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International financial institutions and the provision of international public goods

Joseph E. Stiglitz

1. Introduction

Changes in the role of collective action at the international level, in the international economic environment, and, most importantly, our better understanding of economics in general require that we rethink the role of international financial institutions (IFIs). For multilateral development banks like the World Bank, their central mission, the promotion of growth and the reduction of poverty, is clear. The steps toward fulfilling this mission in a changing world are also relatively clear, and many of these institutions have already begun processes of renewal. But all of the IFIs have, in one way or another, also been involved in crisis management, especially in recent years. Here, future roles are less clear because they depend on the redefinition of the international financial architecture - a redefinition that has been hotly debated, but has not yet crystallised into a shared vision. The theoretical underpinnings - as well as the practical implementation - of alternative visions will require far more development before clarity on a future role will be attained.

In this essay, I will address these questions from the perspective of the theory of international public goods, which is a powerful way to organise our thinking both on why we have IFIs in the first place, and the role that they should play in a changing world.

2. The theory of international public goods

The Bretton Woods institutions were created in response to the perception that the international economic order had somehow failed, and that this failure had not only contributed to the economic collapse of the Great Depression, but also to the World War that followed. Beggar-thy-neighbour policies of trade restrictions and competitive devaluations had exacerbated, if not contributed directly, to the propagation and generation of a worldwide downturn. Several institutions were created at the time, among them a new international trade regime (GATT) to reduce trade restrictions, and a new international monetary regime - fixed exchange rates supported by an International Monetary Fund - to reduce the scope for competitive exchange rate devaluations.

In addition, war-torn Europe required extensive reconstruction, on a scale that seemed beyond the ability of the private sector's funding ability. The longer-term challenge of development - billions of people living in economies whose per capita incomes were but a fraction of those in pre-war Europe and America - also seemed to be a crucial problem that could be ameliorated by an international development bank. In spite of the scarcity of capital, private capital simply did not seem to be flowing there, at least not at the pace that would be required to ameliorate poverty.

The task of constructing a new international economic order that would provide for economic stability, promote economic growth and facilitate the development of the poorest countries was an international problem that required *international* collective action. GATT and the Bretton Woods institutions helped facilitate this action.

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International public goods such as peace, international economic stability, the global environment and knowledge extend well beyond national frontiers.

At the time that these institutions were developed, there was no general theory of collective action and no well-developed theory of public goods (1). Subsequently, it became clear that the geographic boundary (2) over which collective action was required may differ among different goods and services. In some cases - referred to as local public goods (Stiglitz, 1997) - the boundaries may be far more limited than national boundaries; while in other cases - international public goods (3) - the boundaries may extend well beyond national frontiers, possibly encompassing the entire world. Peace, international economic stability and overall international economic management, the global environment and knowledge (especially basic knowledge) are among the more important international public goods. There are many interrelations among these various international public goods, a point to which I shall return later in this essay.

The development of the nation-state during the 19th and 20th century required that a variety of collective actions be undertaken at the international level. The importance of these co-operative measures - in interstate rather than international relations - can be seen in the development of the United States. Many believe that part of the US economy's strength came from the vast national market that was created as the country expanded and transportation and communication costs were reduced. But it is more important to note the ways in which this market was created: the federal government took actions which ensured that artificial barriers to trade among the states were not created, either explicitly through tariffs and quotas or else in less transparent ways, like different regulatory practices in different states. At the same time, it actively promoted those institutions that would facilitate the creation of a strong national economy. While it did not go so far as to create a national banking system (restrictions on interstate banking were dismantled over the last decade), as early as 1863 it set up the Office of the Controller of the Currency to supervise 'national' banks, which were viewed as an essential complement to a national economy. For more than a century after this landmark legislation, banking continued to be confined to the state level. Even today some people continue to be hostile toward national banking.

Recent decades have seen a parallel set of changes at the global level. Communication and transport costs have continued to plunge, and many of the barriers to trade, such as tariffs and quotas, have been falling markedly (although there is a danger that these gains will be offset by the rise of non-tariff barriers, including dumping and countervailing duties). There is the potential for a parallel set of gains as opportunities to take advantage of economies of scale and scope increase (4). And again, the creation of an *international* economic framework, fulfilling many of the functions currently undertaken at the level of the nation-state, is an essential factor in realising these potential gains.

