

RWANDA ECONOMIC UPDATE

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RWANDA AT WORK



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Abbreviations and Acronyms

BFP	Budget Framework Paper
BNR	Banque Nationale du Rwanda (National Bank of Rwanda)
BOP	Balance of Payments
CIP	Crop Intensification Program
COMESA	Common Market for Eastern and Southern Africa
CPI	Consumer Price Index
DSA	Debt Sustainability Analysis
DRC	Democratic Republic of Congo
EAC	East African Community
EDPRS 2	Second Economic Development and Poverty Reduction Strategy
EICV	Enquête Intégrale des Conditions de Vie des ménages (Integrated Household Living Conditions Survey)
EPA	Economic Partnership Agreement
EU	European Union
FDI	Foreign Direct Investment
FSC	Financial Stability Committee
FTA	Free Trade Area
GDP	Gross Domestic Product
GDI	Gross Domestic Income
GNDI	Gross National Disposable Income
GNI	Gross National Income
IFC	International Finance Corporation
IMF	International Monetary Fund
IO table	Input-Output table
JOGGs	Job Generation and Growth Decomposition tool
KCC	Kigali Convention Center
MDAs	Ministries, Districts and Agencies
MIDIMAR	Ministry of Disaster Management and Refugee Affairs
MINAGRI	Ministry of Agriculture and Animal Resources
MINECOFIN	Ministry of Finance and Economic Planning
MPC	Monetary Policy Committee
MSMEs	Micro, Small and Medium Enterprises
NEP	National Employment Programme
NISR	National Institute of Statistics of Rwanda
ODA	Official Development Assistance
PKO	Peacekeeping Operations
PPP	Purchasing Power Parity
PPP	Public Private Partnership
PFM	Public Financial Management
REU	Rwanda Economic Update
RRA	Rwanda Revenue Authority
Rwf	Rwandan franc
SADC	Southern African Development Community
SSA	Sub-Saharan Africa
TFTA	Tripartite Free Trade Area
UNHCR	United Nations High Commissioner for Refugees
VAT	Value-Added Tax
WDI	World Development Indicators
WTO	World Trade Organization

FOREWORD

The Rwanda Economic Update (REU) reports on and synthesizes recent economic developments and places them in a medium term, regional, and global context. It analyzes the implications of these developments and policies for the outlook of Rwanda's economy. These reports attempt to make an analytical contribution to the implementation of Rwanda's national development strategy. Each edition includes a special feature on a selected topic. The report is intended for a wide audience, including policy makers, business leaders, other market participants, and the community of analysts engaged in Rwanda's economy.

The ninth edition of the REU was jointly prepared by the Rwanda Macroeconomics and Fiscal Management Global Practice team and the Poverty Global Practice team at the World Bank. Yoichiro Ishihara (Senior Economist) led the teams and the sections on recent economic developments and prospects. Tom Bundervoet (Senior Poverty Economist) led the special focus section. Other team members who contributed to the ninth edition include Apurva Sanghi (Lead Economist and Program Leader) who supervised the team, and Toru Nishiuchi (Economist). Diarietou Gaye (Country Director), Carolyn Turk (Country Director), Kevin Carey (Lead Economist), and Albert Zeufack (Practice Manager) provided overall guidance. Sylvie Ingabire (Team Assistant) supported the team.

Although this report does not represent the official views of the Rwandan authorities, the macroeconomic unit of the Ministry of Finance and Economic Planning (MINECOFIN) and the National Bank of Rwanda (BNR) were engaged in its formulation and provided valuable comments. The World Bank team appreciates their contributions.

OVERVIEW

Despite an adverse external environment stemming from a slowdown of the Chinese and European economies, Rwanda has maintained steady growth in the first three quarters of 2015. Gross Domestic Product (GDP) growth remained steady at 6.9 percent during this period. Thus far, the decline in commodity prices has been favorable for Rwanda – a net importer of energy products. Macroeconomic stability measured by inflation and exchange rates has been maintained.

However, downside risks have been increasing, both externally and domestically. A deteriorating external environment has led the World Bank to revise down its global and regional growth forecasts in early 2016¹. The global growth forecast was revised down by 0.4 percent to 2.4 percent for 2015, and by 0.4 percent to 2.9 percent for 2016. The growth forecast for Sub-Saharan Africa (SSA) was 3.4 percent in 2015, down from 4.6 percent in 2014, mainly due to the region's reliance on fuel, minerals and metals, and agriculture commodities. On the domestic front, risks are on the horizon, including delayed execution of the budget and inadequate financing for development. Put together, both external and domestic risk has led the World Bank to adjust its growth projections for 2015 (7.1 percent), 2016 (6.8 percent), and 2017 (7.2 percent).

The special topic of this edition focuses on jobs in particular the employment dynamics of the past decade. The focus on jobs is motivated by two observations. First, the inter-sectoral shift of labor from agriculture to non-agriculture has been particularly

fast in Rwanda and has been a main driver of poverty reduction and economic growth. The extent to which Rwanda can sustain this shift will determine in part whether the country can keep up its pace of growth and poverty reduction. Second, as Rwanda moves gradually towards a middle-income status and the labor force continues growing rapidly, jobs, especially in the non-farm sector, will become increasingly important as a transmission mechanism between aggregate growth and household living standards. The special topic will dissect and revisit the main employment trends between 2001, 2006, and 2011 (more recent data is not available yet); formulating firm recommendations on job creation going forward is outside the scope of this report.

Part One: Recent Economic Developments and Prospects

What is the current status of the Rwandan economy?

Rwanda has maintained steady growth in the first three quarters of 2015. The growth rate at 6.9 percent was almost the same as the average growth rate over the past five years. The expenditure account, which measures expenditures on final goods and services, shows two changes in 2015: first is the accelerated contribution of private consumption, and second is the expanded negative contribution of public consumption. On the one hand, high private consumption contribution may have been affected by the inflows of Burundians. Tens of thousands of Burundians, equivalent to 0.6 percent of Rwanda's total population, flowed into Rwanda (see annex 1.1). On the

¹ World Bank (2016) "Global Economic Prospects: Spillovers amid Weak Growth"

other hand, the contributions of public consumption (i.e., the government's recurrent expenditures) were negative for three straight quarters, with the largest decrease at least since 2007 seen in Q2 2015. These negative contributions are mainly due to reactions to high public consumption in 2014.

Thus far, the decline in international commodity prices has had a positive impact on the economy. The trade balance of commodities (the sum of re-exports, coffee, tea, mineral exports, and energy imports) improved by 25 percent in 2015. The decline in mineral exports (-42 percent) was largely compensated by the decline in energy imports (-21 percent). Although volume of energy imports increased by 11 percent, prices fell by 29 percent. The overall trade balance also improved slightly during the same period: the trade deficit fell by one percent, as the decline in imports was larger than that in exports.

The EAC countries and the Democratic Republic of Congo (DRC) account for more than half of Rwanda's exports. In goods exports, DRC accounts for 32 percent, followed by the EAC countries (20 percent). The high share of exports to DRC reflects its high share in re-exports (mainly fuel products). European countries account for about 15 percent. Thus, future development of these countries will affect Rwanda's exports. On the other hand, China accounts for less than five percent of Rwanda's exports. The origins of Rwanda's imports are different from Rwanda's export destinations. While imports from the EAC countries are similar to the share of exports to these countries, China has the largest import share at around 20 percent. Thus, fluctuations of the Chinese yuan affect imports from China (see annex 1.2).

Despite the positive impact of the decline in commodity prices on goods trade, gross international reserves fluctuated significantly in 2015. The level of international reserves fell from US\$1,070 million in December 2013 to US\$739 million in August 2015 (close to the level seen early in 2013 during the aid decline) before recovering to US\$922 million in December 2015. While the level of gross international reserves remains adequate at 4.8 months of goods imports, it is important to maintain at least this level by improving trade balance and/or attracting capital inflows.

The development of the monetary sector was positive in 2015. The average inflation rate was 2.5 percent in 2015. The Rwandan franc depreciated against the US dollar, but it appreciated in real effective exchange rate (REER) – the exchange rate adjusted for differences in inflation rates with Rwanda's trading partners. This appreciation has kept import prices stable. The decline in oil prices has also contributed to stable inflation. Additionally, adequate access to credit is essential for economic activity, and the credit growth rate of 26.8 percent during Q4 2015 came close to the recent peak of 35.3 percent during Q2 2012. On monetary policy, the quarterly Financial Stability Committee (FSC) and Monetary Policy Committee (MPC) held in December 2015 observed that the financial sector remains sound, and the MPC decided to maintain the Key Repo Rate at 6.5 percent in Q1 2016.

Fiscal policy stance, measured by the gap between domestic revenues and expenditures, shows that fiscal policy has become less expansionary in the last few quarters. The less expansionary fiscal policy stance reflects the decline in recurrent expenditures, which is consistent with the negative public

² http://www.bnr.rw/fileadmin/PRESS_RELEASE_FOLLOWING_THE_QUARTERLY_FINANCIAL_STABILITY_COMMITTEE_AND_MONETARY_POLICY_COMMITTEE_MEETINGS.pdf

consumption contribution to GDP. Preliminary results of the FY2014/15 budget (July 2014-June 2015) show that the overall deficit increased from 4.3 percent of GDP in FY2013/14 to 5.3 percent in FY2014/15 due to the decline in grants and the increase in net lending. The tax to GDP ratio has improved to 15.6 percent from 14.9 percent in the previous year.

Macroeconomic Policy and Management

The tax regulatory framework continued to be strengthened. Since late 2014, the following tax policy measures were implemented: (i) revision of the investment code through the law relating to investment promotion and facilitation aimed at removing loopholes and reducing unnecessary exemption, (ii) VAT base broadening through the amendment of the VAT law to reduce VAT exemptions and zero rated items, (iii) review of the excise tax regime (building on WTO recommendations, the tax regime for tobacco was reviewed to introduce a combination of ad-valorem and specific tax regimes), (iv) establishment of the infrastructure development levy on imported goods (to collect revenue to finance EAC railway project), and (v) increase in the road maintenance levy fund.

The 2016 Doing Business survey recognized Rwanda's progress in improving the business regulatory environment. Six reforms – more than in any other SSA countries – are recognized in the survey. As a result, Rwanda has retained the second best position among Sub-Saharan African countries (62nd among 189 economies) after Mauritius (32nd), and the first among the EAC countries (Burundi (152nd), Kenya (108th), Uganda (122th), and Tanzania (139th)).

What are Rwanda's Economic Prospects?

The World Bank projects Rwanda's economy to grow at around 7 percent: 7.1 percent growth in 2015, 6.8 percent in 2016, and 7.2 percent in 2017 – close to the country's potential growth³. There are broadly three reasons to project growth rates at around 7 percent including: (i) macroeconomic stability (mainly inflation and exchange rates), (ii) resulting policy flexibility, and (iii) positive regional economic outlook. Despite the positive economic outlook, downside risks have been increasing, both externally and domestically, including: (i) slowdown of the Chinese and European economies and its impact on Rwanda's main trading partners, (ii) slow budget execution, and (iii) inadequate financing for development.

Part Two: Rwanda at Work

The 2011 Snapshot: Agriculture and informality define Rwanda's employment landscape

Despite firmly positive trends over the past decade, employment in Rwanda in 2011 remained characterized by agriculture, informality, and low earnings. In 2011, about 70 percent of workers had their main job in agriculture, with the remaining 30 percent engaged in a myriad of non-farm activities⁴. Farm self-employment, or people working on their own on their family's farm, accounted for almost 60 percent of employment, followed by farm wage employment, which accounted for 12 percent. In the non-farm sector, self-employment in small enterprises dominates, closely followed by wage employment in the informal sector. The private formal sector provides employment to four percent of working Rwandans, while the public sector absorbs three percent of workers. Taken together, the modern wage sector accounts for seven percent of total employment.

³ Please see Box 1.11 of the fifth edition of the Rwanda Economic Update

⁴ Main job is defined as the job where the worker spends most of his/her time

For the majority of the population, earnings are low. In 2011, median monthly earnings from all jobs amounted to Rwf 18,175 (in 2011 prices), meaning that half of workers earn Rwf 18,175 per month or less (amounting to US\$31 using the official exchange rate and US\$74 using the purchasing power parity (PPP) adjusted exchange rate)⁵. 90 percent of workers earned less than Rwf 65,000 per month (US\$263 in PPP terms), and less than six percent earned Rwf 100,000 per month or more (approximately US\$405 in PPP terms). One third of workers are engaged in so-called low-earning jobs, meaning that their labor earnings place them below the national poverty line.

The Trends: A move to non-farm employment and higher earnings

Among the most salient of recent employment trends has been the move to non-farm occupations. In 2011, 30 percent of employed Rwandans had their primary job outside agriculture, up from 23 percent in 2006, and 11 percent in 2001. The move towards non-farm occupations as a main source of employment understates the true extent of the shift: considering all jobs, regardless of whether it is the primary or secondary occupation, the share of workers with an occupation outside agriculture increased from 30 percent in 2006 to 45 percent in 2011. Farmers are increasingly taking up non-agricultural secondary jobs next to their primary occupation on the land.

The move to non-farm occupations has been driven by the youth, in particular young men. The share of young men with a job in agriculture sharply dropped between 2001 (89 percent), 2006 (69 percent), and 2011 (55 percent), indicating that more and more young men are abandoning agriculture altogether. Middle-aged and older men do not abandon agriculture as readily, but are

increasingly likely to have their main occupation outside farming (while keeping secondary occupations in agriculture). The shift to non-farm employment as the primary occupation is the result of two complementary dynamics: on the one hand, young people are abandoning agriculture altogether and moving to non-farm occupations, while on the other, older workers increasingly shift their main occupation outside farming but maintain a strong foot on the farm (as a secondary occupation).

Within agriculture, farm wage labor is on the rise, and this is driven by young women. The share of workers employed as unpaid labor on the family farm dropped from 38 percent in 2006 to 29 percent in 2011, while the share of wage farmers increased. The move to wage farming is also driven by the youth, and in particular by young women. Although there is no panel data, the net job additions in agriculture between 2006 and 2011 are indicative of young women (aged 16-30) moving from unpaid farming on the family farm to paid farming on somebody else's farm. The employment transitions are significantly gendered: while young men tended to move out of agriculture towards non-farm occupations, young women have shifted employment dynamics within agriculture.

Though still low, individual labor earnings increased substantially since 2006. Median earnings from all jobs increased by 66 percent between 2006 and 2011, and the share of workers with earnings that placed them below the poverty line (defined as "low earners") decreased from 54 percent to 33 percent. Agriculture led the earnings increase: Earnings of independent farmers almost doubled while those of wage farmers and unpaid farm workers increased by half. As a result, the low earnings rate in agriculture dropped from 59 percent in 2006 to 37 percent in 2011. Low earnings are increas-

⁵ Average official exchange rate in 2011: \$ 1=Rwf 590.3. PPP exchange rate: \$1=Rwf 246.8 (WDI, 2015)

ingly a consequence of underemployment: of all low-earners, almost 60 percent would not be low earners if they could increase hours worked to reach full-time employment.

Diversification into non-farm occupations has been most closely correlated with the increase in earnings. In a decomposition framework, 12 percent of the increase in median earnings can be accounted for by the higher share of workers with an occupation outside farming⁶. There are a number of interesting differences in the correlates of earnings growth between lower earning and higher earning workers. Taking up additional jobs has been particularly important for earnings growth of low-earners, while diversification into non-farm occupations – both as main and secondary occupations – explains the largest part of the earnings increase for higher earners. Poor workers have increased earnings by working more jobs, while better-off workers have boosted their earnings by progressively moving to non-farm activities.

Going Forward: The employment outlook for Rwanda

Rwanda, as with many African countries, is faced with a substantial jobs challenge. Between 2015 and 2020, the working age population is projected to grow by 220,000 every year, outpacing the rate of job growth between 2006 and 2014 (158,000 jobs a year). The Second Economic Development and Poverty Reduction Strategy (EDPRS 2) aims to create 200,000 off-farm jobs every year – double the rate of non-farm job creation between 2006 and 2014 (103,000 jobs per year). While the formal private sector is growing quickly, its low base means that the majority of labor market entrants over the coming five years will need to seek employment in the informal non-farm sector or in agriculture. Assuming that formal private sector

employment keeps on growing at over 16 percent per year (the observed growth between 2006 and 2011), its employment share will remain low over the coming five to ten years.

Going forward, Rwanda appears to need a two-pronged jobs strategy. First, given that agriculture will remain the main employer for the majority of workers over the coming five to ten years, increasing earnings from agriculture remains the most direct way to improve economic conditions for the bulk of the population. This is especially important given the apparent stall in the move to non-farm employment in recent years (the share of workers with a main job in the non-farm sector stood at 30 percent in 2013/14, only marginally higher than the 28 percent in 2010/11). Increasing earnings from agriculture entails not only further increasing productivity, but also having the required infrastructure in place to reduce post-harvest losses and facilitate access to markets. Second, new labor market entrants are increasingly likely to find or create employment in the non-farm sector. While a small share of those new workers will manage to get a job in the public or formal private sector, the bulk will be employed in the informal sector⁷. A key policy question is how the business environment in the informal sector can be improved to allow informal activity to blossom, at least in the short to medium term when the formal sector will not yet be large enough to absorb the rapidly growing labor force⁸.

⁶ Given the short time frame between the surveys (five years), changes in workforce characteristics explain only a small fraction (22 percent) of the change in earnings

⁷ This is the case not only for Rwanda, but for the whole of Africa (Fox et al, 2013)

⁸ Without of course neglecting the ongoing investments (in energy, transport, skills, etc.) needed to attract large modern firms

PART ONE: RECENT ECONOMIC DEVELOPMENTS AND PROSPECTS



1.1 INTRODUCTION

Rwanda's Economy in the World

The World Bank revised down its global growth forecast by 0.4 percent to 2.4 percent for 2015 and by 0.4 percent to 2.9 percent for 2016, although the 2017 (3.1 percent) forecast remains almost unchanged⁹. The growth forecasts for 2015 were revised down in both high-income countries (from 1.9 percent to 1.6 percent) and developing countries (from 4.7 percent to 4.3 percent). Rwanda's growth rates during the past few years exceeded the growth rates of developing countries, except for in 2013 when Rwanda's growth decelerated to 4.7 percent (figure 1.1). Among the 181 economies where 2014 GDP growth rate data is available, Rwanda's growth rate of 7.0 percent is more than twice as high as the average of the 181 economies (3.2 percent), and is ranked 20th globally. Going forward, Rwanda's growth rates are projected to exceed global growth rates in 2015-2017.

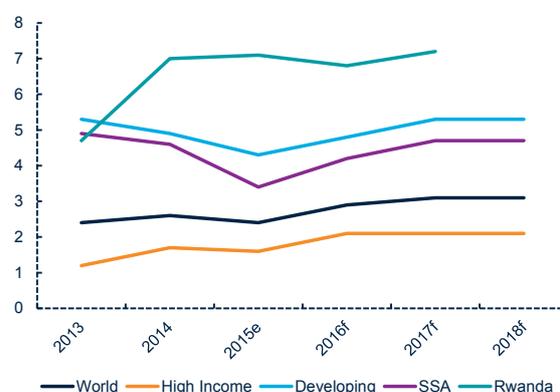
Rwanda's Economy in Sub-Saharan Africa

The World Bank also revised down its regional forecast. The SSA regional outlook of the latest Global Economic Prospects¹⁰ estimates that growth in Sub-Saharan Africa (SSA) slowed from 4.6 percent in 2014 to 3.4 percent in 2015 due to a combination of external and domestic factors such as the end of the commodity price super cycle, the slowdown of growth in China, and domestic difficulties such as electricity supply bottleneck. Nevertheless, Rwanda is one of few SSA countries – along with Côte d'Ivoire and Ethiopia – where growth prospects are positive.

SSA is a net exporter of fuel, minerals and metals, and agriculture commodities.

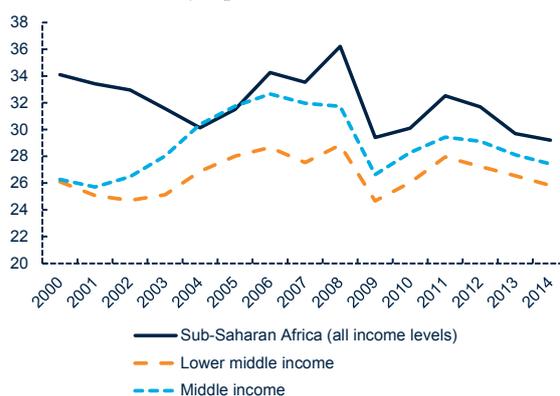
The share of these items in total exports increased from 67 percent in 2001-04 to 74 percent in 2010-14. Also, China as a destination accounted for 22 percent of total exports from SSA¹¹. Although the exports share of goods and services in the economy has not changed significantly since 2000, SSA has a higher share compared to other low and middle-income countries (figure 1.2). Thus, impacts of export deceleration would be more significant in SSA countries.

Figure 1.1 Rwanda's growth exceeds global and regional growth rates (%)



Source: World Bank's Global Economic Prospects

Figure 1.2 SSA has a higher exports share in the economy (share of commodity exports in total, %)



Source: World Bank

⁹ <http://www.worldbank.org/en/publication/global-economic-prospects>

¹⁰ <http://www.worldbank.org/en/publication/global-economic-prospects/Regional-Outlooks/GEP-Jan-2016-Sub-Saharan-Africa-analysis>

¹¹ Africa's Pulse (October 2015)

Rwanda's Economy in East African Community (EAC) Countries

The comparison between Rwanda and other EAC countries shows that Rwanda performed relatively well on growth and inflation compared to these countries

(table 1.1). On real GDP growth, other than in 2013, Rwanda's growth rates were the highest, and inflation rates have been stable. However, Rwanda's current account and fiscal balances are almost the same as the average of all EAC countries.

Table 1.1 Economic performance comparison among EAC countries

	2012	2013	2014	2012	2013	2014
	1. Real GDP Growth Rate (%)			2. Inflation (CPI) (% Increase) 1/		
Burundi	4.0	4.6	4.7	18.0	7.9	4.4
Kenya	4.6	5.7	5.3	9.4	5.7	6.9
Rwanda	8.8	4.7	7.0	6.3	4.2	1.8
Tanzania	5.1	7.3	7.0	11.3	5.6	6.8
Uganda	4.4	3.3	4.5	23.5	5.8	6.7
Average	5.4	5.1	5.7	13.7	5.8	5.3
	3. Current Account Balance (% GDP)			4. Fiscal Balance (% GDP)		
Burundi	-10.3	-9.3	-15.2	-3.7	-1.7	-3.4
Kenya	-8.4	-8.7	-9.5	-5.0	-5.7	-6.1
Rwanda	-11.4	-7.4	-11.8	-3.0	-4.0	-6.2
Tanzania	-11.6	-1.4	-9.9	-4.3	-4.2	-3.7
Uganda	-9.5	-7.6	-7.9	-2.5	-3.6	-3.7
Average	-10.2	-6.9	-10.9	-3.7	-3.8	-4.6

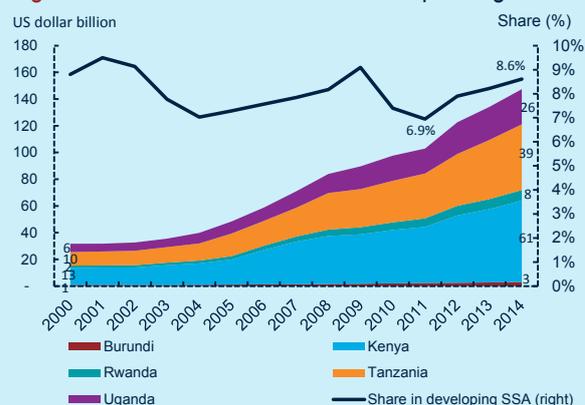
1/ GDP deflator for Tanzania

Source: World Bank's Macro and Poverty Outlook

Box 1.1 Recent Developments of Other EAC Countries

EAC countries: The combined size of the EAC countries has significantly increased from US\$31 billion in 2000 to US\$147 billion in 2014 (11.6 percent a year) (figure 1.3). Kenya accounted for 41 percent, followed by Tanzania (33 percent), Uganda (18 percent), Rwanda (5 percent), and Burundi (2 percent). In recent years, the growth performance of the EAC countries has outpaced other SSA countries. As a result, the share of the EAC countries in developing Sub-Saharan African countries has increased from 6.9 percent in 2011 to 8.6 percent in 2014.

Figure 1.3 Size of the EAC has been expanding



Source: World Bank

Burundi: After robustly growing at 4.7 percent in 2014, Burundi's economy is expected to grow merely at 2.3 percent in 2015 due to civil unrest. The president ran for a third term despite controversy over his eligibility. Protests broke out periodically since the president announced that he will seek a third term. This civil unrest has led to a dramatic reduction in the fiscal base. In response, the government announced a fiscal adjustment in May 2015 composed of a mix of expenditure cuts and domestic financing. This in turn resulted in augmented inflation pressures and doubling in the yield of government treasury bills. The official exchange rate has remained stable but the black market premium has increased from five percent in March to more than 20 percent in October.

