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Cooperation between countries to ensure global economic growth: a role for the G20?

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Abstract: The global economic recovery is on course but remains weak. Many analysts and policymakers — including those from emerging markets — have recently called for international cooperation in the setting of macroeconomic policies. A global growth target has been adopted by the G20 to aid such cooperation. But advanced counties are unwilling to abandon fiscal policies which are driven by austerity, monetary policy is incapacitated, and demand in emerging markets economies is not growing rapidly enough. As a result, cooperation in the promotion of growth appears elusive. However microeconomic reforms have been added to the G20 policy mix: reforms which, for example, promote competition, liberalise trade, and support increased investment in infrastructure. A new form of cooperative process is thereby emerging. Countries have been asked to pursue such reforms, in ways which both promote the growth of productive potential and encourage the growth of aggregate demand. The aim is to create a global environment of 'concerted unilateral reform'. Beneath the umbrella of a global growth target, counties are being encouraged to embrace reform, and to expand demand, in the light of the opportunities which are created by the pursuit of similar reforms elsewhere. This is a valuable experiment in international economic cooperation, and a successful outcome will be of particular value to emerging-market economies.

JEL classification: E60, F30, F41, F42

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Cooperation between countries to ensure global economic growth: a role for the G20?*

1 Introduction

It is a great privilege to have been asked to give the 13th Heinz Arndt Memorial Lecture.

I first came to know Heinz when I began my regular visits to the ANU more than 20 years ago. Soon after I arrived, Heinz and I would meet in his office high above the Fellows' Garden at University House, surrounded by his books. He would immediately ask for my opinion on whatever he was writing. We would continue our discussion over lunch in the bar below, and then keep talking long into the afternoon in the garden. Heinz would follow up with a handwritten note: he lived by carefully exploring his ideas in writing. Our conversations would continue throughout my visit.

These discussions were often about international cooperation in macroeconomic policymaking. One of my most vivid memories is of a morning twelve years ago when Heinz took me to see Sir Leslie Melville, soon before Melville turned 100, and not long before Heinz died. We talked about the way that Melville represented Australia at the Imperial Economic Conference in Ottawa so many years ago — in 1932 — as financial adviser to the Commonwealth delegation. Delegates at that conference were discussing policies to speed recovery from the Great Depression, including the expansionary ideas which John Maynard Keynes was then developing — ideas which were not yet very clear since this was before the completion of the *General Theory*.[1] Melville also described how he led the Australian

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* This paper presents a revised and extended version of a lecture given at the Australian National University on 17 September 2014. The revisions make reference to the outcomes of the meeting of G20 Finance Ministers and Central Bank Governors which took place after the lecture, on 20 and 21 September at Cairns, Queensland, Australia. I am grateful to the audience at the lecture for helpful comments, and also to many others for helpful discussions of the ideas raised in my paper, including in particular: Christopher Adam, Christopher Allsopp, Olivier Blanchard, Tam Bayoumi, Max Corden, Peter Drysdale, Bob Gregory, David Gruen, Hal Hill, Raghbendra Jha, Paul Krugman, Martin Parkinson, Ila Patnaik, Heather Smith, Barry Sterland and Paola Subacchi. Some of the ideas in my paper were set out at two seminars about the G20 held in New Delhi in early September 2014, meetings which were convened by the National Institute of Public Finance and Policy, the Brookings Institution (India), the National Council of Applied Economic Research, and the East Asia Bureau of Economic Research of the Australian National University. Some of the ideas were also discussed at: two seminars about Australia's Presidency of the G20 held in early April 2014 in Jakarta and Shanghai ; a meeting in Seoul in December 2013, hosted by the Korean Ministry of Strategy and Finance, the Australian Treasury, the Korea Institute of Finance and the Korean Development Institute; and a seminar held at the Australian National University in November 2013 at which preliminary thoughts about Australia's strategy for its G20 Presidency were initially aired. I am indebted to all of those with whom I canvassed these issues at those meetings. I am also grateful to colleagues in an ongoing project involving collaboration between Chatham House in London and the International Monetary Fund in Washington, which is examining the way in which international macroeconomic cooperation might best be supported.

1 I discuss the evolution of Keynes' ideas in the 1930s in my recent book with Peter Temin called *Keynes: Useful Economics for the World Economy* (Temin and Vines, 2014).

delegation to the Bretton Woods conference in 1944, where he collaborated with Keynes. By that time, the *General Theory* had been published and Keynes had turned again to the international problems which had occupied him in the 1920s — questioning how a country could not just achieve full employment but also attain balance in its international payments. In the 1980s I worked in Cambridge on these international problems with James Meade, someone who was closely involved with Keynes in preparing the British plans for Bretton Woods. So I found it especially rewarding to be talking to Melville and Arndt in Australia, so many years later, about their early attempts to foster international cooperation in macroeconomic policymaking.

Very early on I discovered that this was the subject on which Heinz began his own work in economics: from 1941 to 1943, he worked on postwar reconstruction at Chatham House, i.e. the Royal Institute of International Affairs, in London.[2] Heinz had grown up in Breslau — in what was then Germany — from where his father had been expelled by the Nazi authorities in 1933 from his Professorship in Organic Chemistry. Soon afterwards, Heinz became an undergraduate student at Oxford, studying Politics, Philosophy and Economics. He was later briefly interned in Canada at the beginning of World War II. Subsequently Heinz had the extraordinary good fortune to be employed as a research assistant by the eminent Polish economist Paul Rosenstein-Rodan who chaired the Committee on Post-War Reconstruction at Chatham House. This was a Committee whose members, notably, included James Meade, who was by then working with Keynes on plans for Bretton Woods. In a matter of months, Heinz had drafted what subsequently became his first book, *Economic Lessons of the Nineteen-Thirties* (Arndt, 1945).

This was a striking book for a young man to write. The contents of the book were originally meant to have become a Report of the Chatham House Committee, but Heinz's draft was so controversial that the Committee refused to endorse it. Admirably, however, the Committee did allow Heinz to publish the manuscript in his own name, as part of a Chatham House series produced by Oxford University Press. The book immediately attracted wide attention[3], and went on to become a classic work on the subject. There are three significant aspects to the book that I would like to highlight here.[4]

First, Heinz's claims, in the conclusion of his book, that…

> 'there is much to be said for superseding the free rule of market forces by various forms of market intervention … reducing to a minimum that instability which is inherent in the

[2] See Coleman, *et al.* (2007), Chapter 4.

[3] Coleman, *et al.* (2007) describe a number of reviews of the book in Chapter 4.

[4] It is clear that Heinz benefited enormously from Rosenstein-Rodan's close guidance, which enabled him to write in such a forceful manner. See Coleman, *et al.* (2007), p. 45. The quotations which follow come from pages 46 to 50 of that book.

operation of the market mechanism and which exacted a terrible price in terms of social insecurity and economic loss during the inter-war period'.

Looking back, it is easy to see why the book's interventionist stance made it so controversial. But one can now see it as amongst the very earliest writings about economic management in a 'mixed' economy (i.e. one having both a strong private sector and a strong public sector) and about how this required both the deliberate pursuit of full employment and the regulation of private sector activity. This is something which I will be discussing in this paper.

But second, Heinz's book was much broader than this. He argued that

> '…the catastrophe of the world depression of 1929–33 cannot be attributed to the internal instability of the advanced industrial countries alone. It was not merely a phase of the trade cycle…. The world depression would not have [been] nearly as severe and disastrous in its consequences if it had not been for the fact that ever since [World War I] the economic structure of the world and of individual countries had been in a state of acute disequilibrium …. which the existing world economic system proved quite incapable of correcting….These disequilibria, most of which appeared as maladjustments in the balances of payments of different countries but in reality represented fundamental maladjustments in the economic structure of the countries concerned and of the world as a whole, were too large to be corrected by market forces within the framework of an international monetary system such as the gold standard. …. As a result … [to avoid such a depression happening again] there is an inescapable need for international co-operation, if not supranational economic authorities'.

This claim, that economic management requires international cooperation overseen by an international institution, was written well before it was clear that the International Monetary Fund (or IMF) would be established at Bretton Woods in 1944. I will be discussing the IMF's role in this paper.

Third, Heinz's discussions of economic management with Rosenstein-Rodan led the latter to produce his path-breaking paper for the *Economic Journal* entitled 'Problems of industrialisation of Eastern and South-Eastern Europe' (Rosenstein-Rodan, 1943). This extraordinary paper argues that industrialisation in developing countries requires a coordinated 'big-push' of investment programmes, in a range of what he called 'complementary' industries. This contention is usually taken to be the starting point of development economics (Krugman, 1992). The paper also argues that such investment should be part of an outward-looking growth strategy, carried out in labour intensive industries which produce goods for export, so as to make best use of the international division of labour. The resulting investment programmes should also, he said, be based on "substantial international investment and capital lending". These contentions seems obvious to us now, but they were not obvious in the 1940s.[5] Rosenstein-Rodan's paper was originally designed to be incorporated alongside Heinz's draft in the Report of the Chatham House Committee, i.e. in the report which did not eventually appear.[6] But Heinz was so impressed by the argument that he persuaded Rosenstein-Rodan to turn the paper into a stand-alone article[7]. The paper is also remarkable as a record of discussions which initiated Heinz's interest in development economics, and the role of developing countries in the world economy. This interest led him, years later, in 1963, to become the head of the Economics department in the Research School of Pacific and Asian Studies at the Australian National University. Heinz used the resulting opportunity to establish the Indonesia Project, which became a world-leading centre for the study of the Indonesian economy. Members of the Indonesia Project have done so much, over so many years, to work with Indonesian policymakers and academics in promoting good economic policies for the Indonesian economy. Heinz led this activity, with his inexhaustible energy and optimism, well into his eighties. In this paper I will also be discussing Rosenstein-Rodan's subject: the role of large-scale investment programmes in developing economies, and the ways in which they should be financed.

