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'GLOBAL' SAVING AND INTEREST RATE BEHAVIOUR: WHY DON'T INTERNATIONAL CAPITAL MARKETS CLEAR?

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This paper examines the empirical evidence on saving trends in the global economy and the emergence of a single real long-term interest rate, from a Keynesian point of view. The essentially Ricardian position of bodies such as the IMF implies a 'savings shortage' which is theoretically implausible, and non-clearing market may be better explained by Keynesian concepts of liquidity applied to asset preference. The empirical evidence seems to indicate that global capital markets do not act so as to integrate national saving pools, despite interest rate convergence among both industrialized and industrializing countries. The resulting 'rationed market' reflects uncertainty among investors as to future macroeconomic conditions, which in turn results from the failure of major economies to coordinate government fiscal stances.

INTRODUCTION

In the opinion of the International Monetary Fund, which in this case as in others is representative of the academic and policy making orthodoxy as well as of the global bond market, there does exist a global 'savings shortage' which lies at the heart of international macroeconomic instability:

"The critical importance of saving for the maintenance of strong and sustainable growth in the world economy, for external adjustment, and for the amelioration of the international debt problem is well recognized. Consequently, the declining trend in the saving rates of many countries, industrial as well as developing, has been a major source of concern. This decline has been associated with lower rates of capital accumulation and growth in the world economy. In addition,

the substantial divergence of saving rates among countries has contributed to the emergence of large current account imbalances, especially among the major industrial countries."¹

The Keynesian view is, of course, diametrically opposed to this essentially Ricardian view, seeing investment demand as ultimately generating the required level of saving if only liquidity problems can be overcome by appropriate extra-market intervention. The prevailing orthodoxy, however, sees the imminent surge of investment demand - including cyclical technological adsorption in the OECD countries, infrastructure requirements in the NICs, industrial renovation in the transition economies and human capital backlogs in the LDCs. This surge encounters impenetrable savings constraints generated by structural budget deficits and demographic trends, thus driving up world interest rates.

In the Ricardian tradition, savings out of profits provide a constraint on investment because the saving and investment decision are the same, so that *ceteris paribus* growth is constrained by the rate of profit. Strict neoclassical theory suggests that the capital market is like any other, with the interest rate clearing the demand and supply of funds both nationally and internationally unless constrained by extra-market forces. None the less, ricardian tendencies frequently re-appear in mainstream economic theory either in the form of the theoretically attractive life-cycle models of household saving or in that of the inverse relationship between public and private savings. Such a tendency evidently informs the view of the IMF cited above.

In the General Theory of course, the principle of effective demand itself is a theory of how the demand for investment and the willingness to save are brought into equilibrium with each other, the equilibrating force being the level of aggregate income and not the rate of interest. This level would not necessarily correspond to full employment, and 'savings equals investment' simply because investment induces a like amount of savings. Although individual countries would face additional balance of payments constraints which could prevent equilibrium being achieved at any particular level of activity, the global unemployment problem would only arise if the propensity to save were too high, rather than too low - which could be rectified by appropriate demand expansion by the surplus economies.

However, the keynesian model is not entirely plausible either because of the fixed savings coefficients implicit in its consumption function. The redefinition by Hicks of saving in terms of changes in net worth allows for wealth effects in the consumption function², and allows for an attractive

1 Aghelvi (1990, p. 3)

2 Measured savings differ from changes in net worth because changes in asset values are not included in standard definitions of income, and thus are implicitly excluded from savings once consumption is subtracted. The

ambiguity about the net effect of interest rates on saving. This is also much more convincing empirically³ than the post-keynesian attempts to endogenise the savings rate in the ricardian manner by making it contingent on income distribution. However, a major shortcoming of the keynesian model (and by extension the theory of effective demand) is that it assumes that capital markets intermediate between saving households and investing firms. In fact, of course, firms largely finance investment out of retained profits and households are major borrowers.

In this paper, I intend to examine the recent literature and empirical evidence on these issues in an attempt to relate global saving, interest rates and the behaviour of the international capital market. The next section looks at savings trends in major economies and the current policy debate on their determinants. This is followed by a discussion of the emergence of global interest rates, and why they should be relatively high by historical standards as well as relatively invariable by type of borrower. The level of this global interest rate appears to reflect public debt overhang, but fiscal coordination between the leading world economies appears to be almost impossible to achieve.

