

# Report of the 3<sup>rd</sup> EPRN Annual Research Conference

- Theme: “*Rwandan Economy towards the Economic Development and Poverty Reduction Strategy 3 (EDPRS 3)*”
- Venue: University of Rwanda, College of Business and Economics, Gikondo-Kigali
- Date: 26<sup>th</sup> January 2017



## 1. Introduction

Economic Policy Research Network (EPRN) is an equal opportunity economic policy research platform in Rwanda bringing together key economic management institutions, individuals and organisations active in economic policy research and analysis to create a pool community for economic policy researchers through organising trainings on qualitative research methods, research coaching and mentorship, work place placements, learning tours and joint research projects to support provide evidence for economic policy formulation and policy research development. EPRN therefore responds to economic policy gaps created mainly by lack of quality and informative research and the challenge of human capacity in terms of limited numbers of economic researchers and active involvement. EPRN aims at being the most influential network on issues of economic policy research and capacity development supporting both macro and micro economic policy in the region and beyond.

On 26<sup>th</sup> January 2017 at University of Rwanda, College of Business and Economics, Gikondo Campus, the Economic Policy Research Network (EPRN) with support from GIZ and University of Rwanda, organised a Third Annual Research Conference. The conference was attended by about 500 young researchers, academicians, professionals and decision makers working in private institutions, government, civil society organisations and development partners.

This year's main theme was “*Rwandan Economy towards the Economic Development and Poverty Reduction Strategy 3 (EDPRS 3)*” subdivided into seven sub topics:

- Export promotion (exchange rate, production, local manufacturing sector, “Made in Rwanda”)
- Financial sector development and economic growth (interest rate, access to finance, etc.)

- Inequality-Poverty-Growth-Environment Nexus and Multidimensional Poverty Index, vulnerability, and wellbeing (non-monetary indicators of poverty)
- Inclusive growth and development
- Economic structural transformation (from agriculture and primary sector to knowledge based economy, urbanization, etc.)
- Green Growth and climate change
- Vision 2050 (long-term trends, global and regional economy)

## **2. Opening remarks**

### ***Prof Kigabo Thomas, Chairperson EPRN Board***

In his opening remarks, the chairperson of EPRN Board, Prof Kigabo Thomas started by welcoming all participants to the conference. Prof Kigabo mentioned his vision for EPRN is to build up a pool of excellent economic policy researchers that can provide Rwanda with home-grown analysis and solutions. Events like this serve to encourage people, especially young people, to pursue a career in research and to keep improving their academic skills. He added that by bringing together key institutions, individuals and organizations active in or with an interest in economic policy research and analysis, EPRN creates a network for the stakeholders in the field and a pool of research skills needed for economic policy analysis.

### ***Dr. Hermann van Boemmel, GIZ Rwanda/Macro Program***

Dr. Hermann van Boemmel from the GIZ program, Macro-Economic Advice to the Ministry of Finance and Economic Planning (MINECOFIN) stated GIZ is supporting EPRN as we think promoting collaboration between researchers and building their capacity is vital for the development of the country. This conference is one more step towards providing macroeconomic research MADE IN RWANDA that is capable of informing policy decision making.

## **3. Conference proceedings**

### **Presented papers**

In total EPRN received sixteen papers and the top seven of them have been selected to be presented:

***Interest Rate Spread in the Financial System in Rwanda: Drivers and Implications by Joseph Ndagijimana***

The findings of this research indicate that the GDP, the deposit rate and inflation have an impact on the interest rate spread in commercial banks. So the following results have been found:

