

INTERNATIONAL LIQUIDITY PREFERENCE  
AND ENDOGENOUS CREDIT CREATION

by

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## **INTRODUCTION**

The purpose of this chapter is to express Post Keynesian international finance theory in terms of the theories of liquidity preference and endogenous credit creation, theories which have been more fully developed in the context of the domestic economy.

Traditionally, the area of international finance has featured more prominently in Post Keynesian work addressing particular policy issues than in Post Keynesian theory as such. This has mirrored to some degree Keynes's own treatment of international finance as an area for application of theory than for particular theoretical treatment. Thus, two recent accounts of Post Keynesian theory, Arestis (1992) and Lavoie (1992) deal primarily with the closed economy.

The major exception to this generalisation is the work of Paul Davidson. In *International Money and the Real World* (Davidson, 1982), he devoted an entire volume to the development of a Post Keynesian theory of international finance and a drawing out of its policy implications, particularly with respect to reform of the international monetary system. An updated synopsis of this work appears in Davidson (1994), where international economics is given prominence in his statement of Post Keynesian macroeconomic theory. Tarshis (1984) too has focused theoretical attention on the international monetary system, again with a view to its reform.

But more recently, increasing attention has been paid to international finance, reflecting the increasing incidence of issues to be addressed. The tremendous increase in the size and instability of international financial markets since the 1970s, the emergence of the debt crisis, the search for appropriate exchange rate regimes, and the institutional arrangements for the IMF and European Monetary Union have all attracted the attention of Post Keynesian economists.

In the following sections, these various themes which have been developed to address particular policy issues are brought together in a theory of international finance which draws explicitly on the theory of liquidity preference and the theory of endogenous credit creation. This theoretical perspective is laid out in the next section, and applied to questions of analysis and governance of the international financial system in the following section.

## **INTERNATIONAL LIQUIDITY PREFERENCE AND INTERNATIONAL CREDIT CREATION**

This section is devoted to setting out a Post Keynesian theory of international finance which uses developments in Post Keynesian monetary theory. These developments have included a bringing together of liquidity preference theory and endogenous credit theory which, for a time, were treated as alternative approaches to Post Keynesian monetary theory. This international version of Post Keynesian monetary theory provides a coherent framework within which to address a range of policy issues.

Liquidity preference is the demand for a perfectly tradable asset with stable value. The theory of liquidity preference underpins Davidson's (1982) analysis of international money. This theory has conventionally been presented as explaining the preferred disposition of a stock of assets among different liquidities. Following Keynes (1936, chapter 17), the motives for demanding liquidity can be classified as:

- **the transactions motive**, which is a stable positive function of transactions, for which income is generally regarded as an adequate proxy
- **the speculative motive**, which is determined by expectations as to capital gain on alternative assets
- **the precautionary motive**; while this has traditionally been treated as a relatively passive element of liquidity preference, represented as a stable positive function of income, attention has increasingly been focused on precautionary demand as the key outlet for instability. Thus, for example, Runde (1994) argues that, while speculative demand reflects decision-making as if there were certainty about expectations of capital gain, precautionary demand reflects uncertainty; the less confidence there is in predictions, the greater the precautionary demand for liquidity.

Within a domestic economy, the national currency is generally the asset which is most liquid and most stable in value. But within the international economy, there are a range of moneys. As long as each has a stable value in relation to the others, then the most liquid of these is generally employed as a means of payment and unit of account; this would normally be the national currency of the economy concerned. But, where the domestic value of the national currency is falling significantly relative to foreign currencies, because of domestic inflation or a depreciating exchange rate, other currencies may better satisfy liquidity preference. This is more likely to be the case the more free is capital mobility, ie the more liquid is foreign currency. It is a matter of relativities; in cases of hyper-inflation, capital controls may not be sufficient to prevent demonetisation and the substitution of foreign currency for domestic currency. It is also a matter of past experience and conventions; where the US dollar has in the past been generally accepted in payment in a non-US economy (whether legally or not), the more easily will the dollar be substituted for domestic currency at signs of that currency weakening.

The relevance of liquidity preference understood in these traditional terms is thus two-fold. First, changing domestic and/or foreign conditions may alter what satisfies liquidity preference, and thus alter relative currency demands. Second, changing degrees of liquidity preference at home or abroad may alter relative currency demand depending on which currency satisfies liquidity preference (see Dow, 1986-87).

