EUROPA ECONOMIC PERSPECTIVES

International Monetary Reform

A specific set of proposals

John Williamson

ROUTLEDGE

International Monetary Reform

This volume is a contribution to the debate surrounding international monetary reform. The author examines and analyses the workings of the International Monetary Fund (IMF) and suggests how the international monetary system could, primarily through changes to the IMF, be reshaped and reformed.

Chapters examine the *Palais-Royal* Report, explain how the IMF could be granted unlimited bailout powers to confront a global crisis, propose an exchange rate-based mechanism by which the international community could discipline excessive imbalances, examine alternative possibilities for the supply of future reserves, advocate 'enthronement of the Special Drawing Right', and discuss the obstacles in the way of such an ambitious reform agenda.

This book offers an important contribution to global economic debate for economists, academics, graduates and students, and anyone with an interest in international economics.

John Williamson was, for the greater part of his career (1981–2012), a Senior Fellow at the Peterson Institute for International Economics, USA. Before that he was an academic at the Universities of York and Warwick in the United Kingdom, and Pontifícia Universidade Católica do Rio de Janeiro, Brazil, interrupted by spells at the UK Treasury (1968–70) and the International Monetary Fund (1972–74). He was also a Visiting Professor at the London School of Economics and Political Science, UK, and Massachusetts Institute of Technology and Princeton University, USA, and took leave of absence from the Peterson Institute to serve as Chief Economist for South Asia in the World Bank (1996–99). His publications have mostly concerned international monetary economics, although he also achieved a certain notoriety in 1989 for inventing the phrase 'Washington Consensus'.

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Abbreviations

AFRITAC	African Technical Assistance Center
AIIB	Asian Infrastructure Investment Bank
AML	anti-money-laundering
ASEAN	Association of Southeast Asian Nations
BIS	Bank for International Settlements
BRICS	Brazil, Russia, India, China, South Africa
C-20	Committee of Twenty
CCI	countervailing currency intervention
CGER	Consultative Group on Exchange Rate Issues
CFT	countering the financing of terrorism
CRU	Composite Reserve Unit
EBA	External Balance Assessment
ECB	European Central Bank
ECF	Extended Credit Facility
ECU	European Currency Unit
EMS	European Monetary System
ESR	External Sector Report
EU	European Union
FCL	Flexible Credit Line
FDI	foreign direct investment
FEER	fundamental equilibrium exchange rate
FSAP	Financial Sector Assessment Programme
FSSA	Financial System Stability Assessment
G3	Group of Three
G4	Group of Four
G8	Group of Eight
G10	Group of 10
G20	Group of 20
GAB	General Arrangements to Borrow
GAC	Global Advisory Committee
GDDS	General Data Dissemination System
GDP	gross domestic product
HIPC	heavily indebted poor country

IDA	International Development Association
IEO	Independent Evaluation Office
IMF	International Monetary Fund
IMFC	International Monetary and Financial Committee
LDCs	Least Developed Countries
m.	million
MDRI	Multilateral Debt Relief Initiative
NAB	New Arrangements to Borrow
OFC	offshore financial centre
PCDR	Post-Catastrophe Debt Relief
PCL	Precautionary Credit Line
PLL	Precautionary and Liquidity Line
PRGF	Poverty Reduction and Growth Facility
RoW	rest of the world
S5	Systemic five
SCF	Standby Credit Facility
SDDS	Special Data Dissemination Standard
SDR(s)	Special Drawing Right(s)
SIDS	Small Island Developing States
SLF	Short-Term Liquidity Facility
TTF	Topical Trust Fund
UK	United Kingdom
UN	United Nations
US(A)	United States (of America)
WTO	World Trade Organization

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1 Introduction

This book is intended as a contribution to the debate on international monetary reform, but it differs from many other contributions in that I propose specific alternatives. In order to achieve an adequate system, I believe that it is necessary to give the International Monetary Fund (IMF) unlimited possibilities of bailout in extreme situations; that one should introduce a mechanism capable of disciplining surplus countries, and that this is best accomplished by limiting the freedom to set exchange rates; and that one needs to make the Special Drawing Right (SDR) a vibrant private sector asset. The reasons for these specific changes are set out in what follows.

It is taken for granted that the reader is familiar with the operation of the IMF. Anyone who does not have a passing familiarity is recommended to preface a reading of the book by looking at the material in the Appendix. This is provided, with permission, by *The Europa World Year Book*, published by Routledge (also online at www.europaworld.com), rather than being written by the author.

The latest salvo in the debate on international monetary reform was launched by an influential committee, jointly convened by Michel Camdessus, Alexandre Lamfalussy and the late Tommaso Padoa-Schioppa, which produced the report entitled the *Palais-Royal Initiative*. Perhaps at least partly in response, the IMF has started producing 'External Sector Reports', which are compared to a series of studies that William Cline and I have undertaken. Stemming from the *Palais-Royal Initiative*, the Triffin International Foundation appointed a committee to examine the potential role of the SDR in the international monetary system. This book deals with this set of ideas, but argues the case for taking the proposals further than the *Palais-Royal* Report did. There are far more radical proposals out there than those of the *Palais-Royal* group, or those advocated in this book, starting with those for a world money. It is taken for granted here that nation-states are going to continue to exist, and that the right role for international cooperation is in organizing the relations between the nation-states.

The study builds on the insights of Keynes that were rejected by the Americans at Bretton Woods; the analysis that Triffin made famous; the creation of the SDR in the late 1960s; the concerns expressed in the Committee of

Twenty in 1972–74; the reluctant move to floating rates during the Committee of Twenty negotiations; the idea of civilizing floating rates through the reference rate proposal first advanced by Ethier and Bloomfield in 1974; and the subsequent realization that the Triffin dilemma had not been ended, but merely postponed, by the move to floating.

In the pre-Bretton Woods negotiations Keynes advocated imposing a discipline on surplus countries. The particular form that this would have taken was a negative interest rate to be paid on the accumulation of bancor beyond some level. Bancor was the only form in which balance of payments surpluses could have been accumulated under Keynes's proposal. That particular aspect of Keynes's grand scheme has long gone the way of the dodo, and deserves to remain dead, but many, perhaps especially Americans, have regretted the demise of the proposal to penalize surplus countries beyond some point, to render the system more symmetrical between surplus and deficit countries. (Most deficit countries, with the exception of reserve centres, are already obliged to live within the constraints imposed by a finite stock of reserves; the aim of the proposal is to extend a similar discipline to surplus countries.)

Robert Triffin (1960) argued that the Bretton Woods system had an inherent failing, in that it relied upon an increasing supply of a national currency (the US dollar) for increasing liquidity over time, yet the dollar needed to remain scarce to preserve confidence in its gold convertibility. The Triffin dilemma therefore posited that the world must either run short of international liquidity (if the USA corrected its payments deficit), or it would prove impractical to preserve the right of central banks to convert dollars into gold (in the absence of adjustment). In the event, the USA did not adjust its (overall[1]) balance of payments deficit, and as a result President Nixon was obliged to close the gold window on 15 August 1971.

An attempt was made to forestall the Triffin dilemma by the creation of a new reserve asset, called Special Drawing Rights (SDRs),[2] intended to supplement gold. Initially negotiations were confined to the industrial countries and the notion was to create a reserve asset called a Composite Reserve Unit (CRU) that would be backed by, and distributed only to, them. However, then the IMF made the case that there was no reason to exclude some of its members just because they happened to be labelled 'developing', and this was accepted. In another innovative act, the negotiators concluded that this asset did not need to be 'backed': like money, it would derive its value from the assurance that it would be accepted by others. The negotiations eventually succeeded and a new reserve asset was created. The creation of the SDR was

1 The USA remained in current account surplus in most years throughout the Bretton Woods period, but its current account surpluses were outweighed by its capital exports, resulting in a reserve loss. There were endless discussions of the 'right' way to measure a deficit.

2 Why did they pick such an anodyne name? Because the negotiators were daggers drawn by the question as to whether they were creating money or credit and therefore sought a term that could be interpreted either way.

agreed at the IMF/World Bank Annual Meeting in Rio de Janeiro in 1967, the necessary changes to the Articles were passed in 1969, and the first allocation took place on 1 January 1970.

However, it proved far too small a step to survive the US decision to switch to an expansionary monetary policy in 1970. Large outflows from the dollar resumed, obliging the USA to suspend the gold convertibility of the dollar in August 1971. Other countries were then faced by the need either to accumulate inconvertible dollars or to float their currencies. The main industrial countries reluctantly chose floating in the short run, but sought then to negotiate a new set of parities involving a modest dollar devaluation and some other even more modest changes of other par values, which were agreed at the Smithsonian in late 1971.[3]

The Smithsonian Agreement was regarded as the first step in restoring a reformed international monetary system that would succeed Bretton Woods. The second step was supposed to be negotiated, for which purpose a Committee of Twenty (representing the 20 chairs in the Fund's Executive Board at the time, denoted C-20) was created. The industrial countries agreed that the Bretton Woods system had collapsed because of a lack of appropriate pressures to adjust, but unfortunately there was no meeting of minds on what pressures were missing: the Europeans argued that what was missing was a pressure on the USA (because of the dollar's reserve role), while the USA (reversing its position prior to Bretton Woods) argued that the problem was the lack of pressures on surplus countries. It never apparently occurred to anyone influential that both were right, and that a reformed system that would work needs to incorporate both.

Of course, there is not much point in having appropriate adjustment pressures if there are no effective adjustment instruments, which the C-20 ruled out by expressing continued fealty to the adjustable peg. This had recently proven itself an unworkable way of changing exchange rates in a timely fashion, although the evidence had again shown a change in exchange rates to be an essential part of the mechanism of adjustment between sovereign countries. So the C-20 condemned itself to futility by never reaching agreement on either of the aspects of adjustment. Apart from declaring that par values were to be expressed in SDRs, which is incompatible with the basket valuation of the SDR that was adopted as a by-product of the negotiations, the committee was actually quite sensible on liquidity. (Meanwhile the developing countries, which were then a sideshow, spent their capital in urging that SDRs be allocated in a way that would increase real resource flows to them.)

Despite its protestations of continuing loyalty to the adjustable peg, exchange rates among the main industrial countries started to float during the C-20. This arose as a result of the dollar again coming under strain, twice.

3 President Nixon hailed this as 'the most significant monetary agreement in the history of the world', which reflects poorly on his knowledge of international monetary economics.

The first time was met by a new devaluation of the dollar. Pressure again arose only two weeks later, and this time the authorities reacted with a general float – accompanied by assurances that the move was temporary. The C-20 wound itself up in 1974, using the first oil price increase as an excuse. In fact, that was quite irrelevant (no great changes in exchange rates were called for by the oil price increase): the relevant fact is that there was no shared vision of the form that a reformed system should take. Eventually the world reconciled itself to living indefinitely with the non-system that had emerged, as expressed in the revised Articles of the IMF (endorsed at the Jamaica Meeting of the Interim Committee in 1966), which contained (Article IV.2(b)) the duty of choosing between:

> (i) the maintenance by a member of a value for its currency in terms of the special drawing right or another denominator, other than gold, selected by the member, or (ii) cooperative arrangements by which members maintain the value of their currencies in relation to the value of the currency or currencies of other members, or (iii) other exchange arrangements of a member's choice.

During the early period of floating, a really significant intellectual development occurred. This was publication of the 'reference rate proposal' by Wilfred Ethier and Charles I. Bloomfield (see their 1975 essay, although the proposal was first developed for a conference the preceding year). The proposal held that countries that floated should do so subject to one rule: that intervention (or any other policy move designed to influence the exchange rate) should never be such as to push rates *away* from an internationally agreed reference rate.

There has been only one important development relevant to this debate over the last 40 years, which is the realization that the Triffin dilemma is far more general than he initially portrayed it, which was widely interpreted as a proposition about the Bretton Woods system. The fact is that *any* system that depends on one or two *national* currencies serving as international reserves is bound to lead in a sufficiently long run to erosion of trust in those currencies, provided only that the growth rate of the reserve centre(s) is not abnormally high.

While the aim of this book is to suggest how one could redesign the international monetary system, there were several other motivations for continuing to write rather than taking life easy after I retired. In the first place, I felt that my writing over many years came close to a comprehensive redesign of the international monetary system but had not been properly pulled together. In particular, since my own work has largely focused on adjustment, it may give the impression of indifference to the liquidity issues, which is quite wrong. Second, having given what I thought of as a fairly routine seminar at the Getúlio Vargas Foundation in Rio de Janeiro, I was quite surprised to understand that what I was talking about was unfamiliar to many of those

present. Third, I recalled reading a newspaper account of the 2013 Jackson Hole conference in which the author commented that the central bankers seemed to have given up all thoughts of international monetary reform, as a result of which the world was destined to suffer endlessly repeated crises. The report of the *Palais-Royal* group is an important starting point, but the intention in writing the book was also to draw on the whole history laid out above.

2 The context

The world has changed radically since the global financial crisis. Whereas it used to be taken for granted that the world was becoming inexorably more laissez-faire, it is now recognized that the world has some serious choices to make. While the IMF seemed to have become set in its ways, it has recently unveiled a series of new products. This chapter is about three recent developments that are particularly germane to the topic of this book.

The *Palais-Royal* Initiative was the product of the most influential group calling for international monetary reform since the world moved to what many of us have characterized as an international monetary non-system in the wake of the move to floating exchange rates in 1972. The group was convened by Michel Camdessus, Alexandre Lamfalussy and the late Tommaso Padoa-Schioppa, and also included 15 other former ministers, governors, the head of an international institution, and senior officials concerned with international monetary policy. It concluded by issuing a report (in 2011) called *Reform of the International Monetary System: A Cooperative Approach for the Twenty First Century.*[1] It was planned to have the report discussed by the G20 in 2011 at their meeting in Cannes, but this hope fell victim to the European debt crisis.

Among the several new products to have been unveiled by the IMF in recent years, we devote attention to the 'External Sector Reports'. These reports are above all devoted to an attempt to give meaning to the concept of 'external balance' at which countries aim. They also contain the IMF's views on the policies that countries are pursuing, which is the aspect that concerns us here.

A third initiative is reviewed in this chapter: the Cline-Williamson studies of 2008–12 (subsequent to my retirement, taken over exclusively by Cline). They cover the same general field as the External Sector Reports of the IMF, although

1 The report was signed by Sergey Aleksashenko, Hamad Al Sayari, Jack T. Boorman, Michel Camdessus, Andrew Crockett, Guillermo de la Dehesa, Arminio Fraga, Toyoo Gyohten, Xiaolian Hu, André Icard, Horst Koehler, Alexandre Lamfalussy, Guillermo Ortiz, Tommaso Padoa-Schioppa, Maria Ramos, Y. Venugopal Reddy, Edwin M. Truman and Paul A. Volcker.

with less emphasis on the concept of external balance while leaving some latitude for country choice, and using a quite different approach. Since they are used in Chapter 10, with the assumption that the Fund would have reached similar judgements, it is useful to outline the basic suppositions here.

The *Palais-Royal* Report

The report started with the global crisis of 2008, and proceeded to laud the important role played by policy coordination (in particular, the London summit of 2009) in response to the crisis. It noted with approval that the emerging markets had contributed to this effort. It also noted that several international financial reforms had been implemented, adopted, or were being considered,[2] but it indicated concern that some vulnerabilities remained, that the lessons of the crisis were being forgotten in parts of the finance industry, and that there had been essentially no progress made on international monetary reform. It diagnosed this as weak on:

a *an ineffective adjustment process*, which permits indefinitely large current account imbalances;
b *financial excesses and destabilizing capital flows*, there being no discipline on asset bubbles or capital flows, and a lack of assurance that the system can always cope without a lender of last resort;
c *excessive exchange rate fluctuations and deviations from fundamentals*; and
d *excessive expansion of international reserves* (as a result of neither demand nor supply of reserves being subject to collective decision making).

The report goes on to note the lack of effective global governance to ensure that national decisions are mutually consistent, which it attributes to (a) the old assumption that if each country maintains its house in order and does not 'manipulate' its exchange rate, that would guarantee global stability; (b) the absence of a shared analytical framework for assessing spillover effects; and (c) the 'gitimacy deficit' of the IMF. It deplores the failure to make timely adjustments to the governance structure of the IMF. It notes the urgency of reform.

I find myself in very substantial agreement with this report, which indeed follows closely the mainstream arguments that I attributed above, *inter alia*, to Keynes and Triffin. There is one major exception to this endorsement, which concerns proposition (d) above. I admit that in this particular case it is me rather than the report that is out of line with received opinion, but I must confess that on this issue I find both the report and received wisdom

2 Several of these, mainly concerned with regulation, have subsequently been implemented, but the report's remark about the absence of international monetary reform still holds good.

singularly unconvincing. Received wisdom is expressed in the provision in the existing Articles of the Fund, according to which SDRs should be created 'to meet the long-term global need [to] … avoid economic stagnation and deflation as well as excess demand and inflation in the world' (Article XVIII, 1 (c)). This Article seems to me hopelessly out-dated. It was written on the assumption that the world was on a fixed-rate system, which implies that the demand for reserves – which are needed primarily to act as a buffer stock – bears some relationship to the level of income. It follows that the supply of reserves can be varied in an attempt to guide the course of nominal income (the 'International Quantity Theory', as it was frequently called when SDRs were first created, and at the first conference on SDRs convened by the Fund; see IMF 1970).

This is patently not the case in the present 'system', where reserves are held by countries for motives that vary enormously. To most East Asian countries, they are held primarily for self-insurance, as a result of their having experienced the East Asian crisis of 1997 and watched the West laugh at them. To most Middle Eastern countries, they are held as a long-term investment, with the borderline between reserves and sovereign wealth funds being completely arbitrary. To most floaters, they are held primarily to avoid the trouble of getting rid of them, in a volume that is heavily influenced by what was inherited from the past.[3] Some countries probably hold their reserves for a mix of those motives. However, there is no reason to suppose that any of these countries would increase their income if presented with additional reserves, or conversely that the fact that one country increases its reserves has an expansionary impact elsewhere. Those to which the original logic applies are restricted to countries that still have a fixed exchange rate with the centre of the system, i.e. excluding members of the euro. The largest of these countries is Ecuador, or maybe Venezuela, if it is counted as still on a fixed-rate system.

I also find myself in disagreement with the initial part of point (b). Disequilibrating capital flows have always been with us, and while one can deal with parts of the problem (e.g. by not going back to the adjustable peg), there is no reason to suppose that the problem would disappear with any desirable type of international monetary reform. Certainly neither the report nor this book proposes a solution.

Where in fact I believe the *Palais-Royal* group to have a point is not in regard to reserves, but in regard to privately held liquidity. In the past the custom was either to ignore private international liquidity entirely, or else to add it to reserves, by which it was swamped. Privately held international liquidity seems to me to be an interesting variable about which little is known, for the reason that it has not customarily been measured. I would strongly favour starting to measure it, and then deciding whether we need to orient policy with a view to controlling it. The joint Bank for International Settlements (BIS)/IMF study that is proposed in the report's Suggestion 9 strikes me as the right way to start.

3 Floaters also use their currency reserves in order to transact with the IMF.

Chapter 2 of the *Palais-Royal* Report is called 'Economic and Financial Policies'. It starts with a discussion of policy spillovers, emphasizing that 'even when policies are appropriate for a country's own stability, they may have adverse spillovers on others'. The conclusion drawn is that IMF policy surveillance should be strengthened. There then follow six suggestions regarding the strengthening of surveillance:

- Suggestion 1: that countries subscribe to an explicit obligation to ensure that their policies are consistent with global stability.
- Suggestion 2: that the IMF should adopt norms for current account imbalances, real effective exchange rates, measures of capital flows, changes in reserve holdings, the inflation rate, fiscal deficit and government debt ratio.
- Suggestion 3: that persistent breach of a norm should trigger a consultation procedure and possibly remedial action.
- Suggestion 4: that all countries should be subject to the same rules, but priority be given to systemically relevant countries.
- Suggestion 5: that the IMF give incentives (such as automatic qualification for the Flexible Credit Line (FCL) and Precautionary Credit Line (PCL), now renamed the Precautionary and Liquidity Line (PLL)), for full compliance with the norms.
- Suggestion 6: that the IMF should be able to impose graduated remedial actions on countries that persistently violate one or more norms.

In several cases the recommendations are expressed more diplomatically than is done above, urging, for example, 'strong consideration' of whether to grant the IMF the right to punish countries that violate norms.

Attempting to do all these things through IMF surveillance seems to me a mistake. To understand why, consider the typical US Congressman's reaction to the assertion that policy should be modified by surveillance 'when policies are appropriate for a country's own stability, [but] they … have adverse spillovers on others'. The average Congressman regards the Federal Reserve System (or 'Fed') and the US Treasury as responsible for promoting US interests, and the proposal that they should be prepared to modify US policy because of spillovers on, say, Brazil will not be appealing. There is an alternative: to persuade countries to subscribe to rules that incorporate the most significant spillovers. These change countries' calculus of what policies are appropriate for their own wellbeing. In deciding whether to subscribe to rules, Congressmen will be able to see the benefits that would accrue from other countries also abiding by the same rules, and because it is an exchange of obligations rather than a unilateral concession, there will be less inclination to dismiss this as unacceptable.

Chapter 3 of the *Palais-Royal* Report deals with exchange rates. It asserts that the exchange rate regime is at the heart of the international monetary system, and that exchange rates need to be reasonably stable and in line with fundamentals. It recognizes that exchange rate instability, or misalignments,

can arise either from government policies or from the market. It concludes that there is a need to make 'countries' obligations on exchange rate policies more specific, including possibly through the use of benchmarks based on macroeconomic fundamentals'. At the end there are two suggestions:

- Suggestion 7: that *the IMF develop globally consistent exchange rate 'norms'*.
- Suggestion 8: that each country *would be expected to refrain from pursuing policies that push or keep the exchange rate away from its norm*.

The latter will be recognized as the reference rate proposal of Ethier and Bloomfield, although the report does not acknowledge this intellectual antecedent. In Chapter 5 we develop a proposal for how the IMF should calculate the exchange rate norms.

Chapter 4 of the *Palais-Royal* Report is headed 'Global Liquidity'. It argues that in the run-up to the crisis there was unsustainable global expansion facilitated by rapid credit growth and resulting in both a commodity price boom and an asset price boom. When the crisis struck, liquidity evaporated and there was a scramble for hard-currency financing. It notes that from peak to trough, global capital inflows fell from some 20% of gross domestic product (GDP) to under 2%. The chapter argues that this had something to do with 'liquidity', that defining this as reserves is inadequate, but does not take the extra step of questioning (as I have done) whether reserves belong in a useful liquidity concept at all. The remainder of the chapter is expressed by the suggestions that follow:

- Suggestion 9: that the IMF and BIS should work together towards a shared approach for a better measurement and surveillance of global liquidity.
- Suggestion 10: that central banks [et al.] of systemically relevant economies should conduct their policies taking into account the need for broadly appropriate global liquidity conditions.

It is difficult to object to these two proposals, despite worries about Congressional reaction to Suggestion 10, until we know the content of the global liquidity concept, something on which we currently are awaiting a view. The remaining two suggestions deal with discrete topics about which I certainly would not quarrel:

- Suggestion 11 essentially endorses the new IMF view on capital controls.
- Suggestion 12 calls for the IMF to be enabled to work as a global lender of last resort 'with appropriate safeguards'.

Chapter 5 of the *Palais-Royal* Report is headed 'The Role of the SDR'. It raised the question as to whether a multi-polar world economy can be adequately addressed by the use of one or more national currencies, or whether a non-national currency unit may have a role to play. It states the background

of the current SDR. It puts forward three suggestions, with the caveat that these have not been developed fully but that there was 'a near consensus amongst the group in proposing that the subject merits serious discussion'. The suggestions were:

- Suggestion 13: that the scope for the SDR to play a greater role in the international monetary system should be examined. The examples cited were a resumption of regular SDR allocations; the institution of procedures permitting SDR allocations in exceptional circumstances; reconsideration of a substitution account; and the use of the SDR in the private sector.
- Suggestion 14 concerned the SDR basket, and is essentially fulfilled already.
- Suggestion 15 was that consideration be given to using the SDR as an incentive to improve the working of the adjustment process, e.g. by conditioning SDR allocations on the observance of norms.

The serious discussion called for by the *Palais-Royal* Report took place in an SDR working party sponsored by the Triffin International Foundation (2014). This group also presented its endorsed proposals in the form of suggestions, numbered A–I. The first set of proposals relate to the official sector:

(A) The SDR should have a greater international public role, by converting the IMF's General Resources Account to an SDR basis, by inviting international organizations that are not using the SDR as their unit of account to do so, and by the IMF presenting statistics in terms of SDRs.
(B) The IMF should be enabled to issue SDRs as a last resort in a crisis situation.
(C) The IMF should resume SDR allocations, although two proposals for deviating from quotas as the allocative key deserve to be considered.
(D) Member countries should be allowed periodically to convert reserve currencies to SDRs, by presenting a portfolio of the component currencies in the proportions stipulated in the definition of the SDR to the Fund.
(E) The interest rate on the SDR should be the average of medium-term interest rates of the component currencies.
(F) The renminbi should be admitted to the basket as soon as possible.

The next set of proposals relate to encouragement of an active private sector SDR market:

(G) The official sector should take the lead in providing appropriate structures, such as clearing arrangements, suited to the functioning of an active SDR market.
(H) International institutions and national authorities should start operating in private SDRs, e.g. by issuing SDR-denominated debt.
(I) The IMF should name a limited number of private banks as holders of SDRs, so as to link official and private SDRs.

Since I was a member of the working party that composed the report, it will not surprise readers that I endorse all the proposals. Perhaps I should explain that Suggestion E is motivated by a concern that SDRs are often outcompeted by currencies because countries do not stick with assets that traditionally qualified as reserves, but frequently search for a higher yield by holding obligations like medium-term bonds or Fannie Mae obligations.

The final chapter of the *Palais-Royal* Report deals with governance of the international monetary system. It points to three particular problems: the lack of a formal structure linking the G20 with the IMF; the tendency of the peer review process to act as peer protection; and the legitimacy deficit of the IMF. It also makes three suggestions:

- Suggestion 16: in order to combine effectiveness and legitimacy, the group advocated a three-level structure based on constituencies, consisting of (a) the heads of government or State, meeting sparingly; (b) the finance ministers and central bank governors, who should meet as the IMF Council and replace both the International Monetary and Financial Committee (IMFC) and the G20 Ministers; and (c) the executive directors, who would oversee the work of the IMF and the appointment of the managing director.
- Suggestion 17: in order to give a stronger voice to global interest of the system [sic], it suggested establishing a Global Advisory Committee (GAC) made up of eminent independent personalities.
- Suggestion 18: because regional organizations are becoming powerful in some areas, it advocated commissioning a study of the modalities of their representation and relations with the IMF.

Suggestion 16 is taken up subsequently in Chapter 3. Suggestion 17 strikes me as excellent. Although I am not an enthusiast for studying topics to death, I am inclined to favour Suggestion 18 too.

'External Sector Reports' of the IMF

The IMF has been preparing these reports for three years, possibly in response to the call in the *Palais-Royal* Report for strengthened surveillance and certainly in response to the need for improved surveillance perceived within the IMF. It does not aim to cover the whole of the field covered by the *Palais-Royal* Report, but only the macroeconomic elements, although it also covers net international investment positions. A limitation of these reports is that they are confined to 28 leading countries (plus the euro area). (Some countries are omitted from some exercises, or at least the results are not published.)

The essence of the reports is an attempt to estimate the difference between actual current account imbalances and what they ideally should be, this difference representing a policy problem that is described as an 'external

imbalance'. The level of what they ideally should be is described as 'those estimated by staff as consistent with fundamentals and desirable policies'. These estimates are internally consistent; that is, they add up to zero, so that an increase in one country's surplus is matched by a higher deficit elsewhere. External imbalances are caused by 'distortions'. It may be that their elimination requires a different exchange rate, but exchange rates are determined within the model and so a berserk exchange rate is never the primary cause. Any of a series of policies (e.g. fiscal policy, capital controls) might be the primary cause, and then the exchange rate adjusts endogenously once this underlying cause is removed. An attempt is made to distribute the factors responsible for 2014 imbalances among social protection, capital controls and intervention, foreign (global) fiscal policy, credit, and domestic fiscal policy (IMF 2014: figure A10). It turns out that despite the term 'desirable policies', the staff do not really offer judgements on what levels of social protection are ideal, but run regressions and take the norm as being ideal.

The primary difference between the Fund model and the Cline-Williamson model to be discussed shortly concerns the treatment of the exchange rate. It seems that the Fund assumes that the exchange rate is determined along with the external imbalance and cannot vary independently of it or, therefore, cause it.

An interesting, and important, finding of the reports is that cyclical adjustment makes very little difference. Presumably this finding holds because in this instance boom and recession are largely synchronous worldwide, so that when the worldwide cycle is pulling up exports, the country's own prosperity is pulling up its imports. It is interesting to see the extent to which cyclical adjustment makes little difference, but it is not clear if this is a general property that can be relied on at all times. If booms and recessions are out of phase worldwide, one would expect that the effects of a country's own cycle would reinforce rather than counteract the effect on the current account, leading to significant differences between unadjusted and cyclically adjusted values.

The reports basically seek to develop estimates of 'ESR Gaps', where ESR stands for External Sector Report. A major input is the 'EBA Gaps', where EBA means External Balance Assessment. The EBA was introduced in 2012. It gives a regression-based approach to estimating the current account, where the independent variables comprise policy variables (social expenditure of the government, fiscal policy, capital account restrictions, and intervention), lagged net foreign assets, a financial centre dummy, traditional variables (per capita GDP; the oil trade balance, for countries where it is large; the dependency ratio; population growth; speed of ageing; forecast growth five years in the future), measures of uncertainty, own currency's share in world reserves, and cyclical variables (the output gap, the departure of the terms of trade from a norm). Conspicuously, the list of variables explaining the current account does not include the exchange rate, presumably because the exchange rate is assumed to adjust endogenously. It is important to note that each variable is defined relative to the average situation in the world as a whole, which is why the figures are internally consistent.

The EBA gap is the sum of the four 'policy gaps' and the residual of the EBA equation explaining the current account, where the 'policy gaps' are the product of the diversion of the respective policy variables from their norms and the relevant coefficient from the current account equation. (For example, the policy gap due to fiscal factors is the size of the deviation from the ideal, in practice average, fiscal behaviour times the coefficient of the fiscal factor in the current account equation.)

ESR gaps are basically set equal to the EBA gaps, except when the staff feel that a large residual in the EBA model is due to distortions not captured by the EBA model (rather than fundamentals that have been missed by the model). Apparently the staff have a meeting in which they decide whether there is a reason for overriding the EBA model, in which case they have to make an offsetting adjustment so that the sum of ESR gaps is unaffected.

The EBA models exchange rates in a similar way. That is, the exchange rate is postulated to be a function of the same set of variables as the current account, and a regression equation is estimated. The equations are found to be generally less reliable that those for current accounts, because they cannot use the same range of cross-country information; in particular, real exchange rate indices cannot be compared across countries, so that estimates of exchange rate norms are strongly influenced by the exchange rate's own past average. These estimates are then used to derive policy gaps, and hence estimates of equilibrium exchange rates. However, the current account and equilibrium exchange rates are reported as ranges (which does not deter the Fund from using the centre of the range when convenient).

The Cline-Williamson studies

The Cline-Williamson studies are focused much more narrowly on the exchange rate, and do not assume that this cannot vary independently. They postulate a causation from the exchange rate to the current account. (It is recognized that the current account is also strongly influenced by income, but by working with data four or five years in the future we assume that cyclical positions will by then have reverted to normal.) They seek to elucidate the fundamental equilibrium exchange rates, or FEERs,[4] that would correspond to a given set of current account targets and outlooks for the balance of payments. The reason for seeking to estimate the FEER is the view that countries are inviting trouble by letting exchange rates deviate too far from the FEER, and accordingly the view that the FEER would make a suitable reference rate.

Every six months, after publication of a new World Economic Outlook shows the Fund's revised views on medium-term outlooks for the balance of payments of the principal countries, Cline and Williamson (now Cline alone)

4 The FEER is defined as the rate that would achieve the country's target current account in the medium term, when cyclical forces have worked themselves out. This is interpreted as the time horizon of the World Economic Outlook.

publish a study updating their estimates of FEERs. This uses the country's 'target current account', which is the equivalent of what current accounts ideally should be in the analysis of the IMF. It is taken to be the actual forecast unless that falls outside a range (between −3% and +3% of GDP) that is taken to be non-threatening. The reason for regarding anything outside that range as threatening is the rule of thumb, which has been sanctified by a few academic studies, that −3% of GDP is a threshold beyond which countries run the risk of a debt crisis. The +3% of GDP limit is intended to ensure some symmetry in the system. In other words, the Cline-Williamson studies (unlike the IMF's External Sector Reports) do not take a view on what the current account should be (still less on the level of social protection or other components of expenditure), except to insist that it not be so greatly different from zero as to pose the danger of a crisis. Just what point there is in nominal sovereignty if countries are not free to pick those things for themselves, at least within some range, is unclear. (Some of us doubt that there is much point in sovereignty in an interdependent world anyway.)

The major way in which this has led to a difference of results between the IMF's External Sector Reports and the Cline-Williamson model is not in regard to the exchange rates or current account balances of major countries like the USA or People's Republic of China, or the European Union (EU), but regarding small countries like Switzerland, Singapore and Sweden. Apart from Saudi Arabia, with a gigantic oil surplus in a good year for the oil price, two of the countries with the largest current accounts relative to GDP of the 28 countries in the IMF study in 2013 were Singapore and Switzerland, along with the Netherlands (in sixth place was Sweden, after also Germany). Both these countries had 'staff assessed norms' practically as large – in the case of Switzerland, actually larger – than their current account surpluses. Hence Switzerland was shown by the IMF as if anything undervalued, and Singapore as only marginally overvalued! The IMF does not explain why the staff assessed such an enormous norm for Switzerland (10% of GDP), except to say that the Swiss current account is exaggerated by accounting conventions[5] and that Switzerland is a financial centre. The latter fact also helps explain the high values the staff assess for the norms of the current accounts of Singapore, Hong Kong, and Sweden, which they state to be a financial centre for the Nordic countries. On the other hand, apparently the UK was not given the status of a financial centre in the EBA assessment, since the staff-assessed norm for the UK is the fourth most negative (relative to GDP) of the 28 countries.