We have made only limited progress in doing so. While the World Trade Organisation and its predecessor, the GATT, have been highly successful in reducing formal trade barriers (tariffs and quotas), progress in other arenas - such as regulatory barriers - has been far more difficult. There is no

1) Samuelson's formalisation of the concept of pure public goods (1954, 1958) was to occur almost a decade later. But it would be wrong to suggest that there was no overall approach to collective economic action. Pigou's "The Economics of Welfare" (1920) provided a comprehensive rationale for government action, including the existence of externalities.

2) In some cases, the boundaries may be defined on bases other than geography.

3) See Stiglitz (1995) and Economic Report of the President (1997).

4) For some countries, such as the United States, the magnitude of these potential gains may be limited, given that economies of scale have been virtually fully exploited. For these countries, the gains from globalisation are then more of the classic comparative advantage - taking advantage of the relatively cheap labour elsewhere in the world.

international framework, including contracts, disclosure, fraud, bankruptcy and competition corresponding to the best functioning national economic frameworks. There are no international regulatory authorities corresponding to those with oversight of financial, securities and telecommunications matters within national boundaries.

One might argue that *international* action in these areas is not required; that, at least in the realm of economics, market forces will ensure that standards will emerge spontaneously where they are required. Along the same lines, one can assert that if governments give firms a choice of legal frameworks, then firms will choose the legal framework that is most efficient (in some sense); and that this competition among communities will ensure that most governmental entities will either provide such choice, or will provide itself the legal framework which is most conducive to enterprise.

There is some merit in this set of arguments. Differences in regulation do create competition: countries that have provided sound supervision of financial institutions have found that deposits gravitate there, as depositors value the supervisory services provided. The United States has claimed that the gains from standardisation of competition policy are sufficiently weak, as the likely standard would be weaker than that already employed in the United States.

Yet, as a general proposition, there is little theoretical and empirical basis for the conclusion that international action would be superfluous: Nash equilibria are not, in general, Pareto efficient. The theoretical literature on standard setting has shown convincingly that the market may converge on an inefficient standard, and the empirical literature is replete with examples (including the famous QWERTY typewriter example (5) and the VHS/Betamax video-recorder example). Similarly, the proposition that competition among communities results in Pareto efficiency (the Tiebout (1956) hypothesis) has been shown to hold only under highly restrictive conditions (Stiglitz, 1983).

Still, without an international government, the political obstacles to implementing an effective international economic framework in most areas are sufficiently great that such a framework will only evolve in a decentralised way. In the decentralised process, a common set of standards, or at least a framework which is similar enough to make the difficulties of moving to a uniform standard seem very low, may well evolve.

The absence of an international framework has proved troublesome in recent years – particularly in the areas relating to financial markets and bankruptcy.

But there are some areas where the absence of an international framework has proved troublesome in recent years - particularly in areas relating to financial markets and bankruptcy. In these and other areas, multiple frameworks may impose huge costs to international transactions, where there may be ambiguity about which laws will govern. Although the contract may itself specify the jurisdiction under which disputes are to be adjudicated, the legal framework may override such contract stipulations. In any case, economic arrangements often involve interrelated contracts that may specify alternative legal frameworks. (Ultimately, the laws of the country where the disputed assets reside will dominate, although countries may cede their rights to others.) Moreover, the multiplicity of interactions means that there are inevitably externalities, with the legal framework in one governing authority having implications for the consequences of others.

5) See David (1985).

My purpose here, however, is not to set forth a detailed international economic framework, but to focus first broadly on the need for international collective action, and then more narrowly, on the role of IFIs in the international financial architecture. In this discussion I will work under the hypothesis that strong international institutions addressing many other aspects of international public goods, such as an international legal and regulatory framework, are unlikely to arise in the early part of the next century.

3. The role of multilateral development banks

3.1 Capital markets

The original limited rationale for development banks - filling a market gap - must be reconsidered.

Filling gaps. The increase in capital flows to the less developed countries has had an important effect on the IFIs, including the World Bank. Long-term flows of private capital have increased six-fold to USD 256 billion between 1990 and 1997. Today, these private flows dominate official flows, which amounted to only in USD 44 billion in 1997. Clearly, the original limited rationale for development banks - filling a market 'gap' associated with the failure of capital to flow to developing countries - must be reconsidered. The broader rationale for multilateral development banks - facilitating, in any way possible, the process of economic development and poverty alleviation in less developed countries - has maintained its salience. Even as 'gaps' in the market close, the task of redistributing resources remains.