In sum, my paper is about the three issues on which Heinz worked at Chatham House in the early 1940s: the pursuit of economic growth; the need for international economic cooperation in the management of the world economy; and the process of economic development and the role of emerging market economies in the world economy.[8]

The plan of my paper is as follows. First, I will discuss the current context. Then I will provide some history: about how the Bretton Woods system worked and about how we got from Bretton Woods to the Great Moderation, in which it was thought that there were no grounds for international cooperation in the setting of macroeconomic policies. Third, I will describe the onset of the global financial crisis and show how and why this led to a need for cooperation between nations. Fourth, I will show how difficult it is to achieve such cooperation to in the presence of policies of fiscal austerity in advanced countries. (In this section, I will analyse the pursuit of austerity by governments in advanced countries as a 'missed opportunity'.) Fifth, I outline the initiative for promoting global growth which has been put forward within the G20 during the Australian Presidency of the G20 in 2014. This

5 In India an inward-looking 'big push' of investment was carried out in heavy industries after World War II, behind a protectionist barrier. This turned out to be an extraordinarily inefficient development strategy.

6 The first footnote of Rosenstein-Rodan's article in the *Economic Journal* reads: "This is a chapter from the forthcoming report of the Economic Group of the Committee on Reconstruction, The Royal Institute of International Affairs".

7 Coleman *et al.* (2007) p.47 describe how Heinz 'badgered' Rosenstein-Rodan into writing his paper.

8 Christopher Adam and Paola Subacchi and I provide a discussion of some of these issues (See Adam, Subacchi and Vines, 2012). I am also grateful for discussions with colleagues who are taking part in a collaborative project between Chatham House and the IMF on international macroeconomic cooperation, in particular Tam Bayoimi and Jonathan Ostry.

strategy involves the pursuit a global growth target by means of infrastructure investment and through microeconomic reforms. This strategy for international cooperation appears to have been particularly successful, and I discuss just why that should be so. Finally, in the last part of my paper, I turn to examine the position of emerging market economies in the world economy. I stress the important need for cooperation between advanced countries and emerging-market economies in the better provision of international liquidity. I will discuss why such cooperation has so far been lacking, even though it is something which emerging market economies need in order to be able to grow more rapidly.This need creates an agenda item for the Turkish Presidency of the G20 in 2015.

2 The current context

In 2008, 65 years after Heinz wrote his book on the lessons of the 1930s, the world plunged into its greatest economic downturn since that time. International cooperation macroeconomic policymaking ensured that we avoided another Great Depression. But six years later, the global recovery — although strengthening — remains very weak (IMF, 2014).

This weakness is widespread. In advanced economies, demand is now growing more rapidly than it was in the last three years, but output remains well below potential. And the growth of potential output itself is low, due to reduced investment, to low profitability, and to low demand. In emerging-market economies, there is a slow-down in growth following a withdrawal of foreign capital and the associated external turbulence. The resultant tightening of financial conditions is leading to a reduction in the growth of demand in these economies also.

Macroeconomic policies have not been sufficiently supportive. Advanced countries are undertaking fiscal austerity — particularly the US, the UK and Germany — and are seeking to grow their demand by raising exports. In China, domestic demand is still not expanding rapidly enough, and in other emerging markets, such as India and Brazil, policies are tightening because of external difficulties. The world faces a 'new normal' of low growth.

Many distinguished economists from emerging markets have called for international cooperation in setting macroeconomic policies. For example, Raghuram Rajan, Governor of the Reserve Bank of India, has complained that the tapering of quantitative easing has been carried out without sufficient regard for international spillovers and has called for the US Federal Reserve to 'be aware' of the interests of other countries (Wessel, D. (2014). But this is difficult. In the words of the Australian Treasurer, Joe Hockey:

> There is no doubt that the Fed needs to be aware of these international implications in detail, and be mindful of them. [However] ultimately, the Fed has to operate in a manner that is consistent with its domestic mandate. (Hockey, 2014a)

Is cooperation possible and, if so, of what kind?[9]

The G20 is a forum in which this problem can be addressed. This is a particularly opportune time to think about this set of issues since there will be a G20 summit meeting in Brisbane on 15–16 November 2014. I have been able to talk with those who are working to prepare for this summit and want to describe to you some of the ideas which are being developed.

3 From Bretton Woods to the Great Moderation: a history of a global non-system

3.1 Bretton Woods

At the Bretton Woods Conference in 1944, the allied nations sought a world in which nations could promote full employment by managing aggregate demand. They did this in order to prevent the re-emergence of a global depression like that which had occurred in the 1930s (Williamson, 1983). Governments would do this primarily by means of fiscal policy in the way explained by Keynes in his *General Theory* (James, 2012). But the architecture of Bretton Woods went beyond this. Macroeconomic policy would require not just the use of fiscal policy to pursue internal balance — i.e. full employment of resources without excess demand pressures — but would also need measures to ensure external balance. The latter was an outcome in which exports would be sufficiently great to pay for full-employment import demand, along with interest payments abroad, after allowing for any given level of capital inflows (Temin and Vines, 2013, 2014, and Vines, 2003).

To achieve external balance countries would need adjustable exchange rates. Fiscal policy would be used to ensure full employment, and the currency would be set at such a level that the country became sufficiently competitive to enable exports to pay for imports. The IMF was established at Bretton Woods in order to manage a reformed international monetary system, in which exchange rates could be adjusted as necessary.[10] The IMF would also provide the international liquidity which such a system required.
We now all use the Swan diagram to understand how fiscal policy and exchange rate adjustment could be used together to achieve both internal and external balance. This piece of analysis was developed by Trevor Swan at ANU, at just the time when Heinz Arndt arrived in Canberra from Sydney in 1950 (Swan, 1955).[11] International cooperation would be required in the setting of these exchange rates, it was thought, and the agreement of the IMF was made necessary if a country wished to change its exchange rate.

[9] Bayoumi (2014), and Ostry and Ghosh (2013), and Adam Subacchi and Vines (2013) also address this question.

[10] See House, Corden and Vines (2008).

[11] Swan's account draws on Meade (1951), who in turn obtained his ideas from Keynes, as described in Vines (2003), and Temin and Vines (2013, 2014). The Swan diagram became a piece of analysis which Heinz was to use extensively. See Coleman *et al.* (2007)

The Bretton Woods system came under stress when the surplus countries, Germany and Japan, were unwilling to make the necessary adjustment to their exchange rates. At the same time the major deficit country, the US, was fighting a war in Vietnam and had embarked on a 'war on poverty' at home, and was unable to adjust its exchange rate because it was pegged to gold. These tensions led to a speculative attack on the US dollar in 1971 which brought the Bretton Woods regime of fixed exchange rates to an end (Temin and Vines, 2013).

3.2 The Great Moderation[12]

Advanced countries and the global non-system

The breakdown of the Bretton Woods system coincided with the end of the post-war Keynesian policy architecture, in which fiscal policy was used in the pursuit of internal balance. Nevertheless, the active pursuit of internal balance has remained as an objective of macroeconomic policy, despite a brief experiment with monetarism. By the 1990s, this active management of the economy came to be carried out exclusively by monetary policy, within the confines of an inflation-targeting regime. Adjustments in fiscal policy became confined to ensuring solvency of the national fiscal position. The result was a remarkable period of sustained growth and low inflation right up until the financial crisis, a period which became known as the 'Great Moderation' (Bernanke, 2004).

External balance was no longer thought to be an objective during this period, as it had been in the Bretton Woods system. In a world with mobile international capital, countries were able to borrow internationally, provided that they respected solvency, and providing that markets did not turn against them.

Floating exchange rates became central to the operation of this policy system. The use of interest rate policy to manage demand would engineer movements in the exchange rate relative to its long-run position which would help to bring about changes in the trade balance and so lead to the required changes in demand. A simple argument, using the Mundell-Fleming model, shows how such a world works[13]. Suppose — say — that there is a downturn in the US and that policymakers there embark on monetary expansion and lower the world interest rate, as happened in 2002 after the collapse of the dot-com bubble and as happened again after the global financial crisis. In such a situation, a foreign country can use its monetary policy to resist the fall in the interest rate and keep its interest rates higher than in the US. This will cause a currency appreciation in that country. With open international capital markets the country must end up having an interest rate which is the same — or

[12] The discussion in this section draws on Temin and Vines (2013) and Adam, Subacchi and Vines (2012)
[13] Fleming (1962); Mundell (1963) and Dornbusch (1976).

similar — to that in the US. [14] But it can use its interest-rate policy to steer the exchange rate to the point at which the appreciation of the currency offsets the effects of the lower interest rate, so as to keep output unchanged, or so as to keep the country on its desired point on its inflation-output tradeoff. With a high degree of capital mobility, a country can have an independent monetary policy.