5 Switzerland is home to many multinational corporations, owned predominantly by foreigners, yet their profits are entirely attributed to Switzerland except when the owners report receiving dividends (which never happens with retained earnings). The bias is estimated by the IMF to be worth between 2% and 3% of GDP. (The Cline-Williamson model also incorporates this correction, so that is not the source of the different assessment of Switzerland.)

Concluding remarks

Among concepts that will be extensively utilized in this study, the *Palais-Royal* group advocated establishing norms for exchange rates and discouraging intervention that would tend to push the exchange rate away from its norm. The IMF's External Sector Reports place the major emphasis on estimating the external sector imbalances, but they also offer a technique for estimating equilibrium exchange rates. The Cline-Williamson studies concentrate on finding estimates of fundamental equilibrium exchange rates, which could be used directly as estimates of the reference rates that should be employed in a reformed system.

None of the three studies examined in this chapter is much concerned with the liquidity issues (although these were the focus of the study group sponsored by the Triffin International Foundation). Chapters 6 and 7, which deal with these issues, start almost from scratch.

3 The case for making the IMF the lender of last resort

There is an overwhelming case for one reform irrespective of what decisions are made with regard to adjustment incentives or the form in which future reserves are to be held. This is to recognize the IMF as the lender of last resort on an international level, and to place it in a position of being always able to fulfil that function.

The function of lender of last resort is well established at the national level, normally being a part of the operations of central banks. (Placing this power in the central bank is typical and there are good reasons for it, but it is not inevitable, as Fischer (2000) has emphasized.) The 'rules of the game' were laid out by Walter Bagehot (1873) in the nineteenth century. When faced with a speculative run on one of its member banks (more likely, a run on many), a central bank should lend freely at a penal interest rate against collateral that would be good under non-crisis conditions. This policy ensures that banks will not flippantly borrow, but when faced with a real crisis will choose to do so, thus permitting their survival until more tranquil times prevail.

At the international level, the IMF has long sought to play a similar role, by lending to countries that are running out of reserves. It is true that this can be because a country overspends on either the current or capital account, and initially the Fund was reluctant to finance capital withdrawals (indeed, its Articles forbid it to do so). However, in recent years the IMF has increasingly been called in when one of its members suffers a withdrawal of capital because of a lack of market confidence in its policies.

There are two differences from the domestic case. First, since the IMF lacks sovereignty over the country, it has to ensure repayment by assuring itself of certain policies in the borrowing member. Since countries often get into trouble by the policies they pursue, it frequently proves necessary to ensure that policies will change: this is the purpose of the famous (or infamous) Letters of Intent. Second, the IMF is limited in the liquidity it can deploy, whereas a central bank has unlimited liquidity in domestic currency. (That is the advantage of giving the lender of last resort role to the central bank.)

Existing arrangements

There are a number of ways in which countries that run short of liquidity can seek to replenish their holdings. In addition to drawing on IMF facilities, there are several regional arrangements. (Under normal circumstances most or all of the capital inflow is provided by the private sector, but countries run short of liquidity precisely when the private sector is unwilling to provide net inflows, so we add nothing on this score.) Then there are central bank swaps. A useful summary of these possibilities, on which I have drawn, is Henning (2015).

It was envisaged in the early days of the IMF that the Fund would be responsible for all emergency lending. Backstopped by the General Arrangements to Borrow (GAB, from the 1960s) and the New Arrangements to Borrow (NAB, from the 1990s), it did play this role until recently, although the borrowing of a large member typically caused anxiety about the Fund's ability to repeat the exercise. As recounted below, it is still the main source of finance for the smaller countries. Historically, it typically lent to those that became illiquid due to their own policies, by running current account deficits; the appropriate cure is some mix of deflation and devaluation (see Chapter 4). However, it then made the error of urging the same mix of policies on the East Asian countries that were suffering a capital account crisis in 1997–98. This gave it a (deservedly) bad name in the region. It also initiated a search for forms of lending that did not presuppose that countries' own actions were responsible for their deficits, as a result of which the Fund introduced the FCL and what is now termed the PLL. The former demands that the country show 'very strong' performance in each of the nine criteria listed in the first column of Table 3.1. The latter requires that a country show 'strong' performance in a majority of the fields listed in the second column of Table 3.1, and that there be no strong underperformance in any of them. Both facilities are available to members on a precautionary basis, i.e. countries can sign up to them in advance of encountering balance of payments difficulties.

Only three countries (Mexico, Colombia and Poland) have applied for and been granted FCLs. This disappointed the Fund. It seemed that many countries were reluctant to borrow because of the danger of being rejected, or the feared negative impact on confidence if they were subsequently downgraded. A solution for this difficulty was proposed (but has not, at least yet, been adopted): that the Fund should automatically assess members' eligibility without publicizing which countries qualify (or when qualification is lost). This became known as prequalification.

The main regions that have been active in establishing regional arrangements are Europe and East Asia, plus a rudimentary BRICS (Brazil, Russia, India, China, South Africa) facility. In Europe there has been a long history of providing limited lending; the Europeans already had a mechanism in place to support the exchange rate arrangements of the European Monetary

Table 3.1 IMF criteria for FCL and PLL qualification

FCL	*PLL*
Very strong performance on each of the criteria listed	*Strong performance in the majority of fields and no strong underperformance in any*
1. Sustainable external positions 2. A capital account position dominated by private flows 3. A track record of steady sovereign access to international capital markets on favourable terms 4. A reserve position that is relatively comfortable when the arrangement is requested on a precautionary basis	I. External position and market access
5. Sound public finance, including a sustainable public debt position determined by a rigorous and systemic debt sustainability analysis	II. Fiscal policy
6. Low and stable inflation, in the context of sound monetary and exchange rate policy	III. Monetary policy
7. Absence of a bank solvency problem that poses an immediate threat of a systemic banking crisis 8. Effective financial sector supervision	IV. Financial sector soundness and supervision
9. Data transparency and integrity	V Data adequacy

Source: IMF, *Review of Flexible Credit Line*, Policy Paper, 27 January 2014, p. 16.

System (EMS), although the institutions have been revised since the outbreak of the euro crisis. Currently support is provided by the European Stability Mechanism. In the case of East Asia, concern was first manifest in the wake of the East Asian crisis and initially resulted in the Chiang Mai initiative by the countries of the Association of Southeast Asian Nations (ASEAN). The ASEAN countries have now been joined by China, Japan and the Republic of Korea (South Korea) to form ASEAN+3, which aims to establish a Macroeconomic Research Office and has launched a precautionary line of credit. The BRICS announced in July 2014 that they were establishing a precautionary short-term balance of payments facility.

During the peak of the world financial crisis, the Fed extended swap agreements to the European Central Bank (ECB) and 13 countries: nine traditional advanced countries (Japan, the UK, Switzerland, Australia, New Zealand, Canada, Denmark, Norway and Sweden), plus Mexico, Brazil, South Korea and Singapore. The ECB made swaps with four non-euro EU members (not including the UK), plus Switzerland and the USA. The Bank of Japan made one swap agreement, with South Korea. The Fed refused

swaps with other developing countries, after debating the issue of inequitable treatment of those on the margin of exclusion versus the lack of sufficient knowledge to justify giving swaps to everyone. It eventually settled on a division of labour with the IMF, which would take care of the smaller countries. It was argued that this was an efficient division, since the Fed looked after those countries in which IMF liquidity might be a constraint while the Fund possessed detailed institutional knowledge of the smaller countries which the Fed lacked.

A proposal

It was suggested by Richard Cooper, at a meeting of the World Economic Forum in Dubai, that it would be relatively simple to eliminate the second difference (a potential lack of liquidity) between a national central bank and the IMF. Suppose that some legitimate political authority declares that an economic emergency exists, whereupon the IMF gains the right to issue unlimited quantities of SDRs to itself for on-lending to its member countries. It would of course be necessary to ensure that the obligations to accept SDRs rose in parallel to the quantity of SDRs, but the IMF seems to have been quite good in terms of ensuring that the agreements to trade SDRs voluntarily have risen in parallel to the quantity of SDRs, thus ensuring that there has been no need to resort to designation for quite some time.[1] The fact that the SDR issue would be authorized officially would avoid the danger of the IMF abusing this authority, while the ability of the authorizing body to prescribe that a certain proportion (up to 100%) of the SDR issue would be temporary would give it powerful leverage. There therefore seems no reason to fear that this proposal would lead to excessive liquidity creation.

Having the IMF act as, in effect, a lender of next-to-last resort creates repeated rumours that the Fund is going to be too illiquid to help countries in trouble. There is no problem in the IMF's lending to its smaller member countries, but every time a relatively large country draws, there are worried discussions about whether the Fund can afford to support its members on this scale. The concern is less with the Fund becoming illiquid because of its current operation than with whether it could afford the next such operation. Even though this has never yet resulted in a major problem, one can envisage circumstances in which this could be problematic.

1 'For more than two decades, the SDR market has functioned through voluntary trading arrangements. Under these arrangements a number of members and one prescribed holder have volunteered to buy or sell SDRs within limits defined by their respective arrangements. Following the 2009 SDR allocations, the number and size of the voluntary arrangements has been expanded to ensure continued liquidity of the voluntary SDR market. The number of voluntary SDR trading arrangements now stands at 32, including 19 new arrangements since the 2009 SDR allocations' (IMF Factsheet on SDRs, 3 October 2014).

A particularly vivid example of the problem occurred in 2008–09. On that occasion the Fund was held responsible for making loans only to the smaller countries (for which purpose it was given money by the London summit), while the Fed made swap agreements (as detailed earlier) with a number of central banks. A perpetuation of this arrangement will mean that the Fund ceases to deal as lender with the larger countries, which would undermine the original concept of the Fund as a credit cooperative.

The *Palais Royal* Report also favoured turning the IMF into a lender of last resort, albeit slightly more hesitantly. Its Suggestion 12 read:

> *The IMF should work with relevant governments, central banks, and regional pools to put in place, with appropriate safeguards, permanent crisis financing mechanisms akin to a global lender of last resort.* To constitute an effective alternative to further precautionary reserve accumulation, the mechanisms for activation of such arrangements should be rules-based … To increase the Fund's capacity to mobilize resources, the following ideas merit consideration: large-scale borrowing from markets; emergency SDR allocations (with a streamlined decision-making process); and contingent loan/swap operations with key central banks and reserve pools.

Two differences between Cooper and the *Palais-Royal* Report stand out. First, the *Palais-Royal* Report explicitly mentions the importance of reducing precautionary reserve accumulation, and second, it considers a range of options for financing the IMF. I agree with the *Palais-Royal* Report that an important part of the motivation for turning the IMF into a lender of last resort is the hope that this will be viewed by East Asian countries as diminishing the pressure for precautionary reserve accumulation. On the consideration of a range of options for financing the IMF, however, I regard one option as clearly superior to the others, and that is the second option considered by the *Palais-Royal* Report, which is the same as that favoured by Cooper. (It is superior because it would be unambiguously expansionary, in circumstances where expansion is devoutly to be desired.)

Amid the general scepticism about the future of the SDR manifest in the third of the Fund's conferences on the SDR (Mussa, Boughton and Isard 1996), both Marcello de Cecco/Francesco Giavazzi and György Surányi spoke of the benefits of making the Fund a lender of last resort for developing and transitional economies, though without envisaging using SDRs for this purpose.

The nature of the political authority

Clearly a crucial determinant of the acceptability of the Cooper proposal is the nature of the political authority that would give the go-ahead to suspending the normal constraints on global monetary expansion.

One might assume that this should be the Council of the IMF, which has been incorporated in the Fund's Articles.[2] Unfortunately, agreement in principle on the right governance structure did not translate into an agreement to implement it in the near term, so that the world still gets by with interim arrangements. The equivalent to the Council is currently described as the International Monetary and Financial Committee (IMFC). This is composed of the finance ministers of the countries that compose the IMF Board. However, there is a parallel organization described as the G20 finance ministers and central bank governors, comprising in practice much the same individuals, who play second fiddle to their heads of government, who meet once a year and discuss, *inter alia*, economic issues outside any formal system of governance.

There is a strong case for rationalizing this structure along the lines advocated in the *Palais-Royal* Report (discussion of Suggestion 16):

> The system of governance would be based on a three-level integrated architecture, comprised of:
>
> - The Heads of Government or State, meeting sparingly (e.g., once a year) except in times of crisis;
> - The Finance Ministers and Central Bank Governors, taking strategic decisions related to the functioning of the international monetary system in the framework of a 'Council' as envisaged in the Fund's Articles of Agreement. This Council could be activated to take over the functions of the IMFC and the G20 ministers and governors, as far as the latter's role in the global economic, monetary and financial domains is concerned. This would require an amendment to ensure a representation of Central Banks in the Council, as it is the case in the current G20 structure; and
> - Executive Directors overseeing the work of the IMF, and its managing director.

If this were the structure of governance, then one would surely want the first tier, rather than the Council, to have the responsibility of declaring an economic emergency and thus triggering the right of the IMF to issue its own SDRs. In general one would want the decision made at the highest political level, although this presents a problem when, as now, the highest political level is informal and stands outside any structure recognized by international law.

2 The creation of a Council was first discussed in the 'Outline of Reform', para. 31. It was subsequently incorporated in the Fund's Articles. It has been endorsed by both of the influential committees that have considered Fund governance in recent years, the *Palais-Royal* Report (Suggestion 16) and the IMF Independent Evaluation Office (2008).

If and when the structure of IMF governance is cleaned up to look like the three-tier structure described above, the question will arise as to whether this should be free-standing governance, or whether it should become a part of the United Nations (UN) system (as per the initial conception). In that event the top-level committee, the heads of state or government, would presumably become a sub-committee of the Economic and Social Council. Or, maybe better, the top-level committee might become the Economic and Social Council. We shall, however, ignore this possibility, on the grounds that the *de facto* independence of the IMF and World Bank is generally accepted.

In the meantime the political authority for declaring an emergency is liable to remain confused. It is hoped that this will not matter unduly, so that a G20 edict is acted on by the IMFC and is in practice implemented by the executive directors, despite the absence of formal relationships calling for compliance.

The practical operation of the proposal

The IMF would consider whether to grant a loan, just as now. If it decided to do so, the IMF would make a loan of SDRs rather than of currencies.[3] It would obtain the SDRs by issuing them, which would give it an SDR asset matched by an obligation to service the SDRs. It would then pass the SDRs on to the borrowing member, receiving 'Fund credit' as its asset in exchange. The borrowing member might be able to use its SDRs directly in intervention in support of its currency, if the world had already moved to a system where intervention in SDRs were possible and there were extensive private holdings of SDRs. Alternatively, if the world had not reached that stage, it would obtain dollars with which it could intervene from another member. Under present arrangements this would involve going to one of the other members that has declared a willingness to trade SDRs voluntarily, and exchanging SDRs for dollars. Or, of course, it might merely want to show increased reserves, in which case it might hold the SDRs in its reserves.

When it became time to repay the loan, the borrowing member, presumably by then in a surplus position, would either be able to obtain the SDRs directly in intervention, or – if the world had still not moved to SDR intervention and private SDR holdings – would obtain dollars by intervention. The dollars would then be swapped for SDRs, by going to one of the countries that have declared they stand ready to trade SDRs, or if necessary by designation. The member country would then repay the IMF, which might extinguish the SDRs, lend them to another member or temporarily hold them.

3 In his latest discussion of the subject, Polak (1999) retreated from the proposal he had earlier made (Polak 1979), which is that made here, and argued that it would be simpler to make the loans in currencies rather than SDRs. This is true so long as the world has not adopted SDR intervention, but we wish to make provision for the eventual arrival of this stage and retain the idea of making the loans in SDRs in the hope of accelerating SDR intervention.

The range of circumstances in which the proposal would help

Unlike many of the proposals in this book, this one could be implemented in a wide range of conditions. It could be tacked on to the present system. Alternatively, it could be a part of a system that uses the SDR. It might be helpful under any of the four scenarios mentioned in Chapter 6 – under a perpetuation of the dollar standard, a multicurrency reserve system, a yuan standard, or an SDR standard. The desirability of this reform is independent of how much, or how little, other reforms are accomplished.

It is perfectly true that this proposal would not have helped very often, because one assumes that it would not have been invoked except in 2008, but in that year it would have been a great relief to know that there was available a simple mechanism that could be deployed which could have provided the needed liquidity. Moreover, the expectation that it would be deployed might have done something to prevent the preceding scramble for reserves, insofar as the desire for reserves was motivated by a belief that a reserve build-up was the only way of defending against the danger of a new speculative run. Of course, giving the Fund the power to issue unlimited reserves for on-lending to countries in a general crisis might not persuade countries that it can be relied upon to come to their aid in times of crisis, and might therefore do little to reduce the demand for reserves for self-insurance. That is the main reason for desiring a better distribution of influence in the Fund. However, one cannot sensibly urge the Fund to do things that are not within its power, so making the Fund a dependable lender of last resort is an indispensable first step.

Perhaps the biggest benefit of the proposal is that it might alleviate the search that is now in progress for alternative mechanisms that could supply liquidity in a crisis. Insofar as countries believe that the Fund could be relied on to support them in a crisis situation, there would be no need for the array of precautionary facilities and central bank swaps detailed above.

One should not hold the expectation that anti-crisis measures will not be used very often against them. Insofar as they help deter a crisis, the less often they are used the more successful they should be counted.

4 How to adjust

The Committee of Twenty (C-20) that was tasked with redesigning the international monetary system following the collapse of Bretton Woods had one great fault: it never got around to a serious discussion of the techniques of adjustment, and in particular of the role of the exchange rate. This chapter concerns what it should have said.

The Meade theorem

The 'normal' rules for adjustment of the balance of payments were laid out with great clarity by James Meade in 1951. He argued that most countries would wish to pursue what he called 'internal balance', meaning a particular level of demand on domestic resources that would represent 'full employment', subsequently often described as an optimal point on the Phillips curve showing the trade-off between inflation and unemployment. He also postulated, as seemed reasonable in the post-war years when he wrote, that countries had a well-defined balance of payments target for the current account that they sought to achieve, which he labelled 'external balance'. The IMF has sought to provide a contemporary interpretation of this in the concept of a zero external imbalance, as introduced in Chapter 2.

The Meade analysis is illustrated in Figure 4.1.[1] This has on the vertical axis price competiveness (so that a decrease in competitiveness is shown by a lower value, such as that caused by a higher exchange rate, in the Anglo-Saxon rather than the Latin meaning of that term), while the horizontal axis shows a measure of domestic demand. Internal balance is then shown by a downward sloping schedule such as IB (internal balance) in the figure; a higher level of domestic demand would tend to cause excess demand unless it were offset by lower price competitiveness so as to draw in resources from abroad. External balance (EB) is shown by an upward sloping line as in the figure; an increase of domestic demand would lead to a current account

1 The diagram was developed independently by two Australian economists, W.E.G. Salter (1959) and Trevor Swan (1960). The version published here has been drawn by the author.

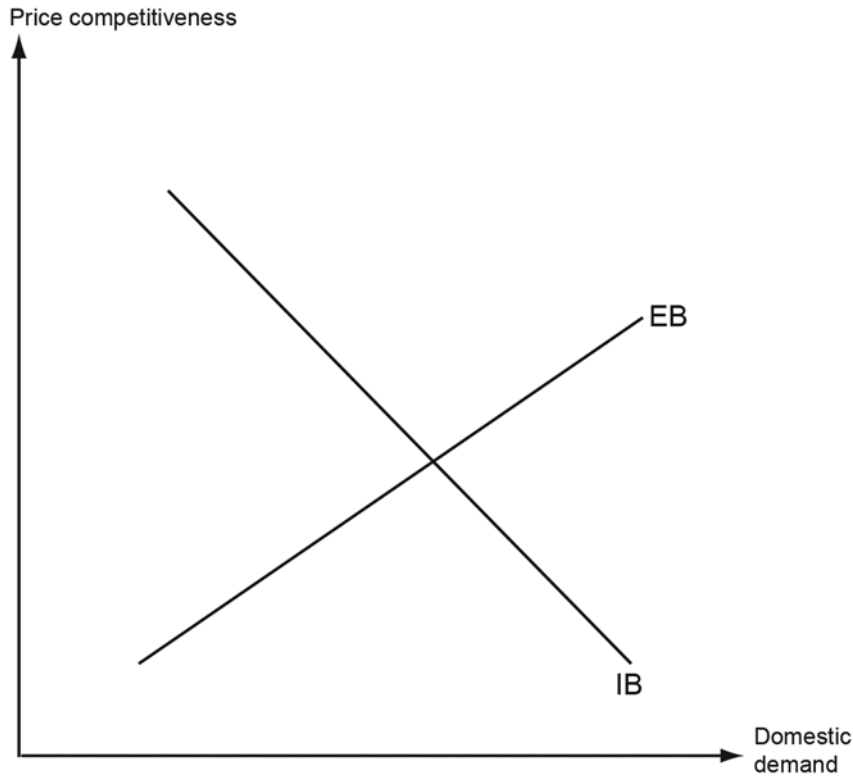

Figure 4.1 Illustration of the Meade Theorem

deficit unless it were offset by increased price competitiveness. (This assumes that the elasticities are not 'perverse', which is not only supported – at least for the long run – by numerous empirical studies, but its failure would imply that a country suffering a payments deficit could cure its problem by revaluing.)

The main result Meade established was that simultaneous achievement of the two objectives of internal and external balance required the use of the two instruments of demand-management policy and competitive prices. The simplest way of restoring price competitiveness is by a reduction in the exchange rate (i.e. a devaluation).[2] Similarly, the simplest method of reducing price

2 Robert Mundell (1962) sought to overturn this argument by introducing capital mobility. He argued that when faced with a payments deficit, a judicious combination of monetary tightening and fiscal loosening could leave a country at full employment but would improve the capital account (and thus the overall balance of payments). The answer is that this amounts to financing a (current account) deficit rather than adjusting away a deficit, and is thus at best a temporary solution (see Williamson 1971). Of course, there are times when financing a deficit is appropriate; the point is that there are also times when it is not.

competitiveness is to increase the exchange rate (i.e. to revalue). Ergo, a country with a balance of payments deficit at internal balance should devalue, while a country that showed a surplus when at internal balance should revalue.

This chapter is concerned with establishing the rules for adjustment that should be employed when adjustment is called for. It first discusses how the Meade rule described above relates to countries in four types of situation:

a Countries that float without much intervention (like the USA, UK and Australia).
b Countries that have entered a currency union (like the member countries of the euro).
c Countries that regard themselves as too small to constitute an optimal currency area, but which nevertheless seek to have their own money (like the former British West Indies).
d 'Typical' emerging market countries (like India).

After discussing these four cases, the chapter proceeds to consider two essential issues: whether intervention can be expected to be an effective instrument for influencing exchange rates; and whether it could be a sufficient instrument, or what additional instruments are available for influencing the balance of payments outcome. The chapter concludes by formally defining what is meant by the reference rate proposal and a demonstration that it would not impede adjustment along the lines described.

Floating

Most countries that float believe that its great advantage is that they thereby rid themselves of the need to worry about an external balance target. The exchange rate depreciates automatically, leading to a stronger current account balance, if the overall balance of payments is in deficit, and it appreciates in the converse situation. In other words, countries that float automatically satisfy Meade's criterion of combining internal balance with a satisfactory external position, though the meaning of external balance has to be interpreted as the current account being the negative of the capital account (which means that a deficit or surplus in the current account is financed by the market). A floating exchange rate without intervention guarantees that the net flow of capital exactly offsets the current account, and so long as the authorities are content to live with the current account that results from the exchange rate and the level of internal balance, there is no problem. Problems only arise if the exchange rate floats to a level where the country's objectives, such as a change in indebtedness, are threatened. However, for most countries most of the time, a floating rate does indeed free the country from having to worry about external balance. They automatically get the benefit of the Meade theorem.

Moreover, if the country is importing more capital than the market feels comfortable about financing, then there will be a tendency for the exchange

rate to depreciate. Thus one does not need to worry unduly about the theoretical possibility that a country will import more capital in response to a current account deficit rather than depreciate; the market will take care of that.

Can a situation arise in which a rate floats to a level inconsistent with important national objectives? The answer seems to be yes. Think of the USA's deficit of the past 15 or 20 years: American indebtedness has increased too fast for US comfort. This may be because not all countries float: when there are important parts of the world economy that peg their exchange rates, the exchange rates of the remainder (especially clearly, of those to which they peg) may not adjust so as to guarantee that the market is financing the total deficit. Or else 'the market' has to be interpreted to include intervention by foreign authorities. However, even if all countries were to float, a situation could arise in which one country's current account (which is equal to the negative of its net capital flow by virtue of the assumption that it floats without intervention) led to increasing net indebtedness at a sufficient rate to be regarded as a problem. It is in such cases, but importantly only in such cases (for a country that floats), that one needs a conscious policy to adjust the current account.

There are, of course, other mechanisms of adjustment of the current account besides income and exchange rates. They are excluded from consideration here because either they are worth doing anyway (like improving productivity), or they are not worth doing at all (like raising tariffs). Admittedly it may be nationally advantageous for a country to raise a tariff that is below the 'optimal' level, but this involves imposing greater losses on other countries, and presumably it got below the optimal level as part of a bargain with other countries, so their welfare should also be considered. From a global standpoint, trade restrictions are always a sub-optimal tool of adjustment.

The G7/20 appear to take it as axiomatic that it will necessarily thwart adjustment to have a view on where they would like to see the exchange rate. (See, for example, their commitments to avoid exchange rate targeting after their meeting in February 2013, which were apparently prompted by a fear of renewed Japanese intervention.) It may well be true that one could often have competitive policies if one were to leave targets to unfettered national discretion, but this makes the case for having the targets set by an international process, such as that which I endeavour to lay out in what follows. It is confusing issues to inveigh against targeting per se when what is really objected to is what is thought of as a typical result of targeting without an agreed framework.

Countries that float without intervention can be allowed to decide their own policies for adjustment, for the reason that the decision to float amounts to choice of adjustment policy. There is no danger of their failing to follow through by neglecting to secure compatible price movements.

Countries that have entered a monetary union

A country that enters a monetary union agrees that henceforth it will not have a separate exchange rate. One may feel that some members of the EU were not sufficiently cautious before entering the euro and abandoning the right to change their exchange rate (as some of us argued at the time; see Williamson 1994), but carelessness does not bestow a right to withdraw. Bygones are bygones; the problem is how best to conduct policy in the present environment.

When adjustment has to be effected, as in the Southern European countries after 2010 (when the markets woke up to the fact that the Southern European countries were on an unsustainable trajectory), there is no alternative but to follow deflationary policies.[3] This reduces income in the short run, which cuts imports and therefore tends to improve the current account of the balance of payments, at the cost of a departure from internal balance. In the somewhat longer run the deflationary policies will also reduce internal prices, and thereby tend to improve international competitiveness. Given that international competitiveness is measured by ep^*/p (where e is the nominal exchange rate defined Anglo-Saxon style as units of foreign currency per unit of national currency, p^* is foreign – or world – prices, and p is the domestic price level), the *only* way of improving competitiveness is by reducing p. Adjustment is complete only when prices have been reduced to such an extent that the country is able to restore internal balance and still enjoy a sufficiently strong current account position. Adjustment at a fixed exchange rate is undoubtedly painful – more painful than devaluing would have been, as concluded by Meade: a recent example is provided by Greece. On the other hand, entering a monetary union is an historic decision that may have been taken in the hope of breaking an inflationary spiral. To withdraw from the monetary union when the going gets rough makes sense only if the country is prepared to abandon this aim, for re-entering a monetary union (even if it were to be permitted) would certainly carry less conviction once it were demonstrated that entry was not necessarily permanent.

Can this be avoided by a common fiscal policy? A common fiscal policy could do several things: it could aid in financing a temporary fiscal deficit until adjustment occurs; it could provide the central authorities with the assurance that adjustment will eventually occur, because they control the levers needed to make it do so; or (if so designed) it could result in a permanent fiscal transfer to the afflicted country which would reduce the amount of adjustment that it needs to undertake. It is quite wrong to assume, as is common in Germany, that the latter is implied by the notion of a common fiscal policy, but in no case, not even the latter, does it permit dispensing with

3 An ideal is to accompany deflationary policies with an incomes policy, so as to secure that the bulk of the deflation shows up in falling prices rather than declining output. The practicality of this is challenged by much of the economics profession.

a need for adjustment. As we have seen in Europe in the years since 2010, adjustment with a fixed exchange rate can be a very unpleasant process.

Small countries

A number of countries pursue a policy of fixing the exchange rate. This can be logical in the case of small countries, too small to constitute an optimal currency area.

Of the various criteria that have been suggested as characterizing an optimal currency area (i.e. a region within which it is sensible to keep exchange rates fixed, or to share a single currency), the two most compelling are that they share a common labour market[4] (since this improves the chance of adjustment via the labour market), and that they have very open economies (since then domestic events have little influence on inflation).[5] There seems no reason why the fact that countries are small should make them have labour market characteristics similar to those to which they peg (although if they have a choice of peg this might be a factor in their choice), but small economies are without a doubt very open. If the exchange rate floated, it would push the inflation rate around. Conversely, the exchange rate is not a good instrument for changing the price of domestic in terms of foreign goods, nor the price of tradables in terms of non-tradables (the two definitions of the terms of trade).

Even if a small country has difficulty in adjusting, for example to a reduction in the demand for its exports, one needs to ask whether it would be greatly aided by devaluation. What it needs is a reduction in the foreign price of those goods that it exports, or is capable of exporting. Devaluation is a relatively efficient way of securing this when the induced domestic price rise is small, but when the country is small, it will import most things, and therefore devaluation will lead to a relatively large rise in the domestic price level.

In the case of a small country, exporters are more likely to realize that they are bound to suffer a real income loss in response to a decline in export demand, and they may in consequence cut their prices spontaneously, thus diminishing the point of devaluation. The case for treating a small country differently is essentially that devaluation provides a much less efficacious way of improving the balance of payments when it is accompanied by large changes in the internal price level.

Countries that fix their exchange rates, whether because they are small or because they have entered a monetary union, have to decide how to manage adjustment. There is a need for conscious policy, and thus possibly for international supervision, except maybe on *de minimis* grounds. The subject is returned to in the next chapter.

4 See the original paper of Mundell (1961).
5 See the follow-up comment of McKinnon (1963).

'Typical' emerging market countries

The typical emerging market country is described by the IMF as floating because it has no specified exchange rate objective even though it intervenes frequently, in contrast to the classic definition of floating (largely followed by the industrial countries) in which the rate is normally set by market forces alone. It is important to understand how this case works.

Unfortunately, it is not possible to give as complete an answer as with the traditional policies already analysed. The fact that the authorities retain their ability to make important choices in the light of developments implies the impossibility of reaching general conclusions about the consequences of policies, but it is precisely a desire to be able to influence their policies, and to make sure that they operate in the general interest, that motivates such proposals as that for reference rates. There would be little need for the reference rate proposal if we lived in a world where each country had either a floating rate (in the traditional sense) or a permanently fixed rate.

When a 'typical' emerging market country receives an inflow of foreign exchange, it has to decide whether to allow an appreciation of its exchange rate or to use it to expand the level of reserves. This decision is not made automatically. It follows that these countries, like fixed-rate countries, have to expect a modicum of international supervision of the adjustment process. The fact that they can allow exchange rate adjustment gives them a big advantage over countries with a fixed rate; they are not condemned to the agony of changing p in the formula ep^*/p. However, the fact that changes in e are discretionary rather than automatic implies that legislating this regime does not end the matter.

Presumably the frequent appearance in G20 communiqués of admonitions not to target exchange rates are an attempt by the G20 powers-that-be to persuade these countries to move in the direction of a classic free float. While this does have the advantage of making changes in ep^*/p more automatic, it also has disadvantages: it may prevent the emerging markets from aiming to maintain competitiveness, it may interfere with their anti-cyclical policies, and it certainly pushes them in the direction of following the developed countries in the style of policy.

Can intervention be successful?

There is no point in authorizing policy actions to influence exchange rates unless exchange rates can be influenced by policy actions like intervention. Many economists have expressed scepticism. The G7 once set up a committee charged with investigating the issue, and this too was sceptical (Jurgensen 1983), but we know that sufficient intervention, associated with stringent controls on the inflow of capital, can prevent appreciation; we have the recent case of China and its US$4 trillion reserve acquisition to prove it. It seems to me highly implausible that something works if certain policies are pushed to

an extreme, but have no effect whatsoever if the policies applied are somewhat less extreme. It seems far more likely that there is really an effect that we do not succeed in measuring.

In addition, there has been a series of studies that show to my satisfaction (though this is not universally shared) evidence that intervention influences exchange rates.[6] I hypothesize that the failure to find detectable effects of intervention in some studies was a consequence of the modest scale on which intervention was conducted, and that a larger scale of intervention would have resulted in effects that were easier to detect. If correct, the policy implication is that intervention needs to be conducted on a sufficient scale to be an effective instrument.

Is intervention alone sufficient?

Of course it is not. The Meade theorem does not assert that relative prices, let alone exchange rate policy, is the only influence on the balance of payments, or even the current account. (This seems to be the interpretation of the late Ronald McKinnon, in e.g. 2013.) It acknowledges also the central role of income, as well as holding other relevant variables constant, on the grounds that they are either exogenous, or that they should not (e.g. because of international agreements) be varied as tools of payments adjustment. What it says is, given a target level of domestic income and inherited (or otherwise frozen) values of the other variables, there is in the long run a unique relationship between the level of the exchange rate and the balance of payments on current account.

This is, of course, an exaggeration. The Chinese example cited above was not a case of pure intervention. It was conducted in association with other policies, notably stringent controls on the inflow of capital. (There are also economists who assert that capital controls have no effect on exchange rates; presumably they are all believers in the efficacy of intervention, for I do not know how otherwise they would explain the Chinese phenomenon. Or perhaps they are not aware of it.) However, what capital controls influence is the inflow or outflow of capital rather than the current account, so that they are instruments for financing a deficit in the current account rather than changing (i.e. adjusting) it.

