



Keynes' Clearing Union, the Dollar Standard, and the Perils of Globalization

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Abstract: The 1944 Bretton Woods agreement provided an international green light for the dollar standard. H. D. White, the lead US negotiator, saw to it that the ability of other countries to obtain commitments from the US (via the soon-to-be International Monetary Fund) for loans or approval for currency devaluations would be limited. J. M. Keynes, representing Britain, in contrast proposed an International Clearing Union that would issue its own currency ("bancor"), intended to reduce systemic dependence on the dollar or on gold. The ICU would be a bank for the world's central banks, which would allow debtor nations to borrow. In contrast to White's plan, ICU creditors would be expected to reduce their balances by expanding domestic credit or other means. Insights from Keynes' plan help to understand subsequent monetary history. An ICU premise was that international reserves should be pooled, and centralized. The Bretton Woods gold-dollar standard was jeopardized during the 1960s -- the Triffin dilemma -- when European creditor countries demanded gold reserves from the US. An intermediate-run monetary truce, proposed by R. Mundell, would have included joint US-European action to target a US inflation level and to adjust gold-to-dollar ratios in European reserves. Monetary cooperation could thereby have created *de facto* international reserves. Instead, the Bretton Woods exchange rate apparatus collapsed by 1973, leaving major currencies to float. Against expectation, international demand for reserves soared. Relentless demand for US assets has contributed to soaring debt and malign distributional consequences. And exchange rate depreciation has done little to correct account imbalances. Clearing Union concepts help to understand the euro experiment -- why it nearly failed, and how it recovered. An international currency can succeed only if 1) both creditor and surplus countries are required to adjust; and 2) member countries agree on inflation targets. Demands on China to revalue have been misguided. From the perspective of 2026, correction of account imbalances will not happen without the assent of the world's now largest creditor -- China -- which for domestic political reasons is likely to resist. Perils of globalization under the existing dollar standard are likely to continue.

Keywords: Bretton Woods, International Clearing Union, Bancor, John Maynard Keynes, Harry Dexter White, Robert Mundell, Triffin Dilemma, Michael Pettis, Martin Sanbu, Monetary truce (1966), Euro-zone, Renminbi revaluation, Partial equilibrium models, Multi-lateral clearing, Flexible exchange rates, US debt expansion, Globalization.

INTRODUCTION

By the 1920s, gold was being supplemented as an international monetary reserve by foreign exchange, especially British pounds and US dollars. Informally, the dollar gradually replaced sterling as the world's money standard between the two world wars. The Bretton Woods agreement of 1944 gave US negotiators, led by H. D. White, almost everything they wanted. The dollar standard was more formally inaugurated, and left gold in place as a national reserve. But J.M. Keynes, representing Britain, sought instead an "international" standard,

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separate from gold, sterling, or the dollar: the new standard would be a reserve currency issued by an International Clearing Union - intended as a bank for central banks. Had Keynes gotten more of what he proposed in 1944, the monetary history of the nearly 80 years since would be quite different. European currencies would more quickly have become convertible after the Second World War, the reserve crisis of the 1960s might have been avoided, and floating exchange rates would never have become a default solution for international monetary strains.

The introduction of the euro in 1999, initially proposed by Robert Mundell, provided a conceptual reprise of Keynes' plan for an international currency.² Reviewing the Bretton Woods choices offers sharp insights into why the euro experiment nearly failed, and why it is now on a better trajectory. Similar concepts suggest approaches to dealing with China on monetary issues.

We will consider these issues: The Dollar Standard, 2022; Bretton Woods, 1944; Dollar Convertibility, 1960s; Flexible Exchange Rates; The Euro-zone; A Note on China; and Closing: Missed Opportunities.

THE DOLLAR STANDARD, 2026

We now hear less often that the world's dollar standard is, as Charles DeGaulle once expressed, "America's exorbitant privilege." It is true that the US government can borrow easily, does not need to hold foreign exchange reserves, and earns seigniorage (has interest-free liabilities) on dollar currency held around the world. When the US finally ended gold convertibility in 1971, the role of the dollar in world economics was scarcely affected.

The rest of the world obtains dollars by running balance of payments surpluses with the US. Finance -- capital movements -- drive trade, not the other way around. As Mundell (1992) put it:

[I]t is inconceivable that fundamental and enduring changes in the balance of trade can be motivated other than by basic financial transfers. It is true that a shift of domestic expenditure from home to foreign goods will worsen the balance of trade and immediately force accommodating finance, a loss of reserves or a change in the exchange rate... [But] major trade deficits and surpluses are nearly always not only accompanied by but induced by voluntary financial transfers of one kind or another. (Pp. 48-49)

This consideration undermines much casual discussion of the US current account deficit. The mover is not over-consumption or under-saving in the US; the financial transfer to the US comes first. The concept of "comparative advantage" in trade may bring misleading inferences when shifts in trade are driven by prior shifts in finance, not by cost or production engineering factors. Understanding capital movements is at the center of Keynes' Clearing Union proposal.

The dollar standard has had three dubious domestic consequences, which have shaped popular conceptions of "globalization". Ease of borrowing has led to growth in US debt, both public and private; higher debt ratios increase susceptibility to financial crisis, domestic or international. The current stock of US treasuries is around \$40 Trillion, against

² Disclosure: years ago, Mundell was my informal dissertation advisor.

annual US GDP of about \$32 Trillion in 2026. This is a US debt-to-GDP ratio of over 120 percent, higher than it was at the end of the Second World War - the previous high-water mark. Of the amount held by the public in mid-2022, some \$32 Trillion, somewhat less than a third, \$9.3 Trillion, is held by non-US organizations or citizens, around 42 percent of it - just under \$4 T -- by foreign governments, that portion usually as central bank reserves. (USA Facts, 2026) The world demand for US treasuries is extraordinary, and comes from both private and public sectors. Nevertheless, a sharp increase in interest rates might at some point have a run-on effect on confidence. The US fiscal debt-to-GDP ratio is exceeded among major countries only by Italy at around 160 percent, and Japan, where it is over 260 percent. Italian and Japanese sovereign debt are held mostly domestically.