Kenya: Kenya's economy has been growing robustly in the past few years, and this is expected to continue in the next few years. The economy grew at 5.3 percent in 2014 and is expected to grow at 5.4 percent in 2015 and 5.7 percent in 2016, led by private consumption and public investment. Public investment, mainly in infrastructure, is expected to enhance competitiveness and crowd in private sector investment over the medium term by removing underlying structural constraints such as high cost of energy and transport. The positive outlook could be affected by a combination of threats including: (i) the El Niño heavy rain phenomenon, which is expected to hit agriculture production, (ii) increased insecurity due to recent instability, which has been affecting tourism, and (iii) prolonged low oil prices, which could decelerate the pace of oil-related FDI.¹²

Tanzania: Tanzania's economy grew by 7.0 percent in 2014 and is expected to grow by over

7.0 percent annually in the next few years. The economic growth has been broad-based, and agriculture, which contributes two thirds of employment, reported consistently lower growth. Positive outlook greatly depends on offshore natural gas exploitation. Further plant construction, however, may depend on the recent decline in international energy prices, the recent discovery of a massive gas field in Egypt, as well as the uncertainty related to the implementation of the new gas-related legislation adopted by the Parliament in July 2015. Tanzania suffers from low tax revenues and declining foreign aid against fast-growing recurrent expenditure. This in turn leads to significant cuts in development expenditures and transfers to local governments, urging corrective measures to improve the tax system.¹³

Uganda: During the financial year ending June 2015, the Ugandan economy grew by 5 percent, led by the services sector on the production side and public investment on the expenditure side. Growth, however, remained below expectation and was the slowest amongst regional peers. The lower-than-expected growth can be attributable to delayed implementation of a government investment addressing the country's deficient infrastructure. The growth outlook in the financial year 2015/16 critically depends on implementation of the government's investment in infrastructure such as energy dams, roads, and oil refinery facilities. Over the past three years, public investment continued not to be followed through due to failures in reaching financing arrangements. In addition, the growth outlook may also be affected by uncertainty arising from the next presidential and parliamentary election in February 2016.¹⁴

¹² <http://www.worldbank.org/en/country/kenya/publication/kenya-economic-update-storm-clouds-gathering-special-focus-public-participation>

¹³ <http://www.worldbank.org/en/country/tanzania/publication/tanzania-economic-update-why-should-tanzanians-pay-taxes-the-unavoidable-need-to-finance-economic-development>

¹⁴ <http://www.worldbank.org/en/country/uganda/publication/uganda-economic-update-searching-grail-can-uganda-land-support-prosperity-drive>

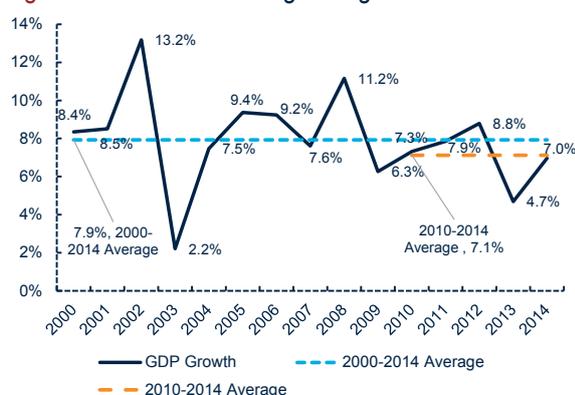
1.2 REAL SECTOR

Key Points

- Growth rates have been stable since 2014. Rwanda's growth in the first three quarters of 2015 (6.9 percent) was almost the same as the average growth rate in the past five years (7.1 percent).
- Services remain the largest contributor to growth, with high-productivity services (financial and ICT) showing strong growth.
- Inflows of Burundian refugees seem to have contributed to strong private consumption, which offset the negative contribution of public consumption.

Why focus on GDP growth?¹⁵ GDP measures the total added value of all goods and services produced over a specific time period within an economy, by both residents and nonresidents. GDP growth rates show an increase in economic activities over the previous period and thus measure the strengths and weaknesses of an economy. In Rwanda, GDP is measured by both the production approach and expenditure approach. The production approach sums the value-added at each stage of production, where value-added is defined as total sales minus the value of intermediate

Figure 1.4 Medium and long-term growth



Source: NISR

inputs. The expenditure approach adds up the final value of household consumption, public consumption, investment, and exports and imports. The input-output (IO) table is a useful tool to show a link between the production and expenditure accounts, though it is only constructed during the rebasing of GDP to reflect a more current snapshot of the economy (last one was in 2011)¹⁶.

In the past five years between 2010 and 2014, the economy grew by 7.1 percent on average. While the growth rate was more than twice as high as the average growth rates of all countries globally (2.9 percent, including high income and developing countries)¹⁷, it was lower than the two preceding five-year periods (8.7 percent in 2004-09 and 7.9 percent in 1999-2004) (figure 1.4).

Rwanda has maintained steady growth during the first three quarters of 2015. After growth accelerated from 4.7 percent in 2013 to 7.0 percent in 2014, the growth rate during the first three quarters of 2015 reached 6.9 percent, with the growth rates of Q1, Q2, and Q3 being 7.6 percent, 7.0 percent, and 6.1 percent, respectively. Year-on-year growth rates remained consistent with the average growth rate over the past three years, and have remained stable since early 2014 (figure 1.5).

Figure 1.5 Steady growth continued since 2014



Source: NISR

¹⁵<http://www.imf.org/external/pubs/ft/fandd/basics/gdp.htm>

¹⁶ Rebasing of GDP is explained more in the following website: <http://www.worldbank.org/en/topic/macroeconomics/brief/rebasing>

¹⁷ Average global growth rate between 2010 and 2014 based on WDI as of December 2015

Seasonally adjusted growth rates do not show any clear direction (figure 1.6). Seasonally adjusted growth figures (i.e., removing seasonal factors such as fluctuations in agriculture production) are useful to measure growth trends over the past few quarters. This is because they are not affected by figures in the same quarters of previous years. The seasonally adjusted quarterly growth rates were 3.0 percent in Q1, 1.3 percent in Q2, and 0.9 percent in Q3 2015.

Production Account

The development of the production account shows that services contributed to more than half of GDP in the first three quarters, followed by agriculture, and industry (excluding manufacturing). Though becoming positive in 2015, the contribution of manufacturing remained small (figure 1.7). In services, growth rates of information and communication, and financial services have been high (figure 1.8). Although the shares of these subsectors remain small (both shares were 3.2 percent of GDP), the high growth rates of these sub-sectors are nonetheless positive signs due to their high labor productivity.

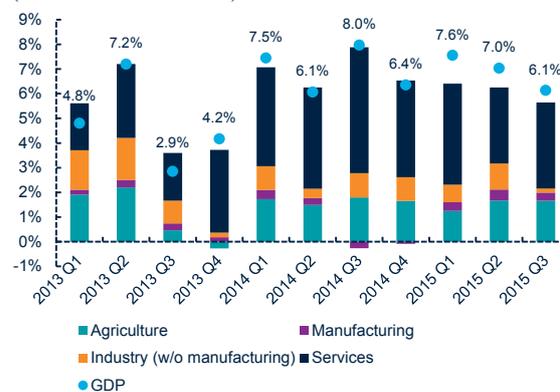
In industry, the growth rate of construction has been accelerating in recent quarters. Given the high share of public investment (which is more than half of total investment), significant growth in construction indicates an increase in public investment. On the other hand, the growth rate of mining has been sharply decelerating and became negative in the second quarter of 2015 (figure 1.9). This sharp deceleration may have reflected the decline in global commodity prices (see section 1.3) that resulted in negative growth rates in the mining sector (both in terms of volume and price).

Figure 1.6 Seasonally-adjusted quarterly growth rates show smaller growth volatility since 2014



Source: NISR, World Bank staff calculation

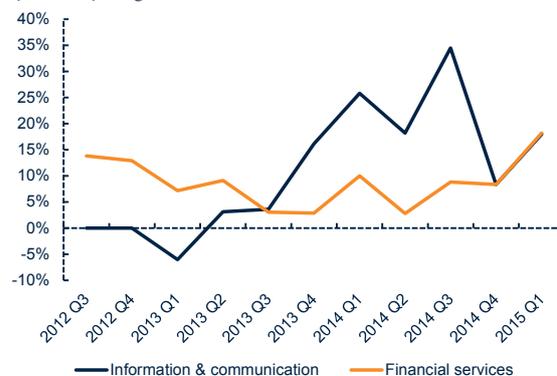
Figure 1.7 Growth by production account (% contribution to GDP)



Note: The discrepancies between the sum of agriculture, manufacturing, industry and services, and GDP is due to taxes less subsidies on products

Source: NISR

Figure 1.8 High growth in ICT and financial services (year-on-year growth, %)



Source: NISR, World Bank staff calculation

Within agriculture, the growth rate of export crops (18.5 percent on a year-on-year basis), far exceeded the growth rate of agriculture as a whole (5.0 percent) in the first three quarters of 2015, while that of food crops slowed to 4.2 percent. The increase in production of export crops is consistent with the increase in export volumes of coffee and tea. In trade statistics (section 1.3), export volumes of coffee and tea increased by 17.7 percent and 8.9 percent in 2015. According to the latest seasonal agriculture survey covering Season B (from March to June 2015)¹⁸, the total production volume fell by 0.4 percentage points.

Non-tradable sectors¹⁹ contributed more than the tradable sectors to the overall growth in the recent few years (figure 1.10). During the first three quarters of 2015 however, while the contribution of the tradable sectors gradually increased, the contribution of the non-tradable sectors decreased. Among the tradable sectors, food crops and ICT services increased their contributions. The mining sector contributed negatively throughout the period, which is consistent with the decline in mineral exports in terms of volume (see section 1.3). Among the non-tradable sectors, wholesale and retail trade services and construction led to this deceleration.

Figure 1.9 Decelerating mining sector growth (year-on-year growth, %)



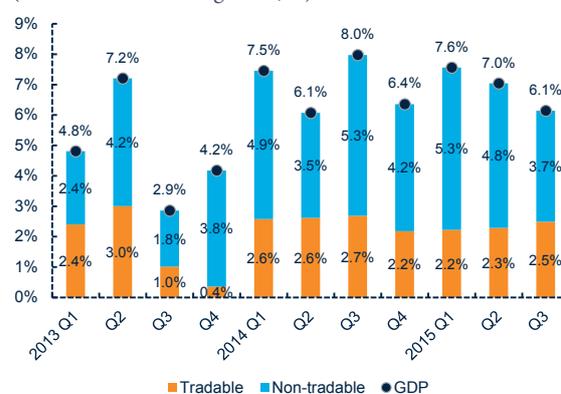
Source: NISR, World Bank staff calculation

Expenditure Account

The sources of growth in the expenditure account in 2015 have two characteristics (figure 1.11): first is the accelerated contribution of private consumption, and second is the negative contribution of public consumption. Throughout 2015, the contribution of private consumption far exceeded that of previous years. The high private consumption contribution may have been a result of the inflows of Burundians (see box 1.2 and annex 1.1). On the other hand, the contribution of public consumption (i.e., government's recurrent expenditures) was negative for four straight quarters between Q4 2014 and Q3 2015. The extent of this negative contribution in Q2 2015 (-5.1 percent) was the largest at least since 2007.

In gross fixed capital formation (i.e., investment), the growth rates of construction decelerated in Q3 2015, which is consistent with the growth deceleration of the construction subsector in the production account from 15.4 percent in Q2 to 5.8 percent in Q3 2015 (figure 1.12)

Figure 1.10 Tradable vs. non-tradable (contribution to GDP growth, %)

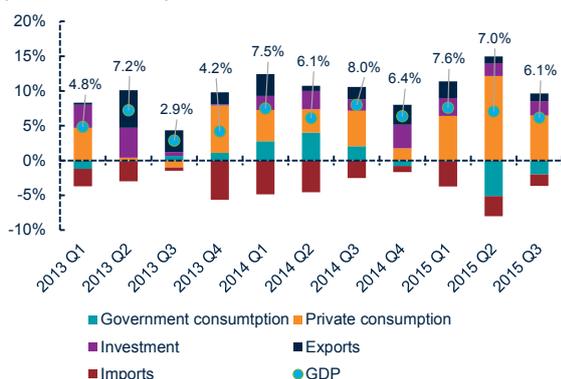


Source: NISR

¹⁸ <http://statistics.gov.rw/publications/seasonal-agricultural-survey-report-season-b-2015>

¹⁹ The tradable sectors include food crops, export crops, livestock and its products, mining, manufacturing, transport services and ICT. These subsectors are selected based on the 2011 Input-Output table. The non-tradable sectors are the total minus the tradable sectors

Figure 1.11 Growth has been increasingly driven by private consumption



Source: NISR, World Bank staff calculation

Figure 1.12 Gross fixed capital formation (year-on-year growth, percent)



Source: NISR, World Bank staff calculation

Box 1.2 Impact of Inflows of Burundian Refugees on Rwanda's Economy

As of January 2016, the total number of Burundians who fled from the country and came to Rwanda reached seventy-one thousand, equivalent to 0.6 percent of Rwanda's population. Their purchase of goods and services within Rwanda stimulates domestic demand. As private consumption accounts for 75 percent of GDP, their purchases would increase GDP by 0.5 percent. Also, with the assumption that financial requirement (US\$111 million estimated by UNHCR) comes from external sources (mainly grants), the inflows would have a positive impact on the current account in the balance of payments. On the other hand, impacts on prices depend on supply and demand of goods and services. If there is not enough supply capacity within Rwanda, prices are likely to increase.

Box 1.3 Economic Activities by Province

For low-income countries including Rwanda, availability of economic data disaggregated by subnational level is challenging. At the same time, given ongoing decentralization and urbanization, subnational level is becoming important. As the first step, the World Bank has used turnover (sales) data of registered taxpayers disaggregated by province from the Rwanda Revenue Authority (RRA). It is important to note that turnover data is based on where headquarters of establishments are located, typically in Kigali, rather than where economic activities occur. Also, this data does not include small-scale farming.

At the onset, it is important to note that growth rates of nominal GDP and turnover are highly correlated (correlation rate of 71 percent is statistically significant) (figure 1.13). In this regard, we could use turnover data to roughly estimate economic activity by province²⁰. As the national account data is published on a quarterly basis with a three-month lag (e.g., Q3 (July-Sep) data is published in mid-December in the same year), availability of monthly data would help us understand economic situations more regularly.

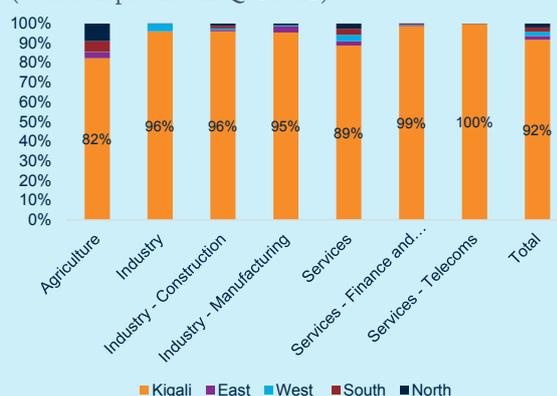
In terms of shares by province (including Kigali), Kigali accounted for 92 percent of total turnover in the first three quarters of 2015. Remain-

²⁰ Turnover data is based on where headquarters of establishments are located rather than where economic activities occur. Also, the data does not include independent farming

ing turnover is almost equally divided among the four other provinces (East, West, South and North) (figure 1.14). Kigali's share has been almost unchanged since 2011. Despite progress in decentralization, economic activities are concentrated in Kigali. Kigali's shares are almost 100 percent in telecommunication and financial services, as the headquarters of mobile phone companies and commercial banks are located in Kigali.

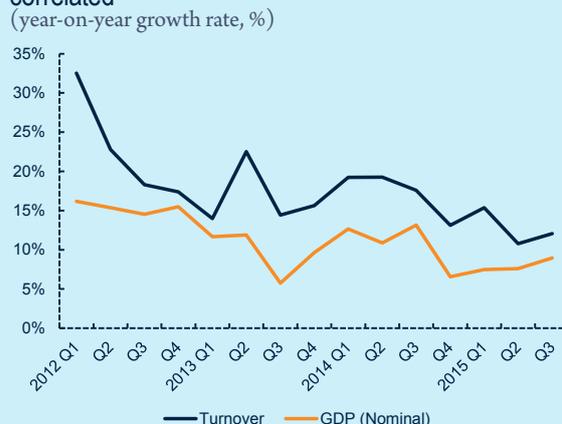
Types of economic activities are different across regions (figure 1.15). In Rwanda as a whole, services (excluding telecommunication and finance) account for 61 percent, followed by financial services (nine percent), manufacturing (nine percent), and construction (eight percent).

Figure 1.14 Kigali is dominant in all sectors
(% share in province in Q1-3 2015)



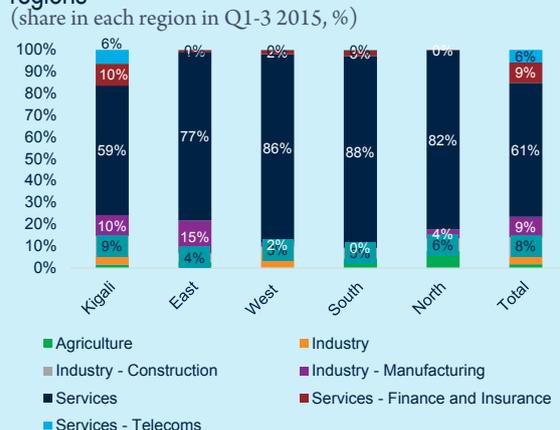
Source: NISR, World Bank staff

Figure 1.13 Nominal GDP and turnover are highly correlated
(year-on-year growth rate, %)



Source: NISR, World Bank staff

Figure 1.15 Economic activities are different across regions
(share in each region in Q1-3 2015, %)



Source: NISR, World Bank staff

1.3 EXTERNAL SECTOR

Key Points

- The decline in exports of goods in 2015 has been largely driven by mineral exports.
- Imports of goods also declined during the same period, which has been driven by energy imports.
- The goods trade balance was improved, as the decline in imports exceeded that of exports.

• Rwanda's main trading partners are DRC and other EAC countries. Thus, developments of these countries affect Rwanda's economy most.

• Gross international reserves fluctuated significantly in 2015. They sharply fell from US\$1,070 million in December 2013 to US\$739 million in August 2015 before recovering to US\$922 million in December 2015.

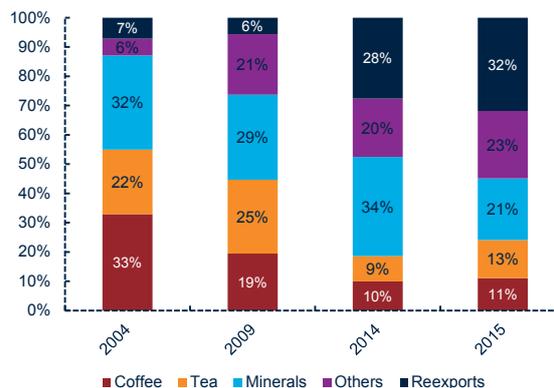
For small developing countries such as Rwanda, international trade with the rest of the world is critical for their development. In Rwanda, the National Bank of Rwanda (BNR) collects data on exports and imports of goods on a monthly basis, including disaggregation by good. The National Institute of Statistics of Rwanda (NISR) also publishes trade statistics, including destinations, on a quarterly basis. Given the potential increase in external risks due to the slowdown of the Chinese and Eurozone economies, trade statistics are becoming more important as a primary indicator to measure impact of the external environment on Rwanda's economy.

Exports

Rwanda's exports have been dominated by traditional goods (coffee, tea, and minerals), though the share of traditional goods has been decreasing (figure 1.16). The share of traditional goods exports fell from 87 percent in 2004 to 53 percent in 2014 and 46 percent in the first ten months of 2015. This is mainly due to the combination of the decreased share of mineral exports and the increase in the share of re-exports (i.e., exports of fuel products to neighboring countries such as DRC).

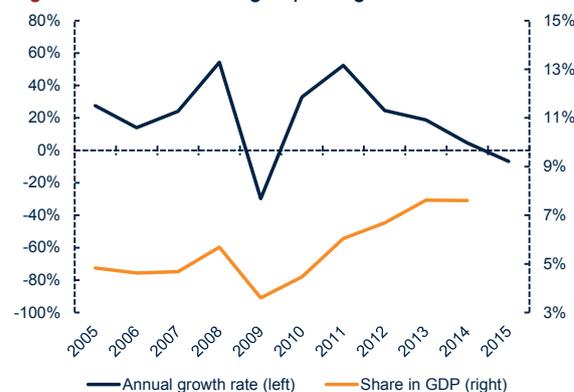
The growth rates of exports have been decelerating in the past few years (figure 1.17). After the significant decline (-29.8 percent) in 2009 due to the global financial crisis, exports grew by 32.8 percent in 2010. However, export growth rates have continued to decelerate, and turned negative (-6.8 percent) in 2015. Although the 2015 national account data has not yet been published, the share of exports in the economy in 2015 is likely to fall from 7.6 percent of GDP in 2014.

Figure 1.16 Though decreasing, the share of traditional commodities remains high (share in total goods exports)



Source: BNR

Figure 1.17 Decelerating exports growth

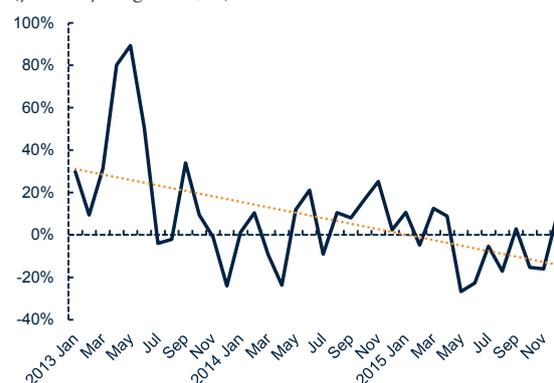


Source: BNR

In 2015, the growth rate of exports was -6.8 percent. Developments since 2013 clearly show a downward trend (figure 1.18). While tea (40.0 percent) showed positive growth rates, mineral exports fell by 42.1 percent and accounted for more than 200 percent of the total decline in exports (table 1.2). The decline in mineral exports is due to the combination of price (-16.7 percent) and volume (-30.5 percent). However, the increase in volume of re-exports (50.5 percent) more than offset the decreased prices of re-exports. As DRC is the main export destination of Rwanda's re-exports, the increased volume reflects the strong growth of DRC. Note that the significant growth of tea exports is due to the combination of increases in volume (8.9 percent) and price (28.6 percent).

Given the high concentration of traditional goods, Rwanda's export performance in the near future would be affected by price development. According to the World Bank's latest commodity price outlook in January 2016²¹, recovery of commodity prices will be slow in the next few years (table 1.3).

Figure 1.18 Exports growth has been decelerating (year on year growth, %)



Source: BNR

Table 1.2 Performance of Rwanda's major exports items

	2014 (\$ million)	2015 (\$ million)	% change in values	% change in volume	% change in price
Coffee	60	62	4.0%	17.7%	-11.6%
Tea	52	72	40.0%	8.9%	28.6%
Minerals	203	118	-42.1%	-30.5%	-16.7%
Re-exports	165	178	7.6%	50.5%	-28.5%
Others	120	129	7.5%	-	-
Total	600	559	-6.8%	20.5%	-22.7%

Source: World Bank staff calculation based on BNR data

Table 1.3 Commodity prices outlook

	Unit	2014 actual	2015 actual	2016 f	2017 f	2018 f
Crude oil, average	\$/bbl	96.2	50.8	37.0	48.0	51.4
Coffee, Arabica	\$/kg	4.42	3.53	3.40	3.41	3.42
Tea, Average	\$/kg	2.72	2.71	2.75	2.79	2.82
Tin	\$/MT	21,899	16,067	15,000	15,730	16,495

Source: World Bank

²¹ <http://www.worldbank.org/en/research/commodity-markets>

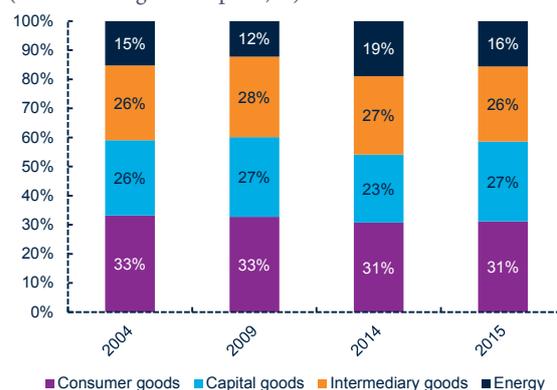
Imports

Other than fluctuations of energy imports, Rwanda's import structure has been almost unchanged in the past decade; consumer goods, capital goods, and intermediary goods are almost equally divided (figure 1.19). The fluctuation of the share of energy imports may be a result of price changes.

Similar to the exports trend, the growth rates of imports have been decelerating from the recent peak at 33.8 percent in 2011 to -2.8 percent in 2015. The negative import growth was for the first time since 2002. As a result, the share of imports in the economy is likely to decelerate in 2015 (figure 1.20).

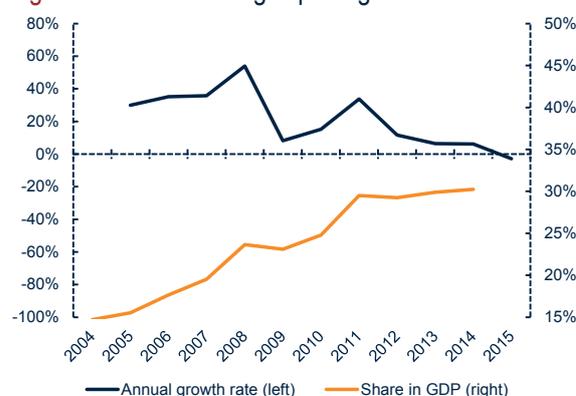
Among the major categories, energy imports fell by 21.1 percent and intermediary goods fell by 5.2 percent. On the other hand, imports of consumer goods (6.3 percent) and capital goods (3.4 percent) increased (figure 1.21). The decline in energy imports has been increasingly driven by prices. In 2015, imports volume increased by 11.1 percent. On the other hand, average prices declined by 28.9 percent. Thus, on balance, energy imports fell by 21.1 percent (figure 1.22). According to the international trade statistics published by the NISR, energy products account for about 50 percent of re-exports. Thus, imports of energy (US\$233 million of imports minus US\$89 million of re-exports²²) were US\$144 million in 2015. The decline in prices has brought about US\$59 million in foreign exchange savings to Rwanda (equivalent to 0.7 percent of GDP)

Figure 1.19 Stable import structure (share in total goods imports, %)



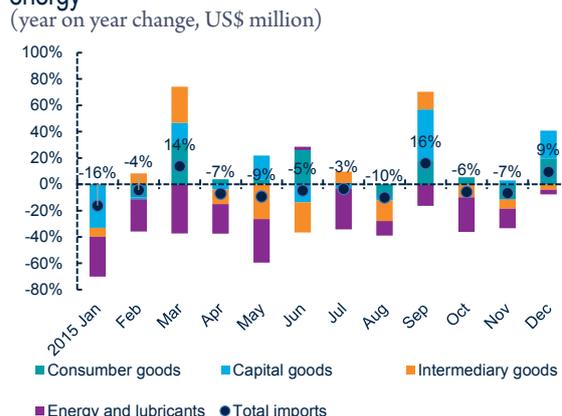
Source: BNR

Figure 1.20 Decelerating imports growth



Source: BNR

Figure 1.21 Decline in imports has been driven by energy



Source: BNR

²² <http://statistics.gov.rw/publications/formal-external-trade-goods-statistics-report-q3-2015>

Trade Balance

Rwanda has had persistent trade deficits in the last decade. As the growth rates of imports have been higher than those of exports, trade deficits have been widening. Trade deficits increased from US\$211 million (equivalent to 10.1 percent of GDP) in 2004 to US\$1.8 billion in 2014 and 2015. However, trade deficits as a share of GDP have been stable since 2011 (figure 1.23). The high and widening trade deficits reflect the development of the tradable sectors. The share of the tradable sectors in the economy fell from 47 percent in 2004 to 39 percent in 2014. In 2015, trade deficits were reduced by 1.3 percent. The decline in imports (US\$67 million) exceeded that of exports (US\$42 million) (figure 1.24).