Interesting intellectually as is the question of whether intervention alone enables a country to influence its exchange rate, it is not actually a particularly policy-relevant question. For almost any country will seek to use the least-cost approach, and this in practice usually involves a combination of intervention and other instruments, of which capital controls are normally regarded as the most potent (now that current account controls are minimal, and cannot in most cases be varied as instruments for changing payments positions

6 See Frankel and Dominguez (1993), Sarno and Taylor (2001), Catte, Galli and Rebecchini (1994).

without violating international commitments). The relevant question is whether there are additional instruments that can supplement these two. Once one recognizes that capital controls come in different shapes and sizes, then an additional question concerns the best form of capital controls.

There are in fact several additional policy instruments, although all of them are limited in their impact, and none changes the basic insight of Meade. For example, instead of imposing capital controls, one could raise the reserve ratio of the commercial banks. This would limit the monetary expansion that results from a given increase in the monetary base. The problem is that high reserve ratios impose their own costs: they diminish the efficiency of the financial system as borrowers are diverted away from the banks toward lenders that escape the requirement of high reserve ratios. Hence governments will tend to be reluctant to raise reserve ratios very far or very long. Another way of achieving *de facto* sterilization without issuing additional bonds is to require government-controlled financial institutions to switch their deposits from the commercial banks to the central bank. The problem with such a strategy is that it implies reducing the return to the savers in those institutions, so once again governments find limits. One can liberalize current account transactions (if there are some left to liberalize), or capital outflows, or tighten fiscal policy, or increase private savings (if the government deploys effective policy weapons), or encourage a faster rate of inflation, or withdraw measures that have encouraged private capital inflows. In some cases they operate by changing the capital account, in which case they finance rather than adjust a current account imbalance, and in other cases by changing the current account, in which case they are non-optimal, if the country had already achieved its optimal situation from an internal standpoint before (e.g. if the country had already achieved the arrangements for savings that it desired, then being obliged to do more for the sake of the balance of payments would leave it worse off).

So far as different forms of capital controls are concerned, the point on which practically everyone agrees is that one does not want to discourage foreign direct investment (FDI). This is both because it is regarded as a channel for introducing new techniques into the country, and because of evidence that FDI is relatively sticky (that is, that it takes more than a temporary crisis to provoke a capital outflow). Opinion is more divided on the merits of controls on long-term capital flows and investments in equity positions. Some people point to the need for long-term capital and the likelihood that equity investors will take losses if they sell in a market panic to justify avoiding controls on these items. They favour limiting the imposition of capital controls to the penalization of short-term capital. However, others assert that there are always possibilities of resale of long-term assets and point to the high mobility of equity to justify controls on long-term assets and equity. Many people feel that if there are to be capital controls, they should apply with full force only to bank capital and other short-term loans.

Most controls to date have taken the form either of administrative prohibition of certain types of transactions, or else of requirements to make deposits (typically for a year) at the central bank, or else to pay a certain fraction of the loan as a tax. Most economists prefer the two latter to administrative edicts, primarily because they leave the ultimate decision whether or not to invest to the individual or firm, which may have particular reasons for wanting to see an individual transaction go through. However, in all cases the thing that one influences is the capital rather than the current account. One still needs an instrument to adjust the current account in the long term, and for this purpose Meade is still relevant.

The reference rate proposal

The reference rate proposal is that countries should agree that they will not take any action, like intervention, that would have the effect of pushing the exchange rate *away* from the reference rate (reference rates are, of course, defined in terms of real effective exchange rates: the import of 'real' is that it is the exchange rate adjusted for relative inflation, and the import of 'effective' is that it is the trade-weighted multilateral exchange rate that is relevant). The intention is, obviously, to name a reference rate that is the equilibrium rate.

Suppose first that this intention is realized. Then when the rate is (enough) above equilibrium, intervention to sell the domestic currency (and buy reserves) is permitted, and when the exchange rate is (sufficiently) below equilibrium, it can buy domestic currency (in exchange for reserves). In other words, one is permitted to intervene to limit a misalignment, but not to defend or magnify it. The reference rate proposal would permit (but not oblige) a country to intervene[7] with the intention of preventing a larger misalignment once the rate had reached the edge of 'the band'.

It is envisaged that the reference rate would be surrounded by a band within which intervention would be prohibited. If the band width were set at zero, countries would be entitled – though not obliged – to intervene to prevent a rate stronger or weaker than equilibrium, i.e. to act as though they were in a fixed-rate system – with the important qualification that they would only be entitled to defend an estimate of the equilibrium rate that had been endorsed by the international community. A negative band width – i.e. permitting countries to push rates up if a certain degree above the reference rate and down if below it – would be possible, but would create a danger of inconsistent intervention, and is therefore not further discussed. Having a positive band surrounding the reference rate within which all intervention is prohibited would seem altogether more natural. Within that band rates would

7 Whether intervention would suffice to influence the exchange rate is clearly a crucial question. We already discussed this issue, and concluded that some effect is probable, but that intervention will often be associated with capital controls.

be obliged to float, as they might – at the discretion of the country's authorities – even when outside the band.

Second, consider the case where the reference rate named is not equal to the equilibrium rate; suppose that it is greater. Then the country would be prohibited from intervening when confronted by an overvaluation, but it would get extra leeway in confronting an undervaluation. If there is (like today) a preponderance of desires for less highly valued currencies, this is advantageous. However, since a lower reference rate for one country implies higher rates for others, each country's self-interest is to ensure that others do not get away with inappropriately weak reference rates. Since an inappropriately weak rate that was exploited to intervene would lead to a reserve build-up, there would in due course appear a warning sign. (Of course, it is only a warning sign and not a certificate of misconduct: one also needs to examine the behaviour of speculative flows.) Because the reference rate named exceeded the actual equilibrium rate, the reference rate proposal would give a country less leeway to defend itself against an overvaluation, but the scope for limiting an undervaluation would be expanded. Indeed, if the reference rate named were α more than the equilibrium, and the reference rate is surrounded by margins β within which intervention is prohibited, the country would have scope to prevent an undervaluation at all if $\alpha > \beta$. In the event of a misestimation of the equilibrium rate, so long as the equilibrium rate falls within the margins, a country will not be allowed to intervene to defend a disequilibrium rate. A reason for picking a relatively wide band (high value of β) is that this minimizes the danger of countries intervening to defend disequilibrium rates.

The analysis is of course symmetrical in the case where the reference rate named is less than the equilibrium rate.

Is there any possibility of the existence of a reference rate impeding adjustment? Suppose that the reference rate named is higher than equilibrium, so that the country cannot intervene as readily when its currency is overvalued. Then in the event of a revaluation being called for, the country might be impeded from intervening to move the exchange rate higher. This (and the analogous impediment to intervening when a devaluation is required and the reference rate is too weak) appears to be the only case where a necessary adjustment is impeded. However, note (a) that one must assume that the government is ahead of the market in appreciating the need for adjustment; and (b) that this constraint would end if and when the need for revaluation expanded sufficiently so that reference rates were adjusted.

The intention is that the reference rate move with the latest estimate of equilibrium. So long as these latest estimates do not drag reality, in the way that they did when national capitals were in charge of making the estimates under the adjustable peg, this means that a system with reference rates could be expected to support adjustment as well as a system of free floating. Indeed, if (as some of us believe) an interaction of the official and private sectors is

the best way of setting exchange rates, this may accelerate needed adjustment while avoiding that which is unnecessary.

Most countries most of the time would leave the nominal reference rate unchanged between meetings of the Fund's Executive Board where the reference rates are reviewed (say, quarterly). In the case of a fast-inflating country, however, this practice would invite speculation. Consider a country that is inflating at 22% per annum in a world with an average inflation rate of 2%, i.e. an excess inflation of 20% per annum or 5% per quarter. Speculators would then know that the reference rate would probably be adjusted 5% (plus or minus any real change that might be decreed) at the next Board meeting. If β (the width of the band) was less than 5% and the country was defending its rate at the edge of the band (as it is entitled to do), speculators would anticipate a discontinuity in the rate after the Board meeting. That is a formula for trouble. In order to prevent such dangers arising, it would be simple to provide that in any country exceeding, say, 10% annual inflation the reference rate of the country would automatically be revised to the same real value as that approved at the most recent Board meeting after a given price index is published.

In recent years there has been considerable discussion of 'oral intervention' as a supplement to conventional intervention. Many governments have attempted to influence the behaviour of their exchange rate by telling the markets where they would like the exchange rate to be. There is not yet a large body of empirical results on the effectiveness of such policies, so propositions about these subjects are still in the nature of speculation (which has not prevented some economists dismissing these policies with great certainty). My own guess as to what will ultimately be established is that oral intervention will be found to be a potentially powerful tool when the actual rate is far from a short-run equilibrium and the government is urging a rate close to this equilibrium, but relatively weak in other circumstances. The critics of oral intervention will doubtless deny that such situations can arise: I am still waiting for their explanation of the dollar/euro rate in autumn 2000, or of the real/dollar rate in 2010–11, or a number of other instances.

The reference rate proposal would authorize intervention when the rate had strayed a defined difference from the reference rate, which by assumption is being set close to (ideally, at) equilibrium. The bottom line is that the reference rate proposal – assuming that the IMF does not prove totally inept in assigning reference rates – gives scope to use exchange rate policy to limit, but not totally to prevent, a market thirst for misalignment giving rise to perverse outcomes. However, there are some countries that will let the market rate stand, because they object to all intervention. That remains a right under the reference rate proposal, although naturally there is less presumption that adjustment will be equally prompt.

Do the markets have a 'thirst for misalignments'? By that phrase I certainly do not mean that they deliberately seek misalignments, since non-thinking entities cannot deliberately seek anything; I mean rather that the structure of the markets means that they are prone to produce misalignments from time to time. It

is well known that many market participants employ chartist techniques in their forecasting, and that widespread use of chartism tends to accentuate fluctuations.[8] Large fluctuations suggest the probability of misalignments, on the upside, downside or both. Hence, one should not dismiss the possibility of perverse cases arising in which the market imposes an inappropriate exchange rate on a country.

In short, the crucial point is that the reference rate proposal would not impede the use of exchange rate policy for securing adjustment.

Summary

Although the C-20 neglected to discuss the issue, a meeting of minds on how adjustment should be effected when it is called for is required for a reconstruction of the international monetary system. The rule proposed is that countries should aim as a priority to maintain 'internal balance', and that they should seek an exchange rate that will give them a satisfactory external situation when at internal balance (given their inherited price level, and the controls and taxes that, after negotiation with their partners, they prefer). This assumes that countries use the exchange rate as an instrument of adjustment, whether by floating or by adjusting the exchange rate consciously; in both cases they have the right (but not an obligation) to manage the rate if it floats beyond the band of the reference rate. Countries that for any reason peg – whether because they entered a monetary union, or they are too small for a policy of independent floating to make sense – have to accept that they will be required to pursue adjustment relative to their partners by inflation or deflation.

It is unfortunate that the G7/20 have taken to protesting against any intervention, presumably because they want to persuade emerging markets (genuinely) to float, rather than simply to dispense with an official exchange rate target. What they should be pressing for instead is the reference rate rule, as embodied in Suggestion 8 of the *Palais-Royal* Report, and international provisions for establishing acceptable targets (a summary of what might be involved is given in Chapter 5). Targeting a rate subject to those two constraints would seem to pose no threat, and indeed promises to do a lot of good.

So long as the composition of the balance of payments does not present a problem, countries that float 'cleanly' achieve an exchange rate that reconciles internal balance with a satisfactory external position automatically. If and when they become seriously concerned about the composition, the reference rate proposal allows them to intervene, at least in extreme situations. If countries choose to manage their exchange rates, the reference rate proposal will help them achieve a rate, provided it appears to be internationally consistent.

8 See De Grauwe and Grimaldi (2004), Frankel and Froot (1990).

5 When to adjust

This chapter considers the design of requirements for when to adjust the current account. There is a natural requirement for a deficit country to adjust when it encounters a reserve shortage, although it is true that the obligation is to adjust the overall balance of payments and that the country may choose to adopt changes that primarily affect the capital account. Within reason this is in fact a good solution, as it prevents the current account from having to adjust to every passing whim of investors. The problem arises if it is taken too far, since an excessive import of capital can lay the basis for a crisis. At some point there is need to adjust the current account, and it is better if this is done pre-emptively rather than under the stimulus of a crisis.

There is no similar pressure on surplus countries. The first part of this chapter traces the historical concerns with this issue, and the international debate as to whether it constitutes a problem. The second part of the chapter considers the issue of designing an appropriate mechanism under current circumstances. The third part of the chapter describes a possible solution to the problem of designing a mechanism. The fourth part of the chapter elaborates on this solution, in particular by discussing the international arrangements that would be needed. The fifth part of the chapter points out how the proposed mechanism would complement the work of the *Palais-Royal* group. The last part of the chapter gives reasons for believing the change in the system would be profound.

Historical concerns with surplus countries

John Maynard Keynes's vision of the international monetary system, as laid out in his writings prior to Bretton Woods,[1] included symmetrical adjustment pressures on surplus and deficit countries. The only asset that countries which ran a surplus on the overall balance of payments would acquire was to be bancor; and a country that acquired above a certain balance of bancor was to be subjected to an interest penalty. Similarly, the only asset that countries that ran a deficit on the overall balance of payments could pay was bancor, and a

1 See Volume 25 of Moggridge (1980).

country that fell below a certain balance of bancor was to be subjected to an interest penalty. The penalty was to have been automatic: it did not involve countries agreeing to be penalized as a result of a surveillance process. This proposal was vetoed by the USA, which in those days was (and assumed it always would be) a chronic surplus country.

The next attempt to introduce pressures to adjust on surplus countries was made, ironically, by the USA, after running consistent deficits (on the overall balance of payments)[2] for over a decade. It occurred during the C-20 negotiations that followed the breakdown of Bretton Woods. The proposal was that each country should accept an 'indicator system' which involved a target level of reserves, surrounded by two pairs of points: two warning points, closest to the target, and a lower and upper point. If a country breached a warning point, it would be expected to adopt adjustment measures, but there would be no requirement of any international supervision. On reaching the upper or lower point, a country would be required to adopt an adjustment programme deemed adequate by the Fund. The form of that adjustment programme was to be determined by national preferences (as noted in the previous chapter, the C-20 never developed a view of the form that adjustment should take). This proposal was rejected by the European countries, which tended to regard themselves as surplus countries and extrapolated that situation into the future too. (They also were consumed by worries about asymmetry, but the asymmetry that concerned them was that between the reserve centre, the USA, and other countries. Specifically, they were concerned about the lack of adjustment pressures on the reserve centre.) In the end, the C-20 negotiations fizzled out, and the world ended up with the non-system (which certainly specifies no rules) with which it has lived since 1973.

Various noises have been made since about the need to introduce pressures on surplus countries (especially by my former director, C. Fred Bergsten,[3] and by the *Palais-Royal* group[4]), but the only proposal to have been introduced formally into diplomatic discussions was for countries to aim to limit their current account imbalances to 4% of GDP in either direction. This suggestion was made by Treasury Secretary Timothy Geithner on behalf of the USA at the Seoul meeting of the G20 finance ministers in 2010. Although China had indicated previously that it might be amenable, in the end the proposal was rejected by all the major surplus countries, most emphatically by Germany, and accordingly no action was taken. It is difficult to see how this action would have been policed: it would raise serious concerns (since intentions are not always realized in this area) if countries were punished ex post for exceeding a 4% imbalance, while countries have wide discretion on what they forecast, even if they are honest. There have been suggestions that the German and Dutch current account surpluses are anti-social in view of the

2 It was still in current account surplus in most years.
3 See Bergsten and Gagnon (2012) or Bergsten (2012).
4 Camdessus et al. (2011).

adjustment policies required of the Southern European countries, and that Germany and the Netherlands have a duty to take action to help by curbing their surpluses in the interests of securing a better balance in Europe. (The EU subsequently did adopt a modified version of the proposal, in which members were supposed to be restricted to 4% of GDP on the deficit side and 6% on the surplus side. Germany and the Netherlands have since violated even this minimal requirement, without any consequences.)

If surplus countries spontaneously attempted to adjust their surpluses away, there would be no need for active pressures on them. In fact, surplus countries show no signs of adjusting. The contention that Germany and the Netherlands have a duty to assist cure European imbalances is refuted with the arguments that (a) the surpluses are earned on extra-European trade, and (b) running surpluses is a virtuous act. Even if in the first instance exports increase to the rest of the world (RoW), a surplus with the RoW may provoke the RoW into seeking rectification with the euro area, which may take the form of a surplus with Southern Europe. The second is wrong. Presumably even Germans admit that a surplus could be too large if, for example, it were achieved at the cost of national immiseration. By its nature, competitiveness[5] (and current account surpluses) has an interior optimum. Even if these truths were universally conceded, I should regard a pressure on surplus countries as an essential feature of a reformed system.

The design of pressures on surplus countries

I take the view that the system should attempt to deal with both of the asymmetries that were identified in the C-20 negotiations, though it is far simpler to deal with one (fortunately, the more serious one) than the other. Both need to be dealt with by changing the formal rules of the system to make it advantageous for countries to act in a social manner, and not consigned to be dealt with by 'surveillance', because in practice surveillance leads to a country modifying its actions only when it judges this particular act to be nationally advantageous.[6] So far as the 'special privilege' of the USA on account of the asymmetrical role of the dollar is concerned, we postpone

5 I understand by 'competitiveness' an ability to win orders. (In order to overcome the difficulty of competitiveness being potentially excessive, strange definitions are sometimes given, which make competitiveness essentially equivalent to productivity. These are *not* the same thing.)

6 It is taken for granted that national authorities do (and should) defend national interests; the point is that everyone can expect to benefit in the longer run through the mutual recognition of interdependence and rules that oblige countries to take account of externalities. However, if there are no rules and instead just surveillance, then each country rationally looks only at the sacrifice it is asked to make on this particular occasion, because it has no assurance that other countries will reciprocate.

treatment of this issue until Chapter 6. However, the failure to discipline surplus countries is an issue that has to be dealt with right now.

The indicator system envisaged by the USA in 1972 involved assigning to each country a target or normal level of reserves. There might have been opportunities to cheat in 1972, but for certain this solution is unavailable in 2015, when many countries have sovereign wealth funds and those that do not could easily create them if their reserves ever approached their 'upper point'. By the simple expedient of relabelling, surplus countries could thus avoid being subjected to any discipline.

Would it be possible to overcome this problem by adding other funds subject to government control, like sovereign wealth funds, to reserves and having the indicators apply to this composite variable? Only if one is prepared to proscribe the creation of major funds under government control. Think of the Norwegian sovereign wealth fund. Some of us regard it as much better for oil producers to continue producing oil and to swap their oil in the ground for paper assets held abroad, than to be prohibited from accumulating those assets with the probable corollary that they would cease producing so much oil. Admittedly the Norwegians could by-pass this requirement by securing that the assets are accumulated by the private rather than the public sector, but presumably one does not want the rules of the international system to dictate the boundary between the public and private sectors in each nominally sovereign country. An alternative might be to allow widespread derogations from the rules, assuming that the IMF acquired sufficient knowledge of each country to be able to judge when it merited a derogation. The problems arise in both the supposition that the IMF staff have sufficient knowledge and the willingness of the IMF Executive Board to abstain from promoting national interests.

The Keynes plan is not vulnerable to these objections, because all surpluses *had* to be held in the form of bancor. Could a solution along these lines work in 2015? To answer that question, ask whether it is conceivable that countries forgo all holdings of reserve currencies. If they agreed to do this, how then would they intervene to defend their floating currencies? (Keynes was planning for a fixed-rate system, in which all settlements went through central banks, so this necessity did not arise.) If bancor were allowed to be held by the private sector (a necessary condition for intervention to be practicable in bancor), one could not be certain – to put it mildly – of preventing evasion of adjustment obligations on the part of surplus countries by their placing some of their bancor assets with their commercial banks (which would be especially easy for countries with some nationalized banks, which means most countries). If all surpluses had to be held in bancor, presumably no sovereign wealth fund could hold external assets in a more remunerative form.

The conclusion seems inescapable: any definition of adjustment obligations in terms of reserves is no longer worth thinking of.

An alternative to reserves would be in terms of cumulative current account imbalances, but this immediately incurs the objection that it would tend to proscribe all capital movements. Suppose that a surplus country had run a

cumulative current account surplus such as to place it at the 'upper point', but that it had experienced capital outflows equal to its current account surplus. Then it would be told by the indicator system that it should reduce the rate of earning foreign exchange, despite the fact that it had no reserves. Clearly the indicator system only gives appropriate signals if there are no capital movements, and surely we do not want to proscribe all capital movements, for no one doubts that capital movements can be advantageous.

Does this imply that no indicator system can work? Not necessarily, but what it does imply is that any indicator system either has to be based on more sophisticated indicators or that it should be aimed at the flow current account imbalance without attempting to be concerned with stocks. Using the former approach, the indicators will have to be calculated by someone using concepts that can be questioned, in the way that indicators based on cyclically adjusted estimates are frequently questioned now. (It is taken for granted that a country with an unacceptably large surplus is given the chance to plead that it is temporary or that it has already taken measures to reduce its surplus to an acceptable figure, presumably before the IMF.)

The indicator that one would wish for is cumulative (since some base date) current account surpluses, possibly adjusted for certain capital flows.[7] Cumulation seems essential in order to avoid potentially penalizing a country for a temporary imbalance. FDI has perhaps the strongest claim for deduction (or addition),[8] so that one would end up with a cumulation of what has sometimes been called the 'basic balance'. Much more controversial would be deductions for long-term and equity capital, although a respectable case can be made for arguing the virtues of both. To refuse to deduct long-term capital flows would mean that many oil-producing countries which have no domestic multinationals nor widespread ownership of equities would be virtually prohibited from swapping their oil in exchange for foreign financial assets. To refuse to deduct equity flows would penalize domestic-based companies relative to foreign multinationals, which also seems perverse. The one thing that seems clear is that one should not deduct the remaining category of capital flows, namely short-term (including most bank) loans, since this would take one back to using reserves, with all the problems inherent in this that were discussed above.

How about the other approach mentioned above, of penalizing countries that have a large (on some measure) flow surplus? One needs to decide the period over which the flow is to be measured, recognizing that a shorter period will intensify the problem of penalizing countries that suffer a large

7 The IMF, in common with other official international organizations, has largely relabelled the 'capital account' as the 'financial account', and calls the 'capital account' a ragbag of minor categories that appear to be ignorable. This has the paradoxical consequence of including FDI in the financial accounts. We retain the original language.

8 On account of both its relative stickiness and the fact that it frequently acts as a conduit for importing technical change. See the discussion of capital controls in Chapter 4.

temporary imbalance. In practice, a flow would almost certainly be taken as the flow over a year. This would in fact be identical to using the cumulative current account surplus over the same 12-month period. The same issues would be encountered as discussed above if one wished to allow for swaps of underground resources for foreign financial assets – i.e. one would still have to determine which financial assets were to be included with the current account before reaching the critical cut-off point. Thus it seems unlikely that there would be a material difference between the two approaches.

However, an alternative is possible. It happens that this dovetails neatly with some previous work of mine.

The Williamson solution

Suppose that one were able to find a variable that is reasonably reliably related to the current account in the long run, but that is continuously observable and can be influenced in real time by the country's authorities. Think of requiring that it be held at a level consistent with an acceptable current account balance.

It will not surprise those acquainted with my previous writing that I regard the exchange rate as meeting those descriptions. Of course, there will always be economists prepared to testify that there is no relationship between the real exchange rate and the current account, or who deny that the real exchange rate can be influenced by changing the nominal exchange rate, and it will be necessary to overrule their objections. However, most economists would have no difficulty in endorsing those propositions. For the majority of countries – those not falling into any of the first three categories discussed in the last chapter, i.e. those that do not float 'cleanly', that have not locked their exchange rates in a currency union, and that are not 'small' – it seems quite unexceptionable to require them to refrain from actions that would tend to push their real exchange rates away from an agreed exchange rate target.

Consider the problem of the floaters. They profess not to have any payments or current account objectives (other than to make the capital account the obverse of the current account, which is inherent in floating), although one is not sure they would maintain that position if presented with something outside the range to which they have grown accustomed.[9] The solution we adopted in Cline and Williamson was to treat their current account target as the actual medium-run IMF forecast for their countries, assuming that it lay within the acceptable range (+/−3% of GDP). This appears to be consistent with their policy objective of not actively managing the exchange rate. If the IMF forecast of the current account lay outside the acceptable range, then we posited for them a target deficit (or surplus) of 3% of GDP. We argued that

9 The US dollar in 1985 provides a telling example: when it threatened the USA with an even bigger deficit, the USA called the Plaza meeting and cajoled its partners into actions that would devalue the dollar back to a more competitive, and familiar, range.

they should be seeking a different exchange rate, even though we knew perfectly well that some countries (like New Zealand) outside that range were unlikely to intervene in the exchange market. This seems to be a sensible attitude for the international community to adopt. That is, to accept passively a current account outcome and any exchange rate just so long as they do not threaten to produce an internationally unacceptable outcome, and to allow markets to behave perversely if they so desire but to rule out official actions encouraging perversity.

Consider next the issue of those countries without an independent currency because they have joined a currency union. The IMF might look only at the final result, their world level of competitiveness, but this has essentially two dimensions: (a) their competitiveness vis-à-vis, and relative to, their partners in the currency union; and (b) the competitiveness of the currency union as a whole on the world stage. The second, but not the first, is influenced by the exchange rate of the union, which may or may not be subject to national influence. If it is the first that presents a problem, there is no escaping adjustment via deflationary fiscal policy. The IMF has a duty to point this out, but needs to accept that restoring balance is in this case likely to need more time, and that exchange rate policy is not the key. The overall payments balance of the union as a whole is influenced by the exchange rate of the common currency, which should therefore be managed in a way expected to lead to satisfactory outcomes in the overall macroeconomy of the union.

Consider finally countries without an independent currency because they have concluded that they are too small to profit from one. These also have to go through the same conceptual two-stage process just described, though recognizing the fact that usually the critical variable is competitiveness vis-à-vis the currency to which they are pegged. If this is out of line, they need to resort to adjustment via deflation, which will again demand discipline and patience. If the first is out of line, there is nothing they can do about it but wait and hope.

On the whole, I do not consider that the case for an indirect targeting of current balances by exchange rate obligations is seriously compromised by floating, currency unions, or smallness. The biggest policy change required is of countries that have in the past intervened to thwart adjustment and maintain a surplus or deficit in excess of 3% of GDP, which would be required to cease. There would be no necessity to abandon a policy of 'clean floating' even in the event of the rate floating far away from one consistent with a reasonably balanced current account, although such countries would acquire the right to intervene in those circumstances. An important policy implication concerns the IMF, which needs to accept that it should not expect short-term rectification of the real exchange rate in the case of a country with a fixed-rate policy.

The design of a reference rate system

The proposal is therefore that large imbalances would be disciplined through a set of reference rates agreed in the IMF. Rather than contemplating fining

countries, or punishing them through trade sanctions, for having excessively large current account surpluses or deficits, it is proposed that countries should be prohibited from intervening to push their exchange rates away from the reference rates. Sanctions would be enforced only if countries deliberately intervened or otherwise attempted to manage their exchanges rates contrary to the rules of the reference rate system. This seems likely to be more enforceable.

This raises the question of how the reference rates would be agreed. I would envisage the following. The first step would be for countries to proclaim their current account objectives. These would be subject to maximum permitted imbalances. For example, Cline and I have declared anything exceeding 3% of GDP to be out of bounds;[10] an alternative suggested by my erstwhile colleagues Fred Bergsten and Joe Gagnon (2012) is for developed countries to be subject to a choice between zero and a 3% surplus, and for developing countries to have a choice between zero and a 3% deficit (on the grounds that this would guarantee that capital would not flow uphill). Countries that float would minimize the chance of gaining a right to intervene (which presumably they do not wish to do) by picking the IMF's out-year forecast of their current account balance as their target (provided they are allowed to, i.e. provided the out-year forecast is not in a range deemed internationally unacceptable).

It is true that the current account targets thus arrived at would not necessarily sum to zero. There are two ways of dealing with this. One is to use some agreed procedure (such as changing each of them in some equivalent way) for modifying the current account targets until they do sum to zero. The alternative is to allow the model itself to produce consistency, assuming that the model permits this. This was the procedure that Cline and I used in order to produce consistent data when confronted by minor discrepancies between the sum of desired surpluses and desired deficits.

Once countries thus have a current account target, finding the corresponding exchange rate target is essentially a technical exercise. Cline and I used Bill Cline's model for this purpose; the IMF also has a model[11] that could be used for this purpose. It would, however, be politically important to get the Fund's Executive Board officially to endorse the results, since those would form a basis for potentially sanctioning countries. A country could challenge in the Executive Board either its current account target, or the model used to infer reference rates from them. The Executive Board would listen to complaints about the results. It would be reluctant to condemn a colleague's plea,

10 The 3% of GDP figure was chosen because there is some empirical evidence that a country cannot safely carry in the longer term more than a 3% deficit without precipitating a crisis, and a 3% surplus is intended to provide rough symmetry in the system. No one can pretend that the 3% figure is exact, but one needs to pick some number and it is of the right order of magnitude. The philosophy is that it is better to be roughly right than exactly wrong.

11 This is the EBA Model, exchange rate variant, the successor to the Consultative Group on Exchange Rate Issues (CGER) model. See Chapter 2.

but it would also realize that allowing one country to achieve a lower (higher) reference rate than it was entitled to would result in all other countries having higher (lower) reference rates. In the last analysis, there seems no alternative but to allow the Executive Board to overrule a country, though the hope would be that there would rarely be disagreements that would have to be resolved in this way.

The relationships to other approaches

In Chapter 2 of this book it was noted that Chapter 3 of the *Palais-Royal* Report concerned exchange rates. In particular, this report said:

> *Suggestion 7: The IMF should develop globally consistent exchange rate 'norms'.* These norms would be broadly consistent both with globally sustainable external positions and with each country's internal and external macroeconomic balance. Taking into account the respective underlying fundamentals (stage of development, demographic make-up, resource endowment, productivity trends, and other structural features), these 'norms', to be updated regularly, would be used to help identify significant exchange rate instability and misalignments, at least for the most systemically relevant economies.

My biggest disagreement with the *Palais-Royal* Report relates to the suggestion that countries be disciplined via surveillance rather than rules, a subject already discussed in Chapter 2. However, note that otherwise we are very much in parallel. We clearly agree that the norms/rules must be globally consistent. What I have laid out is a set of practices designed to give effect to ensuring that the norms/rules are consistent with each country's internal and external macroeconomic balance. It is implicit in my approach that the norms/rules should be updated regularly, and be used to identify misalignments. What I have suggested is a practical means of calculating the *Palais-Royal* Report's norms.

The *Palais-Royal* Report goes on to lay out Suggestion 8, which – as pointed out in Chapter 2 – is essentially the reference rate proposal. That is, it suggests that countries should be expected to refrain from policies that push or keep the exchange rate away from its norm.

The IMF, in its External Sector Reports, is also seeking policies designed to move countries towards internal and external balance, although they allow no role for national choice of the targets. These are instead determined by a regression equation specifying what is 'normal' for the country. This approach has the advantage of enabling the Fund to estimate the impact on the current account of changing a particular type of expenditure, but the disadvantage of tying down the country's equilibrium expenditure pattern as well as its level.

How much difference would a reference rate make?

Floating-rate enthusiasts will doubtless argue that because the obligations attached to a reference rate are not very onerous, then the existence of a reference rate would make little difference to the operation of the system. I think this is wrong, for the following reasons:

a The existence of an official target for the exchange rate would permit an informed public debate about whether the target is too strong, too weak, or about right. It is not that there is no debate at the moment, but that too often the government either pretends that it has no view or else adopts a primitive view (such as lauding a 'strong dollar', irrespective of facts, as in the USA).

b When an exchange rate strays outside its reference zone (as the zone surrounding the reference rate where intervention is prohibited might rather naturally be termed), both the market and the exporters (and the producers of import-competing goods) are put on notice that the authorities expect a reversion (and would have the approval of the international community in encouraging a reversion). This could be expected both to discourage destabilizing capital flows and encourage exporters (and producers of import substitutes) to hold the line and accept temporary losses rather than quit the business.

c It is well known, and widely agreed, that two-sided intervention (by both the country gaining and that losing reserves) is more effective than unilateral intervention.[12] It therefore seems logical to expect that intervention undertaken with the explicit approval of the international community will prove more effective than unilateral intervention undertaken without approval (or disapproval) being voiced. This would help a country that was prepared to intervene and wished to avoid misalignments.

d An agreed reference rate would provide the private sector with expectations of what (real) exchange rates are likely in the longer run. At present the private sector seems to have no reasonably firm long-run expectations at all. Forward rates track spot rates, being separated merely by the interest differential. Even when rates go to seriously misaligned levels, the private sector appears to see no arbitrage opportunity created by the prospect of a rebound. This lack of firm long-term beliefs presumably arises because exchange rates are in substantial measure driven by herd behaviour rather than fundamentalist expectations. A reference rate system would seem likely to change this, at least if and when the reference rates had proven their worth. They would provide the missing fundamentalist anchor to the system.

e It would make the Fund's multilateral surveillance more effective. Not only would the Fund have the duty of surveilling countries' observance of

12 See, for example, Frankel and Dominguez (1993).

their reference rates, but it would have an unambiguous measure of whether demand-management policy was too expansionary (if domestic demand were greater than the sum of potential output plus its target current account deficit), or insufficiently expansionary (the converse case).

f Member countries would have an incentive to take note of what the Fund says, which is absent now, because the Fund would be drawing on a consistent global picture that would be unavailable to the technicians of individual countries. This is in contrast to the present situation, where the Fund merely replicates an analysis that most countries can perfectly well perform for themselves.

g It would permit a reconstruction of the international monetary system on the basis of quantified obligations. The fact that a country would need to have a reference rate endorsed by the international community as a condition for intervening would introduce a degree of influence on a country's policies that is currently absent. The obligation of agreeing on a reference rate for floaters would circumscribe the ability to contract out of any international obligations and feel virtuous about it.

h Finally, it would provide a mechanism by which the international community could prevent intervention to enlarge a current account surplus unmatched by capital outflow beyond some point. This would at least partially remedy what some of us see as the biggest defect of the present 'non-system'.