Far more US-originated securities held abroad are issued privately than by the US government; according to the US Treasury, of some \$35 Trillion in US securities held by foreigners in late-2025, over \$23 Trillion were issued privately (US Treasury, 2026). The argument is often made that smaller US fiscal deficits would reduce aggregate US borrowing, hence increase net US savings. I doubt this. If financial transfers drive current account deficits, then it does not much matter whether foreign lenders hold US government debt or US private debt. In an interesting study, *Trade Wars are Class Wars* (2020), Matthew Klein and Michael Pettis argue that the US government can make better use of incoming funds (by upgrading infrastructure, extending education opportunities, etc) -- than can the private sector, hence advocate an expanding issue of treasuries. (Klein and Pettis, 2020; pp. 202-203, 226) I think more important, Klein and Pettis also argue for systemic reform: getting major creditor economies to consume more, so that less capital shift to the US would take place. (Klein and Pettis, 2020; p. 228) Any higher debt issue, they believe, should be temporary.

Second, the dollar standard has been a factor in the relative de-industrialization of the United States. Consider the mechanism. The rest of the world transfers money to the US on a net basis, which finances the US current account (including trade) deficits. The US as a whole is materially better off; it consumes more goods, and, because it has expanded purchasing power, it also demands more services, which are mostly provided domestically. Consequently, a portion of the production capacity in the US that previously went to producing goods will shift to providing services to the growing domestic market. Meanwhile, the rest of the world produces more than it consumes - so activity there will shift to producing for export. Some US workers who previously produced goods will have lost their manufacturing jobs (McKinnon, 2013; Ch. 6). According to World Bank data, the share of US GDP in manufacturing has fallen from 16 percent in 1997 to below 10 percent by 2025. Comparative data indicates that manufacturing recently comprised nearly 18 percent of GDP in Germany in 1994, nearly 20 percent in Japan, and approximately 26 percent in China.³ Perhaps the aggregate economic costs of such shift in manufacturing are limited. The political and social consequences have been more troubling. Sections of the US that have lost manufacturing jobs have seen an increase in divorce and alcoholism rates, and often a decline in life expectancy (Nosrati et al, 2018). Consider evidence that 89 of the 100 counties in the US most affected by Chinese competition went for Donald Trump in the 2016

³ See Global Lead Manufacturing (2026) for the US, Global Economy.com (2025) for Germany, JETRO (2026) for Japan, and Statistica (2025) for China.

Republican primaries (Auteur, 2017).⁴To the extent that Trump's support movement had *economic* origins, the drain of manufacturing jobs in predominately white race districts is surely the place to look.

Third, the dollar standard, with its accompanying massive borrowing from deficit countries, has shifted consumption away from surplus countries, thereby contributing to growing rich-poor divides in those countries, beginning with China and (since Hartz Commission and related reforms) Germany. Klein and Pettis (2020) argue:

The reward a country receives for superior productivity is higher imports through improving terms of trade [a trade surplus is not a reward]. Persistent surpluses are almost always the consequence of highly unbalanced distributions of income in favor of businesses and the rich. (P. 228)

Meanwhile, the flip side of surpluses abroad, massive borrowing by the US has expanded the US financial sector, which contributes to income disparities there (Klein and Pettis, 2020; Ch. 6).

The dollar standard may be sustainable, but it is not optimal. Rather than challenge the lop-sided distribution of income in both creditor countries and in the world's leading debtor country, the working of the existing dollar standard tends to reinforce it. With a more rational international monetary system, more of the world's savings could support development in poorer countries - rather than subsidize consumption among the relatively wealthy.

BRETTON WOODS, 1944

The lobby of the IMF headquarters in Washington has two busts recognizing the organization's architects from Bretton Woods, New Hampshire, in 1944: Harry Dexter White for the US and John Maynard Keynes for Britain. White was an upper-mid level US Treasury economist who had gained the confidence of Treasury Secretary Henry Morgenthau. Keynes, then in declining health, was understood to be the world's leading theoretical economist; he represented the British Treasury without portfolio, and apparently without being paid.

Despite the equal placement in the lobby, White and the US got their way on almost everything. The IMF, in the mold of White's proposal, was established as a fund to provide temporary help to balance of payments deficit countries. Members subscribed -- with paid-in capital -- using either gold or national currency. Countries in distress could borrow up to their quota amounts. By IMF rules, countries were allowed to depreciate their currencies only in limited steps, and only with Fund approval. This structure would allow the US, at the time by far the world's largest creditor country, protection against large unexpected bills for war damaged countries, and would protect US industry against more than modest foreign currency devaluations. The dollar would be convertible to gold (by foreign central banks), and other currencies' values would be pegged to the dollar. White, and the US negotiating position, were broadly unconcerned about "global imbalances" in 1944 or in the years afterward (Steil, 2013; p, 136).

