

Growth after Covid-19: The G20 and the case for coordinated structural reform

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Abstract

With fiscal and monetary policies reaching their economic or political limits in many countries, governments are increasingly looking to structural reforms to boost growth. The paper explores two questions: (1) is there a case for coordinating structural reform between countries? and (2) have previous efforts to coordinate structural reforms resulted in countries doing anything different to what they otherwise would have done? The paper uses the G20 as a case study. Using a general equilibrium model of the G20, the paper shows that the GDP-impact of structural reforms are 10 per cent larger in the first year if they coordinated between countries, and 2.5 per cent larger in the longer-run. Using the results from in-depth interviews with 61 leaders, ministers, central banks governors and officials from across all G20 countries, the paper finds that half of G20 countries have altered their structural policies because the G20's structural reform coordination agreements in the past.

Keywords: Macroeconomics, international trade and finance, computable general equilibrium models, econometric modelling, mathematical methods, intertemporal choice, structural reform.

JEL Codes: F4, C68, C5, C02, E17, D9, E62

1. Introduction

Covid-19 struck when fiscal policy space had already been diminished in many countries by the global financial crisis. The weighted average debt to GDP ratio for advanced economies increased from 77 per cent in 2007 to 103 per cent by 2019 (IMF, 2019). For emerging economies, it increased from 36 per cent to 53 per cent over the same period. Monetary policy space was similarly diminished. Short-term interest rates were two thirds lower in the United States in 2019 compared to 2007 (OECD, 2020). They were four-fifths lower in Australia, two-thirds lower in Canada and were negative in Japan and much of Europe. Private sector balance sheets were similarly diminished in many countries, whether it be corporate balance sheets (United States, Europe), bank balance sheets (China, Europe) or household balance sheets (Australia, Canada, Korea) (IMF, 2019a).

The impact of Covid-19 saw governments and central banks once again having to substantially increase debt, further reduce interest rates and undertake a range of unconventional monetary policies to support incomes and revive demand in their economies. But Covid-19 was not only a demand-side shock. Global production networks faced significant disruption as cross-border flows of goods, services, people and capital faced increased restrictions. Businesses struggled to access their supply chains and many could not access their workers. These supply-side impacts similarly occurred at a difficult time. They occurred when advanced economies faced anaemic productivity growth over many years that was less than half the long-run average (McKibbin and Triggs, 2019), along with an array of other structural challenges: from low wage growth, low investment and low inflation to rising inequality and rising carbon emissions.

Governments will be looking for new sources of growth in the coming months and years. Many countries will hit their economic and/or political limits in fiscal and monetary policy and will search for new ways to sustainably increase living standards for the long-term. Many are already looking to implement structural reforms to boost growth and productivity, ranging from reforms of tax and welfare systems to product market reform, labour market reform and capital market reform. The two questions for this paper are as follows: (1) are there economic benefits in having countries undertake these reforms at the same time? And (2) are there political benefits in which the coordination of reforms helps countries implement reforms they otherwise could not?

The paper uses the G20 as a case study given the forum's experience in coordinating structural reforms since 2008. The paper uses a general equilibrium model of the G20 to explore whether there is a case for coordination in undertaking structural reforms, including which countries benefit the most and which do not benefit at all. It then uses the results from in-depth interviews with 61 leaders, finance ministers, central bank governors and officials from across all G20 countries to explore whether or not countries undertake structural reforms, or are more ambitious in undertaking those reforms, because of international coordination. Participants included Kevin Rudd, Janet Yellen, Haruhiko Kuroda, Ben Bernanke, Jack Lew, Mark Carney and 55 other politicians and officials to whom I am deeply grateful.

The paper shows there is a strong case for coordinated structural reform. The first-year GDP-impact of structural reforms on G20 economies are, on average, 10 per cent larger if they reform together than if they reform alone while the long-run GDP impact is, on average, 2.5 per cent larger from reforming together. Coordinated reform in the services sectors of G20 economies alone could boost collective G20 GDP permanently by almost 2.5 per cent. While the benefits which accrue to individual economies vary widely depending on a variety of country-specific characteristics, the benefits of structural reform in one economy are generally shared by other economies through trade and financial linkages.

Most importantly, the paper shows that the G20 has historically played a role in catalysing structural reforms domestically. Half of the G20 countries reported altering their policies because of the G20's commitments to coordinate structural reforms, ranging from whole new policy initiatives to expanding the ambition of existing initiatives and implementing them faster. The paper concludes by exploring how the G20 process — and the transmission mechanisms of influence between the G20 and the domestic policies of its members — could be strengthened to manage the challenges in the post-Covid-19 world.

2. Has the G20 been successful in its structural reform agenda?

The G20 provides a framework for politicians to argue domestically to do things that they otherwise couldn't do but want to do. It provides political backup – *Wayne Swan, former Treasurer, Australia, interviewed 21 March 2017.*

A threshold question is whether countries do what they say they will do in these international agreements. The G20 has had a long history on agreements to coordinate structural reform, moving through different phases, processes and regularly changing commitments. Its agenda culminated in 2014 with its collective commitment to implement 1000 structural reforms with the goal of lifting G20 GDP by 2 per cent by 2018. While the G20 has often fallen short of its objectives, the evidence suggests it has nevertheless made progress.

In 2010, the G20 launched the G20 framework for strong, sustainable and balanced growth. Through this process, each G20 country outlined the structural reforms it would undertake to boost growth. The IMF then aggregated these reforms to calculate the potential growth impact from these reforms and what could be achieved if the reforms were more ambitious. Officials and ministers would then meet throughout the year and discuss and peer-review each other's reforms and monitor progress in implementing those reforms through a Mutual Assessment Process, the goal of which was to encourage greater ambition (G20, 2010).

G20 countries committed to a variety of structural reforms through this process. But the large number of reform commitments that were added over the years became unwieldy, unfocused and often outdated as governments changed. Another challenge was the absence of any clear definition of what constituted a 'structural reform'. Commitments

ranged from deep reforms of labour, capital and financial markets to tax cuts, increased social spending and infrastructure investment.

Leaders decided to ‘reset’ the G20’s structural reform agenda in 2013 to reduce the number of commitments and make them more focused and manageable (G20, 2013). In 2014, structural reform became the top priority under Australia’s G20 host year and the number of commitments increased substantially once again. Each G20 country developed a growth strategy with structural reforms targeting investment and infrastructure, employment and participation, trade and competition. In February of 2014, finance ministers and central bank governors strengthened the growth strategies by agreeing to a collective growth target. They committed to include reforms in their growth strategies that, when implemented collectively, would increase G20 GDP by 2 per cent by 2018. This increase in growth was to be measured relative to the IMF’s forecasts for G20 GDP in its October 2013 World Economic Outlook (G20, 2014).

The IMF and OECD presented updates throughout 2014 on progress towards this goal. At the Brisbane summit, leaders announced that the goal had been achieved: the collective impact of the reforms included in the growth strategies was estimated to lift G20 GDP by 2.1 per cent by 2018. Around 1000 commitments were made, 800 of which were determined by the IMF and OECD to be new, meaning they were announced after October 2013 (G20 2014). The growth strategies process was further refined since 2014. New priorities were added, new reforms were included, old reforms were discarded and a new ‘enhanced structural reform agenda’ was announced (G20, 2016).

As this brief history suggests, one of the critical challenges the G20 has faced on structural reform is regularly changing commitments and processes. The G20’s habit of regularly changing its structural reform commitment process has meant it has cycled through periods where the number of commitments has increased significantly, only then to be thinned out the following year. Changes in governments have also seen commitments often being dropped and replaced. For example, the number of structural reform commitments increased to around 300 from 2010 to 2012. In 2013, the G20’s ‘reset’ of the structural reform agenda cut back the number of commitments by about a third. In 2014, however, the G20 growth strategy process saw the number of commitments increase again to around 1000. This was then scaled-back once again to 170 ‘key commitments’ in 2015 and, since then, the number of ‘key commitments’ has steadily increased while many of the ‘non-key commitments’ are no longer being recorded or reported on.¹

This commitment churn makes it difficult to assess the G20’s success over time. The result is that the G20’s success can only be accurately measured at particular points in time. At the time of the 2013 summit, the G20 and OECD assessed that up to 40 per cent of the commitments that had been made had been implemented. Taxation commitments had the highest rate of implementation. Human capital commitments (education, skills and training) had the lowest (Figure 1).

¹ See G20 accountability assessment (2013), OECD (2014) and G20 Framework Working Group (2017)

For the growth strategies process, the original commitment made in 2014 was to lift G20 GDP by 2 per cent by 2018 relative to what was forecast by the IMF in October 2013. Unfortunately, the G20 fell short of this goal. Rather than being 2 per cent bigger in 2018 relative to what was forecast in October 2013, G20 GDP was 3.3 per cent smaller (Figure 2). There are several reasons for this shortfall. The first is that the baseline did not materialise. The IMF's forecasts from October 2013 turned out to be too optimistic. Figure 3 shows how the IMF's GDP growth forecasts for 2015, 2016, 2017 and 2018 declined significantly, making it increasingly difficult for the G20 to achieve its goal.

Second, countries did not implement all the reforms they said they would. The G20 has implemented 60 per cent of its key commitments and only 40 per cent of its non-key commitments (Figure 4). The third reason for the G20's shortfall is that some of the commitments with the biggest growth-impact were not implemented. The inability of the United States to implement immigration reform, for example, meant around one-tenth of the 2 per cent goal was immediately forfeited. Figure 5 ranks countries by their contributions to G20 GDP which gives a rough idea of which countries were needed to do the heavy lifting in achieving the 2 per cent goal. Reforms in larger economies – particularly the US, China and the EU – were particularly important.

