

Another Bretton Woods Reform Moment: Let us Look Seriously at the Clearing Union

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In October, Kristalina Georgieva, the newly elected IMF Managing Director announced “A New Bretton Woods Moment”.¹ While the invitation was short on operational specifics many commentators believed it referred to changes in the operations of the Fund that would be required to accommodate and exploit the introduction of central bank digital currencies. More traditional observers have continued to recommend already proposed changes in quotas and governance conventions, or amplification of SDR allocations which sidestep the political difficulties surrounding quota adjustments. SDRs are already transacted in digital form and thus should be well positioned to incorporate the introduction of national digital currencies. This note proposes an alternative route to reform that would avoid the inherent contradictions in Fund operation that would be retained by these existing reform proposals, suggesting that the appropriate form for the introduction of the electronic currency age is Keynes’ original clearing union proposal. It is informed by Keynes’ observation at the Savannah Inaugural meeting of the Fund that it was better interpreted as being a bank.² It proceeds to show that the Fund operations continue to exhibit the instability that had plagued banks, as seen in the most recent financial crisis, while suggesting that this could be avoided by an alternative interpretation of what Keynes called the “banking principle” in his clearing union proposal. It closes by suggesting that Keynes proposal is in fact already operating in the private sector and provides a more general framework for reform than the various private cyber currencies or central bank digital accounts.

The Theory and Practice of 19th Century International Monetary System

The international financial crises of the 1920s raised the problem of whether gold should remain at the centre of the international financial system or eliminated in favour of a system of managed money. The framework of analysis was a theory we know as the quantity theory applied at the national level and “price-specie-flow” mechanism on the international level. At the national level, the inefficiency of bilateral exchange of goods and services leads the market to replace the inefficient mechanism of $\{n(n-1)/2\}$ bilateral exchange rates with $n-1$ commodity exchange rates against a single commodity, the most appropriate having particular characteristics mostly satisfied by gold. Changes in the availability of gold would lead to an increase in gold prices and vice versa, inflation or deflation with stability produced by a stable supply. This is the traditional quantity theory. In the presence of international trade in commodities, external imbalances are discharged against the import or export of gold, producing the appropriate adjustment in domestic prices and relative international competitiveness leading back to balance. The only regulation was to fix the weight of the national gold currency unit which also fixed exchange rates, there was no requirement to stabilize the exchange rate – price flexibility, which implies instability in the value of the domestic currency acts to produce both international adjustment and stability of the domestic currency.

¹ <https://www.imf.org/en/News/Articles/2020/10/15/sp101520-a-new-bretton-woods-moment>, October 15, 2020

² “I shall always hold to the view that the christening has been badly done and that the names of the twins should have been reversed.” *The Collected Writings of John Maynard Keynes*, Vol XXVI: 215, 1980.

However, most practitioners recognized that theory did not work in practice (think this is a quote from Yogi Berra). For example, Keynes in his first book on international finance under the gold standard³ pointed out the crucial role of the structure of England's balance of payments that allowed it to act as an international creditor, and the role of bank rate in producing international financial flows that supported stability. Since Britain had claims on the rest of the Empire, any deterioration in British external accounts could be offset by a rise in bank rate that reduced British lending abroad and increased the debt service flows and deposits from the rest of the world to London, creating an increased demand for sterling and an inflow of gold to restore balance. In this more realistic view, it was the impact of interest rate differentials rather than goods price differentials from the price-specie-flow mechanism that were central to system stability. Indeed, a linkage between price changes and interest rates would eventually be required to make sense of the story, but the main point was that not only was gold rarely used in domestic transactions, but it also rarely moved across national borders and the price adjustments tended to be slow and ineffectual.

