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Working Paper No. 274

The Independent European Central Bank: Keynesian Alternatives

by
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INTRODUCTION

The aim of this paper is two-fold. First, it is to question the assumptions underlying the economic case for the independent European Central Bank (ECB). Second, the paper argues that although a European Clearing Agency (ECA) of the type Keynes envisaged for the international economy is not a panacea for the economic problems of the European Union (EU), it is, nonetheless, a better way forward and far superior to the ECB.

An important assumption underpinning our analysis is that there is an inherent conflict of interest between the real and the financial sectors of the economy, with both sectors being potentially unstable. Money is not neutral even in the long period, for money per se can cause booms and depressions (Arestis amd Howells, 1996). Control of inflation should be no more than one policy target among many, the principal of which should be achieving and maintaining high growth rates and full employment. There is thus no justification for the selection of a low rate of inflation as the single most important goal of policy, irrespective of the current state of the real economy. It is also assumed that 'market forces' are not capable of returning the economy to full employment, so that government intervention is necessary.

The paper commences with a brief excursion into the theoretical basis of Keynesian monetary and financial theory, where it is shown that the power of financial institutions is located in their ability to provide credit, which affects firms' investment plans, so that credit availability and allocation have significant systematic effects. The section that follows aims to ascertain the extent to which credit availability is affected by the creation of an ECB and, on that basis, to offer a critical analysis of current proposals for an ECB. The next section looks closely at the case for the ECA, seen as performing a range of functions rather than having a remit defined simply in terms of strict monetary control. The most important of these would be a commitment to providing the necessary finance for full employment and a responsibility for ensuring that the burden of balance-of-payments adjustment falls upon both deficit and surplus countries. The final section summarises and concludes.

THEORETICAL ASPECTS OF MONEY AND FINANCE

In a 'monetary-production' or 'entrepreneur' economy, contracts are an integral feature and must be denominated in and discharged by an accepted medium of exchange, as established and upheld in civil law (Davidson, 1982). Money thus allows entrepreneurs access to physical resources and labour required for production. In such an economy, money is the result of credit flows, where the leading role is essentially played by entrepreneurs. The ultimate determinant of the money supply is, therefore, 'animal spirits'.

Entrepreneurs must predict the pattern of the forthcoming effective demand and infer from this and the orders placed with them, the cash outlays required for the finance of their investment. Once this is done their loan requirements from the banks can be ascertained and their demand for funds formulated. The future is uncertain, so that production can only be undertaken on the expectation of future effective demand and profits. Uncertain expectations in a non-ergodic world are potentially inherently volatile and can be falsified, thus leading to instabilities.

Banks lend also to speculators, which raises the possibility that speculation crowds out credit to finance economic activity, thus exacerbating instabilities (Dow, 1993b, ch. 4). This is especially worrying given the increasing tendency for firms themselves to engage in speculative activities. Clearly, these difficulties are all the more serious the higher is the degree of an economy's financial openness.

Commercial banks do not passively accept deposits before they create loans. They constantly seek profits through the expansion of their balance sheets. They make loans, create deposits in the process and meet reserve requirements later. Given the lender-of-last-resort role and concern over liquidity and stability of the payments system, central banks administer interest rates normally. There are occasions, however, when central banks use quantity constraints to influence credit markets, and if a crisis threatens 'orderly' conditions in them, central banks accommodate fully. Quantity controls, however, can be evaded by financial institutions through financial innovations, which have an important role to play in that they transform a robust financial system to a fragile one where liquidity is stretched.

Commercial banks set their interest rates via a mark-up on administered rates, given that precision in banks' assessment of risk and value of collateral is unattainable. At the level and structure of interest rates established in this process, commercial banks stand ready to provide whatever loans are required once they are satisfied on borrowers' Credit, Collateral (which must be liquid) and Character, and so long as their liquidity preference (determined by the state of confidence in the prices of financial and non-financial assets) and assessment of risk remain unchanged. Commercial banks have a varied and complex set of portfolio choices to make, so that they have their own liquidity preference.[1] Changes in banks' liquidity preference influence the amount of credit available and thus the money stock. Since banks' risk assessment is based on incomplete knowledge, their liquidity preference changes as their perceptions of risk alter. Excessive demands on bank liquidity which generate debt deflation imply that money could not be created unless interest rates are raised to induce expansion of balance sheets, although banks willingness to become less liquid is also important. Commercial banks ration credit if their liquidity preference dictates it. They actually use credit rationing because they do not know precisely the required interest rate to compensate for risk of default (Dow and Saville, 1988; see also Kalecki, 1937, p. 442).

In this process there is an inherent tendency for investors to increase the level of their indebtedness, and in moments of optimism they do so rapidly. If lending institutions share this optimism, demand from the private sector would be accommodated. However, such a bank-financed expansion leaves the corporate sector in a vulnerable financial position, and the additional supply of finance for investment by banks reduces their 'margin of safety'. The vulnerability of both firms and banks is heightened as a result (Minsky, 1982a, 1986). This increased financial fragility[2] is not in itself a constraint on growth, but it will disrupt the process of expansion if it turns into debt-deflation, which can be triggered by changes in expectations and consequent attempts to re-establish liquidity positions. The increase in liquidity preference affects real expenditure through changes in interest rates, in long-term expectations, and, most crucially, in the availability of funds for investment, which thwarts the growth process.

There is thus a close interdependence between developments in the real and monetary sectors. The monetary sector assists the development of the industrial sector through channelling finance to it. But instability in financial relations can cause volatility in investment, so that the commercial banking sector can affect the course of events in the real part of the economy. Developments in the real sector of the economy, essentially in investment and its financing, influence monetary and financial events. The prosperity of the industrial sector, for example, has a beneficial effect on the monetary sector, maintaining its solvency and enabling it to innovate and enhance its ability to service the industrial sector.

In the open economy additional considerations are in order: the type of exchange rate regime, the phase of

economic cycle and the state of the trade account are crucial (Dow, 1986-87). In a flexible exchange rate regime, exchange rates are determined by both real and monetary factors. The health of the real economy, as proxied by movements in relative profitability and productivity and thus competitiveness, is a fundamental explanatory variable, as are relative interest rates, themselves influenced by speculation (Arestis, 1989). In the expansion phase the less flexible exchange rates are, the greater the scope for capital inflows, given relative interest rates. An expected improvement in relative profitability encourages local and foreign investors to buy domestic assets, thereby increasing the supply of finance. Mutatis mutandis, in a contraction the less flexible exchange rates are, the more the scope for capital outflows so that the contraction phase is more severe than otherwise, which worsens the downturn.