Although it was never formally announced, the G20 responded to the difficulties in achieving its growth target by changing its commitment. After 2015, the G20 dropped the October 2013 baseline and began reporting the growth impact of the reforms themselves (Figure 6). Countries have also added additional reforms since 2014 (Figure 7). At the Antalya summit in 2015, the G20's reforms were estimated to lift G20 GDP by 0.8 per cent. By the time of the Hamburg summit in 2017, the estimate was 1.2 per cent (G20 Framework Working Group, 2017). The IMF suggests it will take longer than 2018 for the G20 to deliver its 2 per cent goal (IMF, 2017). Since then, the G20 has ceased reporting on its progress on the growth strategies.

Overall, the G20 has made progress in achieving its goals, but has not ultimately achieved them. This, of course, is better than doing nothing. But several questions remain unanswered: is there a case for coordinated structural reform in the first place? And does the G20 result in countries doing anything different to what they otherwise would have done? Answering these questions will be critical to understanding what role the G20 can play in catalysing structural reform in the post-Covid-19 world.

3. The economic benefits of coordinating structural reforms

The global economy is now too interconnected for one country's policy not to affect another's and for challenges we share in common to be subject to national solutions rather than global cooperation. We are also learning that cooperation can not only avoid harm but can lead to greater benefits – *Gordon Brown, former Prime Minister, United Kingdom*²

² Brown (2010)

The benefits of coordinating structural reform can be measured by comparing the impact of structural reforms when they are undertaken by a country alone to when they are undertaken by all G20 countries together. The section below models the impact of structural reform in the services sector of Japan. This is a pertinent simulation. Structural reform has received much attention in Japan after its government announced that structural reform would be the critical ‘third arrow’ of its reform agenda to kick-start decades of sluggish GDP growth. Japan also stands out as having a very labour-intensive services sector which exhibits comparatively weak productivity growth compared to other countries (Lee and McKibbin, 2014). The results from structural reform when it is implemented by a single country are then compared to the results from when reform is implemented by all G20 countries.

3.1 The G-Cubed (G20) model

The model used in these simulations is called the G-Cubed (G20) model, detailed in McKibbin and Triggs (2018). It is a multi-country, multi-sector, intertemporal general equilibrium model. A new version of the model is used for these simulations which is calibrated specifically for the G20 economies. Previous versions of the model have successfully replicated a variety of shocks and policy interventions, including the global financial crisis (McKibbin and Stoeckel, 2018), the Asian financial crisis, fiscal consolidation in Europe in the 1990s, German reunification (McKibbin and Vines, 2000) the impacts of ‘Reaganomics’ as well as forecasting the economic impacts of the Covid-19 pandemic (McKibbin and Fernando, 2020).

The model consists of 24 regions: one for each of the G20 economies, one for the rest of the OECD, one for the rest of Asia, one for other oil producing countries and one for the rest of the world (Table 1). Each region is its own multi-sector econometric general equilibrium model with highly disaggregated, multi-sectoral flows of goods and assets between them. There are six sectors — energy, mining, agriculture, durable manufacturing, non-durable manufacturing and services — where each good in a region is an imperfect substitute for goods from other regions. Thus, there are effectively 144 goods. The model also includes markets for goods and services, factors of production, money and financial assets (bonds, equities and foreign exchange). Finally, each country or region is linked through the flows of goods and assets.

Each region consists of six representative firms (one for each of the six sectors), a representative household and a government.

Firms choose their production inputs (labour, capital, energy and materials) and make investment decisions to maximise their stock market value (represented by the present value of the future stream of dividends). They are assumed to be price-taking. Households maximise an intertemporal utility function subject to a lifetime budget constraint that the present value of their consumption equals the present value of their future stream of after-tax labour income (plus transfers from the government) and their initial financial assets.

The model is based on explicit optimisation by firms and households, but the behaviour of firms and households is modified to allow for short-run deviations from optimal behaviour. This could be interpreted as near-sightedness in their decision-making or be due to liquidity constraints on the ability of some firms and households to borrow. These deviations take the form of rules of thumb, which are consistent with an optimising agent that does not update predictions based on new information about future events.

As the below simulations will highlight, these rules of thumb generate the same steady-state behaviour as optimising agents so that, in the long-run, there is only a single intertemporal optimising equilibrium of the model. Short-run behaviour, however, is assumed to be a weighted average of the optimising agents and the rule-of-thumb agents. This allows the model to reflect the inertia observed empirically in investment and consumption decisions (see McKibbin and Sachs, 1991).

For households, aggregate consumption is a weighted average of consumption based on wealth (current asset valuation and expected future after-tax labour income) and consumption based on current disposable income. For firms, aggregate investment is a weighted average of investment which, in turn, is based on Tobin's q (market valuation of the expected future change in the marginal product of capital relative to the cost) and is based on a gradually learning Tobin's q which partially adjusts to the forward-looking Tobin's q (for rule-of-thumb firms).

Of key importance for the simulations that follow is the role of central banks in the model. Central banks in each economy follow a Taylor rule with weights in different countries on output growth relative to trend, inflation relative to the target, and in some case weights on nominal exchange rates relative to a target. Some countries such as Saudi Arabia peg exactly to the U.S. dollar so the weights on inflation and output growth are zero, and the weight on the exchange rate is very large. Other countries such as China follow a crawling peg with some weight on inflation and the output gap but an additional weight on change in the Yuan/U.S. dollar exchange rate. Within the eurozone, a single central bank sets monetary policy with weights on euro zone-wide output growth relative to the target and euro zone-wide inflation. The nominal policy interest rate is equal across Germany, France, Italy and the rest of the eurozone.

The following simulations further elaborate the key features of the model, the full details of which are available in McKibbin and Triggs (2018).

3.2 Structural reform undertaken alone

Consider first the implications of structural reform when it is undertaken by a single country alone. The IMF looked at the productivity effects of structural reforms across 108 advanced and emerging market economies from 1970 to 2011 (IMF, 2015). While noting that structural reforms vary considerably from one episode to the next, it

concluded that when ambitious structural reforms³ are undertaken, total factor productivity growth can increase, on average, by 2 per cent. The IMF warns that there are significant variances in terms of what constitutes structural reform and that the level of ambition displayed by different countries produces a range of measurement challenges.⁴ In any event, the IMF's findings provide a useful starting point for this analysis which can then be varied according to different estimates.

The results for structural reform in Japan's services sector are shown in Figures 8 to 13. Overall, the impact of higher productivity in the services sector is to see a reallocation of resources within the Japanese economy. Because of higher productivity growth, Japan's services sector now has a higher return to capital than before. This sees a 3 per cent increase in investment and a 5.5 per cent increase in production in Japan's services sector by the second year.

The increased production in Japan's services sector benefits other sectors of the Japanese economy through increased demand for their resources and shifts in relative prices. The effect is strongest for those sectors which feed inputs directly into the production processes of the services sector. This is particularly the case for durable manufacturing, which sees a 1.6 per cent increase in investment and a 3.1 per cent increase in production in the second year after the shock. Higher productivity growth means that the services sector requires less labour, freeing up resources which move into other sectors of the Japanese economy. The sectors which are less integrated into the services sector also benefit from the higher productivity in services, but to a smaller extent than is the case for durable manufacturing (Figure 8 and 9).

The aggregate effect on the Japanese economy is substantial, demonstrating a powerful incentive for countries to undertake structural reform. Investment is 6.5 per cent above the baseline in the second year (Figure 10). Higher expected incomes result in forward-looking households increasing consumption by 2 per cent above the baseline in the first year (Figure 11). These effects are partially offset by a weakening in the Japanese trade balance. This relates to how this increase in investment in Japan is financed. Some of the increased investment is initially financed domestically through an increase in domestic savings (which, in turn, results in the near-term dip in consumption shown in Figure 11). But the rest of the increase in investment is financed by capital inflows from overseas, attracted to the higher returns to capital now available in Japan. The upshot of these capital inflows is an appreciation in the exchange rate which, in turn, weakens the trade balance (Figure 12).

³ It includes data for 10 types of structural reforms compiled from a wide array of sources such as the Economist Intelligence Unit, Fraser Institute, IMF, and Organisation for Economic Cooperation and Development (OECD). The reform areas covered include financial sector reforms, trade liberalization, institutional reforms, as well as a range of reforms related to the functioning and regulation of markets.

⁴ The IMF notes that structural reforms are inherently difficult to measure because they often involve policies or conditions that cannot be easily quantified, particularly compared to the measurability of many macroeconomic policies. In this regard, it is important to acknowledge data constraints—both in availability, measurement, and coverage—that limit the scope for quantitative analysis of structural reforms.

Although a weaker trade balance partially offsets the boost to the Japanese economy from higher investment and consumption, the net effect on GDP is overwhelmingly positive. Japanese GDP is a significant 6 per cent higher than the baseline in the second-year and is permanently higher into the long-run due to a larger capital stock from the period of increased investment (Figure 13).

Of key interest when it comes to the case for coordination between countries is what effect structural reform in one economy has on other G20 economies. The impact of structural reform in Japan on other G20 economies depends on the extent of their trade and financial linkages with Japan as well as the unique characteristics of each economy, including their industrial structures, export profiles, comparative advantages and macroeconomic policy frameworks. In general, other G20 countries share in the benefits of higher productivity growth in Japan in both the short-run and longer-run although the size of these benefits is modest. But, as was the case for unilateral reform in Japan, there is a transition period in the medium-term through which economic resources are reallocated that can impact GDP negatively.

