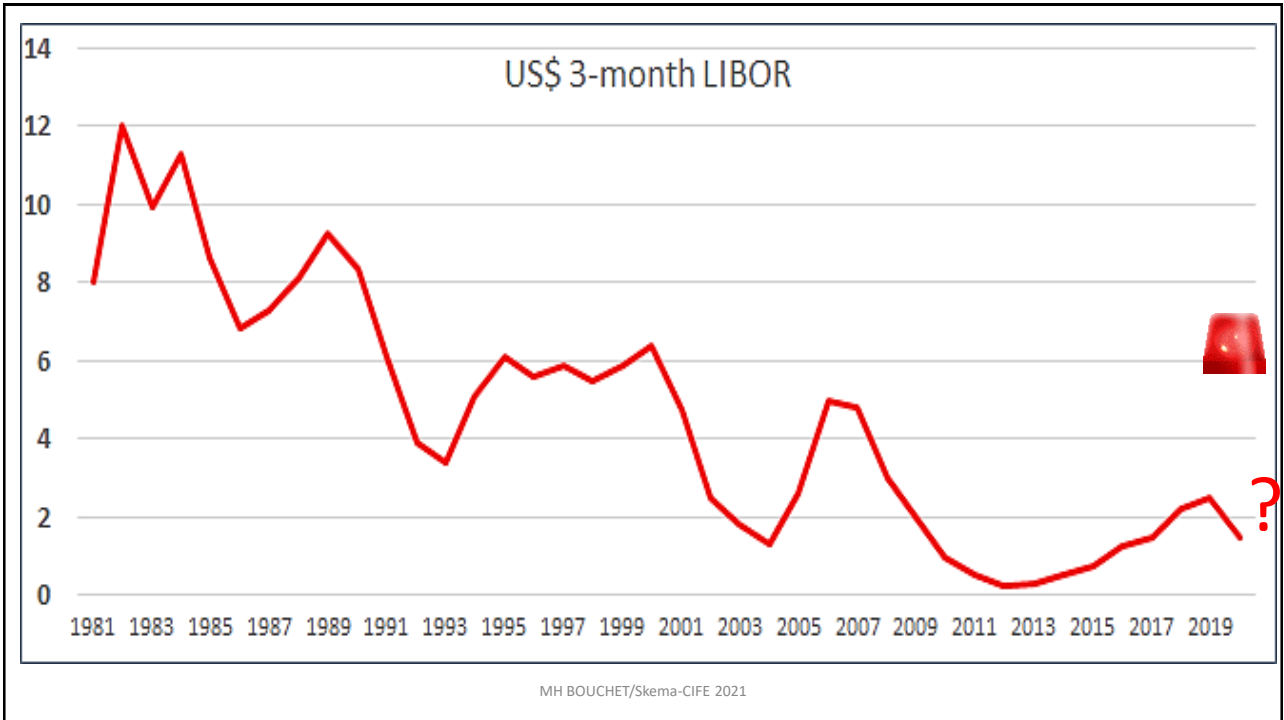
► Home-made

- Inflation
- Drop in savings
- Exchange rate overvaluation
- Current account deficits
- Drop in GDP
- Loss in export competitiveness
- Currency mismatch
- Banking crisis
- Drop in reserve assets

► Exogenous shocks

- Global recession
- Terms of trade
- Rating agency downgrading
- Regional contamination
- Higher interest rates
- Stronger \$/€
- Drop in commodity prices

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WHY/WHEN DOES A FINANCIAL CRISIS ERUPT? GROSS AND NET FLOWS

▶ **Gross Capital Inflows** =

Σ Long-term + Short-term capital flows

▶ **Net Flows** =

Σ Gross Inflows - Debt Repayments

▶ **Net Transfers** =

Σ Net Flows - Interest Payments

▶ **Total debt service payments** =

Σ Debt payments + Interest payments

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TWO COUNTRIES = TWO DEBT TRAJECTORIES

Solvenca

Public Debt/GDP= 100%

- ▶ Diversified export base
 - ▶ Diversified markets
 - ▶ Mainly official creditors
 - ▶ Long-term maturities= 12 years
 - ▶ Fixed rate for 80% of debt
 - ▶ Similar currency structure X revenues/liabilities
- = no mismatch!