DETERMINANTS OF GLOBAL SAVINGS

The standard view is that declining savings rates are "associated with lower rates of capital accumulation and growth in the world economy", while "changes in inflation and interest rates seem to have had relatively small effects on saving behaviour"⁴. Most empirical work on savings behaviour has been undertaken under an agenda driven by the life cycle model⁵ where changes in demographics, income growth, interest rates and inflation are assumed to be the main determinants - although the econometric results indicate that differences in age structure and income growth appear to be the only significant variables⁶. In this context, it is

definition in Hicks (1946) of income equates it to the maximum value that a household (or other economic unit) can consume during a given period while remaining as well off as it was at the beginning of the period. For a discussion of the application of national accounting procedures at the global level, see Vos & de Jong (1995).

- 3 Because saving rates vary widely over space and time.
- 4 Agevli (1990:3). It is interesting to note that all discussion of national savings is conducted in terms of rates (ie domestic saving as a proportion of GDP), which implies acceptance of ricardian (or perhaps even keynesian) savings propensities rather than the strictly neoclassical funds market, which would imply tracking the absolute amounts.
- 5 Where individuals are assumed to maximise the present value of their utility subject to a budget constraint equal to their current net worth plus the present value of their expected income over the rest of their life.

interesting to note that empirical explanations focus on household saving and neglect profit retention by firms, despite the fact that this is a major component of gross saving (before depreciation) and the source of almost all the funds for fixed investment by business⁷. The neoclassical assumption that the modern corporation is merely a 'veil' for household savings decisions exercised as shareholders does not bear serious examination as an explanation of firms' behaviour⁸.

Moreover, the empirical evidence⁹ on determinants of private savings behaviour is in fact widely divergent. Such tests, which all seem to be in the neoclassical tradition, not only indicate that real interest rates are not a significant determinant, which is hardly surprising once the ambiguous implications for wealth and income in the overlapping-generations model is taken into account¹⁰, but also the effect of demographic factors on saving varies greatly across countries for no readily explicable reason¹¹. Factors to which the decline in private savings in industrial countries (IEs) during the 1970s and 1980s - see Table 1 - have been attributed include improvements in the relative position of older groups in the population, the revaluation of the stock of wealth (in particular equities and housing) and financial liberalization¹². It is not clear how relevant such explanations might be in the 1990s, but the imminent ageing of OECD populations, and that of the high-saving Japanese in particular, is clearly a source of major concern¹³.

In the standard model (which forms the basis for IMF stabilization policy) the public sector deficit is at the discretion of the government. Public sector savings can result in larger private savings due to the increased public sector borrowing requirement driving up interest rates or, if these are constrained in a closed economy, by increasing the money supply and forcing private savings through a real balance effect. In the small open economy, the effect is felt through an inflow of foreign savings in the monetary approach to the balance of payments.

6 Dean (1989), Bosworth (1993).

7 Goldstein (1993)

8 Fazzari (1988)

9 See, for instance Aghevli (1990), Hutchinson (1992) and Bosworth (1993) for surveys.

10 Blanchard and Fischer (1989).

11 Hutchinson (1992).

12 Aghevli (1990).

13 Although as Barro (1989) points out, the US savings rate in the 1980s is not really low if measured as the change in the real market value of assets, and thus the current account deficit is an illusion once capital gains on direct investment are included. Much the same might be said, in reverse, of the Japanese surplus in the 1990s.

Public saving behaviour¹⁴ is mainly seen in published studies as reflecting the fiscal stance of governments which is partly endogenized through the differential effect of tax receipts and welfare entitlements of the position of the economy in the business cycle. Over the longer term, these welfare entitlements have a demographic dimension, while tax pressures are limited by the international mobility of factors of production. Debt in turn becomes endogenized too, as the accumulation of fiscal deficits. In principle, 'Ricardian Equivalence' theory suggests that these fiscal deficits will be balanced by increased private savings in order to provide for future tax burdens¹⁵ - but the downward trend in public savings in the OECD countries has in fact been accompanied by declining private savings rates¹⁶. The strong evidence that the scale of this 'crowding in' is very limited in practice is complemented by indications that origin of the deficit - whether from changes in tax or expenditure rates - is also a determinant of private sector response¹⁷. The particular composition of the expenditure and tax structure is crucial: tax reductions appear to generate offsetting private savings but increased expenditures do not.