Concluding remarks

In this chapter we started by sketching the history of attempts to give incentives to surplus countries to seek adjustment. We then argued that penalizing reserve levels is bound to be problematic, and that a preferable solution is to place obligations on countries' exchange rates. We sketched a possible IMF process for determining target exchange rates. (The obligation envisaged is merely that a country not actively seek to push an exchange rate away from this target.) It is then noted that the *Palais-Royal* group had, *inter alia*, urged a very similar approach, and the hope is expressed that the group will adopt the same basis for calculating their norms.

The chapter concludes by reviewing the many ways in which adoption of reference rates could influence the behaviour of the international monetary system. Unless I have erred in my analysis, it is amazing how much difference would be made by adoption of such a modest change.

6 The question of reserves

It is usual to classify the features of an international monetary system into the arrangements for adjusting balance of payments positions, on the one hand, versus what countries hold when payments are unbalanced, on the other. Adjustment was dealt with in the previous two chapters. In this chapter and the next we turn to the other facet, what countries hold when payments are unbalanced. We deal with what is probable in the present chapter and with the author's dreams in the next.

Countries with floating currencies typically do not vary their own asset holdings, but rely on the private sector to smooth out fluctuations; however, they still hold some assets, and they could use these to finance temporary imbalances if they so choose. Countries with fixed currencies hold them fixed by virtue of a declared willingness to buy or sell unlimited quantities at the posted prices, which results in their financing of temporary imbalances. Some countries operate a mixed regime, allowing the rate to move on occasion or else choosing to hold the existing rate by varying their own holdings. In all cases any act of varying its own holdings is referred to as intervention.

Reserves are assets held by central banks in order to be able to intervene in the foreign exchange market in support of the country's currency. They consist principally of reserve currencies (mainly dollars, secondarily euros, increasingly yuan, and some other currencies held as reserves). In addition, Reserve Positions in the Fund are included (since they can be automatically mobilized when needed); the IMF's Special Drawing Rights (SDRs), which can also be mobilized when needed; and an historical relic which is sometimes still included though it can neither be used in intervention nor has it been mobilized in support of any currency for many years, gold. All, except obviously dollars and to some extent euros and yuan, have to be swapped into dollars in order to intervene in the foreign exchange market. Such swaps are also routine for Reserve Positions in the Fund and SDRs, while gold would doubtless be welcomed if it were ever offered. There is a widespread view that the composition of reserves is changing toward a multicurrency system in which a greater proportion of reserves will be held in currencies other than the dollar – in particular, in euros and yuan. There is an expectation that the Chinese yuan will emerge as an important reserve currency before long.

The question to be addressed in this chapter is that of the optimal composition of reserves, from the standpoint of the world as a whole. The possible alternatives appear to be: (a) a perpetuation of the current dollar-based system; (b) a perpetuation of the trend towards a multicurrency system; (c) replacement of the dollar by the yuan; and (d) a move to an SDR-based system, in accordance with the oft-repeated but apparently vain hope of 'making the SDR the principal reserve asset in the international monetary system' (an ambition first voiced by the C-20, and now enshrined in Article XXII of the Fund). These three will be discussed in turn, while the next section of the chapter argues (surprise!) that the SDR-based system is the preferred alternative. However, if such a system is to come to pass, then one needs to specify the criteria that would determine the rate of SDR allocation, the topic of the penultimate substantive section. It also seems to be necessary to increase the attractiveness of holding SDRs, the topic of the last substantive section.

The dollar standard

The US dollar is widely held by the private sector around the world, not just in the USA. This enables the public sector to transact with the private sector, for example by intervening in foreign exchange markets, if it also holds dollars. That is why the bulk of the reserves held in the world (62% in 2014 (Q.3), the latest date reported when this was written) take the form of US dollars. The dollar is reportedly used in 93% of foreign exchange transactions (the total is 200%, since all foreign exchange transactions involve two currencies by definition).

The second most widely held currency is the euro (comprising some 23% of currency holdings), despite its recent troubles, which appear to have had surprisingly little impact on its international use to date. The euro is reportedly used in 33% of foreign exchange transactions. However, there is a big difference between the status of the dollar and the euro. Euros are used in intervention only by some of the EU's neighbours for transactions with certain countries, while the bulk of holdings of euros are held as investments and must be converted into dollars if they are needed in intervention. With the dollar there is no need for this intermediate step: one can invest in dollars, and if needed in intervention the dollars are immediately available on selling the asset held as an investment.

The Chinese yuan is increasingly held, and is used to finance trade with China, but it has to be converted into dollars before it can be used in intervention, and therefore to finance trade with most other currencies. No statistics on the proportion of reserves held in yuan, or the extent of use of the yuan, are currently available, though these are believed still to be small.

Other secondary reserve currencies are the Japanese yen, the pound sterling, the Swiss franc, the Australian dollar, the Canadian dollar, the Swedish krone, and a number of others. They are all held purely as investments, although the pound used to be an important intervention currency.

The dollar is not merely used as a reserve asset in which to invest, and an intervention currency, but has an international role in all the functions traditionally assigned to a money: unit of account, means of payment, and store of value, in both the public and private sectors. As a unit of account, it is used by most international organizations (though the SDR is used by the BIS and to some extent by the IMF), and it is widely used in the private sector for assets and liabilities that are not expressed in the national currency. As a means of payment, it dominates the intervention currency role in the public sector while most private transactions that are settled internationally are settled in dollars. As a store of value it is less dominant: as already noted, Reserve Positions in the Fund, SDRs and secondary reserve currencies are also widely used in this role in the public sector.

However, it is the dollar's reserve (or store of value) role that matters most. It is this that gave rise to General de Gaulle's complaint that the dollar had an 'exorbitant privilege'; he meant by this that since the dollar is used as reserves, an act of paying the USA also extends it the credit with which to buy, so that there is no compulsion to correct a payment deficit. It can be counter-argued that any other country that can borrow in its own currency has a similar privilege, but the fact that it is less automatic has resulted in it being less resented. More recently great attention has been paid to the quid pro quo of the dollar's reserve role: the fact that the USA is deprived of an exchange rate policy. A number of economists, possibly even a majority, conclude that on net the USA comes out of these arrangements on the losing end (but there are powerful people in the US government, in the foreign policy or strategic establishments more than economists, who are convinced that the dollar's role is in the strategic interests of the USA, and who are therefore determined to defend the dollar's role).

The dollar's reserve role was the cause of much controversy in the C-20. The Europeans were anxious to prevent the USA from financing its deficits by issuing more dollar liabilities, and therefore proposed that all countries, including the USA, should be subject to 'asset settlement'. By this was meant that all countries would have to settle any imbalance by transferring reserve assets; for the USA, these would have been gold, SDRs and Reserve Positions in the Fund. Specifically, the USA could not have financed a deficit by increasing the stock of dollars outstanding. This was desired in order to secure symmetry between the reserve centre and other countries: the USA would no longer have had the 'exorbitant privilege' of settling its deficit by printing dollars. (Nothing came of these proposals in the end.)

One gets a clear view of how a dollar system works if one forgets the secondary reserve currencies, as well as the IMF-created assets, and thinks of the dollar as the only reserve asset. In that case the USA has no control over the size of its deficit, but this does not matter (from a US point of view) since a deficit of any size is automatically financed. Generalizing the insight first enunciated by Robert Triffin (1960), one knows that this cannot be true indefinitely: sooner or later the continuing deficit of one country whose

currency is used as international reserves must undermine confidence in that currency provided only that the demand to hold international reserves is increasing faster than the centre country's GDP. At some point the willingness to add to holdings of the dollar will evaporate, and so will the willingness to hold the existing stock. There will be a sudden scramble for the secondary reserve currencies, which can no longer be brushed aside as having an insignificant impact on the way the system functions. We are still in the expansionary phase of the dollar system, however, before a run on the dollar has developed, although how long this will remain true is a question raised more acutely by repeated antics in Washington, for example in October 2013.

A number of economists have asked the question of how large are the gross benefits arising from foreign use of the dollar. There is no disputing the gains made by the USA from the fact that foreigners hold quite large stocks of dollar bills: the USA gets an interest-free loan of that amount. The sums of interest-bearing dollars held by foreigners are very much larger, but the question as to the benefit the USA reaps from this fact is far more contentious. Some have tended to argue that in the absence of the reserve role of the dollar it would be very difficult for the USA to have borrowed similar sums, and therefore attribute perhaps 1% to the dollar's reserve role. Others of us argue that all, or most, industrial countries can borrow on fairly similar terms, and therefore attribute only a few basis points to the reserve role of the dollar in permitting cheaper borrowing by the USA. (Since most loans to sovereigns are expressed in national currency, and since all loans have credit risks that vary between governments, it is not possible to resolve this controversy by a simple inspection of the facts.)

The multiple reserve currency system

Suppose that the system evolves without a major crisis into a multiple reserve currency system, so that in 2033 we have reserves consisting roughly one-third each of dollars, euros and yuan.[1] What would the major features of such a system be?

In the first place, it is not obvious what the unit of account of such a system would be. Perhaps the dollar would continue to be used in this role; though it would seem much less natural than in the dollar-centred system, inertia would certainly favour this. Conceivably one of the other reserve currencies would displace the dollar. Or the role might be split, with certain organizations opting for one currency and others opting for another. Or possibly at long last a basket of the three currencies, and perhaps one or two

1 In the words of Barry Eichengreen (2010: 1): 'Just as the world economy has grown more multipolar, its international monetary system will grow more multipolar. The system for which we need to prepare is one in which the dollar, the euro and the renminbi will all be consequential international and reserve currencies.'

others, would be used, and this might even take the form of the SDR. One can anticipate some nasty diplomatic rows in the process of getting any change.

The currency/ies in which intervention would take place in a multicurrency system are also not obvious. There would seem to be advantages in using a single currency for this purpose, in which case the dollar would probably retain top spot by virtue of incumbency. It is possible, on the other hand, that each particular currency would adopt one of the three majors as its intervention currency, which would force the private sector that wanted involvement in intervention to hold a mixed portfolio of currencies, and would force many transactions to go through two currencies in addition to that of the end user. It is even possible that the intervention currency would tend to vary geographically, perhaps with the dollar dominating in the Western hemisphere and perhaps the Middle East, with maybe the euro used in Eastern Europe and Africa, and the yuan used in most of Asia.

If the dollar remained the dominant intervention currency, it would remain the one currency subject to the (n-1) problem. If each of the three majors acquired an intervention currency role as regards a particular geographical area and they agreed to a rule of clean floating among themselves, then any of them might be threatened by relative appreciation insofar as countries within 'their' area were particularly aggressive in their aim of building up reserves, assuming that countries hold reserves in the form of their own intervention currency. All three majors would have to accept that their exchange rates would be partially out of their control.

The three major currencies would be fairly even as regards the provision of reserve assets. This would present one stabilizing advantage and one disadvantage as compared with the present system. The advantage is that the Triffin dilemma would be pushed far into the future. The demand to hold international reserves would presumably grow at the same rate, but the supply would be multiplied (approximately) by three. Specifically, the USA could repay some reserve debts (though it would need to secure a payments surplus in order to effect this), while China would provide the bulk of the net increase in reserves.

The destabilizing disadvantage of a multiple reserve currency system is that one fears that central bankers will not wish to show a loss, and will therefore tend to switch reserves into whatever currency market superstition currently regards as the stronger.[2] Nowadays this potential disadvantage seems to be

2 In the early days of the Institute for International Economics, I undertook research that endeavoured to look for evidence of such destabilizing behaviour. I found what I regarded as convincing evidence. I presented this at a mid-sized European central bank with some satisfaction, to be met with unexpected hostility. My host subsequently explained to me that I had hit a bit too close to home for comfort, since they had lost a bundle by moving into the yen in a big way in 1978 just before the yen (temporarily, for the next 15 years) peaked. Unfortunately these results were never published.

ignored, perhaps because central bankers are regarded as gentlemen who would never sully their hands with base profitability concerns. This was formerly regarded as a much more serious problem than it seems to be seen nowadays: see the numerous comments about the danger of increased instability in Mussa et al. (1996).

A yuan standard

If a multiple reserve currency system is regarded as inherently unlikely to survive indefinitely, because one currency gains on the others, the question is what would replace it. The usual answer appears to be a yuan standard.

A full-blooded yuan standard would be the mirror image of the dollar standard discussed above. It would involve the yuan becoming international money in all dimensions: as unit of account, means of payment, and store of value, for both the public and private sectors. Replacing the dollar as unit of account might take place naturally, and gradually, in the private sector, but the process of replacing the dollar by the yuan would seem to promise an apocalyptic fight in public sector institutions. The yuan as dominant means of payment would involve most intervention taking place in yuan, which could presumably occur piecemeal once China has created domestic financial institutions capable of providing the necessary liquidity and depth and once China has liberalized its capital account enough to permit foreigners to hold yuan. The yuan as dominant reserve asset will involve China running a large *balance of payments* deficit for many years; if and when this becomes a large *current account* deficit, China will also ultimately be threatened by the Triffin dilemma.

At present China is prevented from emerging – not to anything as grand as a yuan standard, but even to be part of a multicurrency system – by primitive financial arrangements. The financial system is limited in size and thus does not offer the liquidity that is sought. There is no range of financial instruments available. Capital account convertibility is lacking, so that China is not part of the world financial market. Before it can become the centre of a yuan standard, it will need to become a serious reserve centre, and that will require extensive financial liberalization.

In a letter in the *Financial Times* on 12 December 2014, George Magnus argued that while China resented the dollar-based system and is indeed pushing actively for increased use of the renminbi in settlement and invoicing of trade transactions, it is far from wanting a full-blooded yuan standard. The latter implies China running large external deficits or[3] allowing its residents unfettered access to foreign capital markets. China may regard the prospect of an external deficit produced by capital outflows exceeding the current account surplus as acceptable, but they show no signs of embracing capital account convertibility. It may well be that they would prefer an alternative way of

3 Some of us would have said 'and'.

reducing the role of the dollar. That is indeed my own view, based on a careful reading of the most authoritative Chinese exposition on this subject, by Zhou (2009).

The SDR standard

A fourth option, which currently does not seem very likely to come to pass, is an SDR system. The dream was reflected in the final deliberations of the C-20, and is incorporated in Article XXII of the IMF. It is periodically endorsed, with a singular lack of conviction, by the G20. What would be involved?

In order to have an SDR standard, a minimal condition is that marginal holdings of reserves are in SDRs, because otherwise there would remain a possibility that additions to reserve stocks could take the form of reserve currencies (and so undermine the idea that the quantity of reserves depends on the rate of SDR creation). Although it is possible that people would get so accustomed to dealing in SDRs that the alternative of a reserve currency would never occur to them, that world seems very far away at the moment. In practice it would almost certainly be necessary to put a cap on the holding of reserve currencies. For most countries an edict prohibiting them from increasing their holdings of reserve currencies above the initial level would be appropriate. However, some countries may have very low holdings of reserve currencies at the time the new system is initiated, in general insufficient for the level of intervention they wish to undertake. It would be unjust not to allow those countries to build up their holdings, to some maximum level that will inevitably employ a rather arbitrary rule of thumb (such as reserve currencies, plus other government holdings of foreign assets which might perform a reserve-like function, not to exceed x months of imports).

Note that there is no reason (contrary to Eichengreen, 2009) why countries might not add to their holdings of SDRs even though the SDR did not become a widely held asset in the private sector. Most reserves are nowadays held for precautionary reasons, and the SDR could perfectly well fill that role. Of course, a precautionary reserve asset may need to be converted before being used in intervention. However, if conversion is rapid, fixed-price and guaranteed – which is true for both Reserve Positions in the Fund and SDRs – this is hardly likely to be a major deterrent.

It is important to understand that an SDR standard could not suffer from a Triffinesque pressure. SDRs are the obligation of the whole world, and as such an increase in the holdings of them would not undermine confidence in them: confidence cannot be lost over the whole world. Nor would it narrowly concentrate the benefits from issuing them (in the jargon, the seigniorage): SDRs are issued to all members of the Fund. Admittedly, the key is IMF quotas, and these are not distributed anywhere near proportionately to the demand to hold reserves. This is another area in which reform is overdue. Nonetheless, the quota formula results in far more of newly issued reserves accruing to developing countries than would occur with either a continuation

of the dollar standard or under the multicurrency system (or, for non-yuan currencies, than would occur under a yuan standard). Added to that is the fact that there is more possibility of change (adjustments of IMF quotas) if the SDR were to become dominant.

So much for the minimal conditions necessary to establish an SDR standard. It would clearly be possible to go beyond this, and to establish that all reserves be in SDRs, that intervention take place in SDRs, and that the offshore dollar market be at least partially replaced by an offshore SDR market. In fact, these additional steps tend to be mutually supportive. The next chapter takes up these possibilities.

Selecting a reserve system

Having reviewed the principal features of the four reserve regimes that might conceivably prevail, it is time to express a preference. It will not surprise those who are aware of the gist of my previous writing that I regard the fourth as overwhelmingly preferable, even without the extensions discussed in the next chapter. This is not, of course, to claim that it is likely to prevail, but I do venture an explanation of why the authorities are likely to ignore such a gift horse towards the end.

I can see four grounds for choice. These are: (a) the ability to provide a growing stock of reserve assets; (b) that there is a tendency for growth pressures to be anti-cyclical; (c) susceptibility to the Triffin dilemma; and (d) the spread of the benefits of reserve creation. Perhaps there are other criteria as well, but these are the ones that occur to me. In particular, I believe that the ability to control the stock of reserves, which used to be considered an important consideration, is no longer relevant (Truman 2012). This is because reserves no longer count as the monetary base; because most important exchange rates float, there is a series of national monetary bases rather than a world monetary base, and these can be (and are) managed by domestic monetary policy quite independently of the stock of reserves.

So far as the ability to provide a growing stock of reserve assets is concerned, there are some doubts about the ability of the dollar to perform this function very much longer. This is not just because of periodic government shutdowns, though clearly these have not helped, but mainly because of the growing weight of US overseas debts. This seems to be the main factor behind the numerous declarations that the dollar is soon to share its burdensome role as a multicurrency system develops. (I must admit that I find it difficult to understand how the provision of reserves can be burdensome, though some of the associated obligations, like the lack of an exchange rate policy, are indeed a burden.) There is no reason to doubt that any of the other options described above – a multicurrency system, a yuan standard or an SDR system – could provide a growing stock of reserves for many years in the future.

Neither the dollar or the yuan standard, nor the multicurrency system have any obvious anti-cyclical properties. The design of the SDR, with its emphasis

on allocation being guided by 'the long-term global need' for reserves, was intended by anti-Keynesians to prevent its playing an anti-cyclical role, although presumably this could be changed if desired. It emerged in the recent crisis that an important aspect of anti-cyclical policy is the provision of temporary liquidity to crisis-afflicted countries. This was done for relatively large countries by the Fed in 2009, in the form of the swap facilities extended to a number of countries. The Fed was able to act in this way because the world is on a dollar standard. There is no reason to think that the ECB and the People's Bank of China would take a less global view of their responsibilities under a multicurrency system or the yuan standard, although there is a case for reforming the system in order to make the IMF the lender of last resort (see Chapter 3), or, failing that, spelling out the duties of 'core' central banks more formally. An SDR system could certainly be designed in order to make the IMF a lender of last resort.

The reason that reserves may not be extended in sufficient quantities under the dollar standard is that the Triffin dilemma appears to be finally catching up with the USA, despite floating. The multicurrency reserve system could last a long time before a similar threat emerges, but eventually it might also be vulnerable. The same is true, in a sufficiently long run, of a yuan standard. The one regime that appears to be invulnerable to an ultimate threat from the Triffin dilemma is the SDR standard, since all countries of the world are the relevant debtors.

It was argued above that the USA derives limited benefits from the dollar standard, benefits that hardly merit the description of 'exorbitant privilege'. Nevertheless, the benefits exist, and moreover their size depends on who gets them. This is most clearly seen by considering the size of the benefits that accrue to a low-income developing country from an allocation of SDRs. For the average of short-term interest rates in the currencies in the SDR basket (all highly creditworthy rich countries), the country gets a long-term[4] loan. The differential between what it otherwise needs to pay in order to borrow long term and the SDR interest rate is clearly far more than a few basis points. Does this amount to a subsidy? If by a subsidy one means a transfer that leaves the developed countries worse off, this is not obvious. They are worse off than if the developing country borrowed (and serviced the loan), but whether they are worse off than if the developing country cut back its investment programme would seem to depend on whether the developed country could use the funds productively. When there is a dearth of good investment opportunities in developed countries, and especially if those countries want to increase their current account balances, it is not clear that allocating SDRs imposes real costs. In any event, an SDR standard would distribute the benefits of reserve creation in proportion to IMF quotas,

4 Even recognizing the possibility of cancellation, a recipient of SDRs can prudently treat all except the last one or two allocations as long-term funding. Subsequent allocations can prudently be invested.

which may be far from ideal but is clearly better than is offered by the alternatives.[5]

If the quantity of reserve currencies were limited as hypothesized, does that imply that one would get asset settlement as well? Yes, indeed, the USA would be unable to finance payments deficits by increasing its dollar liabilities. Such a restriction on its freedom would not go unnoticed in Washington. In the C-20 negotiations the USA was always careful to make it clear that it regarded the indicator system as an essential price that the RoW would have to pay in order for the USA to concede asset settlement. The indicator system was supposed to ensure that the RoW indeed adjusted. One should therefore anticipate that the USA would only agree to freezing the number of dollars a country can hold in return for a series of measures that restore to the country its ability to manage its balance of payments, rather than having to accept being the residual. This seems to imply (a) that the USA gains the ability to manage its own exchange rate, and (b) that the world creates a mechanism for allowing the quantity of reserves to increase with the demand (see the next section).

Why does the international community refuse to recognize the potential benefits of moving to an SDR standard? First, consider the USA. For those of us who believe that the loss of autonomous adjustment policy outweighs any seigniorage gains for the USA, there would be net gains for the USA if it led to effective flexibility for the dollar. To those (such as many senior US officials) who do not care about dollar flexibility but do care about seigniorage, there is reason to oppose it. Second, to other developed countries, including members of the G3, they stand neither to gain nor to lose by moving to an SDR standard rather than a multicurrency system[6]: why then make a fuss where self-interest is not at stake? Finally, clearly developing countries do have a collective interest in changing, but the question they ask themselves is whether they have an individual interest, given other features of the system. They have two thoughts when SDRs are mentioned: first, they like getting allocations, but that is not up to them; second, given that the SDR pays less than they can obtain by investing in other assets, they do not much like holding SDRs. Added to this is the pride of some of the larger developing countries in not needing SDR allocations in order to balance the books, compared with what they think of as the C-20 mentality in which developing countries concentrated only on resource transfers. No one therefore perceives themselves to have a strong interest in change, while some Americans oppose it.

5 I treat the distribution of the benefits of reserve creation as essentially arbitrary. However, another viewpoint argues that they have been earned by pursuing a disciplined macroeconomic policy over the years, and therefore rightfully accrue to the USA (or the G3). Some of us remain unimpressed by US discipline, especially as compared with certain other countries (like Switzerland).

6 This assumes that the other members of the G3 would not lose autonomous adjustment polies under the multicurrency standard.

What does seem quite likely is that the world will continue its evolution toward a multiple reserve currency system without any apocalyptic changes in the unit of account or means of payment functions of money. The world will get closer to a balanced holding of dollars, euros and yuan, without any change in the unit of account or intervention. This would be an amalgam of the dollar standard with a multiple reserve currency system. The main advantage that I can see of this is that, assuming the USA returns to payments surplus, it will take longer before the system becomes vulnerable to the Triffin dilemma.

Determining the rate of SDR creation

Two crucial issues remain. First, how would one determine the quantity of SDRs to be created under an SDR standard?

The provision in the existing Articles of the Fund, according to which SDRs should be created 'to meet the long-term global need [to] … avoid economic stagnation and deflation as well as excess demand and inflation in the world', is hopelessly out-dated. As argued in Chapter 2, it was written for a world of fixed exchange rates, which implies that the demand for reserves – which are needed primarily to act as a buffer stock – bears some relationship, even if a very loose one, to the level of income. It follows that the supply of reserves can be varied in an attempt to guide the course of nominal income. This is patently not the case in the present 'system', where reserves are held for motives that vary greatly between countries. To most East Asian countries, they are held primarily for self-insurance, as a result of their having experienced the East Asian crisis of 1997. To most Middle Eastern countries, they are held as a long-term investment, with the borderline between reserves and sovereign wealth funds being arbitrary. To most floaters, they are held primarily to avoid the trouble of getting rid of them, in a volume influenced by what was inherited from the past. Doubtless, some countries hold their reserves for a mix of those motives. However, there is no reason to suppose that any of these countries would increase their spending if presented with additional reserves (bearing a market interest rate).

Yet it is clearly important that reserves be created in sufficient volume to match the demand to hold them. As it happens, the increase in the reserves held has never been larger than in recent years, primarily because of the demand for self-insurance (and perhaps also because of the quaint belief that mercantilism is good for them). Had the increase in the demand to hold reserves not been met, the East Asian countries would probably have tried to enlarge their current account surpluses even more, with the result of suppressing the overall level of world income still further.

An advantage of obliging countries to specify their payments objectives for the purpose of calculating reference rates is that one would, as a by-product, get a measure of whether countries overall were targeting a current account surplus or deficit. It would not be a big step to go beyond this and request

countries to give a target for their overall balance of payments objective. For floaters, this would simply be zero. For non-floaters, this would be their reserve-accumulation objective.

Consider the merits of the following equation:

> $SDR_{t+1} = SDR_t + \alpha$[world overall balance of payments objective], where $0 < \alpha \leq 1$

This suggests that SDR allocations should depend upon the net size of the world overall balance of payments objective. One creates in each period a certain proportion ⊠ of the reserves that countries desire to accumulate.

It is a feature of the equation that countries that want additional reserves can ultimately get them, either from new SDR allocations or from countries that are happy in the light of their allocations to run overall deficits. The assumption is that countries would be content with the assurance that SDRs, unlike capital inflows, would not disappear when needed. It seems a safe assumption, given that a decision to cancel SDRs would also need an 85% majority and therefore be subject to veto by developing countries. I would envisage a value of α of around a third.

In his speech on international monetary reform, Zhou Xiaochuan, the governor of the People's Bank of China, said, *inter alia*:

> Theoretically, an international reserve currency should first be anchored to a stable benchmark and issued according to a clear set of rules; second, its supply should be flexible enough to allow timely adjustment according to the changing demand; third, such adjustments should be disconnected from economic conditions and sovereign interests of any single country.
>
> (Zhou 2009: 1)

The equation clearly satisfies the two latter criteria and the second part of the first criterion. However, the SDR is not anchored to a 'stable benchmark', since no such thing exists. I would personally like to see the SDR inflation-proofed, and I would like to see this done, not in Zhou's old-fashioned way (which involves tying its value to that of a basket of commodities, in a throwback to Keynes), but by increasing the weight of its component currencies in accordance with a measure of their internal inflation. Then the international reserve currency would itself be the stable benchmark.

Before leaving this subject, let me stress that this discussion concerns the method of determining the rate of SDR creation under the supposition that the world is at least moving to an SDR standard. In the event (as seems most likely) that it continues to evolve without any apocalyptic change toward an amalgam of the multiple reserve currency system and the dollar standard, with the rate of SDR creation supposedly dependent on the absurd passage in the present Articles, it does not take a genius to forecast that the rate of SDR creation will remain precisely zero.

Increasing the desire to hold SDRs

Two policy proposals have been advanced as to how to increase the desire to hold SDRs by central banks. One is to expand the holding of SDRs to the private sector, so as to permit intervention in SDRs. The other is to increase the interest rate paid on SDRs.[7]

Since the purpose of reserves is to permit intervention in the foreign exchange market, it is natural to suppose that the desire to hold SDRs by central banks would be increased if SDRs were usable directly in intervention. At present it is necessary for a central bank that wishes to use its SDRs in intervention, first to exchange them into an intervention currency, in practice into dollars. The IMF has in place procedures that guarantee that this will be possible and expeditious (though it has not been necessary to resort to this 'designation process' for many years), which is why I maintain that SDRs could perfectly well function as a precautionary reserve asset without the SDR being usable in intervention (which I nevertheless strongly favour, as stressed in the next chapter).

The other reform that has been mentioned is to increase the interest rate of the SDR. When one asks officials of developing countries why they do not hold more SDRs, the usual answer is that SDRs pay less interest than the alternative assets that in practice they hold, like bonds or Fannie Mae obligations. The SDR interest rate is currently set equal to the average of the short-term interest rates of the currencies in the SDR basket, with the same weights in calculating the interest rate as those in the basket; if the market is content to hold all four currencies in the basket, it cannot then speculate on a change in the SDR interest rate. It would be most undesirable to lose this property. Hence it seems to me that the logical procedure is to use as SDR interest rate the average of, say, the 10-year bond yields. This would both raise the SDR interest rate, and retain the property of invulnerability to an expected change in the interest rate of any component currency.

Summary

My attitude to the SDR is similar to that expressed by Paul de Grauwe in his comment in Mussa et al. (1996). That is, the creation of the SDR was a mistake, since it was designed for a world that had already vanished by the time of its creation, but this does not imply that it should now be abolished. On the contrary, we should be thankful that it now exists, and see what use can be made of it. We might even be glad of its long period of inactivity, since this frees it from a misguided past, and liberates us to adopt developments such as those explored in the next chapter. Even without these, it can play a useful role in distributing seigniorage more broadly. If the world got as far as

7 Both proposals were elaborated and favoured in Triffin International Foundation (2014).

creating an SDR standard, this would also offer a long-term solution to the Triffin dilemma.

In this chapter I have reviewed the principal contenders for the reserve system. These seem to me to be a continuation of the current system, which is basically a dollar system; a continuation of the current trend, until it results in a multicurrency system; a yuan standard; and an SDR system. I described four criteria that seem to me logical candidates for choosing among these three alternatives. I concluded that on the basis of those four criteria the world would benefit by adopting an SDR standard, although Americans who value the benefit of seigniorage more highly than the benefit of exchange rate flexibility for the dollar could be expected to oppose this solution. I doubt that the world will move to an SDR standard, for reasons stated: the USA is dominated by those with little interest in exchange rate flexibility; there is nothing in it for the other advanced countries, except insofar as the other members of the G3 might fear losing autonomous adjustment policies under the multicurrency system; and the developing countries take an inappropriately micro view of the choice. The penultimate section of the chapter develops a proposal for how to establish the rate of SDR creation under an SDR standard, setting it equal to a fraction of the overall excess demand for payments surpluses. The final substantive section proposes making the SDR interest rate equal to a weighted average of the 10-year rates of currencies in the basket – a change that would have the effect of increasing the interest rate on the SDR.

7 A logical extension

SDRs as the only reserve asset

I argued in the previous chapter that the most logical, if not the most probable, outcome of ongoing consideration of reserve supply arrangements was an expansion in the role of the SDR, to the point of establishing what may be referred to as an SDR standard. In fact, there are three powerful reasons for wanting to go beyond this and to make the SDR not just the dominant reserve asset but the only reserve asset. First, one wants to secure a wide distribution of the seigniorage benefits of reserve creation and, despite the ill effects of the maldistribution of IMF quotas, this is undoubtedly the best method of securing that. Second, the simplest and most secure way of preventing reserve shifts among assets is to provide that there be only a single form of reserve asset. Third, China: Zhou's 2009 speech suggested that China sees a potentially big future for the SDR, even though it does not splash money around. This seems natural enough; China feels uncomfortable playing second fiddle to the dollar indefinitely, but has no desire to see the renminbi simply supplant the dollar. If this consideration is indeed driving Chinese policy, then it suggests that the West has something to offer that might persuade China to come to the table to negotiate obligations for adjustment.

Two things would be necessary in order to secure a world with only SDRs as reserves. The first is successful negotiation of a substitution account. Since it is unthinkable to expect the USA to convert all the stock of dollars into SDRs out of current earnings, one needs a substitution account (which is an account that makes it possible to convert reserve currencies into SDRs, either continuously or on specified occasions). This has in the past been blocked by two issues: disagreement over who bears the exchange risk if the dollar depreciates relative to the SDR, and reluctance of some reserve holders to give up their right to switch between reserve assets. The view of the USA was that it should retain a dollar liability, since this was the original form in which it incurred indebtedness, and the view of (almost all) the rest of the world was that if the USA was to be a debtor in SDRs, then it should incur an SDR liability. This would mean that the USA bore the cost of any dollar depreciation against the SDR (and also that it kept any profits from an appreciation of the dollar against the SDR). Although I sympathize with the rest of

the world on this, I must admit that the issue is not one that I would see as justifying deadlock. The cost is unlikely to be large (Kenen 2010). Hence I would favour negotiating a substitution account, if necessary with the USA retaining a dollar liability. The right to switch between reserve assets is typical of those 'rights' to which the world has become accustomed during the years of the non-system, and which will have to be abandoned if the world is to return to a more organized system. The cost of abandoning this 'right' is unlikely to be large, since it is zero for the world as a whole.

The second is a promise not to hold any other country's currency. This might be achieved by such an agreement in the Fund, maybe in excess of some *de minimus* sum needed for routine expenditures. Since the ultimate purpose of reserves is to be used in intervention, this would be possible only if intervention in SDRs is possible. Since intervention involves a transaction between the official and private sectors, this would require that there be extensive private holdings of SDRs, and that there be some organization that clears transactions that involve both sectors. Under present arrangements, which limit holdings of SDRs to approved official entities, this would presumably be the BIS. However, advantage might be taken of a revision of the IMF's Articles to permit other entities (especially the CLS Bank) to hold official SDRs, which would enable them to act as an alternative bridge between the official and private sectors.