In the first case, suppose that, for a given degree of liquidity preference, there is a loss of confidence in the stability of the value of the domestic currency relative to other currencies, so that foreign currencies better satisfy that liquidity preference. Then capital outflows will put downward pressure on the exchange rate. If the monetary authorities are committed to maintaining a stable exchange rate, they will have to buy up domestic currency with foreign exchange reserves and put upward pressure on interest rates in order to stem the capital outflows. If the expectation of falling value of the domestic currency is such that the authorities cannot attract sufficient capital inflows, then the limitations on foreign exchange reserves will be such as to cause a

crisis, requiring a devaluation. If the exchange rate is floating, the decline in its value may create an unstable situation if it further reduces the capacity of the domestic currency to satisfy liquidity preference; again the authorities may put upward pressure on interest rates to attempt to stem the capital outflow.

In the second case, suppose there is a rise in liquidity preference in a particular economy. Other things being equal, domestic interest rates will rise. If foreign currency is a repository for liquidity preference, there will also be a tendency for capital outflow, requiring that domestic interest rates rise even further than would otherwise be the case in order to make holders of domestic assets satisfied with holding them. At the same time, if the rise on liquidity preference is caused by some deterioration in the domestic economy, foreign investors might be less willing to hold the economy's assets, requiring an even larger rise in interest rates. If the monetary authorities are committed to maintaining a stable value for the exchange rate, then they must hold the exchange value up by selling foreign exchange reserves and by keeping interest rates high in order to stem capital outflows. If the exchange rate is floating, then its value will be free to fall. There is a danger that this fall might change the relative degrees to which domestic and foreign currency satisfy liquidity preference, so that the two international elements to liquidity preference outlined here may compound each other. In either case, the openness of the monetary system to a range of moneys exacerbates the domestic effects of liquidity preference. But much depends on the cause of the rise in liquidity preference; if it accompanies growth in the domestic economy, capital inflows may be attracted which satisfy the need for greater liquidity.

But this discussion has referred to liquidity preference within the domestic economy, regardless of international transactions. But liquidity preference may also be considered specifically with respect to international transactions, ie a demand for liquidity which would not be present in a closed economy. There is a **transactions demand** for a vehicle for international payments, which bears a stable relationship with the value of world trade. There is also a transactions demand with respect to capital flows, which can be represented as a stable function of the value of these flows. The more unstable are international financial markets, the more the incentive for international capital flows, and therefore the greater the transactions demand for an international means of payment.

The international equivalent of **speculative demand** for money is more complex than domestic speculative demand, since exchange loss from holding one currency is mirrored by exchange gain from holding another. Speculative demand should capture the holding of a stable (as opposed to appreciating), liquid asset in order to avoid exchange or capital loss. This demand may be identified in demand for stable, as opposed to appreciating, currencies, or for gold as an alternative to national currencies. It may also be identified in demand for overnight deposits in foreign currency, to allow for day-to-day exchange speculation, rather than longer-term foreign assets. In the domestic money market, the choice with respect to speculative demand is to hold money or longer-term assets with the prospect of capital gain; a rise in speculative demand puts upward pressure on interest rates. In the international context, the choice is to hold short-term assets in one stable currency (or, often, gold),

and in short-term assets rather than longer-term assets. The latter serves to put upward pressure on interest rates in international markets.

The more unstable are exchange rates, the greater the prospect for gains to be made by currency substitution, and thus the greater the demand for liquid balances in one currency or another in order to take advantage of day-to-day changes in the foreign exchange market. Strictly speaking, this demand should be regarded as a sub-category of transactions demand (for speculative transactions). Further the greater the uncertainty about exchange rates, the greater the demand for liquid international assets in the absence of firmer expectations. This demand is more properly regarded as precautionary demand.

In addition to private sector liquidity preference, there is a need for liquidity for monetary authorities to meet clearing imbalances between themselves; this might be seen as a form of **precautionary demand**, to meet unforeseen imbalances. The level of demand depends on the propensity for imbalance, which depends partly on the degree of economic divergence and the degree to which capital flows allow adequate time for economies to adjust to imbalance. But the incidence of imbalance also reflects the strength of short-term capital flows, ie on the strength and instability of speculative activity in foreign exchange markets. In addition, the private sector may also have a precautionary demand for international money if there is a general loss of confidence in international assets. This could be a powerful force, the effect being reduced availability of medium and long-term lending across currencies, and rising interest rates. This would also feed back on the precautionary demand by monetary authorities, in that it would be more difficult to fund imbalances with capital flows; official precautionary demand would accordingly increase.