Liquidia

Public Debt/GDP= 100%

- ▶ Main export: hydrocarbons
- ▶ One main export destination: EU
- ▶ X revenues in €/debt payments in \$
- ▶ Average debt maturity: 3 years
- ▶ 66% of debt on floating rates
- ▶ Large and growing private debt (corporate, bank and households)
- ▶ Large reliance on private capital markets

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LIQUIDITY AND SOLVENCY THRESHOLDS

Flow variable

► **Liquidity** = Debt Service ratio < 33% of X Interest/X ratio < 25%

Stock variable

► **Solvency** = Debt/GDP < 66%*

Debt/Exports < 150%

Reserves/months of Imports > 6 months

* average debt crisis threshold 1970-2010 Reinhart/Rogoff (Maastricht)

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**Hello CIFE Master
Students! HELP!**

	2016	2017
Foreign Direct Investment	375	100
Imports of Goods	-4650	-5250
Long-term capital inflows	1225	1300
Portfolio Investment (net)	200	150
Reserve variation		
Short-term capital payments	-465	-1200
Private unrequited transfers	125	100
Net Errors and omissions	-275	-950
Official unrequited transfers	300	125
Long-term capital payments	-985	-1200
Short-term capital inflows	325	1000
Service Income (net)	625	500
Current account balance		
Trade balance	900	-1100
Interest Payments	-1750	-1855
Exports of Goods		

Note: Country GDP: 15000 (end-2017)

Official Reserve Assets (end-2015): 5500

External Debt Stock (end-2015) 17000

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Good Job!
Now calculate the DSR and the Reserve ratios!

	2016	2017
Exports of Goods	5550	4150
Imports of Goods	-4650	-5250
Trade balance	900	-1100
Service Income (net)	625	500
Interest Payments	-1750	-1855
Official unrequited transfers	300	125
Private unrequited transfers	125	100
Current account	200	-2230
Portfolio Investment (net)	200	150
Foreign Direct Investment	375	100
Long-term capital inflows	1225	1300
Long-term capital payments	-985	-1200
Short-term capital inflows	325	1000
Short-term capital payments	-465	-1200
Net Errors and omissions	-275	-950
Reserve variation	-600	3030
	0	0

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Very good job!

	2017
DSR (P+I) / XGS	92%
Liquidity Int/Exports of GS	40%
SOLVENCY	113%
Reserves 2016	6100
Reserves 2017	3070
Gross inflows	1050
Net inflows	-1350
Net transfers	-3205
R/M in months	7,02
Trade Ratio end-2017	66%
DSR end-2017	92%
Current account/GDP end-2017	-15%
Reserve level end-2017	3070
Reserve ratio	7
Average rate	-11%
External debt 2017	17000

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SOURCES OF EXTERNAL FINANCING

Official (bilateral + multilateral)

- Paris Club (government to government credits)
- Export insurance credit
- IFIs
- RDBs
- Debt cancellation

Private

- FDI
- Portfolio Investment
- London Club (International bank loans)
- Working capital lines
- ST Trade credits
- Bonds & International debt securities
- Arrears and rescheduling

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FX RESERVES AS BUFFER OF LIQUIDITY CRISIS

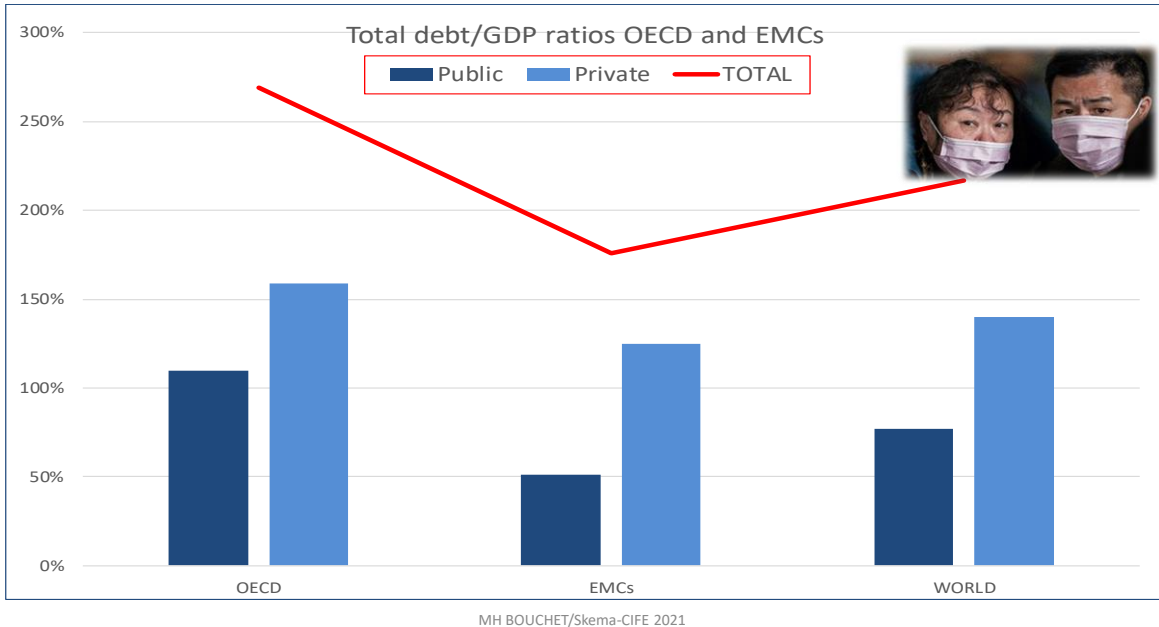
	FX Reserves as % of short term debt	FX reserves as % of GDP
India	427%	15%
China	399%	27%
Mexico	334%	16%
Korea	330%	26%
Taiwan	277%	82%
Switzerland	63%	96%
Japan	45%	23%
Canada	13%	5%
Italy	5%	2%
UK	2%	4%
Germany	2%	1%
France	2%	2%

