Quantifying the Implementation and Impact of G-20 Members' Growth Strategies

This note provides an estimate of G-20 members' progress towards implementing structural reform and public infrastructure investment commitments. In 2014, G-20 members agreed to develop Growth Strategies with the ambition to raise the level of their combined GDP by more than 2 percent by 2018.[1]This progress estimate uses the same IMF-OECD methodology as previous years to quantify the impact of the policy measures, accounting for productivity and labour supply effects, as well as demand and supply responses and international spillovers.

In Spring 2017, the IMF, OECD and World Bank Group (WBG) jointly assessed whether the Key Commitments in the Brisbane, Antalya and Hangzhou Growth Strategies have been fully implemented, if implementation is in progress, if there is no or only limited progress on implementation, or if implementation has been abandoned.

This assessment suggests that just around 60% of the Key Commitment measures in the Comprehensive Growth Strategies at the Brisbane Summit as well as in the Adjusted Growth Strategies at the Antalya Summit have been fully implemented. Only around a third of the Key Commitment measures in the Adjusted Growth Strategies at the Hangzhou Summit have been fully implemented yet. While recognizing the high degree of uncertainty entailed in quantifying the impact of members' policies, these implemented measures are estimated to raise G-20 GDP by around 1.2 percent by 2018. Most other measures are assessed as "in progress" and are subject to implementation risks. Should the remaining in-progress commitments and Hangzhou Growth Strategy commitments be fully implemented in 2018, a highly optimistic assumption, this is estimated to increase G-20 GDP in total by roughly 1.4 percent in 2018.

Assessing G-20 Growth Strategy Key Commitments

The IMF-OECD-WBG have jointly assessed progress on the implementation of G-20 members' Key Commitments from the Brisbane, Antalya and Hangzhou Growth Strategies. This included measures in the areas of investment, employment, trade and competition. The Key Commitments cover over 650 structural policy commitments from the more than 1700 in the Growth Strategies proposed by members at Brisbane, Antalya and Hangzhou.

Measures have been assessed as either: fully implemented; in progress; showing no/limited progress or abandoned.[2] Implementation is measured in terms of the necessary legislation or administrative measures that are needed for carrying out the commitments. The share of Brisbane Key Commitments assessed as fully implemented has increased to 61 percent from 55 percent at the 2016 Hangzhou summit and 49 percent at the end of 2015. For the Antalya Key Commitments, 62 percent were assessed as fully implemented, while 45 percent were fully implemented at the 2016 Hangzhou summit. The Hangzhou Key Commitments were

[1] Quantifying the Impact of G-20 Members' Growth Strategies Note, November 2014
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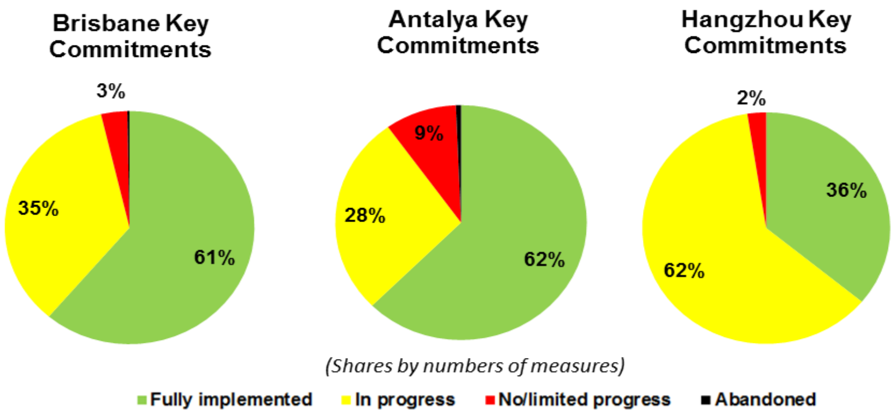
[2] G-20 members have provided feedback on the joint IMF-OECD-WBG implementation assessment.

assessed as having 36 percent fully implemented. The measures that are assessed as "in progress" continue to be subject to risks and uncertainty concerning future implementation.[3]



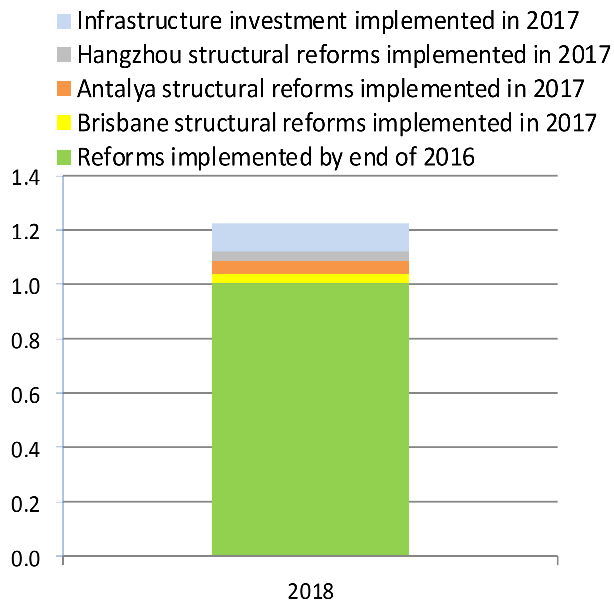
Estimating the Impact on G-20 Output

The methodology used to estimate the GDP impact of implemented, in progress, and new Growth Strategy measures in 2017 was the same that was used to quantify the impact of the Brisbane Growth Strategies (see Annex for details). OECD estimates of the impacts of the structural policy measures on productivity and labor supply are combined with the infrastructure investment spending commitments in the IMF's G-20 Model to estimate the overall increase in GDP, accounting for demand and supply responses as well as international spillovers. Only the policy commitments assessed as new in each year are included.