It is of considerable significance whether or not there is an international money other than a national currency, ie whether or not an increase in demand for international money is also an increase in demand for a national currency. In the Bretton Woods system, the dollar was regarded as providing international liquidity, being easily traded and of stable value. The dollar thus satisfied the need for an international means of payment. Transactions demand for it grew with the growth in world trade and capital flows; the supply of international money in the form of gold or, later, Special Drawing Rights, could not keep pace. But this in itself created a structural imbalance in the US balance of payments, requiring massive capital inflows corresponding to the increasing need for international liquidity; the intrinsic economic conditions in the US itself would rather have warranted capital outflows. The dollar standard broke down in 1971 when the consequence of the dollar's role in the international monetary system allowed the US to run a massive trade deficit which undermined the expected stability of the value of the dollar, ie its capacity to be acceptable as an international money.

Since then, there has been a tremendous increase also in the demand for international money. The oil crisis, and attempts to deal with its consequences by means of monetarist policies led to widespread structural imbalances which could not quickly be addressed by conventional adjustment policies. Liquidity was required to finance these imbalances; fortunately that liquidity was made available by banks recycling deposits by surplus countries. The ensuing instability of international financial

markets (including the market in foreign exchange) also increased demand for precautionary balances in order to take quick advantage of expected shifts in exchange rates. Not only did this put upward pressure on interest rates, but it also provided the ready fuel for exchange speculation, adding to the underlying structural imbalance. This increasing demand for international liquidity was still predominantly satisfied by national currencies perceived to have most stable value and most general international acceptance.

But the 1970s and 1980s were also characterised by the increasing provision of liquidity through the international financial system, ie the banks, rather than the international monetary system, ie the IMF and national monetary authorities. Discussion of the international monetary system had focused on the provision of international 'outside money' (balances with the IMF in the drawing and Special Drawing Right accounts), as if international bank money were a stable multiple. This mirrored (and, some argue, influenced) the increasing tendency domestically to focus on bank reserves with the domestic central bank as a means of controlling monetary aggregates. In contrast, the theory of endogenous money was being put forward by Post Keynesians (notably Kaldor, 1982, and Moore, 1988) to shift attention to bank credit as the causal force, bank reserves being at the end of the causal chain.

The role of the banks in providing credit was the starting-point of Tarshis's (1984) analysis of the international monetary system. What this implies is that the expression of liquidity preference was not restricted to the disposition of a given stock of assets, but in addition influenced the total availability of liquidity. Certainly there was a recycling of payments imbalances within the Eurodollar market. But this coincided with a general expansion in the provision of credit by the banking system driven by competitive forces within the banking system (see Chick, 1986). Domestically, banking systems were exercising increasing control over credit expansion, with reserves accommodating this expansion.

The bulk of international banking activity has been channelled through the Eurodollar market, which has expanded at a dramatic pace independent of domestic reserve requirements. It has been argued that, as a wholesale market, the Eurodollar market acted as a pure intermediary rather than a creator of credit (see for example Niehans and Hewson, 1976). In other words, since its liabilities are not a means of payment, the Eurobanks did not engage in significant maturity transformation; they borrowed and lent medium term. But the Eurodollar market has since shown itself to be capable of changing the degree of maturity transformation as conditions have changed. In particular, when the optimistic expectations of the 1970s proved unjustified and banks faced the possibility of default on sovereign debt, the term of future borrowing shortened. Strange (1986) demonstrates the increasing preference of the banks to keep their assets liquid as the international financial system became increasingly turbulent.

Strange's argument reflects something which was evident in Keynes's own work (see Dow, forthcoming) and which is now increasingly expressed in Post Keynesian monetary theory (see Cottrell, 1994 and Hewitson, 1995), that the theory of liquidity preference has more general application than households' preferences with respect to a given stock of assets. In particular it applies also to the banking system itself in its determination of the volume and distribution of credit creation. (see Dow and Dow,

1989; Dow, 1993, chapter 11). Thus the money supply is best understood as the balance sheet counterpart of the supply of credit, which can be understood in terms of liquidity preference in the credit market. Here the focus is on the precautionary element of liquidity preference. When firms are confident in their expectations about returns to investment projects, their preference for precautionary balances is low, and their willingness to commit themselves to an investment project and a debt contract is high; demand for credit is high. The same applies to investment in financial assets financed by borrowing. When banks share that confidence, their perceived lender's risk is low, and their willingness to extend credit is high. Credit expands when the preference for precautionary liquid balances is low. Correspondingly, when confidence is low and the demand for precautionary balances is high, banks are less willing to expand credit and thus the provision of liquidity is low. Banks differ from other sectors, however, in that their liquidity preference would take the form of holding imperfectly liquid assets (such as interbank loans) rather than perfectly liquid assets.