White proposed a quasi-gold standard. Diplomatically, the role of gold was packaging over what most understood to be a world dollar standard. Symbolically, White thought, gold

⁴ Cited in Klein and Pettis (2020), p. 2.

represented economic discipline, hence would be reassuring to US legislators. But White did not want an “automatic” gold standard of the pre-WWI model -- in which gold exports could lead to monetary contraction. White wanted the US Federal Reserve to be able to sterilize (that is, neutralize) the monetary impact of gold losses, hence to be able to pay out gold without affecting domestic monetary conditions. In contrast to what he had observed of the Great Depression over much of the previous decade, he wanted a *managed* monetary system. With few exceptions, the world has not backtracked since to allow gold movements to constrain domestic monetary policy.

Keynes picked up conceptually where White stopped. His framework for a Clearing Union and an international money was discussed among British officials during the three-year run-up to Bretton Woods. Many, although not all, British officials were on-board; demurrals from the Bank of England (skittish about “competition” from an international bank) weakened Keynes’ bargaining position in negotiations with the Americans. (Triffin, 1957; pp. 107-108)

Keynes’ plan was anticipated in the final chapter of his 1930 *Treatise on Money*, “Problems of Supernational Management.” His foremost objective at that point was to “abolish the Credit Cycle” (Keynes, 1930; II, p. 394); in more recent language, that meant he wanted to use monetary policy to prevent both recession (or depression) on one side and economic over-heating on the other. The Great Depression of the interwar period had been international in scope, caused in first approximation by a systemic shortage of gold (Keynes (1930), II, p. 290).⁵ A multinational collapse needed a multinational corrective. A paired objective for the Supernational Authority, as Keynes called it in 1930, was to stabilize the value of its issue, an international currency, and by extension, to stabilize the value of gold. But Keynes, unlike White, wanted to fade-out the monetary role of gold. The gold standard concept was automaticity - which might itself drive the Credit Cycle rather than soften it. Keynes thought we knew enough to bring the supply and demand for money into balance, hence to stabilize the cycle.

Keynes’ International Clearing Union was intended to operate on a “banking principle.” Country-members would make deposits in their own currency or in gold, which would become reserve backing for the new international money, “bancor.”⁶ Unlike the case for White’s Fund, finance would not be constrained by paid-in capital rules. Members would be able to borrow from the Clearing Union’s pool of deposits, at interest. Surplus countries would pay penalties on reserve accumulation - that is, on bancor balances -- above a specified level (British Information Service (1943), Section 2, Par. 6. The point was to get surplus countries to take action to reduce their balances, hence: they should open trade (by removing tariffs), raise wages to encourage consumption, take measures to expand credit, make loans to “backward” countries, or revalue currencies upward (Keynes (1989), XXV, p. 120).⁷ The combination of the banking principle and demands on surplus countries would allow a relatively small volume of reserves to support a large volume of transactions. Keynes’ reasoning hearkened back to the Bank of England before the First World War, which he dubbed the “conductor of the international orchestra” (Keynes (1930), II, p. 307); the pre-1914 Bank could affect interest rates and liquidity conditions around the world even

⁵ Also, Johnson (1997), Chs. 3, 4.

⁶ “Bancor” is the French word for bank-gold.

⁷ Also, British Information Services (1943), Section 2, Par. 9.

though Britain's monetary gold stock was smaller than that of several other countries. As a central bank, it consolidated reserves for the British domestic banking system. The Clearing Union, by analogy, was to be a bank for managing central bank reserves. It would be capable of deliberate expansion and contraction to offset deflationary and inflationary pressures in effective world demand. Gold would be included in the balance sheet of the Clearing Union, but it would not be paid out in exchange for *bancor*, dollars, or anything else. Gold would survive as a "constitutional king," kept on to symbolize continuity and international cooperation (Keynes, 1930; II, p. 292).

Let's highlight several concepts from the Clearing Union plan:

- pool, hence economize in, reserve holdings
- put finance before trade - hence seek some direction over the volume of capital movements, including "speculative" flows
- *manage* international supply and demand for money (end *automatic* reserve standard)
- convert gold from a national to an international reserve
- the expectation that surplus countries should take action to move closer to balance;
- countries' internal balances (including wages, availability of credit, and income distribution) are areas of potential international intervention

(Note that Keynes did *not* include common fiscal policies as a necessary condition for having an international currency. Indeed a 1943 draft was specific that "the plan must be capable of application irrespective of ... the economic - policy existing in the prospective member States" (British Information Service, 1943; p. 3)).

The ICU was designed to deal with international imbalances, not domestic income distribution. But the last of the concepts above, on internal balances, is easily adapted to impact de-industrialization, debt expansion and rich-poor divides noted earlier.

Keynes' obvious foil was the US argument at the time that trade and investment should be open, and that deficit countries had no claim on surplus countries' resources or reserves. Keynes' response was that failure to deal with balance of payments shortfalls of Britain and European countries after the War would prevent the recovery of trade and investment, and throw the world economy back into 1930s-style stagnation. By 1947, the Truman Administration concluded that war-damaged European countries needed capital transfers. Keynes had recognized that large capital transfers, something like what became the Marshall Plan, would be necessary; he had hoped to do it through what would be routine "banking" operations of his Clearing Union. The Marshall Plan was administered outside the IMF - which from its earliest years damaged the latter's prestige (Mundell, 1969; p. 476).

Another context for the Clearing Union at the time, and another foil, was the spread of bilateral trade, and hence of bilateral clearing arrangements, in the years before and during the Second World War. Britain had deployed bilateral mechanisms to expand trade within the Empire following the Ottawa Conference of 1932. Germany had recovered from economic collapse in the early 1930s under guidance from Hjalmar Schacht and his successor at the Ministry of Economics and the Reichsbank, Dr. Walther Funk. They were joint architects of a German "New Order" - whose international prestige was high in the early

years of WWII. It offered a blueprint, indeed a trading system, based on cross-border barter; it could work without gold, in fact without the need for reserves or even money. Keynes himself, in November 1940, spoke well of a Funk draft (Keynes, 1989; XXV, p. 2).

