

## 7. Global public goods and global finance: does global governance ensure that the global public interest is served?

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### INTRODUCTION

This chapter focuses on some aspects of global public goods and global finance relating to global governance. The central question it addresses is whether global governance, that is, the way decisions are made in the global arena, ensures that the global public interest is served. Global public goods and their externalities constitute powerful tools for the analysis of global governance, its institutions and their flaws, the fundamental problems of market failure in the provision of global public goods, and potential solutions. I shall explore these issues through an analysis of the global economy, the global financial system and its principal international economic institutions. I examine two specific policies of the International Monetary Fund (IMF), and highlight problems relating to the global reserve system. In conclusion, I shall argue the case for special drawing rights (SDRs) and make some remarks on mechanisms for financing the provision of global public goods.

### BASIC CONCEPTS

The concept of global public goods lies at the core of the issues that I shall discuss.<sup>1</sup> Public goods have two critical properties: non-rivalrous consumption and non-excludability. They may be pure or impure, and the scope of their application may vary. Some discussion of these terms will be valuable for the development of my argument.

### **Pure Public Goods**

Paul Samuelson is credited with the idea of pure public goods.<sup>2</sup> In his 1954 paper, he identified the defining properties of non-rivalrousness and non-excludability. These are most naturally explained in terms of consumption.<sup>3</sup>

The property of non-rivalrous consumption means that consumption by one individual does not detract from consumption by others. The Jefferson Memorial in Washington carries a powerful metaphoric example of non-rivalrous consumption: knowledge is a candle, which, in lighting other candles, does not diminish its own light. That is a poetic expression of the idea of non-rivalrous consumption: when I learn a piece of knowledge, that same piece of knowledge is still there for others to learn. Furthermore, knowledge is a non-excludable good: no one can be excluded from consumption of the good. For example, as soon as a mathematical theorem is published, it can be enjoyed by everyone. This non-excludability is the second defining property of a public good. Non-excludability means that it is difficult or impossible to exclude any individual from enjoying the good in question. Knowledge is one of the most important examples of a public good.<sup>4</sup>

### **Impure Public Goods**

There are many public goods that are not pure public goods, where there is some degree of rivalrousness or excludability. For example, since the returns to some forms of knowledge may be appropriated through patents or trade secrets, and hence there is some degree of excludability, knowledge is often conceived as an impure public good.<sup>5</sup> There are also many goods provided by the public sector which are not really public goods. I have referred elsewhere to these as publicly provided private goods. Simply because a good is in the public sector does not mean it is a public good. The issue of which goods are in the public sector, and which are not in the public sector, that is, the extent to which a good exhibits the defining properties of a pure public good, is of critical importance.

### **Local Public Goods<sup>6</sup>**

The range, region, or locale over which its benefits are conferred is a further important feature of a public good. For example, there are local public goods, whose benefits are enjoyed only by those in the locality. Examples include a local clean river, or a local fire or police department.

There are also national public goods. National defence is an example of a public good having a defined region: the defence of a country involves the defence of everyone in that country.

Most of the public goods discussed in traditional textbooks have been national public goods, which benefit the entire national economy or society.<sup>7</sup> More recent debate has started to focus on the analysis of global public goods, whose benefits are enjoyed by everyone on the planet. In Stiglitz (1995), I list five examples of such global public goods: international economic stability, international security, the global environment, international humanitarian assistance, and knowledge.

#### **Provision of Pure Public Goods: Market Failures**

One of the reasons why pure public goods are typically provided in the public sector is that if there is no public sector provision, then there will be an under-supply. By the same token, one of the standard arguments why pure private goods are provided by the private sector is that if markets are working well, then the market provision of those goods is efficient.

It is important to emphasize that, generally, there is a market failure whenever a pure public good is involved. The reason why no adequate supply of these goods is available is sometimes formulated as the free-rider problem: if I cannot be excluded from the non-rivalrous benefit of the publicly available good, why should I pay? I shall free-ride on the provision of others. Since everyone has an incentive to free-ride, there is a strong tendency towards under-provision of pure public goods.