International Financial System Reform in the 20th Century

When reform of the gold standard became necessary after the 14-18 War economists investigated the possibility of independence of national monetary relations from gold flows; Keynes followed Gustav Cassel in proposing a system of national "managed money" with the objective of achieving adjustments in relative international prices that produced purchasing power parity across countries. This was an attempt to replicate the operation of the gold standard by using active monetary policy to produce the equivalent of the free movement of gold. It is interesting that in his *Tract on Monetary Reform*⁴ Keynes supports the quantity theory and domestic monetary management to replicate the impact of gold flows, at the same time that he recommends the institution of futures markets (*ibid.*: 61 ff.) to replace the implicit exchange rate insurance for short-term financial flows provided by the existence of the gold points under the gold standard. Again, it is the financial flows in international markets that provides the effective motive force of stability.

Post Great Depression: New Deal for a New World (Morgenthau)

The final collapse of the gold standard regime in the 1930s produced a sharp change in approach to international monetary theory and similar institutional adjustments in both the UK and the US. The creation of the Exchange Equalisation Account and the Exchange Stabilisation Fund substituted domestic holdings of gold and foreign claims for the impact of financial market capital flows to stabilize exchange rates. Rather than influencing domestic monetary conditions to keep domestic prices compatible with purchasing power parity, these institutions used their holdings to intervene directly to stabilize exchange rates. This is the beginning of the system in which stocks of "reserve assets", rather than financial flows, are used to influence exchange rate stability.

This represented a shift in the underlying theory of the operation of the system from one based on the quantity theory to the market interventions required to insure stability of an international financial asset: sterling. Since the time of Stuart and Ricardo economists had debated the impact of the existence of fiduciary monies representing some underlying physical commodity made the latter redundant. The

³ *Indian Currency and Finance, The Collected Writings of John Maynard Keynes, Vol I, 1971.*

⁴ *The Collected Writings of John Maynard Keynes, Vol IV, 1971: 71-75*

question was whether this also made the quantity theory redundant. Keynes would eventually adopt this view, leading to his rejection of the restoration of the gold standard.

Keynes couched his arguments in what he called the “banking principle”.⁵ That is that payments could be made, and debts discharged by means of bankers making appropriate debit and credit entries on the accounts of their clients. By the beginning of the 19th century this recognition led to the widespread acceptance of the representation of credit creation by what is called fractional reserve banking. But for many analysts the stability of the banking system, and the value of their outstanding liabilities, was thought to be due to holding commodity reserves, or (pace Bagheot) by a central bank providing lender of last resort lending of reserve balances.

By analogy just as reserves were required to ensure the stability of the exchange rate between bank liabilities (deposits or notes) and currency (gold or State money or Bank of England notes), the stability of the exchange rate of domestic money to foreign currency would also appear to be determined by the holding of national Treasury or central bank reserves in a “fund”.⁶

The IMF (and the US) and an International Bank: Fractional Reserve Banking

It would thus appear that the US proposal adopted at Bretton Woods channeled the ESF and the domestic US fractional reserve banking system as reformed under the 1933-5 banking legislation. Just as banks issued fiduciary liabilities whose convertibility with Federal Reserve notes was determined by holding of reserves and deposits with the Federal Reserve and in the limit by lender of last resort support from the Fed, the new international system would have each country’s domestic currency stability and convertibility determined by holdings of gold and foreign currency reserves held under the IMF quota supported by the possibility of further IMF lending. Just as in the US domestic system, all countries would preserve their dollar rates with reserve balances which could be gold or dollars. The architecture and support system of domestic fractional reserve banking was simply carried over to the international level. And just as in this period the major domestic policy instrument was still reserve balances, IMF program support conditions were to provide methods for restoration of reserve balances. The calls for increased quotas become the equivalent of raising reserve requirements, and the creation

⁵ Even Ricardo (1816 [1951]: 75), in his “Proposal for an Economical and Secure Currency”, recognized “[t]he very great perfection to which our system of economizing the use of money has arrived, by the various operations of banking.” He indicates that in this system “money is merely written off one account and added to another” (ibid.: 58). For Ricardo, it was through the use of what Keynes would call “bank money” via bank clearing that payments are made without the need of currency, thus making the use of both specie and paper notes more “economical than the use of bank money units of account was to allow payments to be “effected without the intervention of either bank notes or money in his proposal.”