Reserves and GDP for 2016, short-term debt as of 2016Q3

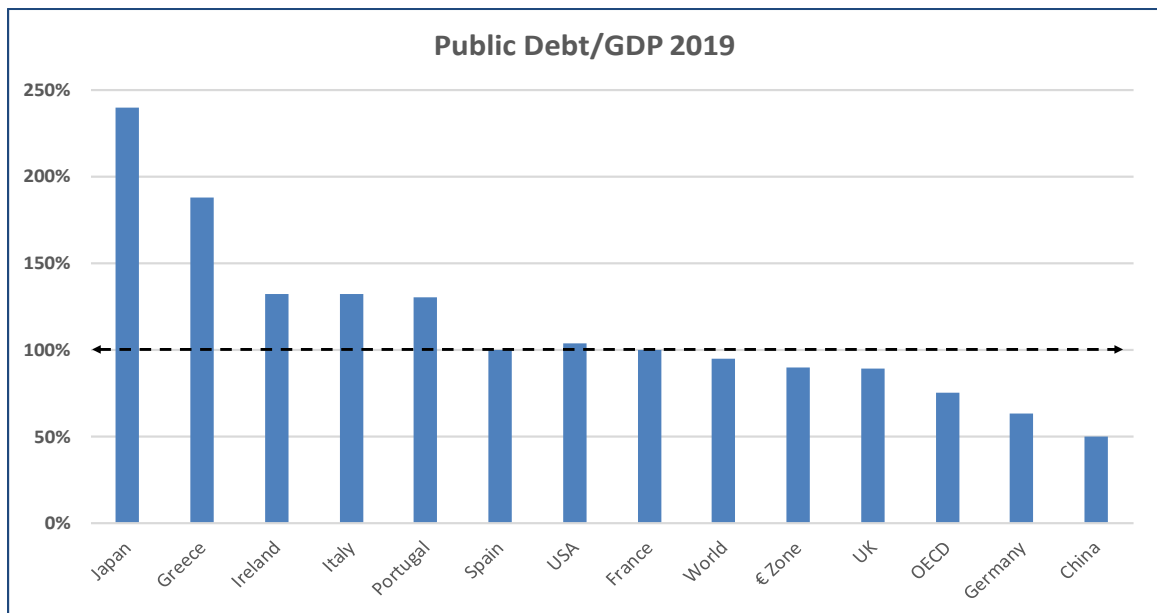
Sources: National Authorities; World Bank; International Monetary Fund; Haver Analytics

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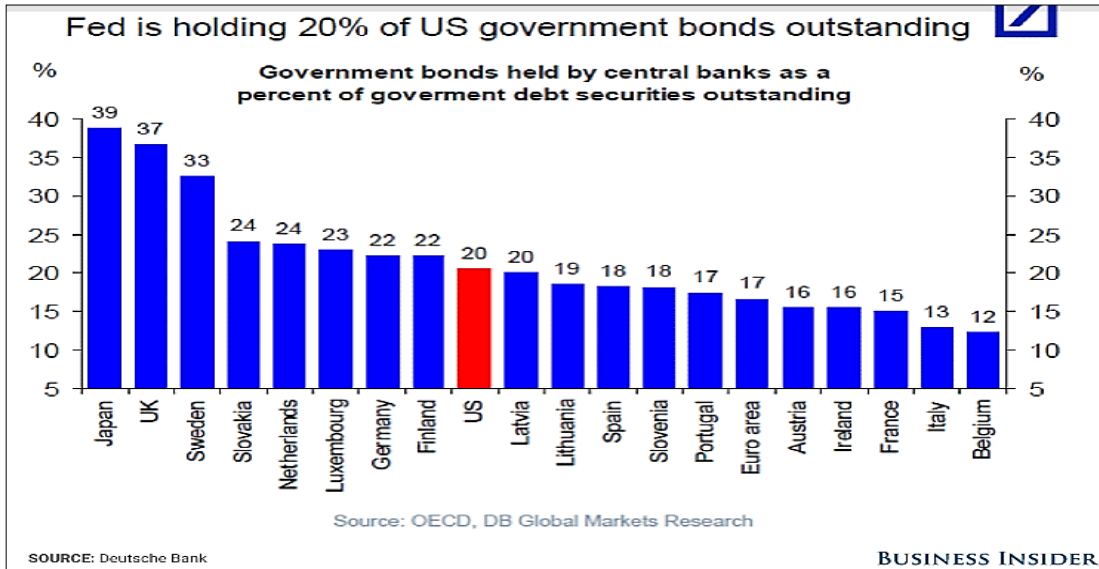
WORLD INDEBTEDNESS IN 2021