This can be seen for a selection of economies in the figures 14 and 15. Increased production in Japan directly benefits countries which feed intermediate inputs into Japanese production processes. The increase in durable goods manufacturing, for example, benefits countries like Australia, South Africa and Brazil which produce mining resources that feed into Japan's durable goods manufacturing (Figure 14). Energy goods exporters, such as Indonesia, Australia and oil producing countries also benefit from the increased demand for energy goods that comes from increased production (Figure 15).

Japan's trading and investment partners also benefit from the appreciated Japanese currency which, from their perspective, means a depreciated exchange rate with Japan. While this acts to worsen Japan's trade balance, it acts to boost the trade balance of other G20 countries (Figure 16).

The benefits to the trade balances of G20 countries, however, are partially offset by the effect of capital flowing out of other economies into Japan. The increased demand for savings and the higher return on capital that is now available in Japan means that financial capital leaves other G20 countries to be invested in Japan. For these other G20 countries, this acts to push up interest rates and reduce investment for a period in the medium-term (Figure 17).

It follows that there are a variety of opposing forces at play in terms of what effect structural reform in Japan has on other G20 countries, highlighting the importance of using a general equilibrium framework. The net effect on the real GDP of a selection of G20 economies is shown in Figures 18 and 19. Most economies receive an initial boost to GDP through the trade balance from exchange rate and export-demand effects. Most countries also benefit in the longer-term, sharing in the increased productivity growth and permanently higher incomes in Japan. However, the medium-term transition can produce different results for different countries, often constraining growth.

While the net effect of structural reform in Japan on other G20 economies varies considerably from one economy to the next, Figure 20 shows that, on average, G20 countries benefit in both the short- and long-term from structural reform in Japan's services sector. In the short-term they benefit primarily from an improved trade balance while, in the longer-term, they share in the benefits from higher productivity in Japan's services sector. In the longer-term, the GDP of other G20 countries is around 0.2 per cent above the baseline as a result of Japan reforming its services sector.

3.3 Coordinated reform across the services sectors of all G20 economies

Consider now what the implications are when structural reforms are coordinated. Given Japan has been the focus thus far, it is useful to first consider the impacts of coordination from the perspective of Japan. When Japan was reforming alone, it saw a large increase in domestic production, some of which spilled-over into other countries through increased demand for their exports. With the rest of the G20 reforming, too, Japan not only experiences the benefits from its own increased domestic production but now also enjoys the positive spillovers from increased production in other G20 economies through increased demand for its exports (Figure 21). This boosts Japanese production of services by around half of 1 per cent and increases Japanese production of durable manufactured goods by almost 1 per cent.

But there is a different story on the investment side. When Japan was reforming alone, it was drawing-in foreign capital to help finance the increase in investment that was required for it to boost domestic production. Now that the rest of the G20 is reforming, too, Japan is no longer the only country that is trying to draw-in the global pool of savings. This means that, with all countries undertaking structural reform at the same time, there are now less savings to go around. This pushes-up interest rates which, for Japan, means there is less investment than there was when it was reforming on its own. As a result, the level of investment in Japan is smaller when the rest of the G20 is reforming than when Japan was reforming on its own (Figure 22).

The upshot of smaller capital inflows into Japan is that its exchange rate does not appreciate by as much. And since Japan's trading partners are undertaking the same reforms, much of the exchange rate effect is netted-out. Both effects mean that Japan's trade balance does not weaken by as much as it did when it was reforming alone. Thus, the negative offsetting effect of the trade balance seen earlier is now smaller (Figure 23).

It follows that coordination produces a complex story for Japan. Coordination means less investment, but it also means increased international demand for its exports and a smaller reduction in its trade balance. The net effect of these opposing forces for Japan's GDP is positive but, as earlier, this varies across time. Japan is better off in the short-term and the longer-term when the rest of the G20 undertakes structural reform at the same time. But the medium-term transition between the short and longer-run produces a period in which Japan is worse off due to G20 coordination (Figure 24).

The majority of G20 economies follow a similar path to Japan. But it is difficult to generalise across G20 economies. The relative effects of coordination on different countries depends on the variety of economic characteristics discussed earlier, highlighting the significant asymmetries and differential impacts of structural reforms across economies.

For the majority of G20 countries, such as those shown in Figure 25, the first year and longer-term impacts are positive. The benefit to Indonesian GDP, for example, is 20 per cent larger in the first year and 10 per cent larger in the longer-term from reforming with the rest of the G20 than if it reformed alone. But this is not true for some G20 economies. For some G20 economies, such as those in Figure 26, while the impacts are positive in the first-year, the impacts of coordination are negative in the longer-term.

Canada is one such example. While the benefit to Canadian GDP is almost 10 per cent larger in the first year from reforming together, in the longer-run it is 2.5 per cent worse off. Figure 27 gives the average effect across all G20 countries. It shows that, on average, the GDP of G20 countries is higher in the short-run and in the longer-run from undertaking structural reforms together than if they undertake structural reform alone. In the first-year they are, on average, 10 per cent better off. In the long-run they are, on average, 2.5 per cent better off.

The benefits to G20 economies from coordinated structural reform are significant. Calculated as a weighted average (Figure 20 is an unweighted average), G20 GDP is estimated to be permanently 2.5 per cent larger as a result of coordinated structural reform. Recall, too, that this only relates to reforms in a single sector: the services sector. When this analysis is run for coordinated structural reforms in other sectors, such as in manufacturing (both durable and non-durable manufactured goods) similar results are obtained: G20 countries are between 1 and 4 per cent better off in the longer-term from reforming together than reforming alone.

4. Does the G20 result in countries doing more structural reform?

Just because there is a significant benefit in coordinating structural reforms in the G20 does not mean the G20 is adding any value. It is possible that countries are implementing the reforms they would have implemented anyway such that the G20's coordination agreements are not producing an alternative counterfactual. The country-specific nature of structural reforms and the G20's 'commitment churn' raises questions about what role, if any, the G20 plays in the process of structural reform. Does the G20 influence domestic policies? Does it provide political benefits? Do countries do anything different because of the G20?

To explore these questions, 61 leaders, central bank governors, ministers and officials were interviewed from across all G20 countries. Participants included Kevin Rudd, Janet Yellen, Haruhiko Kuroda, Ben Bernanke, Jack Lew, Mark Carney and 55 other politicians

and officials to whom I am deeply grateful. The methodology, and a breakdown of the sample, is extracted to Appendix A.

Policymakers were asked whether they felt the G20's efforts on structural reform had been 'successful' (leaving it to them to explain what 'success' meant in this context), whether the G20 helps policymakers politically, whether it results in countries doing anything different and the extent to which the G20 influences domestic reforms.

4.1 Has the G20 been successful on the issue of structural reform?

Fifteen of the G20 economies considered that the G20's structural reform agenda was successful (Figure 28). This was primarily because it gave increased attention to an important issue. For several countries, they felt the G20 was successful because it gave them new ideas for policy reform to be implemented domestically. The quotes below show that the G20's focus on female workforce participation, for example, was a catalyst for domestic reform in Russia. It also generated accountability pressure in the Australian parliament. The G20's focus on financial literacy and financial education was a catalyst for a greater focus on measuring and addressing these problems in Germany. The G20's focus on new and innovative ways to fund infrastructure investment saw the United States draw on the experiences of other G20 countries in designing its national infrastructure plan.

Other than learning new ideas, the G20's focus on structural reform helped countries to sell policy reform domestically by pointing to an international consensus and highlighting the experiences that other countries have had with similar measures. Policymakers said that the G20 can also help apply pressure to countries to abide by their commitments. It helps to build consensus on the impacts and necessity of different reforms and, when implemented, can boost global GDP. Advanced and emerging market economies did not significantly differ in their responses on this issue.

The Australian G20 presidency in 2014 had the idea of lifting female workforce participation which turned into the adoption of a strategy on female employment here in Russia. This was something we did because of G20. It was not a huge issue before this in Russia. The G20 made our policymakers think of the issue more seriously – *Svetlana Lukash, Sherpa, Russia, interviewed 28 March 2017.*

China views innovation and structural reform as the most critical contributors to growth. The G20 has been successful in bringing more attention to this issue – *Lyu Jin, Counselor, Deputy Chief of Policy Section, Embassy of China in the USA, interviewed 13 November 2017.*

It has always been my view that the G20 played an important role in giving China the idea for One Belt One Road. Through their G20 engagement, they could see a global infrastructure revolution in the developing world was necessary to achieve what China had already achieved. They could see this as being the next key driver of growth – *Kevin Rudd, 26th Prime Minister of Australia, interviewed 8 September 2017.*

The G20 structural reform agenda was very influential for many countries as it helped to gain political support for such reforms domestically – *Chang Yong Rhee, former Secretary General and Sherpa of the Presidential Committee for the 2010 G20 Seoul Summit, Republic of Korea, interviewed 17 August 2017.*

The G20 growth strategy process resulted in countries doing things differently, particularly by learning from one another. The United States, for example, is now considering an asset recycling initiative— they have said publicly that they learned about this initiative from Australia through the G20 process - *Joe Hockey, former Treasurer, Australia, interviewed 18 August 2017.*

It does have an effect. On female participation, for example, there was a debate in Australia about what we would do to meet the G20's target of closing the gap between male and female workforce participation. These commitments can start domestic political discussions – *Heather Smith, former Sherpa, Australia, interviewed 2 June 2017.*

What I found in the conversations in Australia was that the growth strategy process saw the overall level of understanding on structural reforms and the issues surrounding them improved significantly. There was a lot myth busting, too, which was particularly useful – *Simon Kennedy, former Sherpa, Canada, interviewed 3 August 2017.*

The growth strategies and peer reviews allowed us to learn from each other and be accountable both to our citizens and to our global partners – *Central Bank official, emerging market economy, interviewed 16 May 2017.*

In bringing countries together in their thinking, in disseminating standards and in the comparability of reforms I believe the G20 has been very successful – *Bruno Cabrillac, Deputy Governor of the Bank of France, interviewed 11 April 2017.*

But policymakers also cited several areas and several ways in which the G20 has not been successful (Figure 29). The dominant reason, confirming the preceding analysis, was that the G20 had not made substantial progress in implementing its commitments and meeting all of its goals. Other reasons, although less common, were that structural reforms were overwhelmingly driven by domestic considerations such that the G20's influence was marginal, that structural reforms were too country-specific and too complex for G20 coordination, that the G20 did not always result in countries doing anything different, that the influence of the EU (for those in the EU) was more significant than the influence of the G20 and that the ministers responsible for key areas of structural reform were not necessarily present at G20 meetings (since the G20 is primarily attended by finance ministers and only occasionally by ministers in other portfolios).