In the more circumscribed area of capital flows, these IFIs still have an important role, but one which may be significantly modified from that of a half-century ago. This is partly because the private capital flows are targeted - they go disproportionately to a few countries and into selected areas. Although in 1996 low-income countries, excluding China, represented 42 percent of the developing world's population, and 12 percent of its output, they received only six percent of the capital flows (World Bank, 1997). By contrast, twelve countries receive more than three-fourths of the total flows. The flows go disproportionately to certain sectors, with almost none of the money paying for health or education.

Moreover, the form of the flows is also circumscribed, though less so than in earlier years. Development banks were originally established because commercial banks failed to provide the long-term finance that industrial firms needed for their projects. Although matters today are far better than they were at the time of the first development banks 150 years ago, or even at the time of the establishment of the International Bank for Reconstruction and Development a little more than a half-century ago, the flow of long-term capital, especially long-term capital willing to engage in a significant amount of risk sharing, is still constrained.

In addition, these shorter-term private capital flows are highly volatile. An estimated USD 100 billion left East Asia last year - one-seventh of their gross domestic product. These outflows can occur for reasons beyond the control of a country: the East Asian crisis, for instance, may have slowed capital flows to Latin America as investors became more cautious about 'emerging markets' in general. IFIs can be a force for economic stability. They should stand ready to engage in countercyclical lending - which is when the country most needs money but is often least able to obtain it.

I have identified several distinct roles of multilateral development banks that are associated with filling 'gaps' in order to improve capital flows: assisting flows to those countries and those sectors and in those forms where the private sector seems reluctant to go, and counterbalancing the market's often irrational and highly destabilising gyrations.

Improving the economic environment. There is perhaps a more fundamental role: improving the economic environment in order to facilitate the flow of private capital, domestic investment, growth and development more broadly. There are many dimensions to an effective development strategy, including investments in human capital, stable macroeconomic policies and growth-enhancing microeconomic policies, which include trade liberalisation, sound legal frameworks providing for competition, bankruptcy, contract enforcement and corporate governance. IFIs can play a role not only in providing information about the consequences of alternative policies, but also in certifying that countries are engaged in meaningful policy reforms. Such policy frameworks have been shown to be an effective complement to capital flows (World Bank, forthcoming).

Strengthening the democratic processes. There is a concern that the IFI method of building the economic environment - namely conditionality - may not be an effective influence on political decision-making and may undermine democratic processes. There is little evidence that conditionality is effective, and especially that it can provide the basis of durable, sustainable reforms in circumstances where such reforms would not otherwise have been undertaken (6). Indeed, in many cases, conditions have been agreed to that not only do not represent a consensus, but were not even widely discussed by Parliament or the media. Worse still, there are cases where conditions have been imposed which have not been even publicly disclosed at the time of the agreement! I suspect that such practices will not be sustained as IFIs move into the next century, and their modes of operation will be more supportive of democratic processes, with dialogues based more on mutual respect than on neo-colonial attitudes and authority relationships.

Indeed, it has become increasingly recognised that an effective state - a transparent state, eschewing secrecy and corruption, but committed to democracy and development - increases the effectiveness of both private and public capital flows (7). Reflecting these findings, multilateral development banks are pursuing strategies to enhance the effectiveness of the state (rather than, as some have suggested was the case in the 1980s, creating a minimalist state). This broader strategy will, I think, constitute a cornerstone of the approach pursued by IFIs into the next century.

IFIs will take an increasingly important role in providing complements to private capital as opposed to capital itself. How they do this will depend on the evolving nature of the capital market.

IFIs will thus take an increasingly important role in providing complements to private capital (as opposed to capital itself). What they do and how they do it will depend on the evolving nature of the capital market itself. As new financial instruments are created, multilateral development banks will have to continue to respond to the new financial realities. At the same time, our enhanced understanding of the failings of the market will reveal new roles. The debt crises of the 1980s revealed some of these failures: the standard economic theory prediction that the wealthier, lending countries should have developed instruments that led them, not the borrowing countries, to absorb most of the risk associated with changes in real interest rates, did not occur. Developing countries were left with the unfortunate position of having to absorb the huge shock of higher real

6) See Dollar and Svensson (forthcoming), Ranis (1995) and Mosely et al. (1995).

7) See the World Bank's 1998 World Development Report.

interest rates of the 1980s (though subsequent adjustments led to some risk absorption by the lenders). Today, IFIs provide a broader variety of financial lending instruments than they did a quarter century ago, and I expect this pattern to evolve further.