#### **Public Goods: Externalities**

One further aspect of public goods will be relevant in my analysis of global decision making and international public policy. Goods involve externalities. Externalities are actions by one party that have effects on other parties. They fall into two categories. Positive externalities are those where others bear the effects without the active party receiving compensation; negative externalities are those where others bear the effects, but for which the active parties do not pay compensation. The outcome of R&D is an example of a positive externality, where ideas make others better off, perhaps enabling the production of goods at lower cost; however, in research, the originator of the ideas may not be fully compensated. Pollution is an example of a negative externality: polluters do not pay compensation to those bearing the effects of the polluting activities. The reach of externalities, like that of public goods, can be local, national or global. The externality of pollution from greenhouse gases is global.

### **Externalities and Market Failures**

As in the case of pure public goods, there are market failures in externalities. Markets produce too little of the goods with positive externalities. The private incentive to produce the good is attenuated, because the private producer does not receive all the benefits of its production. There is too much incentive to produce goods with negative externalities, because the producer does not pay for the damage that is done to others. In both cases, markets do not deliver an efficient level of resource allocation.

Whenever market failure occurs, whether in public goods or externalities, there is a potential role for government. Government actions can take on a variety of forms: taxes and fines, regulations, and government expenditures. These interventions are potentially more efficient than pure market solutions.<sup>8</sup>

### **A GLOBAL PUBLIC GOOD: THE GLOBAL ECONOMY**

As noted in Stiglitz (1995), examples of global public goods and global externalities are reasonably abundant: security (political stability), economic stability, the environment, humanitarian assistance, and knowledge.<sup>9</sup> Indeed, one of the reasons for creating the United Nations was to have a means, at the global level, of controlling international security and its externalities. I shall examine the example of the global economy as a global public good in more detail. In that example, the global public goods of economic stability and international standards interact in a significant way.

#### **Global Economic Stability**

Global economic stability has long been recognized as possessing an international externality: a downturn in the economy of one country can have effects on the economies of neighbouring countries. The institutions that were created in the aftermath of the Second World War were intended to enhance international economic stability. Everyone benefits when the global economy is strong; many people suffer when the global economy is unstable or weak. It is a global public good.

#### **Global Standards**

Global standards are also global public goods. Establishing a set of standards enhances the efficiency with which market economies can function. Standards mean uniform practices and common ways of doing things.

Furthermore, huge advantages are associated with the establishment of industry standards.<sup>10</sup>

## GLOBALIZATION AND COLLECTIVE ACTION

It is a trivial observation that globalization is increasing. A consequence of this increase is that countries of the world are closer together and more closely integrated. This has resulted from the lowering of transport and communications costs and the reduction in a whole variety of manmade barriers. As globalization increases, so global public goods and their externalities become more important. The global economy assumes increased importance. A further consequence of this interdependence is a greater need for collective action. There are more areas where the actions of firms of one country have effects on others. The birth of the global community increases the potential for global public goods and international externalities, both positive and negative. Hence there is a correlative increase in the scope for collective action.

### Global Governance: Treaties and Institutions

The problem is that collective action requires mechanisms for decision making. These mechanisms are called governance. We have developed over the decades an *ad hoc* system for decision making and international public policy, which I call global governance without global government. While we lack the formal structures of a full global government, similar to that of each of the nation states or localities, there exists, nevertheless, a complicated set of arrangements which we call governance. This includes a variety of international treaties (for example, Montreal, Kyoto), and a framework of international law. Many treaties include decision-making parts. In addition, we possess international institutions, such as the International Monetary Fund (IMF), the World Trade Organization (WTO) and the World Bank. Many essential global economic decisions are taken within these economic institutions.

### International economic institutions: undemocratic and opaque

My concern is that these international economic institutions are very badly flawed. They are undemocratic and opaque.

In the first place, the principal international economic institutions are undemocratic. Of course, the institutions would deny these charges, pointing to the existence of voting procedures under rules. My point is that, for example, in the IMF, which makes decisions that affect people all over the

world, there is only one country that has the power of veto: the USA. Voting rights are based on economic power, as of the end of the Second World War, with some adjustments. Countries that have grown fast in the last 50 years are underrepresented.