The emerging market economies appeared to be most concerned by the G20's lack of progress on implementation compared to the advanced economies. Advanced economies were also concerned by the lack of progress but were more likely to feel that structural reform was driven by domestic considerations and were too country-specific to warrant coordination in the G20.

I tried as best I could to use the G20 as an additional reason for domestic action in the US. But the American system is hard to drive that way, and you need to be careful in how you make the case. In the United States, there can be a backlash if you make the argument that you're doing something to comply with international rules rather than as a domestic choice. But the consensus from the G20 was not unwelcome – it certainly helped in getting action from other countries – *Jacob Lew, former Treasury Secretary, United States, interviewed 7 September 2017.*

Structural reform is an issue which all of us speak a lot about but at the end of the day it is difficult to assess progress in. It is hard for countries to identify what structural reforms are critical for them to undertake at each point in time – often countries will lump a whole bunch of things

together and call it structural reform – *Alexandre Tombini, former Governor of the Central Bank of Brazil, interviewed 19 September 2017.*

It is very hard to put pressure on the emerging market economies to implement structural reforms when you can't get other countries, like those in Europe, to undertake their own structural reforms – *Montek Ahluwalia, former Sherpa, India, interviewed 10 June 2017.*

The circumstances have changed in many countries since the crisis so the element of coordination and peer support is more limited. Having Canada liberalise its telecommunications sector because Japan is increasing female participation – the message is not as compelling or as easy to explain to the public as might be the case for coordinated fiscal stimulus, for example – *Central Bank official, advanced economy, interviewed 17 August 2017.*

The G20 is good at identifying problems and the need for structural reforms, but there are shortcomings in implementation. To improve its effectiveness, the G20 needs to look at how it can create a mechanism or arrangement to encourage members to improve their deliverables – *Mahendra Siregar, former Sherpa, Indonesia, interviewed 22 May 2017.*

4.2 Did the G20 result in new or different structural reforms being implemented?

Given some of the quotes above, it is perhaps unsurprising that countries were split in terms of whether they did anything different or not because of the G20. Overall, half of the G20 countries said they altered their policies because of the G20 while the other half said they did not.

As was often the case, the emerging market economies reported being more influenced by the G20 – particularly through learning new policy ideas – than the advanced economies. Six out of the 10 emerging market economies altered their policies because of the G20 compared to just four out of the 10 advanced economies.

As the quotes below illustrate, the G20's influence on policies (for those which cited an influence) ranged from encouraging countries to push a reform a little bit further or implement a reform a little bit faster, to encouraging a country to implement a whole new policy for the first time.

The primary way in which the G20 influenced domestic policies (Figure 30) was by helping policymakers to sell structural reforms domestically, particularly by being able to point to the experiences of other countries and the fact that they had made an international commitment. Several countries reported learning new policy ideas from the G20 which they then took back to their domestic systems. Others reported that there was political pressure from the G20 to implement commitments, that G20 commitments can be used to leverage domestic legislatures and that the discussions in the G20 could influence how policymakers think about different reforms and their relative merits.

In preparing the growth strategy, Argentina highlighted certain programs – particularly in infrastructure. It was already there but it was strengthened because of the G20 – *Cecilia Nabón, Former Sherpa, Argentina, interviewed 2 October 2017.*

Every country has made commitments. Nobody put things they didn't want to do. But I believe they have done things differently in being more ambitious or timely. The dialogue permeated into government structures, this is true in Argentina. Sometimes it is an intellectual agreement –

allowing domestic systems to arrive at a consensus position intellectually – and it also has a legitimising effect on your policies. This is what the G20 brings – *Hugo Gobbi, former sous sherpa, Argentina, interviewed 12 May 2017.*

Financial education has been a particular focus 2017. Measuring financial literacy and including German data in a comprehensive dataset of G20 member countries has been helpful as a starting point to analyse instruments and programs to increase financial education among citizens of member states. Since financial literacy is a topic of interest for advanced as well as for emerging countries, the level of financial education may be supported by peer exchange and learning from each other – *Jelena Stafj, G20 representative, Head of G20 presidency coordination team, Bundesbank, Germany, interviewed 11 October 2017.*

Announcing reforms, outlining implementation timelines and regularly reporting on progress adds to countries' motivation and effort – *Montek Ahluwalia, former Sherpa, India, interviewed 10 June 2017.*

For the economies which reported no G20 influence (Figure 31), the overwhelming reason given for this lack of influence was simply that the domestic pressures on structural policies overwhelmed any G20 influence. Several said that the G20 does not create any real peer pressure because the peer review process was weak, and the poor rate of implementation meant countries struggled to pressure one another. Others said, as above, that the processes of the EU dominated any G20 influence or that structural reforms were inherently not conducive to coordinated action and, as such, did not alter their policies because they perceived little economic benefit from doing so.

Structural reform is hard, unpopular and very difficult. Is it a mode of cooperation? In some countries it has worked to say “we have to do X because the European Commission says so” – but this has always been a terrible political argument in this country – *Tom Scholar, former Sherpa, United Kingdom, interviewed 29 March 2017.*

The G20 will always struggle with structural reform because the reforms are detailed, country specific and politically difficult – *Frank Moss, acting G20 central bank deputy, European Central Bank, interviewed 20 February 2017.*

I think the G20's agenda on structural reform is a little underwhelming. But, nevertheless, the focus opened the comparability of reforms across countries which is useful - *Ksenia Yudaeva, Deputy Governor of the Bank of Russia, Russia, interviewed 27 March 2017.*

Italy is a peculiar case because we are in the EU, too, so we have pressure coming from the EU's processes. The pressure from the EU is often more powerful than the pressure coming from the G20 because there is a treaty and more stringent rules – *Giuseppe Parigi, Head of International Relations and Economic Directorate, Bank of Italy, Italy, interviewed 12 April 2017.*

Structural reform is easier said than done. Policymakers agree to implement policy reform, but in the end the implementation process depends on the domestic political economy – *Muhamad Basri, former Finance Minister, Indonesia, interviewed 6 November 2017.*

I don't think the G20 ever agreed on what constitutes a structural reform. Each country understood it to mean what they wanted it to mean. We never bought the structural reform term because this term in Argentina is very much associated with the structural adjustment concept of the 1990s – the Washington Consensus – *Cecilia Nahón, Former Sherpa, Argentina, interviewed 2 October 2017.*

In India, saying we are using the G20 to learn from other countries experiences can help. Saying that the G20 thinks this is a good idea is unlikely to have much effect – *Subir Gokarn, Executive Director, International Monetary Fund and former Deputy Governor of the Reserve Bank of India, India, interviewed 9 November 2017.*

5. Conclusion

With fiscal and monetary policies reaching their political or economic limits in many countries, combined with the supply-side challenges brought about by Covid-19 and the long-run challenges of weak productivity growth, low wage growth, low inflation and low interest rates, many countries are looking to structural reform to provide a new source of sustainable growth. Using the G20 as a case study given its relatively successful experience in coordinating structural reform commitments, the paper explored whether there is an economic case for coordinating structural reforms between countries and whether such coordination agreements result in countries doing new or different reforms than they otherwise would have done.

Using a general equilibrium framework of the G20, the paper showed that there is a strong case for coordinated structural reform. In the first-year, the GDP-impact of structural reforms on G20 economies are, on average, 10 per cent larger if they reform together than if they reform alone. In the long-run the GDP impact is, on average, 2.5 per cent larger from reforming together. Coordinated reform in the services sectors of G20 economies, alone, could boost G20 GDP permanently by almost 2.5 per cent. The paper shows that the benefits which accrue to individual economies vary widely depending on a variety of country-specific characteristics but, ultimately, the benefits of structural reform in one economy are shared by other economies through trade and financial linkages.

