DOI: 10.1111/twec.12607

ORIGINAL ARTICLE

WILEY The World Economy

Macroeconomic policy cooperation and the G20

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1 | INTRODUCTION

2018 marks the 10-year anniversary of the G20 as a leader-level forum. Referred to as the premier forum for economic cooperation (G20, 2010a), the G20 brings together the leaders, ministers, central bank governors and officials from some of the most powerful economies in the world: advanced, emerging and developing alike.

The G20 was created at a time when the global financial system was on a precipice. Credit markets were freezing. Stock markets were crashing. Rolling failures across financial institutions were shattering global economic confidence. Within the space of 12 months, the IMF's forecasts for what global growth would be in 2009 fell from 3.8 to −1.3%.[1]

The leaders of the G20 faced the very real prospect of another Great Depression. But they were determined not to make the mistakes of the past. In their first communique, G20 leaders concluded that a root cause of the crisis was insufficient macroeconomic cooperation. It was only through better macroeconomic cooperation, they warned, that a global depression could be averted (G20, 2008).

"Macroeconomic cooperation" has meant many different things in the G20s short history. Initially, it centred on crisis response. Countries increased spending, cut taxes and let automatic stabilisers play their role in what they called "the largest coordinated fiscal stimulus in history" (G20, 2009b). Central banks committed to cut interest rates aggressively, use unconventional monetary policies as appropriate and avoid competitive exchange rate depreciations. The G20 committed to resist protectionism in all its forms. It bolstered the global financial safety net by reforming the IMF, tripling its resources and increasing the financing available for development banks.

In all likelihood, the G20's response succeeded in preventing the Great Recession from becoming a Great Depression. But these bold actions took their toll. These consequences, in turn, prompted further macroeconomic cooperation from the G20.

Fiscal expansions saw a sharp increase in debt and deficits. G20 countries added US$13 trillion to the global stock of debt from 2007 to 2010.[2] In Europe, ballooning debt and deficits in the context of a currency union saw risk increase dramatically, triggering a debt crisis that quickly spread across multiple economies. In response, the G20 switched sharply from coordinated fiscal stimulus

[1]Using data from the IMF World Economic Outlook databases: April 2008 compared to April 2009.

[2]Using data from the IMF World Economic Outlook database, October 2017.

to coordinated fiscal consolidation. G20 advanced economies committed to a coordinated halving of their deficits by 2013 and a stabilising of their debt-to-GDP ratios by 2016 (G20, 2010).

Years of loose monetary policies produced problems by creating a spillover-rich environment. Large flows of capital poured into many emerging market economies, inflating exchange rates and asset prices. Brazil's finance minister, Guido Mantega, accused the United States of "starting a global currency war" (Wheatley, 2010). Then, years later, the announcement that the United States would begin tapering its quantitative easing programme saw a sharp reversal in these flows, causing more volatility in asset prices, investment and currencies. India's central bank governor, Raghuram Rajan, declared that "international cooperation has broken down" (Goyal, 2014).

Emerging market economies demanded cooperation on monetary policy to address these negative spillovers. But the domestic mandates of central banks and disagreement on the economic merits of cooperation made it hard to find solutions. The compromise was a commitment to "be mindful of the global impacts of our policies" and to ensure that "future changes to monetary policy settings will continue to be carefully calibrated and clearly communicated" (G20, 2013).

Finally, as part of its longer-term focus to address what it perceived to be the root causes of the global financial crisis, G20 countries committed to coordinate their policies to reduce global imbalances in trade, current accounts and private and public debt and savings. The G20 committed to move towards market-determined exchange rates and strengthened its commitment to avoid competitive devaluations.

The question for this paper is whether the G20 has been successful in achieving its goals in macroeconomic cooperation. It explores whether G20 cooperation has been less successful over time and which countries have done the heavy-lifting. Using a range of data sets and frameworks, the paper assesses how successful the G20 has been in each of these five areas: macroeconomic stimulus, fiscal consolidation, the global financial safety net, monetary policy (other than stimulus) and global imbalances.

Across these five areas, the paper shows that the G20's initial success was short-lived. The G20's declining success over time correlates with its increasing focus on more difficult, long-term structural challenges, a greater focus on the implementation of commitments and a reduced sense of urgency as the crisis passed.

Although the G20 met its goals on macroeconomic stimulus from 2008 to 2010, its success in reducing structural deficits and stabilising debt-to-GDP ratios has been poor. While the G20 was initially successful in increasing its size, the safety net remains too small and it has become increasingly patchy and fragmented, creating systemic risks for many emerging market and developing economies.

On monetary policy, it succeeded in moving to more market-determined exchange rates and avoiding competitive devaluations but has done poorly in avoiding negative spillovers, coordinating the exit from unconventional measures, and there is more work to be done in improving the communication of central banks.

And despite years of effort, the G20 has also made limited progress in reducing global imbalances. Current account imbalances are creeping back to their pre-crisis levels. Public debt remains high and most economies are moving in the wrong direction in correcting imbalances in household savings and debt.

The paper begins with a review of the literature and then considers each of these five areas in turn. The paper concludes by discussing the implications of these findings for how we think about the G20, its structure and its role into the future.

2 | GETTING THE BENCHMARK RIGHT

There is a large body of literature on the G20, and an even larger body of literature on the merits of macroeconomic policy cooperation in general. But most authors assess the effectiveness of the G20 against the objectives they believe the G20 should have adopted, rather than against the objectives the G20 adopted for itself.

On macroeconomic stimulus, for example, Prasaad and Sorkin (2009) assess the G20's effectiveness against the IMF's wish of coordinated stimulus equal to 2% of G20 GDP, whether particular countries did enough, whether the composition of stimulus was optimal and the speed in which stimulus was implemented. While all important considerations, none relate to the G20's stated objectives (see Section 3).

On fiscal consolidation, many authors assess the G20's effectiveness based on whether they think the shift to consolidation was a good idea or not. Many argue this shift was premature (see Vines, 2016) or risked compounding reduced aggregate demand in the near term (see Adam, Subacchi, & Vines, 2013; IMF, 2010; McKibbin, Stoeckel, & Lu, 2014; Vines, 2016). Again, while many object to the G20's rhetorical shift to consolidation, these studies do not assess whether G20 countries did what they said they would.

On monetary policy, many assess whether there is a case for monetary policy cooperation or not, but do not assess whether the G20 adhered to its commitments. Bernanke (2016) is sceptical of the case for cooperation, suggesting countries have the policy tools available to manage any negative spillovers they might face. This reinforces the historical view that the benefits of such cooperation tend to be limited (see Bayoumi, 2014; Hamada, 1976; McKibbin, 1997; Mohan & Kapur, 2014; Obstfeld & Rogoff, 2002; Oudiz & Sachs, 1984). Rajan (2014) disputes this historical view. He calls for central banks to account for the impacts of their policies on other countries. Others also advocate for cooperation under certain circumstances (Caruana, 2012; Jeanne, 2014; Taylor, 2013; Vines, 2016). But while important, these studies do not directly assess whether the G20 has achieved coordination or not.

The literature indirectly touches on the G20's commitment to avoid competitive exchange rate devaluations since some authors argue that unconventional monetary policies constitute "exchange rate warfare" (Eichengreen, 2011; Vines, 2016). Others reject such claims, arguing these policies did not deliver a competitive advantage (see Bernanke, 2016). The literature also explores the merits of market-determined exchange rates (see Australian Treasury, 2010; Ghosh & Ostry, 2009; McKibbin & Le, 2002; US Treasury, 2006; Wood, 2010). But while these studies question the merits of the G20's goals, they do not assess whether it achieved them.

Authors have critiqued the adequacy of the global financial safety net which, indirectly, also means critiquing the G20's success in its goal of ensuring its adequacy. The IMF (2016a) found that the safety net was too small to deal with a widespread shock, and Denbee, Jung, and Paterno (2016) reached a similar conclusion. But the biggest concern in the literature is the safety net's fragmentation. This, its argued, reduces the safety net's coverage, consistency and speed in responding to crises and increases systemic risk (see also Hawkins, Rahman, & Williamson, 2014; IMF, 2011; Lagarde, 2016; Pickford, 2011).

Many studies have explored the implications of global imbalances (see Blanchard & Milesi-Ferretti, 2011; King, 2016) and the effectiveness or otherwise of the G20 in reducing them (see Faruqee & Srinivasan, 2012; Vines, 2012). The IMF (2015a) suggests that the observed reduction in current account imbalances after the crisis was primarily because of compressed demand in the advanced economies rather than structural reforms. Sester (2016) warns they are already back to pre-crisis levels.

Overall, while there is a significant body of literature comparing the G20's efforts on macroeconomic cooperation against what authors believe the G20's objectives should be, fewer compare the G20's efforts against its stated objectives. The exception is the University of Toronto's G20 Research Group and the International Organisations Research Institute in Moscow. These organisations undertake compliance reports each year relating to all G20 commitments, not just those on macroeconomic cooperation.

While valuable, there are often methodological limitations with these compliance reports on macroeconomic policies, which this paper seeks to remedy. The findings of these reports often rely on papers in the media, the quality of which can vary. The assessments of exchange rate commitments, for example, are based on media reports of currency intervention, rather than using a multi-year framework that categorises exchange rate systems over time or, for currency valuations, calculating fundamental values and comparing these to exchange rate movements over time.

Many of these commitments are also lumped together. The commitment to "move towards market exchange rates" is combined with the commitment to "avoid competitive devaluations" even though these are two distinct issues. The compliance reports tend to focus on the G20's compliance with the commitments made in that same year rather than looking at the G20's progress over time. The commitments that are assessed also tend to change from one year to the next, making time series analysis challenging. These reports will be referred to in more detail throughout the paper.

3 | OFF TO A STRONG START: THE G20 AND MACROECONOMIC STIMULUS

The objective of the G20's macroeconomic stimulus from 2008 to 2010 was more quantifiable for fiscal policy than monetary policy.

For fiscal policy, its objective was a "concerted fiscal expansion… that will, by the end of [2010], amount to US$5 trillion and raise output by 4%" (G20, 2009). For monetary policy, the G20 said that "interest rates have been cut aggressively, and our central banks have pledged to maintain expansionary policies for as long as needed and to use the full range of monetary policy instruments, including unconventional instruments" (G20, 2009).

But did the G20 achieve these goals? First, there is an important distinction between fiscal stimulus and fiscal expansion. Fiscal stimulus refers to spending and taxation measures deliberately undertaken by the government while fiscal expansion includes the effects of automatic stabilisers, such as increased social security spending from rising unemployment. The G20's commitment was to a US$5 trillion fiscal expansion.

In 2009, the IMF forecast that the G20's combined fiscal stimulus from 2008 to 2010 would be US$1.72 trillion and its combined fiscal expansion would be US$5.36 trillion (IMF, 2009). This would have comfortably achieved the G20's goal of US$5 trillion.

But the G20 ultimately delivered more than what was forecast. The most recent data suggest the G20's total fiscal expansion over this period was US$6.38 trillion.[2] Measured in US dollars, the largest came from the United States, Japan, the United Kingdom and Germany (Figure 1). Measured as a per cent of GDP, the largest came from the United States, Russia, the United Kingdom and Australia (Figure 2).