We assume that the SDR will remain a basket of the principal currencies. It seems to me that there is only one logical alternative, which would involve indexing the quantity of each currency in the basket so as to produce an inflation-proofed SDR.[1] (The Keynesian proposal to index the basket directly to a set of commodities made sense in the world as it was in 1942, but has been overtaken by the domination of trade by industrial products in the post-war years.) The problem with this proposal is to establish the interest rate that goes with it, since not all the G4 currencies have inflation-proof assets. Presumably one would therefore be obliged to take the weighted average nominal interest rate of the currencies in the basket and subtract the weighted average inflation rate of those currencies. Problems would arise if this yielded a negative number, since transactors cannot be expected to hold an asset promising a negative yield. Perhaps one would therefore be obliged to declare a minimum interest rate of zero.

Zhu (in Mussa et al. 1996: 264) declares that the SDR was not being widely used as a unit of account or store of value in 1996, since it is easily replicated (allowing investment in higher-yielding assets than treasury bills). This will remain true unless and until there is a thriving private market in SDRs so that the convenience of using SDRs outweighs the excess return that can be earned by making your own.

1 This would have the advantage of preventing the real stock of SDRs being eroded by inflation.

Intervention in SDRs

SDR intervention becomes possible if and only if the SDR is widely held in the private sector. It demands that SDRs are transferable between the official and private sectors, which requires that someone be able to convert balances between the two sectors. In the case of the European Currency Unit (ECU), the BIS agreed to play this role. The IMF could authorize private commercial banks to be other holders of official SDRs, and then one or a consortium could take on the role of clearing, including that between official and private sectors.

Would it be difficult to organize intervention in SDRs? Technically, no; since most of the dealers who formerly dealt in dollars/(national currency) would now switch over to dealing in SDRs/(national currency), the only markets that would need to be created *de novo* would be US dollar/SDR and SDR/US dollar. Difficulties might arise with the unfamiliarity of the proposal to dealers, but their resistance is something to be feared only when there is a choice of intervention media. If they were given a choice, they might well choose the dollar rather than the SDR, if only because of inertia, but if the SDR is the only game in town, then they would have to use it, or else leave the profession. There is no doubt that they are capable of adapting.

Intervention in SDRs would be no more complex than intervention in dollars. In both cases the person who is to sell foreign exchange (e.g. the importer) approaches his bank with a request for foreign exchange. The bank obtains this from the market, either from new supplies (e.g. from exporters, or from those wishing to buy assets), or from the reserves. In one case the supplies consist of dollars, in the other of SDRs; in both cases the importer (and exporters, for that matter) deals only in the national currency. The one case in which this marks a change from previous practice is when the importer is US based, when it has to seek SDRs to settle its bill instead of just being able to pay with dollars. (Of course, a foreign holder of Eurodollars is in this respect in a similar position to a US-based firm. If it switched over to holding SDRs – see the next section – it would be at an advantage over firms that hold only local currency.)

Effective flexibility of the US dollar – which we argued in Chapter 6 to be highly desirable since it is a condition for the USA to accept asset settlement – is probably dependent upon the world ceasing to use the dollar as the principal intervention currency. So long as most countries intervene, either entirely or mainly, in dollars, there will inevitably be a suspicion that 'non-intervention' will be associated with a constant dollar exchange rate. This will occur to the extent that the private sector tends to think of an equilibrium exchange rate as being a dollar rate rather than an effective rate. It follows that in this situation many countries will tend to move with the dollar, and therefore that any US devaluation (or revaluation) will tend to be 'copied' by many of those who use it purely as an intervention currency.

Conditions for a thriving private market in SDRs

A private market in SDRs would be an essential condition for the SDR to replace the dollar at the centre of the financial system. It is only when there is a thriving offshore market denominated in SDRs, akin to the Eurodollar market, that one could feel confident that the SDR had been accepted by the private sector. As a matter of fact, there used to be an SDR market, which seems to have peaked around 1982, shortly before the Fund's second conference on the SDR (Von Furstenberg 1983[2]), and shortly after the simplification of the SDR basket from 16 currencies to five. This was argued to have been important in stimulating the SDR market, because it enabled the private sector to 'back' an SDR loan economically even where there were no countervailing transactions. By the time of the 1982 conference (Von Furstenberg 1983: Ch. 13), there had been 12 bond (or note) issues, seven syndicated credits, over 30 banks were taking SDR-denominated deposits, a number of certificates of deposit had been issued, at least 10 banks dealt in forward SDRs (generally against the US dollar), two commercial banks offered SDR-denominated current accounts, and in addition the participants in Euroclear could hold SDR-denominated current accounts with it. In retrospect, it seems that the SDR market came close to taking off at this time. However, there was no clearing arrangement, so that in order to clear an SDR transaction one had to convert into a currency (generally the dollar) and then go back again.

At the same time, the ECU market was developing. The European Commission nurtured the ECU by taking steps to ensure that the ECU had a sound financial infrastructure, for example by ensuring that there were clearing arrangements. In the end the ECU became the euro, while the SDR market has withered away. Unfortunately, there is no published account of the decline of the SDR market,[3] which explains why the two markets in 'basket' currencies followed such different trajectories. A reasonable assumption is that the lack of support of the SDR was a factor in explaining the implosion of the SDR market, although clearly the dominant determinant of the ECU's ultimate success was the founding of the euro.

One would therefore have to start from scratch in nurturing a private SDR market. Clearly one would expect the IMF to play a supportive role for the SDR this time around. It could encourage the SDR by providing support in particular areas and ensuring that specific institutions are present, thus making it worthwhile for the private sector to take the plunge into dealing in an instrument that will initially be unfamiliar. Various ways in which the public sector could encourage this are described in the report of the Study

2 Somewhat oddly, the title of the book – unlike the conference – did not refer to the SDR.

3 The nearest thing appears to be Christian de Boissieu's account in the 1995 conference volume of the SDR. His table shows SDR deposits at London banks declining from SDR 1,074m. in 1983 to SDR 745m. in 1991 (Mussa et al. 1996: 124).

Group on SDRs (Triffin International Foundation 2014). The IMF should ensure that there are means for converting from private to official SDRs and vice versa, preferably by naming a limited number of private banks as holders of official SDRs. The IMF should similarly ensure that there is a clearing mechanism, if necessary by adopting this role itself (in fact, there seems little danger of the IMF being forced to fill this role by the lack of a willing institution in the private sector).

A major problem in initiating a new market is to induce the first institutions to issue securities in it. The World Bank, the regional banks and (for a small part of their financing needs) national governments, should issue debt instruments denominated in SDRs.[4] Initially the rate of interest demanded by the private sector might be slightly higher than that demanded on comparable national currencies, but if so, this should be paid by the official sector in the interest of encouraging an 'infant currency'. The last time around it seems that the interest rate asked was slightly lower than the average interest rate on the currencies in the basket (Von Furstenberg 1983: 575), reflecting a 'security discount' (on account of the capital value being less subject to extreme values), as anticipated by the IMF staff when the new valuation was introduced.

Given the necessary infrastructure and the incentive to use it provided by public sector bond issues (at least initially), it will be up to the private sector to develop the market. The danger of the private sector not responding seems negligible. For example, anyone holding SDRs would be in a position to settle the claims of dealers directly, rather than first having to convert a national currency for that purpose (see the previous section), so that those engaged in international trade have an incentive to hold SDRs. Holding at least working balances in SDRs would be advantageous for anyone interested in trading SDR-denominated bonds. Once there is a private market, SDRs will be able to act as compensating balances. The more ancillary markets develop (e.g. forward markets), the greater will be the incentive to hold some SDRs to participate in them. It is of course true that private actors could hold national currencies until such time as they want to purchase an SDR bond (or another SDR-denominated asset), but cost minimization would point to the advantages of controlling an SDR deposit. Those advantages would become greater as the number of other agents with SDR deposits increases.

One cannot exclude the possibility that particular private actors would prefer to issue and trade in exchange-traded funds that are an alternative composite of various national currencies, but the danger of their developing so as to exclude the SDR seems insignificant as long as the SDR represents a

4 National governments are well advised to issue most of their debt in the national currency, so as to avoid the danger of a mismatched currency composition (Goldstein and Turner 2004), but a small part of their financing needs can prudently be raised in foreign currency terms, and concern for supporting an infant currency would suggest it should be the SDR.

cross-section of the most important national currencies. Nothing need be done either to impede or encourage additional exchange-traded funds.

Replacing reserve currencies with the SDR

As remarked earlier, two things are necessary to have an all-SDR reserve stock: a willingness to negotiate one or more substitution accounts, and the negotiation of a comprehensive ban on holding another country's currency beyond minimal working balances. A dollar substitution facility has already been discussed. An agreement not to hold one another's currency seems eminently good sense and a way of minimizing friction between countries.

In order to have an all-SDR reserve stock, it would be necessary to replace the secondary reserve currencies, as well as the dollar. Some of these could doubtless convert their liabilities into SDRs out of their own reserves. If these consisted of dollars, this would increase the call on the US substitution facility, not create a need for an additional substitution facility. However, in those cases where a reserve currency country has issued reserves greater than the sum that it is willing and able to redeem from its own reserves, it would be necessary to create a substitution account specifically for that country. It is of course ideal from the standpoint of a reserve centre if its liabilities are consolidated in this way, since it means that initially the seigniorage continues to accrue to the former reserve currency country/ies. Presumably these would be required to amortize these balances over time, which would be matched by new SDR creation, thus effecting a long-run reallocation of seigniorage. Matters would operate quite symmetrically with respect to the dollar; if (as seems most likely) an amortization requirement were expressed as a percentage of current account receipts, this would in practice mean that the USA would have far longer than any of the secondary reserve currencies to amortize its reserve currency obligations.

This also suggests how a deal on the controversial issue of denominating the dollar substitution facility might be constructed. In return for denominating it in dollars, provision might be made for gradual amortization. This would gradually shift the seigniorage from the USA to the members of the Fund in general. It would mean that the cost of dollar denomination would be temporary (even if fairly lengthy), which should be more acceptable than a permanent arrangement.

The elimination of the dollar's reserve role would affect only the official sector, and thus would be more straightforward than the task considered in the previous section of this chapter.

Concluding remarks

The topics discussed in this chapter are all highly interdependent. Most obviously, it is not possible to have SDR intervention unless there is a private market in SDRs. However, in addition, one has to recognize that people are

unlikely to make the (small) leap to SDR intervention if the possibility of dollar intervention still exists, and they are unlikely to be convinced that there is no possibility of dollar intervention if there are still holdings of dollars alongside SDRs in official circles. Indeed, it seems rather unlikely that official holdings will not be used so long as they exist.

If one gets as far as an SDR standard, why not be content with that, rather than pressing on to what is bound to be controversial ground? The answer is that this would jeopardize important objectives. It would mean abandoning the hope of reforms in adjustment incentives, since one would then lack any incentive for China to agree. It would imply abandoning any hope of a symmetrical system, since without SDR intervention there is little hope of the USA having an exchange rate policy of its own. The proposals in this book are integrated, not in the sense that one could not make some of the reforms function without doing others, but in the sense that all are necessary in order to have a potentially negotiable package.

8 Negotiating the reforms

At this point in the book I have completed my specification of a reformed system. What I conceive as ideal involves all three elements: making the IMF an effective world lender of last resort; introducing a pressure for adjustment via the exchange rate; and enthroning the SDR. However, the first element can be introduced whatever happens to the other two. While in principle independent, in the sense that either could operate without the other, it seems to me inconceivable that other countries – China especially – will be willing to concede a pressure for adjustment unless the USA is willing to offer a serious concession in return. The most promising US concession strikes me as a willingness to trade the international role of the dollar for the SDR, as described in Chapter 7. (Agreement to an SDR standard as described in Chapter 6 would be an essential pre-condition for this reform, but is not conceived as part of the reform package because it could be introduced without the other elements.)

The ensuing chapters deal with the issue of bringing a reformed system into being, then attempt to sketch how it would function, and finally outline an alternative approach to achieving partial reform.

Clearly it would not be enough to gain an academic consensus on the merits of the reform agenda outlined in this book. One would need also to convince officialdom, and to negotiate the set of changes, if the changes were to be introduced into the real world. This chapter is about the problems this would pose. It does not aim to set a course for the negotiations that would be involved, for the very good reason that the negotiations would depend upon the negotiators and their particular idiosyncrasies, but to indicate the conditions under which the reform programme outlined in this book satisfies the basic interests of each of the blocs that would in principle be capable of vetoing change. It is assumed that negotiation is the right way to go: an alternative approach is described in Chapter 11.

International monetary reform is not something that can be vetoed by any old country, but it does require the support of all the main blocs. These are: the USA, China, Western Europe or the main industrial countries excluding the USA, and the emerging markets and developing countries excluding China. (The third category is ambiguous: it is not clear whether Japan,

Canada and Australia – the three principal economies excluded by the first definition but included by the second – have the power to veto change, because no one suspects them of harbouring such a nihilist ambition. On the other hand, the euro area is surely an essential element in a grand bargain.) Admittedly this classification has certain ambiguities, for example where one places Russia and Singapore; but these countries individually could not prevent a reform programme that the rest of the world wanted, while those countries' best chance of influencing the course of events is to adhere to one of the identified groups. Which one they choose to join is unlikely to influence the course of events.

The view taken is that countries aim to advance their own interests, or at least their interests as misinterpreted by any ideological hang-ups from which they may suffer. Countries are not always guided by their underlying interests in the actions they take, but to assume that they are so motivated is a natural starting point (the literature on international political economy takes it for granted that countries pursue their national interests) – and anyway, countries that have misidentified their interests will be relatively prone to alter their policies, especially when this is pointed out to them. Accordingly, the main thing we examine is the set of real interests that countries hold in regard to international monetary questions.

It is assumed that the first of the reforms proposed, granting the IMF the powers normally found in a central bank in the event of a global crisis being declared by the political leadership, is uncontroversial. Doubtless someone would oppose it, for it is in the nature of negotiators to feel obliged to oppose, but it is difficult to divine any rational reason for such opposition. However, there are perfectly rational reasons for opposing the remaining reforms, and accordingly we analyse what these are.

The USA

Consider the USA first. As the leading power in 1944, it was given a special place in the Bretton Woods system. Assessment of just how special a place still differs from one observer to another. There are those who regard Bretton Woods as essentially founded on a bargain whereby the USA abandoned any attempt to manage exchange rate policy in return for an implicit promise by the rest of the world that it would finance any US deficit by accumulating US liabilities (or sometimes this is regarded as the essence of the post-Bretton Woods system). Others feel that the 'special place' of the USA in the system was confined to the dollar being defended by the sale of gold.

The former group seem to include the US Treasury, which believes it is vital to US interests to keep the rest of the world buying US Treasury bonds so as to finance the US debt. They oppose an active US exchange rate policy. At present the USA does not pursue an active exchange rate policy, but simply lets the dollar float. In the reformed system that I envisage, the USA would have the right to intervene (subject to the limitations inherent in the

reference rate regime). The fundamental reason why the USA does not pursue an active exchange rate policy is that it has been so decided by the political leadership. That decision could be reversed by the political leadership (of which I am in favour), and does not require agreement by other countries. However, one has to note that doing this might cause a reluctance to pick up US deficits in the RoW, which thought would probably worry the US Treasury.

There are some Americans who are committed to defending what they see as a system, the dollar standard, that defends American interests. There are other Americans who are convinced that the USA loses from a system that precludes the active use of exchange rate policy, which in their view outweighs any seigniorage benefits. (There are also Americans who view the whole system with hostility as an infringement of US sovereignty.)

I am of the view that the USA needs a balance of payments policy, including an exchange rate policy, which means that I believe the USA would benefit from agreeing to the proposed reform. The one group that I can see may have veto power and be opposed to it is those Americans who value the seigniorage benefits more highly than the loss of exchange rate policy. If this group in fact has veto power, and I suspect that it contains many of the non-economists in the government policy apparatus (strategic thinkers, military, perhaps politicians, etc.), then the prospects of reform must be judged dim. The saving grace is that the judgement of this group can be modified in the light of new evidence rather than being set in stone, so that a negative verdict at one point in time may be altered in the future.

I believe that the USA's major interest is in securing a change in the motives for adjustment. Judging by repeated assertions in Congress, and by Secretary of the Treasury Timothy Geithner's initiative in 2012, it would wish for countries to avoid realizing large imbalances in their current accounts. This ambition seems unrealistic: one cannot punish a country for actions that may be out of its control, like the actual realization of a current account imbalance. Under the proposed reforms, countries that had no capital flow would be disciplined by the requirement that their exchange rate be such as to produce at most the expectation of a moderate surplus in the medium term. However, this would still allow a country to run a large current account surplus matched by a large capital outflow under the proposed reforms, so these must be considered less than ideal from a US standpoint. On the other hand, the USA would presumably be somewhat mollified by the thought that if and when there was a drop in the capital outflow (similar to that experienced by Germany when its banks lost their enthusiasm for investing in Southern Europe), pressures on the surplus country to adjust would intensify.

We therefore assume that the primary US interest at stake is in obtaining a measure of influence on adjustment policy. US interests are clearly at stake also in regard to the status of the dollar, in particular as to whether it remains a reserve asset, but US opinion seems distinctly divided on this issue. We assume that the average tendency is to favour retaining the dollar, but to be prepared

to contemplate trading this for a say on when countries should adjust. I would not claim that this applies to all US public opinion, but if it does not apply to the average, there is no hope for this reform programme!

So far as US ideology is concerned, the main element that has been conspicuous for the past 40 or 50 years is the Keynesian dimension of official White House policy, manifested in particular in a reluctance to see the demand on resources fall greatly below supply. It is not, however, clear that this should be treated as a permanent phenomenon; the Republican Party's current rhetoric is strongly anti-Keynesian, suggesting that a change of governing party could lead to a far more dramatic change in White House ideology than occurred in 1981 or 2001.

China

Let us move on to discuss the other individual country that is competitive with the USA in terms of the size of the economy. Likewise, it is also regarded as having a veto on world arrangements, although (unlike the USA) it does not have a formal veto due to the size of its quota.

China will undoubtedly resist any attempt to discipline current account imbalances, because of the implication regarding its past misconduct, but insofar as China has now reformed and no longer seeks large current account surpluses, it might be willing to trade off a set of rules that would exclude the possibility of similar behaviour in future in return for sufficient gains elsewhere.

It also has strong views on the other leg of the reform programme outlined above. The most authoritative expression of Chinese views on this topic is the 2009 speech of Zhou Xiaochuan, the governor of the People's Bank of China. This speech made clear that the flaws seen in the reserve currency system would create difficulties for any future reserve currency and do not stem from inadequacies specific to the dollar, and by implication indicated that the last thing China wanted was to see the yuan replace the dollar. Zhou regarded Keynes's proposal of bancor as an attempt to give substance to the ideal of building a super-sovereign reserve currency, and noted approvingly that its value would have been defined as equal to a basket of 30 commodities. The speech made it clear that China regarded the SDR as a promising initiative that should be built on rather than brushed aside.

In certain respects Zhou's analysis appears inadequate. Thus he praises Keynes's decision to opt for commodity money, without noting the great change in the composition of trade in the post-war years: trade is now dominantly trade in manufactured goods, not primary commodities. A commodity money à la Keynes would lead to gross instability in the price of traded goods in any country that pegged to bancor, and certainly in the price of manufactures in terms of bancor. He suggested 'backing' SDRs with a pool of real assets, whereas one of the advances incorporated in the design of the SDR was that it dispensed with the primitive notion that holders of SDRs want to receive the assets that supposedly back money rather than the

alternative currencies that countries are assured of getting in the SDR scheme (Machlup 1968). He suggests that it is possible to design an incremental approach to establishing the SDR: 'The reform … should begin with specific deliverables. It should be a gradual process that yields win-win results for all' (Zhou 2009: 2). However, there are no specific proposals for good reason – it is an empty set (I have tried to think of some, and come up empty handed). Enthroning the SDR is going to demand a big bang approach: either you make changes that will get you to at least an SDR standard, or you do nothing.

Zhou made it clear that China is not hankering after a yuan standard. He also made it clear that China sees the future in terms of the SDR. This implies that China may be willing to make a substantial concession on adjustment incentives in order to gain a substantial concession on the SDR replacing the dollar. (Without a willingness to trade substantial concessions, it is clear that international monetary reform is going nowhere.) It is this bargain that lies at the heart of what is proposed in this book.

Odd as it is, in view of the supposedly communist basis of the Chinese system, China betrays almost no ideological bias.

Western Europe/other advanced countries

Whether this group is named after Western Europe or the euro area that lies at its heart, or the title recognizes that Japan, Canada and Australia also naturally fall into this grouping and are weighty participants in international discussions, what it is called matters less than recognition of its role. During the C-20 negotiations, in 1972–74, when China was not even a member of the IMF, this grouping was the natural alternative to the USA. Today no one would so consider it, and its loss of status is accepted within the group, which is indeed fighting to minimize further relegation (in terms of Fund representation), but their IMF voting power gives these countries a veto over changes in world monetary arrangements, and this is likely to persist absent a major change in the votes needed to secure reform.

In principle there are also sub-divisions within this grouping that would have veto power, but none which appear likely to be relevant. Assuming that the euro countries voted as a bloc, they would have the power to wield a veto. The point is that it is very difficult to envisage circumstances in which a blocking minority of the other industrial countries would feel so hard done by as to be prepared to wield a veto that did not also encompass the eurozone. Accordingly we treat the euro grouping alone as having a veto power.

What are the interests of these countries in the two issues that we have identified as central to international monetary reform? The euro area has traditionally run a near-balanced current account, but this was the net result of a surplus of Germany, etc.,[1] and a deficit of Southern Europe. Now that

1 The 'etc.' consists principally of the Netherlands, although Austria and Finland have also tended to contribute and share similar views.

Southern Europe has been 'persuaded' to balance its books, and 'Germany' shows no sign of doing the same, the presumption must be that the EU will become a major surplus area. This certainly seems consistent with recent (March 2015) moves in exchange rates. This means that the eurozone is likely to oppose any attempt to discipline current accounts if Germany continues to call the shots. However, it may be that other countries are seeking to undermine German dominance, and would therefore welcome the opportunity of defeating Germany on an issue that is not central to the European project. Insofar as the collective weight of the eurozone is exerted in a direction determined by majority vote, they could well prevail.

These countries can all borrow at something close to the SDR interest rate, so they have no pecuniary interest in being allocated SDRs. It is a matter of indifference to their earnings whether the offshore market operates in dollars or SDRs, although there are those who would welcome seeing the dollar's role reduced by enthroning the SDR. Perhaps the most consequential impact is via the Triffin dilemma: this would be eliminated under an SDR-centred system, and since most of those who worry about the Triffin dilemma tend to be Europeans, there may be support from this quarter. There are also those who foam at the mouth at the inequity of the 'exorbitant privilege', and presumably they also would be greatly pleased.

On the whole, however, the impression left is that Europe, and other industrial countries, do not stand to gain or lose a great deal from the reforms being mooted.

On ideology, there is a very clear split that has developed between Germany and other members of the group. Germany, which has achieved dominance in the eurozone, believes in the virtues of austerity – not just when the economy is at full capacity, but apparently under all conditions. Almost all German economists seem to subscribe to this notion. Views in most other countries are far more diverse, from those who oppose austerity under all conditions to those who judge that one needs to ask whether supply constraints are currently binding. It is difficult to see how the German view can be reconciled with the reform programme described above, in particular with the aim of disciplining current account surpluses. Victory in the quest for international monetary reform would seem to demand that Germany be defeated. The way this could occur with least damage to German self-esteem would seem to be through an initiative within the eurozone.

Emerging markets and developing countries (excluding China)

During the C-20 negotiations, in the early 1970s, the developing countries already recognized that by acting collectively, they had the power to veto any reform that might be agreed by the developed countries. The one reform on which they agreed was that they should get a share in the seigniorage from reserve creation, which resulted in their being mischaracterized as concerned only with the issue of newly created SDRs. This is clearly not their only

interest, but it remains a real one. Moreover, today no one doubts that they have the power to veto an agreement.

Several Asian developing countries are among those that developed large current account surpluses in recent years. They will therefore give close consideration to the proposals for disciplining surpluses. If the negotiations end up by providing a satisfactory alternative means to reserve build-ups to defend against speculative runs, then the countries involved should (and might) welcome proposals that would limit surpluses, for then these are a pure waste of resources. (Such proposals may nonetheless appeal to less-informed policymakers, or to those who subscribe to the Rodrik view described in Chapter 10.) It is only if the only option for defence against speculative runs is limited to owned reserves that it would make sense to defend the right to run indefinitely large current account surpluses. Of course, one should not exclude the possibility that there may be some 'ss-informed policymakers' or Rodrik sympathizers in office at the time that reform is being negotiated, in which case one must rely on their being overruled.

Several of the Middle Eastern countries are in a situation where a blanket ban on current account surpluses above a certain size (relative to any base) would seriously prejudice their national interests. We assume that it would be possible to negotiate an opt-out clause allowing them to build up their portfolio investments. The absence of such a provision would provide an overwhelming rationale for opposing reform.

The developing countries, China and possibly India excepted, are unlikely to be greatly concerned with the question of whether the private market is dollar based or SDR based. They will need to use the market, and what will matter for them is its efficiency, which is unlikely to be materially affected.

Summary

It follows that none of the major blocs has a clear incentive either to subscribe to, or to veto, a reform that comprises the features advocated in this study. There are several elements in various countries that can be expected to oppose particular features, and who will have to be defeated if this reform is to happen. Thus one can expect that there will be a core of Americans who are dedicated to opposing measures to make the dollar function as a normal currency; these will have to lose an internal battle if the reform is to go through. The Chinese are also likely to be deeply divided, with some reluctant to see subscription to doctrines that imply that past surpluses were a mistake, and the prospects of reform depend on this element being overwhelmed by those with more forward-looking preoccupations. If Germany were still completely independent, there would be little prospect of persuading it to sign on; one has to rely on its eurozone partners to out-vote the Germans. Some developing countries would oppose the reforms designed to discipline surplus countries, especially unless these are accompanied by measures that provide through the IMF a real alternative to reserve build-ups as a way to combat

future speculative pressure. One has to assume that countries with depleting resources aiming to accumulate portfolio assets for investment are given an opt-out if Middle Eastern countries are not to object.

In short, there can be no certainty that this reform would prevail, even if it found a champion willing to push it, which is a first need. No country looks anxious to step forward in this role at present. However, neither is a reform along these lines condemned by inexorable logic. This gives it a big advantage over most alternative reform proposals.

9 Legislating the reforms

It has often been noted that monetary arrangements, unlike trade arrangements, are not treaty-dependent. By subscribing to the International Monetary Fund, countries affirm that they intend to follow cooperative policies. Many of the changes would in fact involve no more than changes in the rules of the IMF.

So a first question is: What changes in the IMF Articles are required by the reforms discussed in this book? It has already been conceded that one cannot be sure that these reforms would command a majority, but we do not discuss this further here. This chapter is concerned with identifying the changes in the IMF Articles and other changes that would be needed in order to implement the programme that was outlined.

Which Articles would have to be changed?

Already in the introductory Article one finds a mention of the fact that at present the Fund is divided into the General Department and the Special Drawing Rights Department. This leads to unnecessary obfuscation, and the first task of reform should be to eliminate this historic aberration (which is referred to subsequently as 'modernizing the IMF'). This is the topic of the second section of this chapter. Modernizing the Fund in this way is also a desirable precondition for turning the IMF into a lender of last resort à la Cooper.

Article I deals with the purposes of the Fund. It is distinctly anomalous that these purposes do not include a mention of rapid growth, which in practice dominates. Article II deals with the two classes of members (founding members and others) and is unobjectionable, if not of great consequence. Article III deals with quotas. Two amendments would seem called for: the requirement in III.2(c) that an 85% majority is required to approve a quota change (the undesirability of this has been emphasized by the unwillingness of the US Congress to approve the current small change); and the spelling out of what currencies are to be paid to the Fund on the occasion of a quota increase in III.3, which would be redundant in view of the conversion of the General Department to an SDR basis.

Article IV is entitled 'Obligations Regarding Exchange Arrangements' and says, basically, that there are none. In view of this, it is ironic that countries not in transitional status have what are known as 'Article IV reviews'. The Article also calls (Section 3) for the Fund to exercise 'firm surveillance' of the exchange rate policies of its members, in which respect it has been singularly derelict in its duty. This Article will require total redrafting. It is dealt with in the third section of this chapter.

Article V is entitled 'Operations and Transactions of the Fund'. It lays out each of the operations that the Fund is entitled to make, from the routine transactions of the General Account to provisions for winding up the Special Disbursement Account (the one that lends funds at a subsidized interest rate to the most impoverished members). Many of these operations would be simplified if the modernization of the Fund alluded to above were implemented. Similarly, there are many references to the operations that the Fund is permitted to make in gold, which could be deleted on the grounds that they have been overtaken by events.

Article VI is entitled 'Capital Transfers'. It lays out the rules as they were conceived *c.*1945: that countries are not entitled to borrow from the Fund to finance capital flight and should deal with the latter by imposing restrictions. How the Fund reconciled these requirements with its policies in the 1990s I have no idea, but it now adopts a policy much closer to its birth right. Advantage might nonetheless be taken of a comprehensive rewrite of the Articles to modernize this Article and permit the Fund to finance a withdrawal of capital, especially in view of the fact that providing an alternative to reserve build-ups as a way of safeguarding against a renewed flight of speculative capital à la 1997 is a major current objective.

Article VII is entitled 'Replenishment and Scarce Currencies'. Section 1 deals with measures to replenish the holdings of currencies that threaten to become exhausted, allowing the Fund to borrow the currency or buy SDRs. The remainder of the clause deals with currencies that become technically scarce. When the Fund was under negotiation, great hopes were invested in American willingness to accept this clause, which was taken as signifying willingness to accept discrimination in the event of a scarcity of dollars. In the event, the clause has proven a dead letter because no technical scarcity developed, and nothing would be lost if it were deleted.

Article VIII, entitled 'General Obligations of Members', contains things that members promise to do, varying from maintaining current account convertibility to avoiding multiple currency practices to the furnishing of statistics. Some of these, notably the commitment to avoid restrictions on current payments in Section 2, are important. Section 7 commits members to 'collaborate regarding policies on reserve assets' with a view to improving the surveillance of international liquidity and making 'the SDR the principal reserve asset in the international monetary system'.

Article IX is entitled 'Status, Immunities, and Privileges' and details the immunities and privileges to which it and its employees are entitled. Article X

notes the obligation of the Fund to cooperate with other international organizations. Article XI notes the obligation of members not to seek to evade the Articles by engaging in proscribed activities in non-member countries.

Article XII deals with 'Organization and Management of the Fund'. While there is provision for, and acknowledgement of the potential role of, a Council in Section 1, the bulk of the Article deals with the Board of Governors, the Executive Board, the managing director and disposition of the Fund's reserves. Adoption of the principles of the *Palais-Royal* Report would dictate a comprehensive redrafting, but this is not attempted here. Article XIII deals with geographic location of the Fund's office and depositories.

Article XIV deals with transitional arrangements. For many years most developing countries fell under this Article, but now most have adopted current account convertibility (known in the lingo of the Fund as moving from Article XIV status to Article VIII status). The difference between Article XIV and Article VIII countries lie precisely in that the former are entitled to retain restrictions on current transactions.

Article XV is entitled 'Special Drawing Rights' but merely gives the Fund powers of allocation and lays down the majorities required in order to change the basis of valuation of the SDR. Article XVI says the SDR Department and the General Department are distinct; this and a number of subsequent Articles are prime candidates for abolition under the modernization mandate.

Article XVII deals with those entitled to hold SDRs. This would also require redrafting in the light of the possible expansion in the holders of the SDR. It is dealt with in the fourth section of this chapter. Article XVIII deals with allocation and cancellation of SDRs. Section 1 contains the sentence, 'In all its decisions with respect to the allocation and cancellation of SDRs the Fund shall seek to meet the long-term global need, as and when it arises, to supplement existing reserve assets in such manner as will promote the attainment of its purposes and will avoid economic stagnation and deflation as well as excess demand and inflation in the world', which I argue in Chapter 6 to be seriously out-dated, so this Article also needs redrafting. Article XIX deals with operations in SDRs. It starts off by describing the standard swap that is permitted, subject to an unpoliced requirement of need, before outlining the provisions for designation and the now-suspended provisions for reconstitution. Articles XX through XXV are also about the operation of the SDR Department and will be covered, insofar as it is necessary, in the fourth section of this chapter.

Articles XXVI through XXXI are things that are necessary for completeness, varying from the provisions for winding up the Fund to provisions for amendment to the signatures that brought it into being. The Articles are followed by a curious list of Schedules (which are referred to from time to time in the Articles), which vary from those of purely historical interest (such as Schedule A, which lists original quotas), to those of current relevance (e.g. Schedule E, on the election of executive directors), to those of conceivable

future relevance (e.g. Schedule D, on what a Council might look like if the Board of Governors ever votes in favour of its creation).

Modernizing the Fund

In writing on the institution that he served so long and well, Jacques Polak (1999) proposed (a) the elimination of the 'currency veil' from the Fund, and (b) the merger of the General Department and the SDR Department. He withdrew his earlier suggestion (Polak 1979) that loans be made and repaid in SDRs, on the grounds that SDRs in any event are converted into currency when countries receive an IMF loan, and so it is simpler for the IMF to supply them with the currency directly. This is undoubtedly true with the world as it exists at the moment, except for those countries that simply want to show higher reserves, but if and when we make intervention in SDRs possible, it would make sense to take the extra step. In Polak's world, countries supplying reserve currencies (either out of their reserves or newly printed, if they issue the reserve currency that is demanded) receive in exchange an SDR deposit, and the people engaged in the speculative run would hold dollars. In our reformed world, where SDR intervention is possible, the SDRs would end up being owned by the people moving out of the currency under threat.

Polak (1999: 3) points out that the present 'balance sheet' published by the Fund's General Department does not even allow one to infer the magnitude of its credits or its liquid liabilities. He argues that the financial structure of the Fund is a factor impeding agreement on 'quota increases, [and] … decisions on which currencies to use in its transactions, about the role of the SDR, and about the distribution over the membership of the cost of its administrative expenditures'. I follow his logic in the second and fourth of those critiques, but I must confess that I do not understand the first and third points.

