

GROWTH DIAGNOSTICS ¹

- Trend growth slowed since around 2010, associated with challenges in productivity growth, physical and human capital accumulation, and business environment.
- Cyclical factors also contributed to the growth slowdown in the last few years, including the conflict in neighboring South Sudan and a recent drought.
- Reinvigorating growth requires balancing infrastructure investment with human capital investment and improving the business environment to better support the private sector and economic diversification.

A. Introduction

1. Uganda has achieved strong growth in the previous two decades. Real GDP growth averaged 8 percent per year in 1995-2010, raising per capita GDP by about 4 percent per year.² The peace dividend since the post-conflict stabilization in the mid-1990s stimulated strong agricultural production and investments for reconstruction (e.g., DFID 2015, World Bank 2016b). Substantial aid flows during the post-conflict recovery also supported investments and public service delivery. More low-skill jobs became accessible during the reconstruction, further boosting income of the poor. In addition, a wave of structural reforms in the 1990s, including abolishing marketing boards, liberalizing the financial sector, and privatizing public enterprises significantly improved productivity (World Bank 2016a). However, some of the productivity gains could represent a one-off move toward the production possibility frontier.

2. The growth record contributed to Uganda's strong progress in poverty reduction. Extreme poverty was more than halved from about 87 percent in 1990 to 34.6 percent in 2013 under the international poverty line (Figure 1), 6 percentage points lower than the Sub-Saharan Africa average. Uganda met the respective Millennium Development Goal early.³ Nevertheless, further progress in reducing poverty is needed. The poverty elasticity of growth in Uganda is estimated about 0.8 (Figure 2), which means that each percentage of per capita

¹ Prepared by Martin Brownbridge (Bank of Uganda) and Larry Qiang Cui. Bertrand Gruss provided valuable inputs, and Tunc Gursoy provided excellent research assistance.

² Uganda Bureau of Statistics (UBOS) rebased GDP data from FY2009/10 onward in 2014, but not on historical series, and thus the results should be taken with caution. Recent BoU analysis suggest the average real GDP growth rates could be one percentage point lower if measured on the new base.

³ Based on the World Bank's 2016 Uganda Poverty Assessment Report. The poverty rate refers to poverty headcount ratios measured by the international poverty line of 2011 international PPP\$1.9 per day. Under the national poverty line, the poverty ratio declined from 56.4 percent in 1993 to 19.7 percent in 2013, but the national poverty line was set two decades ago.

GDP growth is associated with a reduction of extreme poverty by 0.8 percentage points. The elasticity estimate is below the SSA average of 1.1. This suggests that raising the growth rate is important, while more can also be done to make growth more inclusive.

3. Trend growth has slowed since 2010 (Figure 3). In 1995-2010, average annual trend growth in Uganda was higher than that of SSA average and of EAC peers. Since 2010, however, trend growth has declined from about 7½ percent to 4 percent.⁴ While this decline is largely in sync with the Sub-Sahara Africa average, it decoupled from the growth momentum of EAC peers—Kenya, Rwanda, and Tanzania, which have continued strong trend growth of 6½ percent.

<p>Figure 1. Progress in Reducing Poverty: Uganda vs. Peers</p> <p>Poverty headcount ratio (in percent, international poverty line)</p>	<p>Figure 2. Elasticity of Poverty Reduction of Growth: Uganda vs. SSA*</p> <p>(percentage point)</p>
<p>Sources: World Development Indicators database and IMF staff calculations.</p>	<p>Sources: R. Ram (2013), World Bank Povnet database, and IMF staff calculations. * Calculations for Uganda were based on the international extreme poverty line of PPP\$1.99 per day.</p>
<p>Figure 3. Trend Growth: Uganda vs. Peers *</p> <p>Real GDP Trend Growth</p>	<p>Figure 4. External Factors' Impact on Growth</p> <p>(percentage points, growth in PPP\$ terms)</p>
<p>Source: IMF staff estimates. *Based on HP filter applied to calendar year annual growth; EAC-3 refers to simple averages for Kenya, Rwanda, and Tanzania.</p>	<p>Source: IMF staff estimates based on Chapter 2 in IMF (2017b).</p>

⁴ The literature indicates that such HP filter estimates are subject to potential bias of end-year observations. Nevertheless, an alternative multivariate Kalman filter approach finds a similar decline of the estimated trend growth from about 7 percent to 4 percent in the same period.

