SK

SKEMA BUSINESS SCHOOL

The Balance of Payments II
Current account deficit adjustment

Michel Henry Bouchet

Michel H

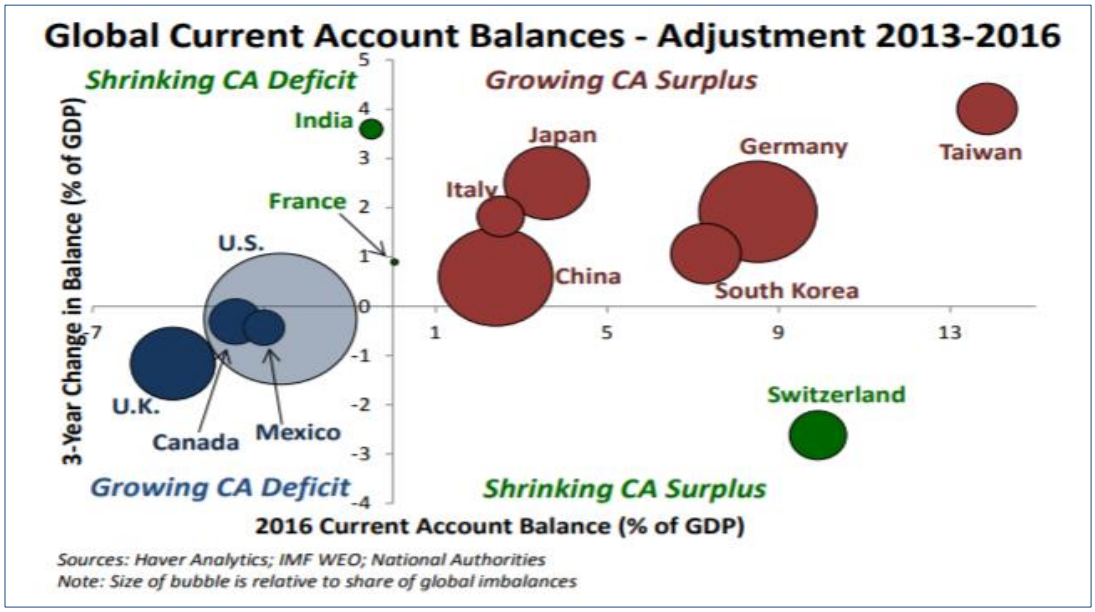
Exports	5000
GDP	12500
Trade	
Services revenues	1200
Transfers	285
Current account	
Interest payments	-750
CA/GDP%	
Imports	-6500

THE CURRENT ACCOUNT OF THE BALANCE OF PAYMENTS

From less liquid items toward more liquid items!

\+ Export of goods f.o.b.
\- Imports of goods f.o.b.
= **Trade balance**
\+ Exports of non-financial services
\- Imports of non-financial services
\+ Investment income (credit)
\- **Interest payments**
\+ Private unrequited transfers
\+ Official unrequited transfers
= **Current account balance**

ADJUSTING CURRENT ACCOUNT IMBALANCES?



Source: US Treasury Report 2017

POLICY TOOLS TO FIGHT A BOP DEFICIT?

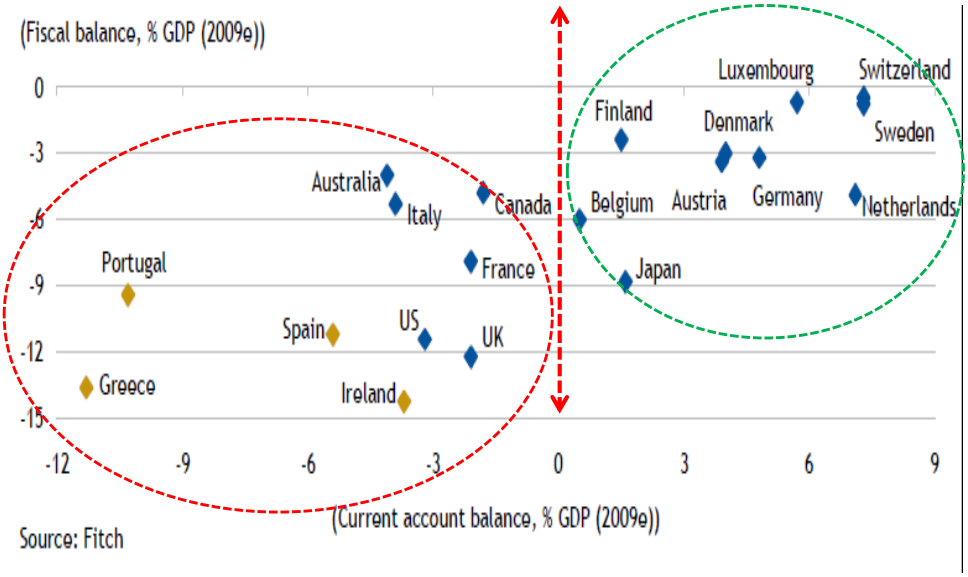
- Reducing absorption and boosting income with:

1. Tight monetary policy (increase in interest rates and higher bank reserve requirements)
2. Exchange rate adjustment
3. Tight fiscal policy (taxes and spending cuts)
4. Cooling down the overheated economy by reducing private consumption and shrinking public expenditures… at the risk of killing growth?
5. Boosting competitiveness and improving productivity?

FACTORS AFFECTING A CURRENT ACCOUNT

- **1. National income variation: economic overheating**
  - growth/contraction relative to other countries
    - current account surplus decreases (deficit increases)
    - greater wealth implies greater demand of foreign goods (e.g. US economic growth)
- **2. Inflation and its impact on trade competitiveness: "CPI differentials"...**
    - Higher CPI leads to increased imports and decreased exports due to eroded competitiveness

LARGE DOMESTIC PRIVATE + PUBLIC CONSUMPTION= OVERHEATING= TWIN DEFICITS



FACTORS AFFECTING A CURRENT ACCOUNT

▶3. Government restrictions

- Import tariff (tax on imported goods)
  - increases prices & lowers demand on imported goods
  - increases current account of the country
  - US tariffs on apparel and farm products
  - "banana war": exports from European former colonies (Africa-Caribbean-Pacific): USA entitled to impose US$191 million sanctions on Europe

- Non-tariff barriers (health norms and regulations) and quotas:
- Export and loan Subsidies

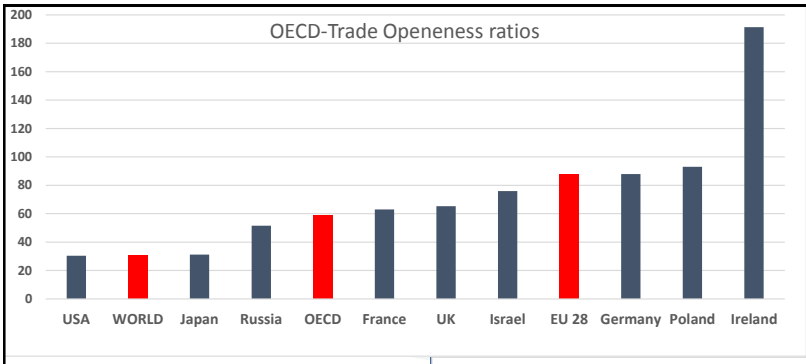
FACTORS AFFECTING A CURRENT ACCOUNT

▶4. Exchange rates

= currency valued in terms of another currency

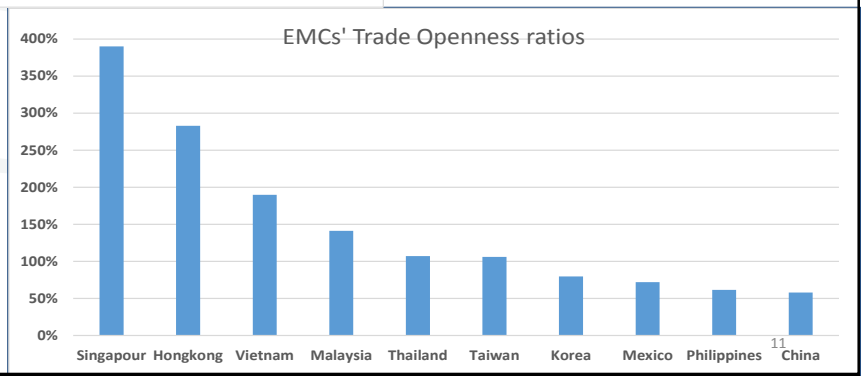
= stronger exchange rate (overvaluation) might lead to lower exports, decrease in current account surplus, or rising deficit

- exported goods would cost more for foreign importers, thus decreasing demand for the good
- assuming price-elastic goods (sensitive to price changes!?)
- Stronger Euro and weaker US$ throughout 2003-08 mean export-led recovery in the US and gloomy growth scope in Europe! Only advantage: no imported inflation due to rising oil prices
- Trump considers that the Yuan, the Yen and the Euro are too weak!



