BANK FOR INTERNATIONAL SETTLEMENTS

Triffin: dilemma or myth?

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* Views expressed are those of the author and not necessarily the views of the BIS

Issuing countries of reserve currencies are constantly confronted with the dilemma between achieving their domestic monetary policy goals and meeting other countries´ demand for reserve currencies. On the one hand, the monetary authorities cannot simply focus on domestic goals without carrying out their international responsibilities. On the other hand, they cannot pursue different domestic and international objectives at the same time. They may either fail to adequately meet the demand of a growing global economy for liquidity as they try to ease inflation pressures at home, or create excess liquidity in the global markets by overly stimulating domestic demand. The Triffin Dilemma, i.e., the issuing countries of reserve currencies cannot maintain the value of the reserve currencies while providing liquidity to the world, still exists.

Governor Zhou, People's Bank of China, 23 March 2009

Outline of presentation

- What did Triffin argue and what influence did he have?
- Bretton Woods and the pre-WWI gold standard facts?
- Subsequent mis-representations and re-interpretations
  - Current account Triffin: reserve currency must run current account deficit
  - Fiscal version of Triffin
  - Generalised Padoa-Schioppa version of Triffin
- Legacy of Triffin

What did Triffin argue and what influence did he have?

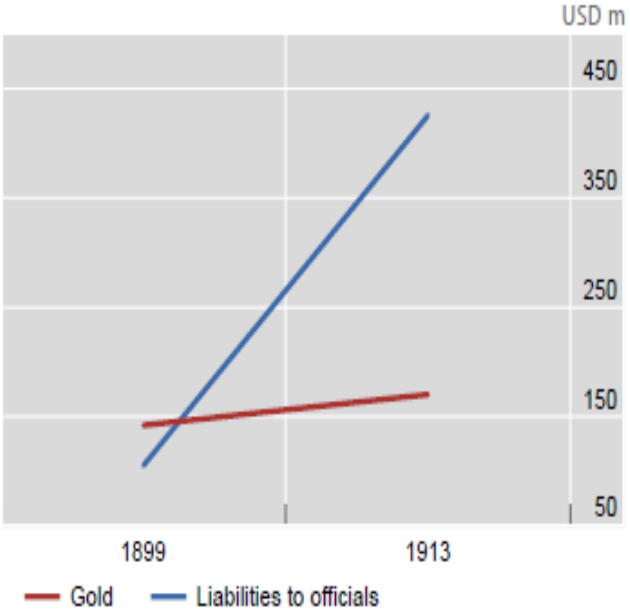
- Reliance on US liabilities to finance growing world trade would (likely) impart a deflationary bias to world economy or put the link between dollar and gold at risk.
  - Akin to first generation speculative attack model.
  - Like these models, assumes that speculative attack is bound to happen once it can succeed in the sense of relevant liabilities greater than the value of the US gold stock.
- Presumed that $35/ounce gold price would yield slow additions to global monetary gold stock.
- Very influential: *Business Week* coverage, testimony before Congress, taken very seriously by US Treasury and Federal Reserve.

UK pre-WWI gold standard bigger Triffin problem than US in 1960s without "run" on UK gold?

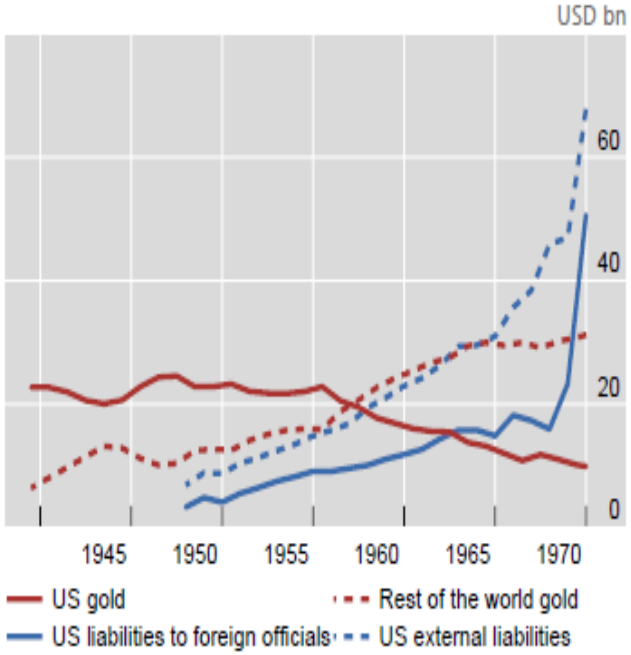
Triffin problem: UK pre-WWI and US post-WWII

Liabilities to officials and holdings of gold

Identified UK liabilities to foreign officials and Bank of England gold, 1899 and 1913



US liabilities to foreign officials and US monetary gold, 1940-1971



Source: Lindert (1969, Table 3 and p 37); Bordo (1993), based on Tables SC-8, columns 1 and 2, and SC-10, column 3 in *Gold Commission Report*, Washington, DC: US Congress, March 1982; 1972 *Supplement to International Financial Statistics*.