These institutions are also non-transparent. In responding to the criticism of opacity by developing better websites, these institutions simply permit one a retrospective vision of their actions after these actions have been completed. The idea that one might be entitled to, or wish to have, a prospective vision prior to execution is an unfathomable concept for these institutions. The contrast between national and international institutions in this regard is very marked. In the USA, there is the Freedom of Information Act, reflecting the basic perspective that the government is supposed to be working for the people. Citizens have a right to know what the government is doing. A US citizen can request from any government agency information about what that agency is doing and the papers supporting its decisions. Access to information is widespread and very important. The press relies on it. In my view, this principle is a pillar of American democracy. However, US or French citizens cannot find out how their representatives in the IMF or the World Bank vote. That is a secret. There have been cases where the US Congress has instructed its representatives to vote in one way, only for them to vote in another. The representatives could get away with this disregard, because the US Congress did not know how they had voted. On the positive side, these institutions leak very badly, so eventually the information does become available.

#### **International economic institutions: smokestack structures**

A further problem with the international institutions, in some ways more deeply troubling, is that they have a smokestack structure. That is, the WTO is run by trade ministers and the IMF by finance ministers and Central Bank governors. This is in stark contrast with decision making within our own democracies, where all the relevant decision makers are assembled around the table: Trade, Labour, Treasury, Commerce, the Justice Department, the Office of Science and Technology Policy, and so on. Some are more influential than others, but the voice of each is heard. In the international arena, this is not how decisions are made. Only the finance ministers and Central Bank governors are involved in making decisions about the global financial system. In trade decisions, only the trade ministers are present. If the trade ministers are debating an issue whose environmental consequences are important, those consequences are given very little weight.

For example, in the Uruguay Round of the discussions on the Trade-Related aspects of Intellectual Property Rights (more commonly known as

the TRIPS agreement), there were very serious consequences for science, health and less developed countries. As negotiations progressed, the Council of Economic Advisers and the Office of Science and Technology Policy in the White House both strongly opposed the position that the US trade representative was taking in the TRIPS agreement. The US trade representative paid little attention to this opposition, because he was bargaining. His 'trust me' attitude expressed the fact that, in bargaining, he was paying attention to the drug companies and the entertainment industry. The result was an agreement that was bad for science, even worse for the developing countries, and terrible for health.

A consequence of the smokestack structure of these international institutions is that relatively narrow representation provides many opportunities for special interests to prevail. The outcomes of these processes therefore often fail. These failures are no surprise to me.

#### **Corollaries: Two Problems**

The principal problems associated with the above weaknesses of the international economic institutions and their failures are twofold. First, critical global market failures are not addressed. There are some global public goods that ought to be provided and global externalities that need to be addressed. Too often, these are not. Second, attempts are frequently made to use the international arena to achieve objectives that have little to do with correcting global market failures. In addition, the processes in international institutions provide opportunities to attempt to achieve in the global arena what could not be achieved at home, precisely because the international institutions are less democratic and less transparent.

### **THE GLOBAL FINANCIAL SYSTEM AND THE INTERNATIONAL MONETARY FUND**

The global financial system is the entity that I shall use to examine in greater detail these issues and the failures of provision of global public goods and externalities.

At the end of the Second World War, the central problem was recognized that an economic downturn in one country hurts the economies of other countries. To understand the creation of the IMF, one has to return to the Great Depression of the late 1920s and early 1930s. Many observed that the global economy only exited the Great Depression through the Second World War. As that war came to an end, there was a worry that the world would regress into recession and under-consumption. The international

economic institutions were established to prevent that from happening. There was recognition that the problem was neither local nor national, but global. There was also recognition of the market failure associated with the international externality. John Maynard Keynes was very clear that when there is an economic downturn, the economy must be stimulated, and since monetary policy very often does not work, deficit spending is necessary. There was a problem, however: deficit spenders must be able to borrow money, and many countries found it difficult to do so.