Some countries did comparatively less. As a per cent of GDP, Brazil and Indonesia contracted fiscal policy from 2008 to 2010 and the expansions from Argentina, Korea and Turkey were comparatively small. China's fiscal expansion was also small, both as a percentage of GDP and in US

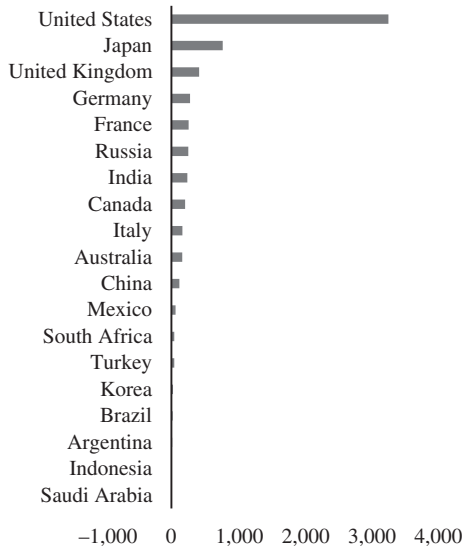

FIGURE 1 Fiscal expansion in US dollars, 2008–10
Source: IMF World Economic Outlook database, October 2017.

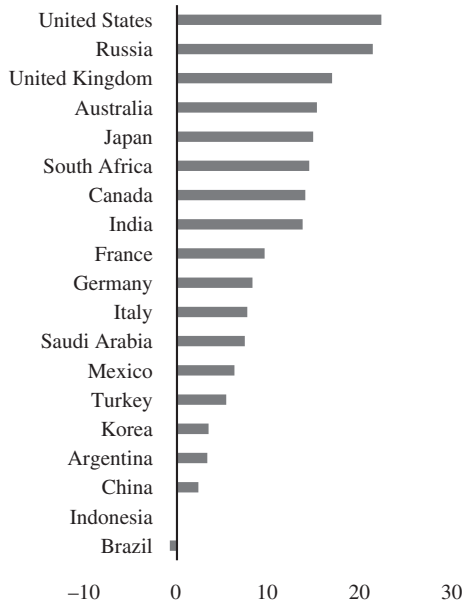

FIGURE 2 Fiscal expansion as a per cent of GDP, 2008–10
Source: Refer to Figure 1.

dollars. The IMF's calculations in 2009 also did not place China in the top ten. But this understates China's role in the G20's stimulus efforts because much of China's stimulus was through increased lending by state-owned banks (see Pei, 2012).

The other limb of the G20's commitment was to raise world output by 4%. The increase in global growth from 2008 to 2010 is consistent with this commitment being achieved. World output increased by 8.5% from 2008 to 2010, or 5.4% if measured from a 2009 baseline.[2]

Giving low and high estimates for 2008, 2009 and 2010, IMF (2009) estimated that the G20's fiscal expansion would increase world output by between 1.5% and 6.6%. Similar results were found by Freedman, Kumhof, Laxton, Muir, and Mursula (2010). These estimates suggest that the G20 likely achieved its goal, particularly since they were based on the expansions estimated in 2009, which were US$1 trillion smaller than what was ultimately delivered.

On monetary stimulus, the absence of quantitative targets makes compliance difficult to assess. But some general observations can be made.

First, the G20 was effective in delivering coordinated cuts to policy rates in the early years of the crisis. In a joint statement in October 2008, six countries, not all in the G20, announced "unprecedented joint actions" in reducing policy interest rates.[3] By mid-2009, all G20 countries had followed suit (Figures 3 and 4).

But this coordination was short-lived. While advanced economies maintained expansive monetary policies since 2008 (consistent with the G20's 2009 commitment), this has not been the case for the emerging market and developing economies. By early 2013, many of the emerging market economies began increasing policy rates, largely in response to capital outflows associated with the Taper Tantrum of 2013–14, triggered by remarks from the Federal Reserve Chair that it may begin tapering its quantitative easing programme later that year (see Sahay et al., 2014).

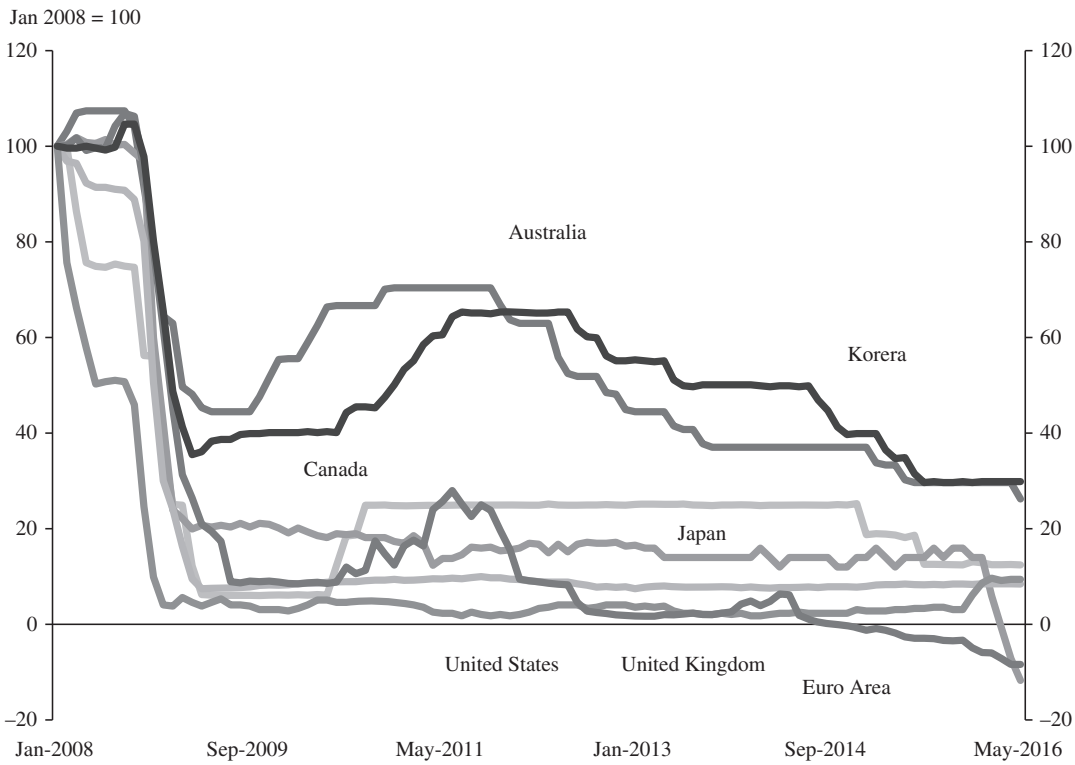

FIGURE 3 Central bank policy rates for G20 advanced economies (Jan 2008 = 100)
Source: Data from OECD, Monthly Monetary and Financial Statistics: Interest rates, 2016.

[3]These were the United States, Canada, EU, the UK, Sweden and Switzerland (US Federal Reserve, 2008).

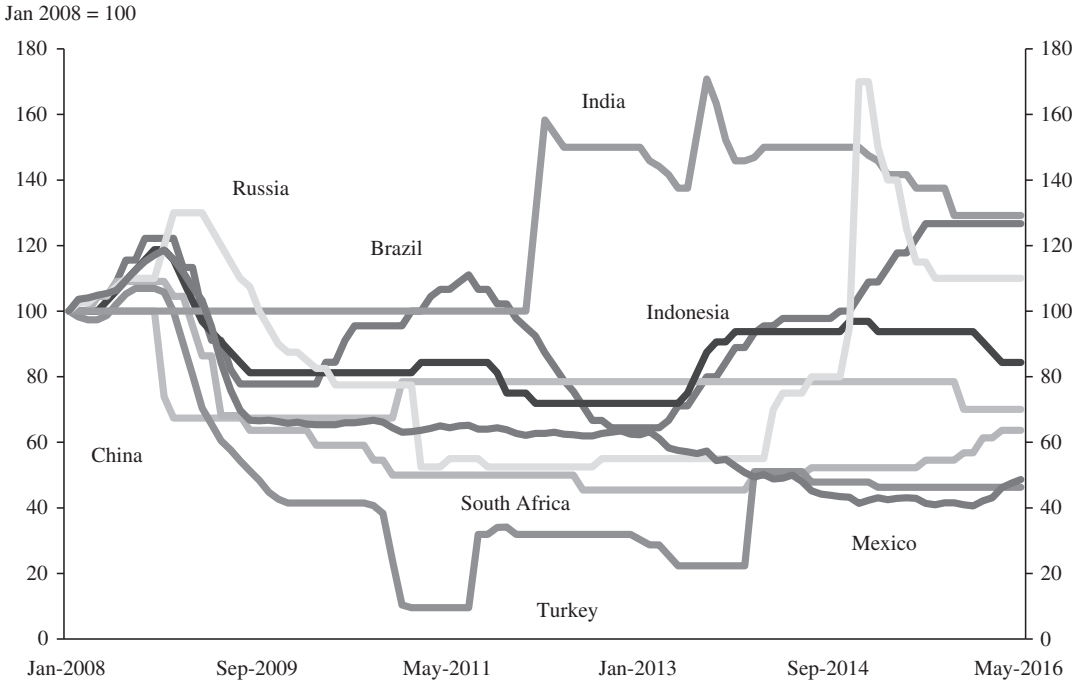

FIGURE 4 Central bank policy rates for G20 emerging market and developing economies
Source: Refer to Figure 3.

Second, in the eyes of many emerging market and developing economies, the Taper Tantrum was a breach of the G20's commitment to "withdraw extraordinary policy support in a cooperative and coordinated way" by the United States (see Bernanke, 2016, for a discussion).

Third, G20 central banks have used a range of monetary policy instruments, including unconventional instruments, to stimulate their economies. This is consistent with the G20's commitment in London in 2009.

In sum, the G20's success on macroeconomic stimulus was strong during the crisis, but waned in the years that followed. It delivered on its commitment of a fiscal expansion of US$5 trillion and estimates suggest that a 4% increase in global output is reasonable. The G20 also did well in aggressively cutting interest rates and using unconventional monetary policies in some economies. But as the crisis waned, it struggled to maintain expansionary policies in the emerging markets and struggled to coordinate its exit from these unconventional measures given the divergence in policy interest rates and volatility associated with the Taper Tantrum.

But these extraordinary policies also took their toll, demanding further cooperation from G20 countries. One consequence was a large increase in debt and deficits.

4 | THE UNSUCCESSFUL SHIFT TO FISCAL CONSOLIDATION

G20 leaders had one thing on their minds when they gathered in Toronto in June 2010: debt. Increased spending, tax cuts, bank bailouts and the impact of automatic stabilisers saw a sharp increase in debt and deficits. From 2007 to 2010, G20 countries added US$13 trillion to the global

stock of debt. The weighted average debt-to-GDP ratio increased by more than a third in the advanced economies.[2] In Europe, ballooning debt and deficits in the context of a single currency and monetary policy saw risk increase sharply, triggering a debt crisis that spread across the continent.

The result was the Toronto commitments. G20 advanced economies committed to halve their deficits by 2013 and stabilise their debt-to-GDP ratios by 2016. The commitments excluded the emerging markets. It also excluded Korea, which was in surplus, and Japan which was deemed to have special fiscal circumstances given its substantial stock of debt, most of which was held domestically (see G20, 2010).

The G20 faced criticism for its dramatic switch from coordinated stimulus to coordinated consolidation. Many argued, particularly with the benefit of hindsight, that the G20 began consolidating too early and that inflexible targets were inappropriate (see Vines, 2016). Debates were heated within the G20, too. There was strong disagreement between leaders that wanted consolidation—led by Angela Merkel and Stephen Harper—and those that did not—led by Barack Obama (Harding, 2013).