- It takes three years, three months and eighteen days for the spread of interest rates to adjust to changes in our explanatory variables such as the Deposit Interest rate (DI), inflation (INF) and gross domestic product (GDP).
- 30.28% of shock is eliminated each year by the spread of interest rates and it takes three years, three months and eighteen days to reach the long-term equilibrium.
- Since the interest rate spread is still a relevant issue in Rwanda, some measures should be taken to reduce it. In fact, the problem is due to the high level of lending rate and the lack of competition among commercial banks. Therefore, a competition policy that stimulates growth and rational banking cost, through for example the entry of international banks in Rwanda in big number, can help reduce the lending rate, to increase the Deposit Interest rate and thus reduce the spread of interest rates.
- A good competition policy between banks is to increase market transparency and creates a good environment for all investors in the banking market.
- In order to reduce the volume of non-performing loans and to encourage the level of competition, the introduction of credit agencies is very important.
- The credit agencies could have the role of providing information about the solvency level and the repayment capacity of borrowers. This would help commercial banks to assess the credit worthiness, the repayment capacity, and therefore this will affect the lending rate since the reserve risk rate for non-performing loans is reduced.

### ***Effect of foreign aid on real exchange rate in Rwanda by Charles Ruhara and Joseph Gasana***

In his presentation, Dr Charles highlighted that in broad terms, this study sought to investigate factors influencing real exchange rate in Rwanda with special focus on foreign aid inflow. The study also intends to explore the behavior of exports in the presence of large aid inflow and real exchange rate volatility.

Low income countries face the problem of low level of domestic savings which are insufficient for them to finance their desired investment. Also export earnings from low income countries are not enough to finance imports of capital goods. As consequences, these countries become constrained in their ability to achieve their target growth rates. To overcome the problem above, developing countries run for foreign aid to finance their investments.

The paper concluded that Aid-recipient countries also would need to spend aid wisely, which would require both economic management institutions and political processes for enforcing transparency and accountability. Aid only appears to be effective in countries with appropriate economic policies, that is, Aid works in a good environment. From this perspective, good policy is a necessary condition for aid effectiveness. Donors also have to adopt aid delivery

mechanisms that promote ownership, transparency and stakeholders' participation in the development process (Santiso, 2001).

The paper also found that foreign aid inflows are positively related to exports performance. However, the estimated coefficient is not statistically significant in the long run implying that there is no direct meaningful relationship between foreign aid and export performance in Rwanda. In other words, there are more relevant factors than these. Further researches can therefore be done for these factors.

***Rural Development policies and investment in primary education: farmers in Rwanda by Joseph Nkurunziza***

In his presentation, Mr Joseph indicated that this paper evaluates the contribution of rural development policies on primary education expenditure by farmers, taking into account labour market conditions. The results indicate that land use consolidation and associated policies for breaking the poverty cycle of farmers add to willingness of families to invest in their children's education. The strong linkages of farmer's investment in child education to the availability of formal employment in the district send a clear message that the sustainability of the current achievements in education will depend on employment expansion as projected in Development Policy Papers.

In his conclusion, Mr. Joseph said that the abolishment of tuition fees and associated measures, and poverty reduction through social protection programs for vulnerable households contributed an increase in enrolment and completion of primary education, and to a decrease of the vulnerability of the poor in Rwanda between 2005 and 2010. The success of these policies is indisputable, but despite all measures taken, primary education is still not affordable for the (extreme) poor in general and for poor farmers in particular. If farmers, who represent more than 80% of the active labour population, are experiencing difficulties in sending their children even to primary school, then achieving the knowledge based society becomes unlikely. In order to address poverty reduction among 17 farmers the government set out a land use consolidation and associated policies to increase agricultural productivity and to create new jobs.

***Economic Structural Transformation: from agriculture and primary sector to knowledge based economy and urbanisation by Eric Déo KABERA and Sylvie NIBEZA***

The author indicated that economic structural transformation is associated with a fundamental change in the structure of the economy and its drivers of growth and development. It is built upon four key pillars: (i) a declining share of agriculture in gross domestic product (GDP) and employment, (ii) the rapid process of urbanisation as people migrate from rural to urban areas, (iii) the rise of a modern industrial and service economy, and (iv) a demographic transition from high to low rates of births and deaths. Unfortunately, African economies reveal the following characteristics: Most of economies are driven by natural resource and or primary commodities; the manufacturing sector remains embryonic, limiting the potential employment

gains from the processing of primary commodities; agricultural productivity remains low and characterised by limited application of modern technologies; the rural sector is highly underdeveloped; birth and death rates are high; HIV prevalence rates maternal and child deaths are the highest globally; and social protection programmes are undeveloped. Rwanda is not exception to such situation despite its efforts towards sustainable Inclusive Growth.