Partnerships with the private sector. That having been said, some proposals of new forms of partnership between IFIs and the private sector must be looked at with some scepticism. There is a role for guarantees for items like sovereign risk, and these are already widely provided. But many of the proposals extend to commercial risks where the potential for problems of adverse selection and moral hazard are substantially greater. Given the inventiveness that the private sector has shown in inventing instruments to pool, share and transfer risk, one must look askance at the extent to which IFIs might improve the risk-sharing potential - as opposed to what the private sector may really want, which is a hidden subsidy. Many of these proposals entail the multilateral development banks absorbing the risk and the private sector absorbing the profits: these institutions would provide guarantees to absorb the downside risks, and the private sector would receive all of the upside potential.

In the 21st century, however, I suspect that we will increasingly face the fuzzy boundaries between political and commercial risks that have already begun to absorb our attention - how, for instance, should we treat changes in regulatory regimes, or regulatory practices? In a developed country these are typically treated as another form of commercial risk, although changes in regulatory regimes can also be used as a way to confiscate wealth in a manner that differs little from more direct expropriations.

3.2 Beyond capital markets: The provision of knowledge

In my discussion of the role of multilateral development banks in capital markets, I emphasised the increasing importance of the policy framework, and that one of the distinctive contributions of these institutions was to provide information, knowledge, about the consequences of alternative policies. This is an example of a broader role that IFIs have increasingly undertaken, namely providing knowledge, a role which is perfectly consistent with their mandate to provide international public goods. Indeed, so important is this role that the World Bank is increasingly referring to itself as the Knowledge Bank, and in its 1997 Strategic Compact, setting out new directions which would define its role at least early into the next century, these knowledge activities were front and central.

These changes were based in part on the recognition that what separated more developed countries from less developed countries was not only the gap in objects, in physical and human capital, but gaps in knowledge. The success of the East Asian economies was attributable as much to the closing of the knowledge gap as it was by the closing of the objects gap. By one reckoning, for instance, Korea's GDP would have been one-half of what it was in 1990 if it had only accumulated physical and human capital with no improvements in knowledge, organisation and entrepreneurship after 1955 (World Bank, forthcoming).

Recognising that knowledge, and especially knowledge about and relevant to development, is an international public good provides a special role for IFIs, which will attain increasing prominence in the coming century.

Knowledge about development is an international public good and provides a special role for the IFIs.

Other international public goods, such as the special responsibility for looking at the global environment, take on increasing prominence within the mandates of IFIs.

3.3 Links with other international public goods

The provision of knowledge is just one of the international public goods that will figure in the mission of multilateral development banks in coming decades. Given the strong linkages which exist between all of the various international public goods outlined earlier, the core mission of these institutions in promoting growth and poverty alleviation among the less-developed countries, and the absence of strong international institutions addressing these other international public goods, it is natural that these other international public goods take on increasing prominence within the mandates of IFIs.

The World Bank already plays an increasing role in the environment. We recognise that promoting growth is not just a matter of increasing GDP, but improving living standards more broadly, and the quality of the environment is an important ingredient of these broader gauges of living standards. As multilateral institutions, we have a special responsibility for looking at the *global environment*, at issues such as global warming, biodiversity, desertification, water management and hydrofluorocarbons, and the ways in which these global environmental goods are affected by and affect the developing world. The interactions are multi-dimensional and complex. Poverty and lack of access to alternative energy sources may induce poor peasants in Nepal to deplete their natural forests, contributing further to their future impoverishment and environmental degradation. A switch to hydroelectric power would substitute 'clean' energy for energy which leads to carbon emissions, and, by reducing deforestation, to more carbon sequestration. It might greatly enhance living standards (among other benefits, reducing the time spent gathering wood), open up new economic opportunities, and prevent further deforestation. At the same time, however, a transfer to hydroelectric power generation may lead to the destruction of some valleys and the dislocation of some workers. This is but one example of the complicated interlinkages between the environment and development, which will be an increasing focus of concern for the multilateral development banks in the coming century.

The great lessons of the latter half of the 20th century is that *development is possible* but that *development is not inevitable*. Good policies, accompanied by transfers of knowledge and resources, and the development of durable institutions that enhance the likelihood that good policies will be adopted and that the resources and knowledge can be effectively absorbed, are essential ingredients in successful development strategies. These will be the central commitment of the multilateral development banks in the coming century.