The downward trend in saving in non-OECD economies (see Table 1) is partly explained by the loss in income to oil-exporting countries, but it is interesting to note that the reduced budget deficits and enhanced private savings (from higher real interest rates and profit shares) expected from structural adjustment have not been forthcoming. Finally, the formerly centrally planned economies have, not surprisingly, seen a decline in savings as constraints on consumption and direct state access to profits were both removed.

GLOBAL CAPITAL MARKETS

In principle, the level of investment in an open economy need not be constrained by savings (nor would savings have to come into line with investment) because the resultant current account balance could be financed by matching international capital flows. Under the Bretton Woods system of fixed exchange rates such flows were relatively small¹⁸, so that savings

14 See Buiters (1988).

15 Barro (1989), but see also Buiters (1988).

16 Dean (1989); see also the table at the end of this paper.

17 See Hutchinson (1992), who also points out that the concept of a long run 'balanced budget' should go beyond the simple cross-cyclical view to include contingent liabilities such as welfare entitlements, which implies that existing measures of the private savings offset overstate the extent to which the private sector in fact incorporates the government sector's budget constraint in its decision making.

18 As Keynes, mindful of the experience of the Gold Standard, had intended

and investment moved together in most large economies. However, from the late 1970s onwards, capital became much more mobile and the US itself suddenly shifted from a net surplus to a net deficit position - and its fiscal deficit was essentially financed by Japanese householders.

Empirical analysis of trends in long-term international capital flows is impeded by the fact that the data for such flows (and by extension, global asset/liability positions) does not balance¹⁹. Broadly speaking, investment income flows are badly recorded (particularly the under-reporting of returns on financial assets), while the observed global excess of recorded liabilities over assets and the relative reliability of various sources means that most of the required adjustment falls on the reduction of the initial estimates of liabilities²⁰. None the less, it is clear that such capital flows have grown much more rapidly than global output, investment or trade.

Interest rates within the OECD became broadly equalized for similar dollar bonds in the 1980s, while exchange rates adjusted in response to domestic interest rate differentials which in turn allowed for a modest risk margin²¹. The flexible exchange rates had originally been expected to permit some autonomy to domestic demand management but in practice the bond markets have come to enforce a uniform monetary policy irrespective of the divergent cyclical position of the national economies.

None the less, careful studies continue to reveal a close correlation between domestic saving and investment in the IES²², which cannot simply be explained by a spurious correlation²³, or regulatory restrictions. It is

them to be (Moggridge, 1992) - as well as assuming that they would take place between central banks.

19 The global current account discrepancy, which approximately equals the current account discrepancy in the IMF balance of payments statistics, is of the order of US\$100 billions in 1990 (IMF, 1992a). This is relatively small in comparison with estimated global saving of US\$5 trillion in 1991 (IMF, 1992b), but large in comparison with the investment-savings balances (ie the current account balances) of major economies such as the US or Japan, thus making empirical discussion of international capital flows difficult. On this accounting problem, see Vos (1989) and de Jong (1993).

20 See de Jong (1993) for the 'World Accounting Matrix' methodology, developed from Vos (1989) on the basis of Stone's original proposals for SAM matrix balancing according to the relative reliability of statistical sources. Such balancing has the effect, in the case of the US and the UK, of producing a major reduction in the current account deficit once the flows are reconciled.

21 Of no greater than five percentage points in practice,

22 Turner (1991), Frenkel (1992), Obstfeldt (1994).

23 In the neoclassical view (which forms the basis for IMF stabilization policy) a fall in public sector savings can result in larger private savings due the increased public sector borrowing requirement driving up interest rates or, if these are constrained in a closed economy, by increasing the money

more likely that the 'home bias' in the acquisition of financial assets arises from factors such as currency risk, agency problems, and asymmetric information. In other words, it is endemic to market structures themselves.

In other words, interest rates do not act so as to clear the international capital market and bring savings and investment into line on a global scale²⁴, while exchange rates do not appear to affect trade flows sufficiently to adjust current account deficits rapidly enough to avoid asset adjustment. In effect, a systemic rationing system exists based on market perceptions of 'sovereign risk', expressed as an assessment of the 'quality' of that country's bonds and thus its longer-term growth potential and fiscal solvency.