An equivalent argument can be developed with respect to economies for which the state of expectations is different (see Chick and Dow, 1988). Thus, economies for which expectations of economic growth (or at least growth in the value of assets) are held with confidence will express low liquidity preference, resulting in easy credit conditions. Economies for which expectations are not held with confidence will experience tight credit conditions. This phenomenon is illustrated by the balance sheet evidence in the Eurodollar market which shows low-income developing countries maintaining more liquid positions than higher-income developing countries, ie higher deposits relative to borrowing. This trend became more marked in the 1990s as banks increased their liquidity preference. (See Dow, 1995.) Clearly this outcome, depending as it does on the confidence with which expectations are held, is to a large extent a product of knowledge, or lack of knowledge. Thus, optimistic expectations about the creditworthiness of developing country borrowers were held with confidence by the banks in the 1970s on the basis of very limited knowledge. But the flimsiness of the knowledge base meant that, once attention was drawn to the risk of default when Mexico announced its intention to default in 1982, the reversal in expectations was very dramatic.

The banks, and firms, have reacted to the confounding of expectations in the 1980s by increasing their liquidity preference, preferring shorter-term commitments. The resulting trend towards securitisation has added to the speculative opportunities offered by exchange instability and the more general instability in international financial markets. Derivatives, developed initially to provide protection from the ensuing risks facing traders, were soon seized on as offering even more opportunity for speculation. By 1991 the notional value of the derivatives market was \$8trillion, or 140% of US GDP (see Kelly, 1995, 215).

The current situation can thus be characterised as one of internationally high liquidity preference which is limiting the provision of liquidity to borrowers perceived to pose high risks, but which is fuelling activity in speculative markets where the risks are potentially much higher, but where banks express more confidence in securing a high return. International liquidity is provided by those currencies perceived to have stable value; but that stability is vulnerable to the expectations of international financial

markets. In 1992 these markets demonstrated their capacity to pick off currencies at will, breaking up the European Exchange Rate Mechanism, and setting back attempts to promote exchange stability in Europe in the run-up to European Monetary Union. Further, the effect of this increase in liquidity preference, and the consequential rise in speculative activity, has been to raise interest rates in international financial markets, with knock-on effects for domestic markets.

Finally, once the focus is put on credit as well as money, the scope for differences in domestic banking systems assumes importance, belying the presumed homogeneity of global monetarism. When considering the impact on domestic economies of higher interest rates and the decisions of international banks with respect to credit availability, attention must be paid to the nature of the domestic banking system. Monetarist theory suggests that any inflow of foreign exchange is homogeneous, adding to the reserves of the domestic banking system, and being multiplied in an expansion of domestic credit. Further, gross substitutability between assets, domestic and foreign, ensures that domestic interest rates will respond to international interest rates. But national banking systems differ in a variety of ways. First, a domestic concern borrowing from an international bank may retain its balances outside the domestic banking system, so that the capital inflow is purely notional. Second, the effect of a capital inflow on domestic bank reserves may be sterilised by the domestic monetary authority. Quite apart from stage of banking development, there are marked differences in formal regulation and in informal convention which influence the relationship between international financial developments and the domestic banking system (see Chick and Dow, forthcoming,b). Third, if there is an addition to domestic bank reserves there may be no direct effect on domestic credit provision. If confidence in domestic assets is low, the banks may prefer not to be lent up, or to lend outside the domestic economy, cancelling out the capital inflow. Further, banking systems are less constrained by reserves the later the stage of development (see Chick, 1986). Highly developed banking systems determine credit creation first and accommodate it with reserves second. While this occurs as soon as there is a lender-of-last-resort, the latitude enjoyed by the banks, and the compulsion to exploit that latitude, increases with banking development. Finally, when banks at different stages of development compete, banks at an earlier stage of development are at a disadvantage; because their redeposit ratio is less assured, their willingness to expand their loan portfolios is accordingly reduced. The effect of international liquidity preference on interest rates may then be exaggerated in domestic banks struggling to compete for deposits with international banks.