4. The structure of international financial markets

There is an emerging consensus - within academia, within government, and within the broader citizenry - on the set of issues just described, that are at the core of the redefinition of the role of IFIs. What was at best a one-time consensus on the role of international institutions in the area of international financial markets is, to say the least, fraying. It is not that there are not well-recognised problems - if anything, the dissatisfaction with the way the current system is working and may work in the future is increasing - but there are no agreed upon remedies. In part, this is due to a lack of intellectual coherence or a set of theories, supported by empirical evidence that can clearly define the role for IFIs in enhancing the effectiveness of international financial markets.

The intellectual coherence needed to define the role of IFIs in enhancing the effectiveness of international financial markets is lacking.

There have been marked changes in international financial markets, which have brought with them innumerable benefits. The huge increase in cross-border flows of capital, including flows of capital to developing countries, is but one example. Since typically capital flows to areas where (at least private) returns are highest, such flows increase world output. The improvements in financial markets, including international financial markets, have facilitated the transfer of huge amounts of risk as well as the diversification of risk; and this in turn should facilitate the ability of enterprises to engage in high risk - but high return - activities.

But these huge benefits have come with a cost. There is evidence that financial crises have become more frequent, with larger costs, both in terms of the government's expense in restructuring the financial sector (to meet the obligations under deposit insurance, or to bail out failing banks), and in the more general effect of slower economic growth that follows such crises (Caprio and Klingebiel, 1996, and Caprio, 1997). The challenge of the coming century for IFIs is to see if they can define roles which enhance the growth and efficiency enhancing aspects of international financial markets, while reducing the costly destabilising properties. Doing so may require marked changes in the ideology and practices of IFIs over the past half-century.

4.1 The role of government in financial markets

A basic tenet of market economies is that free trade in goods is desirable. It brings with it enormous gains in productive potential. Though there are a few isolated instances, associated with imperfect risk markets (8) or imperfections in competition (where strategic considerations may dominate) (9), in which it is not in the interest of a country to pursue trade liberalisation on its own, these are the exception, not the rule. In that sense, one might argue that for small developing countries, there is little need for international institutions: each one on its own would be, in its own self interest, led to complete trade liberalisation.

But such an interpretation is oversimplified on at least two counts. First, it ignores the internal political dynamics within a country: policies do not necessarily maximise the welfare of the country as a whole, but of the ruling political elites. International agreements may help reign in these elites, and ensure that policies that advance the interests of the economy more broadly are pursued.

Second, it ignores the possibility of collusion, tacit or explicit. The developed countries may devise rules of trade which enhance them, at the disadvantage of the developing countries. They may piously talk about economic liberalisation in those areas in which they have a comparative advantage - manufacturing - but steadfastly resist liberalisation in those areas in which the developing countries have a comparative advantage - agriculture. They may knowingly refer to their own political realities - the difficulties they face in eliminating the distortions in agriculture, but have little tolerance for the symmetric political problems in developing countries. Their political and economic muscle is the rationale for the seeming asymmetry.

But on the economic rationale for trade liberalisation, the arguments - the theoretical analyses buttressed by empirical studies - are compelling. Thus, while there may be disputes about the pacing

8) See Newbery and Stiglitz (1984).

9) See Krugman (1979).

and sequencing of reforms, or the necessity and nature of the safety net required to protect those who are hurt by liberalisation, there is a common acceptance of the goals.

Matters are far more complicated in the area of financial markets. To see this most forcefully, let me spend a moment on the principles applying to the financial markets within a single country. There is, again, a consensus that government should not only not be running, say, a steel company, but its interventions should be highly limited, e.g., to ensuring that the company faces the true social costs of its actions, including its contribution to environmental degradation. Not so with financial markets. Here, by contrast, there is a consensus that there is, for instance, a large role for government in ensuring the safety and soundness of the financial institutions, in maintaining competition, in protecting consumers, and in ensuring that underserved groups have some access to capital. It is not the place here to review the literature in support of this broad-based role of government (Stiglitz, 1994). Suffice it to say that financial markets are concerned with gathering and using information; that markets in which information is imperfect and in which information acquisition plays an important role typically exhibit significant deviations from perfect competition; and that even if they were structured in ways in which all markets were perfectly competitive, the outcomes would not, in general, be Pareto efficient (Greenwald and Stiglitz, 1986).