In the case of flows between the IEs and the RoW there is a clear segmentation between portfolio flows, foreign direct investment (FDI), bank credits and official development assistance²⁵, each of which form of asset acquisition appears to be driven by different institutional behaviour but where country 'quality' appears to be a determinant factor. This is true even when the investment and savings decisions are the same, in the case of FDI²⁶, where externalities prevent profitability from reflecting factor scarcity²⁶ and infrastructure and skills are central to the choice of location²⁷.

There is also a clear segmentation between country groupings. The decline in bank credit flows from the IEs to the RoW since the debt crisis of the early 1980s, and the rise of portfolio flows in the early 1990s, has been confined to a small group of upper middle-income countries: both have been essentially concerned with public sector finance. FDI flows have similarly been confined to relatively few NICs, and are largely financed by the firms concerned. Aid flows are focussed on the poorest countries, and determined by non-economic factors. The effect of an increase in autonomous capital flows from the industrialized economies (IEs) towards the rest of the world (RoW) - sometimes seen as a means of generating greater global aggregate demand - depends crucially on how this is financed. To the extent that this is done by increased tax or reduced investment in the 'north', then reduced northern demand for exports from the 'south' can have a counterbalancing effect; while monetary expansion can raise interest rates and affect both commodity prices and debt burdens²⁸.

supply and forcing private savings through a real balance effect. In the small open economy, the effect is felt through an inflow of foreign savings in the monetary approach to the balance of payments.

24 This is explicitly admitted by the IMF (Goldstein, 1993).

25 World Bank (1994).

26 Lucas (1990).

27 UNCTC (1992).

28 See Vos (1994) for a model of international debt adjustment that traces the

In consequence, it would seem to be the case that if investment rises autonomously in one country, it is not necessarily possible to tap a savings-investment surplus in another country because of the portfolio preferences of asset holders²⁹. This is broadly true within the IEs (at least as between the USA, Japan and the EU) and a fortiori between IEs and the RoW. In a sense, of course, this is a global form of liquidity preference which the SDR issues are supposed to overcome.

The current orthodox position on global savings is thus essentially ricardian and not neoclassical at all, although it shares with keynesian theory the strength of wealth effects and the weakness of ignoring saving by firms. Work on international capital flows clearly indicates that although interest rates are broadly equalized between OECD countries and make exchange rates subject to monetary policy, they do not clear the market for savings and investment. This conclusion holds a fortiori for flows to the Rest of the World, where access to global capital markets is highly segmented and the 'quality' of financial assets relates to investors' perception of country characteristics. These propositions would imply that some sort of international portfolio approach³⁰ is necessary in order to understand global savings, where the reconciliation of desired asset positions between economies determines the global macroeconomic equilibrium.

GLOBAL INTEREST RATES

The globalization of capital markets in the early 1990s has generated a 'global' long-term interest rate which has become a key anchor for both national monetary policies and multinational business strategies. While nominal short rates are essentially a policy variable in the hands of national monetary authorities, affecting both exchange rates and consumer credit demand; long rates are largely determined by the capital market. Real (i.e. inflation adjusted) long rates affect corporate investment decisions, the fiscal solvency of governments, and the return on personal pension schemes.

What is more, long rates have become an essential anchor for the world economy, affecting both the stability and growth of global capital markets and the sustainability of domestic monetary policies - when these become 'misaligned' huge short-term capital flows are generated and

effect of source of aid finance.

29 This is central to Tonin's international portfolio model (Brainard & Tobin, 1992).

30 Brainard & Tobin (1992) provide some of the elements for this, particularly the concept of 'home bias' as a form of liquidity preference, but this is still a theory of one country's capital account and does not allow for interaction between the portfolio preferences of various countries.

exchange rates come under immense pressure until short rates are adjusted accordingly. Resulting lack of independence in domestic monetary policy can be seen as a good or a bad thing - depending on one's view of the ability of governments to make macroeconomic judgements - and has led to the anomaly of autonomous central banks with little real room for manoeuvre.

The long term global real interest rate (ie the G7 mean) averaged about 3 percent per annum adjusted for inflation between 1960 and 1972 - which has been the usual peacetime level for almost two centuries. However real rates collapsed in the subsequent inflationary splurge and the collapse of the Bretton Woods system, becoming negative in the late 1970s, and then returning to historically high levels of 5 percent in the 1980s - led by US fiscal deficits and tight monetary policy. Despite falling world inflation in recent years, real long-term rates are still around to 5 percent level and show no signs of falling despite sustained declines in short rates. Long rates in leading industrial countries are increasingly converging on this high 'global rate' - see Table 4.