TRADE OPENNESS RATIO

(X+M/GDP%)



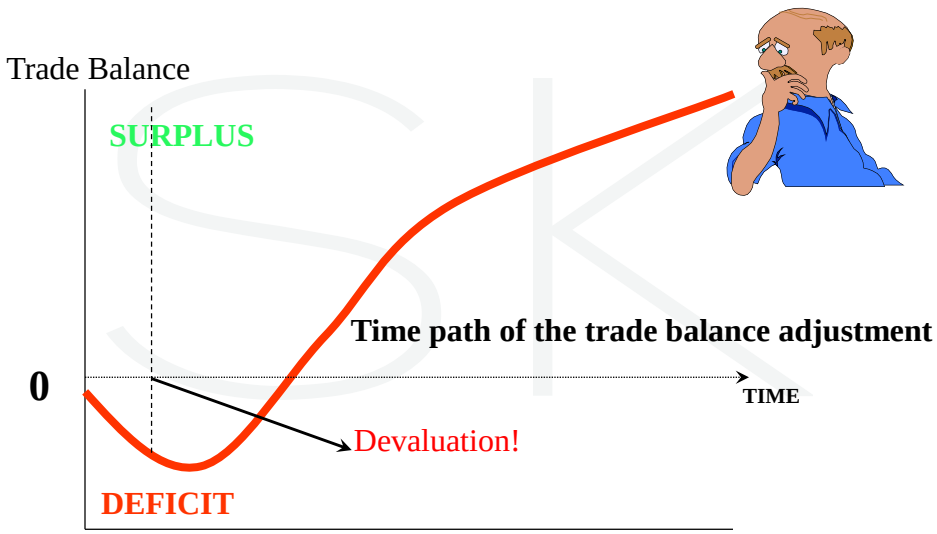
1. CORRECTING A TRADE DEFICIT?

- **Impact of domestic currency devaluation**
  - prices should increase for imports
    - foreign exporters may reduce price to maintain market share
  - other currencies may also weaken to stay competitive
    - no net gain from weaker domestic currency
  - international trade contracts create a lag effect
    - 18+ month lag exists in US
  - intra-company trade is resistant to currency fluctuations
    - 50% of all international trade
    - 60% of European exports are intra-European transactions

HOW TO SHRINK A TRADE DEFICIT?

- **Boosting Exports?** depends on the price elasticity of foreign demand but also on the supply elasticity of exported products at home
- **Reducing Imports**? depends on relative share of "incompressible" imports (foodstuffs, energy resources, capital goods, machinery, any import for re-export…), but also on the price elasticity of domestic demand

TIME LAGS, ELASTICITIES AND THE ADJUSTMENT MECHANISM: "J CURVE"



TRADE ELASTICITIES

What about the price effects of exchange rate changes on the BOP?

- **Import demand elasticity** to prices =

  △MD/ △P$ <0

- **Export elasticity** to exchange rate change =

  △X/ △P$ >0

- **Supply elasticity** to increased export demand =

  △S/ △XD >0?

This elasticity depends on the availability of finance, equipment, (imported) inputs, labor...

- Terms of trade (deterioration post devaluation): it takes more units of Exports to buy x units of imports

DEVALUATION: THE DAY AFTER ?

KEY ROLE OF ELASTICITIES = RATIO OF TWO VARIATIONS

Supply elasticities

- Δ +Domestic production

  Δ +Foreign demand

Demand elasticities

- Δ Domestic consumption

  Δ+ Import prices

  Δ Foreign demand

  Δ - export prices

REDUCING THE TRADE DEFICIT?

- Import elasticity of domestic economic growth

△M/ △Y = Income elasticity of demand for imports: percentage of (induced) change in imports divided by the percentage of change in income: if M double while Y is growing 50%, the value of income elasticity = 2.

TIME LAGS, ELASTICITIES AND THE ADJUSTMENT MECHANISM

The J-Curve and **Marshall-Lerner** conditions:

- A devaluation will improve the trade balance if the **sum** of price elasticities of imports and exports is > 1
  - In the long-term, if goods exported are elastic to price, export revenue will increase if foreign export demand increases proportionately more than the decrease in price. If goods imported are elastic, total import expenditure will decrease. Both will improve the trade balance!

To boost export competitiveness, what should a country's central bank devalue?

The nominal exchange rate or the real effective exchange rate?

REAL EXCHANGE RATES

- The RER is the product of the nominal exchange rate between two currencies and the ratio of prices

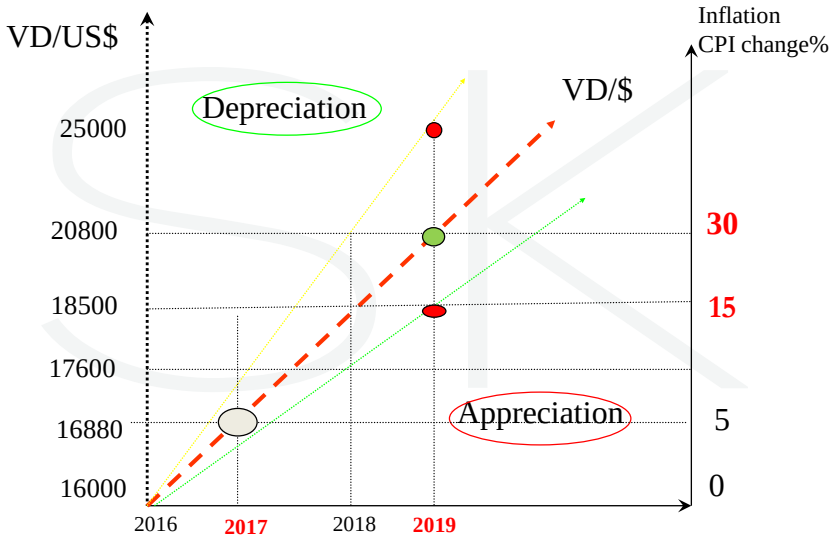
$$RER = NR \times \frac{Px}{Py}$$

If the €/$ exchange rate is 1€= 1,5 $, and if average prices for the same basket of goods are 2,5 € in the EU and 3,70$ in the US,
then the **RER = 1**

RER €/$= 1,5 * (2,5/3,7)

See: Finance & Development, September 2007, pp. 46-47.