Rwanda has benefited from commodity price decline in 2015. The impact of commodity price decline on international trade depends on the changes in volume and price. In 2015, Rwanda's commodity trade balance improved over that of 2014 (table 1.4). The trade balance improved from US\$112 million in 2014 to US\$139 million in 2015. The decline in mineral exports (-US\$86 million) was mostly compensated by that in energy imports (-US\$78 million). In exports, tea, coffee, and re-exports increased.

Table 1.4 Rwanda's commodity trade balance improved in 2015 (US\$ million)

	2014	2015	Gap	% change
Exports	480	430	-50	-10.4%
Coffee	60	62	2	4.0%
Tea	52	72	21	40.0%
Minerals	203	118	-86	-42.1%
Re-exports	165	178	13	7.6%
Imports	368	291	-78	-21.1%
Energy	368	291	-78	-21.1%
Trade Balance	112	139	28	24.8%

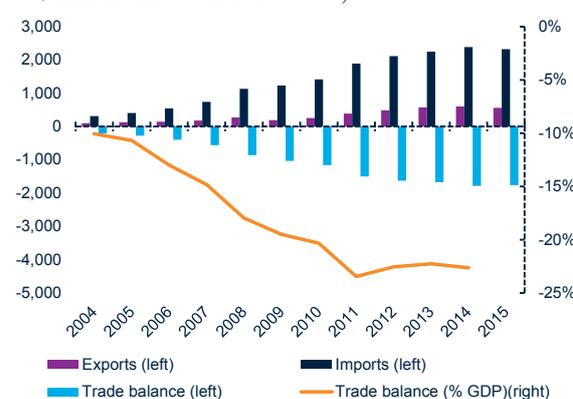
Source: BNR, World Bank staff calculation

Figure 1.22 Decline in energy imports was driven by prices (year on year growth, %)



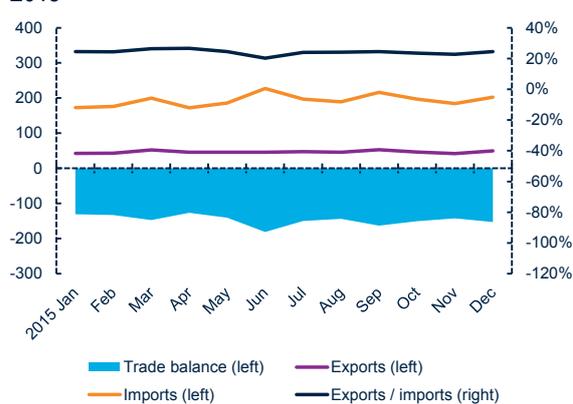
Source: BNR

Figure 1.23 Increasing and persistent trade deficits (US\$ millions unless otherwise stated)



Source: BNR

Figure 1.24 Trade deficits were marginally reduced in 2015



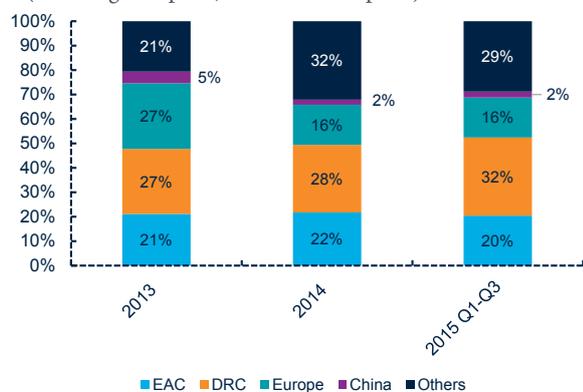
Source: BNR

International Trade by Destination

In goods exports (including re-exports), DRC accounted for about 30 percent of exports, followed by EAC countries (about 20 percent). Thus, the share of neighboring countries account for about half of the total exports (figure 1.25). The high share of DRC is largely due to re-exports, which account for nearly 70 percent of the total re-exports (figure 1.26). Other than the EAC countries and DRC, European countries account for about 15 percent. Exports to China account for less than five percent of the total (see annex 1.2). The information on trade destinations shows that neighboring countries' and European countries' economies are an especially important determinant of Rwanda's trade performance (although the destinations indicated here are not always the ultimate destinations).

Figure 1.25 Neighbors account for more than half of the total exports

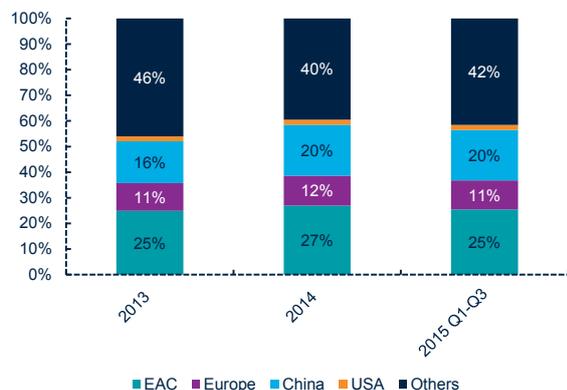
(including re-exports, share in total exports)



Source: NISR

Figure 1.27 China accounts for 20% of total imports

(share in total)



Source: NISR, World Bank staff calculation

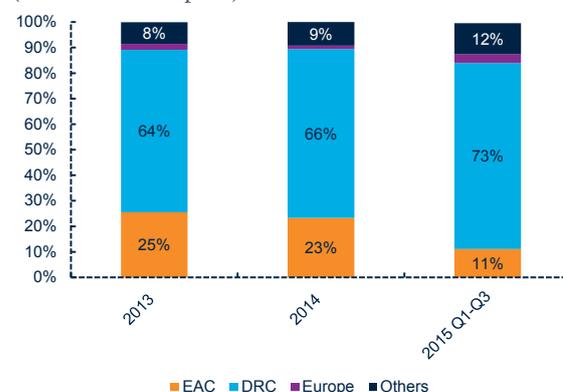
The origins of Rwanda's imports are different from Rwanda's export destinations (figure 1.27). While imports from EAC countries have a similar share to exports, China has the largest share (as a country) at around 20 percent. This suggests that fluctuations in the Chinese yuan affect imports from China.

Terms of Trade²³

In Q3 2015, while prices of exports fell, those of imports sharply increased. Thus, terms of trade significantly deteriorated (figure 1.28). On export prices, according to trade statistics, the decline in mineral prices (42 percent) was much faster than the increase in coffee (seven percent) and tea (nine percent) export prices. Due to deterioration of the terms of trade, the growth rate of GDI (5.2 percent) was lower than that of GDP (6.1 percent). Sources for the increase in import prices in Q3 2015 have not yet been identified (import prices of energy products fell by 25 percent).

Figure 1.26 DRC is dominant in re-exports

(share in total re-exports)



Source: NISR

Figure 1.28 Terms of trade deteriorated in Q1 2013=100



Source: NISR, World Bank staff calculation

²³ Terms of trade is relative to changes of export and import prices. When export prices increase faster than import prices or export prices decrease less than import prices, a country is better off and GDI (Gross Domestic Income) becomes higher than GDP

Quality of Trade Data

For any country, having accurate and updated trade statistics is a challenge, and Rwanda is not an exception. The UN Comtrade Database is a useful database for checking inconsistencies²⁴. For example, Rwanda reported that exports to China in 2014 were US\$8.0 million. On the other hand, China reported that imports from Rwanda in 2014 were US\$91.8 million, more than ten times what Rwanda reported. According to China's report, almost all imports from Rwanda were Tantalum and Tungsten (Rwanda's main mineral exports items). In terms of exports of ore (HS code 26), among total exports in 2014 (US\$202 million), 60 percent was exported to Tanzania and 12 percent went to Australia.

The same trend is observed among EAC countries (plus DRC). For example, Rwanda reported exporting US\$105 million to Uganda and US\$222 million to Tanzania in 2014.

However, Uganda reported that imports from Rwanda were US\$10 million and Tanzania reported US\$3 million. In the case of exports to Uganda, Rwanda reported exporting US\$25 million of coffee and tea, which is also inconsistent with Uganda's report.

Similar discrepancies are observed in the data on commodities. For example, on exports of coffee and tea, Rwanda reported exporting US\$118 million in total in 2014, of which US\$52 million was exported to Kenya, followed by Uganda (US\$26 million). On the other hand, trading partners reported importing US\$87 million from Rwanda, with the United States and Pakistan reporting imports of US\$24 million and US\$19 million respectively. It is taken into consideration that Rwanda's report shows the most immediate export destination; in other words, the country's report does not show export goods' final destinations. In order to measure impacts of external shocks, data on final destinations would be useful in addition to national data.

Table 1.5 Gap between what Rwanda reports and trading partners report in 2014 (1)

	Exports						Imports					
	Rwanda (a)		Partners (b)		Gap (a-b)		Rwanda (a)		Partners (b)		Gap (a-b)	
	\$ mln	% GDP	\$ mln	% GDP	\$ mln	% GDP	\$ mln	% GDP	\$ mln	% GDP	\$ mln	% GDP
Burundi	26.6	0.3%	8.5	0.1%	18.1	0.2%	6.7	0.0%	7.7	0.1%	-1.0	0.0%
DRC	245.5	3.1%	N/A	N/A	N/A	N/A	10.7	0.0%	N/A	N/A	N/A	N/A
Kenya	89.0	1.1%	N/A	N/A	N/A	N/A	180.6	0.0%	N/A	N/A	N/A	N/A
Uganda	105.3	1.3%	10.9	0.1%	94.4	1.2%	266.9	0.0%	276.5	3.5%	-9.6	-0.1%
Tanzania	222.2	2.8%	3.2	0.0%	219.0	2.8%	79.8	0.0%	35.8	0.5%	43.9	0.6%

Note: Share in GDP calculated as Rwanda's GDP in US\$ in 2014

Source: World Bank staff based on UN COMTRADE database

Table 1.6 Gap between what Rwanda reports and trading partners report in 2014 (2)

Rwanda's exports of coffee and tea based on Rwanda's report			Rwanda's exports of coffee and tea based on imports data of partner countries		
Country	US\$	% GDP	Country	US\$	% GDP
Kenya	52,760,022	0.7%	USA	23,821,645	0.3%
Uganda	25,959,510	0.3%	Pakistan	18,906,390	0.2%
Switzerland	12,962,959	0.2%	UK	4,971,623	0.1%
Tanzania	10,502,176	0.1%	Russia	2,388,380	0.0%
Others	16,481,176	0.2%	Others	37,232,594	0.5%
Total	118,665,843	1.5%		87,320,632	1.1%

Note: Share in GDP calculated as Rwanda's GDP in US\$ in 2014

Source: World Bank

²⁴ <http://comtrade.un.org/data/>

International Reserves

Gross international reserves in months of imports are commonly used as part of indicators of macroeconomic stability. According to the International Monetary Fund (IMF), “In the event of disruptions in a country’s balance of payment flows, drawing down reserves can help avoid potentially disruptive adjustments in the exchange rate or domestic consumption and investment” (IMF, 2009, p.3). According again to the IMF, “A cost benefit approach to the optimal level of reserves in LICs suggests that projected reserves [of Rwanda] would be broadly consistent with the optimal level estimated at 4-5 months of imports, assuming an opportunity cost of holding reserves in the range of 3-4 percent” (IMF, 2014, p.22).

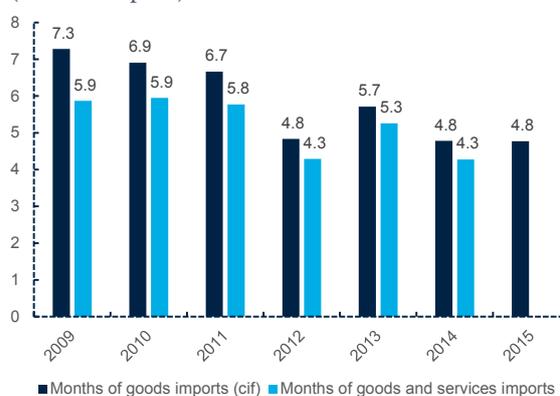
Gross international reserves fell sharply in mid-2015, but recovered later. The level of gross international reserves fell sharply from the peak at US\$1,070 million in December 2013 to US\$739 million in August 2015, the level close to early 2013 during the aid decline. Afterwards, it recovered to US\$922 million in December 2015 (figure 1.29). As the balance of payments is published on an annual basis, the exact sources of the fluctuation of reserves are difficult to identify. Given the slight improvement in goods trade balance, the sources would be trade in services and/or capital and financial accounts. Nevertheless, the level of gross international reserves is equivalent to 4.8 months of goods imports – almost the same as the adequate level (figure 1.30)²⁵. Thus, going forward, it is important to maintain at least this level and to avoid fluctuation by improving the trade balance and/or attracting capital inflows.

Figure 1.29 International reserves sharply declined (US\$ millions)



Source: BNR, World Bank staff

Figure 1.30 Nevertheless, their level is still adequate (month of imports)



Source: BNR, World Bank staff

²⁵Due to unavailability of the balance of payments in 2015, months of goods and services imports cannot be calculated

1.4 MONETARY SECTOR

Key Points

- Inflation rate has remained low, though it increased slightly in late 2015.
- Banks' credit growth to the private sector has supported steady economic activity.
- Stable monetary sector environment has provided policy flexibility to the BNR.

Inflation

Stable inflation rate is one of the core indicators of macroeconomic stability. Price stability is the most important monetary policy objective for many central banks. In Rwanda, the BNR Law requires the BNR to conduct monetary policy in a way to deliver price stability in a low inflation environment²⁶. In order to measure price stability and inflation, consumer price index (CPI) is commonly monitored.

Compared with other EAC countries, Rwanda's inflation rates, measured by CPI, were lower than other countries' (table 1.7). Inflation rates are one indicator of macroeconomic stability. In this regard, Rwanda is the most stable country in the EAC

Table 1.7 Stable Rwanda's inflation (%)

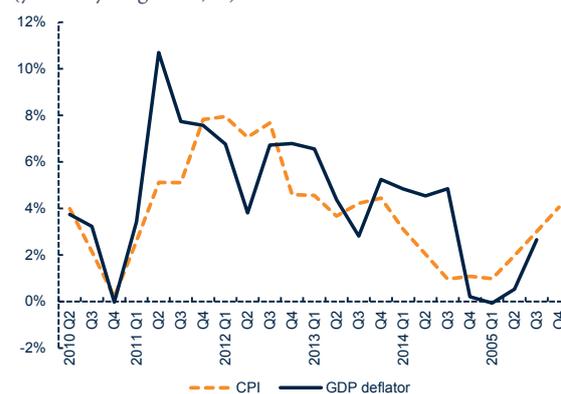
	2012	2013	2014	2015
Burundi	18.2	7.9	4.4	5.6
Kenya	9.4	5.7	6.9	6.6
Rwanda	6.3	4.2	1.8	2.5
Tanzania	16	7.9	6.1	5.6
Uganda	14	4.8	4.6	5.1

Source: Compiled by World Bank staff based on data from respective central banks, WDI

GDP deflator is more comprehensive than CPI in measuring domestic inflation.

This is because CPI includes imports, while GDP deflator measures domestically produced goods and services. GDP deflator and CPI show a similar trend in the past five years (figure 1.31). However, in practice, GDP has some challenges when used for policy purposes. First, its availability lags behind CPI. Second, its frequency is on a quarterly basis. Third, obtaining the right GDP deflator is technically challenging, as some deflators are calculated based on the ratio between nominal and constant prices. For these reasons, CPI is more commonly used to measure inflation rather than GDP deflation.

Figure 1.31 Lower GDP deflator reflects improved terms of trade
(year-on-year growth, %)



Source: NISR

Although still stable, year-on-year CPI inflation has been accelerating from below one percent in early 2015 to 4.5 percent in December 2015. Food prices, which account for 28 percent of the CPI basket, increased from 1.2 percent in January to 9.7 percent in December 2015. Among other major items, transportation prices (including gasoline) increased from -3.9 in January to 2.4 percent in December (figure 1.32). Housing and utility prices, which account for 23 percent of the CPI basket, increased from 3.7 percent in January to 5.7 percent in

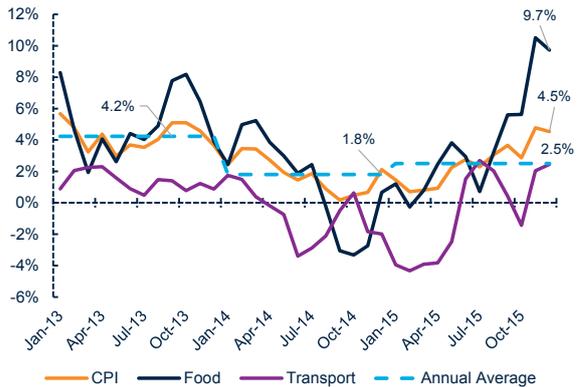
²⁶ <http://www.bnr.rw/index.php?id=180>

September before it decelerated to 2.9 percent in December. The increase in food prices during the past few months was caused by vegetable price increases, while the increase in housing prices may have resulted from the inflows of Burundian refugees to Rwanda.

CPI in rural areas is more important for the poor, although CPI in urban areas such as Kigali is referred to as Rwanda's CPI. More than 90 percent of the poor live in rural areas. The comparison between urban and rural CPIs shows that CPI growth rates in rural areas exceeded urban areas (figure 1.33). The increase in food prices in rural areas (14.0 percent in December 2015) was much higher than that in urban areas (9.7 percent).

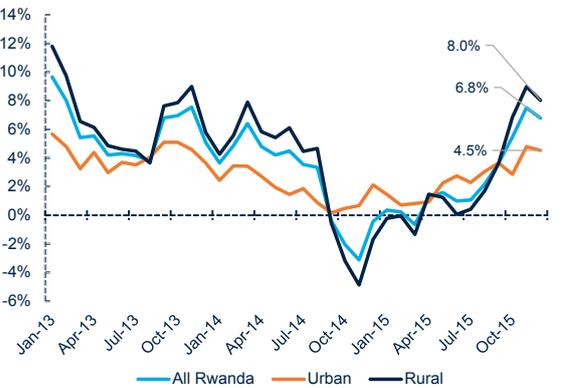
In light of the depreciation of the exchange rate against the US dollar, it has become increasingly important to monitor the development of imported goods prices (see the section on monetary policy). The comparison between local goods and imported goods prices shows that the main source of the accelerated CPI inflation rate was locally produced goods over the past few months (figure 1.34). This is consistent with the appreciation of the Rwandan franc measured by REER. In this regard, there are few signs that fluctuations of exchange rates have led to inflation. Additionally, stable transport prices (including gasoline) contributed to the stable imported goods prices (transport prices account for 43 percent of imported goods prices). Transport prices fell by 1.4 percent in 2015, whose trend is consistent with the decline in prices of energy imports (see section 1.3).

Figure 1.32 Food prices have pushed up the overall CPI (year-on-year growth rate, %)



Source: NISR

Figure 1.33 CPI inflation rates have increase in rural areas (year-on-year growth rate, %)



Source: NISR

Figure 1.34 Locally produced goods have driven CPI (year-on-year growth rates, %)



Source: NISR

Exchange Rate

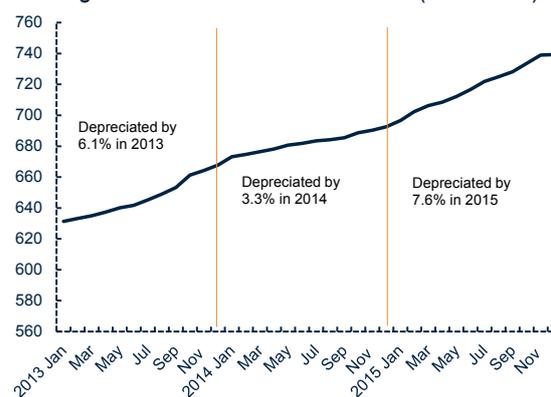
The Rwandan franc has depreciated against the US dollar throughout 2015. Between December 2014 and December 2015, the Rwandan franc depreciated against the US dollar by 7.6 percentage points – the fastest depreciation in recent years (figure 1.35). During the same period, currencies in Tanzanian, Kenya, Uganda, and the Euro depreciated against the US dollar faster than the Rwandan franc. Thus, the Rwandan franc has actually appreciated against the currencies of Rwanda’s main trading partners such as the Euro, the Tanzanian shilling, and the Kenyan shilling. In fact, during this period, the Rwandan franc appreciated against the Euro by 3.2 percent, by 14.3 percent against the Tanzanian shilling (data as of early December), and by 4.6 percent against the Kenyan shilling (figure 1.36).

The Rwandan franc measured by REER²⁷ started appreciating in mid-2014 (figure 1.37). The appreciation of REER reflects that of the nominal exchange rate and Rwanda’s lower inflation rate (table 1.7) against the currencies of Rwanda’s main trading partners. The level of the REER is close to its long-term average in the 2000s and 2010s, and thus does not raise an immediate concern. Nevertheless, as an exchange rate affects a country’s competitiveness in the long term, its development should be carefully monitored.

Credit to the Economy

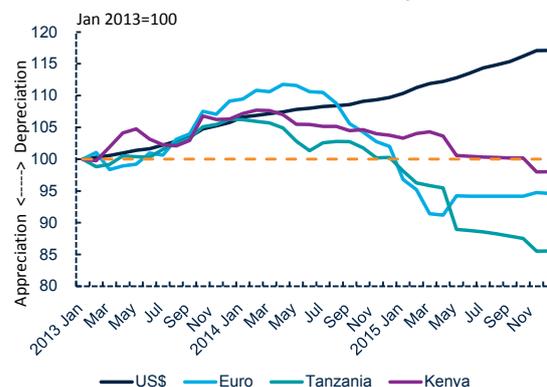
Adequate access to credit is essential for the acceleration of economic activity and a core function of the financial sector. The contribution of the financial sector is measured by the increase in credit outstanding to the private sector, and the depth of financial deepening – increased provision of financial

Figure 1.35 Recent years, the depreciation of Rwandan franc against the US dollar accelerated (Rwf / US\$)



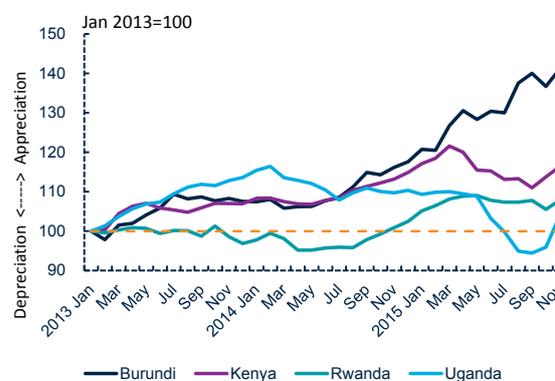
Source: BNR

Figure 1.36 But the currency has appreciated against the currencies of Rwanda’s main trading partners



Source: BNR

Figure 1.37 REER has been appreciating



Source: World Bank staff based on buegel database

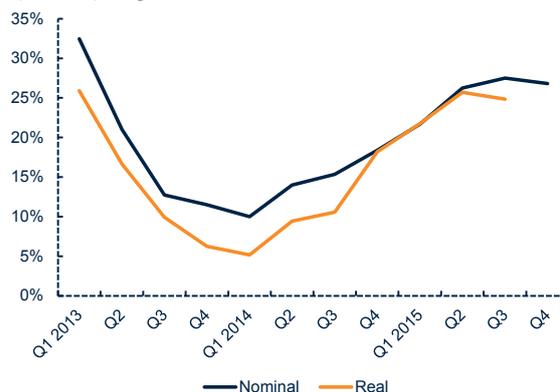
²⁷While most people are familiar with nominal exchange rates – the number of units of domestic currency that can purchase a unit of foreign currency – nominal exchange rates do not accurately show purchasing power of the domestic currency. Why? Purchasing power depends on the relative importance of foreign currencies and domestic and foreign inflation rates. The REER takes the relative importance of foreign currencies by their shares of international trade and their inflation rates. Box 1.4 of the Seventh Edition of Rwanda Economic Update explains nominal and real effective exchange rate in details

services to a society – is measured by the credit outstanding as a share of GDP. Rwanda has made significant progress on both indicators.

The growth rate of the credit outstanding to the private sector has accelerated from 10.0 percent in Q1 2014 to 26.8 percent in Q4 2015 (closer to the recent high at 35.3 percent in Q3 2012). In real terms – adjusted by the inflation rate using GDP deflator – the credit growth rate in Q3 2015 at 24.8 percent was close to the recent high of 30.4 percent in Q2 2012 (figure 1.38). The acceleration of the growth rate of credit to the private sector is consistent with steady economic activity (figure 1.39). Also, the depth of financial deepening increased steadily from 15.4 percent in Q1 2010 to 18.7 percent in Q3 2015. Interest rate

There are few developments in interest rates. The lending rates have been stable at just above 17 percent since 2013, and the deposit rates have also been stable at about eight percent. As a result, the spread between the two interest rates has remained almost the same at around nine percent (figure 1.40). Likewise, the yield curve shows little movement. While short-term interest rates (of up to six months) reflected the accommodative monetary policy, longer maturity (one year) has been almost unchanged (figure 1.41).

Figure 1.38 Credit to the private sector has kept accelerating
(year-on-year growth, %)



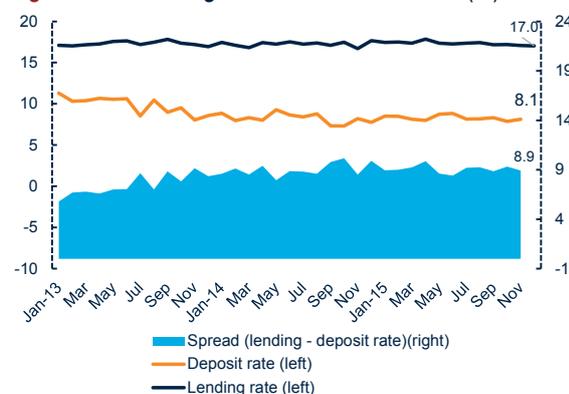
Source: World Bank staff based on buegel database

Figure 1.39 This is consistent with steady economic activities
(year-on-year growth, %)



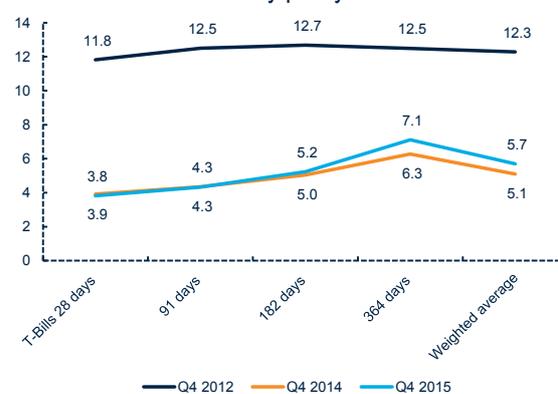
Source: World Bank staff based on buegel database

Figure 1.40 Lending rates have been stable (%)



Source: BNR

Figure 1.41 Short-term interest rates reflect the accommodative monetary policy



Source: BNR

Monetary Policy

The quarterly financial stability committee (FSC) and monetary policy committee (MPC) held in December 2015 observed that the financial sector remains sound, and the MPC decided to maintain the Key Repo Rate at 6.5 percent in Q1 2016. The Key Repo Rate (policy interest rate) has been unchanged since June 2014 when it was lowered from 7.0 percent to 6.5 percent, although short-term interest rates kept declining (figure 1.41). The statement of the MPC observes moderate headline inflation and stability in the foreign exchange markets.