UK pre-WWI gold standard bigger Triffin problem than US in 1960s without "run" on UK gold?

- Bordo and Kydland (1995) interpret Bank of England as able to operate on "very slender gold reserves" (Triffin) because of its policy credibility.
- Others interpret Bank of France as silent partner with Bank of England.

Subsequent mis-representations and re-interpretations

- Current account Triffin: reserve currency must run current account deficit
- Fiscal version of Triffin
- Generalised Padoa-Schioppa version of Triffin

Current account version of Triffin

- US runs current account deficits to allow central banks to acquire dollars.
- Aliber: US provides consistency to ROW: the N-1 problem.
- Jeanne (2012) theory suggests low returns on reserves when run down.
- Fratianni (2012) argues "In theory…the increase in the supply of reserve assets need not be associated with a current account deficit. However, it has happened for the United States since the 1980s.
  - "Only in the first sub-period, 1973 to 1980, …a negative association…
  - "For the other periods, the association has been +, often strongly so".
  - "From the end of the Bretton Woods regime to 2010 [2014], the US has supplied $4.2 [$5.3] trillion of reserve assets to the ROW, with an average yearly financing ratio…of 51 [54] %.
  - "in sum, a large fraction of US current-account deficits has been financed with dollar liquidity creation, thus establishing an empirical association between excessive US spending and world liquidity".

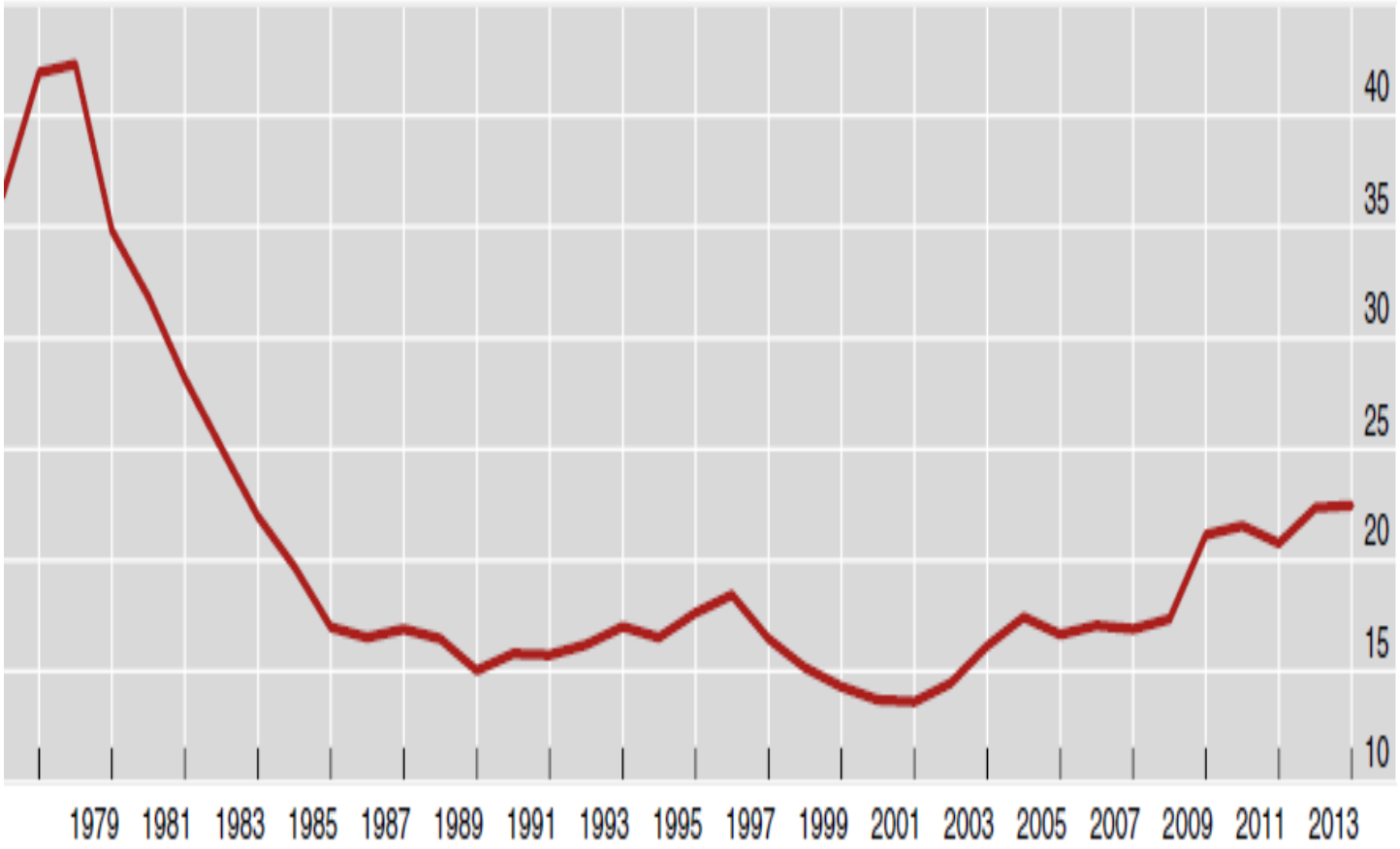
Fratianni (2012) table on current account Triffin (updated)