NOMINAL AND REAL EXCHANGE RATES



MEASURING COUNTRY COMPETITIVENESS?
NOMINAL AND REAL EFFECTIVE EXCHANGE RATES

- **Nominal EERs**= geometric weighted averages of bilateral exchange rates (weighted by trading shares)
- **Real EERs** = weighted averages of bilateral exchange rates adjusted by **relative prices.**

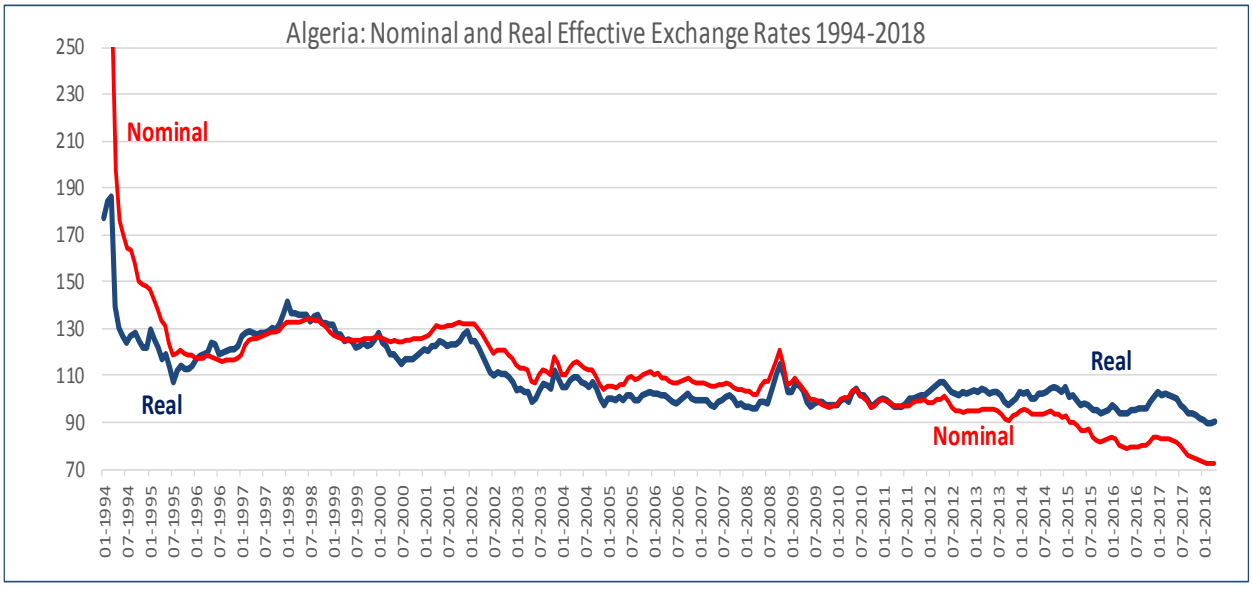
REAL EFFECTIVE EXCHANGE RATES

- **Real**: inflation- adjusted exchange rate

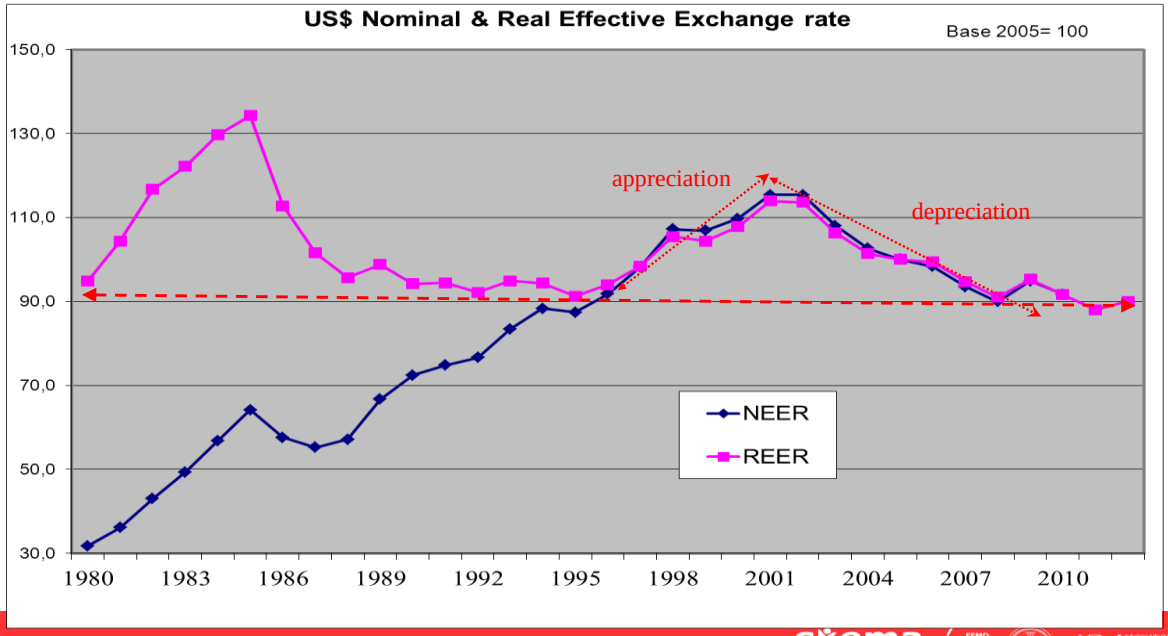
  ex.: will the devaluation fully offset inflation in country x ?

- **Real Effective**: exchange rate adjusted for inflation-differential with **major trading partners**: a tool of exchange rate management policy (e.g. Mexico)