Using Qualitative and Quantitative Methods, Econometric Model in data analysis using Eviews 8, Data being taken from the World Bank and National Institute of Statistics, the present research aims at describing Rwanda's achievements towards Economic Structural Transformation. The research found that Rwanda, has implemented significant economic reforms, including privatisation, investment facilitation and trade liberalisation, which helped achieve strong economic growth. The services sector, now accounts for around half of its gross domestic product (GDP), International trade has been a key factor in expanding the Rwandan economy far beyond national markets. Agriculture decreased its contribution to GDP while increasing in production, whereas Industry and Services increased.

***Estimating Gravity Model for Agricultural Trade in Rwanda by HARERIMANA Jean de Dieu, NTIRAMPEBA Sylvere and GASANGWA Roy Valence***

The author indicated that the aim of this paper is to evaluate the magnitude of agricultural potential trade in Rwanda vis à vis its partners in East African Community countries using gravity model approach.

The findings of agricultural potential trade were estimated using the gravity model by using the econometric panel data analysis. The increase of one per cent in Rwanda's GDP on the market prices marks a 2.166 per cent increase in Rwanda's agricultural export flows.

On the other hand, the increase in Rwanda's depreciation of its partners' currency causes exports to decrease by 0.93 percent, which is likely to dissimulate the entire agricultural production of which share proved not to be significant but positive. Hence, the share of trade on gross domestic products is attributed to the fact that an increase in agricultural export is at 0.59 percent.

Transportation costs, priced by distance, are found to discourage the agricultural export at 0.17 percent. The overall results proved that agricultural trade in East African Countries is by no means going to potentially impact economic growth.

***Socio-economic differentials in Desired Family Size: a comparative analysis of Rwanda and Kenya by Dieudonne Muhoza***

Dr Muhoza mentioned that this research seeks to understand how socioeconomic and cultural factors operate differently in various contexts to shape the desired family size comparing Rwanda to Kenya. It aims to identify possible target groups for future family planning

programs. He said the comparative approach is adopted to gain more insight about the factors that shape family size preferences in various socio-economic and cultural contexts.

Muhoza mentioned that, according to this research, the first difference between Rwanda and Kenya come from cultural considerations which produce opposite effects. In Rwanda, the preference for medium or large families is stated more by the protestant community than other religious communities while in Kenya it is the Muslim community and other religious groups which exhibit higher propensity for large families. Muslims prefer as much as 8 times large families than Catholics. In this community, more than 70% of the population state to prefer a large family size. In Rwanda, Muslims tend to desire fewer children (negative parameter). Moreover, in Kenya but not in Rwanda, findings show an intergeneration pattern (women born in large families prefer also large families and vice versa), and display an association between the preference for a large family size and polygamous unions.

However, the essential difference between Rwanda and Kenya is found for economic factors. In Rwanda, all economic variables, except education, hardly display a difference between different communities indicating a similar preference for medium or large families as for small families. In Kenya, both the woman and husband's education discriminate enormously women's attitude vis-à-vis the desired fertility. Uneducated women, for instance, are more than 15 times more likely to prefer large families than those with higher education. In the same line, women residing in the poor households like more than others large families.

From the above picture, there are significant difference in the effects of various factors on desired family size between Rwanda and Kenya. These differences contribute to the understanding that both socio-economic and cultural factors should be taken into consideration when studying the fertility behavior change and that relations that hold for one community in a country are of no or less importance for another. New attitudes to desired family size diffuse along different paths within the various communities in a specific national context.