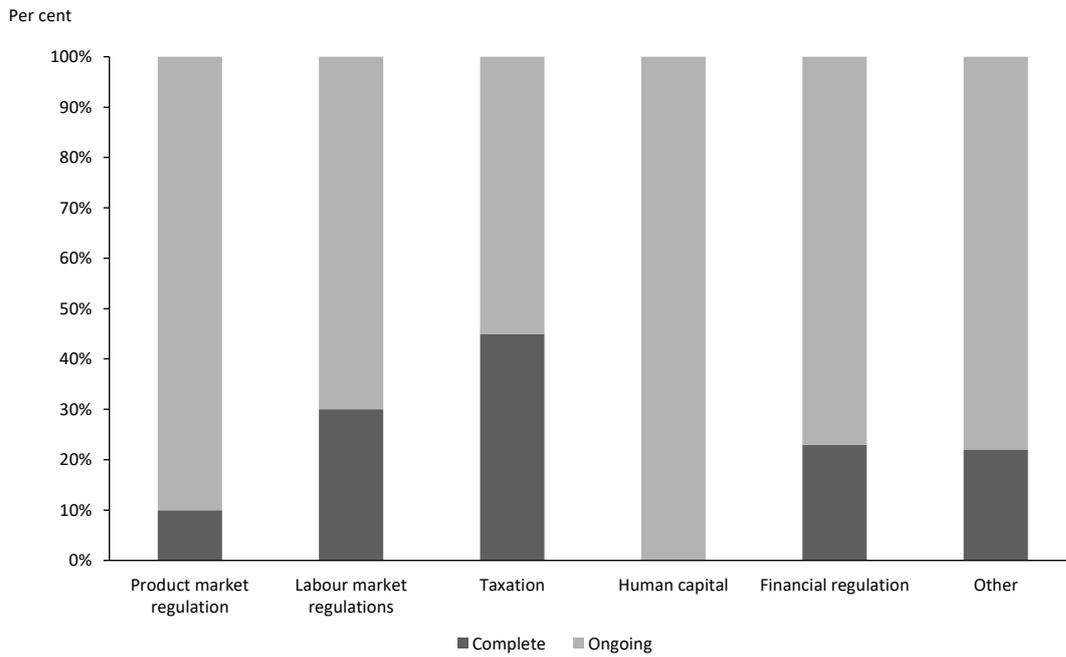
Given the potential benefits of G20 coordination, the critical question is whether the G20 can play a role in encouraging and helping countries to implement structural reforms. The paper sought to answer this question by reporting the results from in-depth interviews with 61 politicians and officials from across all G20 countries. It found that half of G20 countries altered their structural policies because of the G20, suggesting that the G20 can influence, and has influenced, domestic structural policies. For some, such as Russia on female participation or Germany on financial literacy and education, this meant a whole new focus for domestic policy. For others, such as Australia on female participation, it meant increased pressure to implement G20 commitments. And for others, such as South Africa, it meant implementing reforms faster and in a timelier fashion or pushing the ambition of reforms a little bit further.

The results from the in-depth interviews showed that the G20 does influence the policies of its members, but different countries will use the G20 forum differently. While some, often the larger advanced economies, suggest that the G20 has limited influence on their policies, others, often the smaller emerging market economies, report that the G20 does play an important role in catalysing structural reform in their economies. Policymakers will use the G20 to help sell difficult reforms domestically. They will look at the experiences of other countries not only to learn new ideas but to sell the virtues of a

policy reform to domestic constituents. G20 coordination can help pressure domestic legislatures into action and can, over time, influence the way policymakers think and build consensus across countries.

Overall, the paper shows that the benefits from coordinated structural reform can be substantial and that the G20 can play an important role in delivering it. Strengthening the G20's agenda on structural reform means targeting and strengthening the key ways in which the G20 helps and influences countries domestically. It means generating and sharing more ideas and experiences of policy reform. It means strengthening the peer review process. It means strengthening the G20's accountability processes and reforming frameworks to identify how countries are tracking on their commitments and how they could be improved. The G20's focus on structural reform, by the inherent nature of this policy area, will remain a longer-term agenda. It will rely on a sustained G20 focus on the issue to encourage a gradual and incremental shift in domestic systems. But by focusing on pragmatic changes to its processes, the G20 can maximise its assistance and influence to navigate policies in the right direction.

Figure 1: Implementation of mutual assessment process commitments as at 2013



Source: G20 accountability assessment (2013)

Figure 2: G20 progress on the 2 per cent goal

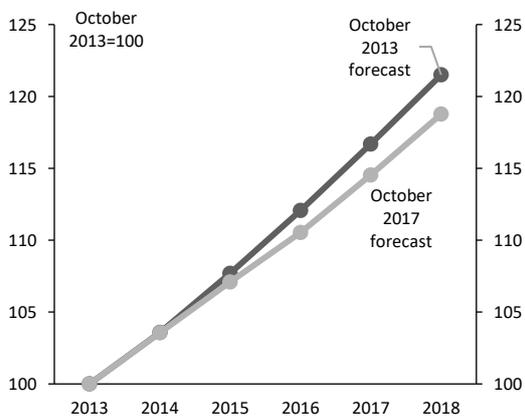


Figure 3: The G20's declining baseline

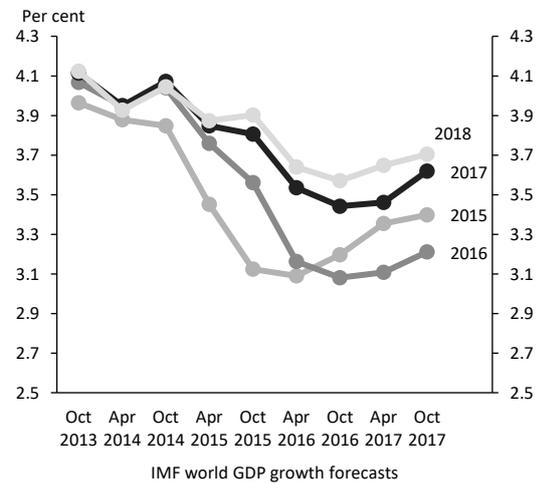


Figure 4: Progress on 2014 commitments

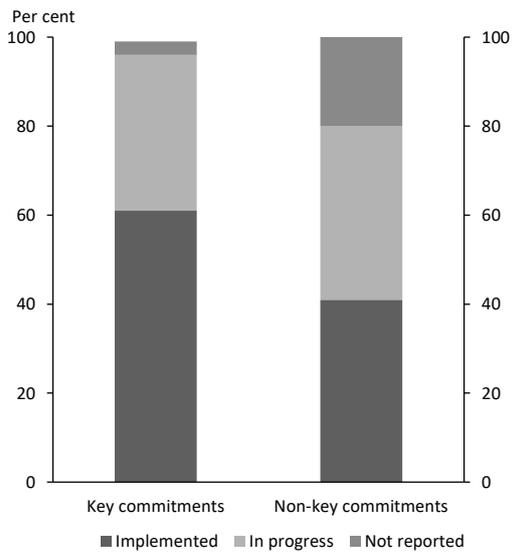


Figure 5: Likely shares of the 2 per cent growth goal based on shares of G20 GDP

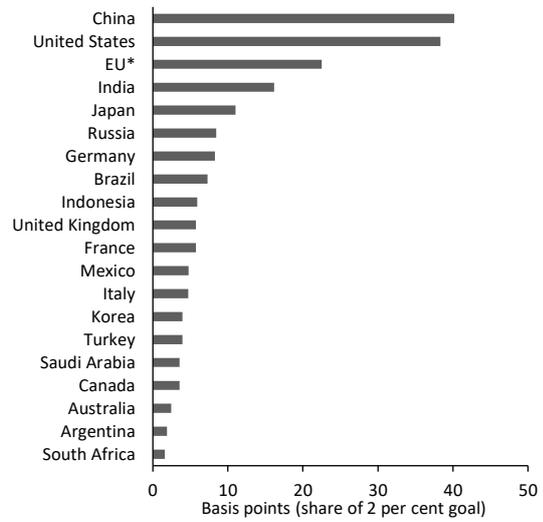


Figure 6: Progress on the new 2 per cent goal

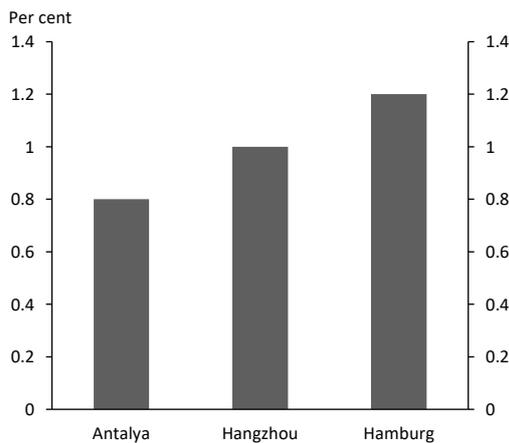
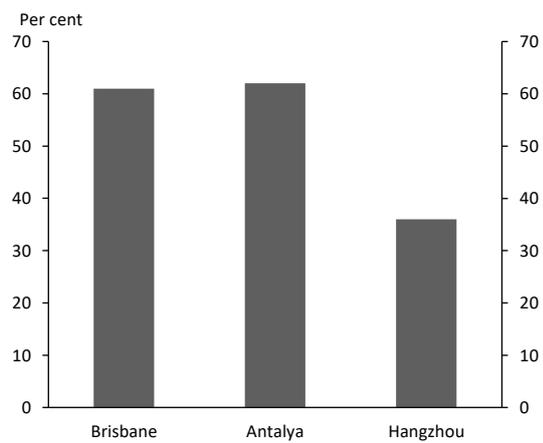


Figure 7: Progress on implementing 2014-2016 commitments



Source: IMF World Economic Outlook database, October 2017 (Figures 6, 7 and 9); OECD, 2014 (Figure 8) and G20 Framework Working Group, 2017 (Figures 10 and 11).