Looking ahead, a portion of British officials wanted to continue with bilateral payment schemes. But Keynes wanted the *postwar* world to move beyond such a Depression-era framework. Presented with the argument that his Clearing Union offered no assurance that debtor countries would make good on their borrowings, he turned to the alternative offered by German bi-lateralist architects to make his case. He wrote in December 1942:

91. It is a great advantage of the proposed Currency Union that it restores unfettered multilateral clearing between its members; so that no action is necessary except where a country is out of balance with the system as a whole.

92. Compare [our proposal] with the difficulties and complications of a large number of bilateral agreements.... If the argument is used that the Clearing Union may have difficulty in disciplining a misbehaving country and in avoiding consequential loss, with what much greater force can we urge this objection against a multiplicity of separate bilateral payments agreements. (Keynes, 1989; XXV, p. 122)

The prospect of default by deficit countries was nevertheless daunting to US officials, and could furnish a pretext for outright rejecting the Keynes Plan. In Keynes' defense, he was focused in 1944 on a potential systemic shortage of liquidity. He frequently noted in memoranda leading up to Bretton Woods that a balance would have to be struck between "rules" and "discretion" for managing the Clearing Union (Keynes (1989), XXV, pp. 73, 233-235). The Clearing Union's governors might introduce more leverage against debtors over time. Robert Triffin noted later that managing this risk was not an economic problem - it would be analogous to the management and credit decisions that any private sector bank faces -- but rather a political and diplomatic one (Triffin, 1960: pp. 92-93).

The White Plan had more serious drawbacks. Its adoption was slow out of the gate. Absent a multi-lateral clearing mechanism, bilateral arrangements were in full-swing following the end of the War in 1945 (Triffin, 1957; pp. 143-145). Even these were preferable to autarchic outcomes likely in their absence. Only with the European Payments Union of 1950 was multilateral clearing systemically attempted; even that was intra-regional, hence discriminatory toward non-European countries that would have been included in Keynes' ICU. By 1959, nearly 90 percent of intra-European trade was conducted without quantitative restrictions, and negotiations to lower or remove tariffs were underway (Triffin, 1957; pp. 204-207).

The US, led by White, seemed to anticipate that the US would remain a creditor-nation indefinitely. So the US showed scant interest in any symmetry between expectations for debtors and those for creditors. But as the monetary order took shape, it would not be possible for the US both to supply the world with dollars and to maintain sufficient gold reserves to meet a convertibility commitment. External demand for dollars could be satisfied only through ongoing US payments deficits. As more dollars were supplied to the world, US and foreign demand for gold reserves would increase. This Triffin Dilemma, with origins in the White Plan and spelled out in US Congressional testimony in 1959, noted the

world economy's dependence on the US international deficits. Without liquidity, the world economy could revert to 1930s-era economic contraction. But if the deficit continued, dollar liabilities would soon exceed US gold reserves - and at some point the US would have to shut the gold window, which in theory could capsize confidence in the dollar, the key international money. Triffin noted "the present, and totally irrational, use of *national* currencies as *international* reserves." (Triffin, 1960: p. 90) Even now, in 2026, national currencies continue as international reserves.

DOLLAR CONVERTIBILITY, 1960S

The world moved on from the Second World War with the dollar standard at full mast. By 1960, history was repeating: as had happened in the 1920s, European central banks wanted to augment their reserve levels. US dollar liabilities did not rise from 1964 to 1967 - additional dollars acquired abroad were converted to gold. By the mid-1960s, the US was down to about 400 million ounces of gold reserves (about \$14 Billion in prices then) and European countries as a group had 460 million ounces (\$16 or \$17 Billion). US consumer and wholesale price indexes were beginning to bubble upward. Bretton Woods issues were back on the table, and there was new interest in having an international currency. The IMF Articles of Agreement were revised in 1969 to make Special Drawing Rights (SDR's) a supplemental official reserve, and to require member countries' central banks to accept it. But by recent count, only about 3 percent of world reserves are held as SDR's. They were issued in ways that limited their use, and left most countries preferring to hold dollars or other hard currencies. The US was unenthusiastic, and preferred to continue to earn seigniorage, and to borrow abroad in its own currency. For the moment, Triffin-dilemma risks to reserves and the costs of offshoring manufacturing were pushed aside. (Di, et al, 2017; p. 2) Another complication was the unpopular war in Vietnam; some European leaders were less than enthusiastic about helping the US deal with strains of an unpopular war. SDR's arrived too little, too late.

Even without an international currency, there was in concept a way to deal with the Triffin dilemma of the 1960s. Professor Mundell proposed an "intermediate-run" solution, a monetary truce. His argument appeared in an academic article, "The Crisis Problem," in 1966 and again in an address to the New York Federal Reserve Bank the following year. (Mundell, 1968; "The Crisis Problem," pp. 282-288; and "A Monetary Truce," pp. 288-297) The Federal Reserve was sterilizing gold outflows - hence not allowing gold losses to generate US deflation. Despite falling reserves, the US was committed by IMF Article IV-4-b to buy and sell gold at the set price of \$35/ounce. The private market for gold at the time was small relatively to central bank holdings in the US and abroad; central banks, in coordination, could easily have maintained the \$35 price. What happened instead was that US cyclical monetary policy and European gold reserve policy were uncoordinated, indeed in conflict. US monetary policy became more expansionist as Vietnam war spending heated up; meanwhile, Europe as a whole by 1965 had tightened monetary policy to control price increases. European officials, concerned about reserve adequacy, and led by France, presented more dollars to the Federal Reserve in exchange for gold - putting the US gold stock under pressure. Much talk about allowing gold prices to go higher added to official speculation against US gold holdings, and to more European conversions. Under pressure, the US ended gold convertibility in August 1971.