These were ambitious commitments. Based on the IMF's forecasts at the time of the Toronto summit, only two countries were forecast to comply with the commitments on their existing trajectory: Australia and Canada. All other countries were forecast to fall short unless they changed their policies.[4]

Figures 5 and 6 show how countries performed on both limbs of the Toronto commitments. While many economies came close, all but three ended up falling short.

For the first limb, Canada, Germany, Italy and the United States, all managed to halve their deficits. Australia, which was forecast to achieve the target without any policy change, fell marginally short, along with France and the United Kingdom (Figure 5).

Several countries managed to stabilise their debt-to-GDP ratios by 2016. Canada, Germany, Italy and the United Kingdom all had debt-to-GDP ratios that were either constant or falling by 2016 (Figure 6).[5]

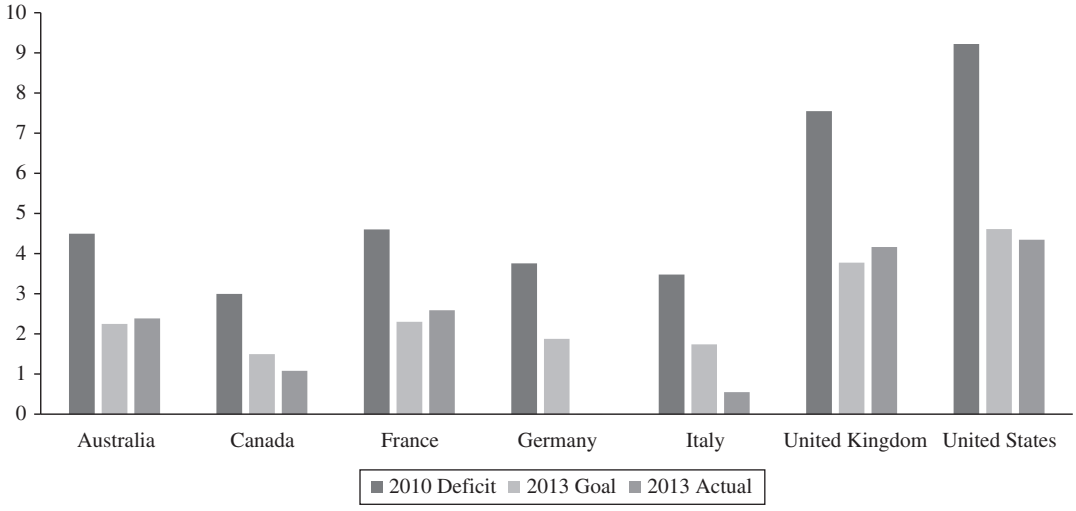

FIGURE 5 The Toronto commitment to halve deficits by 2013 (structural balance, % of GDP)
Source: IMF WEO database April 2010 and October 2017.

[4]Calculated using the IMF's forecasts from the World Economic Outlook database, October 2010.

[5]These results are, of course, dependent on the accuracy of these forecasts, which only go to 2022. Medium-term fiscal challenges may see a further increase in debt-to-GDP for these countries in the future. However, on current forecasts these countries have achieved their objective.

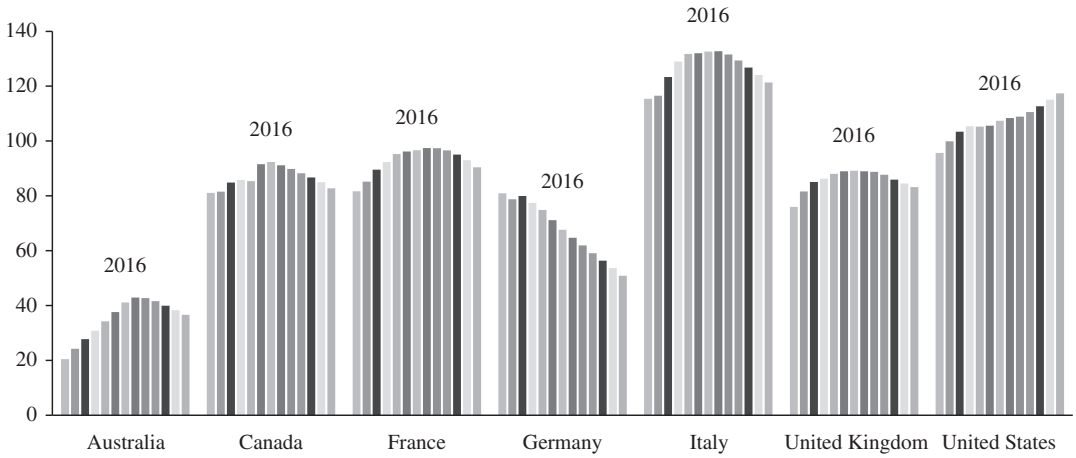

FIGURE 6 The Toronto commitment to stabilise debt by 2016 (gross debt, % of GDP)
Source: IMF WEO database October 2017.

It follows that the only countries, which achieved both limbs of the Toronto commitments, were Canada, Germany and Italy. All other countries fell short.

From 2010 to 2013, it became clear to the G20 that many countries would struggle to achieve the Toronto commitments. Forecasts of a quick recovery after the crisis did not materialise and budgets suffered as a result. An increasing number of finance ministers argued the recovery was too weak to warrant the consolidation implied by the Toronto commitments (Harding, 2013).

Although it was never formally announced, in 2013 the G20 abandoned the Toronto commitments and replaced them with the St Petersburg fiscal strategies. Each G20 country, now including Japan, Korea and the emerging market economies, drafted a strategy with specific fiscal policy commitments (such as expenditure and revenue measures) and a broad strategy for medium-term fiscal sustainability (G20, 2013).

G20 countries have done well in implementing the specific fiscal commitments laid out in their fiscal strategies. Compliance reports from the University of Toronto found that in 2015 (the last time fiscal commitments were reviewed) 13 countries have fully implemented the commitments in their fiscal strategies while the remaining seven[6] have implemented some but not all (G20 Research Group and International Organisations Research Institution, 2015).

But the G20 has done less well on its broader goal of fiscal sustainability. Despite appreciable consolidation efforts, the IMF warns that public debt is not on a sustainable path in advanced economies and many of them do not have a credible medium-term plan for fiscal sustainability. The IMF raises particular concerns for the United States,[7] Japan,[8] Italy[9] and France[10] as well as some emerging economies, such as Brazil.[11] Even though debt-to-GDP is forecast to fall by 2022 for many of these economies, the IMF expects them to increase once again due to medium-term fiscal challenges such as ageing populations.

[6]China, Indonesia, Japan, Korea, Russia, Saudi Arabia and the United States.
[7]IMF (2016c).
[8]IMF (2016d).
[9]IMF (2016e).
[10]IMF (2016f).
[11]IMF (2015b).

In sum, while the G20 was effective in delivering stimulus during the crisis, it has been less effective in the medium-term challenge of reducing deficits and debt.

5 | STRENGTHENING THE GLOBAL FINANCIAL SAFETY NET

A debate took place in the early 2000s, which is perhaps unthinkable in 2017. The debate was about whether the International Monetary Fund and the global financial safety net were still relevant, with some even calling for them to be scrapped.

The Managing Director of the IMF published an paper in 2005 titled: "Is the IMF's mandate still relevant?" (Rato, 2005). In early 2007, the economics journal, *The International Economy*, ran a symposium titled "Is the IMF obsolete?" (*International Economy*, 2007). Similarly, authors like Andrew Rose argued that a durable global system had developed since Bretton Woods that no longer relied on safety nets or international coordination for its stability (Rose, 2006).

These views proved to be incorrect. With the onset of the crisis, the IMF and the global financial safety net roared back into fashion. The consequences of neglecting the safety net for many years were suddenly on display for all to see. Whole economies went into crisis, each requiring an amount of external assistance that was multiples of the meagre funds that the IMF had to offer.

As a result, the G20 repeatedly committed to ensuring an adequate global financial safety net (see G20, 2011, 2015). This refers to the international institutions, mechanisms and resources designated to fight crises and prevent their contagion (Hawkins et al., 2014). It is an institutionalised form of macroeconomic policy cooperation: countries contribute resources through their fiscal and monetary policies so there can be a coordinated response to crises.

As in other areas, the G20 was successful in the wake of the crisis in increasing the size of the safety net but appears to have been less successful in later years when dealing with its deeper, structural challenges: addressing the safety net's increased fragmentation and reforming the institutions that underpin it. There is also evidence to suggest that the safety net is still be too small to deal with serious crises.

5.1 | The size of the safety net

In the wake of the crisis, the G20 committed to reform the IMF, triple its lending capacity to US $750 billion, support increased lending from the IMF by supporting a new US$250 billion allocation of special drawing rights and gave an additional US$235 billion to the multilateral development banks (G20, 2008; G20, 2009). G20 countries created a network of currency swap lines between central banks to backstop the global financial system and temporarily loaned an additional US$380 billion to the IMF as the European debt crisis intensified (G20, 2012).

In measuring its adequacy, the safety net is typically divided into three components: the global component, the regional component and the bilateral component. This paper treats foreign exchange reserves as domestic buffers—much like a country's fiscal and monetary policy space—rather than part of the global financial safety net.

The global component consists predominantly of the IMF. Along with its surveillance and technical assistance activities, the IMF lends to countries with balance of payments difficulties to provide temporary financing and to support policies aimed at correcting the underlying problems. The global component also includes the World Bank: a development bank, which has provided

financial support during the Asian Financial Crisis, the 1994 Tequila crisis and crises in Turkey in 2001, Chile in 1982, Russia in 1998 and many other countries.

The safety net's regional component consists of funds and mechanisms created to assist countries within a specific region. The largest are the European Stability Mechanism for euro area countries, the Chiang Mai Initiative Multilateralization for ASEAN+3 countries and the BRICS currency reserve pool for Brazil, Russia, India, China and South Africa. Other regional mechanisms include the Arab Monetary Fund, the Latin American Reserve Fund, the North America Framework Agreement and the EU Balance of Payments Assistance Facility.

Development banks have also provided assistance during many crises, such as the Asian Development Bank's assistance during the Asian financial crisis. The largest development banks are the Asian Development Bank, the Asian Infrastructure Investment Bank and the New Development Bank. Others include the Inter-American Development Bank, the Development Bank of Latin America, the African Development Bank, the Islamic Development Bank and the European Bank for Reconstruction and Development.

The bilateral component consists of currency swap lines between central banks and loans between finance ministries. The number of bilateral currency swap lines between central banks has increased dramatically since 2007 (IMF, 2016a). But not all swap lines can be used in a crisis. In many cases, the agreement between the two central banks only allows the swap line to be used when there is some external difficulty in obtaining foreign exchange from the markets, rather than during a balance of payments crisis. This is true for many swap lines, including those from the United States, the European Central Bank and Australia (see Sterland, 2017). Other swap lines, such as those from China and some from Japan, are available and in some cases have already been used in balance of payments crises (China's swap line with Mongolia, for example).

Adding together the global, regional and bilateral components finds that the global financial safety net is US$4.7 trillion in size (Figure 7). This is larger than the IMF's estimate of US$3.7 trillion because the IMF included fewer regional mechanisms and no development banks (IMF, 2016a).