1.5 FISCAL SECTOR

Key Points

- Fiscal policy has become less expansionary in the past few quarters.
- Domestic revenues have kept increasing. The tax to GDP ratio increased to 15.6 percent in FY2014/15.
- The budget balance has deteriorated to -5.3 percent of GDP in FY2014/15, almost the same as FY2012/13.

The development of the fiscal sector is particularly important in Rwanda. The size of the budget in the economy increased from 22 percent in 2004 to 31 percent in 2014. Key indicators to measure the development of the sector are domestic revenue mobilization (e.g., tax to GDP ratio), overall deficit, and progress on expenditures.

Fiscal policy has become less expansionary in recent few quarters. Fiscal consolidation is a medium-term fiscal policy direction in Rwanda. While a potential negative impact

on the economy could be mitigated through improving efficiency and effectiveness gains of expenditures, short-term impact would be broadly measured by the gap between domestic revenues and expenditures as a share of GDP²⁸. In recent years, fiscal policy has been less expansionary from its peak in Q3 2014 at -13.9 percent, to -11.5 percent in Q3 2015 (figure 1.42). The consolidation was mainly due to recurrent expenditures, and less due to capital expenditures. The trend is consistent with the negative contribution of public consumption to GDP (see section 1.2).

Preliminary outturn of the fiscal year 2014/15 shows a mixed picture in both revenues and expenditures (table 1.8).

(i) **Revenues and grants** (Figure 1.43): On a positive side, domestic revenues kept increasing. They increased from 16.8 percent of GDP in FY2013/14 to 18.0 percent of GDP in FY2014/15, exceeding the target set within the revised budget (17.6 percent). Tax revenues increased by 0.8 percentage points to 15.6 percent, though slightly short of the target. Delays in the deployment of electronic billing machines (EBMs) negatively affected performance. Non-tax revenues at 2.4 percent of GDP also exceeded the target in the revised budget (1.8 percent of GDP) as well as last year's performance (2.0 percent of GDP), largely due to revenues related to Peace Keeping Operation (PKO). On the other hand, grants fell from 9.2 percent of GDP in FY2013/14 to 7.5 percent of GDP in FY2014/15. Though the absolute value of grants is higher than FY2012/13, the share of GDP at 7.5 percent is lower than FY2012/13 (7.8 percent). On balance, as the decline in grants exceeded the increase in domestic revenues, total revenues and grants (25.4 percent) was lower than the previous year by 0.6 percentage points.

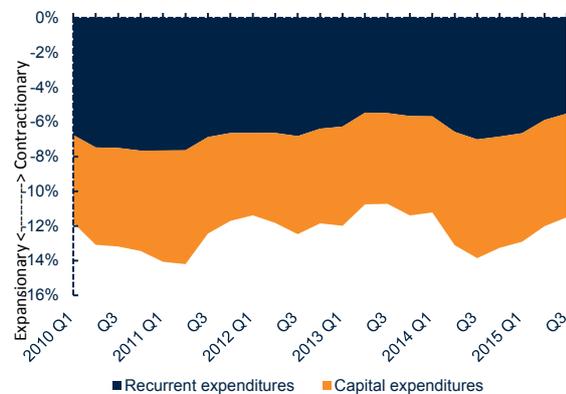
²⁸ "The domestic fiscal balance includes only those components of the conventional deficit that arise from transactions with the domestic economy and omits those transactions directly affecting the balance of payments. The measure is used to identify the direct expansionary impact of government on the domestic economy. This has proved a particularly useful indicator for some oil producing economies, where government revenues from exports do not reduce domestic absorption" (IMF, 1995, p.10)

(ii) **Expenditures** (figure 1.44): The expenditures to GDP ratio exceeded 30 percent for the first time at least in recent years (Figure 1.39). The recent increase is mainly due to capital expenditures and net lending, while recurrent expenditures as a share of GDP have remained constant. In FY2014/15, the expenditures to GDP ratio reached 30.4 percent, higher than the revised budget (29.9 percent) and the previous fiscal year (30.0 percent). This increase compared to the revised budget reflects the increase in Peace-keeping Operation (PKO) related recurrent expenditures (under exceptional social expenditures). On the other hand, net lending (1.7 percent of GDP) was lower than the projection in the revised budget (2.1 percent) due to a delay in the construction of Kigali Convention Center (KCC).

(iii) **Fiscal Balance and Financing** (figure 1.45): The combination of lower grants and revenues and higher expenditures compared to previous fiscal years has led to the increase in budget deficits from 4.3 percent in FY2013/14 to 5.3 percent in FY2014/15. On financing, in FY2013/14 and FY2014/15, budget deficits have been increasingly financed by domestic financing, which is consistent with the government aspiration to develop a domestic capital market.

In formulating the FY2016/17 budget, the Government of Rwanda has been increasingly focused on effective and efficient use of public resources. The government has started the process of FY2016/17 budget preparation by issuing the first planning and budgeting call circular (1st BCC) for the fiscal year²⁹. Building on improvements (e.g., the integration of Imihigo – performance contract with the budget process), the

Figure 1.42 Less expansionary fiscal stance (domestic revenues – expenditures, four quarter moving average, % GDP)



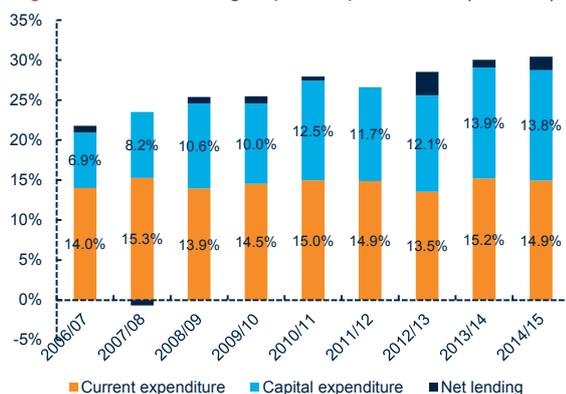
Source: MINECOFIN, World Bank staff calculations

Figure 1.43 Increasing domestic revenues (% GDP)



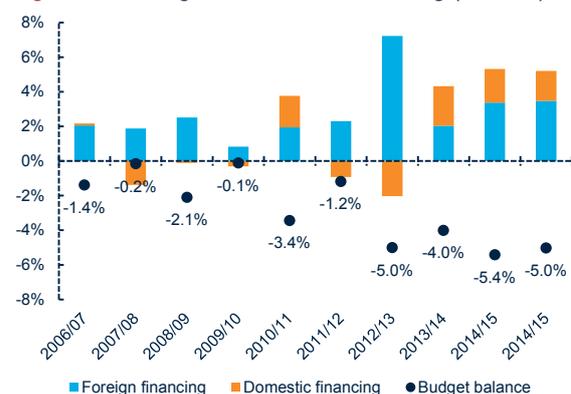
Source: MINECOFIN, World Bank staff calculations

Figure 1.44 Increasing capital expenditures (% GDP)



Source: MINECOFIN, World Bank staff calculations

Figure 1.45 Budget balance and financing (% GDP)



Source: MINECOFIN, World Bank staff calculations

²⁹ http://www.minecofin.gov.rw/fileadmin/templates/documents/Central_Government/2016-2017%20Budget%20Call%20Circular/CG%202016-17%20First%20Planning%20and%20Budget%20Call%20Circular.pdf

Table 1.8 Preliminary outturn of FY201/15 budget

	FY2013/14		FY2014/15			
	Actual		Revised		Preliminary Actual	
	Billion Rwf	Percent of GDP	Billion Rwf	Percent of GDP	Billion Rwf	Percent of GDP
Revenue and grants	1,336.4	26.0	1,414.5	24.9	1,418.7	25.4
Total revenue	862.1	16.8	997.4	17.6	1,002.8	18.0
Tax revenue	761.1	14.8	894.6	15.7	871.6	15.6
Direct taxes	311.1	6.1	364.0	6.4	375.7	6.7
Taxes on goods and services	394.1	7.7	461.5	8.1	432.4	7.7
Taxes on international trade	55.9	1.1	69.1	1.2	63.5	1.1
Nontax revenue	101.0	2.0	102.9	1.8	131.2	2.4
Total grants	474.3	9.2	417.1	7.3	415.9	7.5
Budgetary grants	171.0	3.3	176.1	3.1	174.9	3.1
Capital grants	303.3	5.9	241.0	4.2	241.0	4.3
Total expenditure and net lending	1,542.2	30.0	1,700.2	29.9	1,697.1	30.4
Current expenditure	779.9	15.2	794.4	14.0	834.1	14.9
Wages and salaries	187.9	3.7	207.0	3.6	203.9	3.7
Purchases of goods and services	142.5	2.8	151.2	2.7	159.5	2.9
Interest payments	43.6	0.8	42.9	0.8	45.6	0.8
Transfers	286.8	5.6	301.0	5.3	304.1	5.4
Exceptional social expenditure	119.1	2.3	92.3	1.6	121.1	2.2
Capital expenditure	712.1	13.9	787.0	13.8	769.8	13.8
Domestic	320.2	6.2	440.4	7.7	388.5	7.0
Foreign	391.9	7.6	346.6	6.1	381.3	6.8
Net lending	50.2	1.0	118.8	2.1	93.2	1.7
Overall deficit (cash basis)						
Including grants	-222.0	-4.3	-285.7	-5.0	-296.8	-5.3
Excluding grants	-696.2	-13.6	-702.8	-12.4	-712.7	-12.8
Financing	222.0	4.3	295.6	5.2	296.6	5.3
Foreign financing (net)	104.8	2.0	197.4	3.5	188.3	3.4
Domestic financing	117.2	2.3	98.2	1.7	108.3	1.9

Source: MINECOFIN

1st BCC further emphasizes the importance of planning for budget formulation. Also, it calls for enhanced coordination within and across MDAs (ministries, districts, and agencies). Finally, it focuses on harmonization and prioritization needs across government, as well as proactive private sector engagement.

Rwanda has been promoting gender-responsive budgeting in the past several years. The 2013 Organic Law on State Finances and Property puts gender balance in public state finance management as one of

six fundamental principles of Public Financial Management (PFM) (Article 4) and requires that a gender budget statement is included as part of the budget framework paper (BFP) (Article 32). In addition, to enhance the implementation of gender-responsive budgeting, the law requires the submission of activity reports based on the plans (Article 68). In its first year of compliance with the requirement in FY2014/15, all ministries and districts have submitted their respective gender budget statement annual implementation reports.

1.6 MACROECONOMIC POLICY AND MANAGEMENT

Tax Policies

The tax regulatory framework continued to be strengthened. Since late 2014, the following tax policy measures have been implemented: (i) Revision of the investment code through the Law relating to investment promotion and facilitation (N° 06/2015 of 28/03/2015, May 2015) aimed at removing loopholes and reducing unnecessary exemption, (ii) VAT base broadening through (Feb 2015) the amendment of the VAT law to reduce VAT exemptions and zero rated items, (iii) review of the excise tax regime, July 2015 (building on WTO recommendation, the tax regime for tobacco was reviewed to introduce a combination of ad-valorem and specific tax regimes), (iv) establishment of the infrastructure development levy on imported goods, July 2015 (aims to collect revenue to finance EAC railway project), and (v) increase in road maintenance levy fund (July 2015), etc.

In addition to the above-mentioned accomplishments, the government has reviewed Review Law N° 59/2011 relating to local government taxes and Presidential order N° 25/01 of 09/07/2012 relating to fees collected by local entities. The aim of the review is to improve land and property taxation; an increase in the tax rate is proposed especially for urban land, with the objective of making land and property taxation more progressive and better aligned to the urbanization policy for improved land management purposes. The draft law also reviews necessary articles to give powers to the Rwanda Revenue Authority to collect local government revenue on behalf of the districts. The revisions were sent to cabinet

for approval. Moreover, the draft law on the Income Tax law was sent to cabinet for approval with the aim to reduce existing loopholes such as transfer pricing, exemptions, and sales tax on immovable property.

Trade Policies

The ministers of the three blocs (Common Market for Eastern and Southern Africa (COMESA), EAC, and Southern African Development Community (SADC)) of the Tripartite Free Trade Area (TFTA) agreed to launch a tripartite Free Trade Area (FTA) in December 2014, and as of October 2015 discussions were underway. This agreement calls for an improved and harmonized trade regime that aims to reduce the cost of doing business and extend market opportunities to 26 African countries with a population totaling 625 million people. The Economic Partnership Agreement (EPA) negotiations with the EU were finalized in October 2014 and signed in October 2015, giving preferential access to the EU market for goods from the EAC countries, including Rwanda.

Business Regulatory Environment

The 2016 Doing Business survey has recognized Rwanda's progress in improving the business regulatory environment. Six reforms – more than in any other SSA countries – are recognized in the survey. As a result, Rwanda has retained the second best position of Sub-Saharan African countries after Mauritius (32nd among 189 economies). Also, Rwanda's score (62nd) is better than other EAC countries' such as Burundi (152nd), Kenya (108th), and Tanzania (139th). Selected reforms recognized in 2016 Doing Business survey include:

(i) Starting a Business: The government has been working to improve the efficiency of business registration as part of broader business regulation reforms aimed at promoting private sector development – a top priority on its reform agenda. Rwanda recorded a positive reform in making it easier to start a business by eliminating the need for new companies to open a bank account in order to register for VAT. As a result, starting a business requires only seven steps, and it is possible to open a business in Rwanda within half a day.

(ii) Dealing with Construction Permits: Rwanda recorded another reform in this area by making it easier to deal with construction permits by adopting a new building code and new urban planning regulations.

The law on the legal framework concerning establishment, implementation, and management of public-private partnerships (PPP law) was approved by Parliament in November 2015. The content of the law reflects the policy direction to shift the role of public investment as a catalyst for private investment. Together with the new investment law, Rwanda has been advancing the legal framework for private sector development.

1.7 ECONOMIC PROSPECTS

In summary, Rwanda’s macroeconomic situation is almost unchanged from the one in the previous edition (figure 1.46); the economy has maintained steady growth in 2015. However, downside risks have been increasing in both domestic and external fronts.

Economic growth projection for 2015 and 2016 are slightly adjusted from the previous edition. Growth is projected to reach 7.1 percent in 2015, 6.8 percent in 2016, and 7.2 percent in 2017 – close to the country’s potential growth. The development of recent indicators and the adverse external environments lead to the adjustment. Nevertheless, there are broadly three reasons/assumptions to project growth rates at around 7 percent for 2015-2017 including: (i) macroeconomic stability (mainly inflation and ex-

change rates), (ii) resulting policy flexibility, and (iii) positive regional economic outlook.

(i) Macroeconomic Stability: The developments of inflation and exchange rates indicate that there will be little inflationary pressure and exchange rate depreciation (especially real effective exchange rate) in the near future. The ongoing decline in oil prices is likely to have a positive impact on the economy through improved balance of payments, lower inflation rates, and lower expenditures on fuel subsidies.

(ii) Policy Flexibility: Macroeconomic stability would contribute to increased fiscal and monetary policy flexibility. Rwanda’s favorable economic outlook builds on continued macroeconomic stability and implementation of priority policies (e.g., strategic investment) through the state budget.

(iii) Regional Economic Outlook: The World Bank projects that all EAC countries will steadily grow in 2016 (table 1.9). This positive regional economic outlook is advantageous to Rwanda given its economic relationship to the region, especially with formal and informal exports (see section 1.3). Though lower than 2014 at 9.0 percent, the World Bank also projects that DRC's growth rates will be 8.0 percent in 2015 and 8.6 percent in 2016.

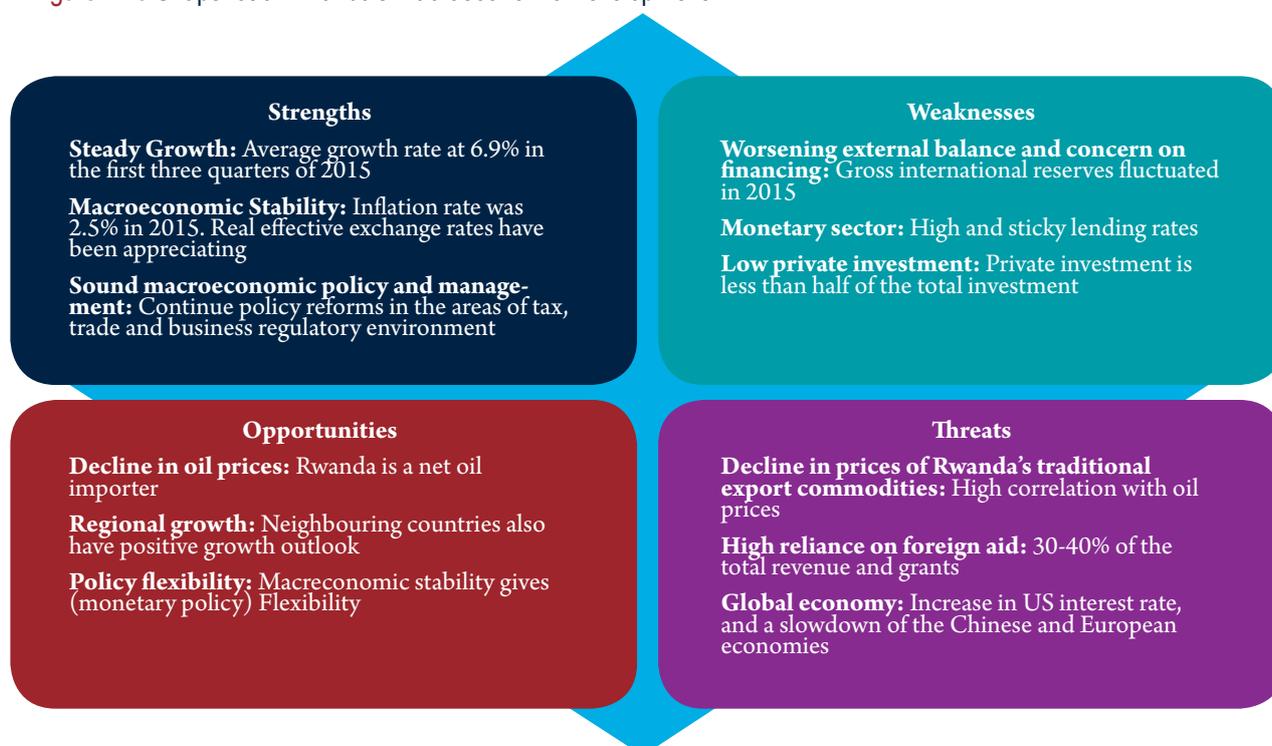
Despite the positive economic outlook, a number of emerging factors pose risks to this projection. These factors are the combination of external domestic factors including: (i) the slowdown of Chinese and European economies, (ii) budget execution, and (iii) financing development.

Table 1.9 Growth projections of neighboring countries

	2013	2014	2015 f	2016 f	2017 f
Rwanda	4.7	7.0	7.1	6.8	7.2
Burundi	4.6	4.7	-2.3	3.5	4.8
Kenya	5.7	5.3	5.4	5.7	6.1
Tanzania	7.3	7.0	7.2	7.2	7.1
Uganda	3.3	4.5	5.0	5.0	5.8
DRC	8.5	9.0	8.0	8.6	9.0

Source: Other than Rwanda, Global Economic Prospects (January 2016)

Figure 1.46 Snapshot of Rwanda's Macroeconomic Development



Source: World Bank

(i) Slowdown of Chinese and Europe's economies: An immediate and direct impact of slowdown of the Chinese economy would be limited due to only a small share of Rwanda's exports going to China (Annex 1.2). However, if it affects the global economy (including Rwanda's main trading partners), Rwanda's growth would be negatively affected. For example, in 2009, Rwanda's GDP growth decelerated to 6.3 percent from 11.2 percent in the previous year mainly due to the decline in exports by 23 percent in real terms.

(ii) Budget execution: The size of the budget in the economy increased from 22 percent in 2004 to 31 percent in 2014. In other words, the importance of the budget in the economy has kept increasing. At the same time, 35 percent of the budget was financed by aid (in grants and loans). Thus, the government aims to reduce its reliance on aid through the combination of fiscal consolida-

tion and domestic resource mobilization. In promoting fiscal consolidation, in the medium-term, potential negative impact on the economy will have to be mitigated through expenditure prioritization. Recent improvement in public investment management (including the establishment of the public investment committee) demonstrates government effort in this direction. In the short term, smooth budget execution is critical. For example, the realization of capital expenditures (including net lending) in FY2014/15 was lower than the revised budget due to the delay in the construction of KCC.

(iii) Financing development: As Rwanda's investment relies a lot on foreign saving (aid and other forms)³⁰, stable inflows of foreign saving (including aid flows) is critical to keep the current high investment rate at around 25 percent of GDP.

Table 1.10 Macroeconomic projection

	2011	2012	2013	2014	2015 f	2016 f	2017 f
Real Gross Domestic Product	7.9	8.8	4.7	7.0	7.1	6.8	7.2
Private Consumption	9.0	6.9	2.9	5.3	10.0	5.5	5.9
Public Consumption	3.8	14.7	1.0	14.5	-11.8	14.7	5.7
Gross Fixed Capital Investment	9.3	21.8	7.2	9.4	7.8	8.2	7.9
Exports, Goods and Services	40.5	17.7	13.7	4.2	8.1	12.5	12.9
Imports, Goods and Services	24.5	21.3	5.6	7.2	8.7	8.0	8.4
GDP, at market prices	7.9	8.8	4.7	7.0	7.1	6.8	7.2
Agriculture	4.7	6.4	3.3	5.3	5.0	4.7	5.1
Industry	17.6	8.5	9.3	5.8	6.6	7.9	8.3
Services	8.0	11.6	5.3	8.9	7.6	7.8	8.2
CPI Inflation, period average	5.7	6.3	4.2	1.8	4.5	3.0	3.0
Current account balance, % of GDP	-7.3	-10.2	-7.4	-11.8	-12.3	-11.9	-11.4
Fiscal Balance, % of GDP	-0.3	-3.0	-4.0	-6.2	-4.2	-4.6	-5.1
Poverty rate (\$1.9 a day, 2011 PPP) 1/	58.5	56.4	55.7	54.3	-	-	-
Gini coefficient consumption	49.6	-	-	44.8	-	-	-

1/ all poverty rates are estimates. Last survey-based poverty rate (2010) was 60.4. Projections using annualized elasticities (2008-2012) with pass-through 0.87 based on GDP constant.

Source: World Bank

³⁰ Please see the eighth Rwanda Economic Update

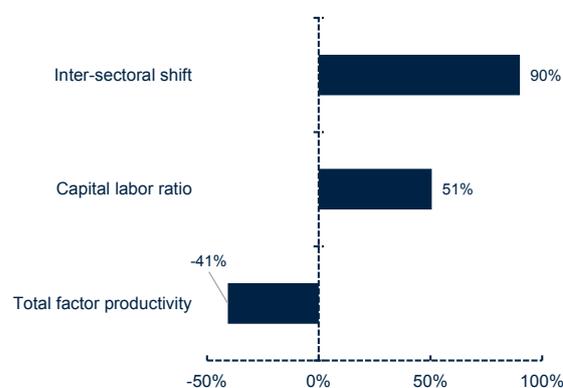
1.8 LABOR TRANSITION AND GROWTH IN LABOR PRODUCTIVITY

The inter-sectoral shift from agriculture to non-agriculture was the main reason for the increase in labor productivity between 2006 and 2011. During the period, annual average GDP growth reached 8.0 percent. The increase in output per worker (i.e., labor productivity) (4.0 percent) and the increase in employment (3.9 percent) equally contributed to GDP growth. A Shapley decomposition exercise using the Job Generation and Growth Decomposition tool (JoGGs)³¹ shows that inter-sectoral shift contributed to 90 percent of the increase in labor productivity (figure 1.47). During the period, the share of employment in agriculture fell from 79 percent to 73 percent, while the share of non-manufacturing industry and services increased from two percent to four percent, and from 17 percent to 21 percent.

Understanding employment dynamics is more important in order to harness the demographic dividend. According to the UN population projection, Rwanda's working age population (15-64 years old) is projected to increase from 6.7 million in 2014 to 16 million in 2050 with an annual growth rate at 2.4 percent. As working age population is projected to increase faster than the overall population, the share of working age population in total will increase from 56 percent in 2014 to 64 percent in 2050. This projected increase in new entrants to the labor market provides Rwanda with opportunities to harness the demographic dividend. At the same time, if new entrants are unemployed or underemployed, this increase would have a negative impact on development. Thus, understanding employment dynamics is the very important first step to seizing opportunities.

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Figure 1.47 Inter-sectoral shift is the main source of labor productivity increase (% contribution to increase in labor productivity)



Source: World Bank staff calculations

³¹ http://siteresources.worldbank.org/INTEMPHAGRO/Resources/JoGGs_Decomposition_Tool_UsersGuide.pdf

³² The fifth REU (2013) focuses on demographic dividend in Rwanda

PART TWO: RWANDA AT WORK



2.1 RWANDA'S EMPLOYMENT LANDSCAPE: THE 2011 SNAPSHOT

A Young and Low-Skilled Labor Force

The labor force in Rwanda is young and low-skilled. Half of the labor force is between 16 and 32 years of age, and only 20 percent is 50 years or older. Despite recent improvements, in particular among the youth, education of the labor force remains low: Almost 70 percent of the labor force did not complete primary education and only five percent completed secondary school or more (figure 2.1). One in five labor force participants never entered school to begin with.