The US and various European authorities might instead have agreed to collaborate on meeting two targets: first, a suitable rate of price inflation (or perhaps a related target of aggregate demand growth); second, agreement to stabilize the market gold price at \$35/ounce. For the second target, only the US was committed to the IMF rule requiring it to buy or sell gold. The US was, therefore, not able to set conditions in the gold market; it could only react to them. To maintain the \$35 price would hence require that European central banks demand gold from the US only when the price fell below \$35, and sell gold to the US when the price rose above that. In contrast, the US was in a better position to stabilize the first target, the inflation rate. An increase in US money in circulation would mean a larger US balance of payments deficit, which increases liquidity in other parts of the world. Europeans would agree to stabilize the gold market, and accumulate dollar reserves, only if they could agree jointly with the US on an inflation target and hence on a world liquidity level.

Consider this proposed truce in view of concepts underlying Keynes' Clearing Union plan. For European central banks to stabilize supply and demand for gold -- without deliberately adding to their own gold reserves⁸ -- is to economize and pool reserves. The joint effort to stabilize the price of gold moves a step toward *internationalizing* what had been separate US and European reserves. Coordinating with foreign central banks to agree on a world inflation target works to stabilize the international balance between supply and demand for money. It also implies that surplus countries during the 1960s, perhaps including Germany and the Netherlands, would have needed to synchronize their monetary policies with deficit countries. A practical consequence of the truce would have been that monetary and finance issues could have been sorted out prior to entering negotiations on trade or investment rules -- again in line with Clearing Union premises.

FLEXIBLE EXCHANGE RATES

Flexible exchange rates appeared as a conceptually elegant solution to all of the left-over issues from Bretton Woods and the rising inflation and gold reserve pressures during the 1960s. In concept, "the market" would determine the price of currencies, based on supply and demand. Countries would no longer need to hold reserves, and gold could be demonetized. Any uncertainty arising from foreign exchange cost fluctuations could be mitigated or removed through futures markets, which were soon opened in New York, London, Chicago and elsewhere.

The usually underlying objective for having flexible exchange rates is to allow national management of monetary policy; impacts on trade and competitiveness are second-order. The important consequence of the British depreciation in 1931 and the US depreciation in 1933 was for each country to relieve reserve pressures, hence to ease monetary policies, and thereby to increase aggregate demand. To illustrate, US industrial production rose by over 50 percent in the four months following President Franklin Roosevelt's decision to de-link the dollar from gold in March of 1933 -- simply on anticipation of higher selling prices.⁹ In their meetings a decade later, both White and Keynes understood

8 More specifically, without adding to their own reserves at a pace faster than the systemic increase in gold reserves, which would largely reflect the rate of new gold production.

9 For background, see Sumner (2015), Ch. 7.

that an automatic gold standard, or a gold exchange standard as it existed between the world wars, had deflationary potential.

Under conditions of unemployment and deflation - where demand for money exceeds the supply - exchange depreciation can be part of a corrective policy package. Triffin (1960) noted the “hard core of validity” in the flexible exchange rate case:

[E]xchange rate readjustment to “realistic” levels is preferable to vain and costly attempts to preserve “unrealistic” exchange levels through persistent reserve losses, foreign borrowings, or trade and exchange rate restrictions (p. 85).

But often, depreciation has the consequence of ratifying inflationary pressure. In the post-Bretton-Woods period, Britain in 1949 undertook a major devaluation (from \$4/pound to \$2.80/pound) - despite already excessive domestic liquidity and bubbling inflation. The devaluation generated still more liquidity, which contributed to aggravated cost and wage pressures in Britain for at least the next couple of decades. (Mundell, 1968B; pp. 135-136) I suspect that something similar would have happened if Greece had left the Euro-zone in 2011 or 2015.

Rather than tally up instances where depreciation was effective, or not, consider the mechanism of the way economies adjust to exchange rate fluctuations. If the central bank targets a certain level - suppose it is the Bank of England, and it targets the pound at \$1.50 - then the Bank will buy dollars and sell pounds if the pound strengthens to \$1.51. If the pound weakens to \$1.49, the Bank of England will sell dollars and buy pounds. These central bank interventions will themselves move British money quantities in the direction required to keep the pound at \$1.50.

Now suppose the Bank of England is passive in the face of market-driven movements of the pound above or below \$1.50. As the pound weakens, speculators might buy dollars and ride the downward wave - to \$1.49, 1.48 etc., as sterling is dumped on the market. The stabilizing effect for domestic money conditions in having the Bank of England intervene at a fixed level, as described a moment ago, is lost. (Triffin, 1960; pp. 84-85) Exchange rate passivity by central banks - that is, floating exchange rates -- almost in its essence generates price instability. Either a weaker pound, or a stronger pound, will have knock-on effects on other British costs and prices.

An inference from looking at today’s capital movements, and a premise of Keynes’ Clearing Union proposal, is that current account imbalances are generally driven by prior capital movements¹⁰ -- *not* by cost and price patterns. Central banks around the world want their currencies to be stable, and will hold reserves as a war chest to accomplish that. An obvious consequence of the floating rate regime in place since 1973 is that the world’s official monetary reserves soared (nominally) from \$77 Billion in 1969 to over \$12 Trillion in 2022 (IMF Reports). It is clear that the shift to flexible exchange rates in 1973 has not solved the reserve puzzle that was at the center of plans and negotiations in 1944!¹¹

¹⁰ Also, Mundell (1992), cited earlier.