Period	(1) Cumulative current account	*Memo:% GDP*	(2) BEA	*Memo: COFER*	*Memo: reserve financing % = -(1)/(2)*
1973-1980	4	*0.1*	116		
1981-1985	-252	*-1.3*	17		*7%*
1986-1990	-607	*-2.4*	163		*27%*
1991-1995	-367	*-1.1*	279		*76%*
1996-2000	-1,200	*-2.7*	212	*558*	*18%*
2001-2007	-4,279	*-4.9*	2,048	*2,906*	*48%*
2008-2010	-1,517	*-3.4*	1,432	*1,447*	*94%*
2011-					

Three big problems with this argument

- In practice as well as in principle, $ reserves can grow on the basis of capital flows without US current account deficits and vice-versa.
  - As when Triffin wrote.
  - And, as table shows, occurred in 1973-1980.
  - And reverse: v little $ reserve growth in 1981-85 when $ was strong despite US current account going into wide deficit.
- Reserve liabilities have declined as share of US external liabilities.
- Moreover, US is not the only borrower of dollars (no "triple coincidence" (Avdjiev et al (2016)): lots of dollar debt outside US!
  - McCauley et al (2015a,b) find almost $10 trillion of dollar debt of nonbanks *outside the United States*.
  - Dollar reserve growth from IMF Cofer were $1.8 trillion larger than US Commerce Department increase in official assets in US in 1996-2014 (see Table).

Official liabilities have fallen as a share of US external liabilities (in percent)



Source: Bureau of Economic Analysis, US Commerce Department.

Cofer dollar reserves grow faster than BEA-reported official liabilities => dollar reserves invested outside US

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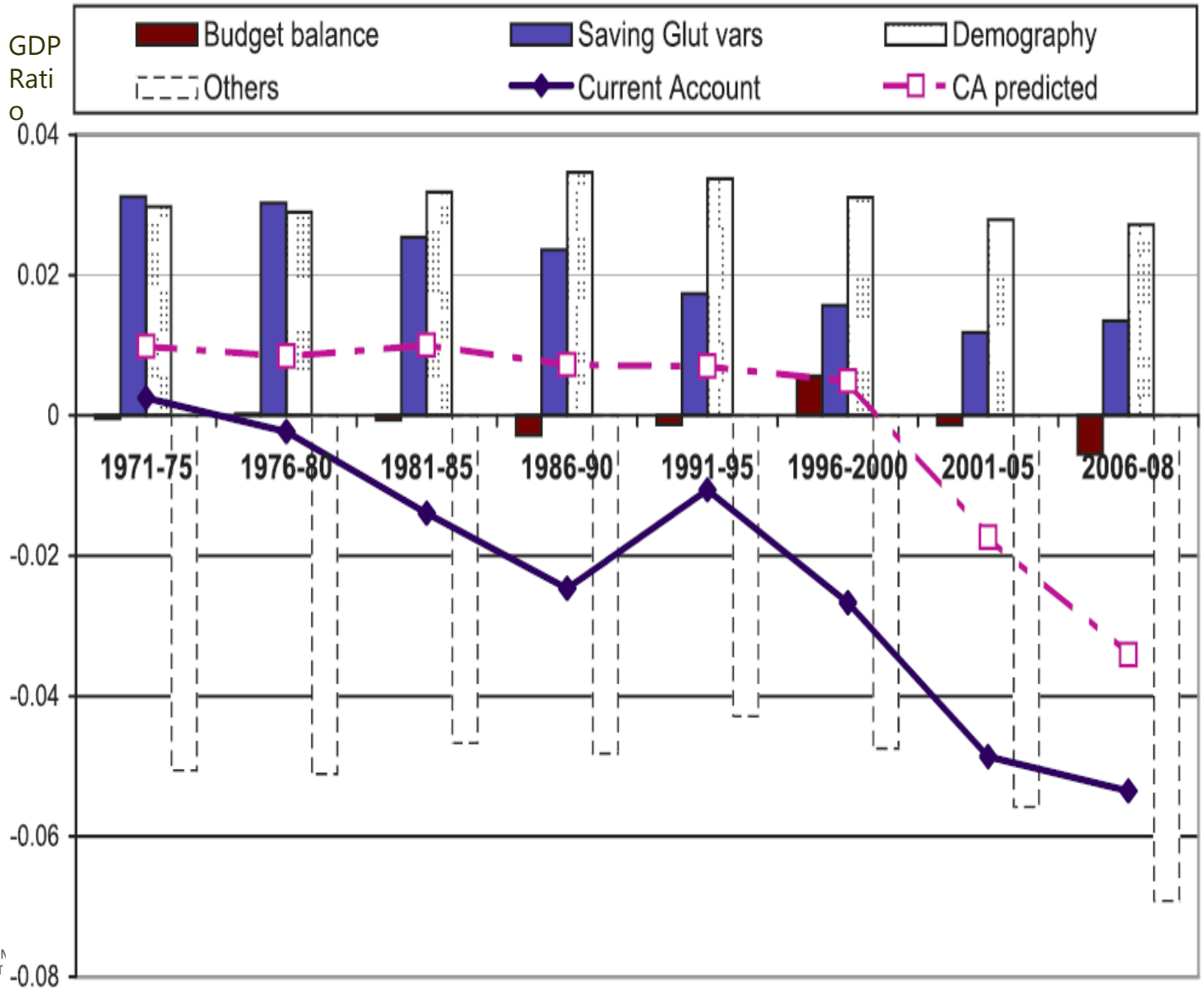
Steiner argues with more rigour but has also assumes only US borrows dollars