There are, also, trade account effects on the supply of finance which operate through changes in the ratio of imports to exports. Changes in the trade account affect the supply of finance in such a way that the amplitude of economic cycles is mitigated in a regime of fixed exchange rates. When flexible exchange rates prevail, even if full adjustment to the ratio of imports to exports were to occur, speculation can lead to destabilising international capital flows. In an open economy, liquidity is responsive to expected changes in relative interest rates and in expectations of exchange rate adjustments, both of which can be destabilising. Thus international money flows are potentially a source of instability. Openness, therefore, enhances the destabilising power of financial markets in that they do not necessarily provide countries with international liquidity when they most need it; nor do they always absorb unwanted liquidity.

Economic openess is also the cause of divergence amongst economies. Deficit countries are normally faced with weak currencies and capital outflows instead of a balancing capital inflow, and they are thus obliged to reduce levels of economic activity. Surplus countries, by contrast, experience buoyant levels of economic activity with no need or incentive to adjust (Kalecki, 1946). All these propositions are consistent with and compounded by Thirwall's Law which suggests that international financial payment imbalances can have destabilising influences upon the real economy (Thirwall, 1979).

The preceding analysis is applicable not just to the more developed EU 'core' countries, but also to the EU 'peripheral' countries. Banking sectors in these countries, rather than the stock market or other financial institutions, are the main source of finance for investment. The supply and the average maturity of loans made available for investment are determined by banks' liquidity preference, in addition to demand. Since the countries' financial markets are underdeveloped, banks' liquidity preference is high and thus lending activity is low. In any case, banking sectors in the EU periphery are within the remit of the state, and as such they are used primarily to finance government deficits. Any lending to the private sector that may take place is in the form of short-term loans to finance consumption and speculation. The relatively slow pace of banking developments along with slow income growth mean, then, that these monetary sectors do not have a strong base for their operations. As a result they are not in a position to innovate to the same extent as in the core countries and are thus less equipped to contribute to development. Development is in turn not robust enough to enhance the position of the banking sector.

We thus arrive at Chick's (1986, 1989) stages of banking development with their different characteristics, where the capacity of banks to create credit depends crucially on their stage of evolution. This capacity is enhanced as banks become more and more independent from reserve requirements, thereby making the supply of credit more responsive to demand. This analysis suggests that the higher is the degree of integration of EU banking systems the more independent they become, and the greater is their ability to influence the volume of credit in the Union (see,also, Dow, 1993a). EU banking systems are not at the same stage of development, and banks at similar stages of development operate differently, as, for example, banks in Britain and Germany which are viewed as polar cases in their roles in industrial finance (see Pollin, 1995). This raises the question of what will be the outcome when financial systems which operate in rather different ways and which were previously separated are brought together. This is particularly relevant in the case of peripheral countries, where banking systems differ substantially from the ones in the core countries in terms of stages of banking development. The existence of a weak banking sector and the weakness of the real economies in the periphery mean that these countries will be unable to withstand competition from the banking corporations of the core countries in the environment of the single European market. They will thus be vulnerable to take-overs, with the result that banking in peripheral economies is likely to be dominated by large international banks.

The financial dominance of the centre implies that the higher is the degree of EU financial integration, the greater is the degree of periphery vulnerability. This would be exaggerated by both borrower and lender attitudes. Savers in the periphery would tend to opt for acquiring financial assets at the centre which, with its competitive edge, is always able to offer high-return and low-risk assets relative to the periphery. Funds drained away from peripheral countries are unlikely to return from whence they originated (Chick and Dow, 1988). Lenders would have a high liquidity preference and consequently a low propensity to provide credit. The locus of credit creation and allocation and thus the financial power would concentrate in a few financial centres well outside the periphery.

These differences in banking development entail a serious problem which relates to the fragility of the EU financial system. Financial innovations, which are a distinct characteristic of the more advanced stages of banking development, create more financial opportunities but at the same time more total debt. The higher is the total debt to GDP ratio, the more financially fragile a country is. To the extent that such creation is uncontrolled, fragility can develop into instability (financial liberalisation can produce precisely the same results; see Davis, 1992; Studart, 1993; Arestis and Demetriades, 1997). EU banking systems which are at similar stages of development can still have different total debt to GDP ratios and thus being susceptible to different degrees of financial fragility and instability. Given the financial dependence of periphery on the centre, fragility and instability ultimately spill over to the periphery.

This analysis suggests that monetary shocks will have differential effects upon the EU economies. In particular, peripheral countries will be less able to cushion themselves against contractionary monetary shocks than core countries. In the latter cases, these shocks can be neutralised, potentially, by the operations of commercial banking sectors operating at the more advanced stages of banking development and are thus less reserve-constrained. The more underdeveloped banking systems cannot so easily neutralise deflationary (and inflationary) shocks. In addition, the financial reliance of these countries on institutions which operate outside their frontiers has serious implications. Finance in peripheral countries has taken the form of borrowing on the international capital and money markets. Banking is no longer national. This internationalisation of banking has meant that whilst financing in the past had been channelled through direct investment, in peripheral European countries direct investment has become inadequate and international bank finance began to replenish the shortfall. The operations of these financial institutions upon which the peripheral countries so much depend, may not be conducive to the interests of these countries, unless national control governments exercise some form of control over their operations (Arestis, 1992, ch. 10).

INSTITUTIONAL AND THEORETICAL CHARACTERISTICS OF THE ECB

In this section we comment on the independent European Central Bank as initially put forward in Delors (1989) and EC (1992), which is essentially how it was implemented on 1 January, 1999 (for more details see Arestis and Sawyer, 1999). The ECB is part of the attempt at European Monetary Union (EMU) and is the single locus of the European System of Central Banks (ESCB), which has been formed from the voluntary union of national central banks, and the ECB itself. National central banks have not been abolished; they have become merely operating arms of the ECB. The ECB assumes responsibility for EU monetary policies, but it is the Council of Ministers and not the ECB which is empowered to conclude agreements on the exchange rate system in relation to non-EU currencies and to change the central rates for the single currency within the system. The final say, therefore, on the exchange rate, rests with the Council of Ministers and not with the ECB.