Figure 8: Investment by sector in Japan

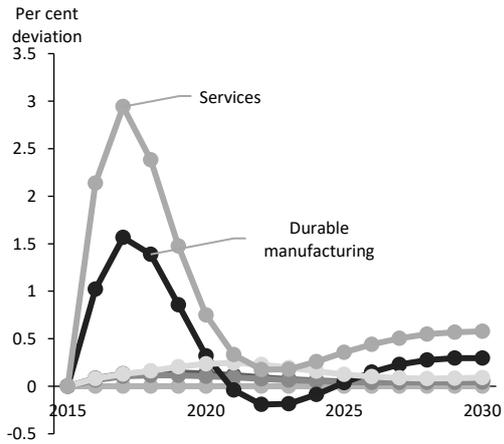


Figure 9: Production in Japan by sector

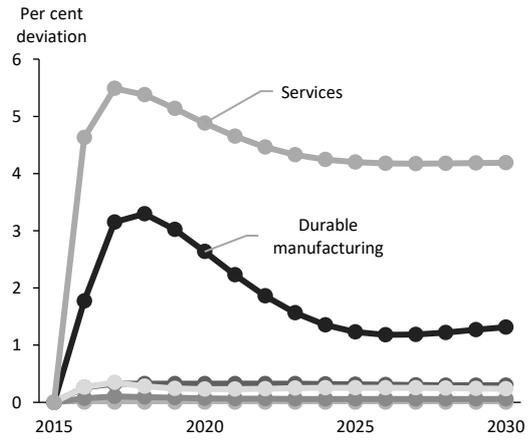


Figure 10: Japanese investment

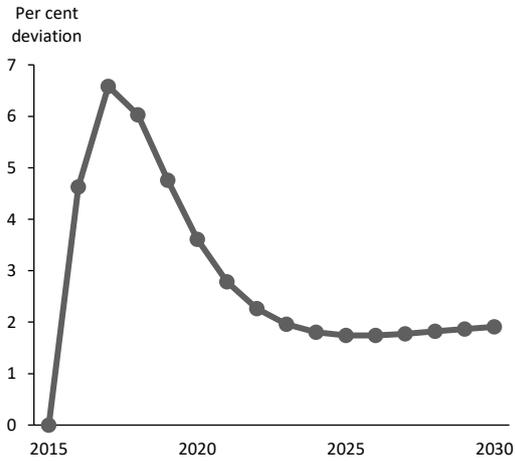


Figure 11: Japanese consumption

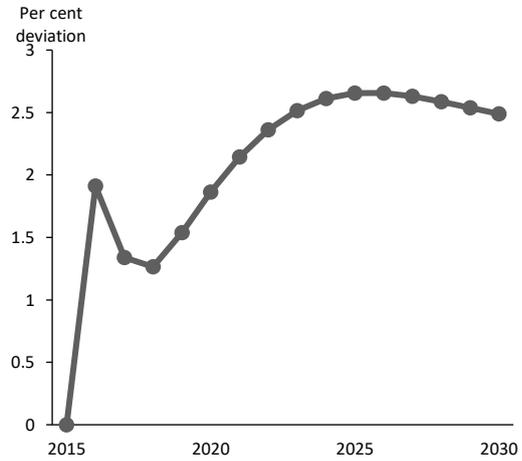


Figure 12: Japanese trade balance

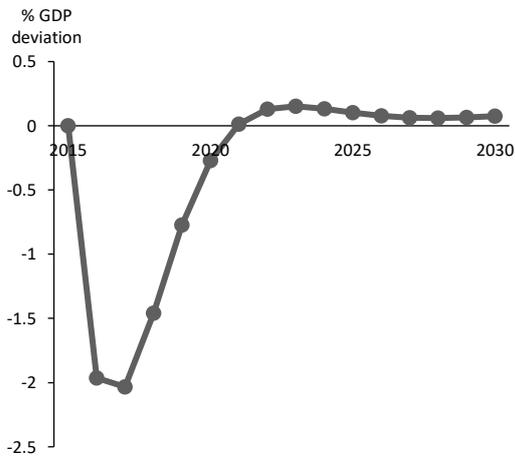


Figure 13: Japanese GDP

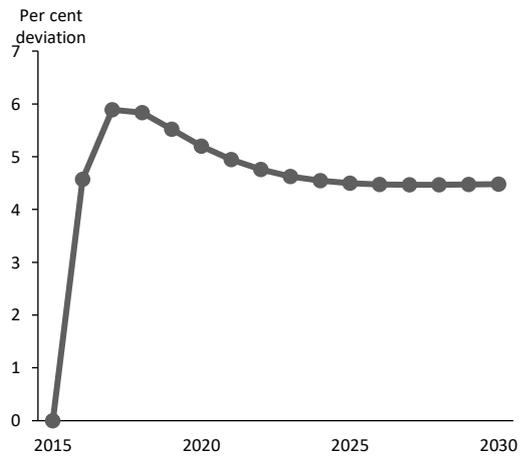


Figure 14: Domestic resources production

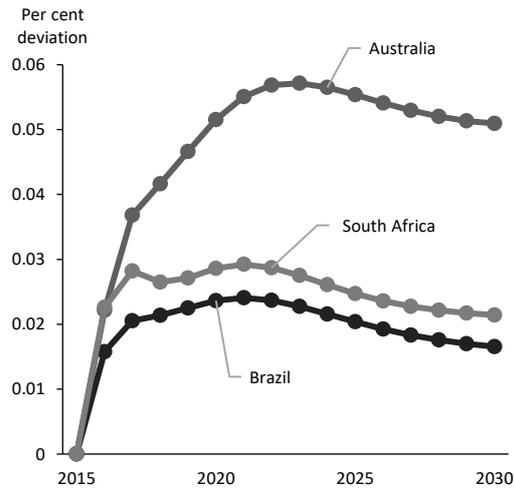


Figure 15: Domestic energy production

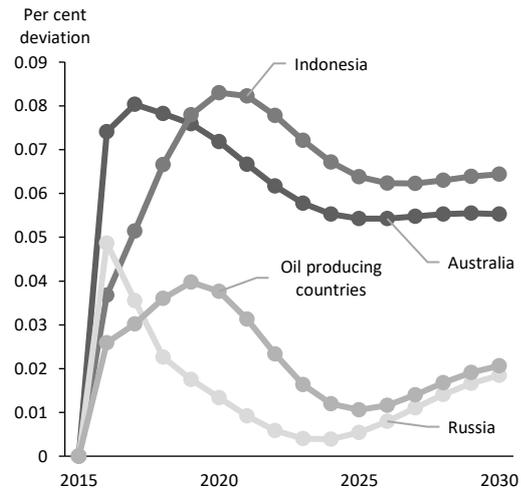


Figure 16: Trade balance

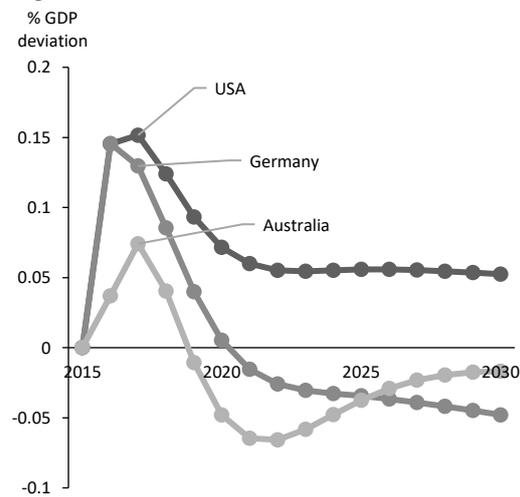


Figure 17: Investment

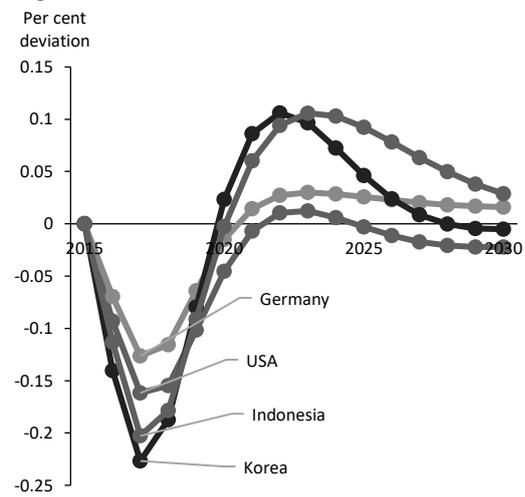


Figure 18: GDP: Australia and Indonesia

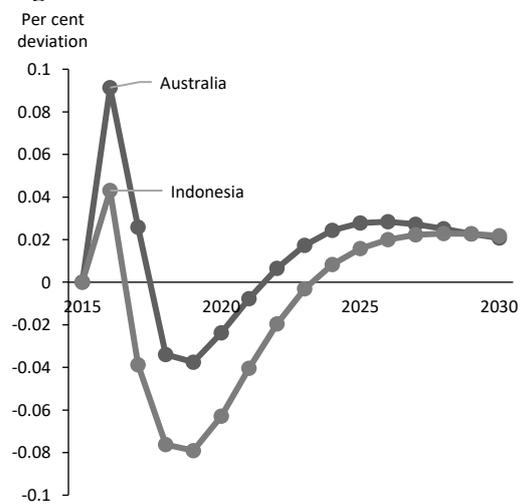


Figure 19: GDP: US, Germany and India

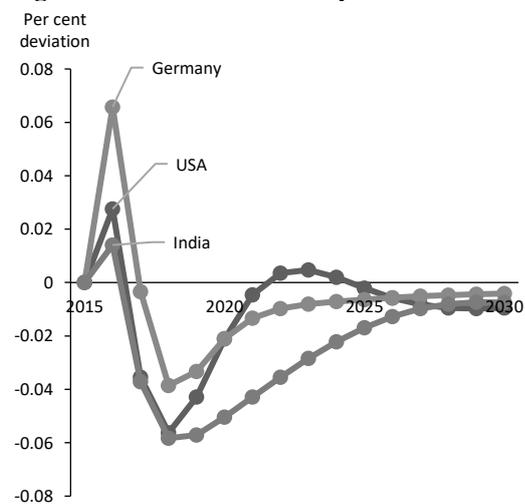


Figure 20: The average GDP impact for other G20 countries from structural reform in Japan