B. External Factors

4. External factors have been largely supportive to growth (Figure 4). An analysis based on IMF (2017b) showed that external factors⁵ have positively supported Uganda's per capita GDP growth in 2000-2014, when the trend slowdown started. Three main external factors are external demand, external financing conditions, and terms of trade changes. The external financial condition has had a positive and rising impact in the last decade. The estimated impact on Uganda's per capita GDP growth was about $\frac{3}{4}$ percentage point (ppt) in 1995-99, increasing to about $1\frac{1}{4}$ ppts in 2010-14. Second, the external demand is also estimated to have had a positive impact. The estimate was $1\frac{1}{2}$ ppts in 1995-99, declined to about 1 ppt in 2000-04, and remained at about $1\frac{3}{4}$ ppts throughout 2005-14. Third, the terms of trade have had a negative but marginal impact, and the size of the negative impact has become smaller in the last five years than in 2000-04. Thus, external factors cannot explain the trend growth decline in 2010-14. The following analyses further examine what other factors could explain the slowdown of the trend growth, starting from productivity growth and then continuing with factor contributions.

C. Productivity Trends

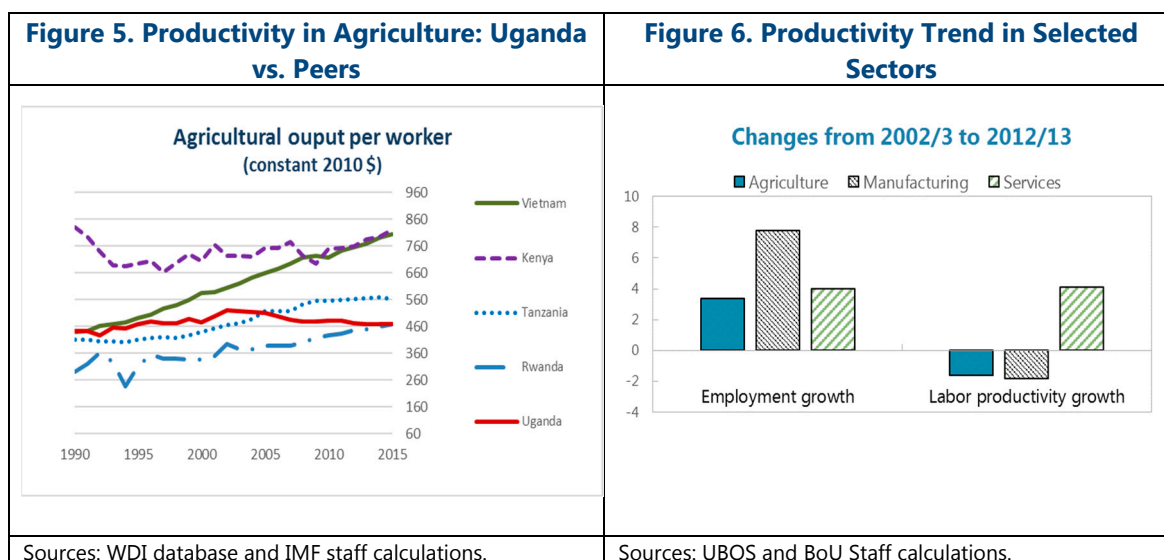
5. Uganda's agricultural productivity has declined since the early 2000s, while that of fast-growing peer countries continued to rise. Agriculture employed about 70 percent of the labor force, and thus it has a significant impact on overall productivity and poverty reduction. Uganda's agricultural output per worker recorded a steady rise between 1990s and early 2000s, but then started to decline (Figure 5). In contrast, the average agricultural output per worker in other major EAC countries has largely continued to rise. Uganda's Ministry of Finance, Planning and Economic Development (MoFPED) (2014) find that the dominance of small-holder farms coupled with weak agricultural extension services likely contributed to the decline in agricultural productivity.