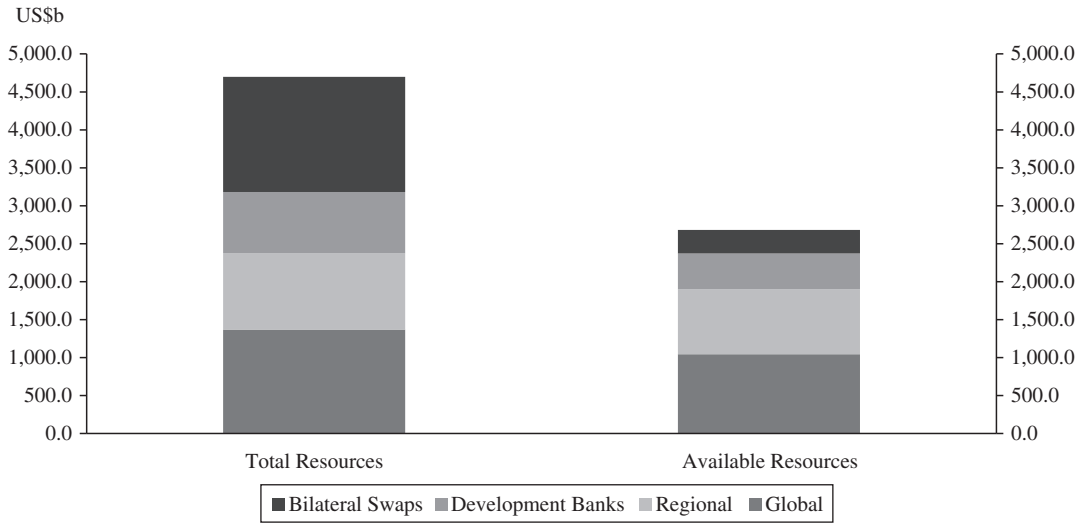

FIGURE 7 The size of the global financial safety net

Source: Authors calculations based on annual reports of global and regional institutions and central bank press releases.

But not all these resources are immediately available. Much of the funding of global and regional institutions is tied up in existing programmes and not all swap lines are available during a crisis. Measured by resources which are immediately available, the safety net is almost half the size: US$2.6 trillion.

But these results can create a false sense of security because not all these resources are available to each G20 country. The size of the safety net from the perspective of each country will depend on which regional mechanisms that country participates in, and the size of its bilateral swaps. The scale of support available from the IMF also differs between countries. Unless the IMF provides exceptional access, countries can only access a multiple of their quota. Countries with a smaller IMF quota therefore cannot access as much as countries with a larger quota. Further, even when exceptional access is available, the total amount that is available from the IMF needs to account for the fact that the country or countries which are experiencing the crisis are no longer contributing resources to the IMF through their quotas and, if applicable, new arrangements to borrow and bilateral lending.

Figure 8 shows the size of the safety net from the perspective of each G20 countries. It shows that its size can differ by almost 100% between countries. The safety net is largest for those which are covered by the European Stability Mechanism and the EU Balance of Payments facility. It is also large for those which participate in the Chiang Mai Initiative Multilateralization and the BRICS currency reserve pool. Bilateral swaps generally add little given that many of these are for liquidity purposes rather than crisis assistance, with some notable exceptions.

The countries which tend to have the smallest safety net are the western advanced economies like the United States, the United Kingdom, Japan, Australia and Canada. These countries tend to rely on a combination of their floating exchange rates, the depth of their capital markets, the

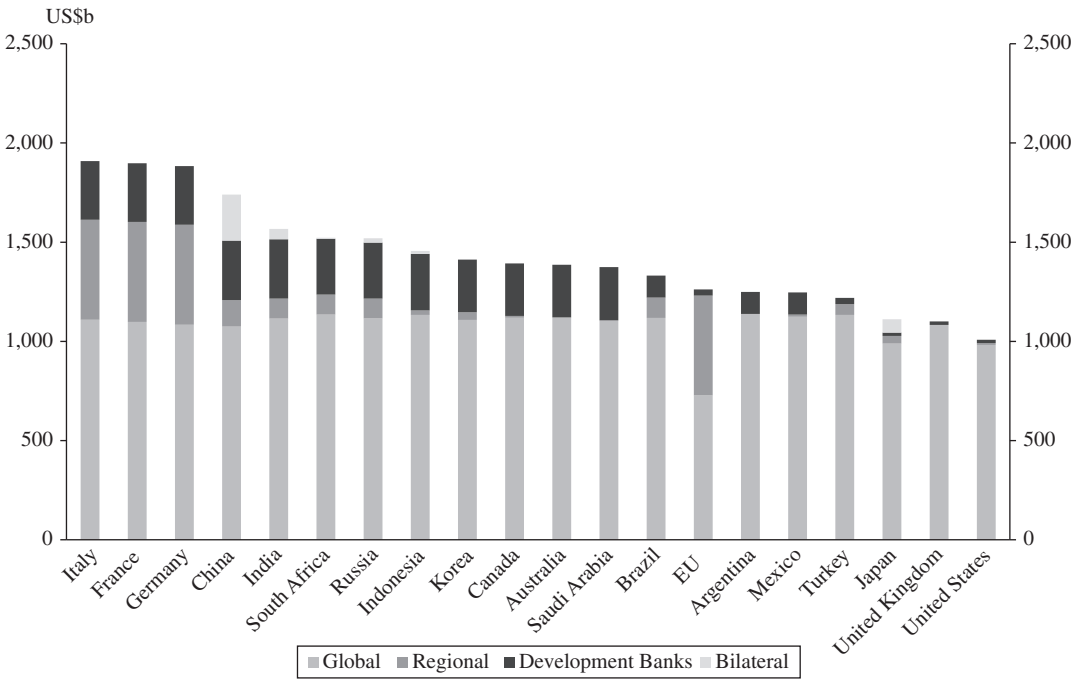

FIGURE 8 The size of the safety net for each G20 economy

Source: Refer to Figure 7.

reserve status of their currencies and the strength of their institutions for their resilience to shocks, rather than through bilateral or regional mechanisms (see Sterland, 2017).

But there are several G20 emerging market and developing economies, which stand out as having more limited safety nets, which are not able to rely on those same supports. These include Turkey, Argentina, Mexico and Brazil. This patchy coverage highlights a critical shortfall in the adequacy of the safety net. The IMF (2016a) and Denbee et al. (2016) reached a similar conclusion: that it is often smaller emerging market economies, which are least adequately protected by the safety net.

The safety net's patchy coverage is worsened when domestic foreign exchange and gold reserves are included. The size of the safety net now varies by a factor of almost 400% from one country to the next. The most dramatic changes are for China, Japan and Saudi Arabia. China's safety net was already large, but is significantly larger when reserves are included. Conversely, the safety net for Japan and Saudi Arabia was comparatively small without reserves but is much larger when reserves are included.

Figure 8 highlights that some countries are reliant on unilateral, bilateral and regional resources while others are reliant on global resources. A critical policy insight that flows from this is that it is misleading to justify a smaller global component (namely, a smaller IMF) by arguing that the unilateral, bilateral and regional components are now much larger. This is because, for many countries, including many emerging market and developing countries, these non-global resources are not available to them. For these countries, there is no compensation for a smaller IMF.

5.2 | Is the safety net big enough?

Different approaches have been taken to assess the adequacy of the safety net's size. IMF staff (2016) used a general-equilibrium framework to calculate the financing shortfall that could arise from different shocks. This was made possible by confidential information available to the IMF. Financing needs were estimated based on a set of assumptions on the "prevalence" and "severity" of shocks. The "prevalence" of a systemic crisis was captured by a threshold of crisis probability (which is based on the IMF's confidential vulnerability ratings) where countries with crisis probability above the threshold were assumed to face funding shocks. The severity of the crisis is reflected in the shock assumptions to FDI inflows, rollover rates of short- and medium-term external debt, as well as deposit outflows.

IMF (2016a) concluded that the safety net was not large enough to deal with a widespread shock but was adequate to deal with smaller shocks. It also warned that the changing composition of the safety net over time meant the safety net was becoming less reliant on the IMF and more reliant on less efficient regional financing arrangements and bilateral currency swap lines.

As above, it found that while the safety net serves reserve-currency advanced economies well, non-systemic non-gatekeeper[12] emerging market and developing economies were poorly served.[13] The IMF also warned that its analysis rested on the "very strong assumption" that all components of the safety net could be accessed and coordinated at the same time.

Denbee et al. (2016) at the Bank of England reached similar conclusions. They ran a series of stress scenarios through partial-equilibrium models and found that the safety net is insufficient for

[12]"Non-gatekeeper" means the economy is unable to transmit systemic shocks.

[13]It finds that systemic and gatekeeper emerging markets also have inadequate predictability and reliability (from their reliance on swap lines and regional arrangements), and high financial costs (from reserve accumulation) or political costs (from stigma associated with IMF financing).

severe crises but sufficient for smaller crises. Like the IMF (2016a), they warn this relies on the strong assumption of seamless coordination between its components.

Other authors have sought to assess the adequacy of the safety net's size but rather than using partial or general-equilibrium analysis, they simply compare the growth of the safety net to proxies for the growth in potential financing requirements, such as the growth rate of GDP, capital flows, trade flows, public and private debt and the general increase in global interconnectedness. Lagarde (2016), for example, notes that the growth in the safety net has not kept pace with the 25-fold growth in global capital flows, which represent a measure of the potential external financing requirements that could arise in the event of a crisis.

It follows that the G20 achieved a great deal in increasing the size of the safety net in the wake of the crisis. But analysis suggests there is more work to do if it is to be able to respond to more serious shocks. The biggest challenge for the G20, however, relates to the safety net's increased fragmentation over time.

5.3 | The safety net's fragmentation

Figures 9 and 10 measure the size and composition of the safety net in 1980 compared to 2017. The first observation is that the safety net has grown substantially. The safety net was around US $390 billion in 1980 (in 2017 dollars). In 2017, it is almost seven times larger: at US$2.6 trillion.

The second observation is that safety net's composition has become much more fragmented. In 1980, the IMF and World Bank collectively accounted for 78% of the safety net. In 2017, they account for only 38%. Conversely, the regional component of the safety net represented only 22% of the safety net in 1980 while, in 2017, it is 50%. There has also been a substantial increase in the bilateral component. Although data in 1980 are not available, the number of bilateral swap lines increased from "just a few" (IMF, 2016a) to around 70 as of 2017.

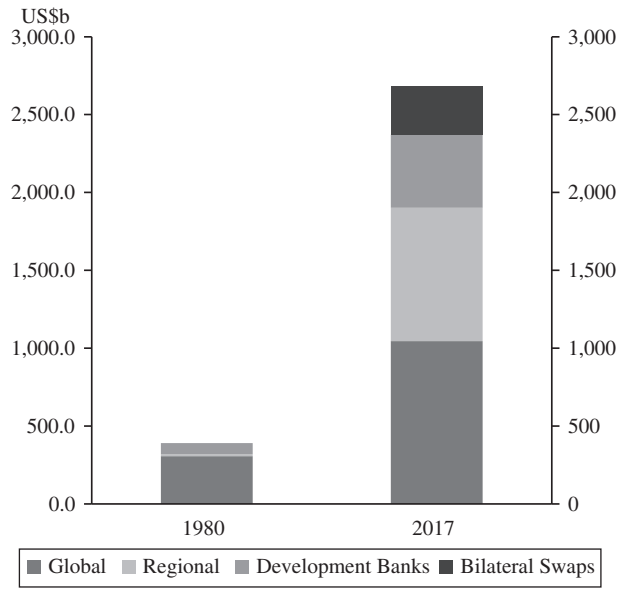

FIGURE 9 The change in size of the safety net from 1980 to today
Source: Refer to Figure 7.