### **Creation of the International Monetary Fund**

The remedy was to create the IMF, whose original mandate was to provide funds to countries to enable them to have stimulatory fiscal policy in the event of an economic downturn. It was also intended to exert peer pressure to ensure each country maintained as close to full employment as possible, recognizing that the benefits of full employment accrue not only in that country, but also in its neighbours.

### **International Monetary Fund policy 1: contraction**

There are strange tides of history: the world did not work out that way. Global capital markets do not function the way they are pictured in textbooks. Capital market imperfections make it difficult for countries to finance expansionary fiscal policy. Indeed, Keynes worried about how the situation might develop for a reason that I shall consider below.

The IMF, rather than fulfilling its primary mandate of financing expansionary fiscal policy, typically only provides money when a country agrees to follow a contractionary policy. In effect it advises countries in recession to make their recessions deeper. The policies that were such a worry in the years of the Great Depression were called beggar-thy-neighbour policies: countries, seeing their economies sink, imposed tariffs so as to reduce foreign spending and increase domestic spending. However, by shutting down imports from their neighbours, the countries made those neighbours worse off. The IMF has come up with something even worse: beggar-thy-self policies. In making their neighbours worse off, the countries do not make themselves better off. Their contractionary policies cause economic decline, thereby reducing imports from neighbouring countries, so their export trade suffers and their economy declines too. Everyone loses. Beggar-thy-self policies were visible in the disastrous consequences of the crisis in East Asia.

Although the issues are complicated, the essential problem, and one to which Keynes was sensitive, concerns governance and decision making. The USA is the sole country with veto power. It is represented by the Treasury,



not by the President, nor the Department of Labor, nor the Council of Economic Advisers. Historically, financial markets have taken a traditional position that is dominated by strongly anti-Keynesian perspectives. The Treasury maintained during the Great Depression that the remedy was to cut expenditures and eliminate the deficit. The decision whether to make the economy a global Keynesian institution was turned over to policy makers who were anti-Keynesian. The result was anti-Keynesian policies.

Moreover, the particular anti-Keynesian strategy of the decision makers was consistent with the ideology that markets worked over time, and that, given sufficient time, the economy would recover, provided the size of government was kept small. It was also consistent with the interests of the decision makers. My experience is that Central Bankers, when they habitually remark that there are big asymmetries between unemployment and inflation, then proceed to assert that, while one of these policies leads to long-term damage that is difficult to reverse, it is inflation that is the really dangerous threat: people get over unemployment. Each view has a grain of truth. Clearly, the Central Bankers' mindsets are focused on inflation and the cost to those who lose their wealth more than the cost to the people who lose their jobs. In other words, inflation is bad for bond markets, hence inflation is the real enemy. The advantage of the IMF strategy for the creditors is also quite clear: recessions lead to a cut-back in imports, a build-up of reserves, which facilitate the repayment of creditors. After the crisis in East Asia, if repayment was the objective, the policies of forcing Korea and Thailand into depression worked because, as these countries went into recession, their imports were reduced enormously, reserves were rebuilt in an incredibly short time, and creditors could be repaid in the blink of an eye.

Originally, the IMF possessed a broader set of objectives than to help countries going into an economic downturn. Its goal was to create a global economic system with greater stability. Analysis of the achievements of the IMF, however, reveals that it has created just the opposite, a global economic system with greater instability. In bringing this about, the key policy that the IMF championed was capital market liberalization.

#### **International Monetary Fund policy 2: capital market liberalization**

In 1997, at a meeting in Hong Kong, the IMF argued for a change in the charter to require all countries to open up their markets completely to speculative hot money that could enter and exit overnight. The timing could not have been worse: it was universally known that East Asia was about to have a crisis caused by hot money movements. As an academic, I was struck by the fact that no evidence was provided to support the claim that countries ought to be forced to accept capital market liberalization (CML). No studies showed that CML would lead to faster economic

growth in the developing world. At the World Bank, we had already undertaken some studies which had shown that CML leads to greater instability for the most obvious reasons: hot money destabilizes economies. Over the following six years, the examples came rolling in to corroborate this fact. The IMF, however, did not need evidence. It had an ideological position. This had nothing to do with a global public good or a global externality. The IMF was actually creating a negative global externality through public institutions, in covert pursuit of its own private interest. A study written later by Dani Rodrik (2000) at Harvard showed that in fact CML led to more instability and did not lead to faster economic growth. It was risk without reward.