¹¹ The 1973 decision that major currencies would be allowed to float against the dollar was not inevitable. Helmut Schmidt and Valerie Giscard d’Estaing were finance ministers of West Germany and France in the early 1970s when the decision was made to leave the Bretton Woods fixed-exchange rate system. Both said years later -- approximately in 1978 or 1979 -- that floating their

An effort to deal with imbalances by allowing exchange rates to rise or fall -- hence focused on marginal cost and price patterns -- diverts attention from the real financial shifts underneath (McKinnon, 2013; p. 13).¹² Indeed, this part of the flexible rate agenda repeatedly displays partial equilibrium fallacies. Consider the claim that an exchange depreciation improves the trade or the current account balance.

- A first problem with this concept is that the consequence of depreciation for the trade balance depends on relative price elasticities of imports and exports.
- A second is that exchange depreciation can ease monetary conditions, which raises domestic demand, and can thereby raise demand for imports - and hence increase the current account balance, not reduce it.
- A third is that a lower currency makes capital assets and real estate cheaper for foreign buyers, and hence may increase capital inflows and thereby, again, increase the current account imbalance.

It is almost predictable that despite dollar depreciation relative to the pre-euro German mark and the Japanese yen from the 1970s into the 1990s, bilateral US current account deficits with those countries hardly budged.

Now, as before, consider the world's 50-plus year-old flexible exchange rate regime in light of concepts underlying Keynes' Clearing Union plan. Far from pooling reserves internationally, countries have built up their own reserve hoards. For US interests, the situation should be unacceptable - demand for US financial assets leads to build up of public and private debts, and manufacturing shifts abroad as US demand for goods and services exceeds supply. Flexible rates have done nothing to change the underlying capital account imbalances in the US and to a lesser extent in Britain, Canada and Australia (the flip side of foreign reserve accumulation.) Where politicians and others call for a brake on globalization, they are venting frustration over such growing debt, manufacturing shifts, and domestic wealth redistribution.

THE EUROZONE

The euro is an international currency. Unlike bancor, which was intended to be used to settle balances among central banks, the euro is used for everything. But the case for introducing a euro, and for replacing national currencies, draws on arguments similar to Keynes' of 1944. Mundell was an early advocate for a European currency, and is sometimes called the "father of the euro." Short of an ideal world currency, Mundell argued that a Europe-wide currency, as an intermediate solution, could help to reduce pressure on the US gold stock. His argument for the euro draws on the "monetary truce" reasoning noted

currencies had been a mistake, that fixed exchanges should have been made to work (presumably through creating more reserves via raising the official price of gold, creating more SDRs, or some version of Mundell's proposed monetary truce described earlier). My source for Schmidt and Giscard is Mundell, who shared their comments at one of his July conferences in Santa Colomba, Italy - probably in 2008, although I may be off by a year. I checked with Mundell a year or two later, and he reiterated what he had said at the Santa Colomba conference.

¹² Also, Triffin (1960), p. 82.

earlier, and similarly on the 1944 case for a Clearing Union. He said this at a conference in Madrid in 1970:

The United States is powerless to correct its deficit, short of forbidding other countries to buy or use dollars, which would be absurd. Hope for correcting or reducing the US deficit lies with Europe. Only by creating a substitute for the dollar can Europe free itself from dependence on it, and only through this means can the United States correct its balance of payments....

... In the long run [creation of a European money] would enable Europe, eventually in equal partnership with the United States, to develop instruments for the rational monetary management of the world economy. (Mundell, 1973; p. 155)

Mundell in Madrid was building on logic of his proposed “monetary truce” of 1966. US deficits during the 1960s resulted from Europe’s relatively tight money policies. A “substitute for the dollar” would have provided an alternative for holding both world official reserves and private sector liquidity; looking forward, some 20 percent of the world’s official monetary reserves are now held as euros. A common currency, as an alternative to having more than a dozen continental currencies floating against each other, would also encourage cross-border investment.

Having a common European currency continues to raise questions about cultural and political integration that I will not try to answer. Let’s focus here on the economic issues. It was, and is, frequently said that Europe could not have successful monetary union without fiscal union, meaning a common Euro-zone budget, replacing a large portion of what have been separate national budgets. But Mundell’s proposed monetary truce -- a common US-Europe inflation target and gold policy during the 1960s -- would have maintained the fixed rate system *entirely absent a common fiscal policy*. In this also, Mundell followed Keynes’ ICU precedent, which did not require common fiscal policies. (And, of course, the pre-WWI gold standard worked without fiscal coordination among leading economic powers.)

Following the 2007-2009 financial crisis and related “great recession,” economic conditions in the Euro-zone “periphery” countries were stressed to the point that many anticipated break-up of the common currency. What had gone wrong? In a couple of sentences, policy before the crisis allowed over-borrowing and boom conditions in the deficit (periphery) countries; after 2009, policy reversed -- for the short-term benefit of surplus economies at the Euro-zone’s “core,” hence bringing distress to deficit countries.

A common currency must embrace market discipline; it cannot require that all sovereign debt within the currency arena be treated as having equal risk. Alas, the European Central Bank telegraphed just that, with the consequence going into 2008 that financial markets yield levels nearly converged between German sovereign debt and that of countries to the south. The knock-on effect was that Greek, Italian and other southern governments issued more debt during the early years of the euro than the market could support, a imbalance that flowed over to the private issue market. Private borrowing soared in Spain, Italy, Greece, Portugal, Ireland and Slovenia, often deploying resources from German banks (Klein and Pettis, 2020; p. 163-164). Meanwhile, performance in the Euro-zone “core” countries around Germany and the Netherlands remained subdued. Euro-zone monetary

policy hence favored deficit countries during much of its first decade -- an unsustainable pattern.