⁶ It is perhaps not surprising that the author of the US proposal for post war international monetary reform adopted at Bretton Woods had started his government career as responsible for the US Treasury Exchange Stabilisation Fund and became Director of Monetary Research on a salary paid by the ESF. While he was also involved with domestic banking, his doctoral thesis was an analysis of the operation of the gold standard in pre-war France and discussed the inter-relations between movement in commodities and capital (*The French International Accounts 1880-1913*, Harvard University Press, 1933). See David Rees, *Harry Dexter White*, London: Macmillan, 1973.

of the SDR an attempt to increase quotas without the requirements of national political approval of IMF members.

The analysis of the breakdown of this system by Robert Triffin, as well as by Milton Friedman, focused on the failure of the reserve system. For the former it was due to the role of a national currency playing the role of both internal currency and external reserve asset for the rest of the world, while for the latter it was due to the fact that exchange rates, like prices, cannot be fixed in free markets for the market will always exhaust reserve balances. Both criticisms are linked to the reserve banking framework which the system adopted at Bretton Woods, and which lacked an endogenous, symmetric adjustment mechanism. And this remains the case whether the system objective is exchange stability, as it did until the mid-1970s, or managed flexibility as is currently the case. The conclusion that should be reached is that if the problem is in the reserve support framework of the system, continually seeking to increase reserves will not resolve the problem. Just as domestic fractional reserve financial systems remain subject to instability independent of reserves, the same is true of the international system.

A Different Conception of National Banking Systems: The Banking Principle

If both the underlying theory and the structure of the system are faulty, the question arises of why Keynes' proposal has not been seriously considered as an alternative. The response is that Keynes proposal was predicated on a different theoretical framework than the Quantity theory and a different banking theory. One that was more understandable to Europeans than to American economists.⁷ It is interesting that Keynes sought to justify and explain the logic of his proposals by linking them to domestic financial systems. However, critics of his proposals were misled by the use of the term "overdraft" system which was not familiar to most Americans. Under a domestic overdraft system, the bank lends the client funds in excess of those on deposit – it is automatic lending of bank reserves to the client. A system of unlimited overdrafts meant loss of reserve control of the money supply and the risk of inflation.

Instead, Keynes viewed overdrafts as part of the "banking principle" "[t]he necessary equality of debits and credits, of assets and liabilities. If no credits can be removed outside the banking system but only transferred within it, the Bank itself can never be in difficulties. It can with safety make what advances it wishes to any of its customers with the assurance that the proceeds can only be transferred to the bank account of another customer. Its problem is solely to see to that its customers behave themselves and the advances made to each of them are prudent and advisable from the point of view of its customers as a whole." (Keynes 1980: 44–5) This use of "bank money depends on nothing except the discovery

⁷ Penrose that "The White Plan was cast in more conventional commercial forms than those of the Keynes Plan. The general conceptions in it were familiar to bankers and businessmen whose support would be needed in the United States to obtain the consent of Congress for the U.S. to join the proposed new organization. The more original scheme of Keynes would have gained acceptance in London but hardly in Washington political circles. Unfortunately, a measure which is, as it were, ahead of its time has little chance of political acceptance under the form of government in the United States, which gives so many opportunities for irresponsible obstruction and consistently weights the scales in favor of conservatism." E. F. Penrose, *Economic Planning for the Peace*, Princeton University Press, 1953: 46.

that, in many cases, the transference of the debt themselves is just as serviceable for the settlement of transactions as in the transference of the money in terms of which they are expressed.”⁸