There may, in addition, be complicated trade-offs: enhanced competition may erode franchise value (the present discounted value of future profits), reducing a financial institution's incentives to engage in prudential behaviour; and the losses from such behaviour (or the increased costs of monitoring to increase the likelihood that safe and sound practices are followed) may more than offset the gains from a slight increase in competition (Caprio and Summers, 1996, and Hellman *et al.*, 1997). Moreover, because of the intimate relationships between financial and real markets, a failure in financial markets may have enormous real consequences, contributing, for instance, to a marked downturn in aggregate output. These systemic risks not only mean that there may be a disparity between social and private costs and benefits, but they lead to government actions, such as bail-outs, which, while they reduce the short-run impacts, exacerbate the discrepancies between social and private risk.

Although the circumstances in which unfettered free markets in goods are welfare enhancing are relatively broad, the circumstances in which unfettered free markets in financial institutions lead to efficient solutions are highly restrictive. Thus, while there is a presumption for a very limited role of government in product markets, there is a presumption for a far more extensive role of government in capital markets.

Recent experiences have bolstered these long-standing presumptions - not only the innumerable banking crises, but also the scandals in the under-regulated Czech capital markets, the consequence of which has been not only that a few have gained at the expense of the many, but that the capital markets have failed to perform their functions of improving economic performance by raising capital and monitoring (Nikitin and Weiss, 1997).

4.2 From fixed to flexible exchange rates

IFIs are concerned with *international* financial markets in which all of the issues that arise in domestic markets occur, plus one new element: the issue of exchange rates and exchange rate risk. In the simplest version of the competitive paradigm which underlies so much of economic analysis,

exchange rates make no difference. Just as the classical dichotomy in a closed economy held that the determination of real variables could be separated from that of nominal variables - with the sole function of the money supply being to determine the price level - so too would the exchange rate follow directly from the respective price levels in an open economy in the expanded classical dichotomy. The conditions under which money is neutral have been shown to be somewhat more general than those under which the classical dichotomy was established, but still highly restricted: *in general, money matters, at least in the short run*, though there is perhaps more disagreement about the reason for this than over the validity of this conclusion. Under almost any of these explanations, *exchange rate regimes* also matter. There is less of a consensus about what the best exchange rate regime is, but there is a growing belief that fixed exchange systems do not work: they cannot be sustained and when they finally 'break' the dislocations are large which, because of the concavity of adjustment costs, is more costly than a series of smaller adjustments (10).

But most governments have remained uncomfortable with truly market-determined exchange rates. (Governments talk about wanting a 'strong currency', not an equilibrium value.) Even market ideologues routinely argue for intervention in the exchange rate market (witness the *Wall Street Journal* editorial page which has consistently berated the East Asian countries for 'allowing' their exchange rates to depreciate.) The rationale for these interventions is often hard to reconcile with their devotion to the market: they sometimes suggest, for instance, that they are stabilising the market. But unless they have information that is not at the disposal of market participants, why would the market not do just as good a job at stabilisation? And if they have information that is not at the disposal of market participants (such as the course of future monetary policy), why do they not just disclose that information, rather than trying to take advantage of the asymmetry of information? (In general, asymmetries of information hinder the operation of markets; the distortions associated with the exploitation of monopoly power, including monopoly over information, can be just as great when exercised by government as by the private sector.)

4.3 Developing an intellectually consistent framework

There are three broad approaches in thinking about these interventions. One can be traced back to Keynes, one of the founders of the Bretton Woods institutions. He himself had little of the ideological faith in markets that has seemed to come to be an important, if not dominant, strand. He saw markets as animated by animal spirits; expectations were far from rational; investors were engaged in judging beauty contests in which the object was not to choose the most beautiful person, but the one the others would so judge. He saw markets, especially labour markets, as often not clearing, and a strong role for government in such situations to stimulate the economy. In this view, in which the economy is replete with market failures, interventions in international markets may well be required. The systemic consequences, for instance, of the volatility of short-term capital flows may well make interventions that dampen these flows and stabilise them desirable.

The second approach begins with the presumption that markets are efficient, and if there are inefficiencies - for example, misaligned exchange rates - there is no confidence that the government would

10) But even here, there is no general rule: modern macroeconomics has stressed the role of expectations. It has been argued that a fixed exchange rate may provide a 'nominal anchor' which stabilises inflationary expectations, and thus inflation itself. The problem has been that, having stabilised inflation, countries have found it difficult to find a smooth way of exiting from the fixed exchange rate regime, and the crises which result from the resulting misalignment of exchange rates often have enormous real costs.

have a better judgement about the appropriate exchange rates than the market. In this view, government should not intervene, even in the event of a marked change in exchange rates. To be sure, such large changes may lead some individuals to go bankrupt, but this is simply the working out of the laws of the market. Why should the government be more inclined to intervene when the relative price of two currencies changes, than when the relative price of oil or cabbage changes dramatically?