However, a country can only do this if it floats its exchange rate. If the country does not do this, but has a fixed exchange rate, then any attempt to have a different interest rate from that in the US would lead to a massive inflow of money which would defeat the attempt. With a fixed exchange rate, a country must accept the interest rate which is given to it internationally. There is thus an ”impossible trinity” — if a country has open international capital markets and wants to have an independent monetary policy, it cannot have a fixed exchange rate — it must allow the exchange rate to float. But if exchange rates float, then an independent monetary policy is possible.
This kind of international monetary system is a “non-system” — a wonderful non-term which we all owe to Max Corden. No international cooperation in the making of monetary policy is needed. Even if countries act independently, each country can achieve what it wants. [15]

From the early 2000s, there remained a widespread concern about global imbalances between the US and other countries (Obstfeld and Rogoff, 2005, Blanchard and Milesi-Ferretti, 2009). But the dominant view came to be that capital would flow to where it was most needed, that the private sector would look after itself and that disciplined fiscal policy would ensure that countries would be solvent; external balance would not be an issue. This became a very real contrast with the Bretton Woods system.

In the period of the Great Moderation, relations between the advanced countries — principally the US and Europe, but also Japan, Canada, Australia and other G7 countries — followed the path just described. Only internal balance remained as an objective, pursued by inflation targeting, using monetary policy. There was no international macroeconomic cooperation. This global non-system appeared to be doing well, right up until the Global Financial Crisis.[16]

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[14] This argument can be demonstrated using a Mundell-Fleming model which produces equality of interest rates between countries — an uncovered interest parity result — when international capital mobility is very high.

[15] There was a brief period in the 1980s in which it was believed that cooperation might be necessary to prevent countries attempting to export inflation to each other by running tight monetary policies and attempting to appreciate their exchange rates. See Oudiz and Sachs (1984). But that concern soon passed, as inflation receded.

[16] In his paper, ‘The State of Macro’, published in 2008, Olivier Blanchard argued that things were going well in macroeconomic theory (Blanchard, 2008). The same appeared to be true with macroeconomic policy (Blanchard et.al, 2010, 2013).

Emerging markets, 'Bretton Woods II', and the global non-system

From the 1980s onwards, the international order became more complex with the rise of East Asia, and then in 1997 the East Asian miracle morphed into the Asian financial crisis. The expansion of credit in the run-up to that crisis was based on an under-pricing of risk in a way similar to what happened in the period preceding the global crisis of 2008. In the East Asian case, this was underpinned by a system of fixed exchange rates. But after that crisis, growth in East Asia returned at a spectacular rate, led by China. Since investment in East Asian countries fell significantly after the crisis, while savings remained very high, this growth needed to be export-led, and that was what happened. In the period of the Great Moderation which followed, relations between the advanced countries followed the path described previously, but relations between the advanced world and East Asia developed in a very different manner. Nevertheless, the outcome was still one in which international cooperation appeared not to be needed.

The outcome in the 2000s was one in which, in the presence of a high level of savings, East Asian countries pursued depreciated real exchange rates — led by China but with other countries following in a similar manner, so as to promote growth and employment. As a result, the US and other advanced countries found themselves with significant trade deficits and needed — if they were to pursue full employment — to have very low interest rates. This led to the 'Greenspan put' — with the US reducing domestic interest rates to historically low levels after the dotcom crash. The result was a trade surplus in China and the rest of East Asia — and a deficit in the US. This simple story describes the origin of global imbalances between emerging market economies and the US.[17]

In such a world, global imbalances between advanced countries and East Asia appeared not to constitute a problem. The imbalances which emerged were simply a reflection of a loan from East Asia to the US.[18] External balance was not an issue. This was a very real contrast between Bretton Woods II and the original Bretton Woods system.

As a result, this global non-system was also a system which did not require international cooperation. In each country policy-makers set their policy instrument with the objective of ensuring full employment of resources in their own country; the Chinese set the real exchange rate to promote full employment in China — and they were followed by other countries in East Asia — and the US set the interest rate with the objective of full

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[17] See Yu Yongding (2012). It was understood that the borrowing by the US would need, in due course, to be repaid — what Corden (2012) calls the 'return journey'. That would require that the change in the real exchange rate be reversed — so the dollar would need to depreciate in due course. That would take time. But once this had happened, imbalances would be removed and interest rates in both countries would eventually return to more normal levels.

[18] This is the argument of Blanchard and Milesi-Ferretti (2011).

employment in the US. There were not floating exchange rates in this regime — which is why the system became known as 'Bretton Woods II'. But although the exchange rates of emerging market economies were depreciated, this was not an obstacle to a good outcome, providing the interest rate in the US was kept low.

This system too was thought to be doing well until the onset of the Global Financial Crisis.

Europe and the global non-system

The collapse of the Bretton Woods system in 1971, and the global crisis of the 1970s which followed, led to much disquiet in Europe about the exchange-rate volatility which had emerged in the decade post-1971. It was believed that this volatility posed a threat to the trade liberalisation which was then emerging within Europe and which was to become the Single European Market. As a result, policy in Europe thus took a very different path from that in the rest of the world. Attention turned to the reconstruction within Europe of a system of pegged exchange rates: the European Monetary System or EMS was established in the 1980s. This set Europe on the path towards economic and monetary union (EMU) which was finally established with the creation of the Euro in 1999.

Within a monetary union, wages and prices in each country must be set in the knowledge that a country needs to remain sufficiently competitive relative to the other members of the union, if demand for that country's products is not to suffer, causing unemployment.[19] It was initially thought that the discipline of belonging to a monetary union would ensure that any divergences in inflation between countries in the union would not be large, and so the competitiveness of individual countries would be maintained. Divergences in inflation and competitiveness did in fact emerge between countries, but until 2008 it was thought that these would be self-correcting. Consequently, it was also thought that any balance of payments imbalances between European countries would be self-correcting — again in contrast to what had been thought at the time of the Bretton Woods system.

As a result, macroeconomic management within the Eurozone was treated as a one-target/one instrument problem, rather like the management of a single macro-economy. There was only one policy instrument — the interest rate set by the European Central Bank. There was also only one target of macroeconomic policy for the Eurozone as a whole — inflation at the European level — to be targeted by the European Central Bank. In addition, the Stability and Growth Pact was put in place in 1997 to provide a commitment by EMU countries 'to respect the medium-term budgetary objective of 'positions close to balance or in surplus'. This pact was designed to ensure the kind of fiscal solvency, described above,

[19] How this was meant to work was made clear by Otmar Issing, a German economist who was Chief Economist and Member of the Board of the European Central Bank (Issing, 2002, 2006).

which all advanced countries were striving to achieve. But beyond this, it was thought, there was no need for macroeconomic policy cooperation between countries within the Eurozone. The only requirement was thought to be that of targeting inflation for Europe as a whole and enforcing the stability and growth pact within each country (Temin and Vines, 2013).

Until the onset of the Global Financial Crisis in 2008 it appeared that such an approach could sustained.

4 The Global Financial Crisis and the need for international cooperation

The Great Moderation came to an abrupt end in 2008, with financial collapse and subsequent deleveraging, leading to the most rapid decline in economic activity since the Great Depression (Eichengreen and O'Rourke, 2010). Since then the global system has come to work in a very different manner from that described above.

The initial policy response to the crisis by world leaders displayed a remarkable degree of international cooperation. This cooperation was put into effect at the G20 Summit in London in April 2009, at which global policymakers worked in close cooperation with officials from the International Monetary Fund. The expansionary macroeconomic policies agreed at that summit played a significant part in preventing the Financial Crisis from becoming another Great Depression.

In the face of a collapse in demand, all countries pushed in the direction of lower interest rates, and it was in the interests of all countries to do this. Cooperation involved each country acting in the way which it already desired to act. Each country was at risk of a loss of confidence and of currency attack if it pursued such policies on its own. Such a form of cooperation involved each country being aware that others would be pursuing expansionary policies. This process of mutual support was enormously helpful.

There was also a very large fiscal expansion in response to the collapse in global aggregate demand[20]. This added an extra policy instrument for each country, to compensate for an inability to carry out any larger degree of monetary expansion. Although each country's fiscal expansion had spillovers (i.e. its effects on demand leaked to other countries) the pursuit by each country of fiscal expansion pushed everywhere towards higher employment. Again, countries cooperated in pursuing such policy. And again, this form of cooperation involved each being aware that others would be pursuing expansionary policies. We can describe this kind of cooperation as a form of 'concerted unilateral expansion'.
Although the set of policies described above prevented collapse, recovery since 2008 has only been modest; this is the point where I began. Today, output is something like 15

[20] This is described in detail by Bayoumi (2014)

percent below trend in many countries, and in some countries it is still actually below its 2007 level. For the North Atlantic region as a whole, there is a cumulative gap of trillions of dollars between what output would have been had it followed the pre-crisis trend and the actual level of production. The reason for this gap has been the very large deleveraging since the crisis by both the personal and the company sectors — sectors which borrowed heavily in the run-up to the financial crisis — and by the financial sector which provided leveraged loans to both the personal and the company sectors. As a result, investment is now very low. It is low both because of the difficulty of obtaining finance from a financial sector which is deleveraging, and because of uncertainty about the extent to which demand will grow in the future. This uncertainly is being fed by worries about the possibility that a declining rate of population growth population, accompanied by a reduction in the rate of technical progress may lead to a sustained period of secular stagnation in advanced countries — i.e. an outcome in which there is very slow growth for a long period of time.[21]

It has become evident that there is a shortage of policy instruments to achieve what is now necessary.[22] Quantitative Easing (QE) has been adopted to fill the resulting gap — the purchase of long-dated government securities to lower long-term interest rates. QE has allowed the US, and others who have adopted it, to help stimulate the economy even though short-term interest rates cannot be lowered any further. But we have seen that there are limits to what QE can achieve.