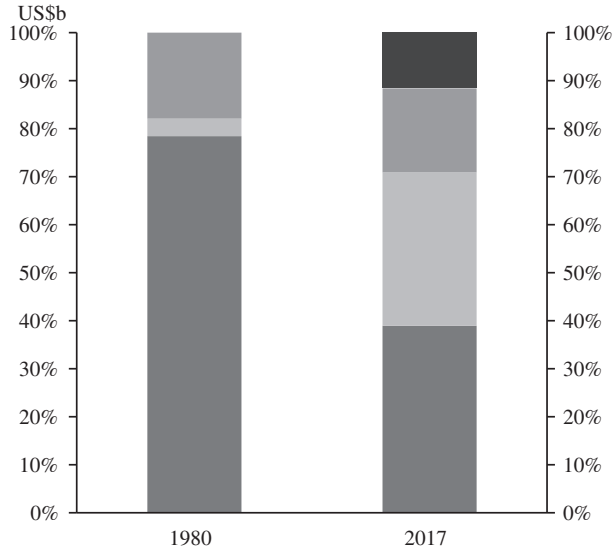

FIGURE 10 The change in composition of the safety net from 1980 to today
Source: Refer to Figure 7.

Increased fragmentation and the need to coordinate multiple institutions at once can mean a slower safety net. The IMF (2016a) has warned that assuming seamless coordination is a strong assumption, particularly as some of these arrangements have never been used before. The consequence of delays can be significant. IMF staff found that the longer it takes to provide necessary crisis response, the larger is the ultimate size of the relief programme that is required (IMF 2011).

Increased fragmentation also means a less consistent response from the safety net in terms of the size of the relief programme and the extent of conditionality. The IMF's cooperation with the EC and ECB on the European debt crisis, for example, represented the first time it has cooperated with a modern-sized regional mechanism in response to a large, systemic crisis and the first time it accepted participation as a minority lender.[14]

In having to coordinate its programme with the EC and ECB, many argue that the IMF has been inconsistent and slower in its approach compared to previous crises (see Subramanian, 2012). For the first time, the IMF entered into a programme (with Greece) with no restructuring agreement in place (Boughton, Brooks, & Lombardi, 2014). The programmes in Europe are also said to have been less rigorous and more generous compared to other crises, notably in Asia (Truman, 2013). The significant and public disagreement between the IMF and the EC and ECB also resulted in a slower response of the safety net (Spiegel, 2016).

Finally, fragmentation means a less efficient safety net through greater reliance on inadequate substitutes for the IMF. Issuing high-yielding local currency debt-to-purchase foreign exchange reserves is a costly exercise, which, according to staff at the Bank of England, results in an annual cost to emerging economies of around 0.5% of GDP (Shafik, 2015).

Bilateral swaps, while more flexible than institutional arrangements, are highly selective in terms of which countries receive them. They also raise moral hazard concerns and are less effective when crises afflict multiple countries in the region. Regional arrangements, like the CMIM, make imposing conditionality on neighbouring countries politically difficult. Their resource base is

[14]The IMF provided around one-third of financing, while the other two-thirds have come from the European Commission and ECB.

TABLE 1 The relative trade-offs of different components of the safety net

Characteristics	Reserves	Swaps	International Monetary Fund	Regional mechanisms
Predictability	Good	Average	Good	Average
Speed	Good	Good	Average	Bad
Reliability	Average	Average	Average	Average
Cost	Bad	Good	Bad	Average
Policies	Bad	Average	Good	Average

Source: IMF (2016a).

far narrower than global institutions, the cost of raising capital is greater, moral hazard is more perverse, their surveillance is less effective, and many of the mechanisms are untested. Table 1 summarises some of the trade-offs between the safety net's different components.

5.4 | Reforming the institutions that underpin the safety net

Finally, the G20 identified a need to reform the institutions, which underpin the safety net, particularly the IMF, to ensure it "reflects the changes in the world economy through greater representation of dynamic emerging markets and developing countries" (G20, 2010).

The G20's commitments to achieve this included: a doubling of quotas (with a corresponding rollback of the New Arrangements to Borrow), a shift in quota shares of over 6% to emerging market and developing countries, a review of the IMF's quota formula to ensure it better reflects the economic weights of the emerging market economies, freeing-up two chairs on the Executive Board for emerging economies and moving to an all-elected IMF Board (see G20, 2010).

The 2010 reforms were ratified by all G20 countries by 2015 after a five-year delay by the United States Congress. But quota formula reform, steps to free-up seats on the Executive Board and moving to an all-elected Board are yet to be completed.

5.5 | Conclusion on the safety net

The G20 did well in improving the adequacy of the safety net in the years following the crisis. It substantially increased the size of the safety net, developed principles to address some of the challenges in its fragmentation and began a process for institutional reform.

But the G20 has done less well in the later years when dealing with longer-term, structural issues. Analysis suggests the safety net may still be too small to deal with a widespread shock and the G20 has done little to address the safety net's fragmentation other than developing some high-level principles, which relate only to cooperation between the IMF and regional financing arrangements. The G20 has also struggled with significant delays in institutional reform and outstanding commitments yet to be implemented.

6 | THE G20'S MIXED RESULTS ON MONETARY POLICY

Complicated by the domestic mandates of central banks and disagreement on the economic merits of different forms of cooperation, the G20's approach to monetary policy has been reactionary, light-touch and targeted at specific issues.

In the wake of the global financial crisis, the G20 focused on the stimulus measures discussed in Section 3: aggressive cuts to interest rates and the use of unconventional monetary policies where appropriate. Learning the lessons of the Great Depression, G20 countries also committed to refrain from competitive exchange rate devaluations to avoid a destructive currency war from ensuing.

As the crisis waned, the G20 focused more prominently on structural issues, particularly exchange rates. At the Toronto summit in 2010, it committed to "enhance exchange rate flexibility to reflect underlying economic fundamentals" (G20, 2010). Becoming impatient, the G20 strengthened this commitment in 2011 to "move more rapidly towards more market determined exchange rate systems" (G20, 2011).

As volatility from unconventional monetary policies ensued, the G20 focused more strongly on spillovers. Countries committed to "to avoid negative spillovers" and "to be mindful of the global impacts of our policies" (G20, 2013, 2014).

The question for this section is whether the G20 achieved these goals.

6.1 | Refraining from competitive exchange rate devaluations

Blanchard and Milesi-Ferretti (2011) explain why compliance with this commitment is difficult to measure given that any conclusion ultimately relies on an assessment of the subjective intent of policymakers. But a threshold question which is easier to answer is whether G20 countries have had undervalued exchange rates in the first place. If an exchange rate is not undervalued, then it is difficult to argue that a country is engaging in a competitive devaluation.

The IMF provides a useful framework for assessing whether an exchange rate is overvalued or undervalued through its external balance assessment (EBA) methodology. It calculates a fundamental value for the exchange rates of all G20 countries (except Argentina) using panel regression analyses of the real effective exchange rate (REER). It defines the REER as a function of all the factors that influence savings, investment, net exports and the current account and capital flows and uses these to calculate a fundamental value of the REER (see Phillips et al., 2013 for a detailed note).[15]

The results from the IMF's external balance assessments for the G20 are summarised in Figure 11 for the last five years.[16] Exchange rate values are given in bands from their low-to-high estimates. Estimates above zero imply an exchange rate is overvalued while estimates below zero imply an exchange rate is undervalued. Estimates equal to zero (where no line is shown) implies the exchange rate is consistent with fundamentals (as with Saudi Arabia).

Figure 11 suggests that, over the last five years, the exchange rates of Germany, Korea and Mexico have been persistently undervalued. Japan's exchange rate has also become more undervalued in recent years. The IMF considers China's exchange rate to now be broadly in line with its fundamentals, although estimates have widened.

The more difficult question is whether these devaluations are "for competitive purposes." An indicator used by the US Treasury is to look at whether a country with a persistently undervalued exchange rate has also persistently engaged in one-sided interventions in the foreign exchange

[15]Some authors have critiqued the efficacy of this framework and have highlighted some areas of sensitivity. Ekinci and Kilinc (2013), for example, found that the IMF's REER estimates were highly sensitive to trade elasticities which, they cautioned, varied widely in the literature. But despite potential shortfalls, the IMF's analysis provides the most comprehensive, detailed and independent methodology for assessing fundamental exchange rate values across the G20.

[16]The IMF's methodology was different in the years before 2012.

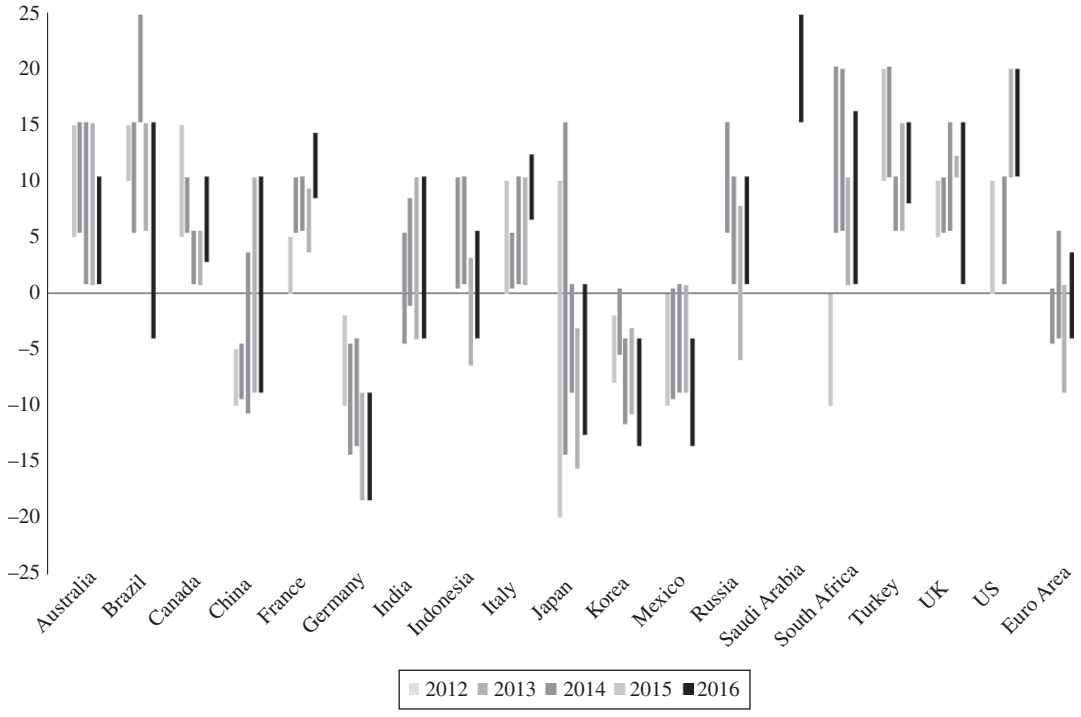

FIGURE 11 IMF staff assessments of whether exchange rates are overvalued or undervalued
Source: Data from IMF External Sector Reports, Individual Economy Assessments, 2013–17.

market. But even this is an imperfect indicator because there are other reasons why a country may want to accumulate foreign exchange reserves, such as to build up domestic buffers in response to an inadequate global financial safety net (see Section 5). The case of Germany is even more complicated given that it shares a common currency with the rest of the euro area.