The fully implemented policy commitments in members' Brisbane, Antalya, and Hangzhou Growth Strategies are estimated to increase G-20 GDP by around 1.2 percent by 2018. This is, slightly higher than the 1.0 percent estimated from Brisbane and Antalya commitments that had been fully implemented by the end of 2016. The largest contribution to the 0.2 percent increase in G-20 GDP from measures implemented in 2017 is from infrastructure spending, followed by the impact of Antalya structural reform commitments. Brisbane and Hangzhou structural reform measures implemented in 2017 also make a small contribution.

GDP Impact of Measures Assessed as Implemented in 2017

(Percent deviations from baseline)

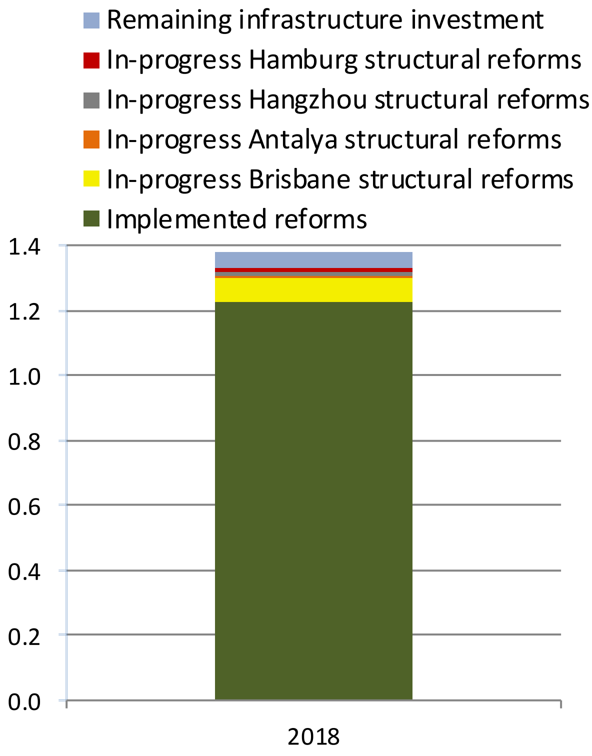


[3] The commitments from the Antalya, Hangzhou and Hamburg Growth Strategies were also assessed if they were new compared to previous Growth Strategies since the Brisbane summit in 2014. This assessment determined whether a commitment is a new initiative, an adjustment or duplicate of a previous commitment. This year 67% of Hamburg Growth Strategies measures have been assessed as "new".

The increase in G-20 GDP by 2018 could be boosted if significant progress was made on implementing the in-progress Brisbane, Antalya, Hangzhou commitments and the new Hamburg Growth Strategy commitments. Assuming that all of these "in-progress" measures were fully implemented in 2018, which is highly unlikely, but a useful reference point, G-20 GDP would be boosted by roughly a further 0.2 percent in 2018. The largest contribution to this increase comes from implementing the remaining in-progress Brisbane structural reform measures.

GDP Impact of Implemented and In-Progress Measures

(Percent deviations from baseline)



Annex: Quantifying the GDP Impact of G-20 Members' Growth Strategies

The IMF-OECD approach to quantifying the impact of G-20 Members' Comprehensive Growth Strategies delivered to the Brisbane Summit covered only new measures since the St. Petersburg commitments, as assessed by the IMF and OECD. Commitments were assessed as new if they were neither explicitly included in the St. Petersburg commitments nor factored into the October 2013 WEO baseline projections nor well-advanced by September 2013.

Measure in countries' Growth Strategies were divided into five key areas:

- Product market reforms, including trade related measures;
- Labor market reforms;
- Expenditures on research and development;
- Tax reforms; and
- Expenditures on public infrastructure.

The impact of the new measures in the first four policy areas on either *productivity* or long-run *labor supply* were estimated using an OECD assessment of the impact of structural reform commitments, derived by assessing - where possible - the changes that commitments imply for policy indicators, such as the OECD's Product Market Regulation (PMR) indicator of the competition-friendly stance of market regulation. OECD estimates of the long-run supply-side impact of reforms were then used to derive initial impacts, allowing in some cases for reforms to be phased in.[5]

To fully capture the demand, supply and international spillovers affects, the estimated increases in *productivity* and long-run *labor supply* for each G-20 country were then introduced into the IMF's G-20 Model (G20MOD)[6] along with the increases in public expenditure on infrastructure. In the model, higher infrastructure spending raises the level of the public capital stock which in turn lifts the productivity of the private capital stock. Private investment in each individual country in the model then rises in response to the increases in productivity and labor supply. As a result, each country's long-run potential output rises owing to higher productivity, a larger employed labor force, and more private capital. In each individual G-20 country, household incomes rise owing to higher real wages and more employment and this, along with increased investment demand, leads to an increase in demand for exports from other countries. Higher demand for their exports further raises the return to capital in those countries, prompting even more investment and thereby further strengthening demand and adding to the increase in long-run supply potential.

[5] The basic OECD framework of indicators and empirical estimates is that used for the OECD's *Going for Growth* report (OECD, 2014). The key empirical relationships are based on papers by Bassanini and Duval (2006 and 2009) and Bourlès, Cette, Lopez, Mairesse and Nicoletti (2010).
[6] See IMF Working Paper No. 15/64 "The Flexible System of Global Models – FSGM," which documents the structure and properties of G20MOD.