Even after all of the reduction in interest rates to zero, the huge fiscal expansion, and QE, the extent of the policies undertaken still proved to be insufficient to prevent huge falls in output. There is now a shortage of demand and a shortage of policy instruments to ensure that global demand grows more rapidly. This is why there is a need for global cooperation.

We now know that the low interest rates which were pursued after 2002, and which have been pursued since 2008, along with QE, are highly risky. They have led to a search for yield which is leading to risky lending and has created vulnerability similar to that which led to the global financial crisis in 2008. It has ceased to be true that a low interest rate can be used costlessly, in the way described above. An additional instrument appears to be necessary to moderate the risks caused by low interest rates. Financial regulation has come to fill this hole, in ways which we are now finding it difficult to live with. In particular, the macroprudential regulations which are now being imposed on the financial system are limiting the provision of credit in ways which point in the opposite direction from stimulating the global economy and sustaining the global recovery.

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21 This possibility has been identified by Summers (2014a) and is discussed in detail in Teulings and Baldwin (2014).

22 This is the central point of the paper by Blanchard and Milesi-Ferretti (2011). This is also the argument of articles by Butler (2012), Faruqee and Srinivasan (2012), and by Subacchi and van der Noord (2012).

It is apparent that, since 2009, global policymakers have needed to find further ways to cooperate internationally so as to stimulate demand in the world economy.

A year after the onset of the crisis, at the Pittsburgh G20 Summit in September 2009, global leaders indeed pledged that they would work together in a cooperative way to ensure that growth was sustained. In order to do this, they initiated a policy framework known as the 'Framework for Strong, Sustainable, and Balanced Growth'. This framework led to the creation of a multilateral process through which G20 leaders firstly identified a set of macroeconomic objectives for the world economy, secondly agreed a set of macroeconomic policies which would be needed to achieve these objectives, and thirdly committed themselves to a mutual assessment of their progress towards meeting their objectives. This mutual assessment of progress was labelled the G20 Mutual Assessment Process, or G20MAP.[23] It was to be managed in collaboration with the IMF. We can describe the G20MAP as an attempt to institutionalise a form of 'concerted unilateral action' in global macroeconomic policymaking.

Many hoped that the G20MAP might provide precisely what was needed: a framework in which policymakers could cooperate internationally so as to stimulate global demand and ensure a more rapid rate of growth. (See Butler, 2012.)

5 Advanced countries and fiscal austerity: the need to recapture a missed opportunity

In fact, from 2011, policymakers went in the opposite direction. Fiscal austerity took hold, even though we can see that there was a need for a looser fiscal position. The decision to withdraw fiscal support for the recovery was taken at the G20 summit in Toronto in June 2010.[24] Since then, policies of austerity have been adopted in the US, in the UK, within the Eurozone, and, in particular, in Germany. And governments have chosen to act independently in choosing the extent to which they pursue fiscal austerity. This abandonment of cooperation has imposed significant costs. Each country, in choosing fiscal consolidation, imposes burdens on other countries. We can see very simply how this happens.

Advanced countries have been using two instruments — fiscal policy and interest rate policy — or, in the presence of a zero bound, using QE instead of the interest rate. Each country has aimed both to reduce public deficits (so as to reduce public debt in the longer term) and at the same time to ensure sufficient growth to make full employment of resources possible.

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[23] See IMF (2014b). This document is an IMF "Fact Sheet" on the G20 Mutual Assessment Process which was published on the IMF website on November 14th 2011.

[24] See Butler (2012) and Wolf (2014, p 268)

In a world without very low interest rates, this is entirely possible. Fiscal contraction can be used to ensure the desired reduction of public debt, and monetary policy can be used to ensure full employment of resources. Monetary policy can achieve the latter objective by lowering the interest rate and by achieving a depreciated exchange rate, both of which stimulate demand. That stimulus compensates for the reduction in demand caused by fiscal austerity. This is how the US acted in the late 1980s to correct its budgetary position after the Reagan deficit. It is also how Australia rebalanced its economy in the late 1980s, and how East Asian countries recovered after the Asian financial crisis of the 1990s. If the country doing this is large, then the outcome, as well as a depreciated exchange rate for the country in question, is a lower interest rate for the world as a whole. And if all advanced countries were to pursue this policy at the same time, then none of them, of course, would achieve a depreciation of their exchange rate, but there would still be a lower world interest rate and that would stimulate demand in all countries. In such a world, in which there was not a very low level of interest rates, there would be no conflict between fiscal austerity and a growth strategy designed to ensure full employment of resources. But that is, of course, provided that the fiscal austerity is accompanied by an expansionary monetary policy.

This situation cannot be achieved in the presence of a zero bound to interest rates. As a result, there is necessarily a shortage of global demand. Fiscal austerity cannot be accompanied by a reduction in the interest rate, because of the zero bound, and so demand and output will fall in the country undertaking the austerity. Such a fall in output will reduce fiscal revenues, counteracting the effects of austerity on deficits and debt, and making the problem more difficult. It is true that a more austere fiscal policy may well lead to more QE, which will lead to moderation of the fall in demand. But we know that QE has only been partly effective. The end result of austerity is thus likely to be a move further away from full employment of resources. And that will be at the expense of a less rapid improvement in the fiscal position.

It is easy to see how there are negative repercussions abroad from such a policy of fiscal austerity. Some of the reduction in demand in the country undertaking a programme of austerity will spill over onto foreign countries, reducing output there and reducing fiscal revenues there as well. It is true that, since austerity cannot lead to a reduction in the interest rate in the country undertaking the policy, there is no effect on the exchange rate through that channel. But we have learned that QE in a country leads to a depreciation of its exchange rate, as it leads investors to believe that interest rates will be lower for longer in that country. Although — as I have said — such a depreciation moderates the reduction of demand in the country undertaking the austerity by stimulating its exports and reducing its imports, the opposite effect will be felt in foreign countries. Changes in exchange rates are thus likely to cause further transmission of negative effects abroad. Overall, we can conclude that austerity in one country reduces demand and output, and fiscal revenues, in other countries.[25]

> It is easy to see why this process has been described as 'exchange rate warfare'. When there is a global shortage of demand, each country undertaking austerity imposes losses on other countries. (Eichengreen, 2013a, 2013b)

It is important to understand the mistake made by the countries which had a chance to slow their fiscal austerity but did not choose to do so. Such a slowing of fiscal austerity would of course require an expansion of fiscal deficits. Any such changes must, of necessity, be matched by a longer-term commitment to fiscal discipline, including a commitment to a future gradual reduction in public debt, when the recovery strengthens. But in the US the bipartisan agreement necessary for this was not possible. By contrast, in the UK, the pursuit of austerity was a positive choice. An influential argument was made that the UK had too much debt, even although the ratio of debt to GDP in the UK is below its long-term average for the last three centuries. (Wolf, 2014, p. 268) This was supposedly backed up by the influential book by Reinhart and Rogoff (2009) who suggested that a debt burden would prevent growth if public debt rose above the level of 90 percent of GDP. However, the technical analysis has of Reinhart and Rogoff has been effectively criticised by Herndon, Ash and Pollin (2013) and their overall argument has been effectively discredited. It is true that, all other things being equal, a high level of public debt will crowd out capital and so will damage the supply side of the economy. But experience shows that some countries with a high level of public debt have grown fast. The key example is that of countries after World War II, which grew rapidly, even though the level of public debt was much higher than that at present. And it is clear that high debt may occur at least in part because of slow growth, rather than being the cause of slow growth. Such a reverse direction of causation has been apparent, spectacularly, in the years following the recent crisis.

Furthermore, since the crisis, a policy of austerity may be ineffective in reducing the public deficit unless growth has already resumed more strongly than we have seen. Such an austerity policy reduces demand and output — and it is now clear that the fiscal multipliers are large if the effects cannot be counteracted by monetary policy, which will be the case at the zero bound. (IMF, 2010, Batini *et.al.* 2014, and Wolf, 2014.) Tax revenues will fall with the fall in output, so that austerity will be less effective in reducing public debt than had been expected. Furthermore, such falls in output can reduce the supply potential of the economy through hysteresis effects, leading to further falls in tax revenue, possibly by so much that austerity actually becomes self-defeating. (See De Long and Summers, 2012, Krugman, 2013, and Wolf, 2014.)The argument of this paper is that, in addition, austerity in one country imposes losses in output — and in tax revenues — in other countries.

[25] The policies of austerity have also helped to create rather different difficulties in emerging markets. I discuss these in the next section.

International cooperation at the G20 would have led to a recognition of this problem, and to action which would have counteracted it.