NOMINAL AND REAL EFFECTIVE EXCHANGE RATES

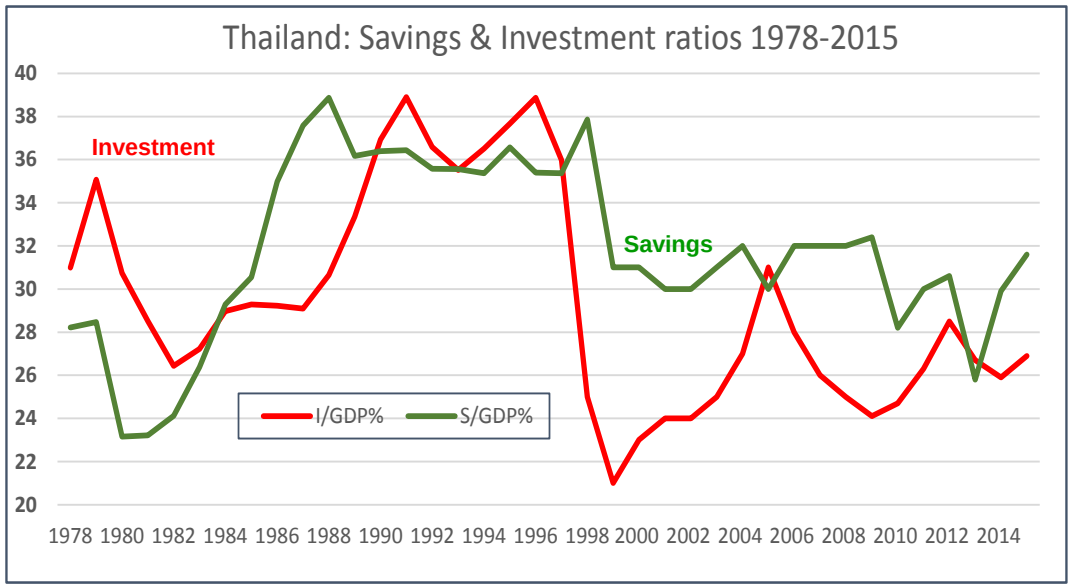


THE US$ EXCHANGE RATE OVER THE LONG-TERM

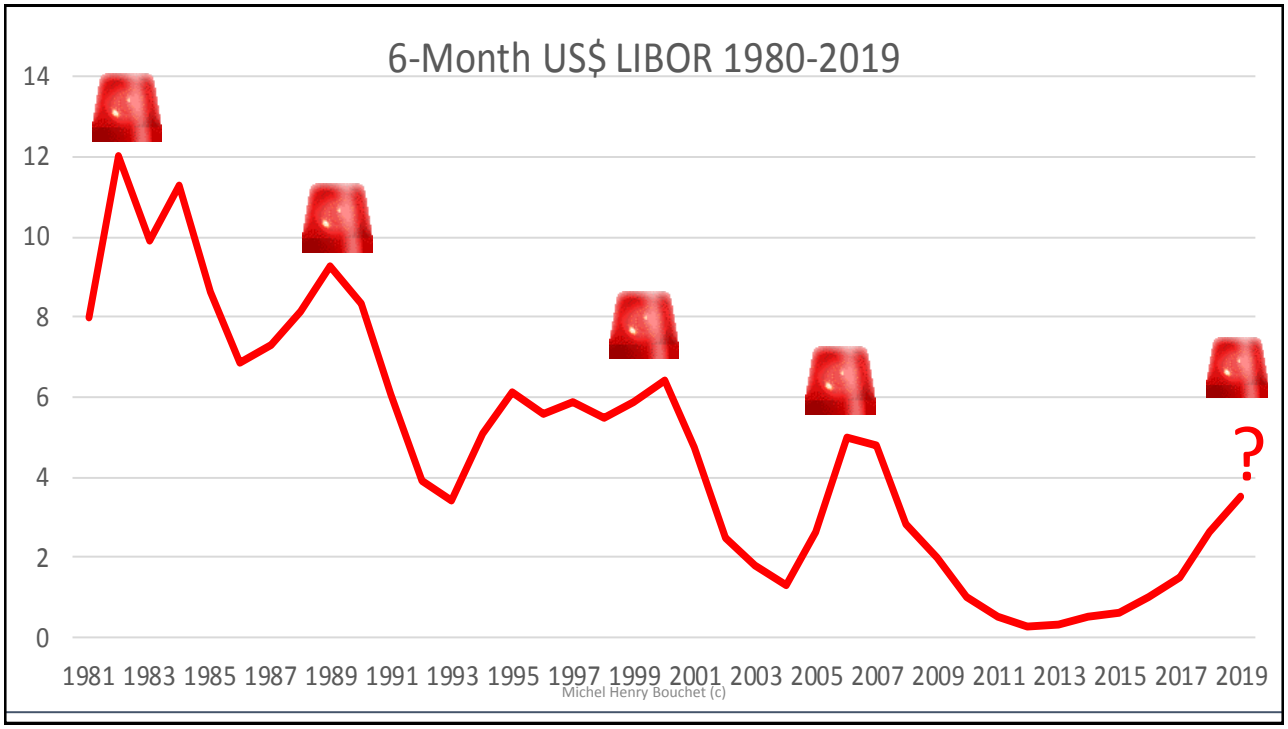


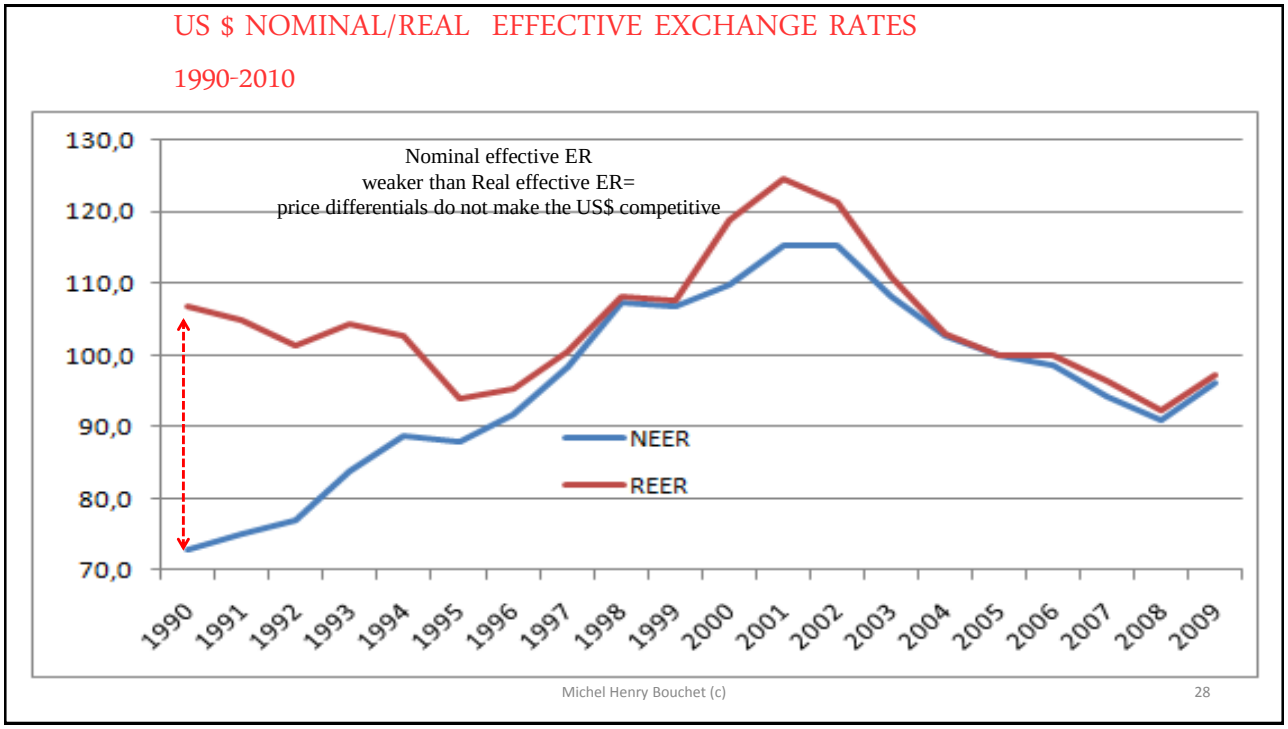
Source: IMF-OECD

THE LONG-TERM DYNAMICS OF INVESTMENT AND NATIONAL SAVINGS



Source: WB and IMF 2015


6-Month US$ LIBOR 1980-2019
14
12
10
8
6
4
2
0
1981 1983 1985 1987 1989 1991 1993 1995 1997 1999 2001 2003 2005 2007 2009 2011 2013 2015 2017 2019
?
Michel Henry Bouchet (c)