THE PUBLIC DEBT OVERHANG ON THE EVE OF THE 2020 GREAT LOCKDOWN

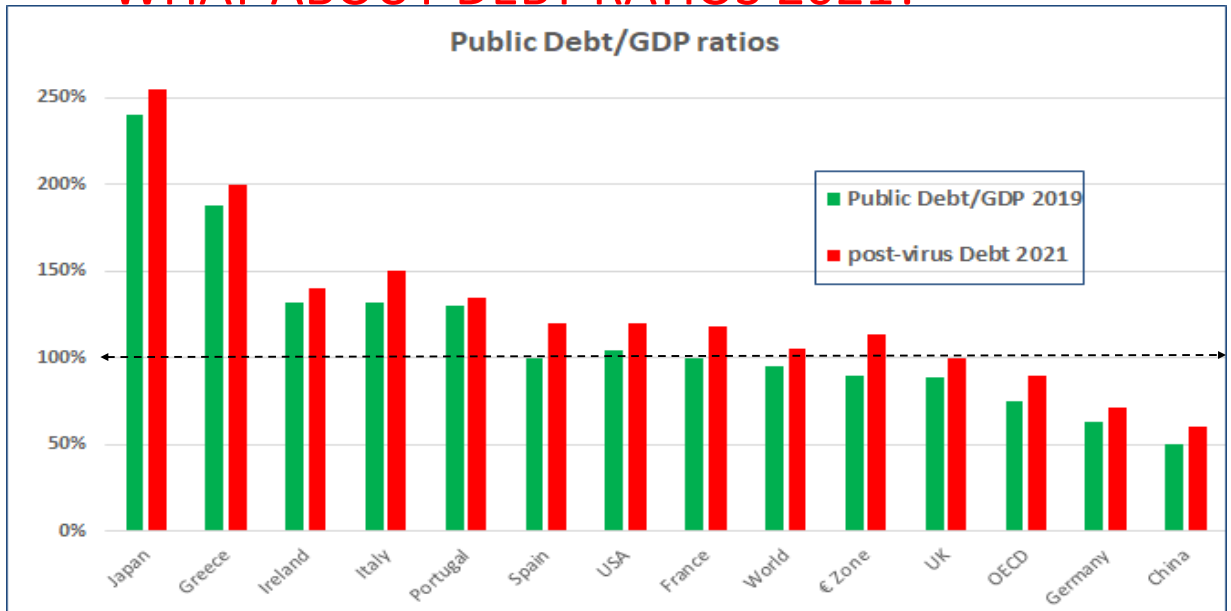


CENTRAL BANKS' ACCOMODATIVE MONETARY POLICY AND SOVEREIGN DEBT



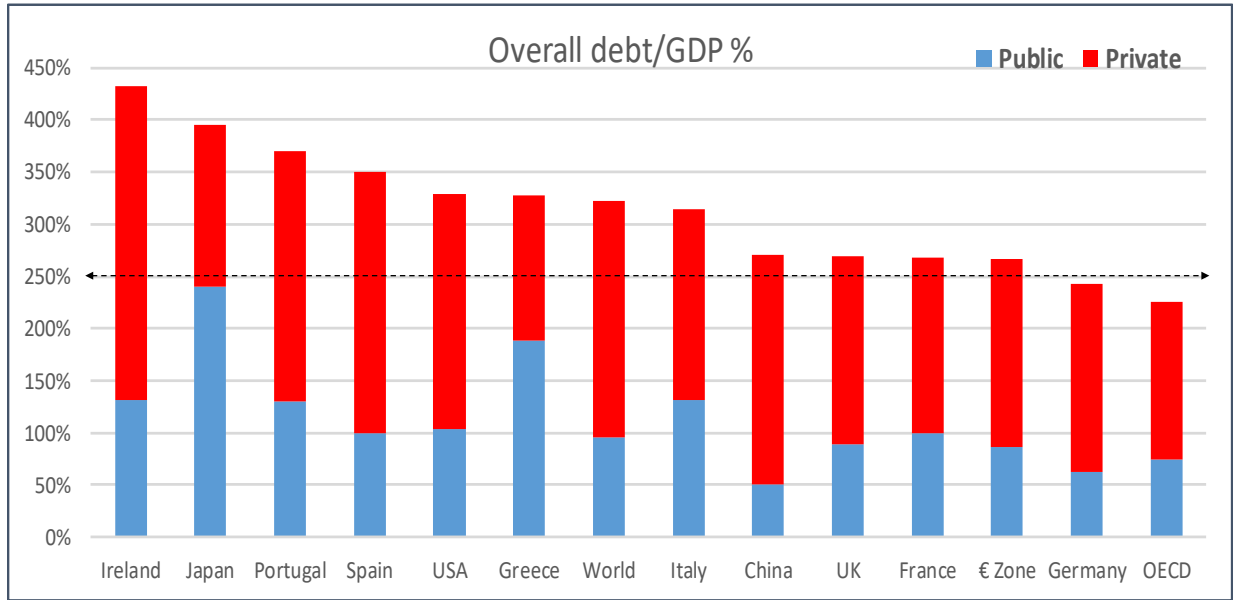
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WHAT