- Steiner (2014) "empirically tests the Triffin dilemma ["in its modern version"], according to which reserve currency status systematically lowers the [US] current account balance".
- Like Gagnon (2012, 2013) he finds a positive relationship between reserve accumulation and current accounts for emerging market economies.
- He also finds that after 1970 global reserve accumulation contributes significantly to US deficits, even instrumenting reserve increases (to address endogeneity).
- He finds that increases in official dollar reserve holdings add at least dollar for dollar to US deficits.

Chinn, Eichengreen & Ito (2014) panel regression predicts narrower US current account deficit observed



Current account Triffin: what are implications?

- If argument correct, US has smaller traded goods sector than it would have without reserve role of the dollar.
- However, Triffin-type argument requires that US supply of dollar reserve assets is unsustainable. Is it?
  - Yes, US net international *asset* position through 1970s has become a net international *liability* position of $7.3 trillion in Q3 2015 = 41% of US GDP.
  - But higher return on US assets than on US liabilities => US net international investment income was $247 billion in 2014 (1.4% of GDP)--US net debt is producing net income!
  - So US net debt is not spiraling upward at rapid pace.
- Break-down scenario is sudden stop of financing (mid-2000s call by Krugman, Obstfeld & Rogoff, Roubini, Summers) with result of depreciation of $, unemployment in US and redistribution outside of US from $ creditors to $ borrowers.

Current account Triffin: summary

- Not at all what Triffin had in mind: shift from capital account story to current account story (Swoboda (2012)).
- Taken in own terms, not demonstrated.
- For instance, Dooley, Garber and Folkerts-Landau's Bretton Woods II says the emerging market economies impose deficits on US but says that jobs, not international reserves, is the motive: role of the dollar (Triffin) or large US market (BWII).
- US advantage in international rates of return makes US current account deficits (and position of -42% of GDP) more sustainable.
- But even in the absence of such an advantage, Australia runs a higher net international liability position of 54% which the IMF's *Australia: 2015 Article IV Consultation* judges to be on a "sustainable trajectory".
- Break-down scenario of sudden stop of financing to US is not necessarily a system change.

Fiscal version of Triffin: if US Treasury satisfies demand for safe assets, it ruins its credit-worthiness

- Assume central bank reserve managers need to hold US Treasury securities for the bulk of their investments.
- Assume global central bank reserves grow with nominal GDP—in proportion to, say, M2.
- Then it follows that the US Treasury either leaves such demand for "safe assets" unsatisfied (deflation?), or ruins its own credit-worthiness in satisfying it (default or Fed-assisted inflation).
- But, but, but:
  - Demand side: global reserves stopped rising in 2014 ("peak reserves"), as commodity prices came back to earth and renminbi/dollar carry trades unwind.
  - Supply side: fiscally-backed agencies can issue debts backed by private ious..

Generalised Padoa-Schioppa version of Triffin

- There is only an accidental convergence of the interest of the national issuer of an internationally used currency and the broader global interest.
- A truism?
- But goes against notion that if every country "keeps its own house in order" then optimum reached.

Legacy of Triffin: the enduring appeal

- Systemic view.
- Quantities, ie stocks, matter.
- Instability of national currency playing an international role.