US $ NOMINAL/REAL EFFECTIVE EXCHANGE RATES
1990-2010
Nominal effective ER
weaker than Real effective ER=
price differentials do not make the US$ competitive
130,0
120,0
110,0
100,0
90,0
80,0
70,0
NEER
REER
1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
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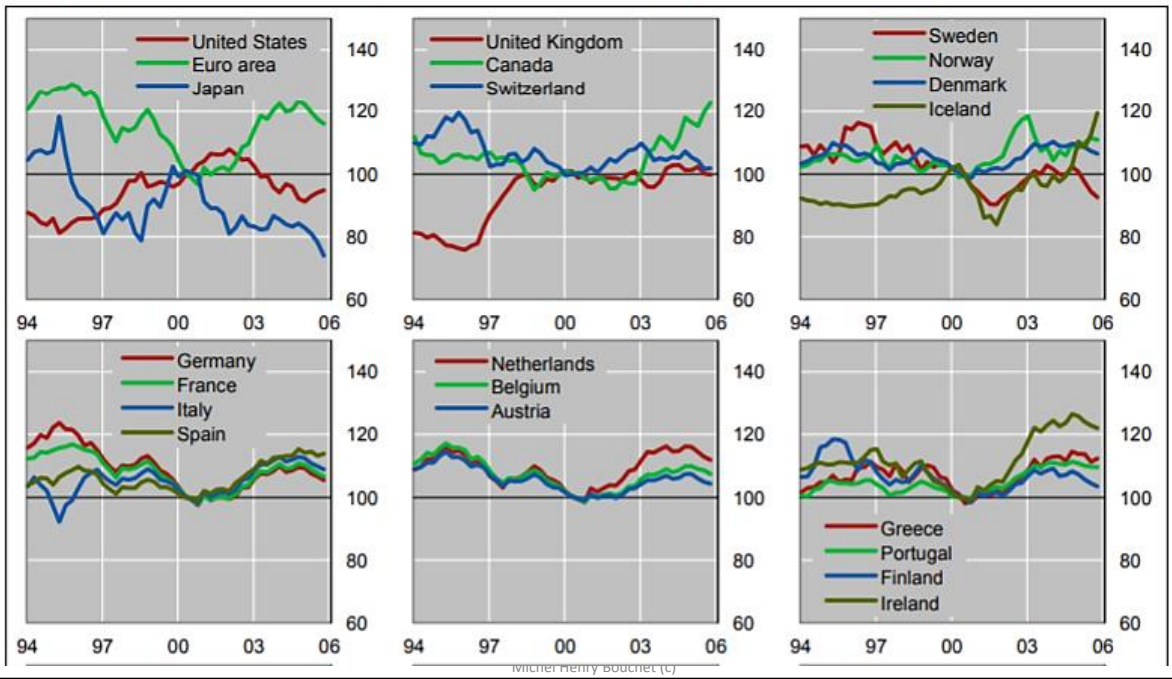
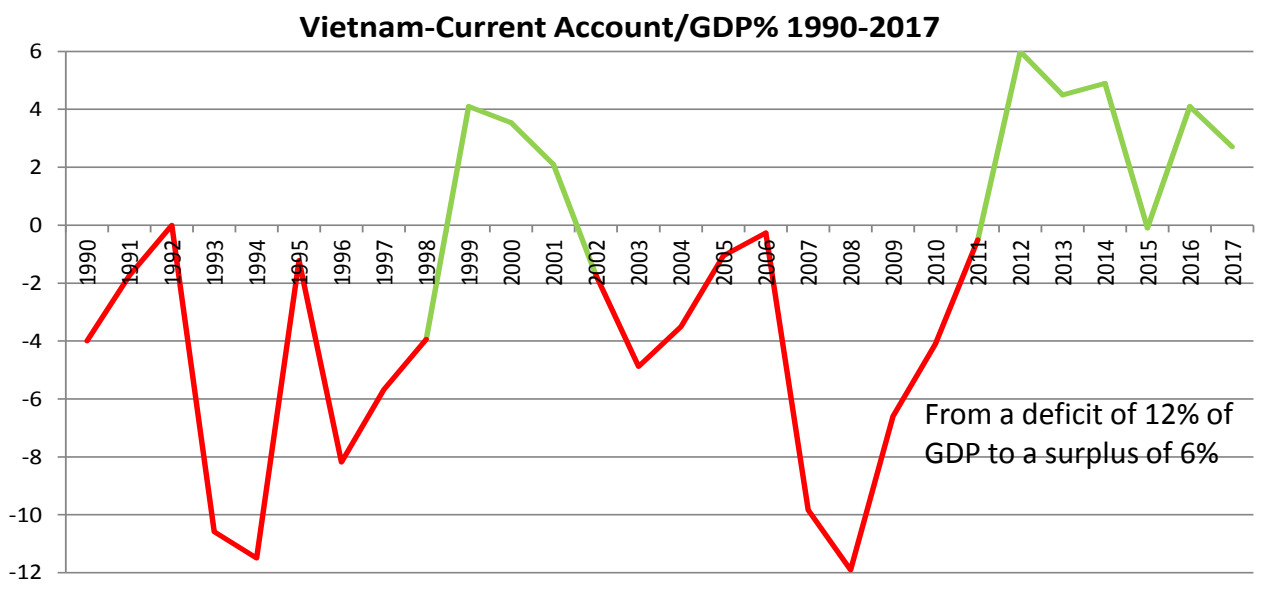
Appendix III: Real effective exchange rates (broad indices; quarterly averages, 2000 = 100)