Under these arrangements all foreign exchange controls have been removed, exchange rates are irrevocably fixed and national currencies would eventually be replaced by a single currency, the EURO. The primary objective of the ECB is to maintain price stability, using whatever monetary policy is necessary regardless of the costs involved in unemployment and lost output. Furthermore, the ECB will support the Union's objectives within the framework of free-market principles. In pursuing these objectives the ECB is completely independent of the institutions of the Union and member state governments.[4] It thus enjoys political independence, a view which is consistent with the free-market notion that the main danger to financial stability is not the activities of market agents but the workings of elected governments, which makes necessary an independent check on public spending. The central bank is thus given the responsibility for avoiding the inflationary finance of government deficits, thus becoming an instrument of control on government and not an

agent of economic policy.[5]

These arrangements for the ECB are flawed, both theoretically and institutionally. The most serious springs from the heart of the case for an ECB, which is that inflations are monetary in origin and as such they should be tackled by monetary policy alone as required. But if inflations are non-monetary in origin, using monetary policy to fight inflation would be inappropriate and would have detrimental effects on output and employment. Also, it is pointless demanding that the ECB attempt to control the money stock when this is essentially endogenous (Arestis and Howells, 1996), which raises the question of how price stability is to be achieved in the absence of any other policy instrument. Central bankers, with their heavy emphasis on 'sound' money, are prone to pursuing deflationary policies without giving sufficient attention, if at all, to full employment and growth targets. This would heighten, rather than mitigate, financial fragility, since interference with the credit system in the fight against inflation, causes interruptions to the production process. A further difficulty arises from the crucial assumption that appointed central bankers are to be trusted more than elected governments. The danger with this view is that since central bankers see themselves as the custodians of international capital, the formation of monetary policy would be subject more to the interests of international financial capital rather than to those of the EU.[6] These problems prompt two further questions which relate to accountability and 'bank supervision'. The ECB is insulated from political pressures and as such does not appear to be accountable. But without complementing the measures to ensure independence with others to quarantee accountability, political support may not be maintained. There is also the question of 'bank supervision' which is not tackled in the proposed monetary European system. This particular consideration prompted Kregel (1993) to argue that the real hurdle to European Monetary Union is lack of this type of supervision and could very well become the most awkward challenge to the ECB. He suggests that 'the major prerequisite for the successful functioning of the universal bank system throughout the EEC would be the creation of a single EEC agency with responsibility for bank supervision, independent from the European Central Bank, but which cooperates closely with it' (*op. cit.* , p. 675).

The ECB system envisages a single currency as a further step on from the fixed exchange rate system. This along with the abolition of controls on capital movements increases the problematic nature of a movement to fully fixed exchange rates with a single currency, both by increasing the difficulties faced by weak currencies and countries and by removing the capacity of governments with an anti-inflation stance to sterilise the effects of inflationary tendencies within the system as a whole. Furthermore, as recent EMS experience has demonstrated, in a world of free capital mobility, a fixed exchange rate system covering more than just a small number of countries which are very similar in economic performance, will face regular disruptions with disturbing consequences not only for exchange rates but also for unemployment levels.

There is also the problem that since EU countries have different labour-market institutions, this may lead to divergent wage and employment patterns. Supply shocks for example would affect wages and prices differently in these countries, thus causing adjustment difficulties in the presence of irrevocably fixed exchange rates. A related problem highlighted by the recent experience of the German unification, is that in a currency union there would be a strong pressure on the wage structure of the weaker members to adapt to the highest existing wage levels of the strongest countries. So long as productivity increases lag behind wage increases (due to the obsolete capital stock of these countries), problems on the employment front may ensue, thereby increasing substantially the need for transfer payments to levels which it may not be possible to finance in the face of strong political resistance.[7]

Membership of the ECB system required the fulfilment of certain stringent criteria[8] that most countries found extremely difficult, and some (for example Greece) impossible, to meet (see Arestis and Sawyer, 1999, for the problems those criteria entailed). Furthermore, independence by itself does not establish anti-inflationary credibility since correlation between price stability and central bank independence does not imply causality. A good example in this context is Germany's experience with inflation. While part of the inspiration behind an ECB comes from the German experience of low inflation and the alleged independence of the Bundesbank, institutions and psychology appear to have played a much larger role. But the glaring omission from the convergence conditions is any mention of output or employment considerations. They clearly suggest that price stability is to be pursued through the free market mechanism rather than through positive interventionist measures to encourage economies to absorb rising costs by productivity increases and not by higher prices.

'Euromonetarism' is established as a deliberate policy choice. The impact on countries of attempting to meet the conditions has inevitably been asymmetrical (Arestis and Sawyer, 1999). The attempt to conform to them has produced different levels of unemployment and output growth in different countries and, even more emphatically, in different regions (Arestis and sawyer, op. cit.). Bean (1992) finds the fiscal convergence conditions in particular 'positively harmful... and ... Since the rules are asymmetric ..... the consequence will be a contractionary bias to fiscal policy for some time to come' (p. 48), especially so if the cause of budget deficits is a private sector surplus of savings over investment. This bias will limit any boost to output and growth which might emanate from the completion of the monetary union. And even without the asymmetry, the boost is expected to be negligible (De Grauwe, 1992, p. 81). For the peripheral countries, the cost is likely to be high, in view of their inefficient public sectors and tax evasions due to their underground economies. Equally serious for these countries is the immense pressure they face not to restructure their economies, but to reform their economic policies to adhere to the convergence criteria. Resultant policies of fiscal stringency and high interest rates (aiming at propping up their currencies) would weaken these economies further.

Turning briefly to the issue of the Union fiscal policy, as distinct from rules governing the fiscal policies of individual member states, the following comments are in order. Single currency areas in single countries apply fiscal policies which automatically act to transfer funds to poorly performing regions through lower taxation revenues and higher government transfer payments in those regions. In addition, most countries engage in explicit discretionary regional transfers through government grants and/or taxation allowances. The EU allows for the second of these types of transfer, although their size is entwined with the general issue of the size of the EU budget and very little attempt has been made to relate them to the increased imbalance likely to result with EMU or attempts to achieve it. Transfers resulting from the operation of automatic stabilisation do not occur at EU level, so that the check on the decline of weak areas which emanates from this economic mechanism is absent. Also, given the lower degree of labour mobility across national borders rather than within them, the full and final loss of the exchange rate instrument requires an adequate policy of regional transfers through a Union fiscal policy to accompany the proposed common monetary policy. This issue is even more serious given the limitations on the fiscal deficits of individual members and the controls over methods of financing them imposed as part of the movement to EMU.

A related issue is the relationship of monetary policy to fiscal policy. In EMU, coordination between monetary policy and fiscal policy is very difficult, if not impossible. This is so since the independent central bank is responsible for monetary policy whilst fiscal policy remains in the hands of national governments. It would not be unrealistic to assume, though, that within a monetary union the fiscal budget is bound to be set up at the Union level, precisely because of the enormous problems that lack of coordination of these policies would entail. However, once the fiscal budget is set at the Union level, national governments will not be able to monetise their deficits. There are, already, two major rules in this context: first, there should be no monetary financing of public sector deficits under any circumstances, and second, there should be no responsibility to bail out any member state which gets into budgetary difficulty (they are actually bound by the conditions of the Stability and Growth Pact; see, for example, Arestis and Sawyer, 1999, for more details on this pact). Union lending to 'profligate' states that run into trouble should be on extremely tough and restrictive terms. Since the option of monetisation of public deficits will not be open to national governments, a considerable element of 'discipline' is, thus, introduced. Under these circumstances the financial system becomes more fragile, especially in the peripheral countries, with further adverse effects on the real sector of the economy. The ECB would be in no position to cope with these effects given its emphasis on 'independence' and monolithic concentration on inflation. Under these circumstances EMU could actually damage, rather than enhance, the long-term prospects for European unification.