Within Europe, austerity is imposing a recession of a kind which threatens the very survival of the monetary union.[26] During the first ten years of EMU there was a very significant divergence from the disciplined outcome which the founders of EMU had hoped for, and which we described above. There were, in fact, very wide divergences in growth rates within the Eurozone. Countries in the periphery of the Eurozone — Greece, Italy, Ireland, Portugal, and Spain (the GIIPS countries) — entered EMU in a competitive position. This was partly because real wages in these countries were lower than those in the northern parts of Europe, and partly because of the inappropriate exchange rates which were chosen to convert national currencies into the Euro when the monetary union was created. These countries experienced a significant boom while countries in the north of Europe, especially Germany, grew much more slowly. As a result of this difference, there were wide divergences in inflation rates; these were higher in the GIIPS countries and lower in the north. These divergences in inflation led to serious divergences in the competitiveness levels, and in the balance-of-payments positions of countries within the Eurozone. Furthermore, the higher levels of inflation in the GIIPS countries cause them to have lower real interest rates which accentuated the boom, multiplying the effects of the divergence of competitiveness. And during the boom, fiscal revenues rose in the GIPPs countries, encouraging rapid increases in government expenditure, which further magnified the boom and multiplied the effects of the divergence in competitiveness.[27]

Then the crisis came in 2008, leading to a crisis within Europe from mid-2010 onwards. The GIIPS countries found themselves with collapsing demand and output and, as a result, with collapsing fiscal revenues. This was a fiscal crisis caused by a financial crisis. Furthermore, unlike in the East Asian crisis ten years earlier the GIIPS countries were stuck with uncompetitive external positions — they were unable to devalue their currencies as a way of bringing about a resumption of growth. The balance of payments position of these countries became important, but for reasons that were different from what was the case in the Bretton Woods system. A large balance of payments deficit mattered not because countries were unable to borrow abroad, since, within a unified monetary and financial system private individuals are able to do this. Instead, such deficits provided an indication of the extent to which international competitiveness had diverged. They showed how difficult it would be for demand and output, and for fiscal receipts, to recover again. Uncompetitive countries with large foreign deficits became countries vulnerable to fiscal crisis.

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[26] This extreme risk remains a real one, despite the belief by international capital markets that the European Central Bank will do 'whatever it takes' to save the monetary union. See Temin and Vines (2013) and Soros (2012). There is a very clear analysis of this risk in Wolf (2014).

[27] For a detailed discussion of this, see Temin and Vines (2013, Chapter 5)

Since the Eurozone crisis began, the GIIPS countries have been forced into a severe fiscal consolidation, which, in the absence of an ability to deprecate their exchange rates, has led to massive unemployment. There is an average unemployment rate of 12 per cent in Europe as a whole and youth unemployment of more than 50 per cent in two of the worst-afflicted GIIPS countries, Spain and Greece. The level of costs and competitiveness in these countries needs to adjust, after the ten years of excessive inflation in the run-up to the financial crisis. But this adjustment to the level which is required is happening so slowly — in contrast to what could happen with a regime of floating exchange rates. Such adjustment is being hindered by the fact that inflation in the Eurozone is low, and low even in Germany. Furthermore, adjustment is being radically hindered by the austerity measures on which Germany has embarked. Recent data suggests an overall budget surplus in Germany (grouping federal, state and local governments and the social security system together) of 1.1 percent of GDP in the first half of 2014. Deflation is now a prospect in the Eurozone. The recent move by the European Central Bank to lower the short-term interest rate is coming much too late to fully offset such negative pressures on demand. Furthermore, the way in which it does offset these pressures depends to some extent on creating downward pressure on the Euro. It seems likely the ECB will embark on some version of quantitative easing, creating further downward pressure on the Euro. Thus in Europe, fiscal austerity is generating pressures towards currency depreciation and a reliance on an externally-led recovery, worsening the global-currency-war problem which I described above.

Overall, we can see that austerity has made the global policy problem much more difficult. It will be necessary to reverse this austerity in Europe.[28] Elsewhere — in the UK and in Japan — austerity is already being moderated. There is a need for something similar in the US.

It would be easier if such moderation were assisted through international negotiations and international cooperation, however difficult this might seem at present (Farhi, *et al.* pp. 56, 57). The essential point underlying this need for cooperation has been described above. Austerity in one country will not only tend to lower output in other countries, it will also make the fiscal problem worse in other countries, provoking a move toward tighter austerity there. A decision was made long ago, in 2011, to proceed down the non-cooperative path of austerity. But even at this late stage a move in a cooperative direction would be helpful. And a moderation of austerity now, until the global recovery is more firmly established, would help to move that global recovery forward.

There is some evidence that this has begun to be been recognised. In particular, the Communiqué of the G20 Finance Ministers' Meeting which took place on 20 and 21 September 2104, at Cairns, Queensland, Australia says the following. "We will continue to

[28] Wolf (2014, Chapter 9) explains and justifies this conclusion very clearly.

implement our fiscal strategies flexibly to take into account near-term economic conditions, so as to support economic growth and job creation, while putting debt as a share of GDP on a sustainable path." (G20, 2014b, para 4.) The Managing Director of the IMF, Christine Lagarde, strongly supported a move in that direction in a speech which she gave in Washington on 2 October 2014 (Lagarde, 2014). And the same view is expressed in the most recent edition of the IMF's *World Economic Outlook*. (See International Monetary Fund, 2014c, Chapter 3)

Nevertheless, policies of austerity are still in place. As a result, it has become essential to find additional ways to stimulate global demand.

6 Cooperation to ensure global growth: an opportunity provided by combining infrastructure investment with microeconomic reform

I have been describing how the policies of austerity have put a brake on the recovery of global demand. In the presence of such a brake, what other means can be found to help ensure that global demand grows at a more rapid pace? I now describe I describe an answer to this question which has recently been put forward within the G20, under Australia's leadership, at the time of the Australian G20 Presidency. This strategy involves pursing a global growth target by means of infrastructure investment and through microeconomic reforms. For a clear exposition of these plans, see Parkinson (2014).

6.1 Expanding global demand through infrastructure investment and microeconomic reform

Countries have a wider range of means for promoting economic growth than simply manipulating purely macro-economic instruments, namely interest rates, government consumption, and tax rates. Instead they can carry out an alternative strategy of promoting growth through the means of additional infrastructural investment and/or microeconomic reforms. The Australian strategy has been to ask countries to volunteer actions of this kind, across a wide range of possibilities.

The idea of promoting growth in this way was put forward in a document titled *Macroeconomic and Reform Priorities,* prepared by IMF staff for an initial meeting of G20 finance ministers and central bank governors that was held in February this year in Sydney (G20, 2014a). That meeting identified a 'global growth strategy' as a cooperative process in which countries would be asked to contribute a set of policy changes which, taken together, might raise global growth by two per cent by 2018. Since this meeting in February, this objective has effectively become a global growth target.

The IMF document identified a number of possible changes to macroeconomic policy and a broad range of additional reforms to supply-side policies which might be undertaken within

G20 countries. The supply-side suggestions included the promotion of competition, particularly in the services sector, as well as reforms to training programs which would address skill mismatches. Consideration was also given to the taxation and social protection of low-income workers, along with the reform of labour-market institutions and the effect of this on job creation, and, in addition, to policies which support technological catch-up. Success in such domestic reforms would, it was suggested, enable countries to better integrate themselves within development of global value chains. Addressing obstacles to investment, notably in infrastructure, was another focus, in particular the impediments to private sector provision of infrastructure, including regulatory conditions and a lack of depth in financial markets. Consideration was also given to increasing public investment in infrastructure.

The two percent target arose in the following way. (See G20, 2014a). A plausible reform scenario was simulated, using the IMF Research Department's G20 model to illustrate the medium-term impact of possible policy actions. The specific policy assumptions for each country were based on IMF desks' assessments of policy gaps across six reform areas[29]: infrastructure investment, labour supply, other labour market reforms, product market reforms, fiscal consolidation over the medium term, and a rebalancing of demand in China, Germany and the US. [30] The policies assumed in the scenario would, it was calculated, lead to a 0.5 percentage point increase in the growth rate over the next five years, and so would raise the level of world real GDP by about 2¼ percent (or 2¼ trillion U.S. dollars) by 2018 (relative to the IMF' October 2013 baseline forecast). And such gains would be sustained

[29] The precise assumptions made about policy changes which were fed into the simulation are explained in Box 1 of G20 (2014a).

[30] The last two of these reform areas deserve some comment.

First, the strategy being modelled does *not* assume that austerity is abandoned, or ameliorated, other than in ways that are explicitly discussed in the text below. In more detail, the fiscal assumed in the simulation consolidation is based on the country desks' estimate of the gap between the 2013 cyclically-adjusted fiscal balance and the desirable future fiscal balance. An attempt is made to ensure consistency with the desirable fiscal balance underlying the IMF's External Balance Assessment and the External Sector Report, though these numbers are still subject to revisions. The fiscal consolidation is phased in progressively over 5 years, except for Japan where it is phased in over 10 years. The important point to make is that this simulation calculates that world real GDP would be 2¼ percent higher in 1981 *even in the presence of a (well-judged) pursuit of austerity*. That serves to emphasise just how powerful the demand-stimulating effects of the infrastructure investment and supply-side reforms actually are.