### ***Determinants of non-monetary poverty in Rwanda by Thierry Kalisa and Sophie Nottmeyer***

The author mentioned that this paper's motivation is to contribute to the growing literature on the determinants of Poverty in African countries using Rwanda as an example. Rwanda has made important progress over the last twenty years after the 1994 genocide against the Tutsi. GDP growth averaged 8 percent since 2000 as published by the National institute of Statistics of Rwanda, NISR (NISR, 2015a). Rwandans have benefited from this rapid economic growth, as well as reduced income poverty (NISR, 2015b). To continue on this path, the country developed its second Economic Development and Poverty Reduction Strategy or EDPRS 2 (Rwanda, 2013) in line with the country's Vision 2020 (Rwanda, 2000).

The most common measure of poverty used by economists is still based on income, consumption or expenditure. This can lead to two issues. First, the measurement of these is often accompanied with inaccuracy of data and/or reluctance from the respondents to give information. Second, having an income slightly above or below a poverty line is not substantially different, the same low income can affect different people in different ways.

Income poverty does not show health, education or social deprivations and reducing income poverty does not necessarily reduce non-income deprivations. This is why this paper focuses on non-monetary poverty.

Although more and more papers and reports about the MPI are being published by the Oxford Poverty and Human Development Initiative (OPHI), most of them present only statistical results about MPI of different countries including Rwanda (OPHI, 2015). NISR (2012) also presented MPI results for Rwanda with slightly modified indicators to better capture the particularities of the country. They find that 37 percent of the Rwandan population can be considered as poor and this is correlated with characteristics like age, gender, education level of the head of household, and other household characteristics like roofing quality, number of children among others. This paper adopts the same MPI definition but digs deeper using Econometrics and Rwanda's latest Census data to validate or not the links between these variables and poverty. A probit model is used to model the probability of being poor and OLS estimation is used for the intensity of poverty. We find that all these characteristics help explain that a particular household is deprived or not as well as the intensity of this poverty.

#### **4. Conference Recommendations/Policy Brief: Informing EDPRS 3**

##### *The new Economic Strategy of Rwanda...*

The economic orientation of Rwanda is at a turning point. The second Economic Development and Poverty Reduction Strategy (EDPRS2) is close to its end and it is now time to advise on what should be the priorities of the next step, EDPRS 3. Scholars, researchers and stakeholders hence need to do their job. They must provide evidence to the decision makers. Decision makers will build on the evidence to guide the economic orientation of the country and design the associated policies. The 3<sup>rd</sup> EPRN conference aimed at contributing to this process: Researchers and policy makers discussed about economic transformation, finance and poverty. This policy brief draws from research findings and panel discussions of the 3<sup>rd</sup> EPRN conference.

##### *...must ensure the continuity towards Economic Transformation*

The focus on economic transformation for Rwanda and its Region should be strengthened. While past economic growth was driven by an increase in the production of all sectors, economic structural transformation remains limited and productivity needs to be further increased. However, increasing agriculture productivity should be a concomitant goal with economic transformation. Developing new international destination markets for new crops such as e.g. flowers, vegetables and macadamia and securing and further exploiting the production capacity of traditional crops like tea and coffee are priorities for the agriculture sector agenda.

Still, shifting to an economy oriented towards manufacturing and services will help the increase in productivity. The manufacturing sector is mainly characterized by micro and informal firms which hinder the quality and quantity of production. There is a clear need to change the mind-

set, at the demand and at the supply side. On the demand side, promotion of products and services made in Rwanda must lie at the top of the agenda. This will help the scale up of firms and contribute to substitution of imports. On the Supply side, the need is to strengthen production through incentives in taxes and through continuous efforts in infrastructure. While we talk about economic transformation, it is worth noting the links between the sectors along the value chain. We need to promote coordination. One sector does not increase productivity at the expense of one another. Sectors mutually reinforce themselves. Agriculture is part of the transformation. It has to be pushed from subsistence farms to market-oriented farms, in order to supply industries and create the right link between farmers and industries. The ongoing strategy of joint planning needs to be enforced further.