In the international context the application of “this principle is to set off transactions against one another so far as you can clear and then to deal with the resulting credit and debit balance as still offsetting one another in the same way they do in internal banking.” Indeed, in such transactions reserves are unnecessary since the two transactions always cancel so there is no change in the banks overall balance sheet. He goes on to note that in banking practice “great stress was laid on the possession of capital, but we have learned as time goes on that that is of insignificant importance. You need the capital if you are not in a closed system and have to meet liabilities for credit outside your system, but in a closed system ... [t]he deposits on one side are necessarily exactly equal to the overdrafts of the other, so that as there is no liability to pay outside the system it involves no risk and therefore requires no capital.” (ibid: 209–10)

Keynes was concerned to convince that this use of “overdraft” was not the traditional addition to credit because “These facilities are made possible by the nature of the system itself and do not involve particular indebtedness between one member state and another ... A country is in credit or debit with the Clearing Union as a whole. This means that the overdraft facilities, while a relief to some are not a real burden to others. ... In short, the analogy with a national banking system is complete. No depositor in a local bank suffers because the balances which he leaves idle, are employed to finance the business, of someone else. Just as the development of national banking systems served to offset a deflationary pressure which would have prevented otherwise the development of modern industry, so by extending the same principle into the international field we may hope to offset the contractionist pressure.” (Ibid.: 113)

For present purposes it is enough to note this rendering of the “banking principle”⁹ requires the offsetting or internal clearing of private claims as acknowledgements of debt and credits, which Keynes calls “bank money”, denominated in terms of an abstract (notional or imaginary) unit of account, and that this does not require “State money” or “money proper.” Thus, on Keynes’s definitions, it also is independent of both “commodity money,” such as gold coin or bullion, or government issue of “fiat” paper currency. And neither does it require reserves or capital to support stability.

⁸ *The Collected Writings of John Maynard Keynes*. Edited by D. E. Moggridge. Vol. 6, A Treatise on Money, Vol. I: The Pure Theory of Money. London: Macmillan, 1971: 13-14.

⁹ These references to the “banking principle,” little discussed in his other work, are reflected in his introduction to the *Treatise on Money*, where Keynes defines money as “that by delivery of which debt contracts and price contracts are discharged, and in the shape of which a store of general purchasing power is held,” noting that money “derives its character from its relationship to the money of account, since the debts and prices must first have been expressed in terms of the latter.” He goes on to note that the definition of the money of account allows one to distinguish: “Offers of contracts, contracts and acknowledgements of debt, which are in terms of it, and money proper, answering to it, delivery of which will discharge the contract or the debt ... for many purposes the acknowledgements of debt are themselves a serviceable substitute for money proper in the settlement of transactions. When acknowledgements of debt are used in this way, we may call them bank money ... an acknowledgement of a private debt, expressed in the money of account, which is used by passing from one hand to another, alternatively with the money proper, to settle a transaction. We thus have side by side State money or money proper and bank money or acknowledgements of debt.” (Keynes 1930: I: 2,5)

Thus, just as the US proposal, Keynes' proposal is also a direct transference of a national banking framework to the international level. Countries external balances represent the debts and credits, recorded on the Clearing Union balance sheet in terms of a notional unit of account – Keynes proposed *bancor*. The system is stable by definition and requires neither reserves nor capital to support it as is the case in a fractional reserve system. It automatically provides the credit required to support exchange rate stability which is determined by the rate of exchange between national currencies and the *bancor* unit of account. It is interesting that Keynes' proposal was not the only one which took this form. Hjalmar Schacht had a similar proposal, and another was given in an anonymous pamphlet reputed to Lord Sempill.¹⁰ There is also similar plan that was formulated by Schumacher, although it is interesting to note that this plan, although similar was designed solely to resolve the problem of multilateral exchange.

One of the reasons that had been given for the rejection was the resistance of US representatives to the use of “strange” money in the form of nonexistent *bancor* – clearly US bankers only put faith in “real” money such as gold, or pieces of fiduciary paper backed by real reserves. Another problem was the fact that there was no longer in existence a version of the approach that could be used for reference.