One of the 'advantages' of the IMF is that it does economic 'experiments' around the world. The IMF has now given us data on approximately 100 countries with crises in the last 30 years. Analysis of the data provided by these countries reveals that capital and financial market liberalization is systematically related to their instability. This provokes the question of why the IMF exceeded its original mandate and promoted capital market liberalization. It was not necessary to make the 'international order work', nor was it like a 'standard' that had to be agreed. *If* CML was good for a country, the country had an incentive to adopt it; *if* it was not, the country had an incentive not to adopt it. If anything however, CML results in a *negative* externality on other countries, because the resulting instability in one country spills into others through the phenomenon of contagion. The IMF had always talked about contagion, hence it was well aware of the disease. It nevertheless advocated the underlying disease.

This is an example of private interests attempting to use public institutions. In order to achieve CML, those private interests tried to achieve internationally what could not be achieved at home (other forms of investment guarantees). The IMF did finally produce a report examining the evidence. Confirming the long-held view of academics, it found that CML did lead to instability and did not promote economic growth. The IMF began thereafter to adopt a more cautious approach. The official position on CML in turn became more cautionary.

Thereupon, the USA and Europe, seeing that CML could not be achieved through the IMF, since ironically it was an undemocratic institution, attempted to use trade agreements. They sought to achieve at the WTO what they could not obtain at the IMF. The USA first did this in a trade agreement with Chile, yet Chile's period of most rapid economic growth (7 per cent) occurred in the early 1990s when capital market restrictions were in force and helped to stabilize the economy.

The new issues that were put on the agenda by the USA and Europe at the Doha meeting – the so-called Singapore issues – were accorded

priority before the old issues, such as the unbalanced agriculture and service agreements, had been addressed. One of the new issues was the complete opening up of the capital markets of the developing countries. The reason for this was simple: trade ministers know nothing about capital; therefore, they make better negotiators. Ignorance is a valuable weapon in bargaining. Quite rightly, the developing countries argued that they had seen the damage that CML inflicts, pointed out that CML is not a trade issue, and cited the new research of the IMF. In short, the attempt by the USA and Europe to force through CML was based on special interests rather than global interests.

## **RISK TRANSFERS AND THE GLOBAL RESERVE SYSTEM**

There is in fact a host of other market failures in the global arena which should have been addressed, but have not been. We are not providing the kinds of support that countries require when they experience an economic downturn. We are creating instability by forcing countries to adopt CML.

### **Risk and Global Market Failures**

A further example of global market failure is the functioning of risk markets. Financial markets in the USA and Europe pride themselves on the ability to slice and dice risk, and to transfer risk from those less able to bear it to those more able to bear it. That is one of the quintessential functions of capital markets. In actual fact, the transfer fails to happen for the risks that are really important. The developing countries are forced to bear the risks of exchange rates and interest rate volatility. The consequences can be and have been enormous.

### **Exchange rate risk**

In the last decade of the 1980s, Latin America borrowed money, recycling the petro-dollars, and thereby avoiding the downturns faced by other countries when oil prices rose. The debt was manageable until the Federal Reserve Board raised interest rates to unprecedented levels. It effectively bankrupted America's savings and loan industry, but it more than bankrupted Latin America. The interest rates went up to a level that Latin America could not pay and that no one had ever expected. Latin America – not the more developed countries – bore the risk of that interest rate fluctuation. The consequence was a lost decade of growth, increased poverty, and a real disaster.