*...for which high interest rates needs to be addressed*

Potential investors in Rwanda are concerned about the high interest rate in the country. Rwanda needs to go deeper than the traditional but however needed plea for lower interest rates which has lead other countries from the Region to adopt ceiling interest rates. These policies have proven to be inefficient. One angle of approach to overcome this challenge is to analyse the drivers of the interest rate spread. This type of analysis is of major importance since high interest rates resulting from high inflation or resulting from a lack of competition in the banking sector will not yield to the same policy recommendation.

Evidence<sup>1</sup> shows that product diversification of banks reduces the interest rate spread. Also higher competition in the banking sector will have a downward pressure on the interest rate. Let promote product diversification and competition in the sector. In addition, higher operating costs in the banking sector increases the interest rate spread which suggests that a more cost efficient approach, for example through the adoption of new technologies, could reduce the interest rate. As an alternative to commercial bank as credit provider, microfinance institution encounters even higher interest rate which takes them away from the financing of the poors, their public target. The drivers of the interest rate in microfinance are not known yet. Further research should bridge this gap.

*...and foreign aid continue to be well channelled*

Public finance in Rwanda is still dependent on foreign aid. The management of large financial inflows is of major importance as it can lead to a wider trade deficit, mechanism known as the Dutch disease. Findings<sup>2</sup> suggest that Rwanda was able to avoid this trap by a good allocation of public resources. We need to keep this good practice and direct aid flows towards export promotion and technology improvements. This will avoid adverse effect of aid and allow Rwandan firms to access foreign markets, being more competitive and speed up economic transformation.

---

<sup>1</sup> Kayitana et al. (2017)

<sup>2</sup> Gasana et al. (2017)

*...at a time of new demographic challenges*

The creation of new off farm jobs will be needed in a country with high fertility and land scarcity. On the one hand, we have to ensure the sustainability of the soil together with the increase in land productivity, that is, we need to assess how plantation planning affects the long-term land's quality. On the other hand, evidence<sup>3</sup> suggest that in Rwanda, contrarily to Kenya, the high fertility rate is not a choice made by households but that fertility is partly unwanted and it is concentrated in some specific groups. As a result, we need to target these specific groups and enforce the existing family planning services to further help people achieve their desired family size.

*...and in order to reduce poverty*

Poverty reduction will be one of the most important goal of the coming EDPRS 3. Seeing poverty only from a consumption perspective is reductive. It needs to be complemented by other dimensions: education, health and living standards. And it is not an isolated topic. It is the opposite. As an example to reduce poverty: better education for our children in the rural area needs to go along with opportunities on the labour market, that is more off-farm jobs, which will be partly driven by cheap investment and supported by government spending in export promotion and investment in technologies, which will incentivises parents to invest today in the schoolings of their children, where language skills will be promoted. Better educated people will reduce their fertility, accompanied by family planning services, which will in turn reduce poverty. Better-educated children will grow into better-educated parents, and will themselves better educate their children who will have better opportunities to live a life out of poverty, sustainably. This is the kind of story that has to be promoted through EDPRS 3. This a story that is based on evidence<sup>4</sup> and this is the reason why we need further research at the agenda for Rwanda.

---

<sup>3</sup> Muhoza (2017)

<sup>4</sup> See Broekhuis et al. (2017), Gasana et al. (2017), Gasangwa et al (2017), Habmenshi et al. (2017), Habmenshi et al. (2017), Kalisa and Nottmeyer (2017), Kayitana et al. (2017) and Muhoza (2017).

## 5. Closing remarks



The Guest of Honour, Ms. Francoise Tengera Kayitare, Principal of the College of Business and Economics at the University of Rwanda who is also one of EPRN Board members congratulated EPRN for having organized such a big event with insightful deliberations. He thanked all speakers and participants in general. She emphasized on the role of bringing young researchers like students on-board as they are today and future researchers and policy analysts of Rwanda. We are excited to see such a big number of stakeholders, among them many students at our conference. This is proof that the work we are doing is

doing is relevant and it gives us confidence that our mission to sustainably strengthen economic policy research and analysis in Rwanda is on a good way to being achieved.