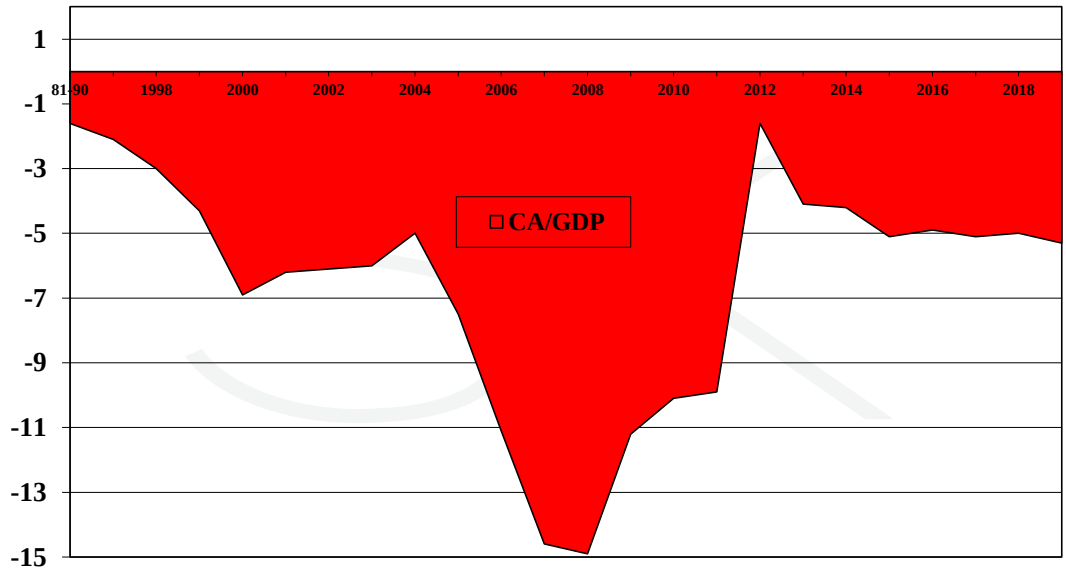


AN EXAMPLE OF SUCCESSFUL EXTERNAL ACCOUNT ADJUSTMENT



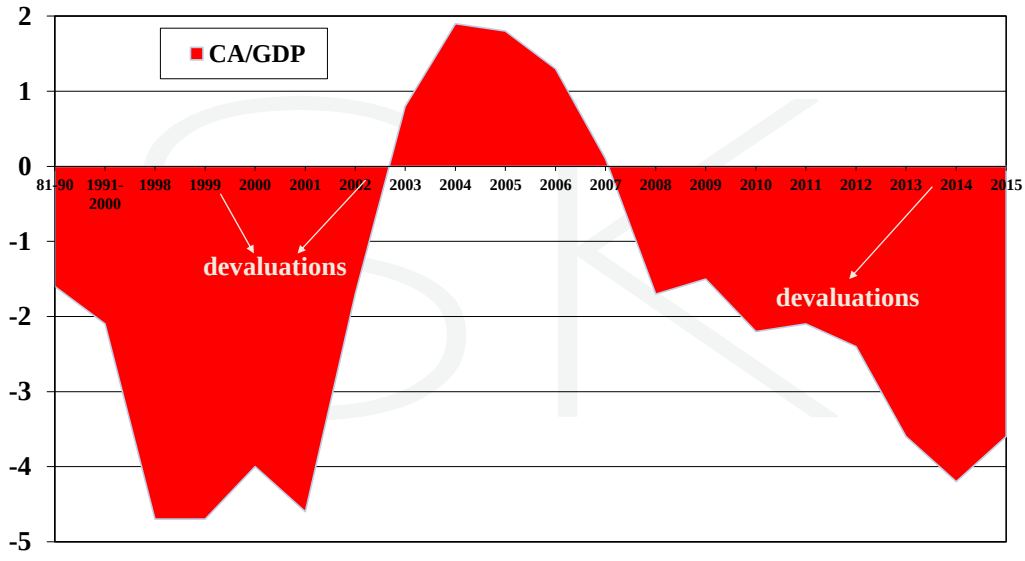
Source: IMF

GREECE: CURRENT ACCOUNT/GDP IN % 1981-2019



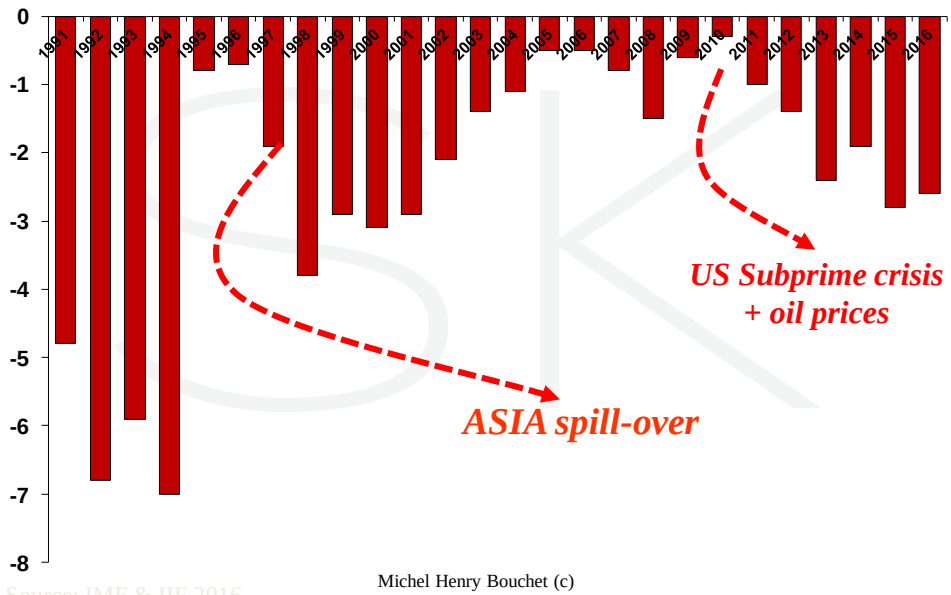
Source IMF

BRAZIL: CURRENT ACCOUNT/GDP IN %



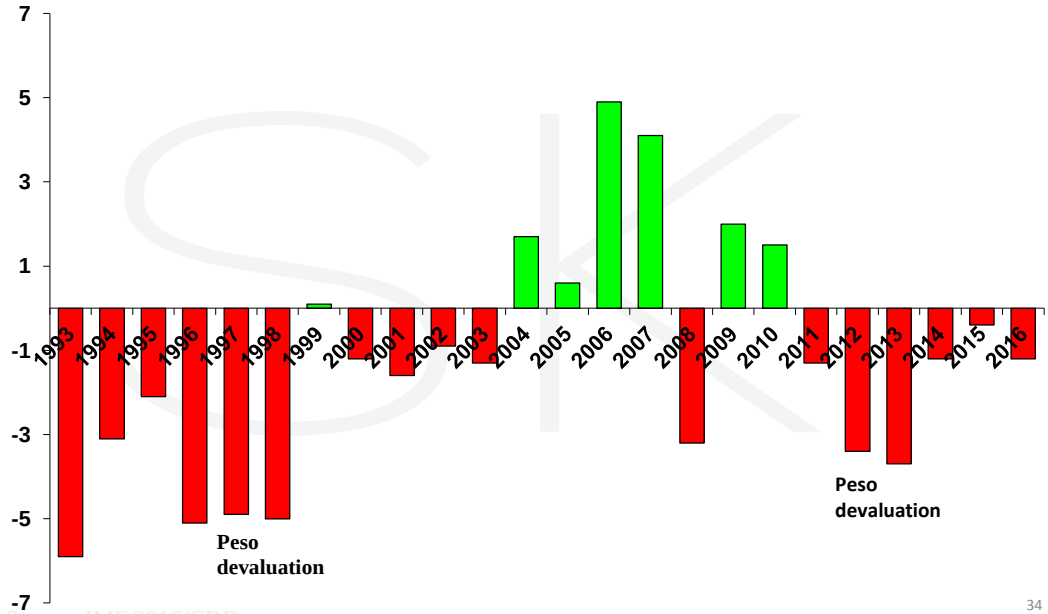
IMF 2015

MEXICO : CURRENT ACCOUNT BALANCE/GDP RATIO % 1990-2018



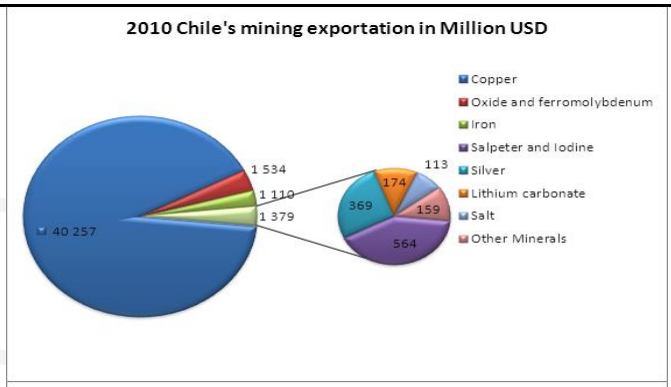
Source: IMF & IIF 2016

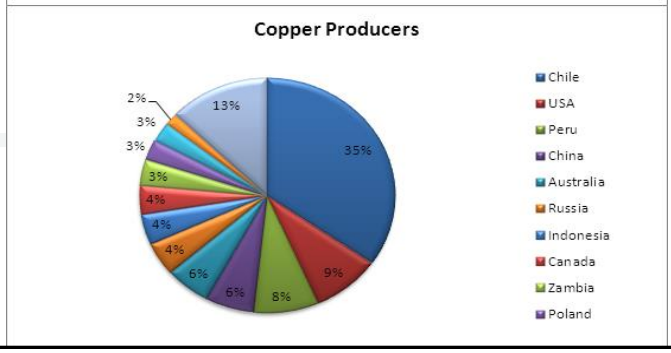
CHILE : CURRENT ACCOUNT/GDP RATIO % 1973-2016



Source: IMF 2016/CDD

CHILE'S TRADE BALANCE: STRUCTURAL DEPENDENCE ON COMMODITIES





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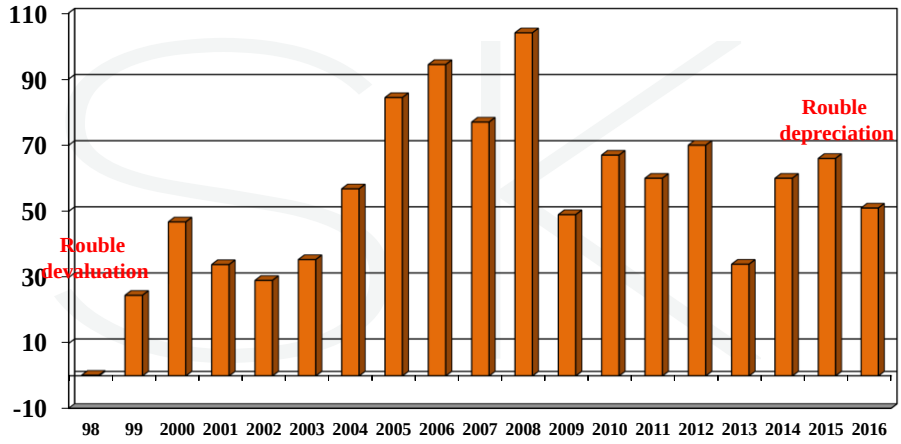
RUSSIA: CURRENT ACCOUNT BALANCE *(US$ BILLION)*



Source: IMF & IIF

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Thailand in the Global Economy

Large trade openness leads to spectacular current account and growth adjustment after 1998 crisis Σ XGS/PIB > 120%

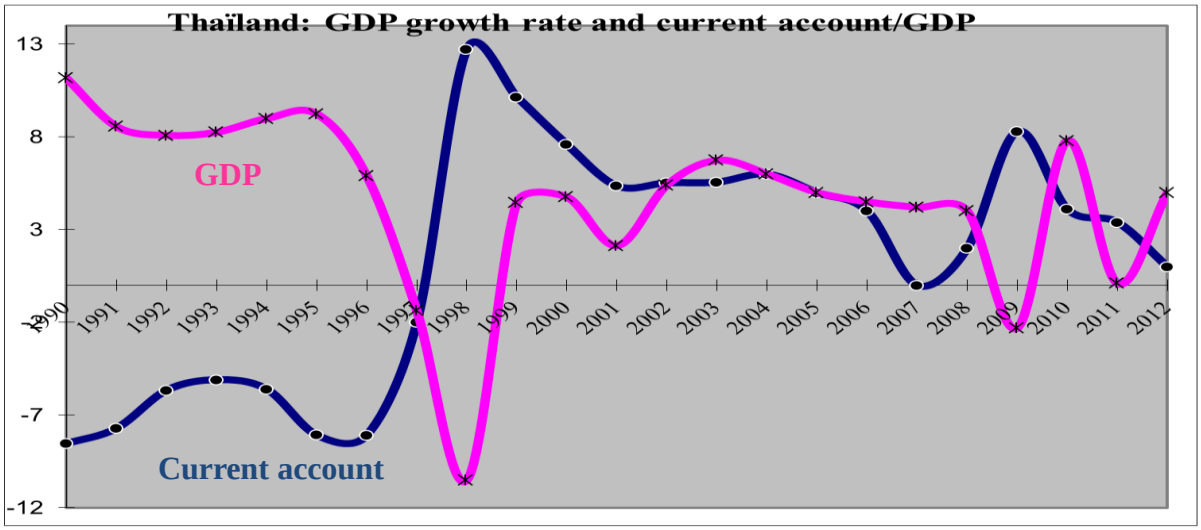


Table 2. Tunisia: Balance of Payments, 2013–21

(In millions of U.S. dollars)