6. More recent survey data also indicate productivity decline in agriculture and manufacturing sectors. A recent Bank of Uganda (BoU) analysis finds that productivity in agriculture and manufacturing sectors declined by about 2 percentage points between 2002/03 and 2012/13 even though both sectors experienced positive employment growth (Figure 6).⁶ In addition, the MoFPED (2014) finds that sub-sectors that experienced employment growth were those with low productivity, such as retail trade and agriculture, while high productivity sectors (e.g., manufacturing, transport and communication) had lower

⁵ The estimates on the impact of the external factors are based on cross-country panel regressions and applied to Uganda. External demand conditions are measured by the export-weighted growth rate of domestic absorption of Uganda's trading partners. External financing conditions are proxied by a quantity-based measure of capital flows to peer developing economies in Africa. The terms of trade refer to commodity price changes weighted by their shares in a country's total trade. See chapter 2 of IMF (2017b) for details.

⁶ The sectoral productivity growth rates need to be treated with caution because the classification of occupations in the labor force modules of the household surveys may not have been consistent with GDP classifications to support consistent estimates over time.

employment growth. Such a pattern of higher employment growth in lower productivity sectors would further reduce the economy-wide productivity. The shift of more labor to less productive sectors also undermines structural transformation as documented in some African countries (e.g., McMillan and others, 2014). In contrast, during the high growth period of the 1990s, about 90 percent of Uganda's growth could be attributed to productivity growth (e.g., Kasekende and others, 2004), benefiting from the initial market-liberating reforms. Therefore, productivity decline is likely a major domestic contributor to the growth slowdown.

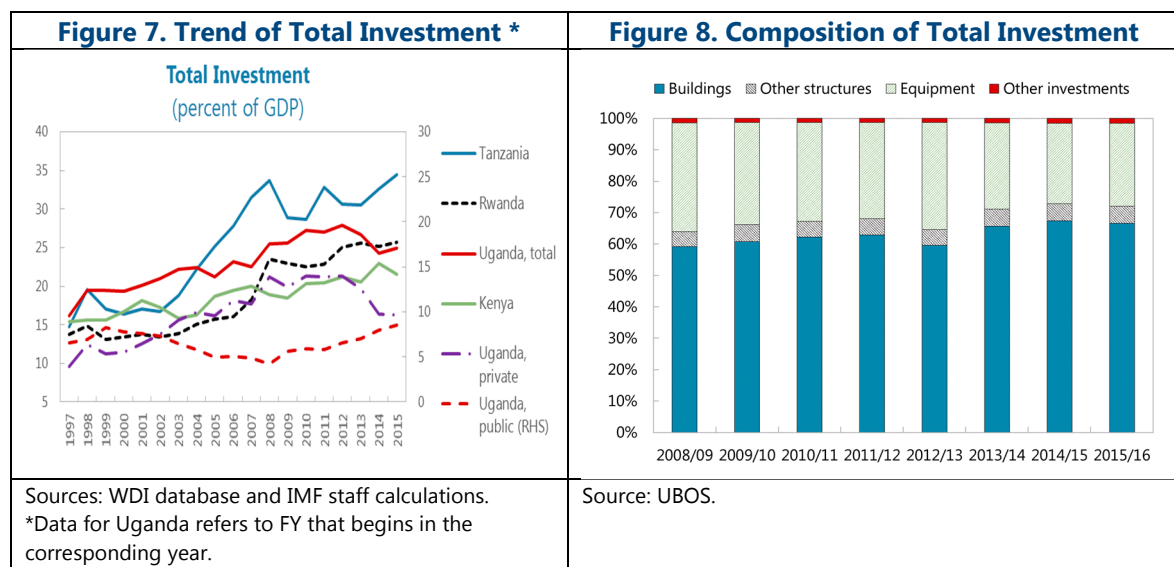


D. Physical Capital Contribution

7. Uganda's physical capital accumulation has slowed in recent years despite rising public investment (Figure 7). Productivity growth typically requires more intensive use of capital. Also, Uganda is a low-income country where capital is relatively scarce, and therefore capital accumulation can also directly contribute to growth. However, the economy-wide capital accumulation in Uganda has shown some signs of weaknesses. Total investment has risen since late 1990s—mostly driven by private investment—until around FY2012. Private investment plateaued by FY2010/11 and then declined since FY2012 despite rising public investment. The poor quality of the public investment likely reduced the expected catalytic effect on private investment, as reflected in weak project selection and execution (World Bank 2016c). The declining overall investment driven by lower private investment likely contributed to the de-coupling of Uganda's growth from the continued strong growth momentum in Kenya, Rwanda, and Tanzania.