Since 2008, analysis by the US Treasury has consistently found that no major trading partner of the US has manipulated its exchange rate to gain an "unfair competitive advantage." Taiwan was identified to have persistently engaged in one-sided interventions in foreign exchange markets in the Treasury's 2016 assessment, but this has not been found for any G20 country (US Treasury, 2016).[17]

6.2 | Moving towards market-determined exchange rates

Classifying exchange rate regimes can be a fraught exercise because the regime a country declares officially (its de jure regime) may not align with the regime that it implements in practice (its de facto regime).[18]

[17]An economy is found to have engaged in persistent one-sided intervention in the foreign exchange market if it has conducted repeated net purchases of foreign currency that amount to more than 2% of its GDP over the year.

[18]For example, countries that claim to have a flexible exchange rate may intervene so heavily in foreign exchange markets that, in practice, they have effectively adopted a managed arrangement. Conversely, countries which have exchange rate pegs may alter those pegs so frequently that the classification of a hard-pegged exchange rate may not be the most accurate description (see Levy-Yeyati & Sturzenegger, 2005).

The IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER) provides a yearly description of the de facto exchange rate arrangements of IMF members. The database provides the most up to date and thorough framework for assessing how the exchange rate regimes of G20 countries have changed over time. It classifies exchange rate arrangements under 10 categories (Table 2).

Figure 12 shows the G20 has been collectively successful in moving towards market-determined exchange rates. The number of countries with exchange rates that are either free-floating or floating has increased from 15 in 2008 to 18 in 2016 while the number of countries with some form of managed arrangement has fallen from five in 2008 to two in 2016 (the two in 2016 are Saudi Arabia, which has a conventional peg against the US dollar, and China, classified as having an "other managed arrangement").

TABLE 2 The IMF's exchange rate classifications under AREAER

Type	Categories				
Hard pegs	Exchange arrangement with no separate legal tender	Currency board arrangement			
Soft pegs	Conventional peg	Pegged exchange rate with horizontal bands	Stabilised arrangement	Crawling peg	Crawl-like arrangement
Floating regimes (market-determined rates)	Floating	Free-floating			
Residual	Other managed arrangement				

Source: IMF Annual Report on Exchange Arrangements and Exchange Restrictions, 2015b.

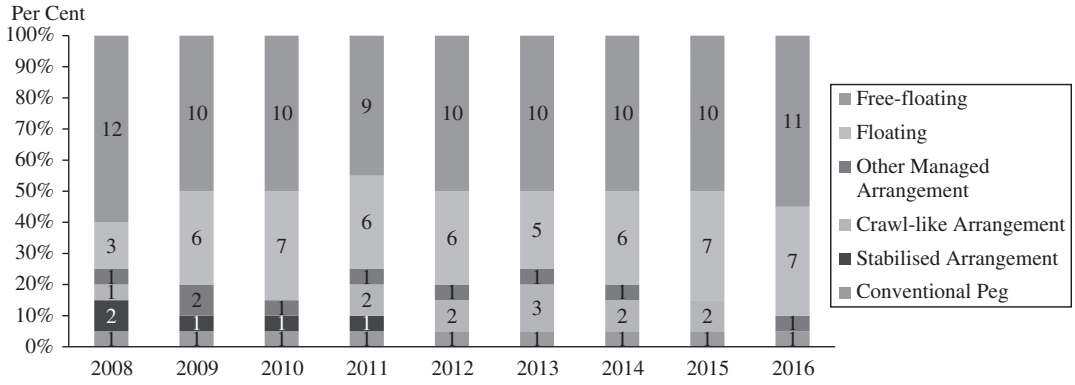

FIGURE 12 Exchange rate arrangements among G20 countries

Source: Data from IMF Annual Reports on Exchange Arrangements and Exchange Restrictions, 2008–16.

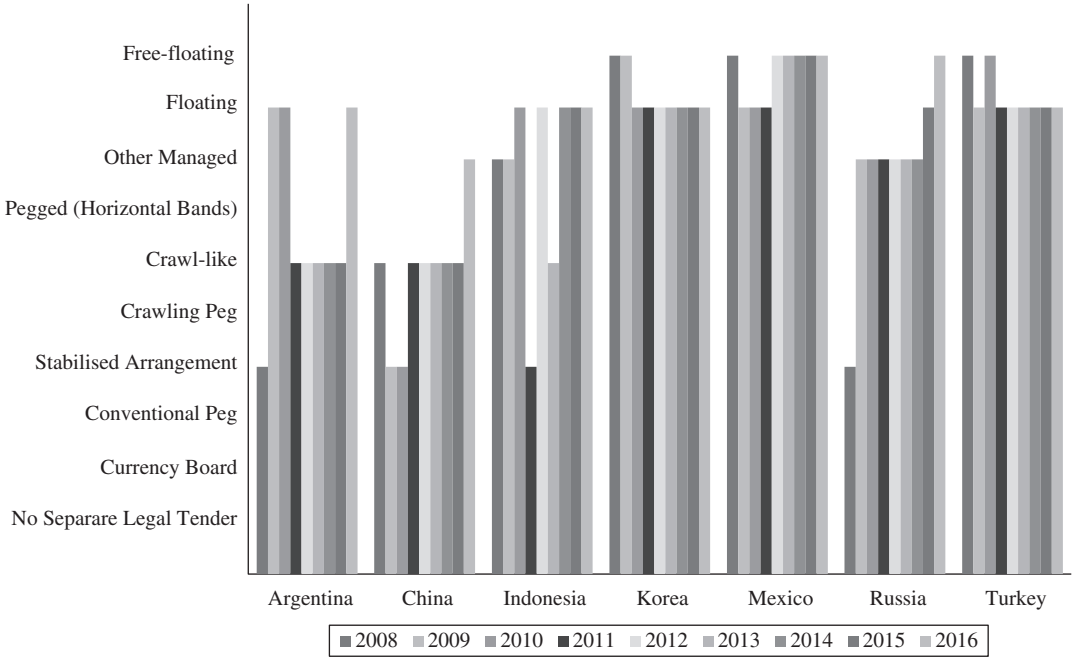

FIGURE 13 G20 countries which have shifted between classifications from 2008 to 2016
Source: Refer Figure 12.

Compliance is also strong on a country-by-country basis (Figure 13). Nine countries have consistently had free-floating currencies over this period,[19] and three countries have consistently had floating currencies.[20] Seven countries have been reclassified over this period. The exchange rates of Argentina, China, Indonesia and Russia have all become more market-determined. Mexico, Korea and Turkey have worsened, falling from free-floating to floating, but this is still classified as being market-determined. The only country which has failed to move towards a more market-determined exchange rate is Saudi Arabia which has maintained its peg against the US dollar throughout this period.

6.3 | Avoiding negative spillovers

Finally, the G20 has committed to avoid negative spillovers in all communiques since 2008 (see G20, 2012). Following the taper tantrum, the G20 made a related commitment to ensure careful communication by central banks with the objective of avoiding future spillovers (G20, 2014).

Compliance with this commitment is difficult to assess. It is a broad commitment since it would be effectively breached if any negative spillover occurs, which could have been avoided. The counterfactual is also unclear given that it can be difficult to assess which spillovers could have been avoided and which could not. The net effects of spillovers are also, themselves, often unclear. Unconventional monetary policies in advanced economies may cause volatility in the emerging markets, but emerging markets also benefit from stronger demand in advanced economies. The net

[19]Australia, Canada, the euro area (including France, Germany and Italy), Japan, the UK and the United States.
[20]Brazil, India and South Africa.

effect can, therefore, be more ambiguous, and the positive and negative effects from spillovers can occur at different points in time.

The global economy has been "spillover-rich" in recent years, according to the IMF (2015a). Research has identified a host of spillovers between G20 countries since 2008, which have stemmed from monetary policies, both positive and negative.

The extensive literature on the effects of quantitative easing by the Federal Reserve finds significant financial spillovers to other countries, particularly the emerging markets. These have been both positive and negative. Research finds quantitative easing was effective in reducing term spreads on US Treasuries, which increased capital inflows, reduced long-term bond yields, boosted equity prices and drove exchange rate appreciation. But the evidence is less clear on the strength of spillovers to the real economy (see Chen, Griffoli, & Sahay, 2014; IMF, 2016b).

Research has also found significant spillovers, both positive and negative, from quantitative easing in Japan (Ganelli & Tawk, 2016), from quantitative easing in Europe (IMF, 2016b) and from quantitative easing in the United Kingdom (Korniyenko & Loukoianova, 2015). Research has found significant spillovers from surprise monetary policy announcements (Caceres, Carrière-Swallow, Demir, & Gruss, 2016), from asynchronous monetary policies between the United States and Europe (Buitron & Vesperoni, 2015) and from the appreciation of the US dollar in recent years (Chow, Jaumotte, Park, & Zhang, 2015).

Communication by the US Federal Reserve has improved since the taper tantrum in 2013. But there have been other examples of poor communication from other central banks since then. In January 2016, Fang Xinghai, vice chairman of China's securities regulator, member of a key financial policy committee and a top adviser to Chinese president Xi Jinping, conceded that poor communication contributed to global market anxiety over China's falling currency, as he tried to reassure investors that Beijing was not pursuing competitive devaluation. He conceded that "[the Chinese] system is not structured in a way to communicate seamlessly with the markets" and "you bet we can learn" (Giles & Wildau, 2016).

6.4 | Conclusion on monetary policy cooperation

As in other areas, the G20's cooperation on monetary policy was more effective within the crisis than outside the crisis. It has been successful in crisis response and in its commitments to move towards market-determined exchange rates and avoid competitive devaluations, but it has been less successful in avoiding negative spillovers and coordinating its exit from unconventional monetary policies.

All G20 countries, except Saudi Arabia, have moved towards more market-determined exchange rates and most have currencies which are not undervalued. The currency valuations of Germany, Korea and Mexico are the most likely to raise concerns. China and Japan have also dipped in-and-out of having devalued currencies in recent years.

The G20's performance is least clear in avoiding negative spillovers. A range of spillovers have occurred, some of which have been negative either generally or at points in time. Given that many could potentially have been avoided, particularly with the benefit of hindsight, the broad and unspecific nature of the G20's commitment implies that the G20 has not performed well under a strict interpretation.

7 | THE RETURN OF GLOBAL IMBALANCES

In 2010, the US Treasury Secretary Timothy Geithner wrote a letter to G20 finance ministers. Concerned about the doubling of current account imbalances between 2000 and 2007, he

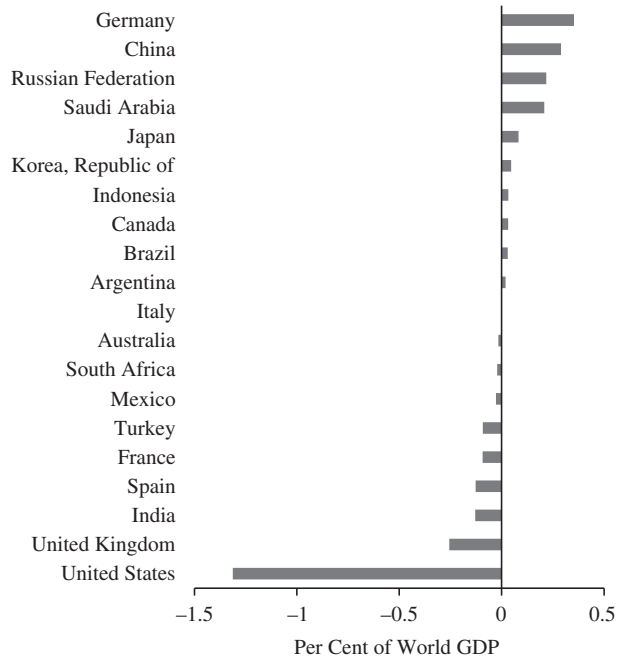

FIGURE 14 Trade balances—Average trade balance, % of world GDP, 2000–15

Sources: World Trade Organisation, Trade Statistics, 2016 (Figure 1); IMF World Economic Outlook database October 2017 (Figures 2–4), OECD, Household savings, 2016 (Figure 5), Bank for International Settlements, Credit to the non-financial sector, 2016 (Figure 6).

recommended a radical approach: that each G20 country pledge to keep current account surpluses and deficits within 4% of GDP (Davies, 2010).