Modernization along the lines that he proposed is, therefore, urgent. In my opinion it is worth making loans in SDRs, not because this would help the world as it now is, but to prepare the ground for a world in which the SDR has become a widely traded, privately held asset. This also ensures that world reserves will rise in the event of an emergency that permits the Fund to issue unlimited SDRs to finance its lending.

The new Fund would still retain quotas, which would remain essential as defining the limits on a country's borrowing rights, entitlement to SDR allocations, the obligation to accept SDRs (the main obligation of membership), and its voting rights. So the battle about quotas would remain. However, in place of a new member country paying in its quota in the form of 25% SDRs and 75% currency, it would receive the right to hold SDRs at the Fund, or borrow from it. For existing members, the arrangements depend on whether they were previously net creditors or debtors of the Fund. Countries that were net creditors would receive an SDR deposit, while countries that were net debtors (i.e. the Fund owned less of their currency than 75% of their quota)

would acquire a Fund loan for that amount (referred to, confusingly, as a Fund credit), that is, they would owe that amount to the Fund.

The other proposal of Polak is the amalgamation of the General and SDR Accounts. Indeed, Polak argues that this change is a logical corollary of abolishing the use of currencies in Fund operations, because SDRs would also be created and extinguished by the operation of the Fund's lending facilities instead of just by allocation and cancellation. In any event the strict separation of the two accounts sought by those suspicious of the SDR Account in the early days has been proven unnecessary.

Amalgamating the two accounts would not have operational consequences, but it would permit the Fund to present a meaningful consolidated balance sheet and it would enable large saving in the wording of the Articles. The Fund would deal solely in SDRs, and in consequence the Articles would be greatly simplified, and there would be certain economies in expenses.

Adjustment

Adjustment is discussed in the Articles, and so it is appropriate to suggest a redrafting. The question is how to rewrite Article IV in order to implement the first reform that has been outlined in preceding chapters. I suggest the following wording: an explanation follows. The wording retains as much of the wording of the existing Article (reproduced in Box 9.1) as is consistent with the revised principle and the progress of the international monetary system.

Suggested Alternative Article IV
Obligations Regarding Exchange Arrangements

Section 1. General obligations of members

Recognizing that the essential purpose of the international monetary system is to provide a framework that facilitates the exchange of goods, services, and capital among countries, and that sustains sound economic growth, while maintaining appropriate balance between countries, each member undertakes to collaborate with the Fund and other members to assure orderly exchange arrangements and to promote equilibrium exchange rates. In particular, each member shall:

i endeavor to direct its economic and financial policies toward the objective of fostering orderly economic growth with reasonable price stability, with due regard to its circumstances;
ii seek to promote stability by undertaking that it will only intervene, or take other measures intended to influence its payments balance, if they are expected to have the effect of pushing the exchange rate toward a target agreed with the Fund;

iii avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members; and
iv follow exchange policies compatible with the undertakings under this Section.

Section 2. General exchange arrangements

a Each member shall notify the Fund, within thirty days after the date of this amendment, of the exchange arrangements it intends to apply in fulfillment of its obligations under Section 1 of this Article, and shall notify the Fund promptly of any changes in its exchange arrangements.
b The Fund shall periodically calculate the set of exchange rates that it believes would tend to lead in the medium term to the set of current account outcomes approved by the Executive Board and lying ordinarily within 3% of GDP of balance. That set of exchange rates shall be the target exchange rates for the purpose of 1(ii) above.

Section 3. Surveillance over exchange arrangements

a The Fund shall oversee the international monetary system in order to ensure its effective operation, and shall oversee the compliance of each member with its obligations under Sections 1 and 2 of this Article.
b A member that intervenes or otherwise pushes the exchange rate in a disequilibrating direction shall be subject to such penalties as the Executive Board may impose.

Section 4. Separate currencies within a member's territories

a Action by a member with respect to its currency under this Article shall be deemed to apply to the separate currencies of all territories in respect of which the member has accepted this Agreement under Article XXXI, Section 2 (g) unless the member declares that its action relates either to the metropolitan currency alone, or only to one or more specified separate currencies, or to the metropolitan currency and one or more specified separate currencies.
b Action by the Fund under this Article shall be deemed to relate to all currencies of a member referred to in (a) above unless the Fund declares otherwise.

Box 9.1 Existing Text of Article IV Obligations Regarding Exchange Arrangements

Section 1. General obligations of members

Recognizing that the essential purpose of the international monetary system is to provide a framework that facilitates the exchange of goods, services, and capital among countries, and that sustains sound economic growth, and that a principal objective is the continuing development of the orderly underlying conditions that are necessary for financial and economic stability, each member undertakes to collaborate with the Fund and other members to assure orderly exchange arrangements and to promote a stable system of exchange rates. In particular, each member shall:

i endeavor to direct its economic and financial policies toward the objective of fostering orderly economic growth with reasonable price stability, with due regard to its circumstances;
ii seek to promote stability by fostering orderly underlying economic and financial conditions and a monetary system that does not tend to produce erratic disruptions;
iii avoid manipulating exchange rates or the international monetary system in order to prevent effective balance of payments adjustment or to gain an unfair competitive advantage over other members; and
iv follow exchange policies compatible with the undertakings under this Section[.]

Section 2. General exchange arrangements

a Each member shall notify the Fund, within thirty days after the date of the second amendment of this Agreement, of the exchange arrangements it intends to apply in fulfillment of its obligations under Section 1 of this Article, and shall notify the Fund promptly of any changes in its exchange arrangements.
b Under an international monetary system of the kind prevailing on January 1, 1976, exchange arrangements may include (i) the maintenance by a member of a value for its currency in terms of the special drawing right or another denominator, other than gold, selected by the member, or (ii) cooperative arrangements by which members maintain the value of their currencies in relation to the value of the currency or currencies of other members, or (iii) other exchange arrangements of a member's choice.
c To accord with the development of the international monetary system, the Fund, by an eighty-five percent majority of the total voting power, may make provision for general exchange arrangements without limiting the right of members to have exchange arrangements of their choice

consistent with the purposes of the Fund and the obligations under Section 1 of this Article.

Section 3. Surveillance over exchange arrangements

a The Fund shall oversee the international monetary system in order to ensure its effective operation, and shall oversee the compliance of each member with its obligations under Section 1 of this Article.

b In order to fulfill its functions under (*a*) above, the Fund shall exercise firm surveillance over the exchange rate policies of members, and shall adopt specific principles for the guidance of all members with respect to those policies. Each member shall provide the Fund with the information necessary for such surveillance, and, when requested by the Fund, shall consult with it on the member's exchange rate policies. The principles adopted by the Fund shall be consistent with cooperative arrangements by which members maintain the value of their currencies in relation to the value of the currency or currencies of other members, as well as with other exchange arrangements of a member's choice consistent with the purposes of the Fund and Section 1 of this Article. These principles shall respect the domestic social and political policies of members, and in applying these principles the Fund shall pay due regard to the circumstances of members.

Section 4. Par values

The Fund may determine, by an eighty-five percent majority of the total voting power, that international economic conditions permit the introduction of a widespread system of exchange arrangements based on stable but adjustable par values. The Fund shall make the determination on the basis of the underlying stability of the world economy, and for this purpose shall take into account price movements and rates of expansion in the economies of members. The determination shall be made in light of the evolution of the international monetary system, with particular reference to sources of liquidity, and, in order to ensure the effective operation of a system of par values, to arrangements under which both members in surplus and members in deficit in their balances of payments take prompt, effective, and symmetrical action to achieve adjustment, as well as to arrangements for intervention and the treatment of imbalances. Upon making such determination, the Fund shall notify members that the provisions of Schedule C apply.

Section 5. Separate currencies within a member's territories

a Action by a member with respect to its currency under this Article shall be deemed to apply to the separate currencies of all territories in respect of which the member has accepted this Agreement under

> Article XXXI, Section 2 (*g*) unless the member declares that its action relates either to the metropolitan currency alone, or only to one or more specified separate currencies, or to the metropolitan currency and one or more specified separate currencies.
>
> b Action by the Fund under this Article shall be deemed to relate to all currencies of a member referred to in (*a*) above unless the Fund declares otherwise.

Section 1 starts by using the same language as in the existing Article, notably by explicitly endorsing the growth objective as well as that of promoting trade, but the preamble differs in two respects. The first is that the clause 'while maintaining appropriate balance between countries' has been substituted for the assertion 'that a principal objective is the continuing development of the orderly underlying conditions that are necessary for financial and economic stability'. This not only gets rid of the dubious implicit claim that disorderly underlying conditions are the main cause of financial and economic instability, but it also emphasizes the importance of the objective of maintaining balance, which is central to what follows. The second is that the objective of maintaining equilibrium of exchange rate has been substituted for that of promoting a stable system of exchange rates. (This was the famous phrase with which the architects of 1976 sought to persuade the world that they cared about stability.)

Three of the four sub-paragraphs of paragraph 1 have been left unchanged. The exception is (ii), which was meaningless verbiage before and now expresses the reference rate proposal. The first of these expresses fealty to internal balance, (iii) expresses fealty to the Fund's birth right,[1] and (iv) seems harmless. Although (iii) is retained, it is not intended to carry the implication that exchange rate 'manipulation' is a crime.

Section 2(a) is unchanged. Section 2(b) is new: in place of the laissez-faire of the present Articles, it attempts to indicate the principles described in Chapter 5 and says that they should constitute the target exchange rates toward which countries are committed to aim. It replaces the section that I have often quoted as indicating the lack of obligations involved at present: 'Under an international monetary system of the kind prevailing on January 1, 1976, exchange arrangements may include (i) the maintenance by a member of a value for its currency in terms of the special drawing right or another denominator, other than gold, selected by the member, or (ii) cooperative arrangements by which members maintain the value of their currencies in relation to the value of the currency or currencies of other members, or (iii) other exchange arrangements of a member's choice.' Section 2(c) is omitted entirely: it was presumably inserted because in 1976 there was still the thought that one day the world might revert to a par value system, a hope that is now presumably dead.

1 A major motive for creating the Fund was prevention of exchange rate policies that sought to gain a competitive advantage, as in the late 1930s.

Section 3(a) is unchanged, except for the addition of Section 2 (along with Section 1) as indicating obligations that each member should follow. Section 3 (b) makes clear that countries will suffer consequences if they defy the rules of the system, though it does not spell these out, but leaves them to the discretion of the Executive Board. I would not take it amiss if prospective penalties were inserted.

Section 4 is about a prospective return to the par value system. It has been omitted entirely, on the view that this is no longer a live issue. The old Section 5 has been renumbered but retained.

Enthroning the SDR

Unlike the previous reform, the process of enthroning the SDR is not entirely the purview of the public sector. It cannot be accomplished solely by changing the Articles and practices of the Fund.

Of course, the Articles of the Fund play a role. In particular, it is stipulated in the Articles that only official institutions can become 'Other Holders' of SDRs. This clearly prevents the public and private sectors transacting with one another, which is necessary for SDR intervention. This requires a revision of Article XVII Section 3(i) so that it reads at the end '… other official entities, and approved commercial banks'.

The Fund created the SDR. It needs to regard itself as responsible for its progress. It therefore needs to take initiatives that go far beyond anything in the Articles, in the same way that the European Commission nurtured the ECU in pre-euro days. In particular, it will need to ensure that private participants in the market can effortlessly exchange SDRs among themselves, which requires that there be a clearing house arrangement. It is not the job of the Fund to provide this, but it is important that someone ensures that someone takes it on, and it is natural to expect the first 'someone' to be the IMF. When the ECU had to be nurtured, the European Commission arranged for the BIS to play this role for the ECU. It may be that the Fund again has to appeal to the BIS, but if a number of commercial banks are named as other holders, there could well be an element of choice (which could be used to introduce competition). It will be particularly important that the agent responsible for clearing ensures clearing between the public and private sectors: there is arbitrage money to be made if the two fall out of line,[2] so one can rely on deviations being small and temporary.

The infrastructure necessary for supporting the SDR consists of a clearing house and inter-convertibility between the official and private sectors. However, a thriving private market is not guaranteed by the provision of

2 If the official SDR became worth more than the private SDR, it would pay to create more private SDRs by buying the component currencies and then arbitraging with official SDRs. If the official SDR were worth less than the private SDR, it would pay the private sector to destroy SDRs.

infrastructure: it is necessary also to provide good reasons to trade in that market. Although it is possible that the IMF will seek to raise loans from the private sector to finance its activities, it is not very likely, particularly in a scenario in which the IMF can finance itself by issuing SDRs. Once again, the IMF is going to be in the business of having to persuade others to issue SDR-denominated loans. An obvious candidate is the IMF's sister institution, the World Bank, which would be expected to enhance its appeal to 'Belgian dentists'[3] by issuing such loans. (It is a sad commentary on the acumen of the financial office of the Bank that they have not taken this step on their own initiative.) The other development banks also have to raise money and would be good candidates too. The objective is to get the private sector into this market, which can be expected to happen once there is a core amount of activity already going on there. There may be a case for having the IMF point out the attractions, but any more overt action – such as subsidizing the market on infant currency grounds – should be restricted to public sector entities.

3 By 'Belgian dentists', one means investors living in countries too small to have persuaded the Bank to issue securities in their own currency.

10 The reformed system in action

In this chapter we endeavour to show how the system would work. In the first instance we take a specific date and show what the system would have implied regarding the policies pursued on that date. In the absence of a convincing model of the world economy, one cannot trace what would have happened from then on, but we can and do venture some comments about the relevance to subsequent events.

The impact in May 2010

We start off by supposing that the reforms would have been introduced in May 2010. Why this date? Because this is the first date when Cline and Williamson calculated a set of 'fundamental equilibrium exchange rates' (FEERs) according to the principles that became standard subsequently. (Calculations were made in two preceding years, but they involved marginally different definitions of equilibrium.) Using the longest dated series possible helps get a sense of whether the guidance would have helped. I also assume that the answers given by Cline and Williamson would have been the same as those that would have been reached by the IMF. This is doubtless not entirely valid – the IMF seems to have funny principles when it comes to assessing the exchange rates of Switzerland and Singapore, in particular – but one has to make some assumption, and this seems the best approach to assessing the validity of the technique.

A perusal of Cline and Williamson (2010: Table 2, col. 4) reveals that in May of that year 17 of the 30 countries (excluding the four oil countries) that we studied were safely within 3% of the estimated equilibrium. The remaining 13 countries either suffered from overvaluation or undervaluation. The six countries that we estimated to be overvalued were Australia (by 16.1%), New Zealand (24.7%), South Africa (15.7%), Turkey (11.7%), Brazil (5.9%)[1] and

1 The Brazilian figure was probably underestimated, since in the case of Brazil the IMF seems reluctant to alter its figure for the future balance of payments outcome when the exchange rate changes, even though the official basis of the figures is no *further* changes in exchange rates.

the USA (7.8%). These countries would have been told that they could not legally enter the market (or otherwise have supported their currency) to sell foreign exchange, which would seem unlikely to influence the policies of most of them, which are enthusiastic floaters. The exception is Brazil, which had no hesitation in trying to influence the exchange rate. However, Brazil was at that time seeking to decrease the value of the currency, which it regarded (rightly) as overvalued, so it would have had cause to welcome the IMF's pressure. There is, after all, a chance that the opinion of the IMF could have had an impact on the market.

The seven countries that we estimated to be undervalued were China (by 13.5%), Hong Kong (6.8%), Malaysia (12.5%), Singapore (32.0%), Taiwan (8.0%), Sweden (8.3%) and Switzerland (11.2%) – i.e. five East Asian countries plus Sweden and Switzerland. These countries would have been told that they could not legally have entered the foreign exchange market to buy foreign exchange. This would certainly have altered policies in the Asian countries, as is evident in Table 10.1. All the countries, except Hong Kong, were in a phase of rapidly building up reserves in the subsequent months, a policy which would have been prohibited to them.

Assuming that all the countries obeyed their obligations, how much difference would this have made? In countries that were floating, it can be argued that it would not have made much difference: any difference would have been due to market operators revising their opinions in the light of the revealed IMF opinion. However, in countries that 'manipulated' or pegged their

Table 10.1 Reserve changes following May 2011 (SDR million)

	Subsequent month	*Subsequent three months*	*Subsequent year*	*Percentage increase over year*
Australia	533	236	2,026	9
New Zealand	−633	514	1,316	11
South Africa	33	110	2,360	9
Turkey	−388	1,637	8,355	18
USA	−7	1,073	3,164	4
Brazil	6,662	8,613	43,419	27
China	5,008	374,803	325,770	20
Hong Kong	−121	−521	−1,480	−1
Malaysia	−731	−1,628	18,066	28
Singapore	608	2,254	15,396	11
Taiwan	1,170	2,715	5,595	3
Sweden	965	314	−3,404	−11
Switzerland	−7,293	−14,599	−4,295	−3

Source: *International Financial Statistics*, various issues, 2010 and 2011.
Note: The last column shows the percentage change in reserves over the year.

exchange rates, it would certainly have made a difference. This covers the five Asian countries, this time including Hong Kong, since although Hong Kong lost reserves, its policy of fixing the Hong Kong dollar to the US dollar would have been impractical without intervention. Sweden and Switzerland are treated subsequently.

The People's Republic of China

China is by far the largest of the Asian countries that would have been affected, as well as being the intellectual leader of the group. We shall therefore consider the effect on China. In the first place, it would have revalued the renminbi. It is not possible to say how large the revaluation would have been because the market could well have called a halt first, but intervention against the dollar would only have been possible after a revaluation of well over[2] 24% in terms of the dollar (Cline and Williamson 2010: Table 2, col. 6). Of course, the effective appreciation of the renminbi would be substantially less, since the other four Asian currencies would also be forced to move with them (and quite probably a large number of other currencies would have moved too). This realignment would have resolved the major tension in the world economy, which was the overvaluation of the dollar and the consequential deflationary impulse there.

The Asian countries tended to rationalize their surpluses as necessary in order to be in a position to meet a 1997-style withdrawal of capital without surrendering to new Western demands, and the importance of providing an alternative mechanism for them to handle any such eventuality was emphasized already in Chapter 3. Assuming that turning the IMF into a lender of last resort had been part of the reform and that Asian countries had felt they could rely on the Fund (which would almost certainly have required increasing their influence in it), they would have had no reason to complain on balance-of-payments grounds. Nor is there reason to suppose that they would have faced a problem in replacing external demand with internal demand and so maintaining the growth of employment constant; these countries had ample unsatisfied demands, of both investment and consumption, and they were not suffering from creditworthiness constraints. The only ground on which one might oppose their being told to run lower surpluses is the contention that large current account surpluses are good for growth, as Dani Rodrik (2008) has argued.[3]

2 The phrase 'well over' occurs because one must also allow for the width of the band, something on which we have not ventured a supposition.

3 I am not myself persuaded by Rodrik's argument. It is easy to agree that a more competitive exchange rate strengthens the incentive to invest in tradables, and even that because the world market is so much larger than the national market, that this effect is likely to outweigh the diminished incentive to invest in non-tradables. It may be plausible to argue that the impediments to growth are particularly large in tradables so that some differential favouring of this sector makes sense, but to

An appreciation of the Asian currencies identified would have been of substantial benefit to the rest of the world. This was a time when demand was overall deficient, and one of the constraints on more expansionary policies was fear of the implications for the balance of payments, especially in America. At that time the changes in exchange rates called for by our model were a substantial strengthening of the four Asian currencies, and a much smaller effective (average) appreciation of most other Asian and certainly of most European currencies. In terms of dollar rates, one would have looked for a big appreciation of the Asian currencies identified, a small appreciation of the other Asian currencies, a still smaller appreciation of most of the European currencies, and near-constancy of Latin American currencies; only the Australian and New Zealand dollars, the South African rand, and the Turkish lira would have depreciated in terms of the dollar.

Unfortunately it is not possible to perform a series of such exercises in the absence of a convincing model of what would happen to the world economy under different circumstances. Presumably the different exchange rates that would have prevailed in 2010 would imply different outcomes, for exchange rates and a wide variety of other variables, and this makes it impossible to know what would have occurred. To the extent that the situation was not transformed, and that exchange rates remained in disequilibrium, the reformed system would have continued to call for similar changes. However, the fact that exchange rates would presumably be closer to equilibrium rates would tend to make a repetition unlikely.

Singapore

Singapore is projected by the IMF to have a very large current account surplus in the future. The IMF's External Sector Report nonetheless finds the country only marginally undervalued, because it declares that Singapore is entitled to have a large surplus, the only reason given being that Singapore is an offshore banking centre, and it explains that countries in this situation are abnormally subject to the risk of precipitate withdrawals of foreign currency.

The Cline-Williamson model does not contain any special allowance for a country because it is a financial centre. While a small effect of this sort is plausible, the effect allowed for Singapore is far more than seems reasonable.

Singapore has continued to have an outsize current account surplus as recorded by the IMF since 2010.

> proceed to argue that the larger this differential, the better, is to ignore that contrary effects set in at some stage. In particular, the supply of savings available for domestic investment shrinks, the larger the current account surplus. The one attempt I am aware of to search empirically for this effect and show that it needs to be traded off against the 'Rodrik effect' appears to have been successful (Aguirre and Calderón 2005). It seems that there is a point, which typically involves a moderately undervalued rate, beyond which an increased payments surplus is bad for growth.

Sweden: a market-induced undervaluation

The position of Sweden was different from that of the Asian countries. Sweden had a freely floating currency:[4] according to former colleagues of mine at the Peterson Institute (Bergsten and Gagnon 2012), this makes a crucial difference. It certainly makes a crucial difference in whether one can blame a foreign government, but to those of us not in the blame game this is irrelevant; in both cases the result is liable to be an excessively large current account surplus, which redistributes demand away from other countries. To allow this to happen just because foreign exchange dealers cannot see beyond their noses is a travesty. The Swedish case is interesting because it illustrates that markets can yield results that are damaging to the country in question as well as to the rest of the world. The conclusion some of us draw is that Sweden should have intervened, to strengthen the krone.

Sweden did indeed have a large surplus in the succeeding years. It would have benefited from a revaluation in 2010.

Switzerland: was the Swiss franc undervalued?

The Swiss franc was also a nominally floating currency in 2010, but in the course of 2011 the Swiss authorities became disturbed by its strength. They went to the extent of imposing a cap on its euro value of 1.2 in September 2011 (when it was already worth far more than a dollar), at which time they declared that the 'massive overvaluation' of the Swiss franc was a 'threat to the economy'. The IMF accepted this claim, since the External Sector Report asserted that the Swiss franc was marginally overvalued (by estimating that the Swiss 'equilibrium' current account was even larger than the prospective current account surplus). In January 2015 the authorities decided that they would cease trying to resist the market pressure for an appreciation, whereupon the franc appreciated by over 20%.

In strong contrast, the Cline-Williamson study had estimated the Swiss franc as 11.2% undervalued in the previous year, and we still estimated it as 10.5% undervalued when we re-estimated the figures in 2011. The fact is that the Swiss current account was projected (by the IMF) to remain in massive current account surplus for the remainder of the forecast period (the IMF forecast was for a surplus of 12.0% of GDP in 2016, which was the largest projection for any non-oil country except for Singapore, with 14.9%). The IMF claimed that the Swiss had a surplus in part because of an accounting convention[5] that they estimated as worth approaching 3% of GDP, and in

4 This is well illustrated by the fact shown in Table 10.1 that Swedish reserves moved in opposing directions in two of the three instances shown.

5 Switzerland is home to many multinational companies. Retained earnings are shown by accounting convention as belonging to the host country, whereas many of them should in reality be attributed to the investors' countries, because they serve to increase the net worth of the investors. Since Cline-Williamson also allow

part because Switzerland is a financial centre. The Cline-Williamson study also allowed for the accounting convention. We have no quantitative estimate of the extent to which being a financial centre justifies a surplus in the IMF's world, but it strains credulity to believe that this is worth something around 12% of GDP (especially since the UK is apparently denied anything substantial, judging by the fact that the UK's assigned deficit is the fourth largest). Unless there is something that I find more convincing in the IMF model, I shall regard the IMF as guilty of pandering to special interests.

Switzerland's assertions that it should be considered overvalued because the exchange rate threatened Swiss industry evidently struck a chord in popular opinion. There does seem something odd about telling a country that it is saving too much and that the solution to its problems is to consume more. I am certainly not going to subscribe to the view that the fact that the Swiss franc rose after being freed proved that it was 'really' undervalued. Nevertheless, if one values consistency in payments objectives, cases of over-saving are liable to arise. The fact is that a surplus in one country implies a deficit somewhere else, and if the sum total of deficits is limited by creditworthiness constraints, a bigger surplus is bound to induce lower production elsewhere. This is much more easily recognized as anti-social behaviour than saving too much.

Germany: another failure

There was of course a major disequilibrium in the world economy that is ignored by the Cline-Williamson analysis: namely, the German surplus. The reason it is ignored is that Germany is a member of a currency union and the currency union as a whole had a sustainable position; indeed, the euro was estimated to be close to equilibrium in April 2010. As explained in Chapter 5, the German surplus would have appeared to the IMF as a policy problem [in 2011], after Germany's current account surplus stopped getting recycled to Southern Europe via German banks and appeared instead as augmenting its Target 2 imbalances (which should be added to reserves in order to have a more comprehensive measure of whether a country is building excessive public sector assets). Then Germany would have been required to reduce its competitiveness vis-à-vis its European partners. In fact, German competitiveness in terms of the average European competitiveness has remained constant since the start of the euro crisis,[6] rather than rising at about 2% per year,

for this effect, by use of the IMF's number, this is not the source of the differing views on the Swiss current account surplus.

6 The latest data in European Commission (2015) show German prices as having remained absolutely constant (at 99.6, 2005 = 100) relative to the euro area average since the start of the euro crisis in 2010. German export prices initially fell, but for the last two years they have risen – by the grand total of 0.7%. The other measures of real effective exchange rates that are presented also show a derisory adjustment, though in some cases it started somewhat sooner.

implying a failure by Germany to play any part in the adjustment process. (It is certainly true that most of the Southern European countries have gained in competitiveness, but this has been achieved primarily by gains in European competitiveness, which is perverse from the standpoint of the world as a whole.)

Competitiveness is inherently a two-sided process: a country cannot gain in international competitiveness without some other country losing. The aim should not be to maximize international competitiveness, but to have the right level so that one sells abroad as large a share of national output as maximizes welfare (in technical terms, there is an interior optimum). The German surplus is another case of a surplus being anti-social – as well as contrary to the interests of the German population, who have paid for the boasts of their masters with lower real wages than the country could afford. That is a measure of failure.

The Netherlands

Germany was not the only surplus country within the EU. The other large surplus was run by the Netherlands: indeed, as a proportion of GDP, the Dutch surplus was even larger. Austria and Finland also tended to run surplus positions.

It follows that everything said above about Germany also applies to the Netherlands.

The USA: permanent overvaluation?

The USA developed a large deficit in the first decade of the twenty-first century, of which the primary counterpart was the Chinese surplus. After initially blaming US trade policy, the idea that it also had something to do with the exchange rate slowly became established political wisdom, which led to demands that countries – China especially – should stop 'manipulating' exchange rates. (To some of us manipulation sounds rather like management, of which we are strongly in favour.) This seemed to mean, in our language, that countries should not intervene to hold their currencies down to an undervalued level, although those using this language had a propensity to deny that one could tell whether a currency was undervalued or not.

Michael Mussa, the former chief economist of the IMF who was subsequently a Senior Fellow at the Peterson Institute, once remarked that the only thing on which everyone in the Peterson Institute agreed (*c.*2006) was that China needed to revalue the renminbi. The Chinese undervaluation was not the only counterpart to the dollar overvaluation, as we have observed, but it was felt particularly keenly: (a) because of the bilateral imbalance with China;[7] (b) because of China's size, which resulted in a large part of China's surplus

7 As any economist knows, this is completely fallacious: there is no reason why trade should be bilaterally balanced. It nonetheless resonated powerfully in political circles in Washington.

being reflected in a higher US deficit; (c) because it was felt that other countries would move if China did, but they were fearful of losing competitiveness (which ultimately proved correct); and (d) because China had a rigid policy of sticking to the dollar (modified after July 2005 by a discretionary upward crawl against the dollar, which was misdescribed as a float with narrow limits on daily changes). The fact is that China never did abandon its policy of pegging to the dollar, although it periodically modified whether this was a fixed peg or a crawl.[8] In due course the periodic upward crawl more or less eliminated the Chinese undervaluation and, in association with moves of other currencies (in part stimulated by the Chinese move), the US overvaluation was more or less eliminated as well. This was the situation in 2012–14.

Then it transpired that the US economy had recovered more rapidly from the great recession than those of other industrial countries. This prompted a surge of dollar buying by the private sector, which pushed up the value of the dollar. My newspaper on the day of writing, 22 March 2015, tells me that the dollar is 22% stronger than a year ago. Obviously this makes no sense: the faster US recovery may raise the return on US assets maybe 2% per year for two years, which would justify a strengthening of the dollar of 4%, but nothing like 22%. However, participants in the foreign exchange market reckon to make their money out of anticipating what other actors will do, not out of thinking about what would benefit their clients, and the widespread assumption is that people extrapolate what has already happened, and so one gets exaggerated currency movements.

It is becoming increasingly clear that a free market pays no attention to the prospects for US indebtedness (or, for that matter, to any other country's indebtedness prior to the crisis breaking). The only prospect for a dollar exchange rate that will not imply an ever-increasing ratio of debt/GDP is for the US government to resume its concern with the appropriate level of the exchange rate, instead of blithely assuming that the rate given by the free market is the 'right' rate. If it were known that the US government was prepared to enter the market to combat a misaligned exchange rate, as advocated in this book, there are plenty of people who would be prepared to speculate on a rate in that vicinity, but so long as the US government continues to pretend that the only thing necessary to cure the US deficit is for foreign governments to stop 'manipulating' their currencies, the USA will go ever deeper into international debt.

Brazil

Brazil illustrates the irrationality of the foreign exchange market. From having an overvalued currency in 2010, the real has subsequently fallen out of

8 As it happened, the fastest effective appreciation of the renminbi occurred when China temporarily abandoned its upward crawl against the dollar and reverted to a fixed peg, early on during the financial crisis.

bed, and at the time of writing (May 2015) traded at a distinctly undervalued level. How market operators could have become so infatuated with Brazil as to have been anxious to get out of dollars at a price of US$1.80 per real is inexplicable, and why they are not clamouring to get into reais at a price of $3.05 per real is equally mysterious. One knows that there has been excess inflation in Brazil, which might explain a 25% fall in the real since 2010, and one knows that the underlying growth rate in Brazil is a good bit less than it was thought to be in the later years of Lula's presidency, though no one has developed a credible theory of the relationship of the growth rate and the exchange rate. However, one would have to believe that these factors justify a decline in the exchange rate of over 50% in order to regard the exchange market as rational. The Brazilian government, for all its faults, appears relatively sane.

11 Reform by US unilateralism?

In his Stavros Niarchos Foundation Lecture, after leaving the directorship of the Peterson Institute, my former director, C. Fred Bergsten, laid out his views on the most promising way to reform the international monetary system (Bergsten 2013). He had an agenda that was limited to one of my three items: ensuring that surplus countries adjusted. However, on the importance of that item we agree entirely. I suppose that my repeated insistence that the USA has an overwhelming national interest in achieving this reform is a reflection of the fact that we worked together for many years.

Nevertheless, I fear that the means he proposes to achieve this estimable objective is not only dangerous but doomed to failure, and that it is much better to follow the path that I have laid out in the preceding pages. In the present chapter I explain this view. In the first section I lay out Bergsten's view. This is followed by a discussion of Bergsten's goals, of the sanctions he proposes, and of his proposed strategy for achieving the goals.

Bergsten's argument

Bergsten starts off by emphasizing the importance of persuading surplus countries that they have a responsibility to contribute to the adjustment process. The major sufferers from the continuing imbalances are the USA (quantified as US$200–$500 billion on the balance of payments and additional unemployment between 1 and 5 million) and Europe. Virtually all countries are seeking weaker currencies. He worries that the imbalances may grow larger. He points out that the IMF was intended to prevent a repetition of the 1930s, whereas there is an obvious similarity. He also acknowledges that a system in which the US deficit is automatically financed creates a temptation for the USA. He lauds the G7/20 for their 'commitment to avoid exchange rate targeting' (Bergsten 2013: 7), assuming implicitly that no intervention implies a desirable exchange rate. He says explicitly that there is no need for a US policy on the dollar, but simply that the USA should stop other countries 'manipulating' their currencies. (This is correct only if the free market tends to yield a situation that is optimal from a US standpoint, a view that we contested at the end of the last chapter.)

Bergsten concludes that there is a strong case for international monetary reform. In part this is happening already, insofar as the system is moving towards a multicurrency system, which he welcomes. He regards the ideal as 'a multiple currency system with manipulation-free floating' (Bergsten 2013: 23), rather than 'a dollar-based system with extensive competitive intervention' (p. 23). He would act through both the IMF and the World Trade Organization (WTO), strengthening both their condemnation of competitive intervention and the mechanisms to enforce rules. He focuses on surpluses (on current account) directly, rather than on exchange rates.

Sanctions would be directed against countries that both maintain significantly undervalued exchange rates *and* intervene.[1] These sanctions would consist of countervailing currency intervention (CCI), and in the lecture, though this point has been abandoned in his later writing, on the right of reserve-issuing countries to stop paying interest on reserves, or to tax reserves, plus sanctions on the exports of offending countries. The latter would be administered by the WTO, which would take advice from the IMF on whether a currency was undervalued and supported by intervention. A first effort would consist of adding currency undervaluation to the existing list of subsidies against which countries are entitled to impose countervailing duties. More ambitiously, he would seek authorization from the WTO to impose comprehensive import controls against countries found guilty of manipulating exchange rates.

Bergsten discusses tactics for persuading the IMF and WTO to reform. He argues that it is up to the leading countries, like the USA, to take the lead. If negotiations fail, he would like the USA to seek the support of a group of 'like-minded countries'. Preferably jointly, but if necessary unilaterally, they would launch the sanctions, in the hope that global systemic reform would follow. He concludes by re-emphasizing that the goal is 'to galvanize the needed global systemic reforms in the only manner that has much chance' of succeeding (Bergsten 2013: 33).