The argument against the ECB is consistent with liquidity preference theory and uncertainty as expounded earlier. The ECB would not provide the stability required for a successful European monetary system. Lack of such a system means that liquidity preference is high in view of uncertainty, which keeps interest rates higher than they would otherwise be, thus affecting investment, employment and income adversely. What is needed, therefore, is a system to provide stability which would reduce or eliminate excess supplies or demands for currencies, thus enabling the volume of European trade to expand, which would contain uncertainty and reduce liquidity preference. With lower interest rates, economic activity should be stimulated across countries. The issue for alternatives must therefore be addressed. This is the theme of the section that follows.

KEYNESIAN SCENARIOS FOR EUROPEAN MONETARY ARRANGEMENTS

It should be clearly stated at the outset that whatever the institution or system one envisages in this context, it should be primarily concerned with levels of output and employment, rates of economic growth and inflation as well with national and regional balance. Keynes (C.W. XXV, p. 75) was in favour of a system which would aim at checking contractionist tendencies.[9] For the 'main cause of failure' of any payments system was its inability to foster continuous global economic expansion when persistent current account imbalances prevail. Keynes was suggesting that this failure was due to the single characteristic of imposing the main burden of adjustment on debtor countries.

Keynes's plan[10] was the creation of an International Clearing Union (*op. cit.* ; also the Appendix in Thirlwall, 1987), a supranational central bank, with its own currency, bancor, the value of which would be defined with respect to gold. Each country would fix its currency in terms of bancor with margins of fluctuation allowed. Bancor would be accepted as equivalent to gold by members who would agree to accept the transfer of bancor through the Union in settling international balances. Bancor would be used only for clearing purposes among countries and the Union would be entirely responsible for the accounting of the whole system. Countries could only buy bancor from the Union; they could not sell them for gold. Bancor reserves could never leave the system, so any possibility of a run on bancor is eliminated. Each member's quota of bancor, allocated according to their previous levels of imports and exports and envisaged to be variable by agreement, would supplement its reserves, and the Union could also make overdraft facilities available. Countries would be charged with interest when their holdings of bancor deviated from zero in either direction, so that an incentive is introduced for both surplus and deficit countries to seek adjustment.

Surplus countries, which would have credit in their accounts with the Union, should consult with the governing body on the best measures to be implemented by them to alleviate the imbalance, including revaluation of their currencies, if their credit with the Union exceeded half of their quotas. A credit balance unused for a certain period of time would be cancelled automatically. A deficit country whose debit exceeded a quarter of its quota could implement, without permission from the Union, a 'once-for-all' reduction of 5 per cent in the value of its currency. If the deficit continued and grew to half its quota, the Union could enforce devaluation of a magnitude it saw necessary. Creditor countries would be under no similar direct compulsion to revalue their currencies, so that even in this plan deficit countries surrendered control over their own exchange rates.

Keynes's plan, therefore, recognises the importance of devising a mechanism that requires surplus countries to bear the main burden of adjustment of balance of payments disequilibria, without at the same time removing all responsibilities from the deficit members. This would be helped by the adoption of a combination of fixed but adjustable rate system to reduce the possibility of massive currency misalignments. Keynes also recommended two additional institutions: the Board for International Investment aimed at ascertaining investment needs and their financing across countries, and the International Economics Board to maintain price stability and control of the Trade Cycle.

Kalecki (1946), too, was mindful of the disadvantages of the scenario whereby the burden of adjustment falls on deficit countries with weak and small economies. He argued that eventually this would have deflationary consequences not just for the weak but also for the stronger countries, thus imparting a serious deflationary bias to the system. Kalecki insisted that 'no country will experience difficulties in balancing its foreign trade if all countries maintain their expenditure on goods and services at a level adequate to secure full employment with no export surplus in existence' (op. cit., p. 323). This could be arrived at, if each country maintained full employment 'based on domestic expenditure and on net foreign expenditure financed by international long-term lending' (op. cit., p. 327). He insisted that any international monetary arrangement which precluded full employment as priority would simply fail. Surplus countries should stimulate their imports and hence the exports of the deficit countries. An international clearing union and an international investment office should be established, the aim of which would be to provide enough short-term and long-term lending facilities to help overcome foreign exchange difficulties (Kalecki and Schumacher, 1943; Kalecki, 1946). So, although Kalecki had not provided a comprehensive proposal for an international monetary system, he was, nonetheless, advocating the creation of international financial institutions which were similar to Keynes's scheme.

A proposal which is very much in the spirit of Keynes but without the requirement of an international central bank, is that put forward recently by Davidson (1992-93). Davidson argues for an international institutional agreement which 'does not require surrendering national control of local banking systems and fiscal policies' (p. 158). He envisages a 'double-entry bookkeeping clearing institution' with an International Money Clearing Unit (IMCU), essentially deposits of the central banks with the Union. The IMCU is to be used as a unit of account and reserve asset for international liquidity which is to be held only by central banks. This would be the only reserve asset for international financial transactions with guaranteed one-way convertibility, from international money to domestic money, in which case 'there can be no draining of reserves from the system'. Overdraft facilities with the specific aim to utilise short-term unused credit balances would be made available. The exchange rate between national currencies and the IMCU is left to each nation, at least initially. Although a fixed exchange rate system is envisaged, changes in parities are allowed to reflect permanent changes in unit labour cost and current account deficits at full employment. Changes in the exchange rates should take place gradually and at stipulated magnitudes per period.[11] If the deficit nation is a poor country, the suggestion is for a transfer from the richer surplus countries of some of their excess credit balances to the debtor nations. In any case, creditor countries which accumulate unused IMCU reserves would lose them, so that an incentive to stimulate these economies is introduced.

The clear implication of this proposal is that effective demand does not decrease as a result of the deficit in the poorer countries and also that grants and direct investment are channelled to them. There are essentially three problems with Davidson's proposal. First, there is Kalecki's (1946) argument that mere transfer of excess credit balances to the debtor nations could not be relied upon to produce a satisfactory permanent solution, unless an international agency is set up to satisfy long-term financial needs. The second difficulty is that in this proposal co-ordination of the activities of the national central banks is left to them, thus raising the necessity of obtaining agreement, which may not be forthcoming - unless, of course, countries that are reluctant to co-operate realise that ultimately membership of the Union which allows collaboration is the only way forward. The third difficulty relates to the stipulated changes in exchange rates which would cause massive speculation on the currencies involved. Clearly some form of control of speculative capital flows would be necessary in these cases, a requirement which can actually be incorporated in Davidson's proposal.

EUROPEAN CLEARING AGENCY

The proposal suggested in this paper relies heavily on Keynes's, Kalecki's and Davidson's views. This makes it imperative to consider the principal ways in which the economic landscape has changed since Keynes and Kalecki made their proposals for an international clearing union. They are:

(a) The dominance of purely international financial motives over the needs of trade in foreign exchange markets has made speculation a considerably more potent force than in the days of Keynes's international clearing union. This has been helped by better communication and other technological advances.