Second the realistic assumptions which are made about the rebalancing of demand introduce a number of effects, which complicate the interpretation the results but which add realism to the exercise. In China, additional reforms to education, healthcare, and pensions raise public transfers by 1.1 percent of GDP and reduce private savings by 1 percent of GDP over 5 years. Financial sector reforms help better pricing of risks, raising its cost to tradable sector firms by 50 basis points after 5 years. The financial sector reforms also result in a shift to higher quality investment, implying a reduction in the private capital depreciation rate of 50 basis points after 5 years. These policies are accompanied by a fully flexible exchange rate. In Germany, reforms are implemented that lower the cost of capital by 90 bps and increase economy-wide productivity by 1 percent after 5 years. In the United States, reforms encourage an increase in the private saving by 0.6 percent of GDP after 5 years. (G20, 2014a, Box 1) over a long-lasting time horizon to the extent that they permanently increased the supply-side potential of the world economy.

Countries had until June this year to consider what actual reform polices each country might offer — from this very wide range of choices — as part of a global growth strategy. These proposals were peer-reviewed at a meeting of finance and central bank deputies held in Melbourne in June. The meeting of finance ministers and central bank governors which took place in Cairns in September claimed that those at the meeting had

> … developed a set of new concrete measures that will facilitate growth, increase and foster better quality investment, lift employment and participation, enhance trade and promote competition. Preliminary analysis by IMF-OECD indicates these measures will lift our collective GDP by an additional 1.8 per cent through to 2018, including from important positive spillovers. These measures, along with macroeconomic policies, are designed to lift global growth and contribute to rebalancing global demand. Implementation of these measures is also essential to foster private sector growth, to give our citizens more opportunities to improve their living standards. (G20, 2014b, para. 2.)

These measures are to form the basis of a Brisbane action plan, to be approved at the G20 Leaders summit in November 2014. The Communiqué continues:

> In the lead up to the Brisbane Summit, we will continue to identify a series of additional measures to meet our collective growth ambition. We will hold each other to account in implementing these policy commitments. (ibid)

This looks like a very significant step in the right direction. The proposals already for the September meeting already get close to meeting the two percent target which had been adopted. And the proposals for instituting a system of accountability are important.

This is not a one-off plan. The ambition is to set in train a continuing cooperative process in which infrastructure investment and microeconomic reforms are offered up in a way which stimulates global aggregate demand.

6.2 Why might such a strategy work?

But why should such a strategy actually work?

Stimulating demand in advanced economies

As is made clear in the G20 plan (2014a, p. 8) any gains from infrastructure investment and supply-side reforms are gains to the output potential of the world economy, i.e. the level of output which can be obtained when all of the world's available resources, including labour, are fully employed. Such gains to output potential will come mainly from increases in labour productivity, and from the accumulation of productive capital. But why should these increases in infrastructure investment and supply side reforms, taken together, also lead to an increase in the global demand for goods and services that is large enough to keep pace with the increase in output potential? And, more than this, why should such increases in infrastructure and supply-side reforms, taken together, lead to an even larger increase in demand, so that global output comes closer to global output potential and unemployment is actually reduced? The simulation of the reform scenario using the IMF Research Department's G20 model actually shows such an outcome. But why should this be the case?

First of all, it is clear that a strategy of investing more in infrastructure and carrying out supply-side reforms will stimulate global demand, to the extent that it leads to an increase in public-sector investment in infrastructure in advanced countries. Such investment would lead to the creation of capital assets which increase the supply-side potential of the economy. But the investment itself would also increase demand during the period in which the capital assets were created. On this the Communiqué of the G20 Finance Ministers' Meeting in Cairns is very clear (G20, 2014b, para 5):

> Investment is critical to boosting demand and lifting growth. Today we have agreed to a Global Infrastructure Initiative to increase quality investment, particularly in infrastructure. The Initiative will seek to implement the multi-year infrastructure agenda...

A big question remains. How is such a 'boosting of demand' consistent with a policy of austerity which seeks to cut public expenditure and to raise taxes?

One answer to this question is that it is intended that increases in public sector infrastructure investment will be partly funded by means of public-sector/private-sector partnerships (PPP). Thus the Communiqué states that "[t]he Initiative will also include key measures in our growth strategies to improve investment climates, which are central to our efforts to attract private sector participation".[31] The Australian Treasurer was very explicit about this in his press conference, in which he said (Hockey, 2014b):

> … there is widespread recognition across the G20 that governments no longer have the budget capacity to deliver the infrastructure, not just that our communities want, but that they actually need and unless we form partnerships with the private sector, which has a massive amount of capital available, then we are simply not going to be able to meet the needs of growing economies over the medium-term. So, the public-private partnership, and our work on the establishment of a Global Infrastructure Centre is very important … for the strengthening of infrastructure around the world…. I'm talking about the rules surrounding the use of … infrastructure, access to infrastructure, financing of that infrastructure, cross-border activity, access regimes and the like. … We have been working very hard … on garnering support for a new infrastructure hub that will be a source of information, and perhaps even common documentation and benchmarks for global infrastructure.

[31] Progress in doing this will – of course — depend on a satisfactory division of risk-sharing between the public and the private sectors. Work on such risk-sharing is crucial, since so many public-sector/ private-sector (PPP) projects have ended up with the private sector gaining most of the upside benefits and the State bearing most of the downside risk.

A second answer to the question above comes from the fact that infrastructure investment may actually enable a moderation of austerity in advanced countries — the moderation which is signalled in the quotation from the Cairns Communiqué which I gave at the end of Section 5. This has been justified as follows. Investment in infrastructure leads to the creation of assets which can be used as collateral to the debt which is incurred. Policymakers may engage in 'balance-sheet offsets' which enable them to increase demand. That is to say, countries may be willing to moderate austerity, in the knowledge that such infrastructure investment will lead to an improved balance-sheet position. The Communiqué of the Cairns meeting gives slightly cryptic evidence of a move in this direction, in that, in para. 5, it talks about "optimising the use of the public balance sheet". The Australian Treasurer, Joe Hockey, was much more explicit about this approach in Australia in his press conference (Hockey, 2014b). He talked about and the 'recycling' of public sector assets in Australia, and he noted that even Germany is developing plans of this kind.

Some commentators have suggested that, once such a view takes hold, it will be possible to 'stretch' the moderation of austerity much further. Summers (2014b) argues that, in the current environment of very low real interest rates, properly designed infrastructure projects will actually reduce rather than increase public-sector debt burdens. The IMF argues something very similar in its latest World Economic Outlook released in October 2014 (IMF, 2014c). Summers' explanation is as follows:

> Consider a hypothetical investment in a new highway financed entirely with debt. Assume — counterfactually and conservatively — that the process of building the highway provides no stimulative benefit. Further assume that the investment earns only a 6 percent real return, also a very conservative assumption given widely accepted estimates of the benefits of public investment. Then, annual tax collections adjusted for inflation would increase by 1.5 percent of the amount invested, since the government claims about 25 cents out of every additional dollar of income. Real interest costs, that is interest costs less inflation, are below 1 percent in the US and much of the industrialised world over horizons of up to 30 years. So infrastructure investment actually makes it possible to reduce burdens on future generations

Such a strategy, based on public-sector investment, has a time dimension. Investment plans take time to put into operation. Building a new airport, a road network or modernising a port is the work of a decade, or more, rather than a few years. It is necessary to be aware of this. But the fact that the objective is one of a higher level of activity in five years, rather than one year, does indeed show evidence of this awareness.

In the shorter term, however, the consequences for demand — if they emerge — will need to come from the effects of supply-side reforms. That is, they will emerge from the outcomes of labour market reform, from the promotion of competition, and from the international results of increasing market access, rather than being an effect of increases in public-sector investment programmes. It is important to be clear that such supply-side reforms will not necessarily, of themselves, lead to an increase in demand in advanced countries. There is a risk that private sector firms will use the reforms which are adopted merely as an excuse to shed labour, seeing the reforms as enabling them to reduce the number of people which they employ to produce any given level of output. That would cut real incomes, and — if anything — lead to a further reduction in demand, causing output to actually fall rather than rise. In a world in which demand is already too low, this is not a solution!

It is essential, therefore, that the labour market reforms, the promotion of competition, and the offering of increased market access all lead, not just to cost-cutting, but to an increase in private-sector investment. Firms must see these supply-side reforms as lowering their costs and thereby creating the opportunity to sell higher output in the future, and they must see the reforms as something which encourages them to increase their investment. Such an increase in investment would help to stimulate incomes, leading to an increase in demand and output, and so become self-validating. If this happens the private sector will join the public sector in increasing demand in advanced countries.

But this is not guaranteed. There is no surety that supply-side reforms in advanced economies will be sufficient to encourage an increase in demand in these economies. This has been demonstrated by unsatisfactory progress following the Lisbon Treaty of 2009 in Europe. That treaty was designed to promote microeconomic reforms in order to encourage the growth of demand and output in Europe, particularly in the GIIPS countries in Southern Europe which are uncompetitive in relation to Germany. Such reforms have been very slow to be implemented, and they have had little effect on the demand for goods which are produced in the GIIPS countries.[32]

Overall, in advanced economies, private sector investment remains very weak, in ways which I have discussed earlier in the paper. In these economies, the effects of boosting public sector investment seem essential if demand is to rise.

