DRAFT

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 is based on the same IMF-OECD methodology as previous years to quantify the overall impact of the policy measures, taking into account productivity and labour supply effects, as well as demand and supply responses and international spillovers.*

In August 2016, the IMF, OECD and World Bank Group (WBG) jointly assessed whether the Key Commitments in the Brisbane and Antalya Growth Strategies have been fully implemented, if implementation is in progress, or if there is no or only limited progress on implementation.

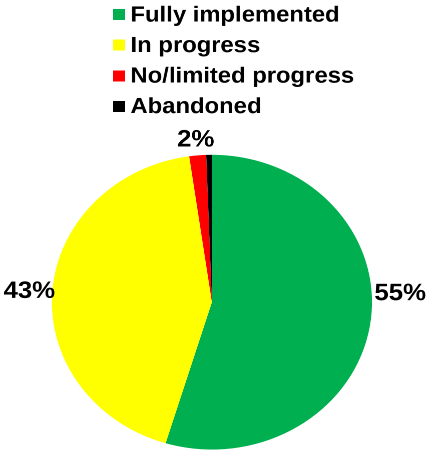
This assessment suggests that just over half of the Key Commitment measures in the Comprehensive Growth Strategies at the Brisbane Summit have been fully implemented and slightly fewer than half of the Key Commitment measures in the Adjusted Growth Strategies at the Antalya Summit have been fully implemented. 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 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 2017, this is estimated to increase G-20 GDP in total by roughly 1.5 percent in 2018.

Assessing G-20 Growth Strategy Measures

The IMF-OECD-WBG have jointly assessed progress on the implementation of G-20 members' Key Commitments from the Brisbane and Antalya Growth Strategies, including in the areas of investment, employment, trade and competition. The Key Commitments cover over 500 individual structural policy commitments from the more than 1400 in the Growth Strategies proposed by members at Brisbane and Antalya.

Brisbane Key Commitments

(Share by number of measures)



Measures have been assessed as either: fully implemented; in progress; or showing no/limited progress.[2] IMF country teams have separately assessed

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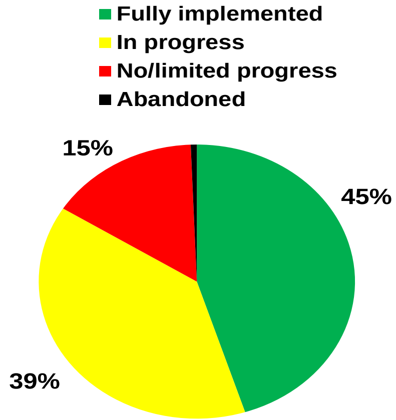
[2] G-20 members have provided feedback on the joint IMF-OECD-WBG implementation assessment.

progress on infrastructure investment. 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 55 percent from 49 percent at the end of 2015. For the Antalya Key Commitments, 45 percent are assessed as fully implemented. The measures that are assessed as "in progress" continue to be subject to risks and uncertainty concerning future implementation.[3]

Antalya Key Commitments

(Share by number of measures)



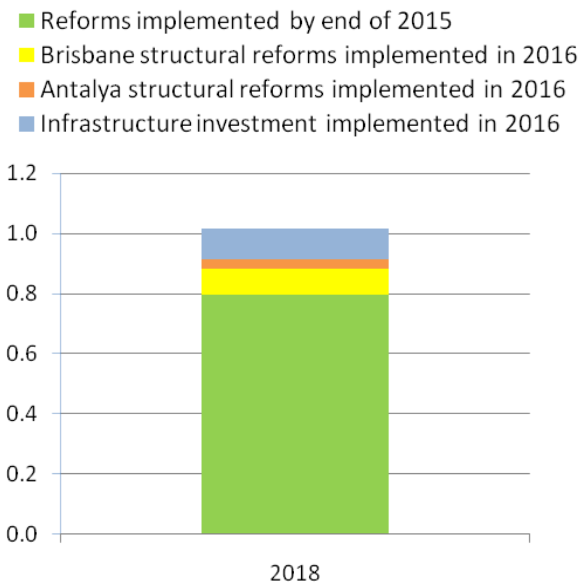
Estimating the Impact on G-20 Output

The methodology used to estimate the GDP impact of implemented, in progress, and new Growth Strategy measures in 2016 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 and Antalya Growth Strategies are estimated to increase G-20 GDP by around 1 percent by 2018. This is, slightly higher than the 0.8 percent estimated from Brisbane commitments that had been fully implemented by the end of 2015. The largest contribution to the 0.2 percent increase in G-20 GDP from measures implemented in 2016 is from infrastructure spending, followed by the impact of Brisbane structural reform commitments. Antalya structural reform measures implemented in 2016 also make a small contribution.

GDP Impact of Measures Assessed as Implemented in 2016

(Percent deviations from baseline)

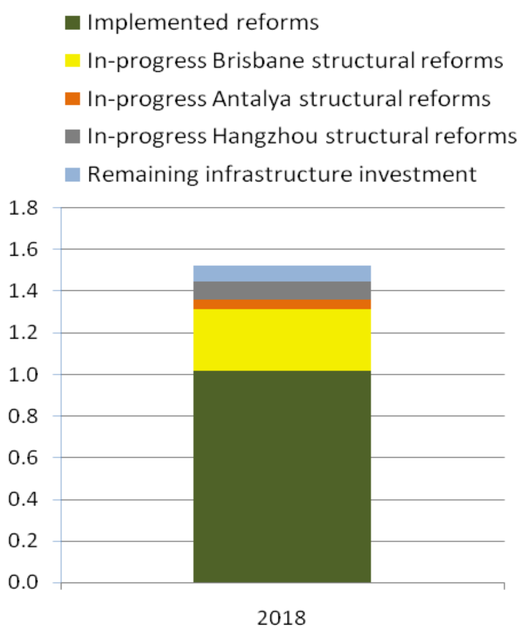


[3] The Key Commitments from the Antalya Growth Strategies were also assessed if they were new compared to the Brisbane Growth Strategies, and the Hangzhou Growth Strategy commitments were assessed if they were new compared to the Antalya and Brisbane Growth Strategies. This assessment determined whether a commitment is a new initiative, or if it is an adjustment or duplicate of a previous commitment. 56% of the Key Commitments from the Antalya Growth Strategies and 63% of the commitments in the Hangzhou Growth Strategies were assessed as new.

The increase in G-20 GDP by 2018 could be boosted if the in-progress Brisbane and Antalya commitments and the new Hangzhou Growth Strategy commitments were fully implemented in 2017. Adding the impact of fully implementing these commitments in 2017 would raise the estimated impact on G-20 GDP to around 1.5 percent by 2018.[4] The largest contribution to this increase comes from implementing the remaining in-progress Brisbane structural reform measures. The Antalya and Hangzhou in-progress structural reform measures and planned infrastructure spending make further contributions to the additional increase in G-20 GDP by 2018.

GDP Impact of Implemented and In-Progress Measures

(Percent deviations from baseline)



[4] This excludes the direct demand effects of infrastructure spending in 2018 that members have committed to in their Growth Strategies. Including the direct demand effect will be further considered next year.

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.