**Interest rate risk**

The same thing is true of interest rate fluctuations. Moldova is one of the poorest countries of the former Soviet Union. It used to be one of the better-off countries. It is an instructive example of how we have mismanaged the transition from communism to a market economy. The prediction was that the elimination of communism would bring unprecedented prosperity, as central planning was scrapped, distortions were removed, and incentives were provided through private property. In Moldova, GDP fell by 70 per cent. In 2001, Moldova was spending 75 per cent of its public budget servicing the foreign debt. There was neither light in the streets, nor oxygen in the hospitals. It happened because the currency of Moldova was linked to the rouble. When the rouble devalued in 1998, Moldova's currency devalued. Since Moldova had borrowed in dollars, however, the burden of dollar debt became overwhelming. Moldova bore the risk, rather than the rest of the world.

Latin America and Moldova are just two examples of market failure in risk distribution.

The standard theory is that in well-performing markets, risk would be transferred from those who are less able to those who are more able to bear risk. There is a role for a global financial institution to improve this risk-shifting process. Unfortunately, our current international financial institutions have not undertaken this role.

**A Fundamental Problem: the Global Reserve System**

The most fundamental problem relates to another global public good – the global reserve system – which, in its present form, is the cause of great instability in the international economy. In the current global reserve system, dollars are held in the recognition that exchange rates, import and export prices, and import–export demands, are subject to huge volatility. This system promotes instability and is inequitable. Let us examine why this is so.

**Instability**

The instability of the global reserve system is visible if we start from a very simple trade–surplus–deficit equation. The sum of trade deficits equals the sum of trade surpluses. This is a basic identity of trade. In fact, the numbers do not add up exactly, because of inaccuracies of measurements, but that is not significant. It follows that if some countries always run surpluses (China, Japan), then the rest of the world runs deficits. Deficits are like a hot potato: if one country eliminates its deficit, then, by the trade–surplus–deficit equation, the deficit shows up somewhere else. Hence, when some country winds up with a high deficit, and that country,

under instruction from the international financial institutions, reduces its deficit to zero, then the deficit does not disappear: it is simply transferred to another country, and the cycle of crisis and instability recurs. This system only functions as well as it does because the USA acts as a country of 'deficit of last resort'. The USA is willing to run enormous deficits. In that respect, the global economic system is very peculiar. The richest country in the world lives beyond its means year after year. Its borrowing approached USD 600 billion per year in 2003, close to USD 2 billion per day. Nevertheless, the USA lectures poor countries to live within their means. However, if the USA eliminated its deficit, it would reappear elsewhere and other countries would have the deficit problem. So far, the USA has been able to manage its increasing indebtedness to foreigners without a crisis. The long-term prognosis is not good. As debts become large, the appetite of foreigners for holding US debt may diminish. How much US debt would non-US countries be willing to hold? Twenty years ago, the USA was a net creditor; today, it is a huge net debtor. Foreign creditors should wake up to the riskiness of US debt, particularly because the current macroeconomic management in the USA is the worse it has ever been, and fiscal deficits are reaching untested levels.

This also leads to a deflationary bias in the global economy. Every year people have income that they do not spend. This surplus, held as a reserve, is metaphorically 'buried in the ground every year', that is, it is invested in US Treasury bills rather than spent on goods. This creates a deflationary bias in the economy. In the past, the strong inflationary bias of Central Banks kept spending up, helping the global economy. Now that this bias has been reined in, an important stimulus has disappeared, reinforcing the deflationary trends.

### **Inequity**

The global reserve system is also an inequitable system. This is best illustrated in the case of the government of a small developing country in Africa borrowing USD 100 million at, for example, 20 per cent interest from a US bank. The country's international advisers tell it that if it is borrowing in dollars, it should keep reserves. The current standard is to require dollar reserves equal to short-term dollar indebtedness. The government follows the advice and holds USD 100 million in reserves. These reserves are held as US T-bills. To own US T-bills means simply to lend money to the US Treasury. The catch is that the interest rate of the US T-bill is 1 per cent. Thus the poor African country is borrowing USD 100 million at 20 per cent while lending the same amount at 1 per cent. In short, the African country is sending USD 19 million foreign aid to the USA every year. As the USA lends to developing countries at high interest rates and borrows from them

at low interest rates (since they hold US Treasury bills as reserves), there is a large net transfer from developing countries to the USA. This is a great programme for helping the USA to grow. It does not help the developing world. It is easy to understand why the US Treasury is enthusiastic about this particular regime. One cannot but feel that it is somewhat inequitable.