8. The composition of investment showed some shift away from most growth-enhancing areas (Figure 8). Recent studies (e.g. IMF, 2014, and McMillan and others, 2014) find that developing countries that achieved sustained growth need to move from low-productivity agricultural to modern tradable sectors, particularly in manufacturing. Such sectors require more investment in equipment and other productive assets. Using UBOS data, a recent Bank of Uganda analysis finds that among major types of investment, the share of equipment investment has declined from about 35 percent to about 30 percent between

FY2008/09 and FY2015/16. In contrast, the share of buildings rose by a similar amount, associated with investment in the non-tradable real estate sector, although such investment is less used in productive activities and hence less growth-enhancing.

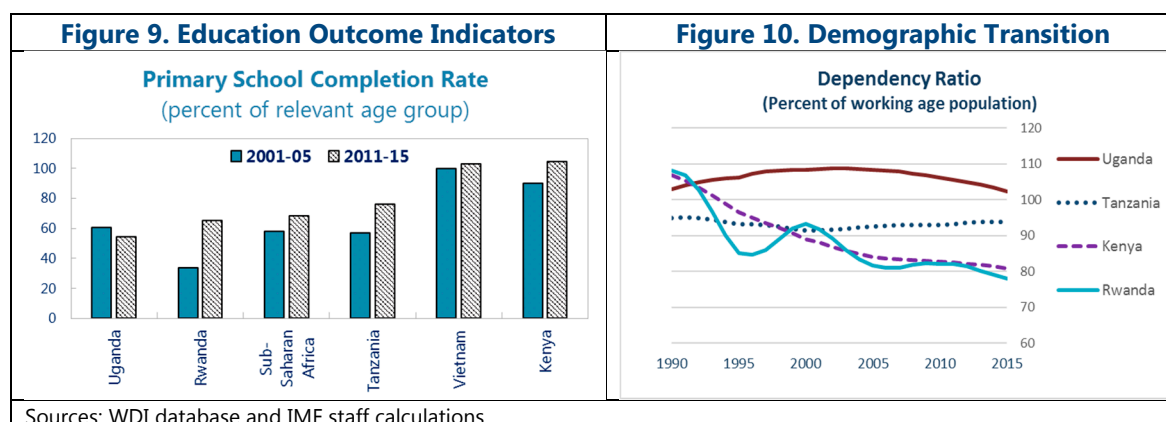


E. Human Capital Contribution

9. Recent indicators suggest challenges in human capital accumulation due to poor quality of education. Uganda has a young and fast-growing population and thus both quality of the human capital and changes in labor force participation and affect its trend growth. One proxy of human capital formation is the average primary completion rate. Uganda's primary complete rate declined from 60 percent in 2001-05 to about 55 percent in 2011-15. This decline is in sharp contrast of the improving rate in EAC peer countries (Figure 9). In addition, MoFPED (2014) reported that the lack of quality vocational education, such as those on practical skills and management practices, resulted in mismatches between labor skills and business needs, particularly in the skill-intensive manufacturing and service sectors. Meanwhile, the needs for skill formation in Uganda is rising rapidly with a young labor force (Figure 13). An estimated 700,000 individuals enter the labor market each year, and they need quality education to gain competency for high wage jobs and become competitive in regional and global markets. The emergence of the oil sector gives more urgency for quality education to equip the young labor force with the required skills in new jobs being created in the sector.