The goals

The objective of imposing some discipline on surplus countries is one that I share, as will be evident from preceding chapters, and indeed from the preceding page. In the lecture, sanctions were to be directed against countries that both intervene *and* have current account surpluses (and also have high reserve levels). Note that countries are only found 'guilty' if they are intervening.

1 This was the formulation in the lecture. Bergsten tells me that he has subsequently modified the proposal by dropping the undervaluation test and requiring that the country have large reserves and a positive rate of reserve accumulation. As indicated in the next note, I regard dropping the undervaluation test as a major mistake.

There is a real problem in using the level of intervention as a test of whether countries are acting inappropriately: it is inherently a backward-looking criterion. Apart from the fact that reserves may change because of speculative flows, what one gets at best is a criterion that points to whether countries misbehaved in the past. One certainly needs the criterion of whether the exchange rate is still undervalued to get a good reading of whether a country is still impeding adjustment.[2]

I am not particularly keen on the other leg of Bergsten's reformed system – the idea of there being several reserve currencies. Bergsten never faces up to the difficult questions posed in Chapter 6: is this just a glorified dollar standard, in which the dollar remains the unit of account and the other currencies merely share the store of value function of money? One assumes that this is what he has in mind, in which case it hardly differs from the present system. In any event, it is not really clear that a multicurrency system plays a vital role in his thought. My own objection to the multicurrency system is that I believe it enhances the probability of instability. I fear that central bankers, for all their denials, would be reluctant to hold assets that they can see are likely to decline in relative value.

The sanctions

Bergsten is quite explicit about the sanctions that he wishes to see introduced: CCI, financial penalties for excess reserve holding (now deleted), and trade (export) obstacles.

The total intervention, of which counter currency intervention is a part, would have a consequence that does not loom large in Bergsten's mind: it would redistribute income from the public sector to the private. This seems to me an important consequence, which is in danger of being compounded if the intervening country tries to counteract the effects of CCI by further intervention. It can be counter-argued that it will in general be profitable for the issuer of the intervening currency, since CCI generally involves buying undervalued currencies. CCI is impracticable against its principal intended target,[3] namely China, because it is necessary for the reserve centre that is undertaking CCI to hold the other country's currency, which at present

2 As an example, suppose that Japan develops a large current account surplus on account of its recent depreciation. Suppose also that there is a large speculative inflow to Japan. Then Bergsten's three conditions for action against Japan would be satisfied. To some of us it makes a fundamental difference as to whether Japan has already cured its undervaluation problem. If it has, and Japan is merely intervening to prevent a new overvaluation being induced by myopic speculators, then one should welcome the action of the Japanese authorities, not seek to punish them.

3 At the present time Bergsten would not sanction China, but China was envisioned as the principal target at the time of Bergsten's presentation.

requires the assent of the Chinese authorities. It would, in contrast, be feasible against most other currencies.

Penalizing holders of excessive reserves by reducing their rate of return, for example by taxation, is a far more traditional sanction. This was what was envisaged by Keynes, although in his scheme the rate of return was altered just for those whom one wants to penalize. If one seeks to vary the tax rate to discourage reserve hoarding, this will hit all reserve holders, the innocent as well as the guilty. The US Treasury is anxious to pay reserve holders enough to ensure that the US debt is financed. If the US Treasury has to pay a given after-tax rate of interest to sell its total offerings and finance the US debt, it will end up paying the tax itself, with no net gain in government revenue. Doubtless this is an extreme assumption, but it does illustrate that it is too simplistic to assume that pre-tax rates of return are unchanged.

Then there is the possibility of penalizing exports through the WTO. The simplest method of penalizing exports would be to add undervaluation achieved by intervention to the list of export subsidies against which countries are entitled to countervail. This would involve a relatively small reinterpretation of the rules of the WTO; indeed, there are those who maintain that this is now the correct interpretation. A much bigger change is also envisaged, in which Article 15(4) of the WTO is amended to state that undervaluation achieved by intervention would justify the creation of across-the-board barriers against all exports of the offending countries by all members of the WTO that choose to do so (Matoo and Subramanian 2008). Both sanctions appear to make sense. The idea of using the WTO as the enforcement mechanism, but relying on the IMF to judge whether countries are undervalued as a result of intervention, plays to the strengths of both organizations.

The strategy

Bergsten envisages a quite different strategy to that proposed in the preceding pages. After an attempt to negotiate change, which he does not describe, he proposed that the USA take matters into its own hands, preferably with support of the like-minded, but if necessary unilaterally. It, or they, would identify which countries had offended and would then proceed to impose sanctions. (Presumably the trade sanctions would be within the rules of the WTO, or involve an attempt to change the rules of the WTO, so that the unilateral element would be restricted to the monetary sanctions. Since taxation is in any event a national prerogative, the attempt to change the law would be restricted in practice to CCI.) He envisages the rules of the IMF being adjusted subsequently to legitimize what had already occurred *de facto*.

A first question to ask is how successful the USA would be in forming a coalition of the like-minded. Bergsten mentions every country that has suffered from the East Asian surpluses and has expressed criticism of those surpluses as being a potential member of his coalition: this includes Brazil, the EU, Japan, Russia, India and Mexico. He notes in a footnote that '"emerging

market solidarity", or even "BRICS solidarity", along with fear of China per se, may limit the willingness of some [developing] countries to criticize their "brethren"' (Bergsten 2013: 29). This seems an understatement. One cannot imagine any country, save maybe Israel and the UK, signing up with the country whose Congress is wilfully blocking IMF reform. To demand an IMF reform that is clearly in the US national interest with no quid pro quo offered is pretty rich at the best of times, but in view of the USA being the sole remaining obstacle to a rather minimal agreed reform, it is a non-starter.

How would the rest of the world react to a unilateral attempt at reform? Since the motivation for the reform is clearly China, there is no point in debating the merits of CCI in general: the Chinese can prevent it being applied at their expense. The 'monetary' instruments are thus confined to the tax on reserves. Suppose that a tax were imposed just on China (perhaps together with others deemed offenders by the USA). Even if one assumes that such a tax would not be evaded by third-party nominees or the like, one has to expect a reaction from the Chinese, and probably this would take the form of refusing to buy as many US securities as before; most likely, selling some of their accumulated US$3 or $4 trillion. The threat of this would certainly be taken seriously by the US Treasury, which would probably try to veto the proposal in consequence. Assuming that they failed in this, the result of Chinese dollar sales would be to weaken the dollar. If China decided to liquidate its dollar holdings, the exchange rate effects, both on the dollar and the currency/ies it moved into, would be dramatic.

Does the USA still have the power to change the international monetary system to its will, as in the examples Bergsten cites of 1971 and 1985? That is very doubtful. If the USA tried, a possible scenario would be a Chinese attempt to create a parallel to the IMF, analogous to their creation of the Asian Infrastructure Investment Bank (AIIB) to parallel the World Bank. Such a venture might succeed, since other members are already fed up with a member with a veto who uses it flippantly to settle internal political scores. They might breathe a sigh of relief at the prospect of a future without a member with veto power (assuming the Chinese were not so unwise as to demand a veto for themselves). The Chinese might even attempt to persuade other countries by an offer to include in its Articles a clause with the effect of disciplining surplus countries. That would be an offer difficult to resist.

In short, I see little prospect of an attempt at unilateralism succeeding in its objective. I would think the USA is far more likely to achieve reform to impose a discipline on surplus countries via patient diplomacy and a willingness to offer real sacrifices in exchange, than through trying to throw around a weight it no longer has.

12 Concluding remarks

This book was about achieving reform of the international monetary system so as to add three elements to the existing provisions: making the IMF a lender of last resort; the introduction of a mechanism for disabling surplus countries via the exchange rate; and making the SDR a vibrant private sector asset. The reason for choosing these mechanisms is a belief that it is these elements that are needed to create an international monetary system that would meet the main needs of the present day and could endure.

The world clearly suffers from the lack of a dependable lender of last resort. One hopes that the world will get by without the need for such a mechanism for another 60-odd years, but it is foolhardy to rely on this. Given that the institutional change required to enable the Fund always to act as a lender of last resort is rather small, it appears strange that there has not been a rush to introduce this mechanism. Certainly the world would be a distinctly safer place if this change were introduced. Relying on the Fed, and/or the ECB and the People's Bank of China, to make swaps with major countries in the event of a crisis is a gamble, apart from destroying the original conception of the Fund as a cooperative.

The major reason that the world has operated with such a margin of slack in recent years is the determination of the East Asian countries to run large current account surpluses. While an effort has been made to rationalize this policy as reflecting a rational concern with development (Rodrik 2008), the alternative view is that it involves an attempt to deflect demand reminiscent of the 1930s. While the details of Keynes's attempt to remedy this have been overtaken by events, the need for a mechanism that addresses the problem has never been greater. We argued that there would be advantage in creating a rule that countries are forbidden from deliberately pushing their exchange rates away from internationally agreed reference rates, where the latter would be what I endeavoured to measure as FEERs (fundamental equilibrium exchange rates).

The reasons for the third reform ('enthronement of the SDR') that I advocated are, at least in the short run, less compelling. They consist of a wider distribution of seigniorage and avoidance of potentially destabilizing reserve shifts. In the longer run, however, one wonders whether the world will remain

on the dollar standard (even mixed with a multiple currency system). There is the prospect of an apocalyptic fight when the world tires of this role, the question of who or what would succeed them (since China seems disinclined to grasp this greasy pole), and the danger of a speculative run on the dollar, perhaps ignited by the Triffin dilemma. One might imagine that a far-seeing American would be glad to get rid of these prospects.

I challenge those who want to add to this agenda to spell out the reasons for additional changes. I challenge those who want to do less, or nothing at all, to demonstrate that the existing system works well enough.

The book started off by recalling another recent call for reform, made by the *Palais-Royal* group. The major criticism made of their approach is the reliance on surveillance to induce changes in behaviour, but apart from that our analyses are broadly parallel. The policy agenda that is urged in this book would form a natural way of implementing the objectives sought by the *Palais-Royal* group. This is accompanied by discussion of two recent efforts to spell out appropriate policy moves.

There is then a relatively brief discussion of the case for making the IMF into a true lender of last resort. (Its brevity is partly explained by the fact that this reform seems to me non-contentious.)

The book then discussed adjustment under two headings. The first is *how* to adjust, on which it was argued that the existing laissez-faire approach is satisfactory as regards the floating currencies, but needs the essential role of the exchange rate to be spelled out for countries that determine rates opportunistically. Countries with a fixed exchange rate policy need to accept that fixed rates have a disadvantage: adjustment is likely to be more costly than when the exchange rate is free to vary. This is followed by discussion of *when* to adjust, on which it was argued that there is an outstanding need for agreed international rules. The basis for IMF determination of target exchange rates, which would serve as reference rates, was then outlined.

The book then moved on to consider what the world is using as reserves, concluding that the most probable outcome is a perpetuation of the existing trend, which can be described as either towards a multiple reserve currency system in which the dollar remains *primus inter pares*, or towards a dollar system in which the store of value function of money is widely distributed. This discussion drew a sharp distinction between what is likely and what the author of the book would wish to see, which would involve making the SDR, not only the *principal* reserve asset, but the *only* reserve asset, and also a vibrant private sector asset.

This is followed by chapters on (a) the problems of negotiating the reforms outlined, and (b) how the changes would be introduced, in particular by incorporation into the IMF Articles. The penultimate substantive chapter illustrates the operation of the adjustment system by considering one specific date and assuming that the IMF had reached similar qualitative judgements to those expressed in a paper that I co-authored, and then considering the probable impact on a number of countries at the time and in subsequent

years. The final chapter argues that there is little prospect of achieving a substantive reform by seeking to revive unilateralism. Negotiation may be boring, but it is more promising than breaking crockery.

In the other recent call for reform, made by the *Palais-Royal* group, they envisaged that the main instrument for ensuring cooperative behaviour would be surveillance (rather than the clear rules that countries are expected to obey which we envisage). They called for a strengthening of the system under which countries monitor one another's actions. At times it sounded, however, as though more than surveillance were planned:

> Suggestion 2. In support of surveillance over each country's or group of countries' compliance with the obligations under the Articles, the IMF should adopt norms for members' policies …
>
> Suggestion 3. Persistent breach of a norm would trigger a consultation procedure and, if needed, remedial action …
>
> Suggestion 4. For systemically relevant countries whose policies do not appear to meet the norms, compliance with obligations should be explicitly ruled upon by the relevant organ of the IMF.
>
> (Camdessus et al. 2011: 7)

So countries are to be expected to obey a series of norms covering, for example, 'current account deficit or surplus; real effective exchange rates; measures to deal with capital inflows and outflows; changes in relative size and composition of reserve assets; inflation rates; fiscal deficits; and government debt ratios'. Enforcement is to be by way of surveillance, so that a presumptively guilty country is hauled before a group of its peers and then, if it persistently breaches its norm, might be assigned 'remedial action', or else its compliance with obligations should be ruled upon by the relevant organ of the IMF (this ambiguity was presumably unintended). Much better to get rid of the notion of enforcing the norms through surveillance, and simply to specify that violation of a norm would be punished by the Executive Board of the IMF. The more norms there are, the greater the problems, especially if it appears that norms are contradictory.

Consider which of the preceding list of potential norms could be applied.

Current account imbalances? There is a philosophical question in deciding on the scope to be accorded national preferences (apparently none in the IMF's model, versus our suggestion of free national choice over the range (3% of GDP surplus, 3% deficit) and zero choice outside that range). There is also a highly practical question in what one does with countries that claim they were surprised by events (hardly likely to be an empty set given the limitations of forecasting), and also in what one tells countries that claim that

anything different from their preferred current account would threaten their ability to pursue an anti-cyclical policy. The need to find common-sense answers to such quandaries is the essence of the case for using surveillance rather than mechanical rules. However, until they are developed it is doubtful if a 'reformed' system would differ much from the present one.

Exchange rates? It is hoped that the preceding text has made a strong case for believing that sensible exchange rate norms could be developed, that pursuit of these targets would have a set of desirable consequences, and that violation of those rules would be a desirable subject for sanctions.

Measures to deal with capital inflows and outflows? Apart from flows that are cyclically perverse, the profession has not yet decided if there are other flows that should be restricted. In view of this it would seem premature to prescribe policies that countries are expected to pursue. Simply talking about policies is unlikely to get one far.

Changes in the relative size and composition of reserve assets? Once again, we lack an adequate theory of what should determine the size of holdings of reserve assets to prescribe what they should be. Presumably this is part of the case to justify handling this by surveillance rather than rules, to enable the IMF to ask for justification and learn from the answers that are given (and ensure that they are thoughtful). The reference to composition presumably is intended to deter sharp changes for essentially speculative reasons, but again the scope for radically changing the system is not evident.

Inflation rates? Countries seek to limit inflation anyway, as a consequence of their pursuit of internal balance. If their judgement differs from that of the IMF, one can debate which should dominate: a simple-minded democrat would say the country, but the IMF might regard itself as having a responsibility to care for future generations, which generally get short shrift from politicians. Non-democratic regimes would resist the notion that their sovereignty is to be taken less seriously than that of democratic regimes.

Fiscal deficits? Most politicians care only for the current generation (who elect them), while the fiscal deficit also has implications for the future. It is not clear that the international community has a mandate to look after the interests of future generations, but this provides a possible basis for international involvement. There is also the question of whether the IMF is the right form in which to insert an international influence.

Government debt ratios? Similar questions arise. Why should one grant the IMF a privileged role in commenting on the debt? Yet most of us feel instinctively that variables like the fiscal deficit and government debt ratios are important predictors of future crises and thus belong among the variables surveilled.

So at the end of the day we have found only the exchange rate as a variable to which it would be reasonable to attach an obligation. Some other suggestions of the *Palais-Royal* Report for surveillance are indeed appropriately dealt with by surveillance, but do not expect that to influence policy greatly: whoever heard of a country that made its policy for the benefit of foreigners,

or accepted that foreigners have as good an appreciation of national interests as the nation's government? If one wants to influence the actions that governments take, one needs to develop hard rules and specify unpleasant consequences for ignoring them, and then get nations to sign on and support introducing them, in the expectation that such rules look attractive when they are mutual because each country gains from restricting the freedom of foreigners to hurt it.

This book has suggested that there are three independent acts of reform for which the time is ripe. The most straightforward is turning the IMF into a lender of last resort. One can never be sure when this will pay off: one hopes that it will not be for many years, but there is always a danger of a new global crisis, and so it is worth taking out insurance now.

The second needed reform is to act on US pleas to do something about the problem of chronic surplus countries. The plan I have presented is not ideal from a US standpoint, because by focusing on exchange rates, it lets off the hook countries that have capital exports as large as their current account surplus. From the standpoint of recent history, it would have addressed the Chinese surplus, but not that of Germany. Going forwards, it is by no means certain that China will have an overall balance of payments surplus: while I expect the Chinese current account to remain in comfortable surplus, I also expect Chinese capital exports to increase rapidly. One could try to persuade China by surveillance, but I shall be surprised if that works. Or one can pretend that the American era is not over, and try to browbeat China into acquiescence. That seems to me even less likely to succeed. If China decides to export much capital rather than importing IOUs, the USA just has to learn to live with China running a big current account surplus. At least this does not threaten to jeopardize US interests directly.

The third reform advocated in this book is to make the SDR 'the central asset of the international monetary system'. The reasons for favouring this reform are less concerned with the internal working of the monetary system, although the questions of seigniorage and invulnerability to reserve shifting would both be affected positively, than with persuading China not to veto the preceding reform. This assumes that China really wants to dethrone the dollar by some means that does not in due course give the same special role to China, which seems to be indicated by Mr Zhou's 2009 speech. If this is indeed the Chinese objective, then they must assume that it will not be presented to them on a platter, but that they will need to offer something in return. This is the basic assumption underlying the bargain proposed in this book.

There seems no reason why the international monetary system, reformed by these additional provisions, should not last indefinitely. It is possible that in due course there would arise a need for a further updating of the Fund, beyond the regular changes that are needed to stay abreast of developments in the world economy, but the habit of declaring crises an inevitable part of the

human condition seems to have gone too far. It is also possible that these reforms would enable the system to last.

Finally, it may be appropriate to say a word about the relation of these reforms to the debate about the future of the world economy. It should be clear that the author is among those who take a middle-of-the-road view on the perennial issue of states versus markets: both the state and the market have an essential role to play in constructing a society that both gives a decent standard of living and satisfies human desires for variety and individual responsibility. There is no place for either the laissez-faire of the pre-crisis era or the dirigisme of the early post-war years.

Appendix
The International Monetary Fund (IMF)

Address: 700 19th Street, NW, Washington, DC 20431, USA.
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The IMF was established at the same time as the World Bank in December 1945, to promote international monetary co-operation, to facilitate the expansion and balanced growth of international trade, and to promote stability in foreign exchange.

Members

The IMF currently has 188 members.

Organization (June 2015)

Managing Director: Christine Lagarde (France).
First Deputy Managing Director: David Lipton (USA).
Deputy Managing Directors: Mitsuhiro Furusawa (Japan), Min Zhu (People's Republic of China).

Board of Governors

The highest authority of the Fund is exercised by the Board of Governors, on which each member country is represented by a Governor and an Alternate Governor. The Board normally meets once a year. The Board of Governors has delegated many of its powers to the Executive Directors. However, the conditions governing the admission of new members, adjustment of quotas and the election of Executive Directors, as well as certain other important powers, remain the sole responsibility of the Board of Governors. The voting power of each member on the Board of Governors is related to its quota in the Fund (see Table A.1).

In September 1999 the Board of Governors adopted a resolution to transform the Interim Committee of the Board of Governors (established in 1974)

into the International Monetary and Financial Committee (IMFC). The IMFC, which held its inaugural meeting in April 2000, comprises 24 members, representing the same countries or groups of countries as those on the Board of Executive Directors. It advises and reports to the Board on matters relating to the management and adaptation of the international monetary and financial system, sudden disturbances that might threaten the system and proposals to amend the Articles of Agreement, but has no decision-making authority.

The Development Committee (the Joint Ministerial Committee of the Boards of Governors of the World Bank and the IMF on the Transfer of Real Resources to Developing Countries, created in 1974, with a structure similar to that of the IMFC) reviews development policy issues and financing requirements.

Board of Executive Directors

The 24-member Board of Executive Directors, responsible for the day-to-day operations of the Fund, is in continuous session in Washington, DC, USA, under the chairmanship of the Fund's Managing Director or Deputy Managing Directors. The USA, the United Kingdom, Germany, France and Japan each appoint one Executive Director. There is also one Executive Director each from the People's Republic of China, Russia and Saudi Arabia, while the remainder are elected by groups of all other member countries. As in the Board of Governors, the voting power of each member is related to its quota in the Fund, but in practice the Executive Directors normally operate by consensus. In December 2010 the Board of Governors endorsed a proposal to amend the composition of the Board of Executive Directors in order to increase the representation of emerging dynamic economies and developing countries. The proposal, which required ratification of an Amendment to the Articles of Agreement by members holding 85% of the total voting power, also provided for the Board to be fully elected. It is still awaiting approval by the US congress.

The Managing Director of the Fund serves as head of its staff, which is organized into departments by function and area. In 2013 the Fund employed some 2,400 staff members from 144 countries.

Regional representation

There is a network of regional offices and Resident Representatives in more than 90 member countries. In addition, special information and liaison offices are located in Tokyo, Japan (for Asia and the Pacific), in New York, USA (for the UN), and in Europe (Paris, France; Geneva, Switzerland; Brussels, Belgium; and Warsaw, Poland, for Central Europe and the Baltic states).

Activities

The purposes of the IMF, as defined in the Articles of Agreement, are:

i To promote international monetary co-operation through a permanent institution which provides the machinery for consultation and collaboration on monetary problems.
ii To facilitate the expansion and balanced growth of international trade, and to contribute thereby to the promotion and maintenance of high levels of employment and real income and to the development of members' productive resources.
iii To promote exchange stability, to maintain orderly exchange arrangements among members, and to avoid competitive exchange depreciation.
iv To assist in the establishment of a multilateral system of payments in respect of current transactions between members and in the elimination of foreign exchange restrictions which hamper the growth of trade.
v To give confidence to members by making the general resources of the Fund temporarily available to them, under adequate safeguards, thus providing them with the opportunity to correct maladjustments in their balance of payments, without resorting to measures destructive of national or international prosperity.
vi In accordance with the above, to shorten the duration of and lessen the degree of disequilibrium in the international balances of payments of members.

In joining the Fund, each country agrees to co-operate with the above objectives. In accordance with its objective of facilitating the expansion of international trade, the IMF encourages its members to accept the obligations of Article VIII, Sections two, three and four, of the Articles of Agreement. Members that accept Article VIII undertake to refrain from imposing restrictions on the making of payments and transfers for current international transactions and from engaging in discriminatory currency arrangements or multiple currency practices without IMF approval. By mid-2015 some 90% of members had accepted Article VIII status.

In mid-2006 the Fund established a new Monetary and Capital Markets Department, with the intention of strengthening surveillance of global financial transactions and monetary arrangements. In June 2008 the Managing Director presented a new Work Programme, comprising the following four immediate priorities for the Fund: to enable member countries to deal with reduced economic growth and escalating food and fuel prices, including efforts by the Fund to strengthen surveillance activities; to review the Fund's lending instruments; to implement new organizational tools and working practices; and to advance further the Fund's governance agenda.

The deceleration of economic growth in the world's major economies in 2007 and 2008 and the sharp decline in global financial market conditions, in particular in the second half of 2008, focused international attention on the adequacy of the governance of the international financial system and of regulatory and supervisory frameworks. The IMF aimed to provide appropriate and rapid financial and technical assistance to low-income and emerging

economies most affected by the crisis and to support a co-ordinated, multinational recovery effort. The Fund worked closely with the Group of 20 (G20) leading economies to produce an Action Plan, in November 2008, concerned with strengthening regulation, transparency and integrity in financial markets and reform of the international financial system. In March 2009 the IMF released a study on the 'Impact of the Financial Crisis on Low-income Countries', and in that month convened, with the Government of Tanzania, a high-level conference, held in Dar es Salaam, to consider the effects of the global financial situation on African countries, as well as areas for future partnership and growth. Later in that month the Executive Board approved a series of reforms to enhance the effectiveness of the Fund's lending framework, including new conditionality criteria, a new flexible credit facility and increased access limits.

In April 2009 a meeting of G20 heads of state and government, convened in London, United Kingdom, determined to make available substantial additional resources through the IMF and other multinational development institutions in order to strengthen global financial liquidity and support economic recovery. There was a commitment to extend US$250,000m. to the IMF in immediate bilateral financial contributions (which would be incorporated into an expanded New Arrangements to Borrow facility) and to support a general allocation of Special Drawing Rights (SDRs), amounting to a further US$250,000m. It was agreed that additional resources from sales of IMF gold were to be used to provide US$6,000m. in concessional financing for the poorest countries over the next two to three years. The G20 meeting also resolved to implement several major reforms to strengthen the regulation and supervision of the international financial system, which envisaged the IMF collaborating closely with a new Financial Stability Board. In September G20 heads of state and government endorsed a Mutual Assessment Programme, which aimed to achieve sustainable and balanced growth, with the IMF providing analysis and technical assistance. In January 2010 the IMF initiated a process to review its mandate and role in the 'post-crisis' global economy. Short-term priorities included advising countries on moving beyond the policies they implemented during the crisis; reviewing the Fund's mandate in surveillance and lending, and investigating ways of improving the stability of the international monetary system; strengthening macro-financial and cross-country analyses, including early warning exercises; and studying ways to make policy frameworks more resilient to crises. In November 2011 G20 heads of state and government, meeting in Cannes, France, agreed to initiate an immediate review of the Fund's resources, with a view to securing global financial stability which had been undermined by high levels of debt in several eurozone countries. In December EU heads of state and government agreed to allocate to the IMF additional resources of up to US$270,000m. in the form of bilateral loans.

During 2012–13 the Executive Board approved the modalities to enable bilateral borrowing from member countries as a means of supplementing both

quota resources and the institution's standing borrowing arrangements; by 30 April 2013 25 such bilateral agreements had been signed by the Board, and a further 13 states had committed to providing resources in this way. Furthermore, the Board had signed bilateral borrowing agreements with 14 member states aimed specifically at supporting the Fund's concessional financing. The Fund was, meanwhile, reviewing means of ensuring more sustainable long-term funding of its concessional financing.

A joint meeting of the IMFC, G20 ministers responsible for finance and governors of central banks, convened in April 2012, in Washington, DC, welcomed a decision in March by eurozone member states to strengthen European firewalls through broader reform efforts and the availability of central bank swap lines, and determined to enhance IMF resources for crisis prevention and resolution, announcing commitments from G20 member states to increasing, by more than US$430,000m., resources to be made available to the IMF as part of a protective firewall to serve the entire IMF membership. Additional resources pledged by emerging economies (notably by the People's Republic of China, Brazil, India, Mexico and Russia) at a meeting of G20 heads of state and government held in June, in Los Cabos, Baja California Sur, Mexico, raised the universal firewall to US$456,000m. Meeting in October, in Tokyo, Japan, the IMFC urged national policymakers to implement policies agreed in recent months aimed at restarting economic growth and promoting job creation. The global economy was reported to have decelerated to a greater extent than had been previously anticipated: a contraction in output in the eurozone was noted, and, additionally, a slowdown in economic activity in many other advanced economies and also in emerging markets and developing economies, reflecting weaker external and domestic demand, and also in some cases the impact of policies aimed at addressing inflationary pressures.

In July 2014 the IMF published its third annual Spillover Report, assessing the potential 'spillover' impact on economic partners of the domestic economic policies pursued by the so-called Systemic five (S5) major economies – China, the eurozone, Japan, the United Kingdom and the USA – as well as possible 'spillbacks' from emerging markets to the S5. The 2014 report noted an ongoing shift from crisis to recovery in advanced economies and a broad-based slowdown in emerging markets, and forecast rising interest rates in some major advanced economies; careful communication of policy intentions by the central banks of advanced economies, and a focus by emerging economies on structural reform, were recommended. In August the third edition of a pilot External Sector Report was released, analysing the external positions of 28 systemic economies and the eurozone.

A major IMF assessment of the financial soundness of the eurozone, published in March 2013, and based on visits to regional oversight institutions conducted in November and December 2012, as well as analysis of individual member country reports, urged eurozone policymakers and banks to intensify their efforts across a wide range of areas, including building strong bank

capital buffers; maintaining momentum towards creating an effective banking union; and creating promptly a stronger financial oversight framework.

In September 2011 the IMF joined other international financial institutions active in the Middle East and North Africa region to endorse the so-called Deauville Partnership, established by the Group of Eight (G8) industrialized nations in May to support political and economic reforms being undertaken by several countries, notably Egypt, Jordan, Morocco and Tunisia. The Fund was committed to supporting those countries to maintain economic and financial stability, and to promote inclusive growth.

In March 2015 the IMF announced that it would co-operate with the Beijing, China-based Asian Infrastructure Investment Bank (AIIB), which was established in October 2014 following the adoption of a memorandum of understanding by 21 states. In April 2015 a list of 57 founding AIIB members was published; the Bank was scheduled to become operational by the end of that year.

Special Drawing Rights

The SDR was introduced in 1970 as a substitute for gold in international payments, and was intended eventually to become the principal reserve asset in the international monetary system. SDRs are allocated to members in proportion to their quotas. In October 1996 the Executive Board agreed to a new allocation of SDRs in order to achieve their equitable distribution among member states (i.e. all members would have an equal number of SDRs relative to the size of their quotas). In particular, this was deemed necessary since 38 countries that had joined the Fund since the last allocation of SDRs in 1981 had not yet received any of the units of account. In September 1997, at the annual meeting of the Executive Board, a resolution approving a special allocation of SDR 21,400m. was passed, in order to ensure an SDR to quota ratio of 29.32% for all member countries. The proposed Fourth Amendment to the Articles of Agreement was to come into effect following its acceptance by 60% of member countries, having 85% of the total voting power. The final communiqué of the G20 summit meeting, held in April 2009, endorsed the urgent ratification of the Fourth Amendment. In August the Amendment entered into force, having received approval by the USA. The special allocation, equivalent to some US$33,000m., was implemented on 9 September.

In August 2009 the Board of Governors approved a third general allocation of SDRs, amounting to SDR 161,200m., which become available to all members, in proportion to their existing quotas, effective from 28 August.

From 1974 to 1980 the SDR was valued on the basis of the market exchange rate for a basket of 16 currencies, belonging to the members with the largest exports of goods and services; since 1981 it has been based on the currencies of the five largest exporters (France, Germany, Japan, the United Kingdom and the USA), although the list of currencies and the weight of each in the SDR valuation basket is revised every five years. In January 1999

the IMF incorporated the new currency of the European Economic and Monetary Union, the euro, into the valuation basket; it replaced the French and German currencies, on the basis of their conversion rates with the euro as agreed by the EU. From 1 January 2006 the relative weights assigned to the currencies in the valuation basket were redistributed. The dollar value of the SDR averaged US$1.51904 in 2014, and at 18 June 2015 stood at US $1.41722.

The Second Amendment to the Articles of Agreement (1978) altered and expanded the possible uses of the SDR in transactions with other participants. These 'prescribed holders' of the SDRs have the same degree of freedom as Fund members to buy and sell SDRs, and to receive or use them in loans, pledges, swaps, donations or settlement of financial obligations.

Quotas

Each member is assigned a quota related to its national income, monetary reserves, trade balance and other economic indicators. A member's subscription is equal to its quota and is payable partly in SDRs and partly in its own currency. The quota determines a member's voting power, which is based on one vote for each SDR 100,000 of its quota plus the 250 votes to which each member is entitled. A member's quota also determines its access to the financial resources of the IMF, and its allocation of SDRs.

Quotas are reviewed at intervals of not more than five years, to take into account the state of the world economy and members' different rates of development. Special increases, separate from the general review, may be made in exceptional circumstances. In September 2006 the Board of Governors adopted a resolution on Quota and Voice Reform in the IMF, representing a two-year reform package aimed at improving the alignment of the quota shares of member states to represent more accurately their relative positions in the global economy and also to enhance the participation and influence of emerging market and low-income countries. An immediate ad hoc quota increase was approved for China, the Republic of Korea (South Korea), Mexico and Turkey. In March 2008 the Executive Board approved a second round of ad hoc quota increases as part of the proposed extensive reform of the governance and quota structure, which also committed the Fund to regular, five-yearly realignments of quotas. The proposals were to come into effect upon being accepted by member states representing 85% of total votes. In April 2009 G20 heads of state and government further endorsed the quota and voice reform measures and urged the IMF to complete a general review of quotas by January 2011. The 2008 Quota and Voice Reform agreement entered into effect in March 2011, providing for quota increases for 54 member countries with emerging or dynamic economies and an increase in basic votes for low-income countries, in order to strengthen their participation mechanism. In November 2010 the Executive Board responded to a request by the G20 for a further realignment of quotas, and in December the

Board of Governors endorsed an agreement concluding the 14th General Review of Quotas to provide (pending approval by members holding 70% of total quotas) for a 100% increase in quotas, to some SDR 476,800m., and adjustment of quota shares to ensure appropriate representation for emerging economies and developing countries. The agreement included a commitment to undertake a comprehensive review of the quota formula by January 2013 (this was achieved) and to conclude a 15th General Review – on the basis of the comprehensive review – by January 2014 (this deadline was subsequently postponed until January 2015, and then December). Furthermore, governance reforms to the Board – requiring acceptance of three-fifths of members representing 85% of voting power in order to enter into effect – were to be implemented. By May 2015 164 members accounting for 80.34% of the Fund's voting power had accepted the quota increase, and 147 members representing 77.25% of total voting power had accepted the proposed Board reforms. By June total quotas in the Fund amounted to SDR 238,182.7m.