Despite the crucial importance of long-term interest rates, there is little agreement as to their determination, an ambiguity which is reflected in conflicting market opinions which in turn result in wide swings of sentiment in response to particular incidents. Broadly, there are two analytical approaches to long-term interest rates:

* long-term real rates are determined by the balancing of personal savings supply and corporate investment demand, while any increases in government deficits are balanced by private savings rises in anticipation of future taxes (so-called 'Ricardian Equivalence'); so long-term nominal rates are this fundamental equilibrium rate plus the market's expectation about inflation;

* long-term nominal rates reflect market expectations about the global liquidity situation, and thus about the borrowing strategies of major governments and the monetary policies of their respective central banks on the one hand, and the demand of portfolio managers for bonds as against equities on the other; so long-term real rates are this market equilibrium less the inflation which eventually occurs.

The implications of these two approaches for the determination of interest rates are quite different. The first would take into account the apparently falling rates of personal saving in OECD economies due to demographic factors, and the rising demand for funds from emerging economies - particularly the infrastructure requirements of Eastern Europe, Asia and Latin America - and thus lead to a forecast rise in long real rates. The second, in contrast, would focus on factors such as the efforts to reduce government deficits in the G3 and the implications of the EMU, both of which would lead to a reduction of nominal rates by the opening of the next decade.

The policy implications are also quite different. The first view would imply that the only way to bring long rates down - other than by reducing investment demand, which would harm world growth prospects - would be to raise saving in the major economies, by radical reductions in fiscal deficits and by the privatisation of pension schemes. The second, in contrast, would place more emphasis on the reduction of the debt overhang and improved policy coordination, in order to improve market sentiment.

Research by the IMF staff³¹ suggests that while the growing level of debt to GDP among the G7 since the 1980s has put pressure on short rates, long rates are less affected by monetary and fiscal policy. The rising level of return on new investment due to global deregulation and the falling level of savings in industrial countries (which has declined steadily from 24 percent of GDP in the 1970s to 21 percent in the 1980s and 19 percent in the 1990s) are seen as the main causes, suggesting that a new equilibrium relationship has now emerged on global capital market fundamentals.

In contrast, research by OECD staff³² suggests that G7 fiscal deficits and balance of payments difficulties continue to generate considerable risk premia, which in turn are reflected in long rates. About one half of the higher-than-historical level can be explained by fiscal and monetary policies, while the remainder is probably due to the effect of financial deregulation since the 1980s, which has reduced the authorities' ability to contain long rates for specific market segments such as government bonds and mortgages.

In addition, while the IMF believes that a single global interest rate has emerged, the OECD suggests that the 'convergence' is largely confined to EU members, and that the G3 dissonance has not been reduced significantly.

This lack of clarity as to the underlying determinants of long-term interest rates is a major problem for business strategists. On the one hand, major technological investments in a multi-country strategy require corporate planners to take a view on the long-term cost of capital which cannot be reversed once the projects are undertaken. On the other hand, uncertain capital market sentiment on global bond prices implies a corresponding instability in long-run key exchange rate relationships and thus the profitability of production in different locations. The lack of clarity is not just a problem for private sector planners, but also for the G3 monetary authorities in their efforts to keep short rates down and sustain economic activity.

31 IMF (1995).

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Figures for benchmark bond yields indicate the wide divergence in monetary policy between the three centres of the global capital market, which largely affects short rates as inflation-adjusted long rates have converged on a global average during recent years:

* US official policy appears to be to keep short rates as low as possible through the elections and only to raise them if there is an apparent danger of wage inflation from near capacity utilization, while relying on eventual budget balancing to bring down long rates eventually; a policy which the market clearly does not yet fully believe, which is why short rates remain above 5 percent and the long rates of over 7 percent contain an expected inflation rate of some 4 percent;

* The recent reduction in short German rates towards 2 percent despite signs of economic recovery still leaves long rates at over 6 percent - again approximating the global rate once expected inflation is taken into account; the short rate will be maintained in the medium term in order to depreciate the Dmark substantially by 1998 to as to allow the EMU to lock in at a competitive overall rate, although uncertainty as to the eventual membership will keep the differential for other EU members quite high;

* Japanese short rates are now as near zero as is technically possible, with monetary and fiscal expansion continuing despite the fact that output is now growing at the fastest rate for a decade; never the less, long rates have recently risen to nearly 4 percent which approximates the global real interest rate - Japanese investor uncertainty about corporate solvency is expressed more in the declining Nikkei than in bond prices.