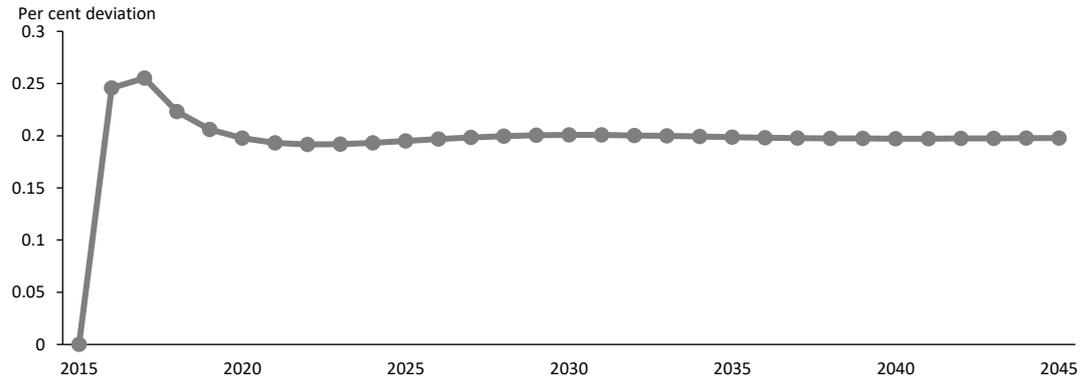


Figure 21: Japan production with and without G20 coordination

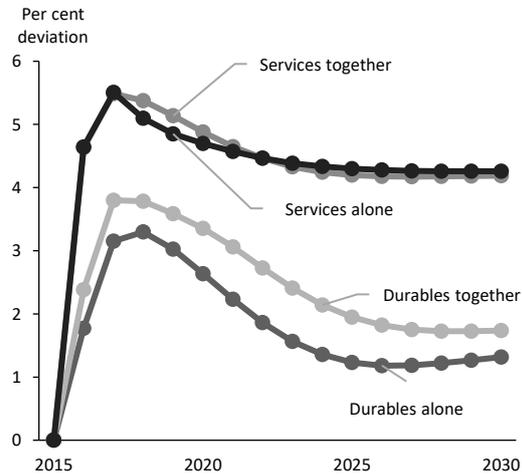


Figure 22: Japan investment with and without G20 coordination

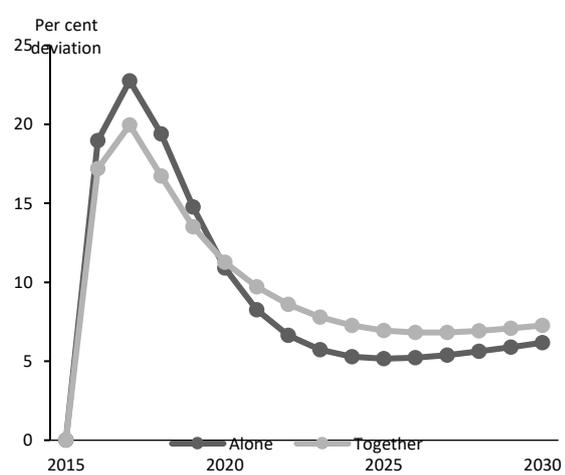


Figure 23: Japan trade balance with and without G20 coordination

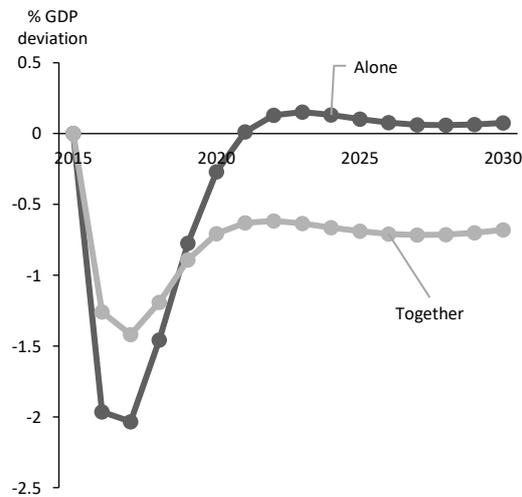


Figure 24: Japan GDP with and without G20 coordination

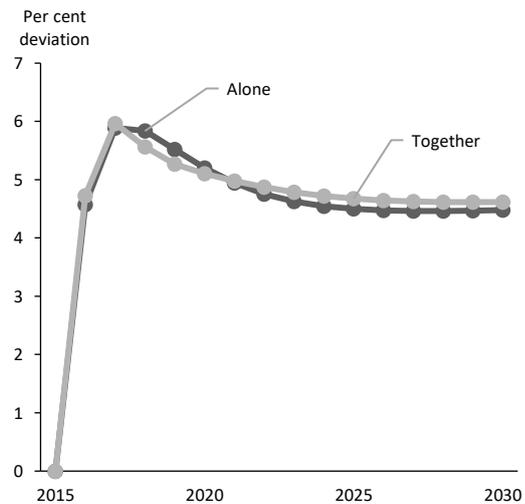


Figure 25: The difference between reforming together versus reforming alone (% impact on GDP)

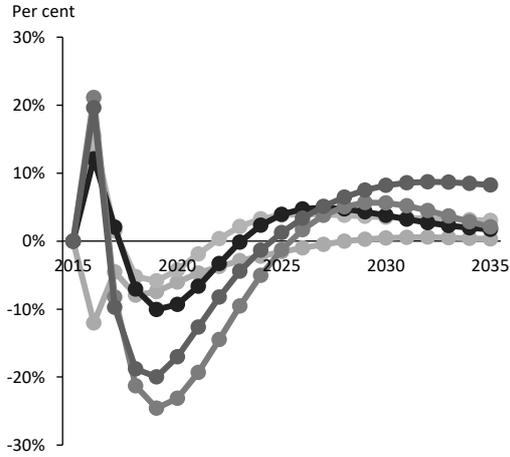


Figure 26: The difference between reforming together versus reforming alone (% impact on GDP)

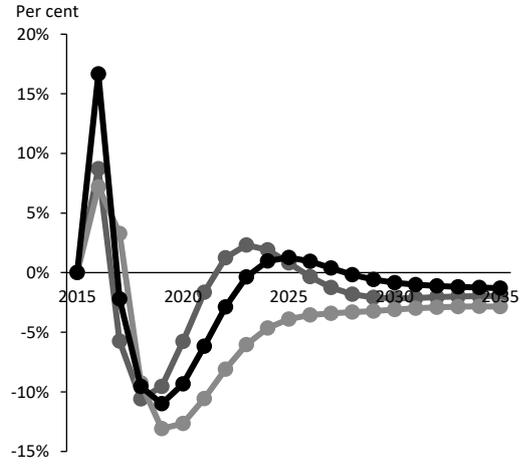


Figure 27: The difference between reforming together versus reforming alone (percentage impact on GDP, average across G20 countries)

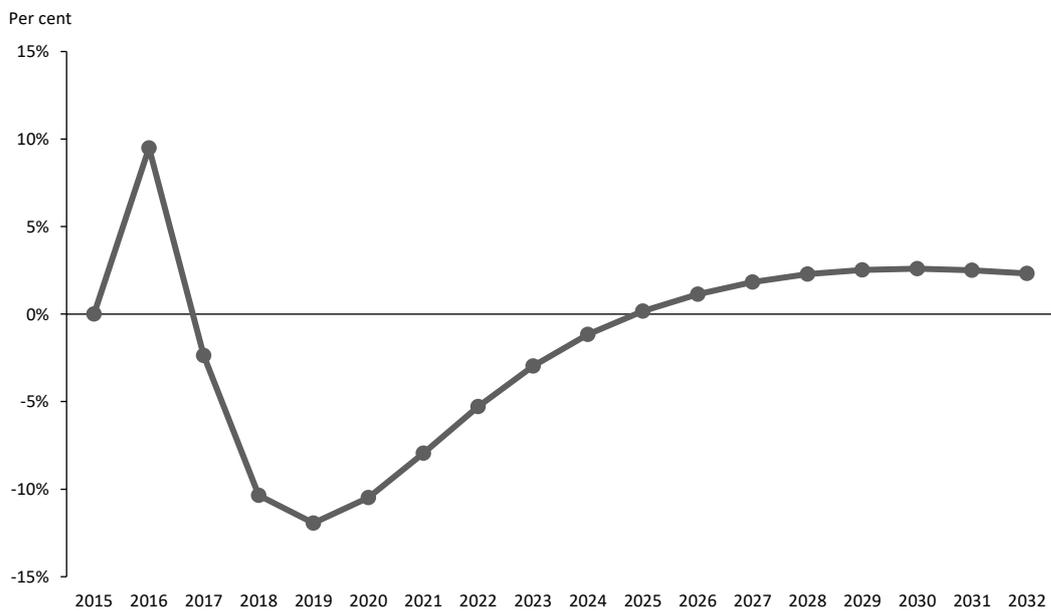


Figure 28: Why the structural reform agenda was seen to be successful by most countries