ABOUT DEBT RATIOS 2021?



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A DECADE OF ULTRA-LOW INTEREST RATES AND QE

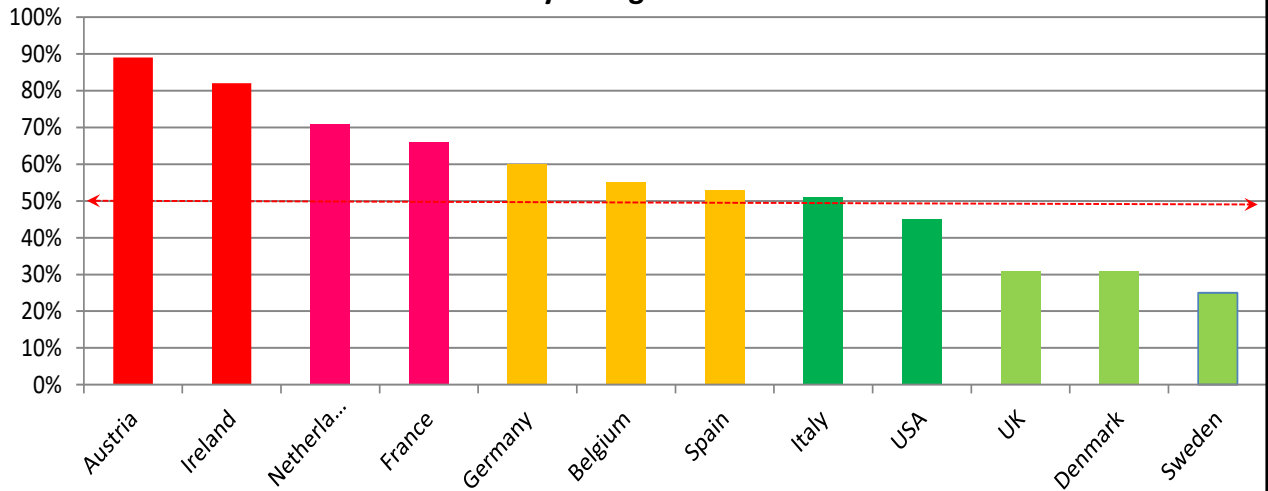


GLOBAL PRIVATE SECTOR DEBT IN % OF GLOBAL GDP (COMPANIES AND HOUSEHOLDS)