In the next section we turn attention to the various issues addressed in the Post Keynesian literature on international finance, in terms of the design of the international monetary system, given developments in the international financial system. We consider this literature in the light of the theoretical perspective set out in this section.

## **THE INTERNATIONAL MONETARY SYSTEM**

The issues facing the international monetary system can be summarised as follows:

- **The need for an international money whose value is independent of the internal policies of any national government, ie the need for a single asset with assured monetary attributes, whose use does not in itself create adjustment problems for any one economy.** As long as there is a range of moneys, ie there is a high elasticity of substitution between different moneys, then no one form of money satisfies the necessary requirements of money. Further, if these moneys are national currencies, substitution between them creates both balance of payments problems, and opportunities for potentially destabilising speculation, which further reduces the money-like qualities of some of the currencies. Since an asset must inspire confidence in its value, the preferred Post Keynesian option is to design an international money, for which a global agency acts as central bank; that money's attributes must be such as to make it the preferred money, relative to national currencies.
- **The need for greater symmetry in the pressures to adjust to balance of payments deficits and surpluses; the current relative pressure to adjust to deficits lends a deflationary bias to the world economy.** The Post Keynesian focus on distribution issues highlights the distributional consequences of relative power in international financial markets. Deficit countries with a low asset base find it hard to attract international credit to finance the deficit. (This deficit in turn may be the outcome of an unfavourable distribution of power in commodity markets on which many low-income countries depend for export income.) Yet their forced adjustment to the deficit automatically corrects the offsetting surpluses. Further, Post Keynesian macroeconomics does not presume a norm of full employment. Therefore an undue pressure to adjust by deflating deficit economies has real deflationary consequences for the world economy. The issue of the distribution of the burden of adjustment is thus compounded by the issue of increasing difficulties in maintaining global output and employment.
- **The need to curb the power of international financial markets with respect to the creation and distribution of credit.** The potential instability arising from national currencies acting as international money, and the distribution of the burden of adjustment as determined by international credit availability, both rest on the power of international financial markets to switch currencies and to determine the volume and distribution of credit. Because of the uncertainties involved in predicting foreign exchange rates and in conducting sovereign risk assessment, the markets for foreign exchange and for international credit are speculative and potentially highly unstable, being subject to discrete shifts in expectations; the consequences of these shifts can be real redistributions and real reductions in output and employment. As in the domestic economy, the Post Keynesian approach to financial markets is to consider mechanisms for curbing their power, in order to create a more stable financial backdrop for real activity.

We now consider in turn the various Post Keynesians who have addressed these issues, starting with Davidson.

In the absence of an international money for general use, an issue of particular concern is exchange rate arrangements. The exchange instability of the post-Bretton Woods period has cast doubt on the capacity of foreign exchange markets to drive exchange rates to some equilibrium value. Davidson distinguishes between unionised monetary

systems (UMS) and non-unionised monetary systems (NUMS), referring to whether or not there is a single currency (or currencies are locked together). In other words, the appropriate distinction is not between national economies and the international economy, but rather between one or more moneys. The significance is that, where there is scope for variation in exchange rates between currencies, there is an additional layer of uncertainty to contend with. Where there is uncertainty, there is a need for liquidity, which raises the issue of the adequacy of the provision of international liquidity. While there is an increased demand for foreign exchange to facilitate speculative transactions, Davidson is referring to the increased demand for precautionary balances to protect traders from a lack of certainty with respect to international values.

Because Davidson identifies international financial problems to a considerable extent with exchange rate variability, his concern is to advocate an increase in exchange rate stability. This argument is reinforced by the argument that floating exchange rates encourage the adoption of an export-led growth strategy. Successful export-led growth causes exchange rate appreciation, which puts pressure on labour to keep labour costs down in order to maintain competitiveness. In aggregate, this strategy cannot succeed; one country's exports success is another's trade balance deterioration. The net result is downward pressure on wages, and on domestic demand. A fixed exchange rate system would avoid this outcome.

In terms of the international monetary system as such, Davidson offers a reform plan which owes much to Keynes's plan for an international clearing union. An International Clearing Agency (ICA) would record net payments between countries in terms of an International Money Clearing Unit (IMCU), which would be a money only for central banks (and thus not the object of speculative transactions by the market), whose supply was in the hands of the ICA. Records of net payments would provide the basis for a trigger mechanism for a symmetrical system of balance of payments adjustment. Like Keynes, Davidson identifies the prevalent asymmetrical pressure on deficit countries to adjust (due to lack of liquidity) as lending a serious deflationary bias to the international economy; a more symmetrical adjustment process would remove that bias. The norm in Davidson's reformed system would be exchange rate stability through agreed exchange rates expressed in terms of the IMCU. But there would be provision for exchange rate adjustment if efficiency wages at current exchange rates were out of line.