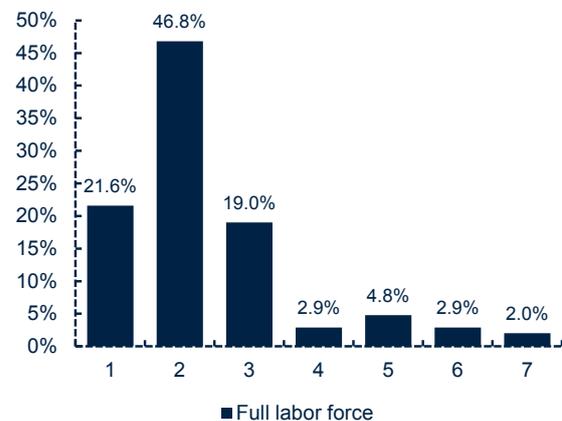
Employment Dominated by Agriculture and Informality

Agriculture provides employment to the bulk of working Rwandans. Independent family farming (people cultivating their own or their family's land without a wage) represents the main employment for 2.9 million working-age Rwandans, accounting for almost 60 percent of overall employment (figure 2.1 and figure 2.2). Wage farming (people cultivating other people's land for a wage) provides employment to another 0.6 million people (12 percent of total employment). Taken together, 70 percent of workers have their main occupation in agriculture (the sum of the shares of independent farming, unpaid family farming, and wage farming in figure 2.2).

The non-farm sector is characterized by wage employment and informality. Approximately 0.9 million Rwandans have their main job in non-farm wage employment, accounting for 19 percent of total employment, while 0.6 million (12 percent) are engaged in independent non-farm business activities (categorized as "non-farm self-employment," "employer," and "unpaid household enterprise workers" in figure 2.2). The bulk of em-

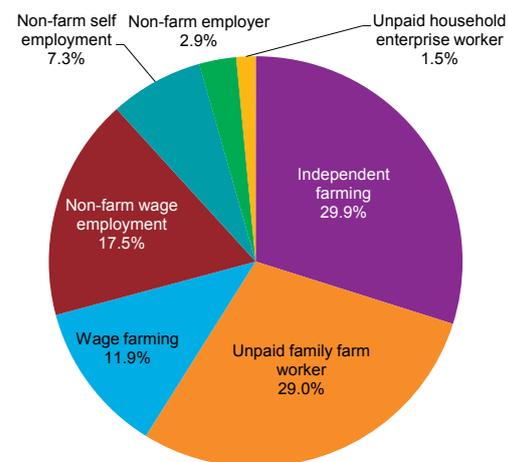
ployment in the non-farm sector is informal: 60 percent of wage work and 90 percent of independent employment in the non-farm sector is informal.

Figure 2.1 The labor force is largely unskilled (proportion of labor force participants by education level, 2011)



Source: EICV 2011

Figure 2.2 Agriculture dominates employment (proportion of workers by % employment type, 2011)



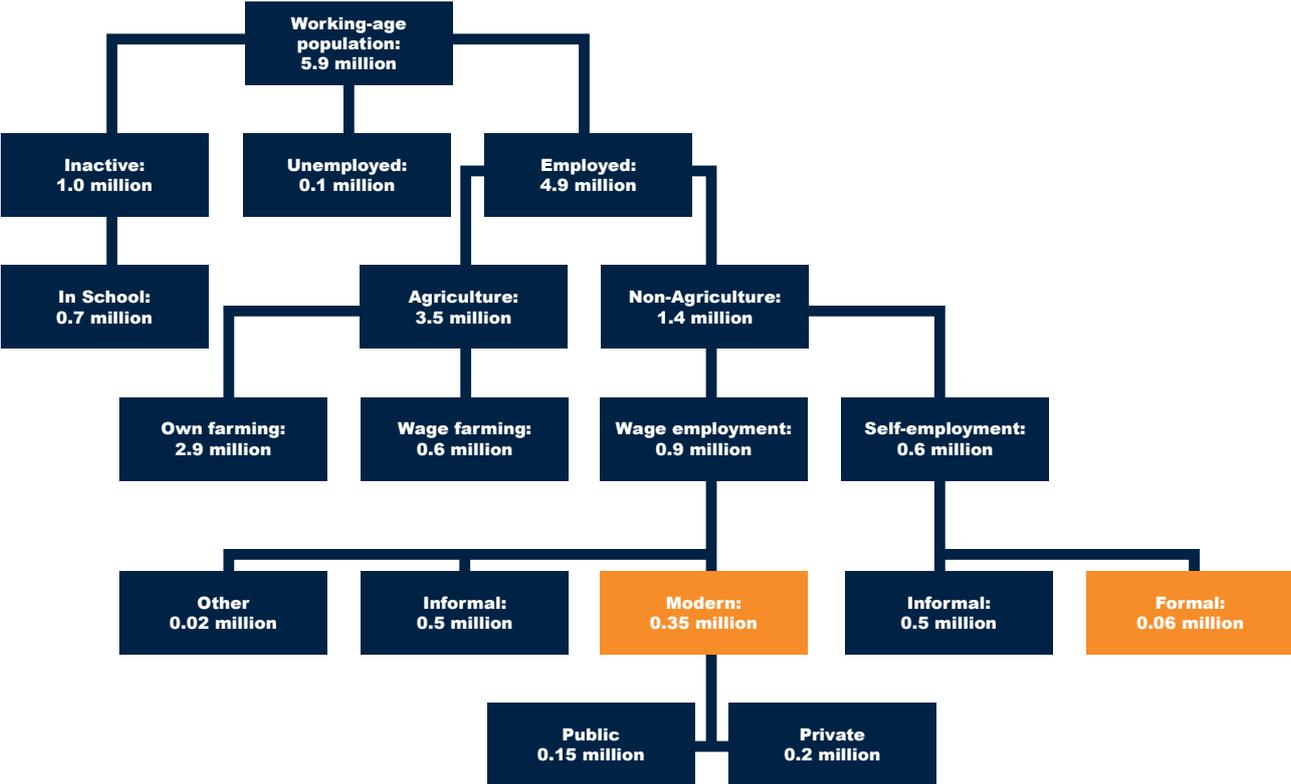
Source: EICV 2011.

The modern wage sector-providing what many would consider "good jobs" is small. About 0.15 million workers had their main employment in the public sector (in 2011), while the formal private sector accounts for another 0.2 million workers (figure 2.2). Taken together, the modern wage sector provides employment to approximately six percent of the working-age population. The formal private sector remains marginal in terms of employment, accounting for three percent of the working-age population.

The bulk of jobs in Rwanda do not involve any labor exchange. Most workers are self-employed in agriculture or in small, mainly one-person enterprises in the non-farm sector. In 2011, wage employment (where people exchange labor in return for a wage)

accounted for about 30 percent of workers (figure 2.3). The remaining 70 percent of workers were self-employed in subsistence agriculture or in non-farm businesses. As a result, we avoid as much as possible use of the term “labor market.”

Figure 2.3 A snapshot of jobs in Rwanda (2011)
(number of workers per employment category)



Source: EICV 2011

Low Earnings and Widespread Underemployment

For the majority of the population earnings are low (though they have increased considerably since 2006). In 2011, median monthly earnings from all jobs amounted to Rwf 18,175, meaning that half of workers earned Rwf 18,175 per month or less (this amounting to US\$31 using the official exchange rate and US\$74 using the purchasing power parity-adjusted exchange rate)³³. Half of workers earn between Rwf 113,000 and Rwf 400,000 a year (between 9,400 and 33,300 a month³⁴), and 90 percent of workers earn less than Rwf 780,000 a year (Rwf 65,000 per month – figure 2.4). Less than six percent of employed Rwandans earn Rwf 100,000 per month or more (approximately US\$405 in PPP terms).

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³³ Earnings are calculated at the level of the individual worker. Earnings of own-account workers, both in agriculture and in the non-farm sector, are calculated based on reported turnover and costs in the surveys. See Annex 1 for an explanation on how earnings were calculated

³⁴ This is the so-called interquartile range

More than 30 percent of workers are engaged in so-called “low-earnings jobs”, or jobs with earnings below the official poverty line³⁵. Low earnings are mainly a consequence of underemployment: 58 percent of workers with low earnings earn below the poverty line because of the short hours they work (table 2.1). About 36 percent of workers in Rwanda are underemployed, meaning that they work less than 35 hours a week and would like to work more.

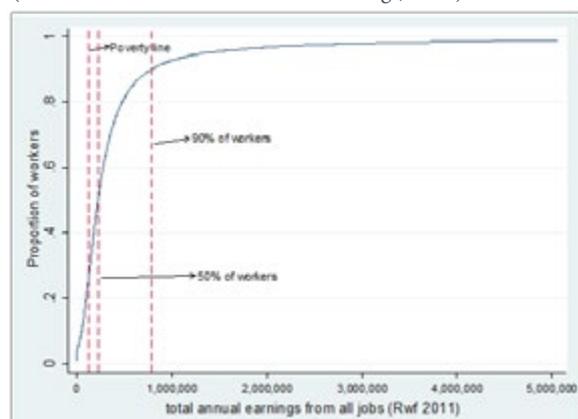
Table 2.1 Main indicators of employment quality in 2001

Median earnings (all jobs)	218,110.4
Median hourly earnings	185.9
Low earnings rate	33.2
Poverty rates among low earners	55.0
Share of low earners who have low earnings due to short hours	57.7
Share of low earners who work long hours	8.8
Share of non-low earners who escape low earnings due to long hours	3.1
Median earnings (all jobs)	218,110.4

Note: Earnings are expressed on an annual basis in 2011 Rwf and include earnings from all jobs.

Source: EICV, 2011.

Figure 2.4 Earnings are low for most workers (cumulative distribution of annual earnings, 2011)



Note: Figure is censored at the 99th percentile and does not show top incomes. Negative earnings have been dropped.

Source: EICV, 2011

Workers in agriculture earn significantly less than non-farm workers. Median monthly earnings (from all jobs) of an agricultural worker amounted to Rwf 16,000 in 2011 (PPP US\$65), substantially lower than for workers with a main job outside farming (Rwf 30,000 – PPP US\$122). Within sectors there are important differences too: In farming, wage farmers are the worst-off with over 40 percent of them earning below the poverty line (table 2.2). Independent farmers are,

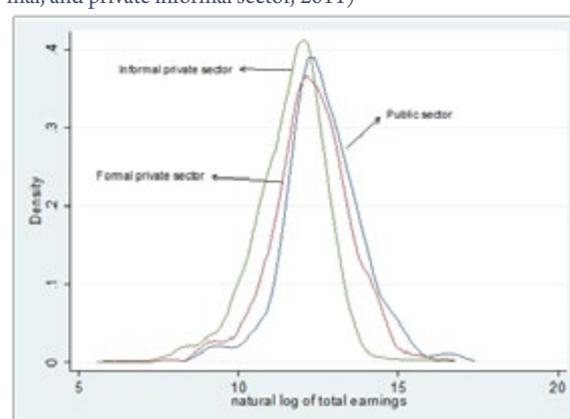
Table 2.2 Earnings in the non-farm sector are substantially higher (indicators of job quality by type of main employment, 2011)

Type of employment	Median annual earnings	Low earnings rate (%)
Agriculture	191,952.9	36.6
Independent farming	214,888.3	31.3
Unpaid family farm worker	183,154.5	39.7
Wage farming	166,272.0	41.7
Non-agriculture	360,000.0	23.9
Non-farm wage employment	366,757.2	23
Non-farm self-employment	278,841.6	28.2
Non-farm employer	592,800.0	16.2
Unpaid household enterprise worker	301,776.0	28.6

Note: Earnings are expressed on an annual basis in 2011 Rwf and include earnings from all jobs

Source: EICV, 2011

Figure 2.5 Wage earnings are highest in the public sector (distribution of earnings for employees in the public, private formal, and private informal sector, 2011)



Source: EICV3, 2011; World Bank staff calculations

³⁵ This means that the annual earnings the worker earns from all of his/her jobs are lower than the annual poverty line. The poverty line amounts to Rwf 118,000 per adult equivalent per year (in 2011 prices). Note that income or earnings are usually underreported in household surveys, which means the “true” low earnings rate is likely to be somewhat lower

relatively speaking, best off. In the non-farm sector, median earnings are highest for employers and lowest among the self-employed (those working alone in a one-person business).

In non-farm wage employment, the formal sector (public and private) provides the highest earnings. Median earnings in the public sector amounted to approximately Rwf 50,000 per month in 2011 (PPP US\$203), compared to Rwf 41,600 (PPP US\$169) in the formal private sector and Rwf 22,100 (PPP US\$90) in the informal private sector (figure 2.5). Working in the non-farm sector seems uniformly better than farming: even the least attractive non-farm activity (wage employment in the informal private sector) is associated with higher earnings than any of the agricultural types of employment (table 2.2).

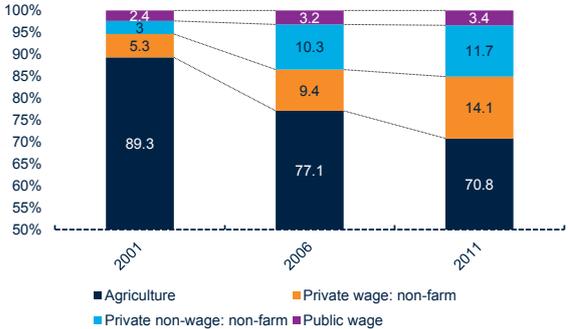
The stylized facts paint a bleak picture of the employment situation in Rwanda, characterized by agriculture, informality, and low earnings. Nevertheless, the employment situation has markedly improved since 2006 and there have been a number of firmly positive evolutions, most notably a diversification into non-farm occupations and a strong increase in earnings. The following sections focus on these dynamics and highlight the role played by young workers as an engine of change.

2.2 WHAT WORKERS DO AND THE WAY THEY DO IT IS CHANGING

2.2.1 A move from agriculture to non-farm occupations

One of the most salient evolutions over the past decade is the progressive move towards non-farm occupations (box 2.1). In 2011, 30 percent of employed Rwandans had their main job outside agriculture³⁶, up from 23 percent in 2006 and 11 percent in 2001 (figure 2.6)³⁷. The move to non-farm occupations happened both for wage and self-employment: the share of workers with a main job in non-farm wage employment increased from 13 percent in 2006 to 18 percent in 2011 (coming from a mere eight percent in 2001), while the share of non-farm self-employment increased from 10 percent to 12 percent (but increased significantly from the five percent in 2001). The decline in agricultural employment is mainly due to a big drop in unpaid family farm workers: 29 percent of workers had their main job in unpaid family farming in 2011, down from 38 percent in 2006 (table 2.3).

Figure 2.6 Agriculture is declining as a share of total employment (category of main employment as a share of total employment, 2001-2006-2011)



Source: EICV1, 2, and 3

³⁶ This only refers to worker's main occupation (the occupation where s/he spends the most time in). Most workers however work several jobs (section 2.3)

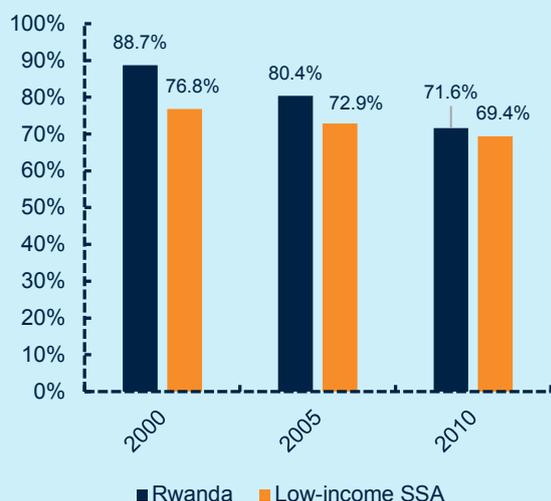
³⁷ Main employment is defined as the job in which the person worked most hours in the 12 months preceding the survey. Defining the main job as the job that procures the biggest share of income does not result in any qualitative changes

Box 2.1 A Transition on Steroids. At the start of the millennium, agriculture's employment share was far above the regional low-income average; it has quickly converged since then.

The share of workers employed in agriculture has decreased sharply since the turn of the century (figure 2.7). This transition has not been limited to Rwanda. Indeed, Africa's decade of strong growth has been accompanied by a re-allocation of labor from agriculture to on average more productive non-farm sectors. The transition has however been particularly fast in Rwanda: In

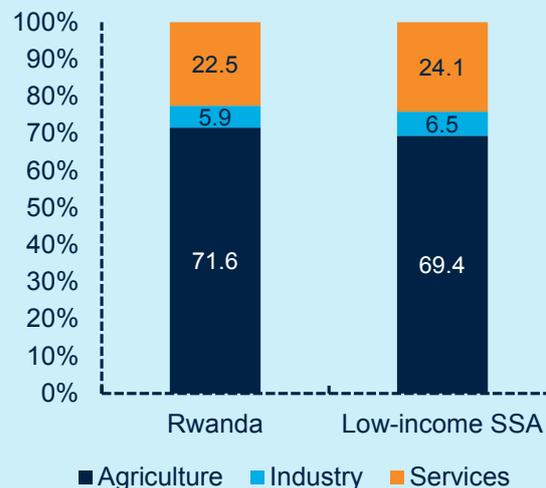
2000, the employment share of agriculture was substantially higher in Rwanda (89 percent) than in other low-income African countries (77 percent on average for countries with data)³⁸. By 2010, Rwanda still had a higher share of employment in agriculture (72 percent vs 69 percent as the low-income average), but the gap had substantially narrowed (figure 2.7). By 2010, the employment structure in Rwanda looked similar to that of other low-income countries in Africa, though the share of services in total employment was a little lower (figure 2.8).

Figure 2.7 Labor reallocation has been particularly fast in Rwanda...
(agriculture's share of employment, %)



Source: World Bank, 2013³⁹

Figure 2.8 ...and agriculture's share of employment is now comparable to the average for low-income SSA
(employment share by sector, %)



Source: World Bank, 2013

The non-farm sector accounted for the bulk of new employment since 2006. There were approximately 0.6 million new workers working in 2011 (compared to 2006), 73 percent of whom took up employment in the non-farm sector (figure 2.9). Non-farm wage employment accounted for half of new workers (51 percent), with especially the private

sector absorbing many new workers: The informal private sector added 300,000 wage workers (a three-fold increase since 2006), while the formal private sector added 100,000 (a doubling since 2006). Considering both the public and the formal private sector, modern wage employment grew by 67 percent between 2006 and 2011.

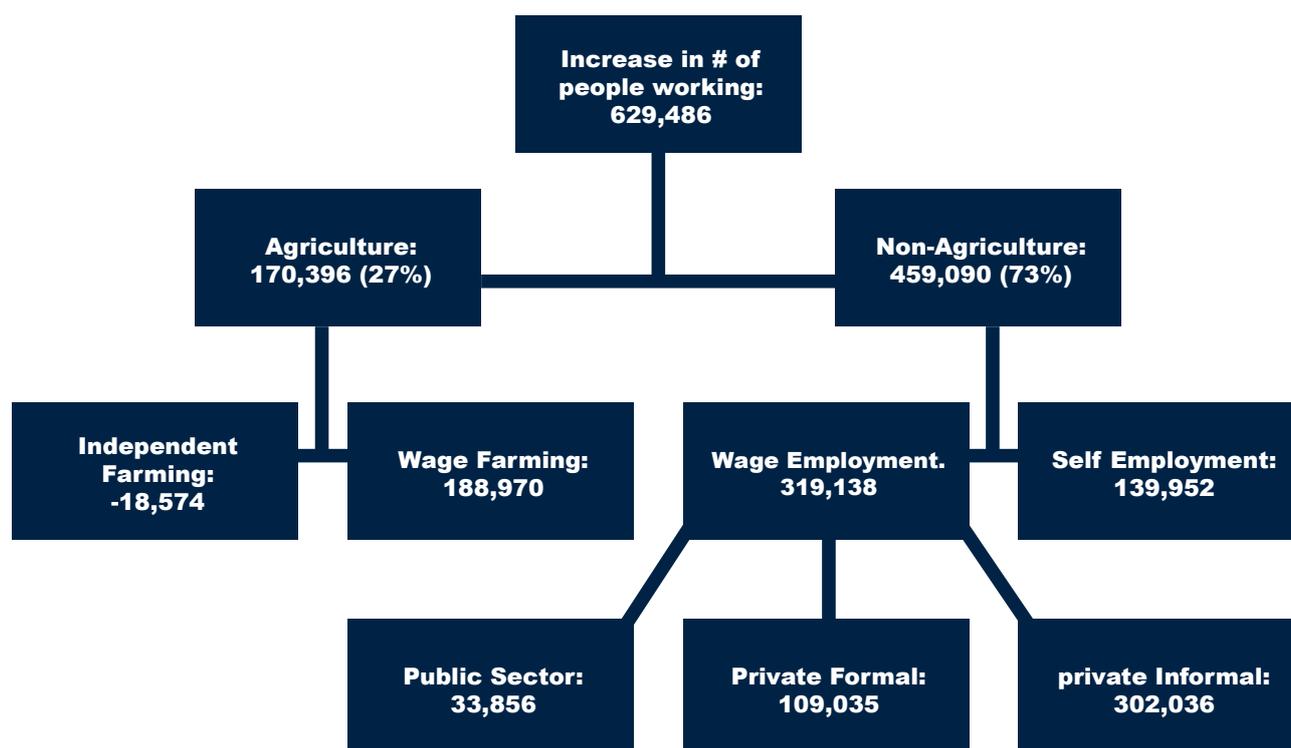
³⁸ The employment shares for Rwanda presented in Box 1 are slightly different than the ones presented due to the standardized nature of the I2D2 database

³⁹ World Bank (2013). "International Income Distribution Database (I2D2)". Washington, D.C.: World Bank

Published results from the latest survey in 2014 suggest that the move to non-farm employment as a main job has slightly leveled off after 2011. In 2014, there were about 0.55 million more workers than in 2011, half of which took up main employment in agriculture (and half in the non-farm sector). As a result, agriculture's share of main employment decreased by less than

two percentage points between 2011 and 2014, compared to more than six percentage points between 2006 and 2011 (table 2.3). However, job creation in the non-farm sector remained healthy: the number of wage jobs outside farming, be it main or secondary jobs, increased by about 0.34 million between 2011 and 2014⁴⁰.

Figure 2.9 The non-farm sector accounted for the bulk of new jobs since 2006 (sector of work and occupation of new workers added between 2006 and 2011)



Note: The category “independent farming” pools independent farmers and unpaid family farm workers. For wage employment, the sub-categories do not sum to the total new workers in wage employment, as the number of wage workers in “other” wage jobs (not shown in the diagram) decreased substantially since 2006

Source: EICV, 2006; 2011

Table 2.3 Unpaid family farming drops as a share of total employment, non-farm wage employment on the rise (main employment as a share of total employment)

Type of employment	2006	2011	Percent change
Agriculture	77.1	70.8	-8.2%
Independent farming	30.3	29.0	-1.3%
Unpaid family farm worker	37.6	29.9	-22.9%
Wage farming	9.2	11.9	29.3%
Non-agriculture	22.9	29.2	27.5%
Non-farm wage employment	12.6	17.5	38.9%
Non-farm self-employment	7.2	7.3	1.4%
Non-farm employer	0.6	2.9	383.3%
Unpaid household enterprise worker	2.5	1.5	-40.0%

Source: EICV, 2006; 2011

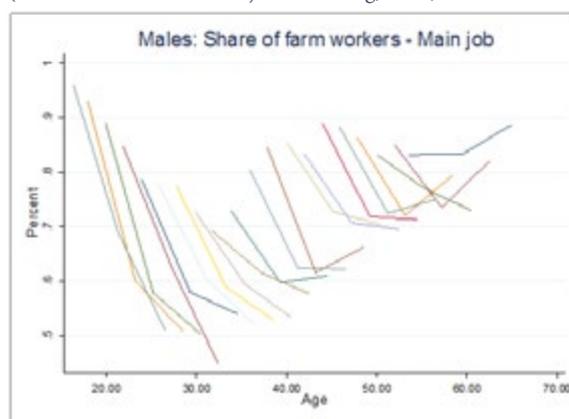
⁴⁰ All figures from NISR (2015). Note that we cannot conduct a more detailed analysis of the post 2011 trends since the EICV4 microdata are not yet publicly available

The shift to non-farm employment was particularly important for men. The share of male workers with a main occupation outside farming increased from 33 percent in 2006 to 42 percent in 2011, while the share for women remained low at 19 percent, up from 15 percent in 2006 (table 2.4). Male workers transitioned mainly to wage employment in the non-farm sector, whose share in total employment increased by eight percentage points. Though women also increasingly had their main occupation in non-farming, the main change for women happened within the agricultural sector, with unpaid work on the family farm losing importance to independent farming and wage farming (table 2.4).⁴¹

Young men spearheaded the shift to non-farm employment. Figure 2.10 shows, for each cohort, the proportion of workers with their main job in agriculture in 2001, 2006, and 2011. Each line in figure 2.10 follows the same cohort through time: the starting point of each line (left-hand-side point of each line) shows the proportion of the cohort with a main job in agriculture in 2001, while the middle and ending points of the same line show the proportion of this same cohort who still had their main job in agriculture by 2006 and 2011, respectively. For the youngest co-

hort for example (the first line in figure 2.10), who were 16 years of age in 2001, 95 percent had a main job in farming in 2001. This dropped to about 70 percent in 2006 (when the cohort was 21 years old) and 50 percent by 2011 (when they were 26 years old). While main employment in agriculture decreased for all cohorts (except for the oldest cohort), the decrease was far more salient for the young⁴². While women also increasingly had their main employment outside farming, the magnitude of the shift was a lot smaller.