10. In addition, the demographic changes also affected the contribution of human capital to trend growth. First, changes in labor force participation likely contributed to the slowdown. Brownbridge and Bwire (2016) find that a one-off increase in labor force participation could explain some of the trend growth slowdown. In late 2000s, about 1.6 to 2 million internally displaced people returned into the labor force from the camps. This change led to an increase of the working age population by about 6 percent. Second, the high dependency ratio also affects growth. About 49 percent of Uganda's population is younger than 15, well above the Sub-Saharan Africa average of 43 percent; the high dependency ratio in

Uganda is also found to have held back consumption growth, particularly for the poorest (World Bank 2016a). Educating and empowering women would help support Uganda's demographic transition toward the level of regional peers (Figure 10), and such a transition in turn would support higher growth based on cross-country experiences (Fox and others, 2017).



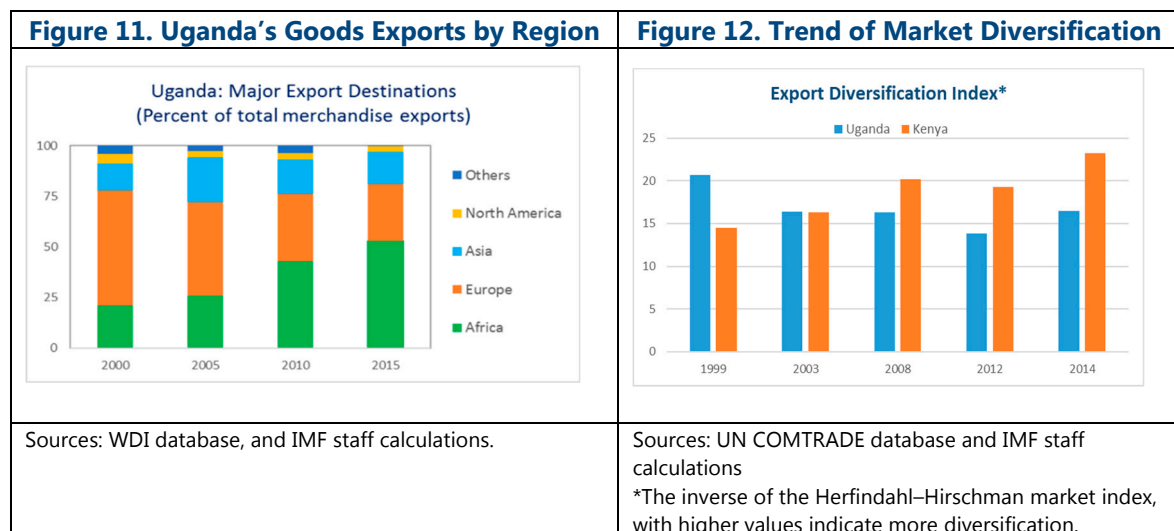
F. Structural Transformation and Diversification

11. In addition to the employment and productivity patterns discussed earlier, this section further analyzes structural transformation and diversification. Drawing on cross-country evidence, IMF (2014) find that such transformation and diversification boosts growth and reduces its volatility. The following analysis benchmarks Uganda's performance with those of the EAC peers that continue to show a strong growth momentum.

12. Uganda has improved export performance, although primary products still dominate. World Bank (2015) finds that Uganda's exports have included about 60 new products, while the traditional concentration in coffee and cotton exports has declined. The share of the top five products has declined from about 86 percent in the 1990s to about 55 percent in early 2010s. Several new exports (e.g., flowers, wood, and minerals) and some manufactured products (processed leather and construction materials) have emerged, although top export products continue to be primary goods. Meanwhile, Uganda's exports have become more diversified by some measures. The share of total export to African countries has increased from about 20 percent in 2000 to more than 50 percent in 2015, while the share of exports to Europe has declined from over 50 percent to about 30 percent (Figure 11). Rising exports to EAC are also found to lead to more new products (World Bank, 2015).