(b) The usual objectives of economic policy of the late 1940s, 1950s and 1960s (full employment and healthy growth rates, balance-of-payments 'equilibria', etc) have been displaced by the single objective of ensuring the confidence of 'markets'.

(c) We now have an international monetary non-system which is characterised by dominant players who are only prepared to consider deflationary policy options: high real interest rates, lower PSBRs, squeezes on welfare spending, and in more general terms, avoidance of expansion because the financial markets see it as 'inflationary'. This has been accompanied by the removal of capital controls, which leads inexorably to high real interest rates as the price of avoiding a flight of capital. In Europe and elsewhere, capital markets have become a destructive monster with, inevitably, severe deflationary outcomes.

(d) The growth in the volume and international mobility of capital and the relative strength of international capital vis-a-vis single governments has been such as to increase substantially the degree of difficulty of controlling capital movements in the modern world. Similar problems were actually identified and discussed both during the Bretton Woods era (for example, Tobin, 1966) and before it (for example, Kaldor, 1939). Keynes (C.W. XXV) recognised the dangers for an organised international system of capital mobility and responded with a variety of proposals aimed at restricting international capital movements. What has changed

since then is that these difficulties have become more transparent in that the expectation of a devaluation produces a flight of capital of dimensions that central banks find difficult to manage.[12]

(e) Central banks at the time of Keynes were more in control of the ability of financial systems to create credit and establish interest rates. Recent financial developments, liability management, the liberalisation and, especially, the internationalisation of financial markets, imply that 'national central banks take a step down, becoming single banks in a world-wide system, not at the 'centre' any longer' (Hicks, 1967, p. 60). Central banks, therefore, do not possess the type of control necessary to intervene successfully in financial markets. In any case, central banks are less willing to exert the type of control over banks which was taken for granted at the time of Keynes, nor are they prepared to initiate the degree of co-operation necessary to re-establish control over financial markets.

Our proposal for the EU attempts to take account of these developments. Its key features are as follows:

- it is firmly based on Keynes's (C.W. XXV) and Kalecki's (1946) insistence on full employment. There should be a clear recognition that such a commitment entails symmetric and reciprocal rights and responsibilities between surplus and deficit countries. Such commitment should reverse current tendencies to put the emphasis on 'market confidence'.
- the establishment of a European Clearing Agency (ECA) charged with powers to enforce its objectives.
- alongside and under the aegis of the ECA there should be a European Investment Agency (EIA) to provide long-term lending.
- a fixed but adjustable exchange rate system.
- anti-speculation measures to mitigate instabilities and fragilities. This would allow exchange rate policies to be determined by forces other than erratic capital movements.

Our proposal, as in Kalecki (1946), has as a major priority that of achieving and maintaining full employment for all EU countries.[13] Two elements which derive from Keynes (C.W. XXV) are also embedded: that both creditor and debtor countries should be responsible for balance of payments imbalances, and that any payments system should avoid built-in deflationary tendencies. In this latter sense it is essential to stress the importance of a fixed exchange rate system with sufficient flexibility to guarantee that any imbalances are not translated into policies which always result in unemployment. There should be, therefore, a minimal agreement over paths of unemployment/employment, growth and inflation for all member states to achieve full employment. Whilst employment and growth should be recognised as explicit policy objectives, realistic inflation rate paths are also important. But there should be a clear recognition that increases in money wages above productivity normally lead to higher prices and that a degree of inflation is inevitable. In this sense insistence upon inflation rates around zero are totally unrealistic.

We propose the establishment of a European Clearing Agency, with personnel appointed by national governments reporting to some democratically elected body. The ECA would issue a European Clearing Unit (ECU) to serve as a medium of exchange and reserve asset. The ECA would issue ECUs in return for gold, dollar and other reserves of member central banks. ECUs should be held only by central banks,[14] and in more general terms the ECA would operate as an institution which would periodically settle outstanding balances between central banks. The ECA would, therefore, be a 'double-entry bookkeeping clearing institution', providing overdraft facilities so that unused credit balances could be mobilised effectively. Also, it would be committed, along with its member central banks, to guaranteeing one-way convertibility from ECU deposits to domestic money.

There is an important difference between this proposal and Davidson's. The Davidson proposal suggests that 'a single Supranational Central Bank' would be feasible and desirable within the EU which 'would operate as a single unit in the larger global clearing union' (Davidson, 1992-93, p. 158, n. 7). We have argued above that such a system in the EU in the form of an ECB would be both undesirable and devastating in its effect if it were to be implemented.

A European Investment Agency should also be created, run and controlled by the ECA. The EIA should have

two specific aims: first, to provide finance for long-term investment, especially to the peripheral countries which need to industrialise in a way that does not increase dependency. Second, to provide long-term lending facilities to those countries which need them to avoid foreign exchange difficulties. This particular ingredient of our proposal relies heavily on the proposition that different European countries are at different stages of banking and economic development. As such, European countries should not be expected to run continuously balanced current and capital accounts. The EIA attached to the ECA would provide the necessary long-term lending where the emphasis should be on strengthening the real sector of the borrowing economy, and in the case of peripheral countries such lending should be linked to industrialisation. If these conditions are not met, changes in exchange rates may be required. Creditor countries should also be expected to introduce appropriate policies to reduce their surpluses. Most important, though, is the suggestion which relies on Kalecki and Schumacher (1943), that in extending loans to countries the EIA should have the power to direct borrowers to use the loans to increase their imports from countries which have deficits in their balance of payments but are not themselves in the process of industrialisation (see also Harcourt, 1993). In all these it is essential that the functions and activities of the ECA and the EIA are linked and co-ordinated very closely.

Industrialisation of the EU periphery is an important ingredient of this proposal. In addition to the EIA, it would require the creation of more localised institutions charged with the objective to produce an economic order in which finance serves economic growth and development. From the point of view of this paper regional banking, where regions can be countries, is the most relevant. The argument for regional banking is based on the premise that financial institutions, banking in particular, play a vital role in regional growth and development (Chick and Dow, 1988). More concretely, peripheral countries in the EU are characterised by volatile credit creation, which is absorbed by the centre especially in periods of high liquidity preference, since this is satisfied by holding assets issued in the core. The financial centre acts as a magnet especially for large corporate investors who possess market power and thus better access to credit. As credit creation is increasingly centralised, concentration of production becomes concomitant with financial concentration. This remoteness of financial markets from the business of the periphery discriminates against firms and projects there, with the added implication that the periphery experiences tight financial constraints. An asymmetry in regional credit creation and thus in regional development ensues. Regional banking should be expected to alleviate this problem, and also enhance regional growth and development. One envisages, for example, a network of regional public investment banks which would have close ties with local industry and the EIA. Since they would have knowledge of the Credit, Collateral and Character of all major borrowers in the regions, they would be in a better position than European-wide institutions, to boost the capacity for local industrial initiative.

