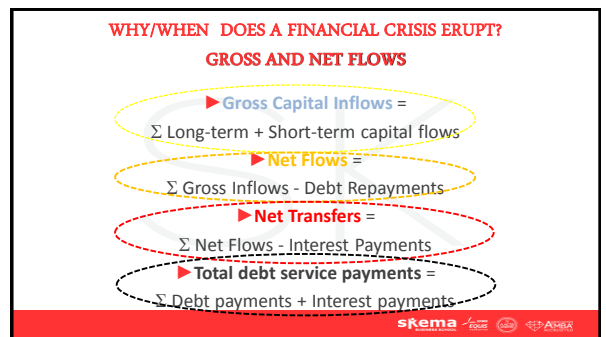
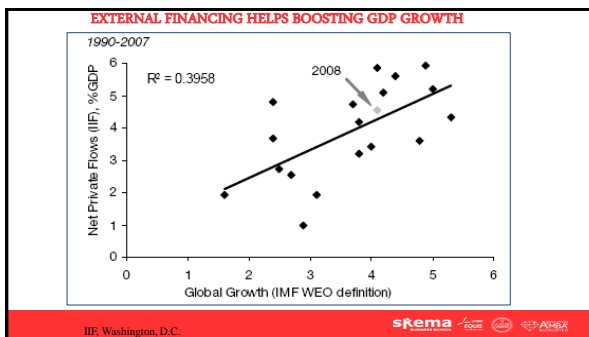
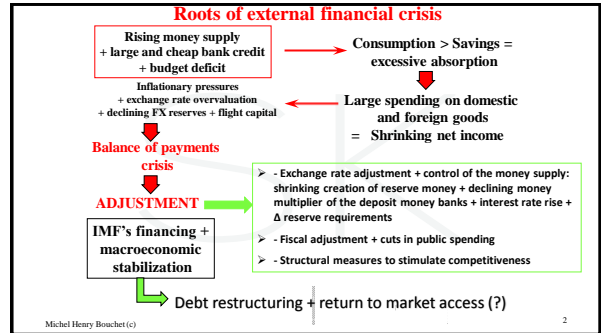
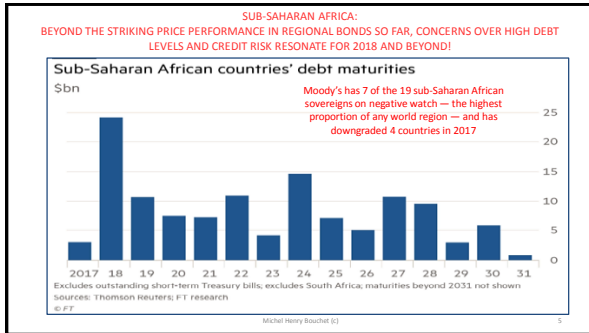


SK
SKEMA BUSINESS SCHOOL
The Balance of Payments IV
External debt analysis
Michel Henry Bouchet

skema





EXTERNAL DEBT ANALYSIS

FLOWS: Balance of payments analysis and capital flight

- ▶ Liquidity (net flows)
- ▶ Sustainability of debt strategy (refinancing, market access, rescheduling, restructuring)

STOCKS: Structure of debt by creditors, maturity (ST/LT), currency and interest rates (fixed/floating)

- ▶ Mismatch (interest rate, currency, maturity)
- ▶ Solvency ratios
- ▶ London Club debt : secondary market discounts
- ▶ Spread/margin over US T Bills
- ▶ CDS

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Emerging Market Economies: Capital Flows
\$ billion