The correct finance decision after the 2008 market implosion would have been to put unserviceable debt in default; but to the contrary, the ECB and European Commission maintained a no write-off stance. *Financial Times* economist Martin Sanbu summarized the creditors' policy mistake:

In the first phase of the crisis, Germany should therefore be blamed not for giving too little but for giving too much. It was best placed to insist that Greece's sovereign debt in private hands should be written down and, half a year later, that Irish banks should be restructured, before it acquiesced to rescue loans. In the ensuing years Berlin demanded and obtained restructurings in Greece and Cyprus. Its failure to do so at the outset, buckling instead to pressure from France and others, was the single most damaging mistake in the entire [E]urozone crisis. (Sandbu, 2015; p. 267)

Periphery countries were expected to service the bad debt via fiscal austerity measures, regardless of consequences for private sector demand or employment. By 2009, aggregate demand had collapsed in periphery countries, hence appropriate monetary policy for them should have been far more relaxed. Instead tighter policies stayed in place -- policies that might in isolation have suited surplus countries. (Observe the Taylor Rule chart, which indicates sharp differences in appropriate interest rate policy in the core and periphery countries during 2001-2011.) To make analogy to Keynes' 1944 plan, what happened to periphery countries after 2008 was the equivalent of cutting off access to bancor.

Over the next few years, the ECB, European Commission and on occasion the IMF joined to soften the no debt write-off policy. (Sandbu, 2015; Ch. 6. Johnson, 2022; pp. 46-47.) Private sector negotiations led to write-offs of Euro 107B of Greek debt. Meanwhile, ECB President Mario Draghi (2011-2019) provided a lender-of-last-resort backstop to banks, and directed short and long-term monetary injections. We hear much less often than a decade or more ago that the euro should be abandoned, or confined to a smaller group of users. Keynes' advocacy for an international currency in 1930, and again at Bretton Woods in 1944, was contingent on agreement among member countries about monetary goals. It also required that surplus countries adjust. Without those understandings, a cross-national currency will fail. The euro has survived. The Eurozone as a whole, however, continues to run a surplus with the rest of the world - a reflection of German weight in policy circles.

A NOTE ON CHINA

China's leadership might welcome an opportunity to weaken the international role of the dollar. And, as argued above, overuse of the dollar strains US capacity to carry debt and leads to outsourcing of manufacturing. China is now a major world creditor, with over \$3 T in official reserves, a position in some ways comparable to the US creditor position in 1944. Whatever the purported economic advantage might be, China is unlikely to agree to any restraints on what creditors can do; and without that kind of debtor-creditor symmetry, too few renminbi will be available to take much weight off the dollar's international role.

From 1971 to 1996, the Japanese yen was revalued repeatedly against the dollar, from 360 yen/ dollar to 80 yen/ dollar. The ever-rising yen ensured tight money, hence it suppressed demand growth in Japan. Economist Ron McKinnon argued that the yen-appreciation policy “knocked Japan off its high-growth path into semi-stagnation and deflation.” (McKinnon, 2013; pp. 154, 197) An interesting question is of whether the US *deliberately* knocked Japan off its growth path so to weaken an economic competitor¹³ - or whether the US gave bad advice because its economists were confused about the way the international adjustment system works. Persistent support among economists for flexible exchange rates (which usually implies partial equilibrium reasoning) makes it likely that demands for Japan to appreciate the yen were more misguided than cynical.

Chinese economic officials are aware of the damage yen-appreciation policy did in Japan, and China was never going to follow a currency appreciation path, no matter how many Western economists encouraged them to do it. Consider the damage that a more determined renminbi appreciation policy might have done.

- A higher RMB would lower China’s import costs, which taken alone would encourage Chinese consumption. But an effect of a higher RMB, especially combined with the expectation of further RMB appreciation, would have been to create uncertainty that would discourage wage increases sufficient to match productivity improvements. (McKinnon, 2013; pp. 150ff.) This parallels what happened in Japan by the early 1970s.
- Anticipation of a higher RMB would have driven Chinese interest rates downward relative to US or European rates. As US and European rates were already zero-bound, such pressure might have created a liquidity trap, discouraging lending.
- Many Asian economies linked their currencies to the dollar. A revaluing RMB would have upset price relationships, and hence credit cycles, throughout the region. (Consider that a decline in the exchange value of the yen during the sharp dollar recovery of 1995-97 upset trade and investment patterns, left nearby currencies over-valued, and helped trigger the regional financial crisis that began in 1997.)

The deeper weakness in the advice that China appreciate the renminbi is that it would do little or nothing to change the distribution of domestic resources; it would not increase Chinese consumption as a portion of output. Chinese investment - public goods, manufacturing for export, etc. - has long run at about 45 percent of GDP, an unusually high ratio, which implies a matching low ratio of consumption. (McKinnon, 2013: pp. 132-133) The Chinese political power structure appears to become more rigid under Xi Jinping’s directives, which (at first approximation) makes a substantial increase in the rate of consumption unlikely. Once again, we see the link between deliberate surplus country policy and suppression of domestic consumption.

The US should offer to link dollar and renminbi exchange rates; doing so would remove the potential downside of renminbi revaluations or threats of revaluations. (Similar offers could be made to link the dollar to the euro or the yen.) Linked exchange rates would require at least tacit agreement on an inflation target - as establishing a clearing union in

¹³ Mundell made this argument to me in conversation in 2005. To my knowledge, he never published it. He advised Chinese officials on monetary issues, so he likely shared his view with them.