In fact, however, much of the international community has been taking a third approach, one in which it is normally assumed that markets work perfectly, or at least well enough that government should not intervene; but occasionally, there are disasters - exchange rate crises - requiring strong governmental interventions. To my knowledge, no intellectually consistent framework underlying this peculiar hybrid has been developed. Indeed, since the interventions typically entail bail-outs (the magnitude of which may in fact have been increasing over time, in spite of the increasing lip service paid to the dangers of 'moral hazard'), the interventions themselves would give rise to a discrepancy between social and private risks - and thus a misallocation of resources, *even when there is no crisis*.

The rationale for the interventions lies not in any compelling evidence that there would be disastrous contagion effects, or that the interventions themselves would reduce the magnitude of the contagion. Indeed, most of the contagion is hard to reconcile with models of investor behaviour which assume rational, informed investors (a belief of those who have strong confidence in market solutions); and many models of rational, informed investors suggest that contagion effects might be exacerbated by the typical interventions (Stiglitz, 1998). Rather, the rationale for the interventions is that governments find it difficult to sit idly by when there is any significant perceived probability of a disaster - better to be seen to be acting, even if the action has little if any effect, than to do nothing.

There is, perhaps, a way which might reconcile a seeming faith that markets work well - except when they work so disastrously that there is a crisis. For this is exactly the same quandary that many neo-classical economists faced after the Great Depression. That Depression convinced most reasonable people that markets do not always work perfectly, and the macroeconomic theories developed at the time and subsequently provided an explanation for why this might be so. But the standard micro-economic theories, and in particular the Fundamental Theorems of Welfare Economics, argued that the economy was, in general, Pareto efficient. One of Samuelson's great achievements was to reconcile these seemingly inconsistent strands, through the so-called neo-classical synthesis. *This was simply an assertion - based neither on a consistent set of assumptions nor a well-articulated theory - that 'normally' the economy was efficient, when it was operating at full employment; but occasionally, it faced macroeconomic maladies, in which the key issue was not the allocation of resources among competing uses, but rather the full utilisation of the available resources*. It seems equally, if not more, plausible, that the periods of massive underutilisation are but the most obvious manifestations of market inefficiencies; they are the tip of the iceberg, but even in the absence of such massive misallocation of resources, there may be a myriad of smaller, but significant, misallocations (Greenwald and Stiglitz, 1986). More recent theories have attempted to derive macroeconomic consequences from a consistent microeconomic analysis, and in these models this is precisely the case: markets are in general not Pareto efficient, and the structure of the economy is such as to amplify shocks and make them more persistent, so that with a large enough initial negative shock, the economy may experience an extended period of unemployment (Greenwald and Stiglitz, 1993).

Capital account liberalisation may be accompanied by actions intended to discourage volatile short-term flows at the same time that long-term capital is encouraged.

Volatile, short-term capital markets can be an important source of shocks to the economy. The fact that the economy's ability to absorb these shocks is limited means that there are gains from trying to reduce the shocks that it faces - in short, to dampen the fluctuations in short-term capital movements. To be sure, the growth-enhancing effects of short-term capital movements must be set against these negative, destabilising effects. But there are empirical and theoretical reasons to believe that these growth benefits may be limited. First, cross-country regressions find little support for significant effects of capital account liberalisation on either growth or investment (Rodrik, 1998), a finding that is in contrast to the standard result that there are significant effects from trade liberalisation. Second, this should not come as too much of a surprise, given that growth benefits are typically related to long-term investments, and it is extremely risky to fund long-term projects with short-term capital, and doubly so when the short-term capital is denominated in a different unit than at least some of the sales and costs. Third, speculators have increasingly focused attention on the ratio of reserves to short-term debt, forcing countries that wish to avoid a crisis to increase their reserves in tandem with short-term borrowing. In effect, poor developing countries are borrowing at high interest rates from American and European banks, and then re-lending the proceeds to the treasuries of those countries at low rates: a peculiar exercise, indeed. Although the whole round-trip may lead to some productive investment, it would be far preferable if the country lent money directly to the borrower; the country is, in effect, paying a high price for the foreign bank's screening and monitoring services. It would be far better to develop those capacities itself.