A system of fixed but adjustable exchange rates should accompany the establishment of the ECA, which raises the question of the frequency and the manner of exchange rate adjustments. As in Davidson's (1992-93) proposal, changes in parities can take place whenever money wages and profit margins relative to productivity are permanently out of line, or when countries experience chronic difficulties in their balance of payments for other reasons. In the case of the peripheral countries, transfer of credit balances from surplus countries should be a requirement, but only to the extent that peripheral countries are prepared to undertake positive steps at industrialising their economies. In general terms the ECA would be given the power to use sanctions to enforce behaviour in line with the objectives of the system, including realignment of currencies whenever necessary. This would reduce the degree of the difficulty, identified in Davidson's proposal, that co-ordination of activities of the national central banks be left to them.

Pursuit of anti-speculative measures to allow exchange rate policies to be determined by the criteria referred to above, rather than by speculative capital movements, is another dimension of our proposal. Two such measures suggest themselves: the imposition of capital controls, and the taxing of transactions in the foreign exchange market. Under an adjustable exchange rate system speculative pressures are inevitable. Capital controls could potentially contain if not eliminate speculative pressures so long as there is cooperation and coordination of economic policies among the ECA members. It would be desirable to have cooperation amongst the world's nations on this front but such an arrangement may have to wait until the establishment of an international monetary system more akin to the proposals discussed in this section. One form of capital controls which may rely less on coordination is the imposition of substantially high reserve requirements on banks and other financial institutions against their foreign exchange transactions, including transactions in financial derivatives (these are innovations in foreign exchange markets, such as futures, swaps and options).[15] Since these reserve

requirements would be at zero interest rate, they would impose a cost on foreign exchange speculation which would increase as interest rates rise, thus expected to dampen speculation. Here again, banks could potentially evade these types of controls, in view of the internationalisation of their operations. However, 'substantially high' reserve requirements which discriminate against evaders, may very well discourage banks from attempts of this type.

The other possibility referred to above is the tax on foreign exchange transactions. What this entails is Keynes's suggestion in the Treatise on Money (C.W. VI, ch. 36) that to contain speculative capital movements it may be necessary to tax foreign lending (see also Tobin, 1966, 1978). It re-surfaced in the early 1990s in relation to the severe speculative attacks on the European Exchange Rate Mechanism (Neuburger and Sawyer, 1990, p. 116; Kelly, 1993, 1994), and more recently in view of the severe financial crises around the globe (Arestis and Sawyer, 1997). Without any financial costs in the transfer from one currency to another, even a minimal risk of devaluation can precipitate a crisis by causing a large-scale shift out of the troubled currency. A transaction tax increases the required interest rate differential necessary to cause speculation, and as such it is expected to contain it. It must be recognised, though, that the possibility always exists that such a tax could potentially be passed on by speculators. A multinational company, for example, could raise the price of its product, and commercial banks could raise their 'profit margins' by spreading the costs around. A further problem is that a tax on spot transactions could lead to foreign exchange transactions driven offshore. The offshore problem would have to be tackled by developing a transaction tax in collaboration with other countries (Dornbusch, 1990).

These problems not withstanding, beyond the obvious advantage of being a source of government revenue,[16] the transaction tax should contribute to an orderly realignment of currencies whenever this was necessary.[17] But just as in the case of controls on capital movements, effective imposition of such a tax may have to cover not just the EU but all the countries in the world under the aegis of a revamped international monetary system. Some go even further and suggest that since it is speculation in all asset markets that is responsible for the observed market instability, a moderate world-wide tax on all financial transactions would produce 'stabilising speculation' (Dornbusch, 1990). The success of such an endeavour, though, would require co-operation and policy co-ordination amongst countries.

SUMMARY AND CONCLUSIONS

We have argued in this paper that the proposals to create an ECB is open to a range of far-reaching objections. The experience of the ERM in the early 1990s provides some validation of the views expressed in this study on the problems the ECB might encounter. Alternative possibilities have been considered drawing on Kalecki and proposals suggested by Keynes and more recently by Davidson. This discussion has enabled us to consider a proposal for the EU which relies to a large extent on their suggestions.

Central to our proposal is the creation of the twin institutions of the ECA and the EIA, with the system relying on two important ingredients: fixed but adjustable exchange rates, and controls over capital movements to counteract speculative attacks on EU currencies. The objective of the ECA and the EIA is to enable the EU to achieve and maintain a full employment path. The role of these new institutions in this endeavour would be to provide the necessary credit to member countries to finance expansion and tackle any balance of payments deficits that may arise in the process.

The system proposed for the EU could very well develop into one resembling Davidson's proposal for a world monetary system, and Harcourt's (1993) more recent plan to 'save' the world which envisages both revamping existing international institutions and creating new ones similar to what is proposed in this paper. Indeed, it could very well emerge in what Keynes (C.W. XXV) was hoping his international clearing union might become: 'the pivot of the future economic government of the world' (p. 1989).

NOTES

1. Minsky (1982b) went as far as to suggest that bankers' liquidity preference (and that of businessmen) is 'the essential liquidity preference in a capitalist economy' (p. 74).
2. Financial fragility is mitigated by the existence of secondary markets (where transactions are

undertaken in old securities). Their role relies on continuous trading, which provides the liquidity that is necessary to make it less risky for wealth-owners to hold long-term securities (C.W. VII; Chick, 1992). The thinner/thicker secondary markets are, the more/less speculative and volatile financial markets become. Consequently, financial intermediaries have an important role in supporting a financially stable process of growth and development. But there is, also, a negative side, which is the instability that can be brought about by the speculative nature of these markets.