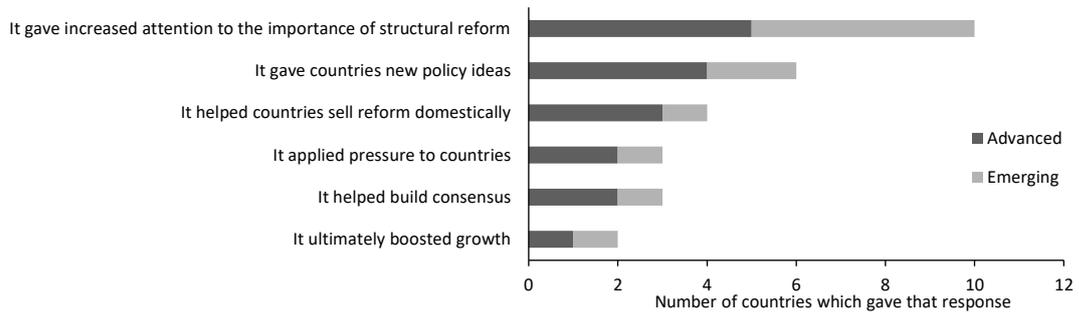


Figure 29: Unsuccessful aspects of the G20's agenda

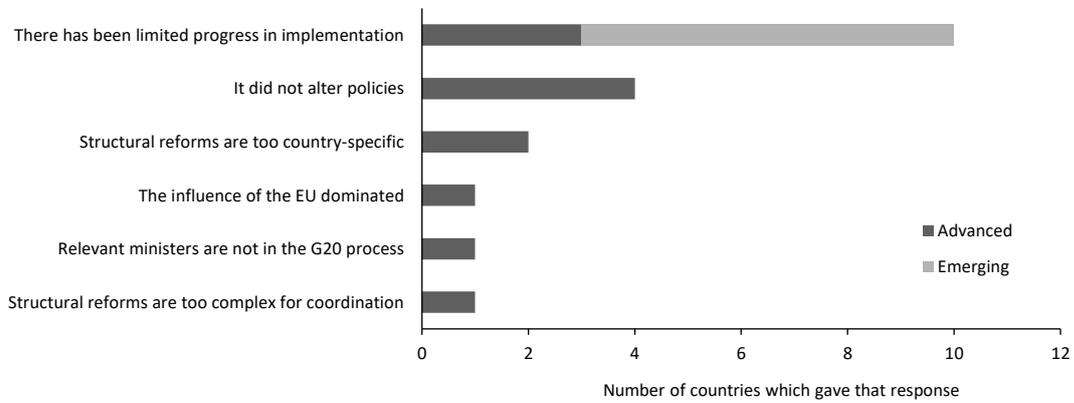


Figure 30: Why the G20 influences structural policies in some countries

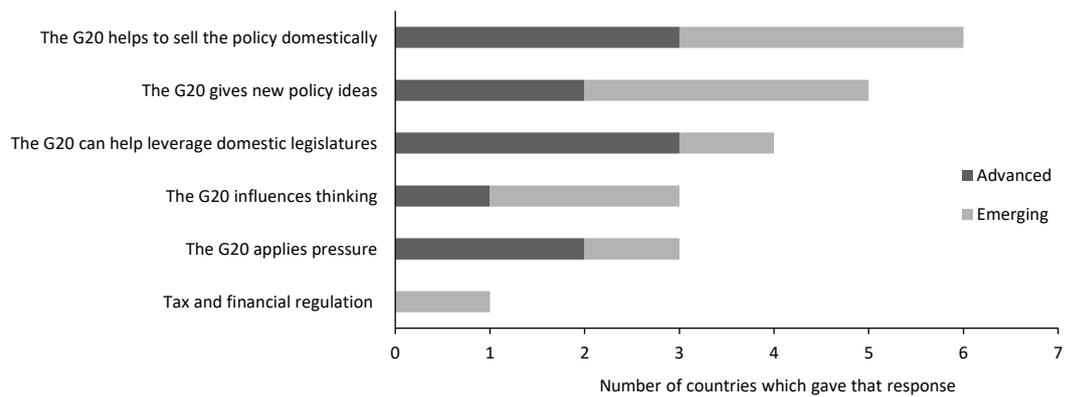


Figure 31: Why the G20 does not influence structural policies in some countries

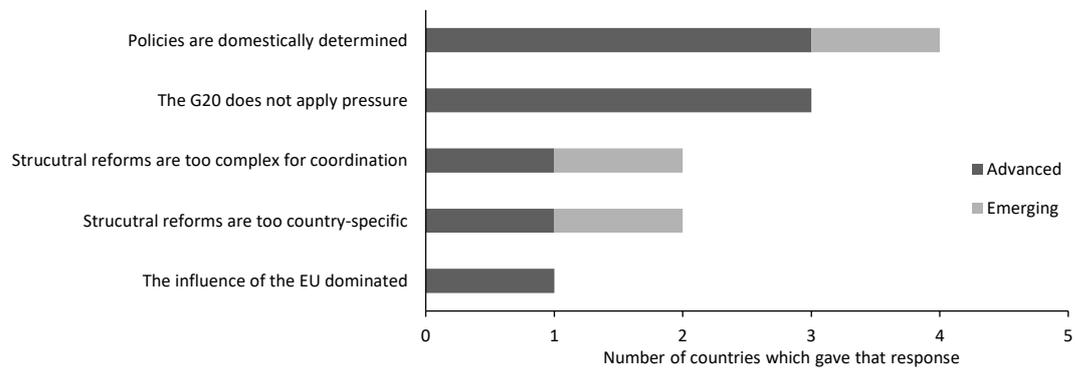


Table 1: Overview of the G-Cubed (G20) model

<u>Countries (20)</u>	<u>Regions (4)</u>
Argentina	Rest of the OECD
Australia	Rest of Asia
Brazil	Other oil producing countries
Canada	Rest of the world
China	
Rest of euro zone	<u>Sectors (6)</u>
France	Energy
Germany	Mining
Indonesia	Agriculture (including fishing and hunting)
India	Durable manufacturing
Italy	Non-durable manufacturing
Japan	Services
Korea	
Mexico	<u>Economic Agents in each Country (3)</u>
Russia	A representative household
Saudi Arabia	A representative firm (in each of the 6 production sectors)
South Africa	Government
Turkey	
United Kingdom	
United States	

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Appendix A - In-depth interviews methodology

The population for this research – referring to the group that the research intends to generalise its findings across – is summarised in Table A1. It can be organised by G20 stream (left to right) and by seniority (top to bottom), multiplied by 20 countries. The objective of this research was to interview the most senior policymakers possible in each G20 stream from each G20 country. This implies a total sample of 60 individuals. This minimises bias by ensuring representation across all countries and streams of the G20 given different streams often have different areas of responsibility and expertise.

Table A1: The theoretical population for the research

Leaders stream	Finance ministers stream	Central bank governors stream
Leaders	Finance ministers	Central bank governors
Sherpas (advisors to leaders)	Finance deputies	Central bank deputies
Sous-Sherpas	Finance deputy deputies	Central bank deputy deputies
Other officials	Other officials	Other officials

In total, 61 policymakers were interviewed. Table A2 shows the size of the sample and how it is distributed across countries and workstreams. The identities of the policymakers who participated in this research are confidential, except for where they have been directly quoted. All quotes have been approved by those to whom they are attributed.

There are debates in the literature on the appropriate sample size when undertaking in-depth interviews, but a sample of 61 is more than adequate given the specialised nature of this research and the unique position of the policymakers.⁵

Although interviewing multiple policymakers within a country is vital to reducing potential bias (see Baxter and Eyles (2010) on the importance of ‘triangulation’) the downside is that some countries are overrepresented in the sample (E.g. Australia). To address this, the accounts of policymakers are aggregated by country. Aggregation, however, requires that there be no significant disagreement between the policymakers within a country. This turned out to be the case. It was only in rare circumstances that the accounts of policymakers differed within the same country. Where inconsistencies did arise, they were addressed through follow-up conversations and through a weighting system based on the policymaker’s area of expertise (e.g. monetary policy), the time in which they served and their seniority.⁶

⁵ As summarised by Dorkin (2012), the concept of ‘saturation’ is the most important guide in determining the appropriate sample size (see also Mason, 2010). Saturation is defined as the point at which the data collection process no longer offers any new or relevant data or “when gathering fresh data no longer sparks new theoretical insights, nor reveals new properties of your core theoretical categories” (Charmaz, 2006, p. 113). Many factors are important in determining the appropriate size of a sample, including the quality of data, the scope of the study, the nature of the topic, the nature of the individuals being interviewed, the amount of useful information obtained from each participant and the qualitative method and study designed used (Morse, 2000).

⁶ First, the accounts of policymakers who worked within the relevant G20 work-stream were given preference over the accounts of policymakers who did not work in that policy stream. The accounts of central bank governors, for example, were given greater weight on the topic of monetary policy than the

Finally, a challenge of any qualitative research is in standardising the data so that it can be reported in a way that is accurate but also digestible. This paper uses the commonly used technique, detailed by Diccico-Bloom and Crabtree (2006), referred to as an ‘editing approach’. This is where the investigator reviews and identifies themes and text segments much as an editor does in organising text.⁷ This allows the results, reported in the sections that follow, to be partially standardised, complemented with direct quotes to flesh out what policymakers meant by their responses.

Table A2: Sample distribution for the interviews of G20 politicians and officials

Country	Total	G20 work stream		
		Leader	Finance	Central bank
Argentina	2	2		
Australia	9	4	3	2
Brazil	1			1
Canada	3	1	1	1
China	2	1		1
European Union	3	1	1	1
France	2	1		1
Germany	3	1	1	1
India	3	1	1	1
Indonesia	2	1	1	
Italy	4	1	1	2
Japan	2			2
Mexico	1	1		
Korea	2		1	1
Russia	3	1	1	1
Saudi Arabia	1	1		
South Africa	3	1	1	1
Turkey	2	1		1
United Kingdom	7	2	2	3
United States	6	2	2	2
Total	61	23	16	22

accounts of Sherpas. Second, the accounts of policymakers who worked on the G20 at the time that an issue was discussed were given preference over the accounts of policymakers who did not work on the G20 at that time. For example, the accounts of finance ministers who were present for the fiscal stimulus discussions in 2009 were given preference over the accounts of finance ministers who worked on the G20 at a later date. Third, the accounts of more senior policymakers were given preference over the accounts of less senior policymakers. The view of a central bank governor, for example, was given preference over the view of a central bank deputy.

⁷ A team from Ontario, Canada used this strategy to apply more than 100 codes in a study to understand the smoking experience and cessation process (see Diccico-Bloom and Crabtree, 2006).