In the 20th century, one of the main goals of IFIs has been to oversee the liberalisation of countries' exchange rate convertibility for trade purposes, an important part of the overall process of trade liberalisation. Some have seen one of their main goals in the next century as overseeing capital account liberalisation. This may be the case, but the oversight will, especially after the East Asian crises, take on a quite different form than what was anticipated only a short while ago. For that liberalisation may well be accompanied by actions, such as the Chilean reserve scheme, intended to discourage volatile flows of short-term capital at the same time that long-term capital is encouraged. *There may well be a role for IFIs to help implement such precautionary policies on a collective basis.* Some of the proposals, such as the Tobin Tax (a modest tax on foreign exchange transactions), can most effectively be implemented on a global scale. Even if IFIs do not play an active role in implementing such policies, they may play an important role in the evolution of standard policies; such standards will go a long way to ensuring investors that such policies should not be interpreted as reflecting hostility towards foreign capital; moreover, such standards may lower the transactions costs involved in operating in capital markets in different countries.

Recent discussions have focused on the importance of improved data (though at the same time noting that such data will never be sufficient to eliminate crises, and in some cases may actually lead to greater economic volatility) (11). Much of the data that will help monitor the financial position of various countries can most effectively be collected if there is international co-operation, so that data from lending and borrowing countries and institutions can be reconciled. It should, however, be noted that there is a question about whether such data should be collected by an independent inter-

11) Earlier, we noted the possible intellectual inconsistency between those who take a strong market position, but at the same time believe that there is a role for government intervention at the time of a crisis. Note that in the standard competitive model, all relevant information is conveyed by prices; the additional quantity data (e.g., concerning levels of debt) are not required. Indeed, the virtue of decentralised allocative processes is that (when they work) such centralised data is not required; by the same token, decentralised market processes make the accurate collection of such data difficult.

national statistical agency, rather than an 'operating' agency, to avoid actual and perceived conflicts of interests (12).

4.4 Lender of last resort

There are some who have toyed with a somewhat grander role for IFIs - a role at the international level analogous to that played by central banks within a country. It is now widely recognised that a lender of last resort cannot stave off crises, and may actually lead to actions (moral hazard) making such crises more likely. Stable financial systems require not only a lender of last resort, but also strong supervision and deposit insurance (to prevent runs). It does not seem likely that in the immediate future countries will delegate the supervisory functions to an international body, partly because the standards entail elements of political as well as economic judgement. There have been several instances in which governments have deliberately temporarily weakened standards as part of the process of promoting an economic recovery; in doing so, they not only mitigated the magnitude of the economic downturn, but may actually have reduced the magnitude of the financial crisis which could have been exacerbated by a more extensive credit crunch. Unless countries have greater confidence in the ability of IFIs to make those judgements in ways which are consonant with their own economic and political welfare, it is unlikely that, unless forced to do so by circumstances, countries will willingly turn over these important levers of the economy to an international body.

5. Concluding comments

A few years ago, there was a small but vocal movement against the Bretton Woods institutions: Fifty Years is Enough. The extent to which the debate has changed so quickly is remarkable. There is now widespread agreement on the need for international collective action in a wide range of areas, as suggested by the theory of international public goods.

Critics claim that there is little guarantee that collective actions will be welfare enhancing. Yet, public institutions have developed in ways which respond effectively, even if not perfectly.

All collective action - at the local, national and international level - faces serious governance problems. Critics claim that without the kind of discipline provided by the market, there is little guarantee that collective actions will be welfare enhancing, and there are numerous instances where these actions have indeed been counterproductive. Yet, in many instances, the need for collective action is great, and public institutions have developed in ways which respond to those needs effectively, even if not perfectly.

I believe that this is the case for IFIs: if they were not here today, we would not be inventing them; and they have been successfully reinventing themselves to respond to the new conditions of the international environment. The task of promoting economic development and alleviating poverty has just begun. As I said earlier, the great lesson of the last 50 years is that development is possible, but not inevitable. The multilateral development banks can be an important force for making such development both more possible and more likely.

But the other major challenge facing the IFIs when they were first established more than 50 years ago remains more elusive: today, financial crises are more frequent, with deeper and more profound effects, though to be sure, we have, so far, avoided a world-wide depression even approaching the scale and scope of the Great Depression. It seems clear that collective action is required,

12) These are similar to the arguments within a country.

but there is of yet no consensus on the nature of the required action, partly because there is no consensus on the nature of the desirable international financial architecture. And the lack of consensus in that arena in turn may in part be attributable to the difficulties of finding, let alone agreeing to, a consistent and coherent intellectual framework.

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