CAPITAL MARKET GLOBALIZATION = INVESTMENT FUNDS AND RATING AGENCIES IN THE DRIVING SEAT

Share of Public Debt held by foreign investors in 2017 %

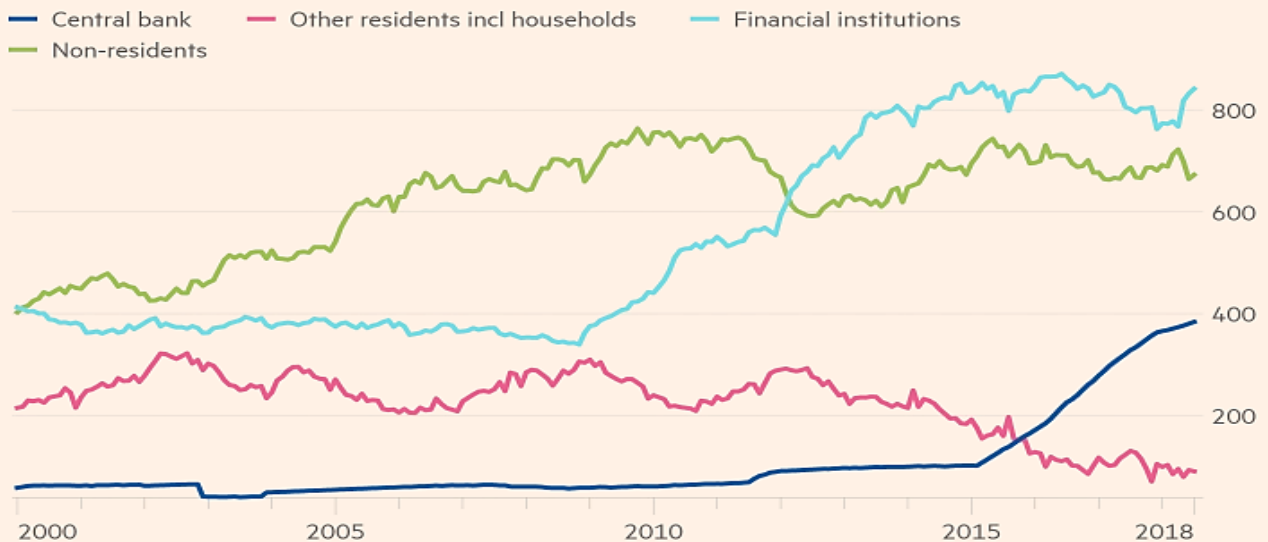


Source: FT, IMF, Natixis, US Treasury 2017

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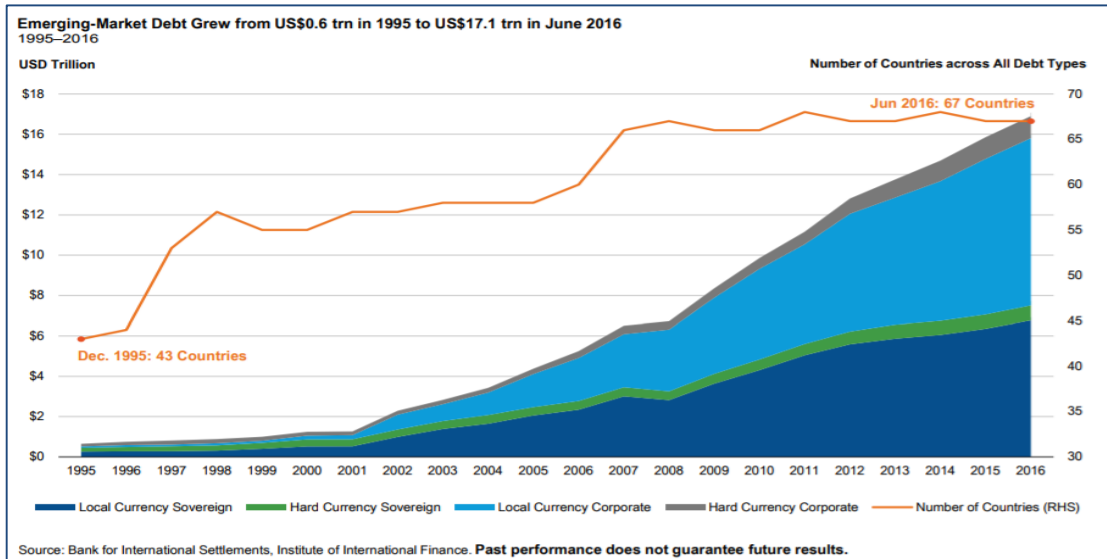
Holders of Italian sovereign debt