While exchange rate stability involving some commitment to announced parities can be regarded as a feature of all Post Keynesian ideas for a reformed system, there is some difference of opinion as to the appropriate exchange rate regime within a non-reformed system. Smithin (1994, chapter 7) argues that any country choosing to pursue Keynesian demand-management policies (expansionary fiscal policy and low interest rates) in an unreformed international monetary system needs the protection of floating exchange rates. Further, he argues that there is a strong centralising tendency within monetary systems in general. The need for money which commands confidence encourages the centralisation of power in financial centres. Smithin argues that fixed exchange rate regimes encourage such centralisation of power within the international monetary system. Insofar as power may be centralised with central banks with monetarist leanings, the scope for achieving low, stable interest rates is thereby

limited. Again, floating exchange rates would provide some protection. This argument is reinforced by reference to differences between domestic banking systems. As long as there are differences of regulation, conventions and behaviour between national banking systems, there will be some segmentation in the global banking market. Separate currencies, and currencies separated by value (ie floating) further add to that segmentation, allowing a counter to the tendency for centralisation in banking. Put another way, foreign exchange is less money-like in a floating exchange rate system. In Davidson's ideal reform plan, the more money-like are the more assets, the better. But in Smithin's less-than-ideal world, floating exchange rates are offered as a second-best solution.

However, in a more recent account of developments in the international financial system, Smithin (1996) moves further to a more general questioning of the preferability of ending floating. He argues that foreign exchange instability since the 1970s may be the consequence of inappropriate (ie non-Keynesian) macroeconomic policy than the main cause of macro policy problems. He is therefore much more sanguine than Davidson about the workability of generalised floating as long as governments follow Keynesian policies and coordinate with each other.

But, whatever its cause, the exchange instability which has characterised generalised floating is still widely held to have been a major contributor to a more general instability in international financial markets. Strange (1986; 1994) analyses the growth in this instability, and demonstrates the reaction of the international banks in seeking to increase the liquidity of their portfolios. This has however coincided with increased difficulties for individual economies for whom a floating exchange rate has not been adequate for producing external balance. For oil-importing export-dependent developing economies which had borrowed extensively in the 1970s from international banks, the increasing reluctance of banks to continue lending, together with high and variable interest charges on existing debt and weakening export markets, led to the debt crisis.

Tarshis (1984) analyses the debt crisis as a global crisis, not an issue of bank risk assessment at the micro level (see Palma, 1995, for a more recent account). He saw the crisis as having arisen in the vacuum left by the IMF as its power in international financial markets diminished with the abandonment of the par value exchange rate system. Like Davidson, Tarshis referred to Keynes's plan for the international monetary system for indications of what had been lacking in the design of the IMF: symmetrical pressure on surplus and deficit countries to adjust to payments imbalance, adequate provision of liquidity, and powers for the IMF independent of the interests of major economies. In other words, the debt crisis had arisen because of undue pressure on developing countries in deficit, inadequate liquidity provision by the IMF to allow adjustment to proceed, and an over-concern with the banks of major Western economies relative to the adjustment burden being imposed on debtor countries. Tarshis's proposals for dealing with the debt overhang include debt forgiveness, and the provision of liquidity to bail out creditor banks in order to maintain confidence in the banking system. But he argued that this support for banks should include acquisition of public equity in bailed-out banks (so that banks would not benefit unduly) and the commitment of the relevant governments to introduce regulation to limit future capacity for credit creation. Indeed, an international

regulatory and supervisory agency should be established to ensure the prudential control of the international banking system.; Henry Kaufman has made a similar proposal (see Kelly, 1995, 227). The endogenous credit theory applied to a domestic economy has shifted attention from monetary policy as a mechanism for controlling monetary aggregates to bank regulation and supervision as a mechanism to promote financial stability (see Minsky, 1982). This perspective is carried over to the international context by Tarshis.