### SPECIAL DRAWING RIGHTS

A simple remedy exists: the creation of global greenbacks or special drawing rights (SDRs), issued annually to offset additions to reserves, and which can be used to finance global public goods, including development support.<sup>11</sup> A variety of mechanisms exists to allocate funds. They should, however, be outside the IMF since a broader, better governing structure is necessary.

This SDR proposal would increase stability, since countries would only have problems when the trade deficit exceeds the SDR allocation. It would not be inflationary, since the emissions would only be to offset the deflationary bias. The USA would gain from this greater stability and the bias it creates for an excessively strong dollar.

On the other hand, shortsightedness may undoubtedly result in resistance to the idea of SDRs, as the USA sees the loss of its seigniorage. Actually, if one compares the benefits of seigniorage with the costs of the overvalued dollar and the instability of the global economy, the USA would be better off. One way to induce the USA to switch to the proposal of SDRs would be for the rest of the world to 'force' it to cooperate, by forming a club whose members agree to hold each others' currency and issue SDRs, a strong incentive for membership.

### FINANCING GLOBAL PUBLIC GOODS: MECHANISMS

Finally, I shall discuss briefly two topics relating to the mechanisms for the financing of global public goods.<sup>12</sup> I have argued for the importance of global public goods in the context of increased globalization. One of the problems of global governance without global government is that there exists no effective way of raising revenue for the financing of these goods. I should like to mention some ways in which this might be accomplished.

First, SDRs are an important source of funds. In addition, potentially large revenues could be derived from managing global natural resources. The idea is that, for example, in the case of greenhouse gas emissions,

emission permits are granted, and the revenues from the sale of those permits can be used to finance the provision of global public goods. This concept might be applied to other natural resources: the use of the global seabed, the management of global fisheries, and so on.

A second source of finance for global public goods is taxation. A characteristic of a good taxation system is that it attacks bad phenomena. Taxation could be used to attack negative global externalities. Short-term capital flows that are volatile and speculative create negative externalities. These flows could be taxed. Whether such an approach is administratively feasible remains to be explored, however.

Finally, at the Monterey Round, Finland suggested the idea of a global lottery. National lotteries have been relatively successful mechanisms for funding national public goods, a success that might be replicated at the global level.

## CONCLUDING REMARKS

Globalization increases the importance of global public goods. Good performance of the global economic system requires adequate provision of these global public goods. The rules of the game, however, are set by international institutions that are undemocratic and non-transparent. Therefore, the special interests of advanced industrial countries prevail, resulting in the original mission of institutions like the IMF not being pursued, and a broader agenda of global stability not being effectively addressed. As a result, adopted policies have led to greater instability and have exacerbated economic downturns. New items have been added to the agenda which are not necessarily focused on addressing the provision of global public goods, but which are directed towards the pursuit of a private agenda using the non-transparency and undemocratic weakness of global economic institutions.

It is important to find ways of financing global public goods. The proposal of SDRs illustrates one potentially valuable source of finance. At the same time, it contributes to global stability and increases international economic equity.

## NOTES

1. On global public goods, see Stiglitz (1995) and US Council of Economic Advisers (1997).
2. Samuelson (1954).
3. For a fuller exposition of the defining properties of global public goods, see Stiglitz (1999), pp. 308-9.

4. Stiglitz (1999) provides a detailed analysis of knowledge as a global public good.
5. *Ibid.*, pp. 309–10.
6. See Tiebout (1956) and Stiglitz (1977, 1983).
7. Stiglitz (1986).
8. See Stiglitz (1999), pp. 311–16 for an examination of the role of the state in ensuring the efficient production of knowledge as a public good.
9. See Stiglitz (1995).
10. See Katz and Shapiro (1985).
11. See Buira (2002) on special drawing rights.
12. See also Kaul et al. (2002).

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