3. The ECB would be the single locus of the independent European central banking system. This system consists of a European System of Central Banks (ESCB), which would be formed from the voluntary union of national central banks, and the ECB. A central board would run the ECB which would be responsible for initiating and implementing monetary policy.
4. There are three stages leading to the establishment of the ECB. Arestis and Bain (1993) provide a comprehensive coverage of these institutional details and a critical analysis of the reasons for an international central bank, and therefore an ECB, along with the question of the willingness of governments to entrust powers to an international, and/or European, central bank, independent or otherwise.
5. A further example of the attempt to insulate the ECB from political pressures for inflationary finance, is that the six members of its Executive Board are appointed for eight years in office and will not be re-appointed. The members of the Governing Body will serve for five years. This body includes the governors of the national central banks who, presumably, will be immune from political pressures, given that member countries are expected to strengthen the independence of their central banks.
6. Coakley and Harris (1983) chronicle relevant examples from UK's 20th century experience, which support very strongly the points made in the text.
7. A good example of this argument is current developments in the old East Germany. This experience also provides more than a mere hint as to what might be in prospect in a European Currency Union.
8. There are four criteria actually: (i) a high degree of price stability close to that of the three best performing member states; (ii) 'healthy' government finance, defined as a maximum ratio of 3 per cent government deficit to GDP at market prices, and a maximum ratio of 60 per cent of government debt to GDP at market prices; (iii) observance of the normal ERM fluctuation margins for at least two years without any devaluation among the member state currencies; and (iv) long-term interest rate levels which do not exceed two percentage points from the nominal long-term government bond rates of the three best performing member states in terms of price stability. There is also the additional requirement that legislation for Central Banks independence should be in place prior to joining the EMU.
9. Keynes (C.W. XXV) elaborated on the undesirable contractionist tendencies as follows: '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 carrying this analogy into the international field we may hope to offset the contractionist pressure which might otherwise overwhelm in social disorder and disappointment the good hopes of our modern world' (*op. cit.* , p. 75).
10. The international clearing union was not the only international monetary plan that Keynes proposed. Williamson (1983), Moggridge (1986) and Meltzer (1989) analyzed the proposals Keynes put forward between the publication of his first book Indian Currency and Finance (1913), the Tract (1923) and the Treatise (1930) and other contributions in the 1920s and 1930s and the international clearing union of the early 1940s. Common elements of these proposals were, amongst others, that 'a new international currency to be issued by a world bank' should be created, there should be measures to avoid an undesirable deflationary bias being built into any international monetary arrangement, capital movements should be subject to controls, and that exchange rates should be managed (a number of writers have shown that Keynes never advocated freely floating exchange rates; see, for example, Meltzer, 1989).
11. There is the question here of the effects of exchange rate changes, since the evidence is not always unambiguous. Krugman's (1991) assessment of the relevant evidence is that exchange rate changes facilitate adjustment. The adjustment, however, could very well be due to the income effects resulting from exchange rate changes, rather than to the substitution effects (Davidson, 1992-93, p. 164, n. 16). Furthermore, changes in the exchange rate may not be effective if the balance-of-payments problem emanates from the capital account due to heavy international debts. This would require the union to

bring together the debtor and creditor countries in negotiation to solve the problem (*op. cit.* , p. 164). Interestingly enough, Kalecki (1943) was very pessimistic about the impact of devaluation. He argued that price elasticities of demand for exports and imports were low and, also, that competitive devaluations by surplus countries may very well ensue.

12. It has been argued (Williamson, 1992/93) that a 'target zone' system might alleviate the problem of controlling capital mobility. Under this system, countries negotiate 'a set of mutually consistent targets' by fixing real exchange rates and rates of growth in nominal domestic demand for each country. In this way internal and external balance can be achieved, and capital movements absorbed, by allowing exchange rates to fluctuate within a zone of plus or minus 10 per cent around the exchange rate that reconciles internal and external balance. Such a system, however, by permitting discrete realignments is bound 'to be subject to speculative attacks if such a realignment is thought to be imminent' (Bean, 1992, p. 32), although if a credible commitment to make only small and infrequent realignments is made, speculative attacks may be mitigated if not entirely eliminated (Currie, 1993). But even in such a flexible system capital controls seem to be an essential requirement given the ability of internationally mobile capital to find its way around. This proposal still relies on debtor countries to initiate the required adjustment of current account imbalances, and as such it does not address the essential requirement for a sound international monetary system, which is that the onus of adjustment should fall on surplus as well as deficit countries. This is a weakness which would worsen rather than ameliorate the problem with speculative capital movements.
13. This is not to suggest that in the Keynes and Davidson plans the full-employment objective is ignored. Very far from it; they do recognise its importance. The only difference, and it is a minor one, is that in Kalecki's argument the full-employment objective is particularly emphasised.
14. It could be that Williamson's (1992-93) criticism that 'where central bank assets were distinct from those held by the public.....is not of such strategic importance as to justify the effort' (pp. 188-89), may be applicable to the international monetary non-system. But it certainly cannot be applicable to the EU, where new ways of organising its monetary affairs are so much needed, especially when they can overcome the problems experienced recently. Such a system is one that differentiates amongst assets held by the central monetary authority and the public.
15. The proposal put forward in this paper is similar to Kregel's (1989) in many respects, but there is one important difference relating to capital movements. In Kregel's proposal control of capital movements is not envisaged. Capital flows in his model 'could be part of an automatic, profit driven, arbitrage mechanism which would allow free capital flows at fixed rates of exchange' (p. 20).
16. It is estimated that imposition of a 0.5 per cent tax on foreign transactions (estimated to be in the order of £200 billion per day) by the Bank of England would yield around £1 billion of revenue every day. A PSBR of around £40 billion per year, roughly equivalent to the UK's current PSBR, would be covered in just over a month (Kelly, 1994).
17. In the context of a flexible exchange rate regime, the transaction tax by reducing capital flows should help to mitigate the volatility of exchange rates.

REFERENCES

Arestis, P. (1989), "On the Post Keynesian Challenge to Neoclassical Economics: A Complete Quantitative Macro-Model for the UK Economy", Journal of Post Keynesian Economics, Vol. 11, No. 4, Summer, pp. 611-629.

——. (1992), The Post-Keynesian Approach to Economics: An Alternative Analysis of Economic Theory and Policy, Aldershot: Edward Elgar Publishing.

Arestis, P. and Bain, K. (1993), "A European Central Bank: A Necessary Evil?", in P. Arestis and V. Chick (eds.), Finance, Development and Structural Change: Post-Keynesian Perspectives, Aldershot: Edward Elgar Publishing.

Arestis, P. and Demetriades, P. (1997), "Financial Development and Economic Growth: Assessing the Evidence", Economic Journal, Vol. 107, No. 442, May, pp. 783-799.

Arestis, P. and Howells, P. (1996), "Theoretical Reflections on Endogenous Money: The Problem with

'Convenience Lending'", Cambridge Journal of Economics, Vol. 20, No. 5, September, pp. 539-551.

Arestis, P. and Sawyer, M. (1997), "How Many Cheers for the Tobin Financial Transactions Tax?", Cambridge Journal of Economics, Vol. 21, No. 6, November, pp. 753-768.

——. (1999), "Prospects for the Single European Currency and Some Proposals for a New Maastricht", in P. Davidson and J. Kregel (eds.), Full Employment and Price Stability, Edward Elgar Publishers: Cheltenham.

Bean, C.R. (1992), "Economic and Monetary Union in Europe", Journal of Economic Perspectives, Vol. 6, No. 4, Fall, pp. 31-52.

Chick, V. (1986), "The Evolution of the Banking System and the Theory of Saving, Investment and Interest", Economies et Societes, Cahiers de I'ISMEA, Serie Monnaie et Production, No.3.

——. (1989), "The Evolution of the Banking System and the Theory of Monetary Policy". University College London Discussion Papers in Economics, No. 89/03. Forthcoming in S.F. Frowen (ed.), Monetary Theory and Monetary Policy: New Trends for the 1990s, London: Macmillan.