Geithner's idea was politely rejected. But what he tried to do showed the level of concern among politicians, officials and the public over growing imbalances in trade, savings, investment and growth. These concerns have since increased significantly.

G20 leaders identified "unsustainable global macroeconomic outcomes" as a root cause of the crisis and committed to move towards "a more balanced pattern of global growth" and "adequate and balanced global demand" (G20 2008). They tasked finance ministers and central bank governors to develop indicative guidelines to identify the root causes of global imbalances and used the G20's mutual assessment process to develop and monitor country-specific commitments to reduce them (G20, 2011).

The imbalances they identified, shown in Figures 14–19, were in trade and current account balances, public debt and deficits and private saving and debt. The indicative guidelines identified nine key economies responsible for the bulk of these imbalances: China (high private saving and external surplus), France (high external deficit and public debt), Germany (high public debt and external surplus), India (high private saving and fiscal deficits), Japan (high public debt and private saving), the United States (large fiscal and external deficits), the United Kingdom (low private saving and high public debt), the euro area (external surplus and public sector debt) and Spain (external surplus and high public sector debt) (G20, 2011).

The G20 has made little progress in reducing global imbalances since 2008. But a country-by-country analysis shows that the emerging market economies have generally been more successful than the advanced economies.

Current accounts imbalances among G20 economies doubled from 2000 to 2007 but then halved from 2007 to 2011 (Figure 20). This reduction reflected a correction of pre-crisis financial excesses, demand rebalancing in China and lower demand in advanced economies (see IMF, 2017). Since 2011, however, these imbalances have increased once again. The extent of this increase depends in large part on the economies analysed. Sester (2016), for example, found that these imbalances were already back at their pre-crisis levels, but this is based on a selective pick of the major surplus countries in Europe and Asia. Looking across the G20 finds that these imbalances have risen but not to the extent suggested by Sester.

The picture is worse when looking specifically at the eight[21] G20 economies identified by the IMF. For these economies, current account imbalances have regained half their pre-crisis levels and are on an upwards trajectory. Figure 21 shows that the current account surpluses or deficits of the European Union, United Kingdom, Japan and Germany have all increased in size since 2007, often considerably. The United States and France have done little to improve—they remain around the same level as in 2007. The only country which has managed to reduce its external imbalance significantly is China. China has reduced its surplus as a percentage of world GDP by three quarters, outperforming all other economies.

The G20 has not performed well on public debt (Figure 22). Debt among G20 countries has continued to increase. While advanced economies have managed to reduce deficits, the stock of debt has only fallen slightly since the crisis. A similar story emerges when looking at the eight economies identified by the IMF (Figure 23). Debt has increased in the United States and has either increased or remained fairly constant among the other economies.

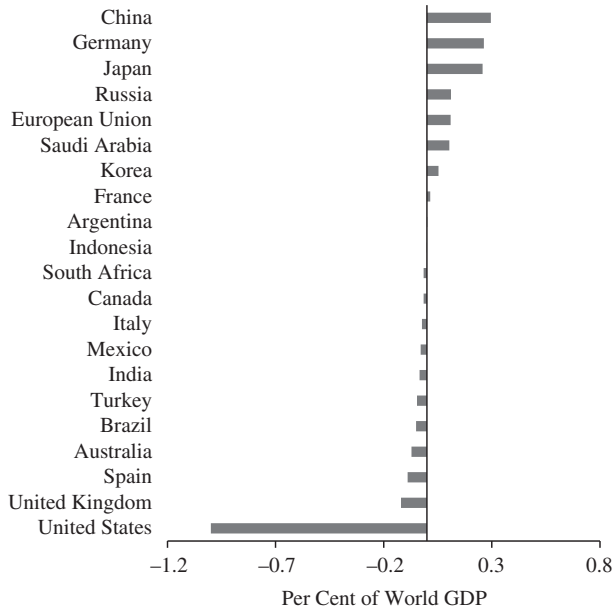

FIGURE 15 Current accounts—Average current account, % of world GDP, 2000–16
Sources: Refer to Figure 14.

[21]The IMF originally identified the nine economies outlined in the introduction which includes Spain. Because Spain is not a member of the G20 (it is a permanent guest), it has been omitted.

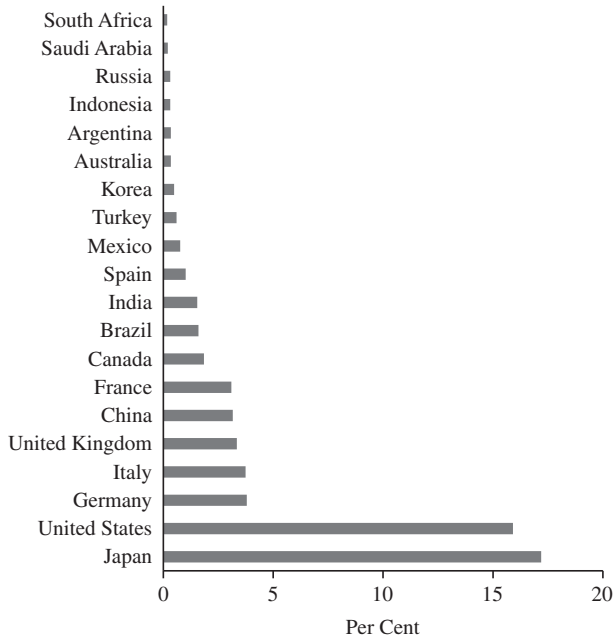

FIGURE 16 Public debt—Average gross public debt as % of world GDP from 2000 to 2016
Sources: Refer to Figure 14.

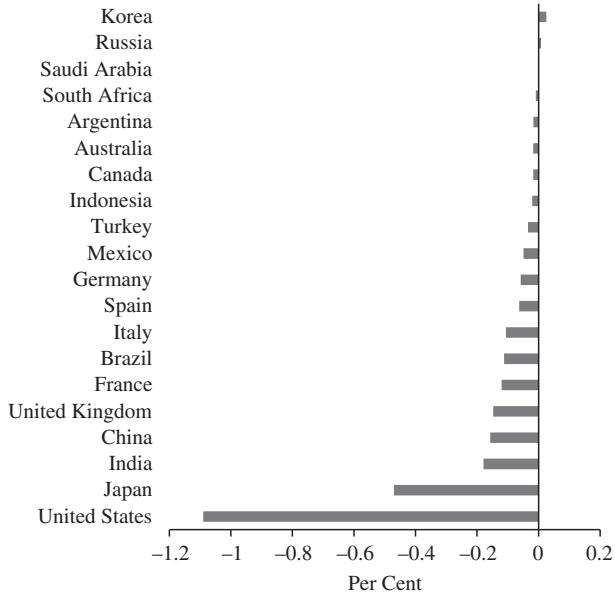

FIGURE 17 Fiscal deficit—Average structural balance as a % of world GDP from 2000 to 2016
Sources: Refer to Figure 14.

When it comes to household savings, most of the eight economies identified by the IMF have moved in the wrong directions (Figure 24). Savings increased significantly in China from 2000 to 2008. Instead of decreasing, savings in China have remained fairly constant as a per cent of disposable income since then. Conversely, savings have fallen in most of the economies where they

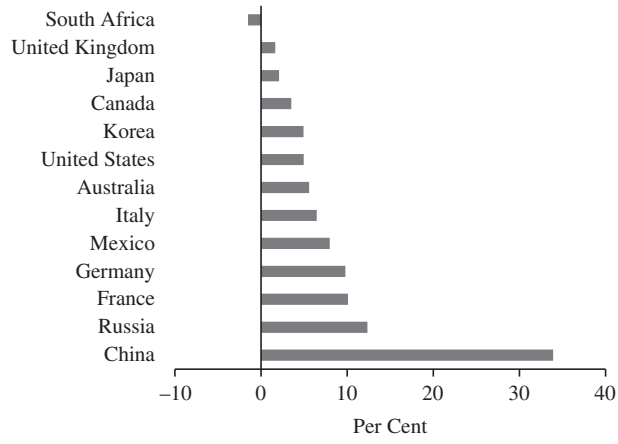

FIGURE 18 Household savings—Average household savings as a % of disposable income from 2000 to 2015
Sources: Refer to Figure 14.

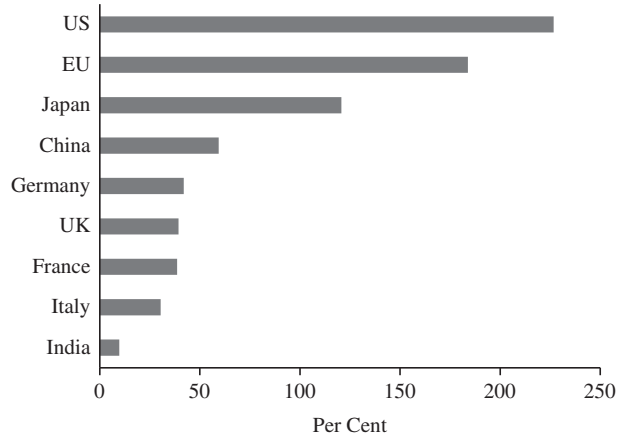

FIGURE 19 Household debt—Average credit to the non-financial sector as % of world GDP from 2000 to 2016
Sources: Refer to Figure 14.

are meant to be increasing: Japan, Italy, the United Kingdom, the European Union and France. The United States is the exception, where savings have almost doubled as a share of disposable income.

The results on household debt are more mixed among these eight economies (Figure 25). The European Union and Japan have reduced household debt as a per cent of world GDP. France, Germany and the United Kingdom have had some marginal success. The United States, however, has seen household debt increase. China has also seen a tripling of household debt since 2007.

These results show the G20 has made limited progress in reducing global imbalances. For the eight economies identified by the IMF, current account imbalances are increasing back to their pre-crisis levels. Public debt remains high and deficit reductions by advanced economies have done little to reduce the stock of debt. Most economies are moving in the wrong direction on household savings and debt.

The IMF's most recent stocktake on the G20's progress confirms these findings. It has identified the same eight economies in 2017 as it did back in 2011 which, the IMF (2017) suggests, indicates little progress has been made in addressing external and domestic imbalances.