13. Many indicators on export diversification and the composition of GDP still indicate scope for improvements. Despite progress in new export products and some diversification, overall export performance is below those of well-performing EAC peers. Total export of goods of Uganda has remained at about 10 percent of GDP since the mid-1990s, although service export increased. In addition, country-level market diversification has declined (Figure 12), indicating rising export concentration in a few countries, while, for example, Kenya recorded a steady rise in market diversification in the same period. With limited market diversification, export performance is more vulnerable to changes in a few

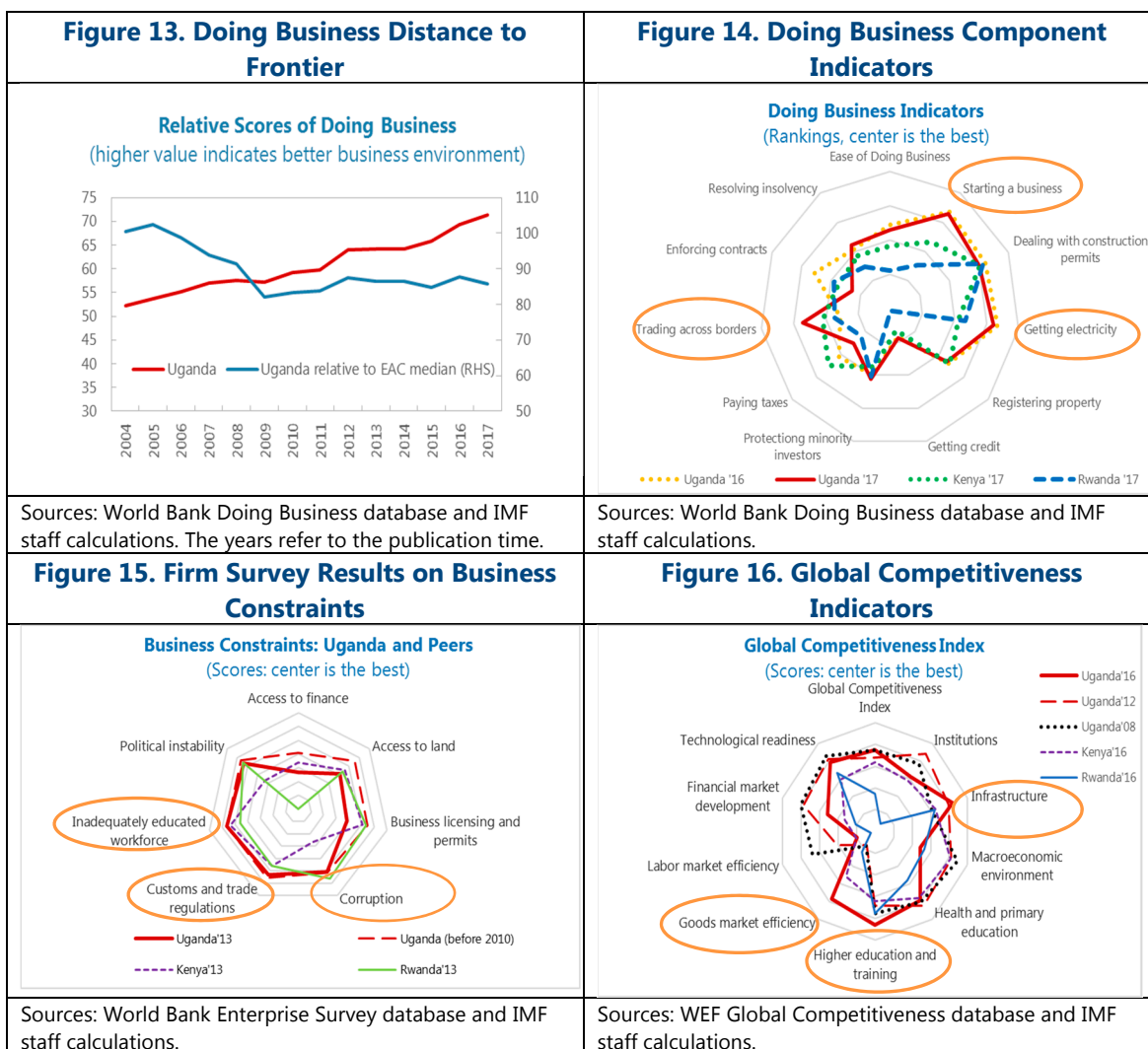
countries, as evidenced by the recent adverse impact from South Sudan and DRC. Furthermore, while the industrial sector increased from about 15 percent of GDP in mid-1990s to about 25 percent in FY2006/07-FY2007/08, this sector’s share has since declined and leveled off at about 20 percent of GDP over the last decade, indicating limited structural transformation and risk of premature de-industrialization.