Attempts to restore and enhance the role of the IMF with respect to the international financial system seem at face value to run counter to the tremendous increase in financial market power which weakened the IMF in the 1970s. But the debt crisis made clear to the banks the limits to their knowledge of borrowers' economies, and their capacity to make borrowers more credit-worthy. As a result they turned to the IMF for assistance. This assistance took the form of requiring borrowers to submit to the conditions attached to IMF credit in order to be eligible for further bank credit. These conditions included structural adjustment programs, consisting largely of supply-side policies like financial liberalisation, and monetary controls (supported by tight fiscal policy) to control inflation. The result has been a tremendous cost to debtor countries, whose difficulties in fact had been the result, at least in part, of tight fiscal and monetary policies in creditor countries, as well as of the increasing scale and instability of international financial markets. However, irrespective of the nature of the IMF's policies, the market has demonstrated its need for something akin to a world central bank; indeed the IMF has in effect been asked to go far beyond the normal activities of a national central bank by intervening in bank-borrower credit relations. A central bank, like the IMF, has superior knowledge in general, superior knowledge of the macro consequences of individual bank decisions in particular, and an established relationship with borrowers and lenders which allows it to take on an intermediation role. If this role were filled along Keynesian policy lines, the IMF could draw in particular on its knowledge of domestic banking systems and their relations with the international financial system.

This is not to say that the IMF currently employs its superior access to knowledge in the best way. The theoretical presupposition of the IMF's structural adjustment programs is the mainstream one, that saving precedes investment. This contrasts with Keynes, who gave primacy to investment; bank credit can allow investment to precede saving, and other financial instruments can smooth the process of funding investment with saving (see Chick, 1983; see also Studart, 1993, for a restatement in the context of development finance). The focus then of financial policy with respect to developing economies should be on encouraging financial markets to perform that function effectively. But, as Studart (1995) argues, the IMF emphasis on financial efficiency may impede the funding function. Efficient financial markets, in an increasingly unstable environment respond by further increasing financial fragility (as evidenced by the behaviour of banks in efficient Western financial markets). Yet the IMF (together with the World Bank) persists in its program of encouraging financial liberalisation as a means of increasing the provision of saving, despite inadequate evidence that financial liberalisation can play any causal role in the economic development process (see Arestis and Demetriades, 1993).

Meanwhile, the increasing fragility of the international financial system itself has been a focus for discussion as to possible control mechanisms. Keynes had advocated some form of control on capital flows even in the 1940s, to allow governments to maintain their exchange rate commitments. If there was adequate reason then for being concerned about the potential danger of capital flows, the rationale must be overwhelming now. The predominant suggestion is Tobin's (1978) tax proposal, whereby a levy would be charged on all foreign exchange transactions, reducing at the margin the return on speculative transactions. As Davidson (forthcoming) argues, however, the tax would have more impact on trade-related transactions, and could not impede the force of speculative flows when foreign exchange gains well in excess of the tax are anticipated. Davidson reiterates the need for a stable international monetary system based on central bank clearing as the appropriate vehicle for eliminating speculation at its root.

An alternative proposal is to route capital flows and trade-related flows through a dual exchange rate system (see Soloman, 1989). While it is very difficult to protect such systems from abuse, steps have been taken to classify transactions within foreign exchange markets. Thus, the Bank of England for example already distinguishes between foreign exchange risk arising in the normal course of business, and that which is the result of active speculation (see Kelly, 1995). Indeed Kelly argues that this distinction should be applied within derivatives markets. Derivatives trading arose initially in order to provide hedge instruments by which traders could cover their foreign exchange risk. But now markets in a wide range of instruments have developed which redistribute a wider range of risks; the growth of the derivatives market has itself added to the sum total of risk, increasing the fragility of the financial system. Kelly therefore proposes that the right to engage in derivatives speculation be restricted to Special Purpose Vehicles, subject to them achieving high credit ratings. Other market participants would only be allowed to engage on hedging.

Guttman's (1988) reform proposal, building on Davidson (1982) and Schmitt (1977) returns to the approach of discouraging speculation by means of ensuring a stable international financial environment. But, on the grounds that the international financial system is now dominated by inside money, Guttman argues that that inside money should be under the direct control of an international authority. Guttman thus advocates the centralisation of both private and public sector international capital flows, requiring that they all be denominated in Supranational Credit Money (SCM) issued by a New International Monetary Authority (NIMA). National currencies, whose exchange rates with respect to SCM would be fixed, could only be used for domestic transactions. This credit money goes beyond Keynes's (and Davidson's) proposal for an international money as outside money to underpin the structure of private sector international credit. While it removes control of the supply of the international money from government (international and national), it recognises the power which international financial markets have over credit creation regardless of the outside money system, and attempts to separate that power from the international provision of assets in any one national currency.