€bn



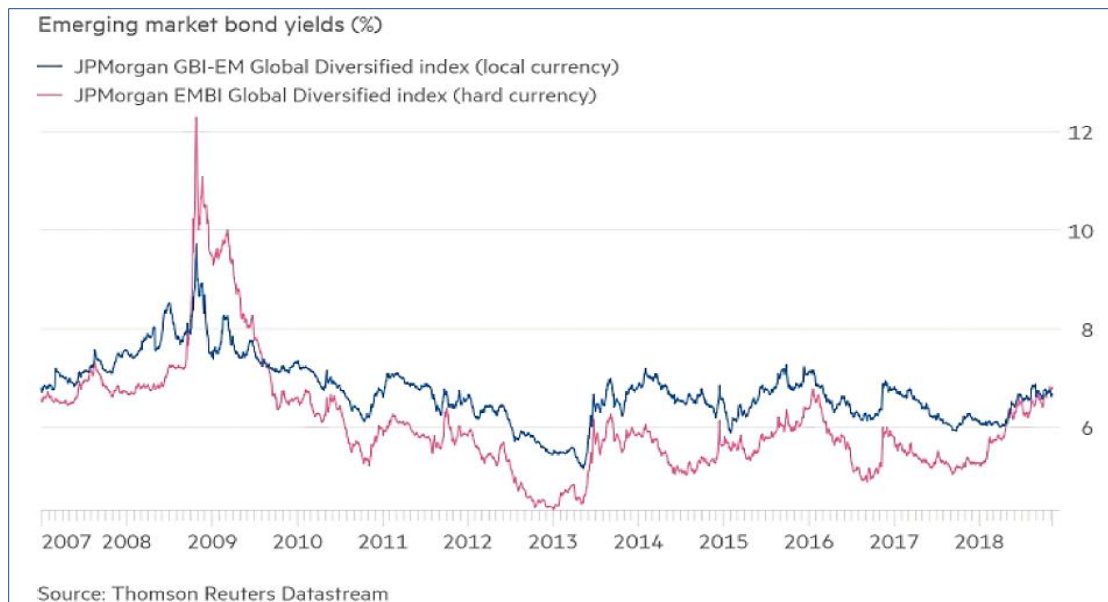
Source: Jefferies

EMERGING MARKET LOCAL CURRENCY BONDS 1995-2017






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REVERSAL IN THE HISTORIC GAP BETWEEN EM LOCAL CURRENCY BOND YIELDS AND SUPPOSEDLY SAFER US-DOLLAR BONDS



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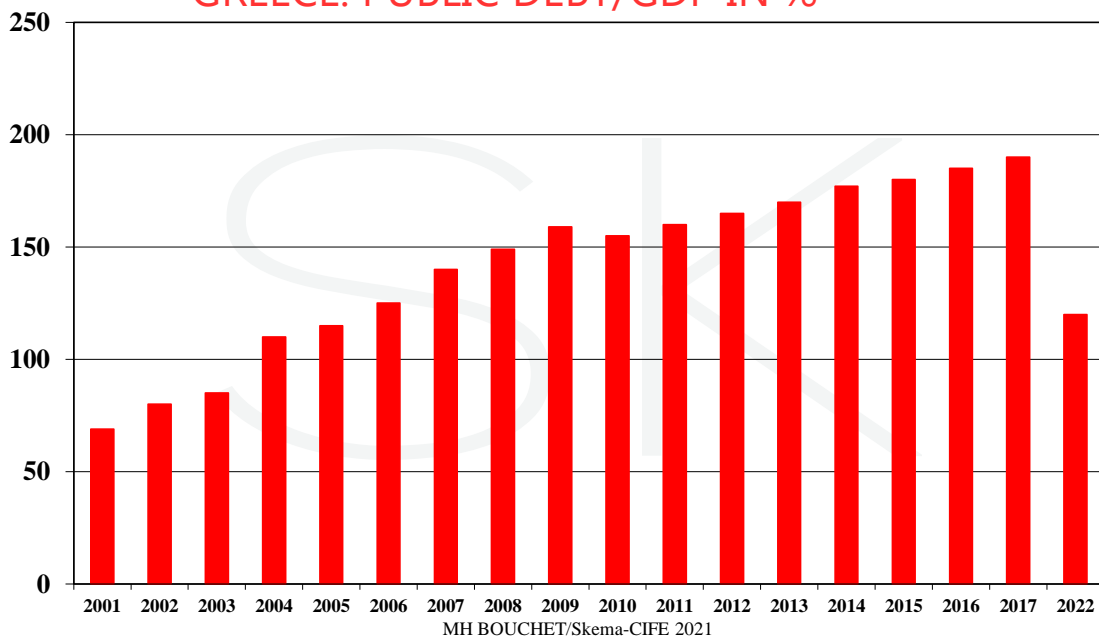
EXTERNAL FINANCING PROFILES IN 2021

RATIOS	 VIETNAM	 GABON	 ECUADOR
1. CA/GDP	+2%	-7%	0,5%
2. Debt/GDP	40%	70%	67%
3. Coface	B/B	C/D	D/B
4. GDP pc \$	3700	7700	6500
5. R/M	4	5	2
6. FDI/GDP	9%	5%	<1%
7. Doing Bus/190	70	169	129