1944, or subsequently, would have done. We can revisit concepts embodied in the 1944 Keynes Plan to determine what the US (or other monetary collaborators) might seek in return. China as a current account surplus country should find a way to increase domestic consumption, hence to reduce its lending to the US - and to others. By the logic of international economics, correcting finance should come before negotiating trade commitments.

But Xi Jinping was brought to power by the Communist Party in 2012 very likely to slow progress toward adopting market solutions, and toward property rights. Going forward, the hallmark of this policy is likely to be continued emphasis on, and investment in, production for export. The Communist Party's priority now is to keep itself in power. Consumer welfare, trade, and international balances will take a back seat.

CLOSING: MISSED OPPORTUNITIES

We can draw attention again to insights from the never-adopted Keynes Plan about subsequent monetary developments.

Under the dollar standard, the US runs ongoing current account deficits to provide systemic liquidity. And a portion of the world's savings is deployed every year as lending in support of consumption in the US.

The Keynes Plan would have made demands on surplus countries. It would invite attention to influencing the business cycle, and to domestic balance - ie, volume of debt, of consumption, of wage levels. If Keynes' Plan had won out in 1944, the world would be experiencing globalization differently: certainly with less sovereign debt, probably with less capital-market-driven interference of investment and trade values.

Keynes anticipated - absent his Plan -- something like the 1947 monetary crisis in Europe, when bilateral clearing arrangements reached their limit, and which could not be overcome by national governments acting on their own. The European Payments Union, which was established in 1950, moved toward multilateral clearing. The Clearing Union plan proposed a parallel arrangement years earlier.

The Triffin Dilemma, whose origin was implicit in the White Plan, arose from the use of a gold-backed national currency as an international reserve. The Keynes Plan, in contrast, sought to make gold an international reserve, and to replace dollars and pounds as reserves with an international currency, *bancor*.

A monetary truce, proposed in 1966, could have overcome the Triffin Dilemma. The truce would have pooled gold reserves between the US and European countries, while agreeing on an inflation target. These two steps would have been central activities for the Clearing Union.

A common European currency - with structural parallels to the ICU's *bancor* -- would require in order to succeed: 1) that monetary policy be suitable across the currency zone (eg, for favorably influencing the business cycle); and 2) that both deficit and surplus countries adjust their current account imbalances. Well into the second decade of the euro experiment, these requirements were not met; the future of the currency was in some doubt. More recent ECB and European Commission policies of writing off bad sovereign debt

and better adapted monetary policies have made the euro more sustainable. These moves have been comparable to a Eurozone monetary truce.

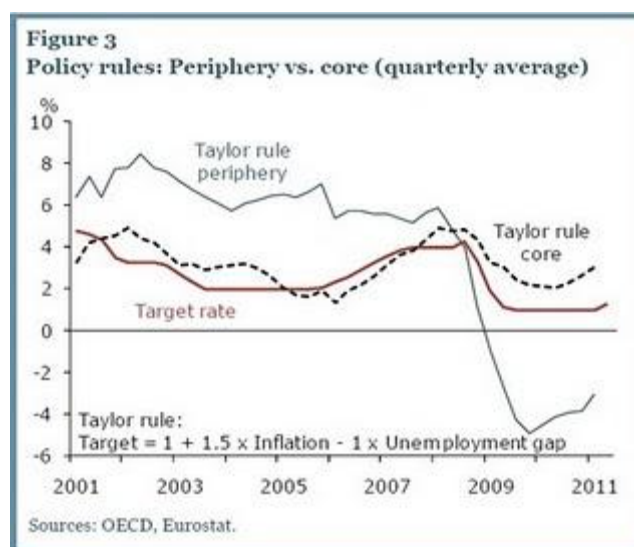
Flexible exchange rates since 1973 have done little or nothing to correct international account imbalances, and have meant the US continues to provide liquidity to the world by running balance of payments deficits. Apparent failure to understand these dynamics have led to usually destructive pressure on Japan, and then on China, to appreciate their currencies. The flip side of reserve accumulation has been more US sovereign and private sector debt and more de-industrialization.

Under the Trump reign, the US seeks both to maintain, and even extend, the worldwide use of the dollar, while simultaneously (and contradictorily) attempting to reduce the US trade deficit through an almost whimsical array of new tariffs. Meanwhile, strong domestic demand, reflecting tax cuts, higher defense spending and easier monetary policy, keep the national debt expanding. Trade deficits will persist, and perhaps grow. By the measure that macro-economists prefer, the GDP growth rate versus typical interest rates, the US economy has behaved surprisingly well over the past decade and a half (Carlson-Szlezak and Swartz, 2024; pp 170-172). Other factors could nevertheless undermine confidence in the US dollar: eg, official corruption, declining confidence in the legal system, weakening commitment to defense alliances and world order (Eichengreen, 2026).

Mundell intended back in 1970 for the euro to supplement, and relieve pressure on, the dollar as an international currency. But the euro is used in a relatively declining portion of the world economy - it is unlikely as a dollar replacement. The renminbi continues to be a controlled currency, and anyway China continues to run a large balance of payments surplus, which together will restrict the quantity of RMB available for any but a marginal role as international money. Choices of international currency tend to change only slowly, requiring at least decades. Steve Hanke has called the dollar “the cleanest dirty shirt around;” its central role is likely to survive the Trump chapter. If it does not, the probable alternatives are likely to be monetary chaos, and reduced growth - not a transition to a dollar replacement.

* * * *

Taylor Rule Chart



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