However, behind these essentially transitional issues lie deeper ones of the role of interest rates in the key poles of the world economy³³. It would appear that the emergence of an orderly international bond market is blocked by the very different political economies of the G3, which not only make coordination difficult but also create uncertainty for institutional fund managers - which in turn generates destabilizing capital movements as portfolios are continually adjusted to reflect the expected moves by the three key authorities.

THE PROBLEM OF GLOBAL MACROECONOMIC COORDINATION

G7 meetings to discuss global economic issues are currently expected to tackle several serious problems in the governance of international capital markets. World Trade Organization is beginning to build up useful

33 Ciocca & Nardozi (1996).

precedents in settlement of disputes but the upcoming trade agenda of services trade and intellectual property rights will require another gruelling round of negotiations - designed particularly to control emerging Asian high-tech exporters such as India and China - which non-one is to eager initiate at present.

International capital market reform poses a much greater problem for G7 leaders than trade, for at least three reasons:

- * unlike trade, full liberalization of financial flows is not possible because of the implications for the fragility of financial institutions of volatile capital flows and the lagged adjustment of asset and liability positions;

- * financial markets, being based on assets whose value depends on expectations, are inherently unstable and integration of markets is not just a matter of eliminating barriers to entry, but one of integrating jurisdictions;

- * government debt is a large part of international securities trade, and thus the fiscal stances of government becomes a determinant of, and subject to, international financial flows.

International regulatory reform could develop³⁴ along three different tracks in order to eliminate the current overlapping and gaps between regulatory authorities in different countries - it is precisely these inconsistencies (or "fault lines" as the Bank of International Settlements in Basle calls them) where both large profits and potential disasters are spawned:

- * the extension of a dominant regulatory system from a major national market to cover the world - not surprisingly this is the preferred US option, although the Federal Reserve is reluctant to take on the implicit monetary responsibilities this implies in the wake of the Mexican debacle, and this approach can lead to difficult issues of extraterritorial jurisdiction;

- * the UK proposal to establish a "convening regulator" for each international financial business group, which would be responsible for initiating and coordinating the response of all affected regulators in the event of the crisis; this would put the Bank of England in a commanding position for a number of key groups and reflect the dominance of the City of London within Europe;

- * the creation of a supra-national regulatory body out of the existing capabilities of the BIS, the IMF and the OECD; this would not suit the USA or the UK but would have considerable advantages for the other players in system in terms of clear rules and participation in the regulatory

34 FitzGerald (1996).

body - not only Japan and France but also emerging regional powers such as Brazil, India and China.

The other financial topic discussed without great success has been the question of debt relief for the poorest countries. The problem arises because successive attempts at debt relief over the past fifteen years have not involved an orderly workout, but rather the replacement of debt coming due by longer-term loans from the World Bank and the IMF. There has also been some success in cancelling bilateral debt for poorer countries (under the so-called "Naples Terms" at the Paris Club negotiations) but this is limited by the declining aid budgets against which debt cancellations must be charged as current expenditure. What is more, both the Fund and the Bank are precluded from multilateral debt cancellation, so their proposals are in fact an attempt to lengthen repayment schedules in the hope that LLDC exports recover sufficiently in the future to pay them back.

The UK - supported by the US and France - are pressed for US\$2 bn sales from the IMF gold reserves of US\$40bn in order to provide further long-term roll-overs, which would then be supported by a further US\$1bn from the World Bank over five three years - the Bank is at present in a very liquid position due to repayments from some of its major clients. Japan and Italy acquiesced - albeit reluctantly. Germany, in contrast, is pressed for further bilateral support on the grounds that IMF gold sales form an undesirable precedent in the light of the Mexican debacle and the risk of similar events in Russia; it also points out, correctly, that the US is over US\$1bn in arrears to international institutions and that the other two G3 members are carrying the greater part of the burden.

No compromise has been reached (apart from a commitments to extend "Naples terms" from 67 to 80 percent of eligible bilateral debt) but the gold sales would have been no real solution to the LLDC problem as it only defers repayment and, by not reducing the debt overhang, prevents these economies from acquiring the creditworthiness that would stimulate both domestic and foreign investment. The failure to commit further G7 resources to international poverty resolution through the UN was not disguised by the commitment to explore the rationalization of aid efforts - although this is indeed long overdue.