——. (1992), "Some Methodological Issues in the Theory of Speculation", in V. Chick, On Money, Method and Keynes: Selected Essays, (ed. by P. Arestis and S.C. Dow), London: Macmillan.

Chick, V. and Dow, S.C. (1988), "A Post-Keynesian Perspective on the Relation Between Banking and Regional Development", in P. Arestis (ed.), Post-Keynesian Monetary Economics: New Approaches to Financial Modelling, Aldershot: Edward Elgar Publishing.

Coakley, J. and Harris, L. (1983), The City of Capital, Oxford: Basil Blackwell.

Currie, D.A. (1993), "International Cooperation in Monetary Policy: Has It a Future?", Economic Journal, Vol. 103, No. 416, January, pp. 178-187.

Davidson, P. (1982), Money and the Real World, Second Edition, London: Macmillan.

——. (1992-93), "Reforming the World's Money", Journal of Post Keynesian Economics, Vol. 15, No. 2, Winter, pp. 153-179.

Davis, E.P. (1992), Debt, Financial Fragility and Systemic Risk, Oxford: Claredon Press.

De Grauwe, P. (1992), The Economics of Monetary Integration, Oxford: Oxford University Press.

Delors, J. (1989), Report on Economic and Monetary Union in the European Community, Luxembourg: Office for Official Publications of the EU.

Dornbusch, R. (1990), "Exchange Rate Economics", in D.T. Llewelyn and C. Milner (eds.), Current Issues in International Monetary Economics, London: Macmillan.

Dow, S.C. (1986-87), "Post Keynesian Monetary Theory for an Open Economy", Journal of Post Keynesian Economics, Vol. IX, No.2, Winter, pp. 237-257.

——. (1993a), "European Monetary Integration and the Distribution of Credit Availability", in S. Corbridge, R. Martin and N. Thrift (eds.), Money, Power and Space, Oxford: Basil Blackwell.

——. (1993b), Money and the Economic Process, Aldershot: Edward Elgar Publishing.

Dow, J.C.R. and Saville, I.D. (1988), A Critique of Monetary Policy: Theory and British Experience, Oxford: Oxford University Press.

European Community (EC) (1992), The Unseen Treaty: Treaty on European Union, Maastricht, Oxford: David Pollard Publishing.

Harcourt, G.C. (1993), "The Harcourt Plan to 'Save' the World", At the Margin, Marshall Society, Issue 1, Lend X-5.

Hicks, J.R. (1967), Critical Essays in Monetary Theory, Oxford: Oxford University Press.

Kaldor, N. (1939), "Speculation and Economic Stability", Review of Economic Studies, Vol. VII, No. 1, October, pp. 1-27.

Kalecki, M. (1937), "The Principle of Increasing Risk", Economica, Vol. 3, November, pp. 440-447.

——. (1946), "Multilateralism and Full Employment", Canadian Journal of Economics and Political Science, Vol. 12, February/November, pp. 322-327.

Kalecki, M. and Schumacher, E.F. (1943), "International Clearing and Long-Term Lending", Bulletin of the Oxford Institute of Statistics, Vol. 5, Supplement, August, pp. 29-33.

Kelly, R. (1993), Taxing the Speculator: the Route to Forex Stability, Fabian Discussion Paper, No. 15.

——. (1994), "A Framework for European Exchange Rates in the 1990s", in J.G. Smith and J. Michie (eds.), Unemployment in Europe, London: Academic Press.

Keynes, J.M. The Collected Writings of John Maynard Keynes, A. Robinson and D. Moggridge (eds), London: Macmillan.

I Indian Currency and Finance (1913)
IV A Tract on Monetary Reform (1923)
V A Treatise on Money, 1 The Pure Theory of Money (1930)
VI A Treatise on Money, 2 The Applied Theory of Money (1930)
VII The General Theory of Employment, Interest and Money (1936)
XXV Activities 1940-4: Shaping the Post-war World: The Clearing Union

Kregel, J.A. (1989), "The EMS, the Dollar and European Monetary Union", paper presented at the 20th Anniversary Conference of the Instituto Universitario di Bergamo: The EMS Ten Years After, May.

——. (1993), "Bank Supervision: The Real Hurdle to European Monetary Union", Journal of Economic Issues, Vol. XXVII, No. 2, June, pp. 667-676.

Krugman, P. (1991), Has the Adjustment Process Worked?, Washington, DC: Institute for International Economics.

Meltzer, A.H. (1989), "Keynes on Monetary Reform and International Economic Order", in F.Capie and G.E. Wood (eds.), Monetary Economics in the 1980s, London: Macmillan.

Minsky, H.P. (1982a), Can 'It' Happen Again?, Armonk: M.E. Sharp.

——. (1982b), "The Financial Instability Hypothesis: Capitalist Processes and the Behaviour of the Economy". In C.P. Kindleberger and J.P. Laffargue (eds.), Financial Crises, Cambridge: Cambridge University Press.

——. (1986), Stabilizing an Unstable Economy, New Haven and London: Yale University Press.

Moggridge D.E. (1986), "Keynes and the International Monetary System 1909-46", in J.S. Cohen and G.C. Harcourt (eds.), International Monetary Problems and Supply-Side Economics: Essays in Honour of Lorie Tarshis, London: Macmillan.

Neuburger, H. and Sawyer, M. (1990), "Macro-economic Policies and Inflation", in K. Cowling and R. Sugden (eds.), A New Economic Policy for Britain: Essays on the Development of Industry, Manchester: Manchester University Press.

Pollin, R. (1995), "Financial Structures and Egalitarian Economic Policy", International Papers in Political Economy, Vol. 2, No. 3.

Studart, R. (1993), Finance, Financial Systems and Economic Development: Theory and Lessons from Brazil, PhD Dissertation, University College London (University of London).

Thirwall, A.P. (1979), "The Balance of Payments Constraint as an Explanation of International Growth Rate Differences", Banca Nazionale del Lavoro Quarterly Review, Vol. 128, pp. 45-53.

——. (ed.) (1987), Keynes and Economic Development, London: Macmillan.

Tobin, J. (1966), "Adjustment Responsibilities of Surplus and Deficit Countries", in W. Fellner, F. Machlup, and R. Triffin (eds.), Maintaining and Restoring Balance in International Payments, Princeton: Princeton University Press.

——. (1978), "A Proposal for International Monetary Reform", Eastern Economic Journal, Vol. 4, Nos. 3-4, pp. 153-159.

Williamson, J. (1983), "Keynes and the International Economic Order", in D. Worswick and J.A. Trevithick (eds.), Keynes and the Modern World, Cambridge: Cambridge University Press.

——. (1992-93), "On Designing an International Monetary System", Journal of Post Keynesian Economics, Vol 15, No 2, Winter, pp. 181-92.