	2013	2014	2015	2016				2017				2018	2019	2020	2021
	Annual	Annual	Annual	Q1	Q2	Q3	Q4	Annual	Q1	Q2	Q3	Q4	Annual	Projections			
Current account	-3,879	-4,341	-3,891	-827	-984	-854	-725	-3,390	-790	-936	-779	-608	-3,113	-2,789	-2,632	-2,568	-2,325
Trade balance	-5,930	-6,670	-5,029	-993	-1,252	-1,358	-974	-4,577	-973	-1,233	-1,354	-940	-4,500	-4,244	-4,266	-4,388	-4,369
Exports	17,049	16,733	14,073	3,510	3,597	3,070	3,335	13,712	3,703	3,796	3,256	3,746	14,501	15,154	15,952	16,696	17,401
Energy	2,591	2,204	1,013	165	155	151	145	616	197	186	180	174	737	811	874	929	976
Non-energy	14,458	14,529	13,061	3,345	3,441	2,920	3,190	13,096	3,506	3,610	3,076	3,572	13,765	14,342	15,078	15,767	16,425
Of which: Nonfood	12771	13176	11017	2,834	2,929	2,571	2,967	11300	2,976	3,078	2,713	3,132	11899	12387	13013	13576	14106
Imports	-22,979	-23,403	-19,102	-4503	-4849	-4428	-4509	-18,290	-4676	-5030	-4610	-4687	-19,001	-19,398	-20,219	-21,084	-21,771
Energy	-4,172	-4,348	-2,742	-529	-529	-541	-465	-2,064	-616	-617	-631	-544	-2,407	-2,646	-2,895	-3,151	-3,400
Non-energy	-18,807	-19,055	-16,361	-3,974	-4,320	-3,888	-4,044	-16,225	-4,060	-4,413	-3,979	-4,143	-16,594	-16,752	-17,324	-17,932	-18,371
Of which: Nonfood	-16,625	-17,035	-14,452	-3,441	-3,832	-3,409	-3,543	-14,224	-3,466	-3,868	-3,444	-3,584	-14,361	-14,461	-15,005	-15,576	-15,978
Services and transfers (net)	2,051	2,329	1,138	166	269	504	248	1,187	183	298	574	332	1,387	1,455	1,635	1,820	2,044
Nonfactor	1,621	1,442	363	25	68	234	14	341	18	67	244	16	346	325	314	283	256
Of which: Tourism	1,983	2,136	1,200	229	285	415	288	1,217	249	310	452	314	1,326	1,418	1,536	1,636	1,742
Factor Services and Transfers (net)	430	887	775	141	200	271	234	847	165	231	330	316	1,042	1,130	1,320	1,538	1,788
Of which: Workers' remittances	2,290	2,347	1,908	422	446	575	470	1,913	430	455	586	479	1,950	1,985	2,043	2,148	2,259
Interest payments on external debt	-571	-583	-566	-151	-155	-175	-118	-599	-167	-138	-160	-101	-566	-525	-466	-429	-387
Capital and financial account	3,628	4,888	4,274	82	894	1,429	1,731	4,135	737	1,031	318	1,173	3,258	3,127	3,177	3,324	2,952
Capital account	115	300	173	-4	-3	44	44	81	-3	147	-3	-3	136	57	56	56	56
Financial account	3,513	4,588	4,101	85	897	1,385	1,688	4,055	740	885	321	1,176	3,122	3,071	3,120	3,268	2,897
Direct investment and portfolio (net)	1,139	1,097	1,106	176	237	224	304	944	177	241	228	309	958	975	1,031	1,096	1,265
Medium- and long-term loans (net)	1,683	2,269	2,279	-321	346	850	1,099	1,973	349	316	-233	581	1,013	907	772	775	731
Disbursement	3,205	3,515	3,487	210	684	1,130	1,499	3,522	607	1,273	203	1,019	3,102	2,444	2,455	2,111	2,047
Amortization	-1,521	-1,245	-1,208	-531	-338	-280	-400	-1,549	-258	-957	-436	-438	-2,089	-1,537	-1,683	-1,336	-1,316
Short-term capital	691	1,222	716	166	185	2	166	737	171	191	227	171	761	794	1,166	1,260	750
of which: change in NFA of commercial banks	-248	670	161	31	70	51	55	209	20	64	48	53	185	187	72	62	63
Valuation changes	...	...	-15	65	129	91	115	400	43	136	100	112	390	396	152	137	150
Errors and omissions 1/	-714	-577	-394	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Overall Balance	-965	-29	-11	-745	-90	575	1,006	745	-53	96	-462	565	145	339	545	756	627
Changes in gross reserves (+ = accumulation)	-965	-29	-26	-745	-90	575	958	745	-53	96	-462	555	145	339	545	756	627
of which: IMF (net)	150	1046	299	0	317	-17	300	599	-17	243	-100	193	319	120	253	142	-133
Memorandum items:																	
Current account balance/GDP (percent)	-8.4	-9.1	-8.9	-1.9	-2.2	-1.9	-1.6	-7.7	-1.8	-2.1	-1.8	-1.4	-7.0	-6.2	-5.5	-5.1	-4.4
Reserves (in billions of US$)	7.7	7.7	7.6	6.9	6.8	7.4	8.3	8.3	8.3	8.4	7.9	8.5	8.5	8.8	9.4	10.1	10.7
Reserves in months of imports of goods and services 2/	3.4	4.2	4.3	3.8	3.7	4.0	4.6	4.6	4.4	4.5	4.2	4.5	4.5	4.5	4.6	4.7	4.8
Reserves/total short term external debt (percent) 3/	117.0	111.9	121.4	108.2	106.6	114.8	132.3	132.3	129.0	129.5	121.8	130.3	130.3	132.1	132.9	135.7	136.6
External medium- and long-term debt (billions of US$)	19.4	19.8	20.4	20.6	21.0	21.9	23.0	23.0	23.4	23.8	23.6	24.2	24.2	25.2	26.3	27.3	28.1
External medium- and long-term debt/GDP (percent)	42.6	45.6	48.5	46.0	47.9	50.6	54.1	54.1	54.1	56.3	56.3	57.9	56.3	57.9	57.2	55.9	54.3
External short-term debt (billions of US$)	6.6	6.8	6.3	6.4	6.4	6.4	6.3	6.3	6.4	6.5	6.5	6.5	6.5	6.7	7.0	7.5	7.9
External short-term debt/GDP (percent)	14.4	15.8	15.0	14.3	14.6	14.9	14.8	14.8	14.9	15.2	15.2	15.3	15.2	15.3	15.3	15.3	15.2
Debt service ratio (as percent XGS, including IMF)	9.5	8.4	10.2	16.0	11.2	11.3	9.7	12.8	9.5	23.8	14.0	11.6	16.7	13.9	13.1	9.6	8.7
Imports (percent of GDP)	49.68	49.16	43.83	39.85	43.76	40.53	41.96	41.53	41.13	45.04	41.83	43.20	42.80	43.16	42.61	41.88	40.78
Exports (percent of GDP)	36.86	35.15	32.29	31.06	32.45	28.10	32.90	31.14	32.57	34.00	29.54	34.53	32.67	33.71	33.62	33.17	32.59
National GDP in USD	46,253	47,605	43,581	11,301	11,082	10,926	10,746	44,041	11,368	11,167	11,021	10,849	44,391	44,948	47,450	50,337	53,388

2. CUTTING INFLATION AND SLOWING DOWN OVERHEATING ECONOMY WITH EXCHANGE RATE APPRECIATION?

Principle:

- 1. A currency appreciation would cut the cost of imported goods and services, as well as import commodities (gasoline, machinery, production materials), hence helping to reduce the CPI.
- 2. Lowering imported costs will make them cheaper and more competitive, forcing local producers to lower prices to maintain their market share (?)