The dominance of the US banking reserve view is seen in the 1970s Reform proposals which focus on improving and expanding the reserve system. The closest the US came to Keynes' system was in what came to be called the Volcker proposals: “In short, the logic of the U.S. proposals is that a) better balance-of payments adjustment is required and is essential to the maintenance of a convertibility system; b) such an adjustment process, in turn, requires recognition by both surplus and deficit countries of their obligations and responsibilities to take action; c) in that context, objective indicators of the need for adjustment are essential; d) a broad equality between the availability of, and demands for, reserves in the system must be satisfied; and e) all of these needs can be brought together, in the context of a system of established exchange rates supported by convertibility, by the use of reserve movements as the main indicator of the need for adjustment.” This was basically a proposal for a reserve metric to determine adjustment.¹¹

The Development Dimension of the Keynes proposal

Critics of the Bretton Woods proposals, such as John Williams¹², noted that it only could apply in full once the post-war reconstruction was completed in Europe. Penrose (op. cit. 43) highlights the fact that “the Keynes Plan in its original form was more than a measure for dealing with temporary balance-of-payments difficulties. Its additional features, which have been largely forgotten in later discussions, carried it far beyond a mere plan for dealing with long run conditions which would be established only after reconstruction had been completed. From the beginning, Mr. Keynes ... was willing to use the proposed International Clearing Union for short term as well as long-term purposes: 'The Union might set up a clearing account in favour of international bodies charged with post-war relief, rehabilitation and reconstruction. But it could go much further than this. For it might supplement contributions

¹⁰ The interested reader is referred to Kregel, “Emerging Markets and the International Financial Architecture: A Blueprint for Reform” Levy Economics Institute of Bard College Working Paper No. 833 February 2015, 9-13.

¹¹ Economic Report of The President Transmitted to the Congress January 1973 Together with The Annual Report of the Council of Economic Advisers United States Government Printing Office Washington, D.C. Chapter Five of Annual Report of The Council of Economic Advisers: The International Economic System in Transition.

¹² Williams, J.H. 1949. *Post-war Monetary Plans and Other Essays*. Oxford: Basil Blackwell.

received from other sources by granting overdraft facilities in favour of these bodies, the overdraft being discharged over a period of years out of the Reserve Fund of the Union, or, if necessary, out of a levy on surplus credit balances. By this means it is possible to avoid asking any country to assume a burdensome commitment for relief and reconstruction, since the resources would be provided in the first instance by those countries having credit clearing accounts for which they have no immediate use and are voluntarily leaving idle, and in the long run by those countries which have a chronic international surplus for which they have no beneficial employment.”

These financing measures are easily extended to development financing with the interest charges on the credit and debit balances in the Clearing could be provided “as additional credits to support the clearing accounts of developing (“backward”) countries” (Keynes, 1980: 120). This would remove much of the bilateral political influence on official development financing. Further, it would also be possible to introduce the Clearing proposal on a regional basis, such as proposed by the BRICS grouping.¹³

Penrose (Ibid: 45) thus concludes “the Keynes Plan was drawn on comprehensive lines and was not conceived of purely as a long-term measure to come into force after the transition period. If more of its provisions had been accepted the economic chaos into which the world lapsed soon after the end of the war might have been largely avoided.”

The Private Sector is Already Using Keynes’ Approach

Keynes notes that the “The earliest beginnings of bank money, like those of chartalist money, are lost in antiquity.” And the adaptation of the system by the State to use its own liabilities to discharge debt came “from the far more ancient contrivance of private finance – namely bank money” (op. cit., p. 13). This State or legal or chartal theory was rediscovered independently by Knapp. And today history seems to be repeating itself for the clearing system based on the banking principle is currently appearing in modern financial markets, quite independently of the hi-tech electronic solutions of distributed ledgers and electronic currency.