	2012	2013	2014	2015
Capital Inflows				
<i>Total Inflows, Net</i>	1269	1188	1079	1164
Private Inflows, Net	1232	1156	1032	1112
Equity Investment, Net	668	626	657	675
Direct Investment, Net	545	548	540	560
Portfolio Investment, Net	124	78	117	114
Private Creditors, Net	564	530	375	437
Commercial Banks, Net	118	193	124	151
Nonbanks, Net	446	338	251	287
Official Inflows, Net	37	32	47	53
International Financial Institutions	5	-3	19	27
Bilateral Creditors	31	35	28	26
Capital Outflows				
<i>Total Outflows, Net</i>	-1292	-1360	-1348	-1332
Private Outflows, Net	-946	-825	-981	-950
Equity Investment Abroad, Net	-352	-403	-368	-281
Resident Lending/Other, Net	-614	-422	-613	-670
Reserves (= Increase)	-352	-534	-367	-388
Memo:				
<i>Net Errors and Omissions</i>	-246	-65	0	0
<i>Current Account Balance</i>	278	236	262	174

Source: IIF
Michel Henry Bouchet (c)

RISK MANAGEMENT AND BOP ANALYSIS

+ Export of goods f.o.b.

- Imports of goods f.o.b.

= **Trade balance**

+/- Exports/Imports of non-financial services

- Interest payments

+ Investment income (dividends) credit/debit

+ (-) Private/Official unrequited transfers

= **Current account balance**

+/- FDI

+/- Portfolio capital Flows

+ LT Capital Inflows

- Debt Servicing Payments

+/- ST Capital Flows

+/- Reserve Variation

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**EXTERNAL DEBT ANALYSIS:
THE DUAL FACE OF COUNTRY RISK**

Liquidity Risk	Solvency Risk
<ul style="list-style-type: none"> ▶ Debt Service Ratio: (P+I/X) ▶ Interest Ratio (I/X) ▶ Current account/GDP ▶ Growth rate of exports/ Average external interest rate 	<ul style="list-style-type: none"> ▶ Debt/Export ratio ▶ Debt/GDP ratio ▶ Debt/Reserves ▶ ST Debt/Total Debt ▶ ST Debt/Reserves ▶ Reserve/Import ratio

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LIQUIDITY AND SOLVENCY THRESHOLDS

Stock variables

- ▶ **Solvency** = Debt/GDP < 100%
- Debt/Exports < 150%
- Reserves/months of Imports > 6 months

Flow variables

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

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EXTERNAL DEBT ANALYSIS I

How to stabilize the Interest/Export ratio?

Necessary condition: the growth rate of exports must be at least equal to the average interest rate on total external indebtedness

Interest payments grow every year at the average interest rate time x overall indebtedness

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EXTERNAL DEBT ANALYSIS II

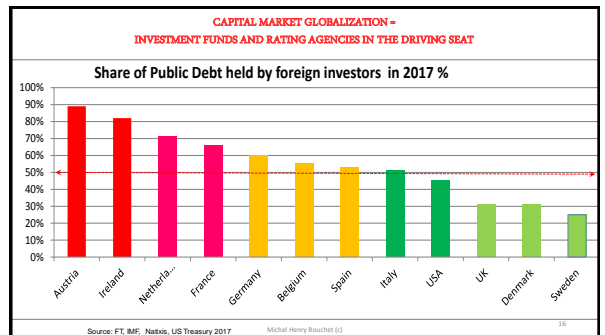
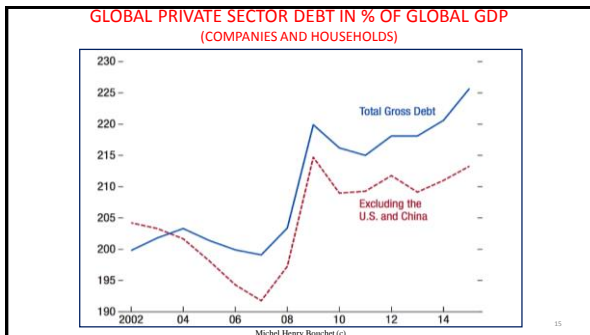
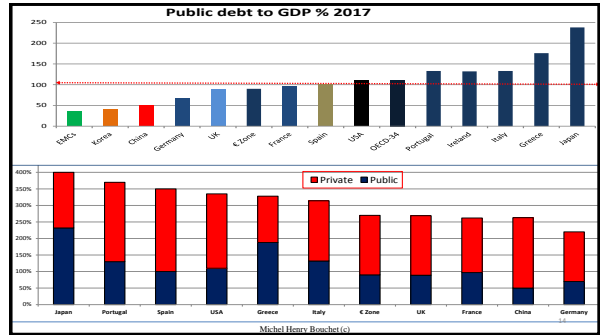
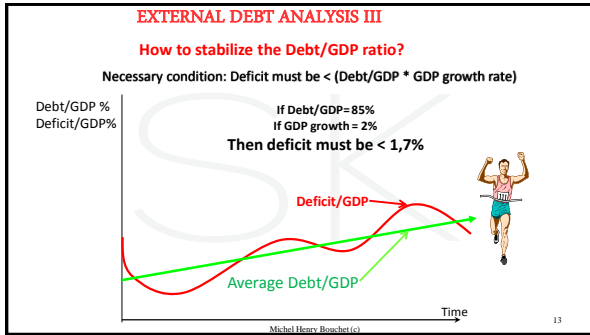
r = average rate of interest and g = average GDP growth rate