Figure 2.10 Young men drive the move to non-farm occupations
(share of cohort with main job in farming, 2001, 2006 and 2011)



Source: EICV, 2001; 2006; 2011. World Bank staff calculations

Table 2.4 Men in particular are transitioning to non-farm employment
(main employment as a share of total employment for men and women, 2006 and 2011)

Type of employment	Women		Men	
	2006	2011	2006	2011
Agriculture	85.4	81	67	58.1
Independent farming	23.4	24.5	38.9	34.4
Unpaid family farm worker	54.5	45.7	16.8	10.6
Wage farming	7.5	10.8	11.3	13.1
Non-agriculture	14.6	18.9	33	41.8
Non-farm wage employment	6.1	8.5	20.6	28.4
Non-farm self-employment	5.3	6.8	9.4	8
Non-farm employer	0.3	2	1	4
Unpaid household enterprise worker	2.9	1.6	2	1.4

Source: EICV, 2006; 2011

⁴¹ This will be explored in more detail in a later section

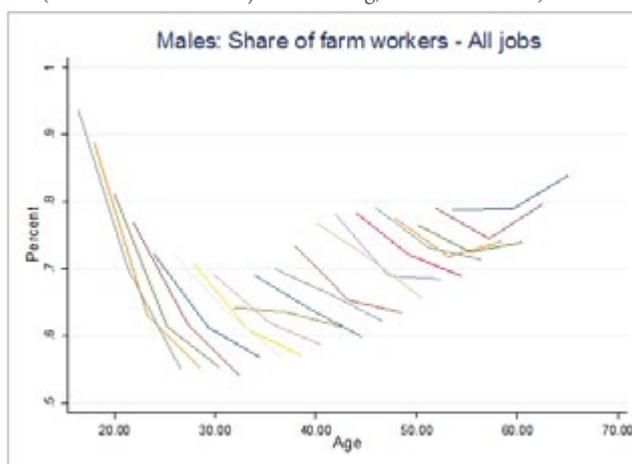
⁴² Note from figure 14 that the shift to non-agricultural occupations was more salient between 2001 and 2006 than between 2006 and 2011

Looking at all jobs rather than just the main job, the principal finding is that young cohorts of Rwandans are moving away from agriculture. The share of workers with a job in agriculture, regardless of whether it is as a primary or secondary occupation, dropped off sharply since 2001 for the younger cohorts (figure 2.11). The middle-aged cohorts however do not quit agriculture but rather modify their engagement with the farm: while middle-aged workers (in their 40s and 50s) are substantially less likely than before to have their main job in farming (figure 2.10), the share that does not work in agriculture at all only diminished modestly (figure 2.11). The shift to non-farm employment as primary occupation is thus the result of two complementary dynamics: first, young people are moving out of agriculture altogether and moving to non-farm occupations, while secondly, older workers increasingly shift their main occupation outside farming but maintain a strong presence on the farm (as secondary occupation).

Education and location are the main cohort characteristics correlated with the shift out of agriculture. Higher educated cohorts are more likely to be in non-farm jobs. Estimates of a pseudo-panel regression show that a higher educational level (relative to cohorts with no schooling at all) is correlated with a larger ratio of non-farm to farm jobs. The impact of education increases monotonically with the level of education and reaches a peak at secondary or higher education. Urbanization matters too: the larger the fraction of individuals living in urban areas in each cohort, the higher the share of non-farm jobs relative to farm jobs in that cohort. The lag of the proportion of non-farm to farm jobs in each cohort has a positive effect indicating some degree of persistence: the larger the share of non-farm to farm jobs in each cohort

in year t , the larger that proportion is in year $t+1$. Hence, the move to non-farm activities is likely to continue⁴³.

Figure 2.11 Young men abandon agriculture, older men less so
(share of cohort with a job in farming, 2001-2006-2011)



Source: EICV, 2001; 2006; 2011. World Bank staff calculations

2.2.2 A changing employment structure within agriculture

Another salient evolution in Rwanda's jobs scene is the move towards wage employment in agriculture. While unpaid family farming (household members working on the household farm without remuneration) dropped as a share of employment, from 38 percent in 2006 to 29 percent in 2011, the share of wage farming increased (table 2.3). In absolute terms, independent family farming shed workers since 2006 (there were about 18,000 fewer workers in farm self-employment in 2001 than in 2006 – figure 2.9), while wage farming recorded a strong increase (there were 190,000 more wage farmers in 2011 than in 2006).

The agricultural dynamics differed between women and men. For women, the declining share of unpaid family labor was to some extent compensated by the increasing share in independent farming and wage

⁴³ For full details of the pseudo panel regression, consult the Rwanda Employment and Jobs Study (<http://documents.worldbank.org/curated/en/2015/11/25244484/rwanda-employment-jobs-study>)

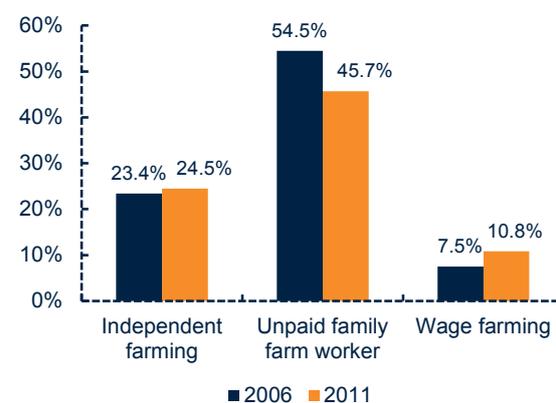
farming (figure 2.12). For men, the declining share in unpaid family farming was accompanied by a decline in independent farming and a modest increase in wage farming (figure 2.13). While the picture for men points towards a progressive diversification out of agriculture towards non-farm activities, women tended to shift occupations within agriculture.

The move to wage employment in agriculture is mainly driven by female youth.

For the younger cohorts, the share of women with a main job in farm wage employment increased substantially between 2001 and 2011 (steeply sloped lines in Figure 2.14). To illustrate, only about two percent of women in the cohort born in 1982/3 (second line in figure 2.14) had their main job in farm wage employment in 2001. By 2011, this had increased to 12 percent⁴⁴ For older cohorts, the lines are flatter, indicating a slower move towards farm wage employment for older women. While men also were more and more likely to engage in farm wage employment, the trend was less outspoken than for women, and appears to have lost momentum during the second half of the decade).

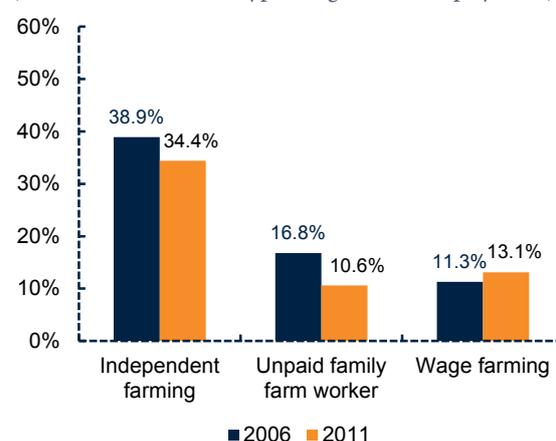
Whether the move to farm wage employment has been positive or negative depends largely on where the young women were coming from (i.e., what they were doing before). Looking at job dynamics between 2006 and 2011, there was a net decrease in young women working in unpaid farm labor and a net increase in young women working as independent farmers and agricultural employees (figure 2.15). Although there is no panel data, this is consistent with female youth moving from unpaid family labor to paid farm labor (and to a somewhat lesser extent, independent farming). Given that unpaid family farmers are heavily under-

Figure 2.12 A reallocation within agriculture for women (share of women in different types of agricultural employment, %)



Source: EICV, 2001; 2006; 2011

Figure 2.13 A moving out of agriculture for men (share of men in different types of agricultural employment(%))



Source: EICV, 2001; 2006; 2011

Figure 2.14 Female youth drive the move to agricultural wage employment (share of cohort with main job in wage farming, 2001-2006-2011 - females)

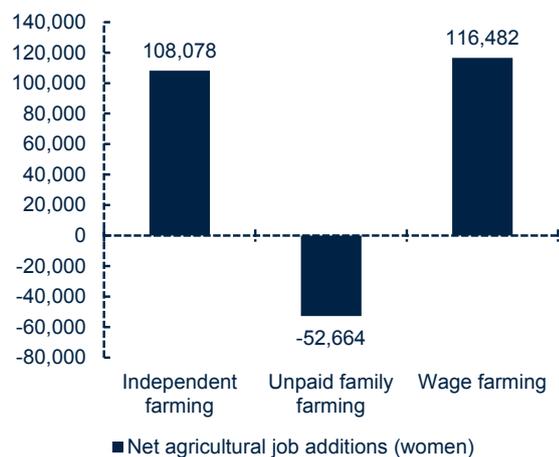


Source: EICV, 2001; 2006; 2011. World Bank staff calculations

⁴⁴ For each line in Figure 2.14, the starting point of the line shows the proportion of women in the cohort with a main job in wage farming in 2001. The middle point of the line shows the proportion of women in that same cohort with a main job in wage farming in 2006, while the ending point of the line shows the situation in 2011

employed on the family farm (see next section) and do not actually earn an income, the move to wage farming may have been important in pushing up aggregate household incomes.

Figure 2.15 Young women move from unpaid to paid farming
(net agricultural job additions for young women, 2006-2011)



Source: EICV, 2006; 2011

The increase in farm wage employment is consistent with a move towards a more commercial or market-oriented mode of agricultural production as well as increased specialization. At the household level, the share of harvests that are sold on markets has increased steadily over the past decade, from 13 percent in 2001 to 21 percent in 2011. Also, although hard data on this is not available, the rollout of the policy of agricultural land use consolidation and regional specialization since 2007/8 is believed to have increased the demand for

farm wage labor due to bigger harvests. Under the Crop Intensification Program (CIP), farmers consolidate the use of their lands (to bring production to scale) and grow one single crop based on prevailing agro-ecological conditions. According to the Ministry of Agriculture and Animal Resources (MINAGRI), production of priority crops increased substantially following the rollout of the CIP⁴⁵: production of maize increased five-fold, that of wheat and cassava three-fold, and production of beans and Irish potatoes doubled. Increased production and specialization may have increased demand for farm wage labor, which may have been a more attractive option for young women previously working as unpaid labor on the family farm⁴⁶.

The figures so far hint at a disadvantaged employment position of women (box 2.2). Looking at table 2.4, women are four times more likely to have their main job in unpaid farming than men, and almost four times less likely to engage in non-farm wage employment as their main occupation. Women are also less likely to be self-employed in the non-farm sector or to be employers. As a result, median earnings of women are almost 20 percent lower than those of men. The bulk of the earnings gap between men and women (77 percent) is unexplained by differences in characteristics⁴⁷. Rather, women have substantially lower returns on education and experience (age) than men do; that is, for similar age and education, women earn significantly less than men.

⁴⁵ Mbonigaba Muhinda and Dusengemungu

⁴⁶ On the other hand, the move towards farm wage labor may also be explained by the ever-decreasing landholdings, putting stress on traditional livelihoods

⁴⁷ This is based on an Oaxaca-Blinder decomposition of income differentials between men and women (Annex 3)

Box 2.2 Education, Discrimination, or Cultural Self-Selection? Whatever the reason, women’s position in the labor market is not enviable

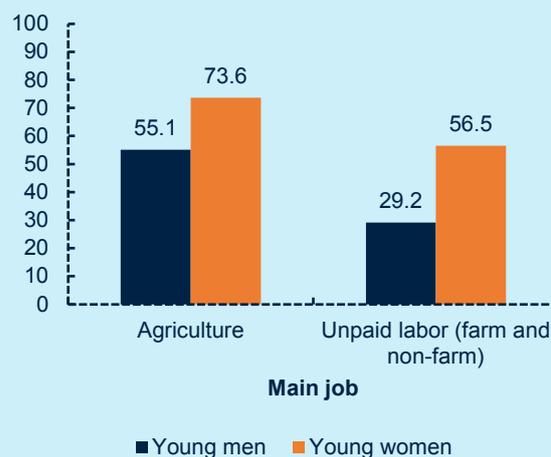
Women in Rwanda are overrepresented in the lower-quality job categories. Eighty-one percent of women have their main job in agriculture, a comparatively low-productivity and low-earnings sector, compared to 58 percent of men. Within agriculture, women are more than four times more likely than men to be involved in unpaid family labor as their main occupation. Overall, considering both the farm and the non-farm sectors, 30 percent of workers in Rwanda have a main job as an unpaid family worker. 84 percent of them are women.

There is an obvious reason why women are underrepresented in better jobs: education. Women are significantly less educated than men, which explains in part the underrepresentation in better job categories. However, focusing on the two youngest cohorts (16-25 years-old), young women still are worse off despite education levels similar to those of young men. Young women are 20 percentage points more likely than young men to have their main job in agriculture and are almost twice as likely to be engaged in unpaid family labor as their main occupation (figure 2.16). Controlling for the effect of education, young men are more than twice as likely to engage in non-farm wage employment compared to women. The underrepresentation of women in non-farm wage employment is especially salient in the formal private sector, where young women account for only 28 percent of jobs (figure 2.17).

For the young cohorts, the worse labor market position of women is not due to education. Rather, it is possible that young women, for cultural reasons, self-select in agriculture or non-farm self-employment or face particular barriers in pursuing wage employment opportunities in the pri-

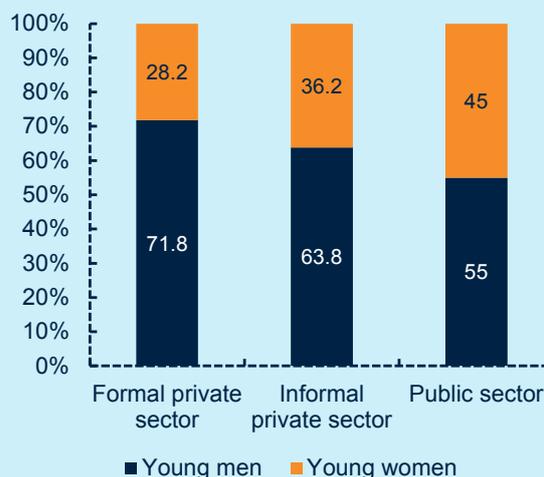
vate sector. This can however not be tested with the available data.

Figure 2.16 Young women are more likely to have a main occupation in agriculture or as unpaid family workers (%)
(share of youth 16-25 with main job in agriculture or as unpaid family worker, 2011)



Source: EICV, 2011

Figure 2.17 Young women are underrepresented in non-farm wage employment (%)
(share of young women and men in non-farm wage employment, by sector)



Source: EICV, 2011

2.2.3 Despite a take-up of additional jobs, underemployment is on the rise

In 2011, 64 percent of workers in Rwanda had multiple jobs, up from 40 percent in 2006. The increase in the share of workers with multiple jobs has particularly been salient for workers with a main job in agriculture. In 2006, workers with a main job in agriculture were a lot less likely to have several jobs than non-agricultural workers. By 2011, 63 percent of agricultural workers had multiple jobs, similar to non-agricultural workers (table 2.5). Both men and women took up additional jobs between 2006 and 2011.

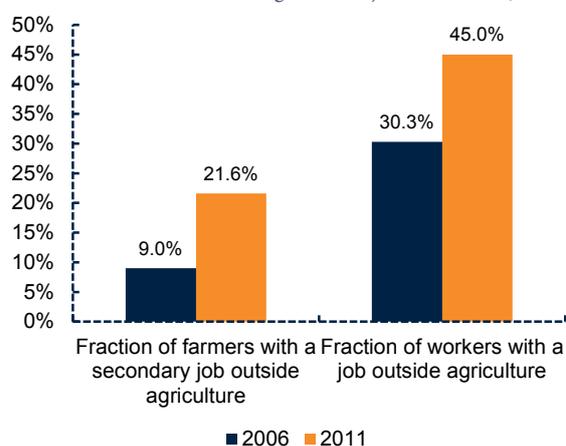
Agricultural workers' uptake of additional jobs amounted in large part to a diversification into non-farm income-earning activities. In 2006, only 9 percent of workers with a main occupation in agriculture had a secondary occupation outside agriculture. By 2011, this had more than doubled to 22 percent. The move to non-farm occupations as a main job as documented in section 2.2.1 understates the true extent of the diversification into non-farm activities: between 2006 and 2011, the share of workers with a job outside agriculture (regardless of whether this is a main or a secondary job) increased from 30 percent to 45 percent (figure 2.18).

The uptake of additional jobs appears linked to the decline of working hours in the main job. In 2006, the median worker worked 25 hours a week in their main job. By 2011, this had declined to 18 hours a week (table 2.5). Workers in occupations where hours worked in the main job decreased most

were also most likely to take up additional activities: For agricultural workers, the median number of hours worked per week (in the main occupation only) decreased by 33 percent, and these workers were most likely to take up additional jobs (the share with multiple jobs increased by 26 percentage points). Workers in non-farm occupations experienced a smaller decline in hours worked in the main job (19 percent), and were also less likely to take up additional activities. Based on the available data, it is not possible to determine whether the uptake of additional jobs among agricultural workers is due to push (shortage of land) or pull (increased availability of more lucrative non-farm employment opportunities) factors. However, given that non-farm occupations are typically higher-earning and more attractive than agriculture, the uptake of additional jobs outside agriculture likely reflects an increasing availability of non-farm opportunities⁴⁸.

Figure 2.18 Farmers are diversifying by taking up additional jobs

(share of farmers with secondary job outside agriculture and share of workers with a non-agricultural job, 2006-2011)



Source: EICV, 2006; 2011

⁴⁸ The recently concluded Rwanda Poverty Assessment identified the diversification into non-farm activities as a main driver of poverty reduction over the past decade, which adds credibility to the pull hypothesis

Table 2.5 Hours worked in main job decreased across the board, but especially for agricultural workers
(% of workers with several jobs and median hours per week worked in main job, by main employment)

Main employment	% of workers with several jobs		Median hours per week in main job		Percent change
	2006	2011	2006	2011	
Agriculture	37	63.4	24.0	16.0	-33.4%
Independent farming	35.7	61.3	20.0	16.0	-19.9%
Unpaid family farm worker	27.2	54.6	25.0	17.2	-31.1%
Wage farming	81	90.1	24.0	15.3	-36.2%
Non-agriculture	51	64	32.0	26.0	-18.8%
Non-farm wage employment	40	56.5	38.0	30.0	-21.1%
Non-farm self-employment	66.7	78.3	25.0	22.0	-12.0%
Non-farm employer	54.9	74.6	39.0	31.0	-20.4%
Unpaid household enterprise worker	47.4	67.3	26.0	20.0	-23.1%
Total	40.3	63.6	25.0	18.0	-28.0%

Source: EICV, 2006; 2011

Focusing on all jobs rather than on the main job only, overall hours worked decreased between 2006 and 2011. The median number of hours worked in all jobs amounted to almost 26 hours a week in 2011, down from 29 hours in 2006 (table 2.6)⁴⁹. Workers with a main job in the non-farm sector work an average of 16 hours per week more than agricultural workers. Non-farm employers and people with a wage job

in the non-farm sector work the most hours, while independent farmers and unpaid family farmers only work 23 hours a week in all jobs together. The uptake of additional jobs has helped compensate for the loss of hours in the main job, but not fully: hours worked in the main job dropped by 28 percent between 2006 and 2011, while total hours worked dropped by 12 percent.

Table 2.6 Weekly hours worked is substantially higher in the non-farm sector
(median hours per week worked in all jobs, by main employment)

Main Employment	Median hours per week in all jobs		Percent change
	2006	2011	
Agriculture	26.2	23	-12.2%
Independent farming	21.7	23	6.0%
Unpaid family farm worker	30	23	-23.3%
Wage farming	32.5	26.7	-17.8%
Non-agriculture	39.6	38.7	-2.3%
Non-farm wage employment	40	40	0.0%
Non-farm self-employment	36	29	-19.4%
Non-farm employer	48	44.6	-7.1%
Unpaid household enterprise worker	36	37.4	3.9%
Total	29	25.6	-11.7%

Source: EICV, 2006; 2011

⁴⁹ Differences in questionnaire design between the EICV2 and EICV3 may overstate the extent of the decline in working hours. In 2006, the respondents were asked for each month separately (over a 12-month period) whether or not they worked that month. In 2011, respondents were simply asked how many months (over a 12-month period, split by season) they had worked. Focusing only on the 7 days preceding the survey (a question that was comparable in EICV2 and EICV3), median hours worked amounted to 26 for EICV2 and 25 for EICV3. So while there has been a decrease in hours worked since 2006, the annual figures may overstate the magnitude of the decline

Underemployment is a key feature of the labor market in Rwanda, and has worsened since 2006. Next to the decrease in hours worked, and despite the uptake of additional jobs, time-related underemployment increased⁵⁰: the fraction of employed persons who work less than 35 hours and wish to work more slightly increased from 34 percent in 2006 to 36 percent in 2011 (table 2.7). The underemployment rate increased for all job categories. 42 percent of agricultural workers are underemployed – double the share of non-farm workers.

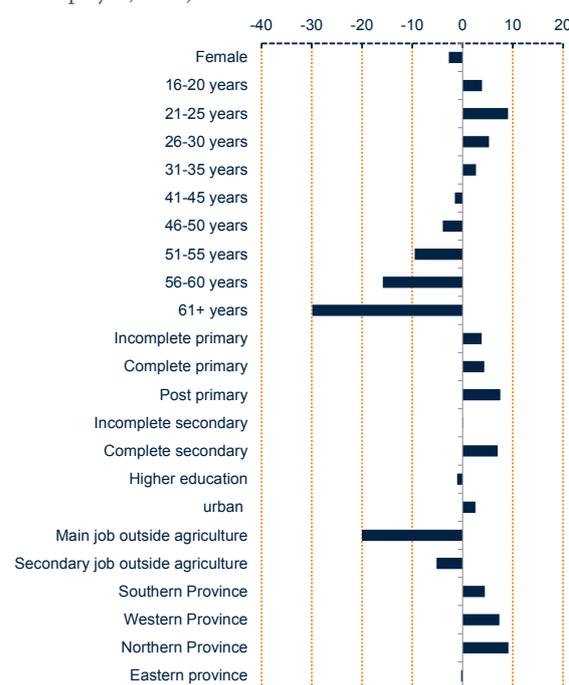
Age, location, and occupation are the main correlates of underemployment. Relative to prime-age workers (workers between 35 and 40 years old), youth workers are more likely to be underemployed (figure 2.19): Workers between 21 and 25-years of age are nine percentage points more likely to be underemployed, and this effect increases to 12 percentage points when excluding youths who are still in school. Workers with a main job outside agriculture are significantly less likely (20 percentage points) to be underemployed. For agricultural workers, taking up secondary jobs outside agriculture reduces the likelihood of being underemployed by five percentage points. Workers in rural areas are at higher risk of underemployment than workers in urban areas, in particular in the Northern and Western Provinces: all else equal, workers in the Northern (Western) Province are nine (seven) percentage points more likely to be underemployed than workers in Kigali. Women are somewhat less likely to be underemployed than men, and, relative to uneducated workers, workers who either completed post-primary education or secondary school are significantly more likely to be underemployed.

Table 2.7 Underemployment increased since 2006 and is high across the board
(time-related underemployment rate, 2006 and 2011)

Main employment	Underemployment rate	
	2006	2011
Agriculture	38.3	41.8
Independent farming	33.9	38.8
Unpaid family farm worker	41.9	44.4
Wage farming	38.5	42.4
Non-agriculture	18	21.3
Non-farm wage employment	15.9	18.7
Non-farm self-employment	22.8	27.3
Non-farm employer	12.2	20.1
Unpaid household enterprise worker	21.6	27.7
Total	33.6	35.7

Source: EICV, 2006; 2011

Figure 2.19 Age, location, and occupation are the main correlates of underemployment
(percentage point correlation with the probability of being underemployed, 2011)



Note: Confidence intervals not shown because of large sample size (confidence intervals too small)

Source: EICV, 2011

⁵⁰ The labor statistics metadata handbook of Rwanda defines the time-related underemployment rate as the fraction of employed persons who work less than 35 hours a week but want to work more

Though the root cause of the high degree of underemployment has not been studied for Rwanda, existing research emphasizes constraints at the demand side. In principle, pervasive underemployment can be the result of constraints at the supply side (workers' characteristics, most notably limited education and skills) or at the demand side (low demand for labor). Though education of the workforce is indeed wanting in many low-income countries, differences in education typically explain only a relatively small share of the variation in labor market outcomes⁵¹. Rather, demand for labor is low due to a small formal private sector, and good full-time jobs are rationed. Although merely descriptive, this pattern is consistent with Rwanda's data. First, workers who completed secondary education are more likely to be underemployed relative to uneducated workers (figure 2.19), suggesting that underemployment is not due to a lack of education. Second, differences in workforce characteristics between formal and informal wage workers in the non-farm sector explain only a marginal share of the difference in hours worked, hinting that underemployment is not caused by supply side constraints⁵².

The high underemployment rate means that a substantial part of available labor is currently left idle. Thirty-six percent of workers that were underemployed in 2011 worked a median of 20 hours per week. According to the EICV3 survey, they would like to work an extra 21 hours per week. This means that underemployed workers wish to double the hours they currently work. Considering all workers, including those who are not underemployed, the average worker in Rwanda would like to work nine extra hours per week, which would add 30 percent to current aggregate hours worked. The high underemployment rate precludes Rwanda from realizing its full output potential.

2.3 AN INCREASE IN EARNINGS FROM A LOW BASE

2.3.1 Earnings increased across the board, though most in agriculture and for unskilled workers

Individual labor earnings increased substantially since 2006. Median earnings from all jobs increased by 66 percent between 2006 and 2011, and the share of workers with earnings below the poverty line (the low-earnings rate) decreased from 54 percent to 33 percent (table 2.8). The increase in earnings happened despite the reduction in hours worked (as shown in table 2.6, the median number of hours worked decreased from 29 in 2006 to 26 in 2011). As a result, hourly earnings increased sharply since 2006.

Low earnings are increasingly a consequence of underemployment. While the low earnings rate has dropped, the share of low earners who have low earnings due to short hours (underemployment) increased between 2006 and 2011 (table 2.8). In fact, of all low earners in 2011, 58 percent would not be low earners if they were not underemployed (did not work less than 35 hours per week). Low earnings are increasingly a consequence of underemployment rather than insufficient remuneration per unit of time: the share of workers who earn below the poverty line despite working long hours dropped from 12 percent in 2006 to nine percent in 2011, and the share who only manage to escape low earnings by working long hours decreased from seven percent to three percent.

⁵¹ See Golub and Hayat (2014)

⁵² Based on an Oaxaca-Blinder decomposition

Table 2.8 Jobs outcomes have improved between 2006 and 2011
(earnings and job quality indicators, 2006 and 2011)

	2006	2011	Difference
Median earnings	57,755.3	95,601.1	37,845.9
Median hourly earnings	41.9	76.2	34.3
Low earnings rate	54.2	33.2	-21.0
Poverty rates among low earners	68.9	55.0	-13.9
Share of low earners who have low earnings due to short hours	41.8	57.7	15.9
Share of low earners who work long hours	12.2	8.8	-3.4
Share of non-low earners who escape low earnings due to long hours	6.7	3.1	-4.9

Note: Earnings are expressed on an annual basis in 2001 Rwf and include earnings from all jobs.

Source: EICV, 2006; 2011

Earnings increased across the board but most in agriculture. Median earnings increased by 95 percent for independent farmers and by 50 percent for unpaid family farm workers and wage farmers. The low earnings rate in agriculture dropped from 59 percent in 2006 to 37 percent in 2011. This is in line with the agriculture-driven poverty reduction as documented by the Rwanda Poverty Assessment⁵³. Earnings in the non-farm sector increased too: by 39 percent for wage employees and by 27 percent for the self-employed. Total earnings decreased for non-farm employees due to the decrease in hours worked (earnings per hour actually increased). Overall, median hourly earnings doubled in agriculture and increased by half in the non-farm sector. However, earnings in the non-farm sector remain almost double those in farming⁵⁴.