2. CUTTING INFLATION AND SLOWING DOWN OVERHEATING ECONOMY WITH EXCHANGE RATE APPRECIATION?

- 3. Improbable trio: a central bank cannot stabilize the exchange rate and liberalize the capital account while implementing an independent monetary policy to control inflation. Floating rate frees the central bank from the need to buy foreign exchange and to increase the money supply.
- 4. Appreciating exchange rate leads people to wish to hold the currency and to own assets priced in this currency, hence reducing the demand pressure and the CPI.

- All in all, appreciation of the local currency can help control inflation? This much depends on the composition of imports and the « pass through » between importers and consumers!

US CURRENT ACCOUNT, IMPORT PRICES AND DOLLAR EXCHANGE RATE

- Key: Rate of exchange rate « **pass through** » = degree to which a change in the value of a country's currency induces a change in the price of the country's imports and exports
- Pass-through is always incomplete: in the OCDE countries import prices have become progressively less responsive to changes in exchange rates over the past decade or so
- The dollar's depreciation has had little impact on import prices and on the reduction of the US current account deficit (about 50% of the cumulative change in the $ has been transmitted to higher US import prices over 2002-05)

Source: Fed RBNY Current Issues 09/2006 and June 2007

US CURRENT ACCOUNT, IMPORT PRICES AND DOLLAR EXCHANGE RATE IN 2019-20?

Weaker $ = Lower US demand? Stronger exports?

- The European exporter must decide what share of the dollar depreciation to absorb in his profit margin and what share to pass on to US consumers

US CURRENT ACCOUNT, IMPORT PRICES AND DOLLAR EXCHANGE RATE

- Why will a weaker $ boost foreign demand for US exports but with little impact on lower US imports, hence is unlikely to close the US trade deficit?

1. Special role of the US$ in invoicing international trade transactions = insensitivity of import prices to exchange rates
2. Competitive market share concerns of foreign exporters
3. High US marketing and distribution costs that form part of the final consumption prices of imported goods. All these costs reduce the share of the final price that is affected by exchange rates movements.

The History of the U.S. Balance of Payments

Stage I: The U.S. is a *young debtor nation* (1770-1870) -Current account deficit due to the need to import most goods and inability to produce many goods for export. -Capital account surplus due to a great deal of foreign investment in the U.S. in the areas of roads, farming, cattle ranches, railroads, and canals.
Stage II: The U.S. is a *mature debtor nation* (1870-1920) - Current account deficit due to large investment income being paid back to foreign investors based on the investment of stage I. Merchandise account in surplus -- exports > imports.
Stage III: The U.S. is a *young creditor nation* (1920-1945) -Huge surplus in the current account due to large volume of postwar (WWI) exports. -Capital account in deficit due to a great deal of U.S. investment in Europe for postwar reconstruction.

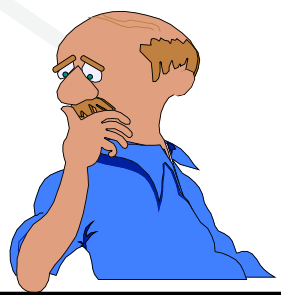
Source: http://www.digitaleconomist.com/bop_4020.html

Stage IV: The U.S. is a *mature creditor nation* (1945-1980) - Merchandise deficit -- *exports < imports* but an investment income surplus with a slight net surplus overall. -Capital account is in deficit largely due to postwar (WW II) reconstruction in Europe and Japan.

Stage V: (1980-) -Large (and growing) deficit in the merchandise accounts (Trade Deficit) and slight surplus in the investment income accounts. -Large surplus in the capital account partially to finance the above merchandise deficit (foreign individuals and banks lending money to individuals in the U.S.) Additionally, since the U.S. has had a low inflation rate since 1982 and consistent economic growth , the U.S. has been a good place to invest relative to the rest of the world. However the current inflow of capital investment could eventually lead to large investment income payments in the near future. The investment income surplus may soon be eroded thus worsening the current account deficit.

THE US CURRENT ACCOUNT DEFICIT DILEMMA

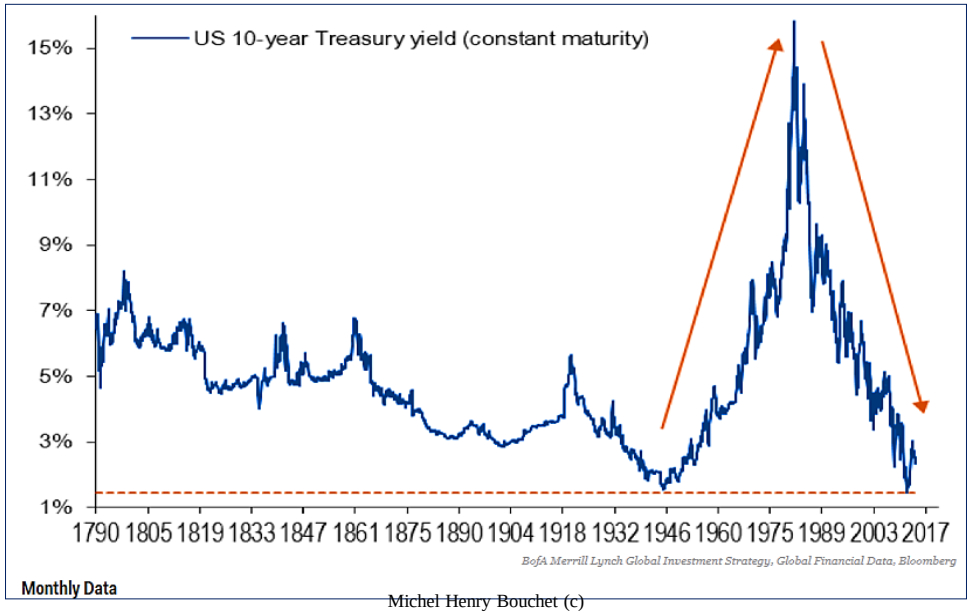
- Shrinking the deficit requires a weaker $
- Financing the deficit requires a strong $ by attracting US$2 billion/day foreign capital inflows



INVESTMENT > SAVINGS = US BOP DEFICIT

FRBSF March 2007

THE RISE AND FALL OF US 10-YEAR TREASURY YIELDS 1790-2018



FINANCING THE US CA DEFICIT?

Record US CA deficit in 2003-2008 >7% of GDP

Mounting deficit in 2018-19 under Trump

- How to finance it? By importing K inflows from outside the US economy: need for high interest rates and/or strong US$ currency, or pressure on surplus countries (China, Korea, Japan)!
- Damocles' sword: Japanese investors massively withdraw their investments in US$ assets and UST bills and repatriate their funds in Japan. Meanwhile, nearly 50% of US securities remain in foreign hands
- US and Japan compete to lower their exchange rates to gain competitive trade advantage! $ **Crash Lending?**

FINANCING THE US CAD?

- Morgan Stanley : Why is the dollar not (yet) crashing?

  The runaway CAD against Asian nations is not unduly worrying as long as Asia continues to park its capital surpluses in US assets (**60%** of the CAD is run against Asia and **bulk** of the US external deficit funded by Asian central banks)

  « As long as Asia stays in the dollar zone, the dollar cannot **crash**»

- But mounting risk over the funding of the structural deficit leading to repatriation flows by foreign investors (hence weakening $/€ to $1,4 against the € in 10/2008)

FINANCING THE US CA DEFICIT IN 2019-20?

Record US CA deficit in 2003-2008 >7% of GDP

and 5% of GDP in 2009-2019

- How to finance it? By importing K inflows from outside the US economy: need for >0 real interest rates and/or strong US$ currency, or pressure on surplus countries (China, Korea, Japan and Germany)!
- Damocles' sword: Japanese investors massively withdraw their investments in US$ assets and UST bills and repatriate their funds in Japan. Meanwhile, nearly 50% of US securities remain in foreign hands. Declining share of China
- US and Japan compete to lower their exchange rates to gain competitive trade advantage! $ **Crash Lending?**