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GREECE: PUBLIC DEBT/GDP IN %

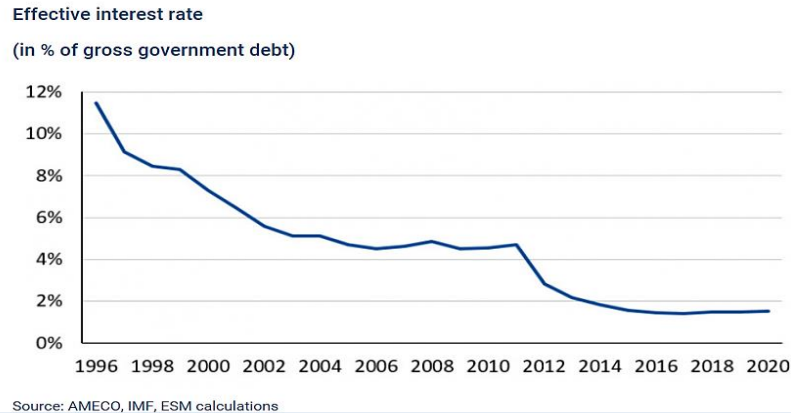


GREECE'S NEW DEBT SUSTAINABILITY ENVIRONMENT IN 2021

The much improved structure of Greek debt is due in large part to the ESM's and its predecessor, the EFSF's, very favourable lending terms and the liability management exercises.

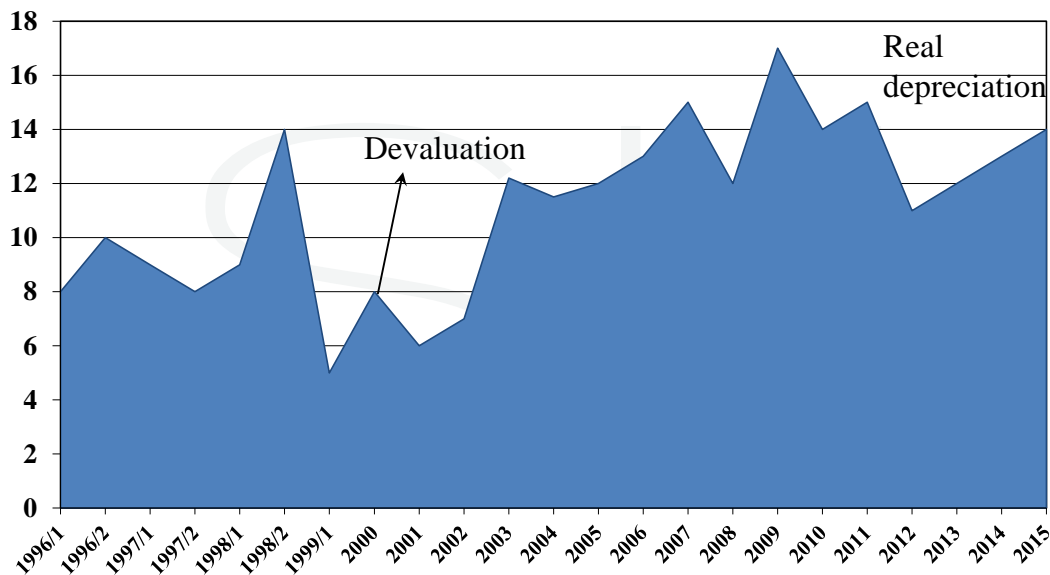
The ESM holds **around 55% of Greece's public debt** and the weighted remaining maturity of the ESM/EFSF loans is **31 years** – much longer than that of the remaining debt stock.

Due to the low interest rate on these loans – thanks to the ESM's own low, AAA rated cost of funding – Greece's annual costs for servicing these loans is lower than expected for its total debt level. Thanks to the general decline in interest rates, the focus is less on the stock of debt (debt-to-GDP%) – but rather on budgetary flows and roll-over risks.



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BRAZIL: RESERVE/IMPORT COVERAGE RATIO MONTHS OF IMPORT



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THE DEBT TRAP IN A NUTSHELL

« **Austerity + deficits** »

- ▶ Deficit shrinking with spending cuts + wage reduction + tight fiscal and monetary policy = **GDP fall** =
- ▶ solvency ratios worsening = **Rating downgrading** = Higher borrowing costs



« **Deficit-driven stop & go** »

- ▶ Large primary fiscal deficit = higher consumption = larger external deficit = larger unfunded financing requirements =
- ▶ GDP rises = « stop & go » =
- ▶ **Rating downgrading!** = Higher borrowing requirements



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