The increase in earnings may seem at odds with the high and increasing levels of underemployment, particularly in agriculture. This apparent contradiction is explained by the strong increase in agricultural productivity since 2007/8 (see section 2.2.2) coupled with an increasing labor surplus in agriculture. The spike in agriculture productivity, helped by favorable weather in 2010/11, has increased household-level production and earnings, but the fact that employment in agriculture still grew in absolute terms put

pressure on working hours and drove up underemployment. Given the scarcity of land, agriculture is increasingly unable to provide full-time employment to agricultural workers.

Earnings from the main job increased by less than total earnings from all jobs. Median earnings from the main job increased by 50 percent between 2006 and 2011, compared to 66 percent for total earnings (figure 2.20). This suggests that the take-up of additional jobs observed between 2006 and 2011 has been important in boosting earnings and reducing the low earnings rate. While working several jobs is important to top up incomes, especially for low earners, its effectiveness as a strategy is nevertheless limited: Of all workers who are low earners based on their main occupation alone, 25 percent are no longer low earners when earnings from secondary jobs are taken into account. 75 percent of them, however, remain low earners.

The gap in earnings between men and women increased between 2006 and 2011. Though earnings increased for women as well as for men, the increase was stronger for men, pushing up the earnings gap (figure 2.21). The increasing earnings gap is consistent with women's relatively slower transition to better-paying non-farm occupations documented in section 2.2.1.

⁵³ <http://documents.worldbank.org/curated/en/2015/11/25244543/rwanda-poverty-assessment-poverty-global-practice-africa-region>

⁵⁴ Given that earnings are noisy and usually underreported, we also replicated the analysis using household consumption per adult equivalent rather than individual earnings. We do find a strong increase in household consumption for workers working in agriculture, though only very small increases or even decreases in household consumption for non-farm workers

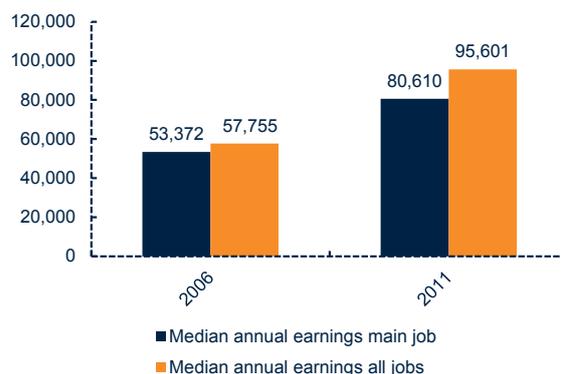
Unskilled and low-skilled workers experienced the strongest increase in earnings.

Median earnings of uneducated workers increased by 80 percent while those of workers who completed primary education increased by half (table 2.9). In contrast, earnings of workers with complete secondary education decreased, albeit modestly. This is consistent with the earlier finding that earnings increased most in agriculture, where low-skilled persons are likely to work. Education however continues to pay off: people who completed secondary education earned twice as much (in 2011) than people who only completed primary education, and people with higher education (completed or not) earned ten times as much as people who never entered school⁵⁵.

Defining workers with at least post-primary education as “skilled” workers, the skills premium decreased between 2006 and 2011. The skills premium – the ratio of skilled to unskilled earnings, which can be considered as the relative price of skills – fell from 2.9 to 2.0. This means that the median skilled worker earned twice as much as the median unskilled worker in 2011, whereas in 2006, the median skilled worker would earn three times as much. The decrease in the skills premium is however not due to decreasing returns on higher levels of education, but rather to the sharp increase in earnings among unskilled workers: median earnings for unskilled workers increased by 67 percent between 2006 and 2011, and skilled earnings increased by 18 percent. The latter point is important: though the supply of skills increased (the share of skilled workers increased by 20 percent), the price of skills increased too, suggesting a high demand for skills in the economy (box 2.3).

Figure 2.20 Earnings from secondary jobs increased substantially

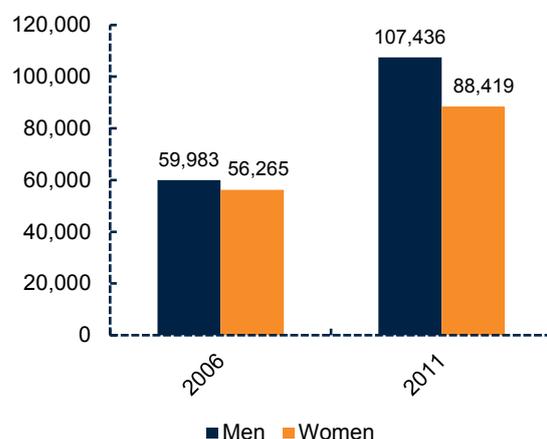
(median annual earnings from main job and from all jobs, 2006 and 2011)



Source: EICV, 2006; 2011; Earnings in 2001 Rwf; World Bank staff calculations

Figure 2.21 The earnings gap between men and women increased since 2006

(median annual earnings of men and women, 2006 and 2011)



Source: EICV, 2006; 2011; Earnings in 2001 Rwf; World Bank staff calculations

Table 2.9 Earnings increased most for unskilled workers
(median earnings by education, 2006 and 2011)

	2006	2011	% change
No education	47,383	84,853	79.1%
Incomplete primary	53,959	88,703	64.4%
Completed primary	70,873	108,888	53.6%
Post-primary	121,069	170,136	40.5%
Incomplete secondary	97,034	98,114	1.1%
Completed secondary	221,486	215,712	-2.6%
Higher	817,714	863,235	5.6%

Note: Earnings are expressed on an annual basis in 2001 Rwf.

Source: EICV, 2006; 2011

⁵⁵ This is consistent with the findings of Montenegro and Patrinos (2014), who find that returns to education in Rwanda are the highest among the 139 countries in their study (Montenegro, C. and Patrinos, H. (2014). “Comparable Estimates of Returns to Schooling around the World.” Policy Research Working Paper 7020. Washington DC: The World Bank). Based on Mincer regressions, World Bank (2013) also finds high returns to education in Rwanda, especially at the senior secondary and tertiary level. Controlling for age, location and education, there are high returns to being male, and controlling for education, sex and age, urban workers earn significantly more than rural workers (World Bank. (2013). Post-Basic Education and Training in Rwanda. Skills Development for Dynamic Economic Growth. Washington DC: The World Bank)

Box 2.3 Should You Get Rid of What You Need? Exporting skilled labor may not be such a good idea

In many low-income countries, overall unemployment tends to be low while unemployment among urban and educated youth, especially women, tends to be high. Rwanda is no exception. In the week preceding the 2012 Population and Housing Census, 3.4 percent of Rwandans were unemployed. This increased to 11 percent for young (16-30) workers in Kigali, to 20 percent for young skilled (at least completed post-primary education) workers in Kigali, and 27 percent for young skilled women in Kigali. Unemployment in Rwanda is clearly an issue of the educated urban youth.

The high unemployment rate among young educated urbanites has fueled proposals to develop labor migration strategies. These proposals appear to be based on the belief that if unemployment among the skilled is high, there must be a surplus of skills in the economy. If that were true, standard economic theory would predict returns to education to have decreased in recent years (if supply of skills is too high, the price of skills must decrease). This is however not the case: while the supply of skills has increased between 2006 and 2011, so has their price, suggesting that demand for education or skills has outpaced supply. A similar point is made by Montenegro and Patrinos (2014), who find not only that Rwanda has the highest returns to education among the 138 countries in their study, but also that

returns to education have steadily increased since 2001. These quantitative findings are reflected in the EDPRS 2, which identifies the lack of skilled labor as a growing problem for formal sector firms. Although a more elaborate analysis would clearly be needed, exporting skilled labor does not seem to be readily warranted.

What then explains the high unemployment rate among the urban educated youth? Although rigorous analysis for Rwanda is lacking, evidence from other low-income countries point towards the effects of “queuing”⁵⁶: in many low-income countries, public sector wages are substantially higher than private sector wages. As a result, young educated and urban youth, mainly from privileged households, wait or “queue” for a public sector job to open up instead of accepting a job in the private sector where salaries are lower. This phenomenon largely explains why unemployment in low-income countries is concentrated among the youth from better-off households: they can afford not to work and wait for a good public sector job to come their way. Although far from a rigorous analysis, the symptoms in Rwanda are consistent with queuing: earnings are higher in the public than in the private sector, unemployment is concentrated among young and educated urban workers, and they tend to come from privileged households. To illustrate this, only seven percent of the urban unemployed live in poor households, while 18 percent of the urban employed come from poor households.

⁵⁶ See for instance, Rama (2003) for Sri Lanka, Serneels (2007) for Ethiopia, and Ranzani and Tuccio (2015) for Ghana

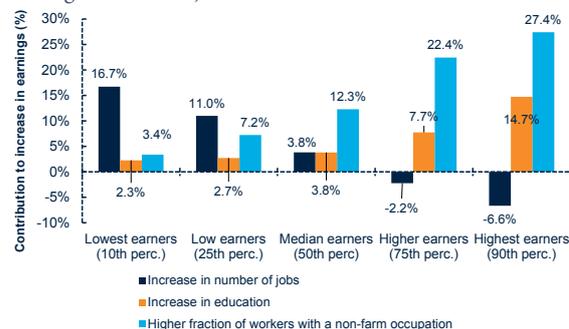
2.3.2 Diversification and take-up of additional jobs are important for the earnings increase

Although an in-depth analysis of what determines earnings in Rwanda is outside the scope of this special focus, this subsection briefly touches upon the correlates of the growth in earnings. Here, we use a number of decomposition approaches to get a better idea of the mechanism behind the observed increase in earnings. At the outset, it is important to keep in mind that the following decompositions are descriptive and do not necessarily represent causal effects.

Given the short time frame between the surveys (five years), it is not surprising that changes in the characteristics of the workforce and the jobs they are doing explain only a small part of the increase in earnings. Using an Oaxaca-Blinder decomposition, we find that the changes in the characteristics of the workforce and the jobs they are doing explain only a minor part (about 22 percent) of the increase in median earnings⁵⁷. The workforce characteristic that has been most strongly correlated with the increase in median earnings is the increasing share of workers with a job outside agriculture: the share of workers with a job outside agriculture (regardless of whether or not this is the main job) increased from 30 percent in 2006 to 45 percent in 2011, explaining about 12 percent of the growth in median earnings (figure 2.22). The modest increase in education of the workforce and the higher share of workers working several jobs only had a small positive impact on earnings⁵⁸.

There are a number of interesting differences in the correlates of earnings growth between lower- and higher-earning workers. Taking up additional jobs has been particularly important for earnings growth of low-earners: taking on additional jobs explains 17 percent of growth in earnings at the 10th percentile and 11 percent at the 25th percentile, but was only of marginal importance at the median and even negatively correlated with earnings growth of higher-earners (figure 2.22). Though low-earners also diversified into non-farm activities, this has not been associated with growth in their earnings. In contrast, diversification accounts for the bulk of earnings growth at the higher end of the distribution: the higher share of workers with a non-farm occupation explains 27 percent of earnings growth at the 90th percentile and 22 percent at the 75th percentile. The increase in education between 2006 and 2011 contributed significantly to earnings growth for the higher earners (15 percent at the 90th percentile and eight percent at the 75th percentile), but was only marginal at the lower half of the earnings distribution (figure 2.22)⁵⁹.

Figure 2.22 Taking up additional jobs was a main correlate of earnings growth for low earners, while diversification was more important for higher earners (contribution to growth in earnings at different points of the earnings distribution)



Source: EICV, 2006; 2011; World Bank staff calculations

⁵⁷ This means that most of the increase in earnings remains “unexplained,” or due to changes in returns (coefficients)

⁵⁸ Refer to the Rwanda Employment and Jobs Study for the full details of the decomposition (<http://documents.worldbank.org/curated/en/2015/11/25244484/rwanda-employment-jobs-study>)

⁵⁹ Repeating the analysis with the move to non-farm occupations split into two variables depending on the status of the non-farm occupation (primary job or secondary job) broadly gives the same results: the move to non-farm occupations as a main job is the main correlate of earnings growth at the higher end of the distribution, while the take up of non-farm secondary occupations was more important at the lower end of the distribution (where the uptake of additional jobs in general remains the main driver of earnings growth)

Although diversification into non-farm occupations has contributed to the observed growth in earnings, most of the decrease in the low earnings rate can be accounted for by increased earnings within the sector. Considering the broad agricultural versus non-agricultural dichotomy, 89 percent of the decrease in the low earnings rate between 2006 and 2011 can be accounted for by increased earnings within sectors, in particular in agriculture. An additional 17

percent can be explained by the uptake of non-agricultural jobs (regardless of the status of that job—primary or secondary). The interaction effect is negative: workers took up jobs in the sector where earnings increased least (the non-farm sector). The decrease in the low-earnings rate is predominantly due to increased earnings within agriculture, related to the increase in agricultural production and productivity since 2007/8.

2.4 IMPROVING EMPLOYMENT OUTCOMES: WHAT ARE THE CHALLENGES?

Creating a sufficient number of productive jobs for a rapidly growing labor force will likely be the defining challenge for Rwanda over the coming decade. Census projections show that the working-age population will grow by about 240,000 per year between 2016 and 2025, substantially larger than the increase during the past decade-and-a-half. Acknowledging the demographic trends, the Government’s National Employment Programme (NEP) targets the creation of 200,000 non-farm jobs per year. This ambitious target has been undershot, with an annual non-farm job growth of 122,000 per year between 2006 and 2014. While this rate of job growth is still strong, not all of these jobs are proper full-time jobs. Indeed, to qualify as a job, it suffices that workers have worked in this job only a couple of days in the 12 months preceding the survey.

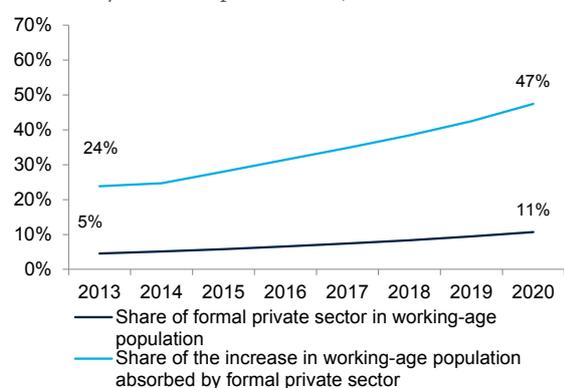
For non-farm job creation going forward, both the formal and informal sector will be important. The informal non-farm

sector absorbed most of the new workers between 2006 and 2011 (70 percent: 48 percent in wage employment and 22 percent in self-employment) and will continue to absorb workers who seek a better living outside agriculture, but who cannot get a job in the formal sector, either due to lack of skills or lack of demand (due to the small size of the formal sector). In addition, the informal non-farm sector is particularly important for the youth: average age in the informal non-farm sector (31 years) is significantly lower than in farming (38 years) and the rest of the non-farm sector (34 years). Employment in the formal sector, while growing quickly, will remain low for the foreseeable future. Assuming that employment in the formal private sector continues growing rapidly (at 16.5 percent per year – the growth observed between 2006 and 2011), it would still only account for 11 percent of the working-age population by 2020 (figure 2.23)⁶⁰. This means that at least until 2020, the bulk of the increase in the labor force will need to be accommodated by either the informal non-farm sector or agriculture. This does not mean, however, that the formal sector is unimportant, as most of what we would consider to be “good” jobs are created by the formal private sector.

⁶⁰ Other data sources confirm both the low level and strong growth of formal employment. According to the Establishment Censuses, employment in formal private firms grew by 50 percent between 2011 and 2014, though remained low at 109,000 jobs in 2014 (substantially lower than what the EICV3 data show)

Figure 2.23 The formal private sector will remain small in terms of employment

(projected share of the formal private sector in working-age population and share of the increase in working-age population absorbed by the formal private sector)



Source: EICV3, 2011; World Bank staff calculations

Given that the bulk of young labor market entrants are likely to enter the informal non-farm sector, a key question for policy is how the environment for micro, small and medium enterprises (MSMEs) in this sector can be improved. Though the data available for this study does not say

much about the constraints and opportunities in this sector, existing research shows that non-farm firms tend to settle in places with agglomeration effects (urban areas), with decent domestic connectivity and electricity access⁶¹. In this regard, the Government's strategy to develop six secondary cities is likely to boost the creation of small firms and jobs in those cities. A key question is how the urbanization of the secondary cities can be planned and managed so as to maximize its impact on employment growth, both within the cities and in the bordering rural communities. Currently, the six secondary cities are fairly similar in terms of economic activities, specializing in small services and trade firms (this is based on the 2014 Establishment Census (box 2.4)), but local economic development studies are currently underway to examine whether the cities have revealed comparative advantages that could boost employment and firm creation.

Box 2.4 In the Meantime, How's the Demand Side Doing? Employment in firms is increasing from a low base

Most of the analysis presented in this special focus concentrates on the supply side of the labor market: the workers. The reason for this is simple and has already been mentioned before: most of the jobs in Rwanda do not involve any labor exchange and respond to subsistence incentives rather than to actual demand for labor. Even in the Establishment Census – a comprehensive listing of all formal and informal non-farm enterprises in Rwanda – about two-thirds of private enterprises are informal one-person affairs, responding to the need to generate household income rather than labor demand in the proper sense. Keeping this caveat in mind, what can we say about the demand side trends in recent years?

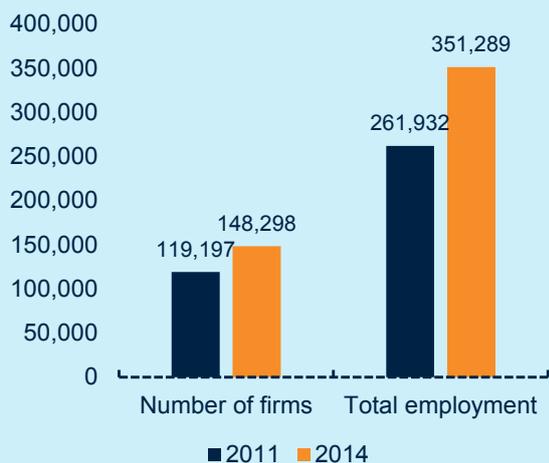
Looking at the 2011 and 2014 Establishment Censuses, three important trends emerge.

First, the number of private firms and employment in these firms is increasing: between 2011 and 2014, the number of firms increased by 24 percent and the number of workers in these firms by 34 percent. Second, though the informal sector remains dominant, more formal firms are being established. There were about 1,000 more formal firms in 2014 than in 2011, and employment in these firms increased by half. Third, large firms – the kind of firms Rwanda needs in order to absorb its rapidly growing labor force – are increasingly being established. The number of large firms, defined as firms with more than 100 employees, doubled from a low base, and employment in those firms increased by more than half. Though large firms accounted for a mere 0.1 percent of private firms in 2014, they provided close to 20 percent of employment in enterprises, highlighting the importance of large firms for job creation.

⁶¹ Iimi, A., Humphrey, R., and Melibaeva, S. (2015). "Firms' locational choice and infrastructure development in Rwanda." Policy Research Working Paper 7279. Washington DC: The World Bank

Though the trends observed in the Establishment Censuses are positive, the numbers need to be interpreted in the proper context. In 2014, private firms in Rwanda (both formal and informal) provided employment to about 350,000

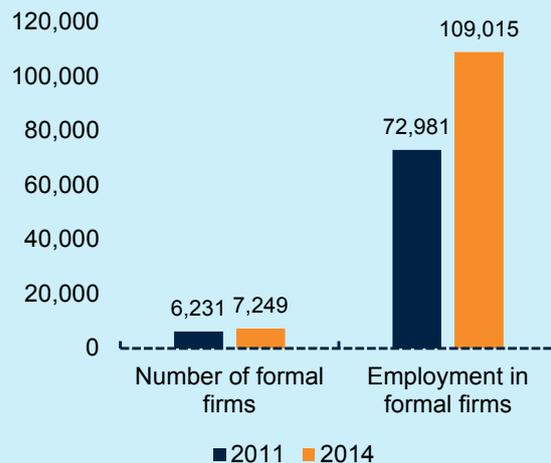
Figure 2.24 The number of firms and employment in them is increasing
(number of private firms and employment in private firms, 2011 and 2014)



Source: Establishment Census, 2011; 2014

workers, or roughly five percent of the total working-age population. While the number of non-farm firms and employment is clearly increasing, they represent only a small share of total employment.

Figure 2.25 Employment in formal firms increased by half
(number of private formal firms and employment in private firms, 2011 and 2014)



Source: Establishment Census, 2011; 2014

Rwanda's small domestic market means that Rwanda should look outside its borders for growth opportunities. Most of the secondary cities are located on or close to land borders with other countries, potentially facilitating cross-border trade. The towns of Rubavu and Rusizi in particular are ideally located as gateways into the much bigger cities of Goma and Bukavu in neighboring DRC. A key question for policy is how cross-border trade, especially between the Western Province and DRC but also with other countries, can be facilitated and stimulated to boost employment growth.

Though the share of workers with a main job in agriculture is decreasing, projections suggest that at least until 2020 more

than half of Rwanda's workforce will be employed in agriculture⁶². This means that the most direct way to increase earnings for the bulk of the workers, and often the most vulnerable ones, is to further increase productivity and earnings in agriculture. The importance of this cannot be overstated: though the shift to non-farm activities has boosted overall earnings, the lion's share of the growth in earnings was due to improvements within agriculture (see previous section). Agricultural productivity spiked between 2007 and 2011, with yields of cereals and roots and tubers roughly doubling, but has plateaued since⁶³. Further increasing agricultural productivity and reducing post-harvest losses will be crucial to increasing earnings for the bulk of the population.

⁶² See World Bank, 2015

⁶³ This is based on data from FAOSTAT

Increasing productivity in agriculture is even more important in light of the apparent stall in the farm-to-non-farm-transition since 2011. Between 2006 and 2011, the shift of labor from agriculture to non-farm sectors (the inter-sectoral shift) was an important driver of the reduction in poverty, the increase in earnings, and the growth in labor productivity. Since 2011 however, this structural reallocation in the labor market has almost stalled, with the share of workers with a main job in agriculture decreasing only modestly from 71 percent in 2011 to 69.4 percent in 2014⁶⁴. As a result, the inter-sectoral shift explained “only” 47 percent of the increase in output per worker over this period (compared to 90 percent between 2006 and 2011). Though the link between agricultural productivity and structural labor shifts have not been studied in Rwanda, existing research tends to show that sharp increases in agricultural productivity spur the reallocation of workers from farm to more productive non-farm sectors⁶⁵.

In sum, Rwanda appears to need a two-pronged employment strategy in the medium term. On the one hand, the unskilled nature of the bulk of the labor force requires further increases in agricultural productivity and job creation in industries related to agriculture (agribusiness, agro-industry) to further improve employment outcomes for the most vulnerable group of workers. On the other hand, the rapid expansion in education means that new labor force entrants will be increasingly educated, which will require the creation of more skilled and semi-skilled jobs, preferably through the entrance of larger formal firms. Expansion of economic activity in the secondary cities will be important in this regard, as will be the ongoing efforts to expand access to electricity and improve the domestic and external connectivity of the economy.

⁶⁴ NISR, 2015

⁶⁵ See, for instance, World Bank (2012) and Bustos et al (2016)

ANNEXES



Annex 1.1 Impact of Inflows of Burundian Refugees on Rwanda's Economy

Background: The socio-political tension in Burundi that started in March 2015 led to inflows of Burundians into neighboring countries, including Rwanda. As of January 2016, the total number of Burundians who fled from the country and came to Rwanda reached seventy-one thousand⁶⁶. Among the Burundians in Rwanda, forty-eight thousand (67 percent) live in camps or reception centers, and the remaining twenty-three thousand (33 percent) live in urban areas. United Nations High Commissioner for Refugees (UNHCR) estimated that financial requirements are US\$111 million. As of October 2015, US\$39 million or 35 percent of the estimate was received.

Transmission Mechanism and Potential Impacts: The inflows of Burundians could affect Rwanda's economy through several channels, including private consumption, inflation, balance of payments, and fiscal sector, though a lack of statistics does not allow us to make concrete estimates.

(1) **Private consumption:** Rwanda's population is estimated at 11.3 million in 2015⁶⁷. The size of the Burundians' inflows in January 2016 (seventy-one thousand) is 0.6 percent of Rwanda's population. Their purchases of goods and services would stimulate domestic demand (partly through local procurements by UNHCR and other institutions). As the share of private consumption of the economy is about 75 percent, it would increase GDP by as much as 0.5 percent. (Note that Burundians in the camps would not spend by the same degree as Rwandans).

Annex Figure 1.1.1 Food and housing prices started to increase in Q2 2015



Source: NISR

(2) **Inflation:** The increase in private consumption would affect prices. Prices of essential items such as food, beverages and housing started to increase in the second quarter of 2015. The increase in food prices accelerated from 0.6 percent (YOY) in Q1 2015 to 4.4 percent between April and November 2015. According to the national account, food crops production in Q2 and Q3 2015 increased by 4.2 percent (YOY). The positive growth of food crop production implies that higher inflation rates are due to the inflows of Burundians.

(3) **Balance of payments:** With the assumption that US\$111 million (100 percent of the financial requirement estimated by UNHCR) will come from external sources (mainly through public current transfer), total inflows in the balance of payments will be increased by about three to four percent. However, net impacts of the inflows on the economy will depend on the share of the inflows used for local procurements of goods

⁶⁶ http://data.unhcr.org/burundi/country.php?id=182#_ga=1.200846381.2063669315.1452065089

⁶⁷ <http://www.statistics.gov.rw/>

and services. If 50 percent of the inflow is offset by outflow (e.g., imports of goods and services), the inflows would have a positive impact of US\$56 million, or about five percent of the current account deficit in 2014.

International trade statistics by destination show that exports to Burundi fell by 21 percent (YOY), while imports from Burundi increased by 35 percent in Q2 2015 (followed by an 88 percent increase in Q1 2015). While the decline in exports is understandable, an explanation for the increase in imports requires further assessment. Nevertheless, the trade deficit with Burundi is US\$0.4 million, which is much smaller than possible financial inflows.

(4) Fiscal sector: In the 2015/16 budget, Rwf 1.1 billion (about US\$1.5 million, or 0.06 percent of the total budget) has been allocated to manage the refugee situation under the Ministry of Disaster Management and Refugee Affairs (MIDIMAR). Out of the total budget, Rwf 1.0 billion is projected to be externally financed. Given the small size of the budget allocated to manage foreign refugees and the share projected to be externally financed, impacts on Rwanda's overall budget would be small.