The problem of reaching agreements at G7 level is not just a geo-political one. Even if the leaders had come to a major new agreement on debt or - more importantly - regulatory coordination, there remain three outstanding difficulties:

- * G7 leaders cannot necessarily carry their own legislatures, central banks or major financial institutions with them in implementing decisions;
- * global financial stability requires greater fiscal discipline and coordination of monetary stances within the G3 [ref IEC piece on triad];

* in global financial emergencies (as Russia may soon become) there is a need for rapid and autonomous action by a tasked agency with the resources and the ability for rapid intervention.

Meanwhile, there is an increasing tendency for financial problems to be dealt with on a regional level, which is probably easier in terms of institutional harmonization and inter-governmental coordination, but can create even greater tensions between the resulting "tectonic plates" in view of the ability of capital markets to exploit gaps between regulatory areas.

In the USA, the principle of countervailing powers makes coherent economic policy extremely difficult to achieve, and in any case the principle of the supremacy of a dispersed corporate enterprise means that capital markets rather than the authorities are seen as the arbiters of what the most desirable economic strategy might be. This system has the benefits of considerable flexibility to changing business circumstances, but the variability in interest rates and exchange rates that result strongly prejudice the management of the world economy, given the enormous political and economic weight of the United States and its very low savings rate. There is a continuous downward pressure on short nominal rates from political sources, and an upward pressure on long rates from capital markets due to the budget deficit.

In Germany, in contrast, both corporate power and policy making capacity are highly concentrated; this is articulated through the banking control of industry - which requires stable long-term interest rates - and a centralized incomes policy - which requires low inflation. Economic strategy is thus 'negotiated' with the business and labour, but once chosen can be firmly applied and supported by a strict monetary policy, which implies relatively high long term interest rates. The government does not attempt to plan the economy, but rather to control the conditions under which strategy is negotiated between banks, firms and labour. This gives great stability to German policy (and thus considerable predictability) but little flexibility.

Japan has a similar concentration of economic power to Germany, but has a higher degree of planning as the authorities directly administer capital markets, and maintain real interest rates at low levels through market segmentation and relatively tight monetary policies. The results in terms of weak asset portfolios are now well known, but it has permitted the export drive upon which much of Japan's economic strength is based.

These three very distinct political economies attempt to generate long term interest rate policies derived from national needs which have strong international effects and require frequent modifications to prevent the resulting exchange rates and capital flows from becoming uncontrollable. At the global level, there is a double confrontation: the confrontation at summit meetings of the leading countries regarding the economic policies of the three currency areas, and the confrontation between the policy line expressed at these summits and the world financial system that is increasingly integrated and liquid.

CONCLUSION

In sum, there is no global savings shortage but there is a liquidity preference problem in the strict keynesian sense of uncertainty about global asset values. Long rates will probably stay up at their present historically high real levels despite low short rates, until the new institutional conventions emerge. This is due to the risk premia involved in the lack of a solid basis for capital market expectations, rather than any global shortage of capital as such.

High real interest rates clearly affect private investment prospects as well as government debt solvency. In addition, the reluctance by institutional investors to commit long-term capital - rather than a shortage of saving as such - works against large investment projects. This is a particular difficulty for global companies facing major technological investment programmes, but not (unfortunately) for those planning takeovers or speculative operations on financial markets. The problem is not so much the interest cost of funds as such but the terms upon which they are offered - which increasingly involve an unacceptable dilution of management control or repayment schedules which do not recognize the long lead-times involved.

The enormous infrastructure requirements of Asia, Latin America and Eastern Europe will generate large bond offerings from governments and regulated private utilities in the next few years. Again, the problem is not so much the real interest rate charges (which rarely exceed 5 percent after inflation) but rather the risk evaluation process undertaken by overseas investors, which is highly volatile and reliant on incomplete information. In consequence, market sentiment about a particular country or region can swing sharply, making an efficient medium-term financing programme for infrastructure almost impossible to construct.

The ultimate solution for the problems of high real interest rates and lack of long-term investment funds in a global economy would presumably be a global monetary authority. This is a long way off, if only because it would have to be able to deal in key currencies and government bonds and thus effectively constrain G3 macroeconomic policy. As will the EMI.