Stimulating demand in emerging market economies

Things are very different in emerging market economies. I describe below how, in these economies, credible macroeconomic policy frameworks are necessary in order to weather turbulence coming from abroad, and to make it possible for demand to grow more rapidly. And in these economies too, increased public-sector investment is critical. But it is in these in these emerging market economies that microeconomic, supply-side reforms have an especially important role in creating extra private sector investment.

[32] If anything, the Lisbon Treaty has encouraged reforms in Germany which have served to increase the gap in competitiveness between German and the GIIPS countries, further depressing demand in those countries

In these emerging market countries, opportunities for investment in infrastructure – private as well as public — and for a more efficient use of capital in general, are being held back by many obstacles. There are large opportunities provided by the opening of international trade, and, in particular, by the participation in global value chains. There is also a need to improve trade facilitation. Competition in many emerging market economies, particularly in the services sector, is being held back by regulations that restrict activities to the detriment of consumers, and are harmful to the interests of the users of intermediate products and of curtail the prospects of new and innovative firms. A particular example of this is in India. There, and elsewhere, the cost and complexity of starting a company plays a major role in deterring new businesses. There are many remaining barriers in both manufacturing and agriculture, there is also a lack of progress in opening markets for services, there are a range of behind-the-border restrictions which need to be dealt with. However, if supply-side reforms can ensure that at least some of these obstacles can be overcome, there will be very significant opportunities for investment. The benefits from such an increase could well be very significant.

Furthermore, supply-side reforms in emerging market economies are likely to reduce national risk premia, which will enable further additional projects to be funded. And beyond this, an lowering of external difficulties will enable countries to implement more accommodating policies and so make it possible for the public sector to carry out additional infrastructure investment.

As a result, we can see successful reforms of the kind described here as likely to lead directly to an increase private-sector investment in emerging market economies, and perhaps to public sector investment, and thus to a stimulus to global demand.

International spillovers

The large investment needs of emerging market economies, and the lack of investment opportunities in advanced countries which we have described, mean that there is an opportunity for capital to flow from advanced economies to emerging market economies. Barriers include unfavourable regulatory conditions, financial regulations and lack of depth in markets for long-term financing, and the lack of capacity to plan and deliver projects. However, if these barriers can be overcome, then investment will increase in emerging market economies financed by an inflow of financial capital, and by foreign domestic investment. That will also help to facilitate the overall increase in global demand.[33]

On this, the Communiqué of the G20 Finance Ministers' Meeting in Cairns is very explicit (G20, 2014b, para 5):

[33] I am grateful to Max Corden for a discussion of this issue.

> …work is currently underway to improve the transparency and functioning of securitisation markets which will promote financing…. We welcome the work of the World Bank Group to develop the Global Infrastructure Facility which provides a platform for collaboration between development banks and the private sector to lift quality infrastructure investment in emerging markets and developing economies.

Of course, such capital flows would need to be well managed. In Section 6 above I discussed the turbulence which has emerged when good macroeconomic strategies have not been implemented. It will be essential to combine such flows with careful macro-prudential management of the domestic economy, and with international cooperation in the provision of global liquidity.

The global impact of such an international flow of funds would be significant, beyond the effect which I have discussed, of causing an increase in productive capacity in emerging market economies and a resultant increase in investment, and demand, in those countries. The outflow of capital from advanced countries would help to cause the exchange rates of advanced countries to depreciate, and so would raise the level of demand for goods and services produced in these countries. It would also serve to increase the profitability of traded goods in these countries, and so encourage investment there. That investment will lead to an increase in the rate of economic growth. That is to say, reform and increased growth in emerging market economies may well help to promote growth in advanced countries as well. Such a movement in capital might come to play a significant part in moderating the pressures towards secular stagnation which exist in advanced countries which were mentioned earlier in this paper.

Thinking about these spillovers takes us right back to the beginning of this paper. In his article published in the *Economic Journal in* 1943, Rosenstein-Rodan stressed the global importance of capital flows to emerging market economies. His arguments are very similar to those provided in the previous paragraph.

6.3 Ensuring that the reforms are implemented

It is clear that any reforms to economic policymaking are — in the end — driven by domestic political agendas. International attempts to encourage growth through infrastructure investment and microeconomic reforms, like those being put forward at the G20, might not be adopted. The initial success reported at the Cairns meeting in September 2014 might turn out to be illusory. Drives towards austerity might continue to prevent an increase in infrastructure by the public sector. Supply-side microeconomic reforms might well be resisted by those who stand to lose, in a world in which demand is not growing rapidly. This is why the progress following the Lisbon Treaty of 2009 in Europe has been so slow. Not only have the reforms failed to increase demand for goods which are produced in the GIIPS countries. Reforms have also been resited, at least in part, because they are seen to be driven from abroad.

But the international climate can influence domestic political calculations in a positive way. This was true throughout East Asia in the 1990s in the early days of the Asia Pacific Economic Cooperation (APEC) process, when a sense of opportunities abroad fed into the ability to galvanise liberalisation at home. Back then, the prospect — and better still the reality — of liberalisation by others abroad, especially when they were important regional trading partners, was used persuasively by East Asian trade policy officials and politicians as they embarked on the contest with protectionists at home over the liberalisation of domestic markets. This leverage was important throughout the period, from the mid-1980s right up until the Asian financial crisis in 1997. During this time, virtually all Western Pacific economies embarked on far-reaching unilateral liberalisation. Such ‘concerted unilateral liberalisation’ promoted growth throughout the region, making possible a high tide of internationally oriented growth in East Asia. It became easier to liberalise trade in a climate in which many other countries were doing the same thing. (Garnaut and Vines, 2009)

The current G20 process is attempting to bring about something rather similar. What is proposed can be described, in a similar way, as a process of ‘concerted unilateral reform’. In effect, each country should be able to be ‘mindful’ not only of the *interests* of other countries but also of the *pressures* and *opportunities* created by the actions of other countries. Reforms in other countries which bring about increases in foreign competitiveness will lead to domestic pressure to make similar reforms at home. Similarly, reforms abroad which offer increased access to foreign markets will increase the opportunities for outward-looking firms at home to expand and grow — in the way which happened when there was trade liberalisation in East Asia in the 1980s and 1990s. In sum, these pressures and opportunities can influence the ability of each country to pursue reforms domestically. The existence of a global growth strategy might thus act as an inducement to national reform strategies. And the proposed system of accountability is important in reinforcing this inducement.

It thus does seem possible that this an approach would support an ongoing process of global cooperation, and enable faster growth in the global economy. That is why this plan should not be seen as a one-off action. It is possible that a cumulative process could be stimulated over a number of years, as happened in East Asia in the 1980s and 1990s.

7 Emerging market economies: the need for cooperation in the provision of global liquidity

Finally I turn to the need to the need to better insulate emerging market economies from global economic shocks. [34]

We now know that the very low interest rates which became necessary after the global financial crisis caused undesirable outcomes in emerging market economies. In fact, they led to volatile capital flows, to large exchange rate movements and to risks to financial stability. In the period from 2008 onwards, emerging markets did not need the low interest rates which followed the crisis. Although their interest rates were raised, these countries were unable to defend themselves from the low interest rates in advanced countries. (Mohan and Kupar, 2013, and IMF, 2013) In fact many of these countries experienced a financial boom. The higher interest rates which they set encouraged capital inflow, driven by the international carry trade. This led to appreciation of exchange rates, and in many cases the appreciation was excessive, whilst not countering the effects of the boom. As a result, these countries then became vulnerable to currency collapse. When, from late 2013, it became evident that US interest rates would soon begin to rise, the conviction that this would happen led to sharp falls in exchange rates in India, in Turkey and in other emerging market countries, and to a tightening of financial conditions in China.

In reality, it was not the case that a high degree of capital mobility and floating exchange rates enabled these countries to have an independent monetary policy and isolate themselves from the effects of the low interest rates abroad, in the way suggested by the "impossible trinity" discussed earlier in this lecture.[35] Similarly, it is not possible for these countries to defend themselves from vulnerability when foreign interest rates rise again. Rey has suggested that the 'impossible trinity' is in fact an 'impossible dilemma' (Rey, 2013). By this she means that, with open international capital markets, emerging market economies cannot adequately defend themselves against changes in their external environment, even if they allow their exchange rates to float.

The balance of payments of these countries has again become an object of concern. This is not because of its own importance — as in the Bretton Woods system when international mobility of capital was small and countries were unable to borrow internationally. But the balance of payments of these countries can become an indicator of vulnerability. Countries with significant balance of payments deficits, caused by currency appreciation, become

[34] I am grateful to Ila Patnaik for a very helpful discussion of the ideas in this section.

[35] In particular, interest rates and exchange rates have not moved in the way suggested by the Mundell-Fleming model which was described earlier in this lecture. Interest rates have not moved in such a way that uncovered interest parity holds, and movements in the rate have not acted to insulate economies from external disturbances. This calls into question the argument presented in Section 3.2 above.

vulnerable to the withdrawal of funds and currency collapse — what have become known as "sudden stops". This is especially true if such deficits are large enough to suggest that the required correction will take a lengthy period of time. During this time, such a country will continue to need to borrow internationally. Even if its underlying polices are sound, it will need access to international liquidity, and private markets may fail to provide this.