Anecdotal evidence: Anecdotal evidence shows a positive impact on the economy and increase in prices. For example, a New Times article called "A tale of Burundian refugee's life in Kigali" in July 2015 notes that an increase in customers has been observed by bar owners and landlords. Also, a Rwanda Eye article in May called "Dollars flood Rwandan economy as Burundi refugees arrive" says that prices of essential food products have increased by 100 percent in border districts of Bugesera, Rusizi, and Huye.

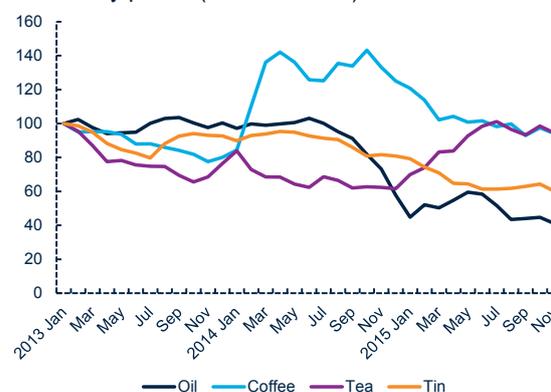
Annex 1.2 Impact of China's Turbulence on Rwanda's Economy

Summary Introduction: This note attempts to analyze impacts of China's turbulence on Rwanda's economy. China devalued its currency in mid-August 2015, which triggered sharp declines of stock prices across the world. Impacts of these events on Rwanda's economy depend on their length and magnitude, as well as their impacts on the global economy. Short-term/direct impact on Rwanda's economy is likely to be small due to China's small share in Rwanda's exports. However, if China's turbulence continues and starts to affect the global economy, Rwanda will not be isolated from the global impact. In order to measure impact on Rwanda's economy, this note focuses on international trade, investment, inflation, and exchange rates.

International Trade⁶⁸: In 2014, Rwanda's goods exports reached US\$453 million, of which exports to China were US\$14 million or three percent of the total exports. In contrast, China accounted for 20 percent (US\$348 million) of total imports (US\$1.7 billion). Thus, a possible decline in exports to China is likely to have little impact. On the other hand, if import prices from China decline (e.g., through the depreciation of Chinese currency or decline in goods prices to drive exports), Rwanda would be better off.

However, impacts of China's turbulence on Rwanda through international trade also depend on economies of Rwanda's main export destinations such as Switzerland (15 percent of Rwanda's total exports), Kenya (12 percent), and DRC (11 percent). In 2009, Rwanda's growth rate significantly decelerated to 6.3 percent from 11.2 percent in the previous year. The 2008 global financial crisis and re-

Annex Figure 1.2.1 Oil prices decline sharper than other commodity prices (Jan 2013=100)



Source: World Bank

sulting slowdown of the global economy led to the decline in Rwanda's exports by 22.8 percent in real terms.

A possible slowdown on China's economy would have significant impacts on commodity prices. For example, China accounted for 12 percent of global crude oil consumption and 21 percent of global coffee imports in 2014⁶⁹. Impacts of commodity price decline on Rwanda depend on relative price changes between export commodities (coffee, tea, minerals, and energy products (re-exports)⁷⁰), and the import of energy products. In 2014, Rwanda's commodity exports reached \$480 million (of which re-exports were \$165 million), and energy product imports reached US\$379 million. Thus, if prices of all commodities decrease at the same pace, Rwanda would have a net negative impact. However, recent developments of commodity prices show that the decline in oil prices was sharper than other commodities. In other words, if the same pattern is observed, Rwanda will benefit from declines in commodity prices (annex figure 1.2.1).

⁶⁸ <http://www.statistics.gov.rw/publications/formal-external-trade-goods-statistics-report-q1-2015>

⁶⁹ http://siteresources.worldbank.org/INTPROSPECTS/Resources/334934-1304428586133/GEP2015c_commodity_Jul2015.pdf

⁷⁰ There is no data on the composition of re-exports. In this note, all re-exports are assumed to be energy products

Investment⁷¹: In 2013, total FDI inflows to Rwanda were US\$258 million (3.4 percent of GDP) and total stock was US\$838 million. China accounted for 2.3 percent of the total FDI inflows and 1.1 percent of FDI stock. While China's contributions may be significantly underestimated (e.g., activities of Chinese construction companies in Kigali and China's import share), China's low share overall suggests that China's turbulence would not have significant direct impact on Rwanda through FDI.

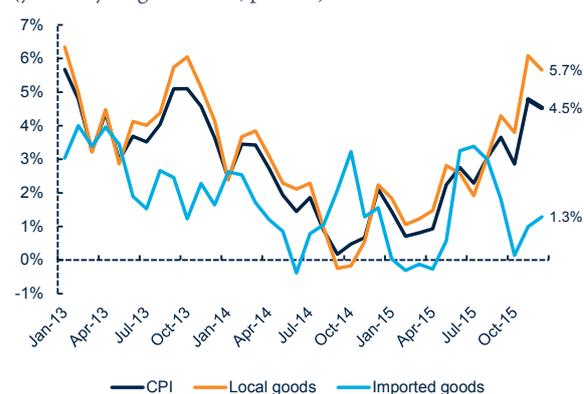
Inflation (annex figure 1.2.2): Rwanda's inflation has been stable. Though slightly increased in recent months, consumer price index (CPI) increased by 2.3 percent (YOY) in the first eleven months of 2015. The decline in transportation prices (including gasoline) has significantly contributed to stable inflation rates. Additionally, imported goods account for 26 percent of the CPI basket. Thus, a possible decline in global commodity prices will be a positive factor for Rwanda's inflation.

Exchange Rates (annex figure 1.2.3): The Rwandan franc has depreciated against the US dollar by 7.6 percent in 2015. However, the US is not a major trade partner to Rwanda (five percent of exports and two percent of imports). Thus, the depreciation against the US dollar is likely to have limited impact. Furthermore, the Rwandan franc appreciated by 2.4 percent against the Euro and by 4.8 percent against the Kenyan shilling. Thus, if measured by real effective exchange rate, the Rwandan franc has in effect appreciated.

Continued fluctuations of China's currency would indirectly affect Rwanda's economy in the medium term. China's foreign reserves declined by US\$94 billion in August 2015 due to intervention into the foreign ex-

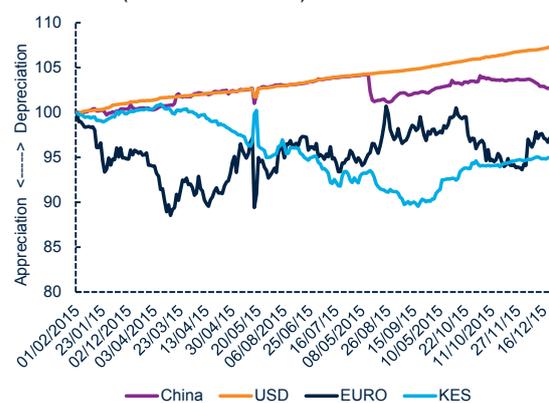
change markets.⁷² As China holds significant amounts of US government bonds, selling these bonds will lead to an increase in long-term interest rates. The increase would negatively affect Rwanda through the increase in financing costs when the country attempts to access to the international capital market.

Annex Figure 1.2.2 Imported goods prices were lower than the overall CPI in the first several months in 2015 (year-on-year growth rate, percent)



Source: NISR

Annex Figure 1.2.3 Rwandan franc depreciated against the US dollar, but appreciate against other key currencies (Jan 2, 2015=100)



Note: Higher value means depreciation.

Source: BNR

⁷¹ <http://www.statistics.gov.rw/survey-period/foreign-private-capital-census-2013>

⁷² <http://www.wsj.com/articles/china-august-forex-reserves-down-by-93-9-billion-as-pboc-intervenes-1441614856>

Annex 2.1: Definitions

Employment	
Labor force	The number of working age individuals, both employed and unemployed.
Employed	An individual who performed market activities for at least one hour in the week prior to the survey, or who has a permanent job. For the calculation of earnings however, given significant seasonality effects, the reference period is extended to the 12 months preceding the survey to also capture earnings of individuals who worked in the preceding 12 months but not in the preceding 7 days.
Unemployed	A working-age individual who is not employed but is actively looking for work.
Inactive	A person who is neither employed nor actively looking for work.
Working-age population	In the Rwandan context, defined as all people 16 years of age and above.
Wage worker	A worker who has declared being paid a wage or salary for their work.
Employer	A person who is said to be in charge of a household non-farm enterprise that hires paid labor from outside the household.
Self-employed	A person working in a household non-farm enterprise or a household farm in which no other household member or paid non-household member is also working.
Household enterprise worker	A person who is working in a household non-farm enterprise or a household farm in which other household member are also working but is who not an employer.
Independent farmers	A person working on their farm and who describes themselves as the boss of the family farm. Usually the household head.
Unpaid family farmer	A household member working on the family farm without pay and without being the independent farmer. Usually these are family members (spouse and children) of the independent farmer who also work on the farm.
Formal employment	Wage employment where the individual declares themselves to be working in one of the following sectors: public, parapublic, private formal, or NGO.
Main job	The job the individual spends most of their working time doing. Main job is defined in terms of time (the job that occupies most of the time of the worker) and not in terms of earnings (the job that procures the most earnings).
Earnings	
Earnings	All cash payments, payments in kind, and benefits received in exchange for labor services in wage and salaried employment, self-employment, and other forms of labor exchange. Depending on the context, earnings include only primary job earnings or the sum of earnings in all reported jobs. In this study earnings are often presented using total annual earnings from all jobs based on the sector of the primary job.
Wage earnings	Total cash and in-kind earnings as declared in the survey.
Earnings of the self-employed, employers, household enterprise workers, and unpaid family farmers	Earnings are calculated in the following manner: First, net revenues are constructed at the enterprise level. (Note: the family farm, and all of its varied crop/livestock activities, is considered one enterprise, even if there may be multiple non-agricultural enterprises per household.) Next, these net revenues are distributed across all household members engaged in that enterprise. Since individuals report the hours they worked on each enterprise, each individual received a share of net revenues from the enterprise equal to his/her share of total hours worked in that enterprise. Revenues are allocated to contributing individuals regardless of their self-reported employment classification. That is, persons who report being unpaid family farmers are also allocated revenues proportional to their hours worked on the farm.
Low earner	An employed individual whose annual earnings are below the national poverty line of Rwf 64,000 in 2001 prices.

ANNEX TABLES

Annex Table 1: Selected Economic Indicators

	2010	2011	2012	2013	2014	2015
GDP Growth Rate (percent)	7.3	7.9	8.8	4.7	7.0	-
Agriculture	4.9	4.7	6.4	3.3	5.3	-
Industry	8.5	17.6	8.5	9.3	5.8	-
Services	9.2	8.0	11.6	5.3	8.9	-
Fiscal Framework (percent of GDP)¹						
Revenues and Grants	25.4	24.8	25.3	23.2	26.0	25.4
Total revenue	12.4	13.8	14.3	15.5	16.8	18.0
Tax revenue	11.9	13.2	13.4	13.7	14.8	15.6
Non-tax revenue	0.5	0.6	0.8	1.8	2.0	2.4
Grants	13.0	10.8	11.0	7.7	9.2	7.5
Budgetary grants	9.0	6.1	6.4	4.0	3.3	3.1
Capital grants	4.0	4.7	4.6	3.7	5.9	4.3
Total expenditure and net lending	25.5	27.9	26.5	28.5	30.0	30.4
Current expenditure	14.5	15.5	14.8	13.4	15.2	14.9
Capital expenditure	10.0	12.5	11.6	12.9	13.9	13.8
Domestic	5.0	6.2	5.6	5.1	6.2	7.0
Foreign	5.0	6.2	6.1	7.8	7.6	6.8
Net lending	0.9	0.5	0.0	2.2	1.0	1.7
Budget deficit (cash basis)						
Excluding grants	-13.4	-14.5	-12.5	-13.2	-13.6	-12.8
Including grants	-0.5	-3.8	-1.5	-5.4	-4.3	-5.3
External Sector						
Goods exports (year-on-year growth, percent)	32.8	52.4	24.5	18.7	4.7	-7.0
Goods imports (year-on-year growth, percent)	15.2	33.8	11.7	6.4	6.2	-2.8
Gross Reserves (Millions US\$)	813	1,050	850	1,070	951	922
Consumer Price Index (percentage change)						
End of period	0.2	8.3	3.9	3.6	2.1	4.5
Period average	2.3	5.7	6.3	4.2	1.8	2.5
Exchange rate (Rwf/US\$)						
End period	594.5	603.4	631.0	667.7	692.6	747.7
Period average	594.5	600.3	631.4	670.1	694.4	719.1

Source: NISR, BNR and MINECOFIN

¹ On a fiscal year basis (July-June). For example, the column ending in 2011 refers to FY2010/11.

Annex Table 2: Gross Domestic Product by Kind of Activity

	2011		2012		2013		2014		2015
	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half
	(Rwf billion, current prices)								
Gross Domestic Product (GDP)	1,795	2,051	2,078	2,359	2,323	2,541	2,596	2,789	2,792
Agriculture, Forestry & Fishing	556	688	659	823	761	862	850	934	892
Food crops	379	467	460	565	545	616	617	657	637
Export crops	25	53	25	76	28	51	34	71	40
Livestock & livestock products	59	63	67	71	74	78	81	87	90
Forestry	88	97	100	105	105	107	108	110	112
Fishing	6	7	8	8	8	10	10	10	10
Industry	256	299	288	350	346	379	375	399	410
Mining & quarrying	35	39	32	37	44	46	47	49	43
Total Manufacturing	89	115	105	129	117	136	128	132	139
Of which: Food	19	31	22	33	25	34	29	31	32
Beverages & tobacco	45	55	52	63	60	67	65	63	69
Electricity	5	6	6	8	8	9	9	10	10
Water & waste management	6	7	8	8	8	8	8	8	8
Construction	121	131	136	168	168	181	183	200	209
Services	851	938	1,009	1,070	1,099	1,178	1,221	1,310	1,335
Trade & Transport	269	323	329	378	356	402	401	434	431
Maintenance & repair of motor vehicles	9	10	10	10	12	12	12	12	12
Wholesale & retail trade	212	254	257	296	275	313	312	340	338
Transport	49	58	61	72	69	77	78	83	80
Other Services	582	616	679	692	743	775	820	875	904
Hotels & restaurants	48	51	52	54	54	56	57	59	59
Information & communication	43	50	56	61	56	60	61	72	73
Financial services	56	51	69	68	81	83	82	89	91
Real estate activities	144	142	151	131	140	140	154	169	178
Professional, scientific & technical activities	47	49	56	55	58	61	61	62	67
Administrative & support service activities	49	53	57	59	61	64	66	68	71
Public administration & defense; compulsory social security	48	68	68	79	78	88	86	94	92
Education	60	62	73	77	100	102	113	110	120
Human health & social work activities	17	21	24	25	27	28	33	32	35
Cultural, domestic & other services	68	69	74	82	88	94	106	119	119
Taxes less subsidies on products	131	127	122	115	117	122	148	145	155

	2011		2012		2013		2014		2015
	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half	2nd half	1st half
	(Rwf billion – constant 2011 prices)								
Gross Domestic Product (GDP)	1,816	2,030	1,997	2,187	2,117	2,264	2,260	2,426	2,425
Agriculture, Forestry & Fishing	575	669	617	708	658	710	692	749	725
Food crops	390	454	430	476	458	480	484	512	504
Export crops	25	53	23	63	27	54	27	52	32
Livestock & livestock products	60	62	64	65	68	70	73	77	79
Forestry	91	93	94	97	98	99	100	101	103
Fishing	8	6	6	6	7	8	8	8	8
Industry	260	294	276	325	314	342	335	360	364
Mining & Quarrying	34	40	32	36	39	43	44	47	40
Total Manufacturing	93	112	100	116	105	121	112	117	121
Of which: Food	20	30	21	29	24	31	26	27	28
Beverages & tobacco	46	52	48	55	49	57	51	51	54
Electricity	5	6	6	6	7	8	8	8	8
Water & waste management	6	7	8	8	8	8	8	8	8
Construction	123	129	130	157	156	164	165	180	187
Services	856	934	973	1,023	1,022	1,081	1,108	1,183	1,189
Trade & Transport	274	318	322	358	341	379	377	409	398
Maintenance & repair of motor vehicles	10	10	10	10	10	10	10	12	12
Wholesale & retail trade	214	253	253	279	266	297	296	322	313
Transport	51	56	59	68	65	72	71	76	73
Other Services	583	615	651	665	681	702	731	773	791
Hotels & restaurants	48	51	52	54	53	55	55	57	57
Information & communication	41	51	59	65	59	64	65	78	78
Financial services	54	53	60	61	68	66	70	70	76
Real estate activities	144	141	147	137	143	144	151	159	164
Professional, scientific & technical activities	48	49	53	51	53	54	55	55	59
Administrative & support service activities	50	52	54	55	56	57	59	60	63
Public administration & defense; compulsory social security	48	67	64	75	73	80	78	84	81
Education	62	62	66	66	68	68	74	74	78
Human health & social work activities	18	22	24	23	24	25	26	30	29
Cultural, domestic & other services	68	69	72	79	83	87	97	107	107
Taxes less subsidies on products	125	133	131	132	124	131	125	136	147

Source: NISR

**Annex Table 3: Inflation indicators
(year-on-year percent change)**

	Overall	Core	Import prices	Energy prices	Food prices
2013					
January	5.7	4.7	3.0	5.6	8.3
February	4.8	5.1	4.0	8.5	4.7
March	3.2	4.8	3.4	4.6	1.9
April	4.4	5.2	4.0	6.4	4.1
May	3.0	3.6	3.5	2.5	2.6
June	3.7	3.4	1.9	0.9	4.4
July	3.5	3.6	1.5	-0.9	4.0
August	4.0	3.6	2.7	2.0	4.9
September	5.1	3.3	2.5	2.8	7.8
October	5.1	3.2	1.2	0.3	8.2
November	4.6	3.4	2.3	0.2	6.4
December	3.6	3.8	1.6	0.0	3.9
2014					
January	2.4	2.7	2.6	1.6	2.4
February	3.4	2.8	2.5	1.6	5.0
March	3.4	2.6	1.7	0.7	5.2
April	2.7	2.3	1.2	-0.5	3.8
May	1.9	2.3	0.9	-4.2	3.0
June	1.4	2.0	-0.4	0.2	1.9
July	1.9	2.3	0.8	2.2	2.4
August	0.9	2.5	1.1	0.8	-0.2
September	0.2	3.0	2.1	1.2	-3.1
October	0.5	3.5	3.2	0.8	-3.3
November	0.7	2.9	1.3	0.7	-2.7
December	2.1	2.9	1.6	2.0	0.7
2015					
January	1.5	1.8	0.0	0.3	1.2
February	0.7	1.6	-0.3	-0.4	-0.3
March	0.8	1.7	-0.1	-0.9	0.8
April	0.9	1.6	-0.3	-3.1	2.5
May	2.2	2.0	0.6	0.5	3.8
June	2.8	3.0	3.3	0.9	2.9
July	2.3	3.0	3.4	0.3	0.7
August	3.0	2.7	3.0	1.9	3.2
September	3.7	2.3	1.8	4.4	5.6
October	2.9	1.3	0.1	3.8	5.6
November	4.8	2.3	1.0	3.4	10.5
December	4.5	2.3	1.3	1.6	9.7

Source: BNR and NISR.

**Annex Table 4: Exchange Rate
(monthly Average)**

Month	US dollar	Euro	UK pound	Uganda shilling	Kenya shilling	Tanzania shilling	Burundi franc
2013							
January	631.29	838.05	1,008.81	0.24	7.38	0.40	0.42
February	633.25	846.82	981.39	0.24	7.36	0.39	0.41
March	634.98	824.27	957.00	0.24	7.52	0.39	0.41
April	637.38	829.03	974.68	0.25	7.69	0.40	0.41
May	640.13	831.41	979.34	0.25	7.73	0.40	0.41
June	641.66	846.19	993.12	0.25	7.61	0.40	0.42
July	645.22	843.25	980.34	0.25	7.55	0.41	0.42
August	649.01	864.16	1,005.03	0.25	7.53	0.41	0.43
September	653.26	871.37	1,033.65	0.26	7.60	0.41	0.43
October	661.29	901.19	1,064.45	0.26	7.88	0.42	0.43
November	664.30	897.29	1,068.75	0.27	7.84	0.42	0.43
December	667.74	914.43	1,093.43	0.27	7.85	0.43	0.44
2014							
January	672.66	916.57	1,107.13	0.27	7.91	0.43	0.44
February	674.65	920.46	1,115.73	0.28	7.95	0.42	0.44
March	676.39	935.04	1,124.54	0.27	7.95	0.42	0.44
April	678.20	936.67	1,135.18	0.27	7.90	0.42	0.44
May	680.67	935.68	1,146.96	0.27	7.79	0.41	0.44
June	681.69	927.85	1,151.55	0.27	7.79	0.41	0.44
July	683.47	926.05	1,168.56	0.26	7.76	0.41	0.44
August	684.23	911.52	1,143.32	0.26	7.76	0.41	0.44
September	685.48	884.88	1,118.46	0.26	7.71	0.41	0.44
October	688.68	873.83	1,107.96	0.26	7.72	0.41	0.44
November	690.33	861.13	1,090.39	0.25	7.68	0.40	0.45
December	692.56	854.74	1,083.04	0.25	7.66	0.40	0.45
2015							
January	696.56	811.3	1,056.41	0.24	7.63	0.39	0.45
February	702.34	797.9	1,076.69	0.24	7.68	0.39	0.45
March	706.25	766.0	1,058.88	0.24	7.70	0.38	0.45
April	708.48	764.31	1,060.41	-	7.65	0.38	-
May	712.10	789.67	1,095.06	-	7.42	0.36	-
June	716.70	789.12	-	-	7.41	0.36	-
July	721.87	789.11	-	-	7.41	0.35	-
August	724.97	789.30	-	-	7.40	0.35	-
September	728.21	789.21	-	-	7.40	0.35	-
October	733.53	789.29	-	-	7.39	0.35	-
November	739.02	793.95	-	-	7.23	0.34	-
December	739.30	792.70	-	-	7.23	-	-

Source: BNR.

**Annex Table 5: Key Interest Rates
(percent)**

	Policy Rate	Average deposit rate	Average lending rate	Interbank rate	Treasury bill rate				Weighted average rate
					28 days	91 days	182 days	364 days	
2013									
January	7.5	11.3	17.1	11.1	12.1	12.6	12.8	-	12.4
February	7.5	10.3	17.0	10.4	11.6	12.3	12.7	-	12.2
March	7.5	10.4	17.2	10.0	11.0	12.1	12.6	12.8	12.1
April	7.5	10.7	17.3	10.9	11.2	12.3	12.8	13.0	12.0
May	7.5	10.6	17.6	11.1	11.0	12.0	12.4	12.7	12.0
June	7.0	10.6	17.7	9.6	10.0	10.7	11.3	11.7	10.8
July	7.0	8.5	17.2	9.6	8.9	9.6	10.0	10.7	9.7
August	7.0	10.5	17.5	7.6	7.8	8.3	8.9	9.3	8.6
September	7.0	9.0	17.8	7.0	6.8	6.9	7.3	7.8	7.1
October	7.0	9.5	17.4	6.7	6.2	6.5	6.7	7.6	6.8
November	7.0	8.0	17.2	6.1	5.5	5.9	6.2	7.0	6.1
December	7.0	8.5	16.9	5.6	5.0	5.3	5.9	6.4	5.6
2014									
January	7.0	8.9	17.5	5.6	5.4	6.0	6.7	8.2	6.4
February	7.0	8.0	17.1	5.8	5.1	5.8	6.5	8.1	6.1
March	7.0	8.3	16.8	5.8	4.9	5.5	6.6	8.0	6.0
April	7.0	8.0	17.4	5.6	4.8	5.3	6.3	7.8	6.0
May	7.0	9.3	17.2	5.7	4.5	5.3	6.3	7.4	5.9
June	6.5	8.6	17.5	5.7	4.3	5.0	5.7	6.6	5.6
July	6.5	8.4	17.2	5.5	4.0	4.5	5.2	6.5	5.5
August	6.5	8.8	17.4	5.5	4.1	4.4	5.0	6.3	5.2
September	6.5	7.3	17.1	5.6	4.2	4.5	5.2	6.5	5.5
October	6.5	7.3	17.5	5.7	4.2	4.6	5.2	6.4	5.3
November	6.5	8.2	16.7	5.7	3.9	4.4	5.0	6.3	5.1
December	6.5	7.8	17.7	4.7	3.7	4.1	5.0	6.2	4.9
2015									
January	6.5	8.5	17.5	4.2	3.7	4.1	4.9	5.9	4.6
February	6.5	8.5	17.5	4.1	3.5	3.9	4.9	5.5	4.6
March	6.5	8.1	17.4	3.8	3.2	3.6	4.6	5.3	4.3
April	6.5	8.0	17.9	3.5	3.0	3.4	4.5	5.1	4.1
May	6.5	8.7	17.4	2.8	2.9	3.3	4.2	5.1	4.0
June	6.5	8.9	17.3	4.0	2.8	3.4	4.2	5.5	4.4
July	6.5	8.2	17.4	3.4	2.8	3.4	4.4	5.8	4.6
August	6.5	8.2	17.4	3.4	3.1	3.4	4.4	6.0	4.6
September	6.5	8.3	17.2	3.7	3.4	3.7	4.5	6.4	4.6
October	6.5	8.3	17.2	3.4	3.4	4.2	4.8	6.5	4.9
November	6.5	7.9	17.2	3.4	3.6	4.2	5.5	6.7	5.4
December	6.5	-	17.1	-	-	-	-	-	-

Source: BNR.

Annex Table 6: Gross International Reserves

Month	Rwf billions	US\$ million
2013		
January	465	736
February	436	688
March	444	698
April	452	707
May	624	973
June	653	1,016
July	659	1,018
August	657	1,012
September	681	1,035
October	691	1,045
November	683	1,024
December	717	1,070
2014		
January	680	1,008
February	648	960
March	632	933
April	630	927
May	656	966
June	646	948
July	629	920
August	618	903
September	604	880
October	562	816
November	568	821
December	660	951
2015		
January	638	911
February	624	887
March	637	900
April	635	893
May	607	850
June	614	854
July	581	803
August	536	739
September	571	781
October	548	745
November	571	770
December	689	922

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