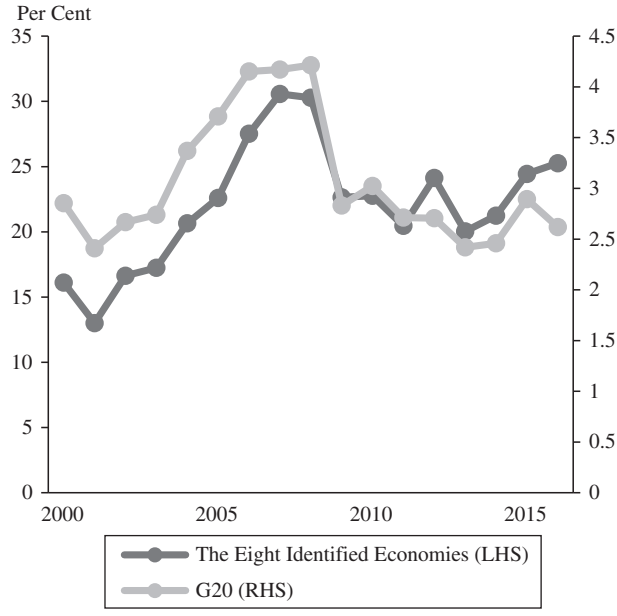

FIGURE 20 Current account balances as a per cent of world GDP
Source: IMF World Economic Outlook database October 2017.

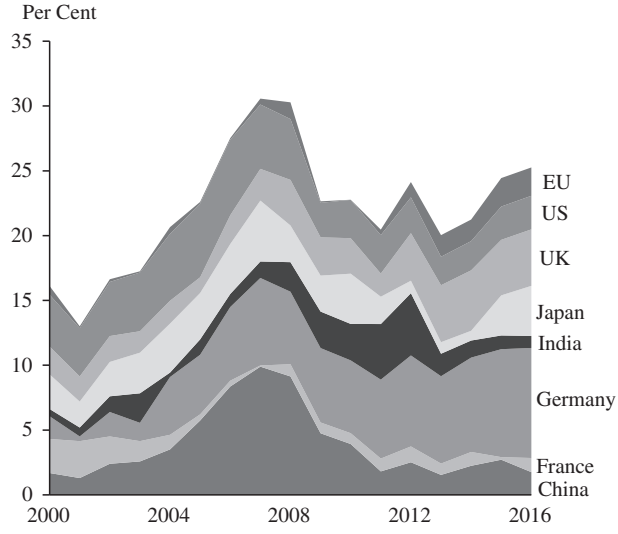

FIGURE 21 Current account balances of the eight identified economies, % of world GDP
Source: Refer to Figure 20.

The results in this section show that the lack of action on global imbalances is falling more prominently on the advanced economies than on the emerging market economies. China has seen a substantial reduction in its external surplus which can in large part be attributed to its economic rebalancing (IMF, 2017). There have also been reduced deficits in Brazil, Indonesia, South Africa and Turkey (IMF, 2017). But for advanced economies, public and household debt remains high and large and persistent excess surpluses remain in Germany and Korea (and, to a smaller degree,

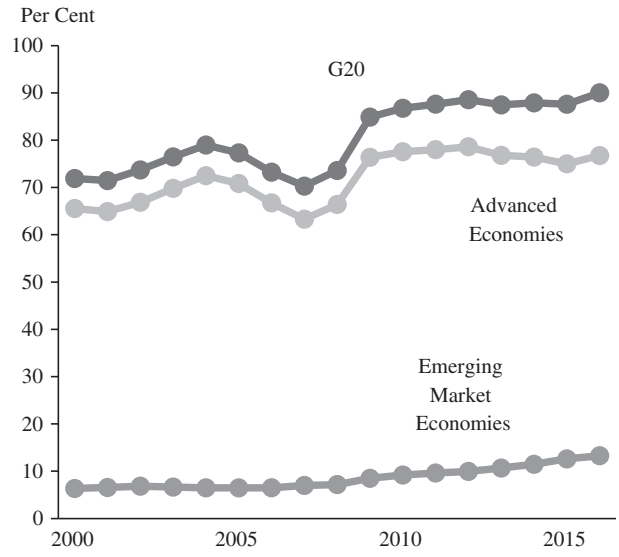

FIGURE 22 Gross debt as a per cent of world GDP
Source: Refer to Figure 20.

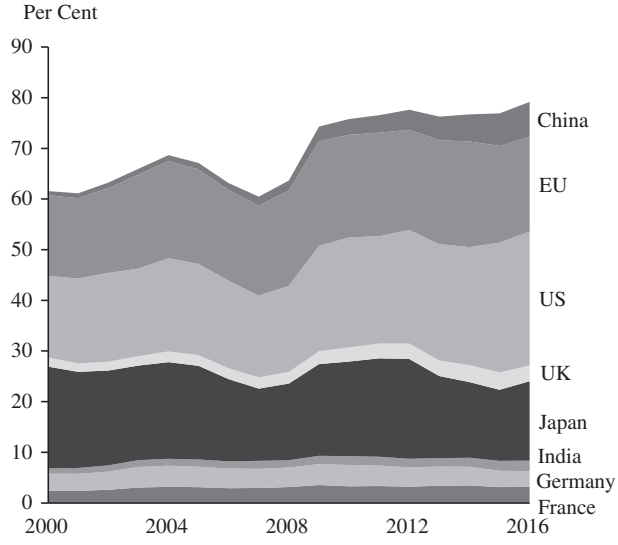

FIGURE 23 Gross debt of eight identified economies as a per cent of world GDP
Source: Refer to Figure 20.

Japan). These are partly matched by equally persistent deficits in the United States and the United Kingdom.

8 | CONCLUSION

The paper showed that the G20's initial success in macroeconomic policy cooperation was short-lived. In the early years from 2008 to 2010, the G20 achieved its goals in fiscal and monetary

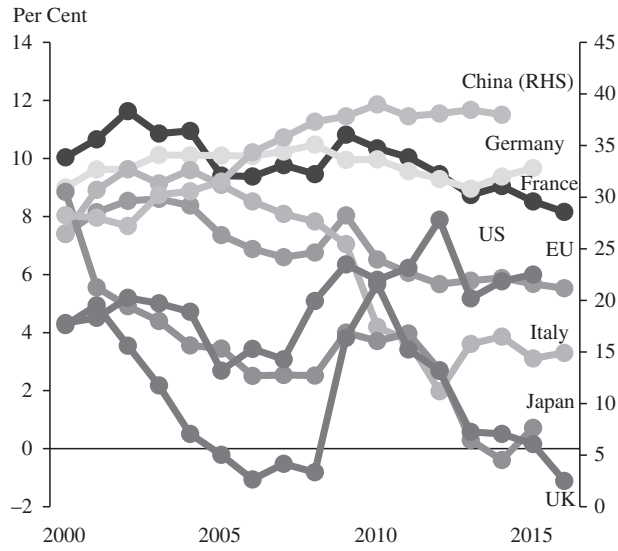

FIGURE 24 Savings as a per cent of household disposable income
Source: OECD, Household savings, 2016; Bank for International Settlements, Credit to the non-financial sector, 2016.

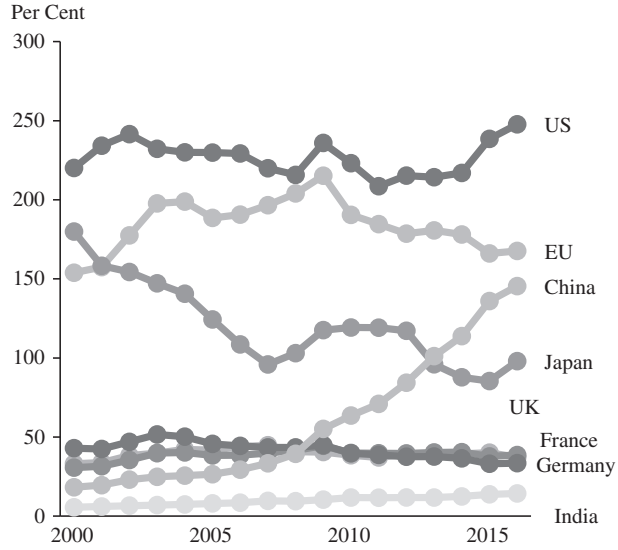

FIGURE 25 Household debt: Total credit to the non-financial sector as % of world GDP
Source: Refer to Figure 24.

stimulus and significantly increased the size of the global financial safety net. It also set up ambitious frameworks aimed at reducing deficits, stabilising debt-to-GDP ratios, reforming the institutions that underpin the safety net, reducing global imbalances and reforming monetary policy frameworks and settings. But it was in implementing these longer-term commitments that the G20 fell short.

The G20 did poorly in reducing debt and deficits and the IMF warns that most G20 advanced economies will face rising debt in the future, confronted with ageing populations and no clear plan for medium-term fiscal sustainability.

The G20 has more work to do on the safety net. The safety net is likely too small to deal with a widespread shock and is increasingly fragmented. This makes the safety net's coverage patchier, increasing systemic risk. It makes the safety net less consistent from one crisis to the next, slower in its response and is seeing a greater reliance on weaker substitutes for the IMF.

While the G20 has done well on monetary policy cooperation in responding to the crisis, moving towards market-determined exchange rates and avoiding competitive exchange rate devaluations, it has struggled to avoid negative spillovers and coordinate its exit from unconventional measures.

Despite years of effort, the G20 has made limited progress in reducing global imbalances. Current account imbalances are creeping back to their pre-crisis levels. Public debt remains high and most economies are moving in the wrong direction in correcting imbalances in household savings and debt.

The critical question is why the G20 has been less successful over time. Three running themes in this analysis might provide an explanation.

The first is that, over time, the G20 became more focused on longer-term structural challenges, which are economically and politically more difficult to overcome. The second is that the G20 became more focused on implementing commitments while in the early years its focus was on making commitments and setting up ambitious frameworks. The third is that, over time, the G20's deliberations increasingly took place in "peace time" rather than in the midst of a crisis, which perhaps reduces the level of urgency and the motivation for cooperation.

Important policy implications stem from these explanations. The first is that it is perhaps misleading to suggest that the G20 is a forum in decline. To glorify its early years and criticise its later years is to ignore the fact that its focus has shifted from reactive crisis response measures to dealing with longer-term structural challenges, which are far more challenging and take much more time to yield results.

These findings also have implications for the G20 itself. The G20 is an informal forum meaning it has no permanent secretariat. This is a trade-off between ensuring the forum is flexible and leader-led (rather than having an institutionalised secretariat with its own political status) and ensuring there is continuity in the work undertaken within the forum. While there are sound arguments on either side, the findings of this paper suggest the G20 is increasingly dealing with longer-term structural challenges, which perhaps warrants a greater focus on ensuring continuity. Whether a permanent secretariat would deliver this desired continuity, however, is a separate question.

Another issue, which warrants further analysis, is whether the G20's macroeconomic policy cooperation agenda involved much cooperation at all. Perhaps countries would have implemented fiscal and monetary stimulus regardless of what other countries did. Perhaps countries were already committed to deficit and debt reduction well before leaders showed up in Toronto in 2010. Perhaps countries would have created their currency swap lines and given more money to the IMF regardless of the G20. And perhaps countries commitments on monetary policy are just for show since, ultimately, monetary policy is both legally and economically better suited to a domestic focus.

There is undoubtedly an element of truth in each of these hypotheses. Ultimately, like any international forum, the G20 is only as strong as the political will of the countries that underpin it. By its nature, the G20 is a body whose impact depends on what each of its members bring to the table. It is up to G20 leaders, therefore, to decide on what role, if any, the G20 will have on macroeconomic policy cooperation outside of a crisis and how it might add value over and above other forums and institutions.

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How to cite this article: Triggs A. Macroeconomic policy cooperation and the G20. *World Econ*. 2018;00:1–33. https://doi.org/10.1111/twec.12607