Table 1: Sources of World Saving (percent of GDP)

	1975-79	1980-84	1987	1990	1993
World	24.8	22.8	23.2	23.3	20,5
IEs:					
total	22.8	21.4	20.5	21.7	19.4
private	21.1	20.8	19.6	19.2	20.1
public	1.7	0.6	0.9	1.5	-0.7
US:					
total	20.3	19.9	16.0	15.2	14.9
private	19.0	19.2	16.1	15.4	16.1
public	1.3	-0.3	-0.1	-0.2	-1.3
EU:					
total	22.1	20.0	20.3	21.1	18.7
private	20.7	20.0	20.7	21.5	21.9
public	1.5	-	-0.4	-0.4	-3.2
Japan:					
total	32.4	30.8	32.3	34.0	33.5
private	29.1	26.7	25.8	23.6	25.4
public	3.3	4.1	6.5	10.4	8.1
LCDs:	26.5	23.2	24.5	26.2	24.0
FCPEs:	41.9	32.8	28.7	27.0	17.8

Source: IMF (1992b, 1994)

Table 2: The Structure of Global Capital Accumulation

	No.	% world GDP	% world exports	% world saving	% world invest.	S/Y	I/Y	(S-I)/Y
World	183	100.0	100.0	100.0	100.0	23.1	23.7	-0.6
Indust. Econ.	23	54.6	70.2	47.0	45.8	19.9	20.0	-0.1
USA	1	21.2	13.2	14.3	14.0	15.6	17.4	-1.8
Japan	1	8.4	8.4	11.5	11.2	31.7	28.8	2.9
EU	15	21.1	40.4	20.1	19.6	22.0	19.0	3.0
Rest of World	160	45.4	29.8	53.0	54.2	26.6	27.9	-1.3
Net Creditors	7	2.1	3.9	1.9	2.0	20.8	22.2	-1.4
Net Debtors	125	38.0	22.2	46.6	47.4	28.0	29.2	-1.2
Mkt Borr	23	23.0	16.5	33.5	33.2	33.3	33.8	-0.5
Div Borr	33	10.3	4.0	10.0	10.3	n.a.	n.a.	n.a.
Off Borr	69	4.8	1.7	3.0	3.9	14.4	18.9	-4.5
Transition Ec	28	5.3	3.7	4.4	4.5	19.0	20.0	-1.0
Dev Countries	132	40.1	26.1	48.5	49.5	27.6	28.9	-1.3
Africa	50	3.3	1.7	2.5	3.1	17.3	21.7	-4.4
Asia	30	23.1	16.6	34.4	34.1	34.0	34.5	-0.5
ME & E	18	4.8	3.9	4.4	4.3	21.1	20.8	0.3
W. Hem.	34	8.9	3.9	7.1	8.1	18.2	21.4	-3.2
Balanced Acc.								
World	183	100.0	100.0	100.0	100.0	23.6	23.6	0.0
Indust Econ	23	54.6	70.2	46.3	43.6	20.0	18.8	1.2
RoW	160	45.4	29.8	53.7	56.4	26.6	27.9	-1.3

Source: IMF (1995a) for shares of world GDP (on a ppp basis) and exports of goods and services, and for saving/investment rates (i.e. shares of current GDP) by country groupings.

Notes: The estimates of country group shares in world investment and saving have been made by weighting the respective rates for each country grouping by their share in world GDP. As the IMF estimates for world investment and saving are not in balance (as they must be by definition), 'balanced accounts' are also shown where the error (some 0.6 % of world GDP - mainly attributable to unreported investment income) is allocated to industrial economies' income and saving, and then recalculating the resulting shares, following the methodology in Vos & de Jong (1995).

Table 3: Global Interest Rate Trends

	1977-84	1985-92	1993-96	1997-2000
Industrial Countries				
GDP deflator	7.9	3.9	2.2	2.4
Real 6m LIBOR	4.4	3.7	3.0	3.5
Implicit NIR-s	12.3	7.6	5.2	5.9
Developing Countries				
Debt/exports	n.a.	154.3	119.0	89.4
Service/exports	n.a.	19.0	8.3	5.5
Implicit NIR-1		12.3	7.0	6.2
Change in ToT	2.9	-2.2	0.1	-0.1
RIR-1 (borrower)		14.5	6.9	6.3
RIR-1 (lender)		8.4	4.8	3.8

Source: Calculated form IMF (1995)

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