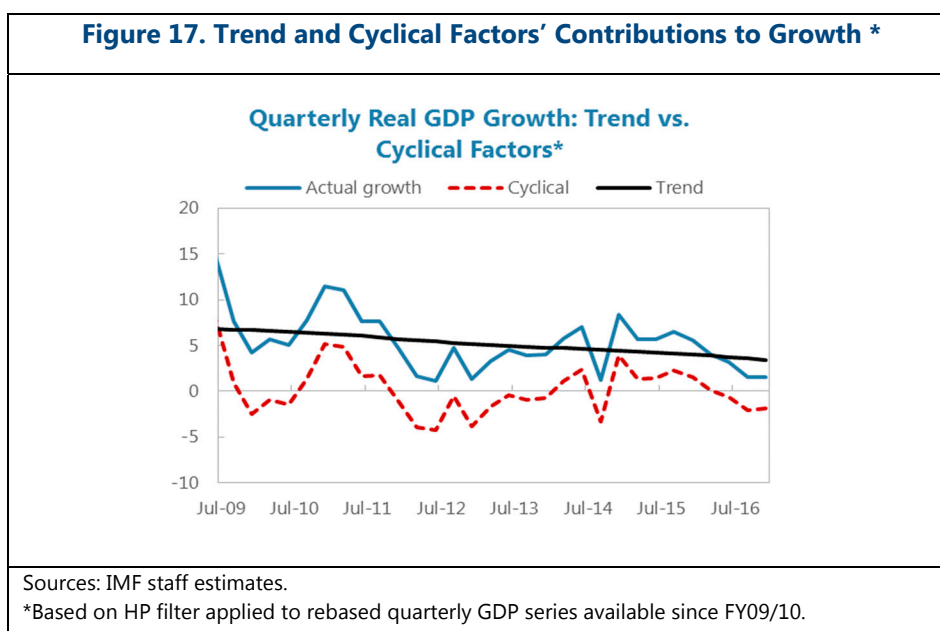
G. Structural Constraints

14. What are the structural issues that could explain the constraints on growth as discussed earlier? IMF (2014) find that structural constraints, such as infrastructure and regulatory barriers, strongly affect a low-income country’s progress in structural transformation. This section draws on cross-country comparison of a range of indicators to zoom in on the potential constraints, which likely affected productivity growth as well as the accumulation of physical and human capital in Uganda.

15. While Uganda’s business environment has improved, progress is less rapid than in peer countries (Figure 13). Measured by the distance to the frontier of best global performance in Doing Business, Uganda’s score increased from about 50 in early 2000s to about 70 in 2016. In comparison, the progress achieved in EAC peers over the same period (proxied by the median score) is faster than in Uganda, and thus the ratio of Uganda’s score to the median EAC score has declined toward late 2000s and then remained at about 90 percent throughout the 2010s. For example, Uganda ranks 115 in Doing Business Indicators, compared with Kenya at 92 and Rwanda at 56. Access to electricity ranks 184, also low compared with peers in East Africa. This would put Uganda at a disadvantage in attracting investment and business creation that in turn affects trend growth.



16. A wide range of business environment indicators point to a common set of weaknesses in infrastructure, governance, business regulations, and labor skills (Figures 14, 15, 16). In recent surveys, firms and investors find persistent constraints in Uganda’s infrastructure bottlenecks (particularly electricity) and the ease of starting a new business and trading across borders. In addition, the 2016-17 Global Competitiveness Report find that investors consider corruption as a top constraint, which contributed to Uganda’s low ranking at 113, compared unfavorably with Rwanda (52) or Kenya (96). Also, Uganda ranked 151 out of 176 countries in the 2016 Transparency International Corruption Perception Index; and the World Bank’s 2015 Governance Indicators ranked Uganda below its EAC peers Rwanda, Tanzania, and Kenya. Moreover, the skill shortage or mismatches between existing education with the required practical skills and management practices are becoming more of a concern in recent surveys, particularly for manufacturing firms (MoFPED 2014).