### Agenda for the 3rd Economic Policy Research Conference

26<sup>th</sup> January 2017 @ CBE Gikondo Campus

Time	Session	Facilitators / Presenters
08:30am – 09:00am	Arrival and Registration	EPRN Team
09:00am – 09:05am	Introduction of the conference by the conference facilitator	Seth KWIZERA, EPRN Coordinator
09:05am – 09:10am	Welcome Remarks by UR	UR
09:10am – 09:20am	Welcome Remarks by (IPAR-Rwanda)	Eugenia Kayitesi, Executive Director
09:20am – 09:25am	Remarks by GIZ Representative	GIZ
09:25am – 09:30am	Presentation on EPRN	Prof KIGABO Thomas
09:30am – 09:40am	Keynote speech and Opening by the Chief Guest	Guest of Honor
09:40am – 10:00am	Break Tea and Group Photo + Poster Session	EPRN Team
<b>Presentations for Session I</b>		
10:10am- 10:20am	Introduction by Reviewer	Prof Kigabo Thomas
10:20am-	1) Interest Rate Spread in the Financial System	1) Joseph Ndagijimana

11:00am	in Rwanda: Drivers and Implications 2) Effect Of Foreign Aid On Real Exchange Rate In Rwanda	2) Dr. Charles Ruhara and Joseph Gasana
11:00am-11:20am	Plenary session (Inputs, comments, Questions and Answers)	Prof Kigabo Thomas
11:20am - 12:00am	Round-Table Panel discussions on Rwanda's Financial Sector and its role in achieving EDPRS goals	BNR, MINECOFIN, MINEACOM, AMIR, SIDA, GIZ
<b>12:00pm –01:30pm LUNCH BREAK + Post Session</b>		
<b>Presentations Session II</b>		
01:30pm-01:40pm	Introduction by Reviewer	Prof BIZOZA Alfred
01:40pm-02:40pm	1) Rural Development policies and investment in primary education: farmers in Rwanda 2) Economic Structural Transformation: from agriculture and primary sector to knowledge based economy and urbanisation " 3) Estimating gravity model for agricultural potentials trade in Rwanda	1) Joseph Nkurunziza, Annelet Broekhuits and Pieter Hooimeijer 2) Sylvie Nibeza, Fr Eric Deo Kabera 3) HARERIMANA Jean de Dieu, NTIRAMPEBA Sylvère, GASANGWA Roy Valence
02:40pm-03:00pm	Plenary session (Inputs, comments, Questions and Answers)	Prof Bizoza Alfred
03:00pm-03:50pm	Round-Table Panel discussions on Agriculture Development and Economic transformation towards EDPRS 3	MINAGRI, RAB, MINEACOM, NISR, WB, IFAD
03:50pm-04:05pm	Tea Break	EPRN Team
04:05pm-04:15pm	<b>Presentations Session III</b>	
04:15pm-04:25pm	Introduction by Reviewer	Dr. Adam Mugume
04:25pm-05:05pm	1) Socio-economic differentials in Desired Family Size: a comparative analysis of Rwanda and Kenya 2) Determinants of non-monetary poverty in Rwanda	1) Dr. Dieudonne Muhoza 2) Kalisa Mihigo and Sofie Nottmeyer
05:05pm-05:25pm	Plenary session (Inputs, comments, Questions and Answers)	Dr. Adam Mugume
05:25pm-05:30pm	General Recommendations and Way Forward	Prof KIGABO Thomas, Chairman of EPRN
05:30pm-05:35pm	Closing Remarks	Guest of Honor
<b>05:35pm - 07:00pm COCKTAIL with TRADITIONAL DANCE</b>		

## CONFERENCE PHOTO GALLERY