Resources

Members' subscriptions form the basic resource of the IMF. They are supplemented by borrowing. Under the General Arrangements to Borrow (GAB), established in 1962, the Group of 10 industrialized nations (G10 – Belgium, Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, the United Kingdom and the USA) and Switzerland (which became a member of the IMF in May 1992 but which had been a full participant in the GAB from April 1984) undertake to lend the Fund as much as SDR 17,000m. in their own currencies to assist in fulfilling the balance of payments requirements of any member of the group, or in response to requests to the Fund from countries with balance of payments problems that could threaten the stability of the international monetary system. In 1983 the Fund entered into an agreement with Saudi Arabia, in association with the GAB, making available SDR 1,500m., and other borrowing arrangements were completed in 1984 with the Bank for International Settlements, the Saudi Arabian Monetary Agency, Belgium and Japan, making available a further SDR 6,000m. In 1986 another borrowing arrangement with Japan made available SDR 3,000m. In May 1996 GAB participants concluded an agreement in principle to expand the resources available for borrowing to SDR 34,000m., by securing the support of 25 countries with the financial capacity to support the international monetary system. The so-called New Arrangements to Borrow (NAB) was approved by the Executive Board in January 1997. It was to enter into force, for an initial five-year period, as soon as the five largest potential creditors participating in the NAB had approved the initiative and the total credit arrangement of participants endorsing the scheme had reached at least SDR 28,900m. While the GAB credit arrangement was to remain in effect, the NAB was expected to be the first facility to be activated in the event of

the Fund requiring supplementary resources. In July 1998 the GAB was activated for the first time in more than 20 years – and for the last time to date – in order to provide funds of up to US$6,300m. in support of an IMF emergency assistance package for Russia (the first time the GAB had been used for a non-participant). The Fund's long-standing arrangement with Saudi Arabia to make available SDR 1,500m. if required under the GAB was most recently extended to December 2018. The NAB became effective in November 2008, and was called upon for the first time as part of an extensive programme of support for Brazil, which was adopted by the IMF in December. (In March 1999, however, the activation was cancelled.) In November 2008 the Executive Board initiated an assessment of IMF resource requirements and options for supplementing resources in view of an exceptional increase in demand for IMF assistance. In February 2009 the Board approved the terms of a borrowing agreement with the Government of Japan to extend some SDR 67,000m. (some US$100,000m.) in supplemental funding, for an initial one-year period. In April G20 heads of state and government resolved to expand the NAB facility, to incorporate all G20 economies, in order to increase its resources by up to SDR 367,500m. (US$500,000m.). The G20 summit meeting held in September confirmed that it had contributed the additional resources to the NAB. In April 2010 the IMF's Executive Board approved the expansion and enlargement of NAB borrowing arrangements; these came into effect in March 2011, having completed the ratification process. By 2015 40 members or state institutions were participating in the NAB, and had committed SDR 369,997m. in supplementary resources.

Financial assistance

The Fund makes resources available to eligible members on an essentially short-term and revolving basis to provide members with temporary assistance to contribute to the solution of their payments problems. Before making a purchase, a member must show that its balance of payments or reserve position makes the purchase necessary. Apart from this requirement, reserve tranche purchases (i.e. purchases that do not bring the Fund's holdings of the member's currency to a level above its quota) are permitted unconditionally. Exchange transactions within the Fund take the form of members' purchases (i.e. drawings) from the Fund of the currencies of other members for the equivalent amounts of their own currencies.

With further purchases, however, the Fund's policy of conditionality means that a recipient country must agree to adjust its economic policies, as stipulated by the IMF. All requests other than for use of the reserve tranche are examined by the Executive Board to determine whether the proposed use would be consistent with the Fund's policies, and a member must discuss its proposed adjustment programme (including fiscal, monetary, exchange and trade policies) with IMF staff. New guidelines on conditionality, which, inter alia, aimed to promote national ownership of policy reforms and to introduce

specific criteria for the implementation of conditions given different states' circumstances, were approved by the Executive Board in September 2002. In March 2009 the Executive Board approved reforms to modernize the Fund's conditionality policy, including greater use of pre-set qualification criteria and monitoring structural policy implementation by programme review (rather than by structural performance criteria).

Purchases outside the reserve tranche are made in four credit tranches, each equivalent to 25% of the member's quota; a member must reverse the transaction by repurchasing its own currency (with SDRs or currencies specified by the Fund) within a specified time. A credit tranche purchase is usually made under a Stand-by Arrangement with the Fund, or under the Extended Fund Facility. A Stand-by Arrangement is normally of one or two years' duration, and the amount is made available in instalments, subject to the member's observance of 'performance criteria'; repurchases must be made within three-and-a-quarter to five years. In March 2012 the Executive Board approved an amendment to the Extended Fund Facility permitting extended arrangements to be approved from the start for up to a maximum of four years (the Facility had hitherto been approved for up to three years, with the possibility of a subsequent one-year extension). The member must submit detailed economic programmes and progress reports for each year; repurchases must be made within four-and-a-half to 10 years. In October 1994 the Executive Board approved an increase in members' access to IMF resources, on the basis of a recommendation by the then Interim Committee. The annual access limit under IMF regular tranche drawings, Stand-by Arrangements and Extended Fund Facility credits was increased from 68% to 100% of a member's quota, with the cumulative access limit set at 300%. In March 2009 the Executive Board agreed to double access limits for non-concessional loans to 200% and 600% of a member's quota for annual and cumulative access, respectively. In 2013/14 regular funding arrangements approved (and augmented) amounted to SDR 24,275m. (compared with SDR 75,516m. in the previous financial year, SDR 54,401m. in 2012/13, and SDR 143,318m. in 2010/11).

In October 1995 the Interim Committee of the Board of Governors endorsed recent decisions of the Executive Board to strengthen IMF financial support to members requiring exceptional assistance. An Emergency Financing Mechanism was established to enable the IMF to respond swiftly to potential or actual financial crises, while additional funds were made available for short-term currency stabilization. In September 2008 the Mechanism was activated to facilitate approval of a Stand-by Arrangement amounting to SDR 477.1m. for Georgia, which urgently needed to contain its fiscal deficit and undertake rehabilitation measures following a conflict with Russia during the previous month. In November the Board approved a Stand-by Arrangement of SDR 5,169m., under the Emergency Financing Mechanism procedures, to support an economic stabilization programme in Pakistan, one for Ukraine, amounting to SDR 11,000m., and another of SDR 10,538m. for

Hungary, which constituted 1,015% of its quota, to counter exceptional pressures on that country's banking sector and the Government's economic programme. An arrangement for Latvia, amounting to SDR 1,522m., was approved in the following month.

In May 2010 the Board endorsed a three-year Stand-by Arrangement for Greece amounting to SDR 26,400m., amounting to some 2,400% of that country's new quota (under the 2008 quota reform). The Arrangement was approved under the Emergency Financing Mechanism, as part of a joint financial assistance 'bailout' package with the eurozone countries, which aimed to alleviate Greece's sovereign debt crisis and to support an economic recovery and reform programme. In March 2012, following the cancellation of the Stand-by Arrangement, the Executive Board approved an allocation of SDR 23,785m. to be distributed under the Extended Fund Facility – representing access to IMF resources amounting to 2,159% of Greece's quota – as part of a second bailout package in support of the country's ongoing economic adjustment activities. Some SDR 1,400m. was to be disbursed immediately, and the release of subsequent disbursements was to be approved by both the Executive Board and by the Eurogroup meeting of eurozone ministers responsible for finance, on the basis of the findings of joint IMF-ECB-European Commission review teams to be deployed to Greece to monitor compliance with the terms of the economic recovery and reform programme. In February 2015, following the election in January of a new Government in Greece, the IMF Managing Director stated that a further review of the Greek economic situation would be undertaken, and noted that the new administration had not as yet committed to developing and implementing certain recommended policy reforms – including on pensions, taxation, privatization and the labour market – that were considered by the Fund to be of critical importance in determining Greece's likelihood of meeting agreed economic adjustment objectives. Meanwhile, the Eurogroup agreed in February to extend Greece's bailout programme – which had been due to expire at that time – by four months, until 30 June. The Greek authorities subsequently proposed several reforms for consideration by the IMF and Eurogroup, as a prerequisite for the release of funds that were being withheld under the programme. It was reported that a follow-on third bailout programme would only be approved by the IMF, ECB and European Commission if Greece were to meet its commitments agreed under the second programme. Amid significant economic and political uncertainty, the Greek authorities continued to make the required repayments on the country's debt to the IMF until early June, at which time they announced that they would delay all payments due in that month, totalling around €1,500m., until the end of June (the deadline for the expiry of the bailout programme). In mid-June – at which time negotiations on a future arrangement remained unsuccessful, with the Greek authorities unwilling to meet demands for the implementation of extensive structural reforms, and, in turn, requesting debt relief – the Greek Government indicated that it did not have sufficient funds to meet its commitments to the

IMF. The IMF Managing Director, meanwhile, declared that Greece would not be granted a grace period and would be considered immediately in default should its required payments become overdue on 30 June.

An allocation of SDR 19,465.8m., to be distributed over three years, was approved in December 2010 for Ireland under the Emergency Financing Mechanism, in conjunction with a eurozone assistance programme for that country aimed at supporting the restoration of stability in its financial sector. In May 2011 the Fund allocated SDR 23,742m. to Portugal over three years under the Extended Fund Facility, again under the Emergency Financing Mechanism and in tandem with a wider eurozone package of assistance that was supporting the Portuguese Government's ongoing economic adjustment programme. From December 2013 Ireland completed its IMF-EU-assisted emergency bailout programme, and in June 2014 Portugal also exited its programme of IMF-EU-assisted adjustment. In March 2013 the IMF Managing Director, the President of the ECB, and eurozone ministers responsible for finance agreed, in principle, to develop a joint programme of support to alleviate the sovereign debt crisis in Cyprus. In early April an IMF team and the Cypriot authorities reached a provisional agreement on the terms of a €10,000m. finance package that included a three-year SDR 891m. (equivalent to around €1,000m.) IMF allocation under the Extended Fund Facility; the arrangement was approved by the Board of Executive Directors in May. In April 2014 – following the adoption by the Ukraine interim authorities of a comprehensive package of actions that aimed to stabilize the domestic economy and to promote sustained growth, with a particular focus on exchange rate flexibility, banking stability, fiscal policy, energy policy, and governance, and supported by a social protection programme – the Executive Board endorsed a US$17,010m. two-year Stand-by Arrangement for that country. The Arrangement represented exceptional access to Fund resources, amounting to some 800% of Ukraine's quota. An initial instalment of some $3,200m. was made available immediately, with the release of the remainder to be subject to frequent reviews of Ukraine's economic performance. At the end of August, having completed the first such review, the IMF approved the disbursement of a further $1,390m. (SDR 914.7m.). In October 2008 the Executive Board approved a new Short-Term Liquidity Facility (SLF) to extend exceptional funds (up to 500% of quotas) to emerging economies affected by the turmoil in international financial markets and economic deceleration in advanced economies. Eligibility for lending under the new Facility was to be based on a country's record of strong macroeconomic policies and having a sustainable level of debt. In March 2009 the Executive Board decided to replace the SLF with a Flexible Credit Line (FCL) facility, which, similarly, was to provide credit to countries with very strong economic foundations, but was also to be primarily considered as precautionary. In addition, it was to have a longer repayment period (of up to five years) and have no access 'cap'. In August 2010 the duration of the FCL, and credit available through it, were increased, and a Precautionary Credit Line (PCL)

was established for member states with sound economic policies that had not yet met the requirements of the FCL. In November 2011 the PCL was replaced by a new, more flexible Precautionary and Liquidity Line (PLL), which was to be made available to countries 'with sound economic fundamentals' and 'sound policies', for use in broader circumstances than the PCL, including as insurance against shocks and as a short-term liquidity window; PLL arrangements may have a duration of either six months or one to two years. One PLL was approved in 2012/13 (in August 2012) for Morocco, amounting to SDR 4,117m. A new 24-month PLL arrangement for Morocco was approved in July 2014, amounting to SDR 3,235m.

In January 2010 the Fund introduced new concessional facilities for low-income countries as part of broader reforms to enhance flexibility of lending and to focus support closer to specific national requirements. The three new facilities aimed to support country-owned programmes to achieve macroeconomic positions consistent with sustainable poverty reduction and economic growth. They carried a zero interest rate, although this was to be reviewed every two years. An Extended Credit Facility (ECF) succeeded the existing Poverty Reduction and Growth Facility (PRGF) to provide medium-term balance of payments assistance to low-income members. ECF loans were to be repayable over 10 years, with a five-and-a-half-year grace period. A Standby Credit Facility (SCF) replaced the high-access component of a former Exogenous Shocks Facility (operational from January 2006–December 2009) in order to provide short-term balance of payments financial assistance in response to the adverse economic impact of events beyond government control, including on a precautionary basis. SCF loans were to be repayable over eight years, with a grace period of four years. A new Rapid Credit Facility was to provide rapid financial assistance to PRGF-eligible members requiring urgent balance of payments assistance, under a range of circumstances. Loans were repayable over 10 years, with a five-and-a-half-year grace period. A Post-Catastrophe Debt Relief (PCDR) Trust was established in June 2010 to enable the Fund – in the event of a catastrophic disaster – to provide debt relief to any vulnerable low-income eligible member state in order to free up resources to meet exceptional balance of payments needs. In November 2011 a new Rapid Financing Instrument was launched, for which all member states were to be eligible, and which was to support urgent balance of payments requirements, including those arising from exogenous shocks such as commodity price changes, natural disasters, and post-conflict and other fragile situations. Low-income member states may also make use of a non-financial Policy Support Instrument, providing access to IMF monitoring and other support aimed at consolidating economic performance. In September 2014 the Executive Board approved US$130m. in emergency funding for Guinea, Liberia and Sierra Leone, to support their response to the ongoing intensive outbreak of Ebola virus disease.

During 2013/14 members' purchases from the general resources account amounted to SDR 11,678m., compared with SDR 10,587m. in the previous

year. Outstanding IMF credit at 30 April 2014 totalled SDR 81,238m., compared with SDR 90,182m. in 2013/14. The largest users of IMF credit during the 2013/14 financial year were Greece, Ireland and Portugal.

The IMF participates in the initiative to provide exceptional assistance to heavily indebted poor countries (HIPCs), in order to help them to achieve a sustainable level of debt management. The initiative was formally approved at the September 1996 meeting of the Interim Committee, having received the support of the 'Paris Club' of official creditors, which agreed to increase the relief on official debt from 67% to 80%. In all, 41 HIPCs were identified, of which 33 were in sub-Saharan Africa. Resources for the HIPC initiative were channelled through the PRGF Trust. In early 1999 the IMF and the World Bank initiated a comprehensive review of the HIPC scheme, in order to consider modifications of the initiative and to strengthen the link between debt relief and poverty reduction. A consensus emerged among the financial institutions and leading industrialized nations to enhance the scheme, in order to make it available to more countries, and to accelerate the process of providing debt relief. In September the IMF Board of Governors expressed its commitment to undertake an off-market transaction of a percentage of the Fund's gold reserves (i.e. a sale, at market prices, to central banks of member countries with repayment obligations to the Fund, which were then to be made in gold), as part of the funding arrangements of the enhanced HIPC scheme; this was undertaken during the period December 1999–April 2000. Under the enhanced initiative it was agreed that countries seeking debt relief should first formulate, and successfully implement for at least one year, a national poverty reduction strategy. In May 2000 Uganda became the first country to qualify for full debt relief under the enhanced scheme. In September 2005 the IMF and the World Bank endorsed a proposal by the G8 to achieve the cancellation by the IMF, International Development Association (IDA) and the African Development Bank of 100% of debt claims on countries that had reached completion point under the HIPC initiative, in order to help them to achieve their Millennium Development Goals. The debt cancellation was to be undertaken within the framework of a Multilateral Debt Relief Initiative (MDRI). The IMF's Executive Board determined, additionally, to extend MDRI debt relief to all countries with an annual per caput gross domestic product of US$380, to be financed by the IMF's own resources. Other financing was to be made from existing bilateral contributions to the PRGF Trust Subsidy Account. In December the Executive Board gave final approval to the first group of countries assessed as eligible for 100% debt relief under the MDRI, including 17 countries that had reached completion point at that time, as well as Cambodia and Tajikistan. The initiative became effective in January 2006 once the final consent of the 43 contributors to the PRGF Trust Subsidy Account had been received. By mid-2014 a total of 37 countries had qualified for MDRI relief. As at September 2014 the IMF had committed some $2,421m. in debt relief under the HIPC initiative, of a total of

$74,000m. pledged overall (in end-2012 net present value terms); at that time the cost to the IMF of the MDRI amounted to some $3,537m.

In early September 2014, in the context of the Third UN International Conference on Small Island Developing States (SIDS), convened in Apia, Samoa, the IMF pledged to continue to provide financial and technical assistance in support of the sustainable economic development of SIDS, which are deemed to be at increased risk of vulnerability to external shocks, and to have an increased likelihood of low economic growth and national debt. At that time 20 SIDS were eligible for concessional lending from the Fund.

The IMF is a partner in the Enhanced Integrated Framework for trade-related assistance to Least Developed Countries (LDCs), a multi-donor programme which aims to support greater participation by LDCs in the global trading system.

Surveillance

Under its Articles of Agreement, the Fund is mandated to oversee the effective functioning of the international monetary system. Accordingly, the Fund aims to exercise firm surveillance over the exchange rate policies of member states and to assess whether a country's economic situation and policies are consistent with the objectives of sustainable development and domestic and external stability. The Fund's main tools of surveillance are regular, bilateral consultations with member countries conducted in accordance with Article IV of the Articles of Agreement, which cover fiscal and monetary policies, balance of payments and external debt developments, as well as policies that affect the economic performance of a country, such as the labour market, social and environmental issues and good governance, and aspects of the country's capital accounts, and finance and banking sectors. The Executive Board monitors global economic developments and discusses policy implications from a multilateral perspective, based partly on World Economic Outlook reports and Global Financial Stability Reports. In addition, the IMF studies the regional implications of global developments and policies pursued under regional fiscal arrangements. The Fund's medium-term strategy, initiated in 2006, determined to strengthen its surveillance policies to reflect new challenges of globalization for international financial and macroeconomic stability. The IMF, with the UN Department for Economic and Social Affairs, leads an initiative to strengthen monitoring and analysis surveillance, and to implement an effective warning system, one of nine initiatives that were endorsed in April 2009 by the UN System Chief Executives Board for Co-ordination, with the aim of alleviating the impact of the global crisis on poor and vulnerable populations. In September 2010 the Executive Board decided that regular financial stability assessments, within the Financial Sector Assessment Programme framework, were to be a mandatory exercise for 25 jurisdictions considered to have systemically important financial

sectors. In July 2012 the Executive Board adopted a Decision on Bilateral and Multilateral Surveillance (the so-called Integrated Surveillance Decision), which aimed to strengthen the legal framework underpinning surveillance activities. In September the Board endorsed a Financial Surveillance Strategy detailing steps towards further strengthening the financial surveillance framework.

In April 1996 the IMF established the Special Data Dissemination Standard (SDDS), which was intended to improve access to reliable economic statistical information for member countries that have, or are seeking, access to international capital markets. In March 1999 the IMF undertook to strengthen the Standard through the introduction of a new reserves data template. By mid-2015 63 countries were subscribers to the Standard, and eight to the supplementary SDDS Plus, which was introduced in 2012 to cover a further nine data categories. The eurozone also voluntarily issues metadata in SDDS format. The financial crisis in Asia, which became apparent in mid-1997, focused attention on the importance of IMF surveillance of the economies and financial policies of member states and prompted the Fund further to enhance the effectiveness of its surveillance through the development of international standards in order to maintain fiscal transparency. In December 1997 the Executive Board approved a new General Data Dissemination System (GDDS), to encourage all member countries to improve the production and dissemination of core economic data. The operational phase of the GDDS commenced in May 2000. By mid-2015 113 countries were actively participating in the GDDS. The Fund maintains a Dissemination Standards Bulletin Board, which aims to ensure that information on SDDS-subscribing countries is widely available.

In April 1998 the then Interim Committee adopted a voluntary Code of Good Practices on Fiscal Transparency: Declaration of Principles, which aimed to increase the quality and promptness of official reports on economic indicators, and in September 1999 it adopted a Code of Good Practices on Transparency in Monetary and Financial Policies: Declaration of Principles. The IMF and World Bank jointly established a Financial Sector Assessment Programme (FSAP) in May 1999, initially as a pilot project, which aimed to promote greater global financial security through the preparation of confidential detailed evaluations of the financial sectors of individual countries. In September 2009 the IMF and World Bank determined to enhance the FSAP's surveillance effectiveness with new features, for example introducing a risk assessment matrix, targeting it more closely to country needs, and improving its cross-country analysis and perspective. As part of the FSAP Fund staff may conclude a Financial System Stability Assessment (FSSA), addressing issues relating to macroeconomic stability and the strength of a country's financial system. A separate component of the FSAP are Reports on the Observance of Standards and Codes, which are compiled after an assessment of a country's implementation and observance of internationally recognized financial standards. In March 2000 the IMF Executive Board

adopted a strengthened framework to safeguard the use of IMF resources. All member countries making use of Fund resources were to be required to publish annual central bank statements audited in accordance with internationally accepted standards. It was also agreed that any instance of intentional misreporting of information by a member country should be made public. In the following month the Executive Board approved the establishment of an Independent Evaluation Office (IEO) to conduct objective evaluations of IMF policy and operations. The Office commenced activities in July 2001. In January 2010 the Office published a report on IMF Interactions with Member Countries. A paper on the IMF's Role in the Run-up to the Current Financial and Economic Crisis was issued by the Office in 2011. In April 2001 the Executive Board agreed on measures to enhance international efforts to counter money-laundering, in particular through the Fund's ongoing financial supervision activities and its programme of assessment of offshore financial centres (OFCs). In November the IMFC, in response to the terrorist attacks against targets in the USA, which had occurred in September, resolved, inter alia, to strengthen the Fund's focus on surveillance, and, in particular, to extend measures to counter money-laundering to include the funds of terrorist organizations. It determined to accelerate efforts to assess offshore centres and to provide technical support to enable poorer countries to meet international financial standards. In March 2004 the Board of Directors resolved that an anti-money-laundering and countering the financing of terrorism (AML/CFT) component be introduced into regular OFC and FSAP assessments conducted by the Fund and the World Bank. In May 2008 the IMF's Executive Board agreed to integrate the OFC programme into the FSAP.

Technical assistance

Technical assistance is provided by special missions or resident representatives who advise members on every aspect of economic management, while more specialized assistance is provided by the IMF's various departments. In 2000/01 the IMFC determined that technical assistance should be central to the IMF's work in crisis prevention and management, in capacity building for low-income countries, and in restoring macroeconomic stability in countries following a financial crisis. Technical assistance activities subsequently underwent a process of review and reorganization to align them more closely with IMF policy priorities and other initiatives.

The IMF delivers some technical assistance, aimed at strengthening local capacity in economic and financial management, through regional centres. The first, established in 1993, was a Pacific Financial Technical Assistance Centre, located in Fiji. A Caribbean Regional Technical Assistance Centre, located in Barbados, began operations in November 2001. In October 2002 an East African Regional Technical Assistance Centre (East AFRITAC), based in Dar es Salaam, Tanzania, was inaugurated and West AFRITAC was

launched in May 2003, to serve Francophone West African countries. (In 2012 West AFRITAC relocated from Bamako, Mali to Abidjan, Côte d'Ivoire.) AFRITAC West 2, based in Accra, Ghana, to cover the non-Francophone West African countries, commenced operations in December 2013. Central AFRITAC was launched in Libreville, Gabon, in 2007, and AFRITAC South (serving Southern Africa and the Indian Ocean) was inaugurated in October 2011, in Port Louis, Mauritius. In October 2004 a new technical assistance centre for the Middle East was inaugurated, based in Beirut, Lebanon. A Regional Technical Assistance Centre for Central America, Panama and the Dominican Republic, was inaugurated in June 2009, in Guatemala City, Guatemala. A new Africa Training Institute, located in Port Louis, Mauritius, was inaugurated in June 2014. In May 2009 the IMF launched the first of a series of Topical Trust Funds (TTFs – providing support to member states towards addressing economic policy challenges), on AML and CFT. In May 2011 two further TTFs were created, on Tax Policy and Administration, and on Managing Natural Resource Wealth.

In May 2012, following the merger of the former IMF Institute (established in 1964) and Office of Technical Assistance Management, a new Institute for Capacity Development was inaugurated, to provide technical assistance and training to support member countries with developing the capacity of national economic and financial institutions. The IMF is a co-sponsor, with the Austrian authorities, the European Bank for Reconstruction and Development, Organisation for Economic Co-operation and Development and the World Trade Organization, of the Joint Vienna Institute, which was opened in the Austrian capital in October 1992 and which trains officials from former centrally planned economies in various aspects of economic management and public administration. In May 1998 an IMF Singapore Regional Training Institute was inaugurated, in collaboration with the Singaporean Government, in order to provide training for officials from the Asia-Pacific region. In 1999 a Joint Regional Training Programme, administered with the Arab Monetary Fund, was established in the United Arab Emirates, and during 2000/01 a joint training programme for Chinese government officials was established in Dalian, Liaoning Province. A Joint Regional Training Centre for Latin America became operational in Brasília, Brazil, in 2001. In July 2006 a Joint India-IMF Training Programme was inaugurated in Pune, India. In May 2011 a new IMF-Middle East Centre for Economics and Finance was inaugurated in Kuwait.

Table A.1 Quotas (SDR million, June 2015)

Country	*Quota*
Afghanistan	161.9
Albania	60.0
Algeria	1,254.7
Angola	286.3
Antigua and Barbuda	13.5
Argentina	2,117.1
Armenia	92.0
Australia	3,236.4
Austria	2,113.9
Azerbaijan	160.9
Bahamas	130.3
Bahrain	135.0
Bangladesh	533.3
Barbados	67.5
Belarus	386.4
Belgium	4,605.2
Belize	18.8
Benin	61.9
Bhutan	6.3
Bolivia	171.5
Bosnia and Herzegovina	169.1
Botswana	87.8
Brazil	4,250.5
Brunei	215.2
Bulgaria	640.2
Burkina Faso	60.2
Burundi	77.0
Cabo Verde	11.2
Cambodia	87.5
Cameroon	185.7
Canada	6,369.2
Central African Republic	55.7
Chad	66.6
Chile	856.1
China, People's Republic	9,525.9
Colombia	774.0
Comoros	8.9
Congo, Democratic Republic	533.0
Congo, Republic	84.6

Country	*Quota*
Costa Rica	164.1
Côte d'Ivoire	325.2
Croatia	365.1
Cyprus	158.2
Czech Republic	1,002.2
Denmark	1,891.4
Djibouti	15.9
Dominica	8.2
Dominican Republic	218.9
Ecuador	347.8
Egypt	943.7
El Salvador	171.3
Equatorial Guinea	52.3
Eritrea	15.9
Estonia	93.9
Ethiopia	133.7
Fiji	70.3
Finland	1,263.8
France	10,738.5
Gabon	154.3
The Gambia	31.1
Georgia	150.3
Germany	14,565.5
Ghana	369.0
Greece	1,101.8
Grenada	11.7
Guatemala	210.2
Guinea	107.1
Guinea-Bissau	14.2
Guyana	90.9
Haiti	81.9
Honduras	129.5
Hungary	1,038.4
Iceland	117.6
India	5,821.5
Indonesia	2,079.3
Iran	1,497.2
Iraq	1,188.4
Ireland	1,257.6
Israel	1,061.1

Country	*Quota*
Italy	7,882.3
Jamaica	273.5
Japan	15,628.5
Jordan	170.5
Kazakhstan	427.8
Kenya	271.4
Kiribati	5.6
Korea, Republic	3,366.4
Kosovo	59.0
Kuwait	1,381.1
Kyrgyzstan	88.8
Laos	52.9
Latvia	142.1
Lebanon	266.4
Lesotho	34.9
Liberia	129.2
Libya	1,123.7
Lithuania	183.9
Luxembourg	418.7
Macedonia, former Yugoslav republic	68.9
Madagascar	122.4
Malawi	69.4
Malaysia	1,773.9
Maldives	10.0
Mali	93.3
Malta	102.0
Marshall Islands	3.5
Mauritania	64.4
Mauritius	101.6
Mexico	3,625.7
Micronesia, Federated States	5.1
Moldova	123.2
Mongolia	51.1
Montenegro	27.5
Morocco	588.2
Mozambique	113.6
Myanmar	258.4
Namibia	136.5
Nepal	71.3
Netherlands	5,162.4

Country	*Quota*
New Zealand	894.6
Nicaragua	130.0
Niger	65.8
Nigeria	1,753.2
Norway	1,883.7
Oman	237.0
Pakistan	1,033.7
Palau	3.1
Panama	206.6
Papua New Guinea	131.6
Paraguay	99.9
Peru	638.4
Philippines	1,019.3
Poland	1,688.4
Portugal	1,029.7
Qatar	302.6
Romania	1,030.2
Russia	5,945.4
Rwanda	80.1
Saint Christopher and Nevis	8.9
Saint Lucia	15.3
Saint Vincent and the Grenadines	8.3
Samoa	11.6
San Marino	22.4
São Tomé and Príncipe	7.4
Saudi Arabia	6,985.5
Senegal	161.8
Serbia	467.7
Seychelles	10.9
Sierra Leone	103.7
Singapore	1,408.0
Slovakia	427.5
Slovenia	275.0
Solomon Islands	10.4
Somalia	44.2
South Africa	1,868.5
South Sudan	123.0
Spain	4,023.4
Sri Lanka	413.4
Sudan	169.7

Country	*Quota*
Suriname	92.1
Swaziland	50.7
Sweden	2,395.5
Switzerland	3,458.5
Syria	293.6
Tajikistan	87.0
Tanzania	198.9
Thailand	1,440.5
Timor-Leste	10.8
Togo	73.4
Tonga	6.9
Trinidad and Tobago	335.6
Tunisia	286.5
Turkey	1,455.8
Turkmenistan	75.2
Tuvalu	1.8
Uganda	180.5
Ukraine	1,372.0
United Arab Emirates	752.5
United Kingdom	10,738.5
USA	42,122.4
Uruguay	306.5
Uzbekistan	275.6
Vanuatu	17.0
Venezuela	2,659.1
Viet Nam	460.7
Yemen	243.5
Zambia	489.1
Zimbabwe	353.4

Table A.2 Board of Executive Directors (June 2015)

Director	*Casting votes of*	*Total votes*	*%*
Appointed			
Mark Sobel	USA	421,962	16.74
Mikio Kajikawa	Japan	157,023	6.23
Hubert Temmeyer	Germany	146,393	5.81
Hervé Jodon de Villeroche	France	108,123	4.29
Steve Field	United Kingdom	108,123	4.29
Elected			
Menno Snel (Netherlands)	Armenia, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Georgia, Israel, Luxembourg, the former Yugoslav republic of Macedonia, Moldova, Montenegro, Netherlands, Romania, Ukraine	165,511	6.57
Fernando Jimenez Latorre (Spain)	Colombia, Costa Rica, El Salvador, Guatemala, Honduras, Mexico, Spain, Venezuela	123,477	4.90
Carlo Cottarelli (Italy)	Albania, Greece, Italy, Malta, Portugal, San Marino	106,410	4.22
Marzunisham Omar (Malaysia)	Brunei, Cambodia, Fiji, Indonesia, Laos, Malaysia, Myanmar, Nepal, Philippines, Singapore, Thailand, Tonga, Viet Nam	99,036	3.93
Jin Zhongxia	People's Republic of China	95,997	3.81
Barry Sterland (Australia)	Australia, Kiribati, Republic of Korea, Marshall Islands, Federated States of Micronesia, Mongolia, New Zealand, Palau, Papua New Guinea, Samoa, Seychelles, Solomon Islands, Tuvalu, Uzbekistan, Vanuatu	91,317	3.62
Serge Dupont (Canada)	Antigua and Barbuda, The Bahamas, Barbados, Belize, Canada, Dominica, Grenada, Ireland, Jamaica, Saint Christopher and Nevis, Saint Lucia, Saint Vincent and the Grenadines	90,684	3.60
Audun Groenn (Norway)	Denmark, Estonia, Finland, Iceland, Latvia, Lithuania, Norway, Sweden	85,623	3.40

Director	*Casting votes of*	*Total votes*	*%*
Chileshe Mpundu (Zambia)	Angola, Botswana, Burundi, Eritrea, Ethiopia, The Gambia, Kenya, Lesotho, Liberia, Malawi, Mozambique, Namibia, Nigeria, Sierra Leone, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Uganda, Zambia, Zimbabwe	84,191	3.34
Hazem Beblawi (Egypt)	Bahrain, Egypt, Iraq, Jordan, Kuwait, Lebanon, Libya, Maldives, Oman, Qatar, Syria, United Arab Emirates, Yemen	80,074	3.18
Ibrahim Canakci (Turkey)	Austria, Belarus, Czech Republic, Hungary, Kosovo, Slovakia, Slovenia, Turkey	73,486	2.92
Rakesh Mohan (India)	Bangladesh, Bhutan, India, Sri Lanka	70,697	2.80
Fahad Ibrahim Alshathri	Saudi Arabia	70,593	2.80
Daniel Heller (Switzerland)	Azerbaijan, Kazakhstan, Kyrgyzstan, Poland, Serbia, Switzerland, Tajikistan, Turkmenistan	70,447	2.79
Paulo Nogueira Batista, Jr (Brazil)	Brazil, Cabo Verde, Dominican Republic, Ecuador, Guyana, Haiti, Nicaragua, Panama, Suriname, Timor-Leste, Trinidad and Tobago	65,881	2.61
Aleksei V. Mozhin	Russia	60,192	2.39
Jafar Mojarrad (Iran)	Afghanistan, Algeria, Ghana, Iran, Morocco, Pakistan, Tunisia	57,078	2.26
Sergio Chodos (Argentina)	Argentina, Bolivia, Chile, Paraguay, Peru, Uruguay	46,323	1.84
Ngueto Tiraina Yambaye (São Tomé and Príncipe)	Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Republic of the Congo, Côte d'Ivoire, Djibouti, Equatorial Guinea, Gabon, Guinea, Mali, Mauritania, Mauritius, Niger Rwanda, São Tomé and Príncipe, Senegal, Togo	41,930	1.66

Note: The total number of votes does not include the votes of Guinea-Bissau, Madagascar and Somalia (amounting to 0.16% of the total vote in the General Department and the Special Drawing Rights Department), as these countries did not participate in the 2012 election of Executive Directors.

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