Today, a client of Webtel.mobi (WM)¹⁴—an existing company that operates as a specialized mobile provider (SMP) of telephony services—may load his or her account with stored credit/stored value via a bank transfer or card payment, or via a cash payment to its in-country affiliates (known as virtual specialized mobile providers [VSMPs]) as prepayment for mobile phone services. In addition, the company provides each member the possibility of transferring credit balances from their own prepaid account to the account of any other member via an internal system transfer (called an “Inter Closed Loop Member Transfer” or “ICLM”). This reflects an internal adjustment by WM’s system of a debit and a credit according to the “banking principle.” The same procedure can also be used to discharge a commercial purchase transaction. It is also possible for a member with a credit balance to execute a

¹³ “One view of the post-war world which I find sympathetic and attractive and fruitful of good consequences is that we should encourage small political and cultural units, combined into larger, and more or less closely knit, economic units. Therefore I would encourage customs unions and customs preferences covering groups of political and geographical units, and also currency unions, railway unions and the like. Thus it would be preferable, if it were possible, that the members should, in some cases at least, be groups of countries rather than separate units. (Keynes, op. cit. 1980, 55) This approach is developed in Kregel, op. cit. 2015 and “A Two-Tier Eurozone or a Euro of Regions?” Levy Economics Institute, Public Policy Brief No. 144, September 2017.

¹⁴ <https://webtel.mobi/pc>
<https://worldtel.mobi/pc/>

transfer to another member in exchange for a promise to repay at some future date along with a fee or charge—the equivalent of a borrow-lend transaction.

By executing debits and credits on members' accounts resulting from their transfer instructions, WM executes the role of bookkeeper in the "closed loop" clearing system. Since this is a bookkeeping account adjustment, it is virtually instantaneous and thus much faster than a normal bank-to-bank transfer; since a banking relationship is not necessary, it also avoids bank charges. All member accounts and transactions, wherever in the world the member is situated, take place in the jurisdiction of the company registration. Member accounts thus have a single geographical representation and may be in any international currency, although initial accounts are denominated in home currency. However, members may purchase or swap the home currency for other currencies from within their ICLM accounts via a conversion facility executed through global foreign exchange markets, or through a P2P swap arrangement in which account holders exchange their national balances for foreign balances at conversion rates agreed to between the members. Members may thus hold balances in multiple foreign currencies within their accounts. The same advantages of increased execution speed and reduced costs, as in the ICLM transfers, are maintained. As in the operation of the banking principle for a domestic or international ICLM transfer, it is the account balances of nationally diverse members that adjust while the overall WM system balances remain stable.

All inward transfers, currency conversions, currency swaps, or member-to-member ICLM transfers are registered as a ledger entry in a members' account, bearing an Inter-TEL.mobi Account Number (ITAN) linked to the mobile number to be debited or credited according to the usage of services or transfer instructions. The system may thus be understood as one in which WM provides the clearing house mechanism amongst its clients, who are free to engage in global transactions in any currency, carried out in real time (in 1/100th of a second) at any time from anywhere in the world at zero cost.

Since the creation of a member's stored credit account results from a transfer from a nationally regulated bank or by a cash payment to one of WM's affiliates, it provides the equivalent of a 100 percent reserved regulated deposit banking system, something that a fractional-reserve-based private banking system cannot provide, except through the guarantee of a government deposit insurance scheme. This simply reflects Keynes' assessment that "the Union itself can never be in any difficulty" in executing payment.

A further simplification of the system is that members do not require a sophisticated payments application—all that is required is a generic mobile phone. As such, it provides a cheaper, more rapid, and secure system for emigrant remittances in the same way that it provides these advantages for the entire range of retail or wholesale financial operations.

In Keynes' clearing union, one of the benefits was the possibility of shared adjustment costs, which resulted from the automatic creation of unit of account liquidity produced by the size of external balances. There were those who considered this a threat to price stability, and for this reason the formal proposal placed a limit, with penalty sanction, on the size of a country's external imbalance, positive or negative. In the WM system as currently configured, this problem does not arise, since all transfers into the system are sourced in a regulated banking system or in cash, creating an implicit limit on the size of the system as determined by the size of membership and the use of the system.