The replacement of national currencies by an international money is the central aim of the design of European monetary union. The intermediate aim is to eliminate structural sources of payments imbalance by means of the economic convergence

process, in order to proceed to a locking of exchange rates, and the replacement of national currencies with a European currency, the Euro. Supply of the Euro is to be determined by a centralised European central banking system, along monetarist lines. The design of that system of central banking, as being independent of government, itself entails the monetarist separation of the monetary from the real (see Arestis and Bain, 1995). The convergence process is being facilitated by a process of financial liberalisation. The system would then have the same deflationary bias, the same inadequate provision of liquidity to allow time to adjust to payments imbalance, and the same tendency for high interest rates and financial fragility as were evident in the global financial system under the IMF of the 1980s and 1990s. Further, as the EU membership expands to include new members of close-to-developing country status, the problems will be exacerbated.

Jespersen (1995) argues that, to be effective, a European central bank should be concerned primarily with promoting financial stability. This reflects a Post Keynesian concern with the stability of the financial environment in terms of the cost and availability of credit, and returns on alternative assets, rather than the mainstream focus on stability of monetary aggregates. The significance of the structure and behaviour of the banking system for theory and policy has long been stressed by Chick. She has applied these ideas to European monetary union in Chick (1993a), where she discusses the centralising consequences of opening up the European financial system to free competition, where the national components of that system have very different histories, structures and behaviour. As Chick and Dow (forthcoming,a and forthcoming,b) argue, the shape of the European financial sector cannot be foreseen without paying attention to the differences in financial behaviour, history and conventions particular to each member. Just as Chick (1993b) argues that monetary theory and domestic monetary policy should be contingent on the particular nature of the banking system at issue, so in considering international finance we must consider the tremendous diversity of banking systems which lurk behind an apparently homogeneous international financial system.

## **CONCLUSION**

Post Keynesian monetary theory focuses on the intrinsic role of money within the economic process. Money assists the economic process by providing a unit of account for contracts specified in terms of a liquid asset with stable value; that money asset may also be held when confidence in the prediction of value of alternative assets is low. But money is primarily the liability of the private sector banking system, a by-product of its lending decisions which are also influenced by the state of confidence. If there is a shortage of liquidity relative to demand (regardless of planned saving), then economic activity may be discouraged, and output and employment fall. The Post Keynesian prescription is to attempt to keep interest rates low when economies are operating below full capacity. But above all, policy should be addressed to maintaining stable financial conditions so that liquidity preference does not rise in the first place.

This theory and policy prescription carry over into the international context, but with the significant complication that different currencies offer a range of international

moneys. If exchange markets are unstable, then preferences as to which currency to hold as international money may change, creating balance of payments problems for the governments concerned. The greater the degree of payments imbalance, the greater the deflationary bias for the world economy, given the greater pressure on deficit economies to adjust than surplus economies. Further, the greater the degree of instability in international financial markets, the greater the precautionary demand for liquid balances, and the higher will be interest rates, adding to the deflationary bias.

Of course, all economic units have balance of payments problems, but most do not have the benefit of a separate currency either to segment payments or to change relative values. The deflationary bias in payments adjustment is general; but while separate currencies may potentially reduce the bias, the consequences of exchange speculation enforcing more rapid adjustment than would otherwise be the case (and indeed sometimes unwarranted adjustment) may increase deflationary bias.

The key to adjustment, the potential for steadying its pace and for avoiding it when imbalances are temporary, lies with the banking system, and its willingness to extend credit. The significant distinction then is not so much between deficit and surplus economies, as between deficit economies to which the banks are unwilling to extend credit, on the one hand, and deficit economies which the banks will fund and surplus economies on the other.

Just as at the domestic level the aim is for financial stability and low interest rates, so at the international level design of the international monetary system should address this aim. (The international financial system operating effectively independently of any global system of governance has shown itself incapable of meeting this aim.) What is required therefore is a mechanism for separating international money from any one national economy, ie a true international money; strict regulation and supervision of international banking to reduce instability of capital flows and exchange instability and to coordinate financing of payments imbalances; a symmetrical system of payments adjustment involving coordination of adjustment policies. In other words, what is required is an international clearing union and an international credit money, with a forum for policy coordination and a strong bank supervisory system. Given the interdependencies between these functions, they should all be performed within one agency.

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