Raghuran Rajan, Governor of the Reserve Bank of India, and Rakesh Mohan, former Deputy Governor, have both argued that, in these circumstances, the US should conduct its monetary policies with regard to the needs of other countries — i.e. that this a ground for international cooperation in monetary policy making (Wessel, 2014, and Mohan and Kupar, 2014).

But this is not feasible. The reason for this is *not* that spillovers are small (Bernanke, 2013) or that policymakers do not understand them. The reason is that the conduct of monetary policy in this way by the US may damage the US's own interests. For example, international financial stability may be at odds with targets for domestic activity and inflation, at least in the short to medium run. Furthermore, the management of aggregate demand in the US has important consequences for economic activity in the rest of the world. There has been a concern about excessive capital inflows to emerging markets due to loose monetary policy in the US. And yet, at the same time, there has also been a worry about the difficulties created by austerity and a wish for monetary stimulus so as to promote a higher level of economic activity in the US, and thus provide a stimulus to global demand. It is not possible to do two opposing things at the same time with monetary policy.[36]

The concern which is now felt in emerging market economies about the future increase of interest rates in the US is a concern about potential moves in the opposite direction. It is a worry about the exchange rate vulnerability which such a rise would cause (rather than being a worry about the immediate implications of a *low* level of US interest rates). But nobody can seriously suggest that the US should be diverted from managing the forthcoming recovery, when it comes about, out of a concern for macroeconomic outcomes elsewhere. The US still needs to use its interest rate policy in pursuit of its domestic inflation and output targets.

This suggests that two things are necessary. First of all, emerging market economies need to adopt a range of policies to protect their own interests and lessen this vulnerability. These are policies which run in parallel to the increasing financial regulation and macroprudential policies which are being introduced in advanced countries in the wake of the financial crisis.

[36] This is *not* true of fiscal policy. A moderation of austerity would have led, at the margin, to less of a need for extremely loose monetary policy in advanced countries, and so to less of the problems in emerging market countries which we are discussing here.

Emerging market economies will need exchange rate flexibility, but also the capacity to intervene in foreign exchange markets in ways which are supported by appropriate level of foreign exchange reserves. They will also need judicious capital account management. Depending on the source of financial instability and on institutional settings, capital controls in emerging market economies may be appropriate as a partial complement to the kind of macroprudential measures which are being introduced in advanced countries.

But beyond this, the above argument suggests that there are grounds for international cooperation to support emerging market economies. Such support appears necessary in the provision of liquidity to their foreign exchange markets. This may well be necessary, as and when these countries become vulnerable to withdrawal of funds and to currency collapse, in the face of rising US interest rates — or for other reasons (Farhi *et al.,* 2011, Eichengreen, 2011). This is a form of cooperation that is not about the setting of *macroeconomic* policy instruments — of fiscal policy and of monetary policy — but to do with the provision of liquidity in an increasingly integrated international financial system.

There are two ways in which such cooperation could take place. The first is through currency swaps between central banks, coordinated by the IMF. Currency swaps between the US Federal Reserve and central banks of advanced countries were an important source of stabilisation in the recent financial crisis. But by and large they were not available to emerging market economies, apart from very small swaps with the Peoples Bank of China, the Bank of Korea, and the National Bank of Poland. (See Fahri, *et.al.* p35.) Such swaps would have been useful both at the time of the financial crisis in 2008 and in the face of the vulnerability revealed in late 2013. A very real form of international cooperation would be to manage such swaps through the IMF, rather than having such swaps undertaken bilaterally between each central bank and the US Federal Reserve.

The second form of cooperation would involve strengthening and expanding facilities at the IMF, such as the Flexible Credit Line (FCL) and the Precautionary Credit Line (PCL). These facilities allow the IMF to provide liquidity with little or no interference in a country's domestic policymaking after certain qualifying criteria have been met. Once qualified, a country is guaranteed the opportunity to receive a substantial amount of liquidity in times of crisis. The risk associated with the provision of liquidity would then be borne in part by the IMF (i.e. by its shareholders) and not solely by the reserve currency countries, as occurs with swap agreements.

This second form of cooperation is important, and will be difficult to implement, for both "supply-side" and "demand-side" reasons. On the supply-side, the arguments concern IMF conditionality, and are very familiar. How, and in what way is the IMF to attach lending conditions to its provision of liquidity, and to any swaps which it arranges? Normally an IMF programme comes with stringent conditions attached to the macroeconomic policy which the country is to adopt, to ensure that policy reforms are in place which guarantee external solvency for the country. But as the FCL and PCL facilities are designed to provide liquidity only to countries whose policy frameworks already satisfy this test there will be times when this is not true. And who is to bear the currency risk attached to swaps? The fact that this difficulty exists is precisely why swaps were only made available by the US Federal Reserve to advanced countries in 2008, and were not available to emerging market economies in 2013.

On the demand side, the difficulty partly arises because of countries' unwillingness to obtain a certification of qualification for FCL or PCL, out of a fear that such a certification could be interpreted as a demonstration of vulnerability. At a deeper level, this difficulty exists because of a residual distrust of the IMF within emerging market economies, stemming from the IMF's behaviour during the Asian financial crisis, when IMF conditionality led to a degree of fiscal austerity being imposed on countries experiencing crisis which many judged to be excessive (see House, Corden, and Vines, 2008.) This distrust remains, even though the IMFs behaviour at the time of the global crisis of 2008 was very different — as described above. But the most important "demand-side" difficulty relates to the sluggish pace of quota and governance reforms at the IMF. These reforms will eventually adjust the quotas which set limits to what countries can borrow from the IMF, to ensure that these more closely relate to the growing importance of emerging market economies in the world economy. They will also ensure that countries' voting weight on the IMF's Executive Board is similarly adjusted. However, although reforms have been agreed in international negotiations they have not been ratified by the US Congress. The lack of progress on these governance reforms has clearly undermined the confidence of emerging-market policymakers in working with the IMF to achieve an international monetary system of the kind which they require. It is not acceptable to emerging market economies for the provision international liquidity to be managed by an institution over which advanced countries still have excessive control. This has made it harder for even those lending facilities which are already available from the IMF to be widely adopted, even though such initiatives could greatly reduce the vulnerability of emerging market economies.

The governance difficulty is something on which G20 countries will need to find a way to move. This is already widely recognised. The Communiqué of the G20 Finance Ministers' Meeting at Cairns in September 2104, said as follows

> IMF quota and governance reform remains a key priority for the G20 and we are committed to maintaining a strong and adequately resourced IMF. We continue to urge the US to ratify the reforms agreed to in 2010 by year-end and reaffirm our Leaders' agreement in St Petersburg [in 2013] and our agreement in April 2014. (G20, 2014b, para 9)

Nothing has been achieved in the last year in relation to the way in which international liquidity is provided. This set of issues, which is of great importance to emerging market economies, and Australia has not made these issues a priority in the objectives which it has set for the G20 in 2014. These issues are likely to create an important agenda item for the G20 during 2015, at a time when Turkey will hold the G20 Presidency. If progress does not happen rapidly on this front, the locus of international cooperation on managing the volatility of international capital flows will move away from the IMF — and away from the G20. The rise of the BRICS bank, a global development bank established recently by Brazil, Russia, India, China and South Africa, shows the potential for such a move (See Pilling, 2014).

8 Conclusion — the G20MAP and global growth

The policy initiatives that I have described in Section 6 are being carried out within the structure of the G20 Mutual Assessment Process, or G20MAP. This process was developed so that countries could institutionalise the successful cooperation in macroeconomic policymaking that occurred at the G20 meeting in London in April 2009. But the G20MAP has run out of steam, under the influence of the emphasis that policy makers in advanced countries have placed upon austerity. Even when there is an objective of raising global growth, countries do not have an incentive to change their macroeconomic policies in ways which would help to achieve this growth, if their macroeconomic policies are constrained by a push towards austerity.

The new approach which I have described — pursing a global growth target by means of infrastructure investment and through microeconomic reforms — offers new possibilities. It aims to encourage concerted unilateral reform, in a way which may well have a significant impact on global growth. In advanced countries, an increase in infrastructure investment and the implementation of microeconomic reforms may help to overcome the brake on recovery which has been imposed by policies of austerity. Doing this would enable demand and growth to be increased in advanced economies. In emerging market economies, a wide range of microeconomic reforms might not only make a significant contribution to supply-side potential in these countries, but also lead to very large increases in private-sector investment. This will increase growth in emerging-market economies as well. Furthermore, such private sector investment might best be financed by private sector investors from advanced economies in a flow of funds which could have a further significant positive impact on the global growth process.

This strategy seems likely to be successful. If the objective of increasing global output in 2018 by two percent is more or less actually achieved, then this will raise global output by about two trillion dollars, a significant outcome. Such an achievement might help to reinvigorate the G20MAP, and the G20. By doing so, it might also help to create an ongoing institutional framework in which there is international cooperation in the setting of global macroeconomic policies.

I suspect that, if Heinz Arndt were still alive today, he would be pleased with such an outcome. But he, of all people, would have said that there is still much more to be done. In particular, he would have pointed to the need to improve the position of emerging market economies in the global financial system, something which I discussed in the final section of my paper. That is a task to which the G20 must now turn.

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