However, as was seen in the operation of private bank clearing houses, it was possible for them to create credit by simply writing up members' credit balances as needed to cover debits—as was the case with the New York Clearing House in the financial crisis during the outbreak of the war in 1914. The WM system thus has this ability inherent in its structure and provides full potential competition for existing private national credit systems.

While electronic or digital currency systems have been presented as a substitute for national monies, they have not been able to provide payments services because they are not governed by the banking principle, and thus have extremely volatile value.

On the other hand, central banks are considering the creation of their own electronic money accounts to maintain control of monetary policy but have hesitated because this would challenge the survival of private banks' major source of income. Implementation of such central bank electronic money would require a reformulation of the international system, raising the same problems faced in the original Bretton Woods system.

But it looks a lot like Schumacher's Multilateral System

The WM clearing system provides an example of a possible solution that retains national currencies without requiring the substitution of the dollar with another national currency, such as the yuan, or a basket of national currencies such as the SDR. Indeed, there is an uncanny similarity between the webtel system and Schumacher's¹⁵ proposal for a multilateral clearing system.

Schumacher proposes a system of "Pool Clearing" in which importers settle claims in national currency by transfer to their own National Clearing Fund who informs the exporter's National Clearing Fund of the exporter of payment makes payment to the exporter. The Fund of deficit countries will have surplus accumulation which they invest in Treasury bills. The pooling of balances arises automatically, and a "International Clearing Office" is proposed to act as Trustee for all cash balances accumulating (in the form of Treasury Bills) in the Clearing Funds of the deficit countries and the Clearing Funds of the surplus countries are deemed to own each a share in the Pool, equal to the size of their respective surpluses. (op. cit: 151-2)

It will be clear that the International Clearing Office requires no finance of its own, nor does it have to create a new international currency. Since it is impossible to disentangle the mass of individual transactions which give rise, during the course of annual trading, to the various uncleared balances in the deficit countries and to ascribe any one particular balance, or part of it, to any one particular surplus country, the surplus countries as a group become the joint owners of the balances in all the deficit countries. (Ibid.: 153-4)

"In this way, one might say, every national currency is made into a world currency, whereby the creation of a new world currency becomes unnecessary. Nor does the International Clearing Office—in this connection—require any special powers; it is not an agency for control, but a purely administrative body, the central accounting office for the different National Clearing Funds. ... As a result of its (purely formal) operations, we get the following position: The Clearing Funds of surplus countries become indebted to their internal money markets and acquire an equivalent share in the Pool; both their debt and their share in the Pool being equal to their trade surplus. The Clearing Funds of the deficit countries

¹⁵ E.F. Schumacher, Multilateral Clearing, *Economica*, New Series. Vol. 10, No. 38, May 1943, 150-65

are left with balances of cash in hand (equal to their trade deficits) which belong to the International Pool. The Clearing Funds, finally, of countries whose balance of trade has left neither surplus nor deficit hold neither cash nor a share in the Pool. ... The main force is the fact that the holding of surpluses becomes unprofitable and risky. The surplus, instead of being convertible into gold or interest-earning investments, is tied up in the Pool: it is a share in the Pool. And the Pool's assets are always the weakest currencies of the world: the currencies of the countries that have been unable to earn as much as they have spent." (Ibid.: 155-7) Note that this provides a strong incentive for surplus countries to take action to spend their balances, automatically improving the risk characteristics of their holdings.

We thus have a real-world, actually existing blueprint of how such a system might function. It would eliminate national currencies as reserve balances, indeed eliminate the need for capital or reserve balances in commodities or currencies and provide an incentive mechanism to keep global imbalances under control. We do not need more SDRs, or quota increases or other measures of reform.