Figure 17. Trend and Cyclical Factors' Contributions to Growth *

H. Cyclical Factors

17. The most recent slowdown since FY15/16 was also affected by cyclical factors (Figure 17). A decomposition of the contributions of trend and cyclical factors based on quarterly GDP data shows that cyclical factors also affected growth significantly at times. In FY15/16, cyclical factors are estimated to have contributed to about half of the decline of the annualized growth rate from the previous year. These factors include the recent drought since late 2015, as well as the deterioration of the conflicts in South Sudan, which had been a major export market for Uganda in recent years. Some factors discussed in earlier sections also explain Uganda's vulnerability to these cyclical factors. For example, weak agricultural extension support makes small-holder agriculture more vulnerable to cyclical changes of weather conditions. In addition, insufficient export diversification and regional integration exposes Uganda to risks in individual trading partners.

I. Policy Implications

18. The authorities' focus on infrastructure remains appropriate to support growth, but improving public investment efficiency and complementary measures are key to maximize the growth impact. While the focus on electricity and transportation does address the binding business constraints, recurring under-execution suggests the better prioritization and sequencing of projects can help select the right projects within the constraint of absorptive capacity. More focused but better managed public investment could generate more salutary impact through improved quality and efficiency.

19. Strengthening human capital is also important to achieve higher and more inclusive growth. Providing the young labor force with sufficient practical skills demanded by business is essential for youth employment and Uganda's competitiveness. For example, enhancing agricultural extension service would likely boost labor productivity in the sector that

employs about 70 percent of the labor force. The government's recent efforts for strengthening vocational education are steps in the right direction, while private sector participation in curriculum design, skill certification, and practical training as recommended in MoFPED (2014) would improve the delivery. In addition, quality public education and health services can support a healthy and productive labor force and provide better opportunities for the poor. Emphasis on empowering women to be economically active is equally important (IMF 2017a). This includes addressing obstacles to women in accessing land or inheriting assets and improving fertility choices. Furthermore, IMF (2015) also finds that boosting targeted social protection can help efficiently build human capital of the poor and enhance the inclusivity of growth.

20. Accelerating business environment reforms would support productivity growth of the private sector. Enhancing Uganda's competitiveness requires faster progress in reforms to support business creation and growth, trading across borders, and more effective fight against corruption. Improving financial market infrastructure (e.g., credit bureau and collateral registry) and liberalizing financial market to support long-term finance would help enhance credit to the private sector.⁷ Meanwhile, some targeted government interventions in key sectors could help. For example, MoFPED (2014) finds that agricultural extension services are key to boost agricultural productivity, while supports to specific firms are largely ineffective. Hausmann and others (2015) and World Bank (2016b) find that government can more actively support core infrastructure, reduce regulatory barriers, and coordinate firm clusters in labor-intensive agro-industry that fully utilize Uganda's comparative advantages, as well as manufacturing industries around transport corridors to capitalize on the improved infrastructure. Furthermore, a strong monitoring and evaluation system is critical to learn from experiences and improve the focus and efficiency of government interventions in supporting structural transformation. Finally, the authorities' focus on fighting corruption would also ease the burden on private business while boosting investor confidence. Policy measures include increasing public contract and regulatory transparency and establishing mechanisms for independent public scrutiny, including direct monitoring by the public or via non-government organizations. The anti-corruption hotline introduced by the Uganda Investment Authority recently is a step in the right direction.

21. Advancing EAC integration could further support Uganda's export diversification and structural transformation. EAC integration can provide land-locked Uganda with a much larger market, expand Uganda's investment and job opportunities, and offer opportunities for pooling resources in regional infrastructure and financial sector development. These opportunities in turn can further boost exports and strengthen Uganda's growth. Potential measures include educating farmers about export standards and accelerating inter-governmental agreements on regulatory harmonization.

⁷ Selected Issues Paper, "Financial Inclusion and Development."

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