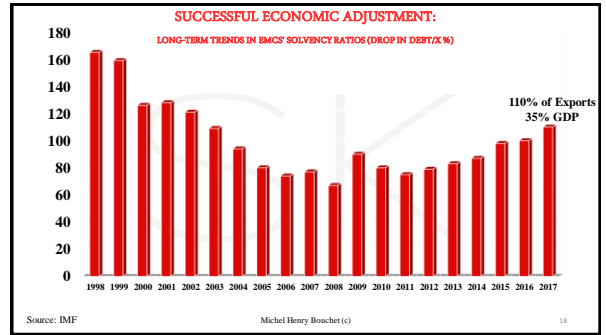
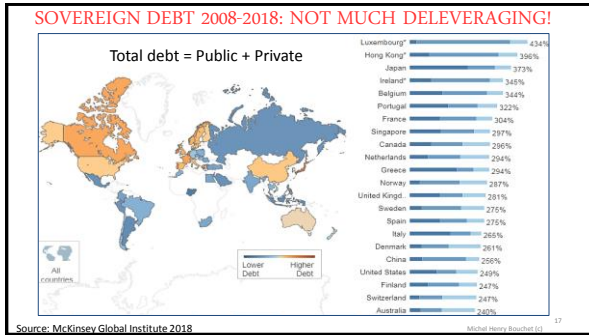
- ▶ $DEBT_t = DEBT_{t-1} * (1+r) - \text{Primary Budget Balance}$
- ▶ $GDP_t = GDP_{t-1} * (1+g)$
- ▶ $\frac{DEBT_t}{GDP_t} = \frac{DEBT_{t-1} * (1+r) - \text{Primary Budget Balance}}{GDP_{t-1} * (1+g)}$

$$\frac{DEBT}{GDP}_t = \frac{DEBT}{GDP}_{t-1} * \frac{1+r}{1+g} - \frac{\text{Primary Budget Balance}}{GDP}$$

Reducing DEBT= Reducing r, increasing g, or boosting primary surplus

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TWO COUNTRIES = TWO DEBT TRAJECTORIES

Solencia	Liquidia
Public Debt/GDP= 100%	Public Debt/GDP= 100%
<ul style="list-style-type: none"> ▶ 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! 	<ul style="list-style-type: none"> ▶ 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

Source: Michel Henry Bouchet (c)

EXTERNAL FINANCING PROFILES IN 2017-18

RATIOS	VIETNAM	GABON	ECUADOR
1. CA/GDP	+2%	-9%	-3%
2. Debt/GDP	50%	45%	35%
3. Coface	B	C	C
4. GDP pc \$	2200	7700	6500
5. R/M	2	5	2
6. FDI/GDP	8%	8%	<1%
7. Doing Bus	82	164	114

Source: Michel Henry Bouchet (c)

