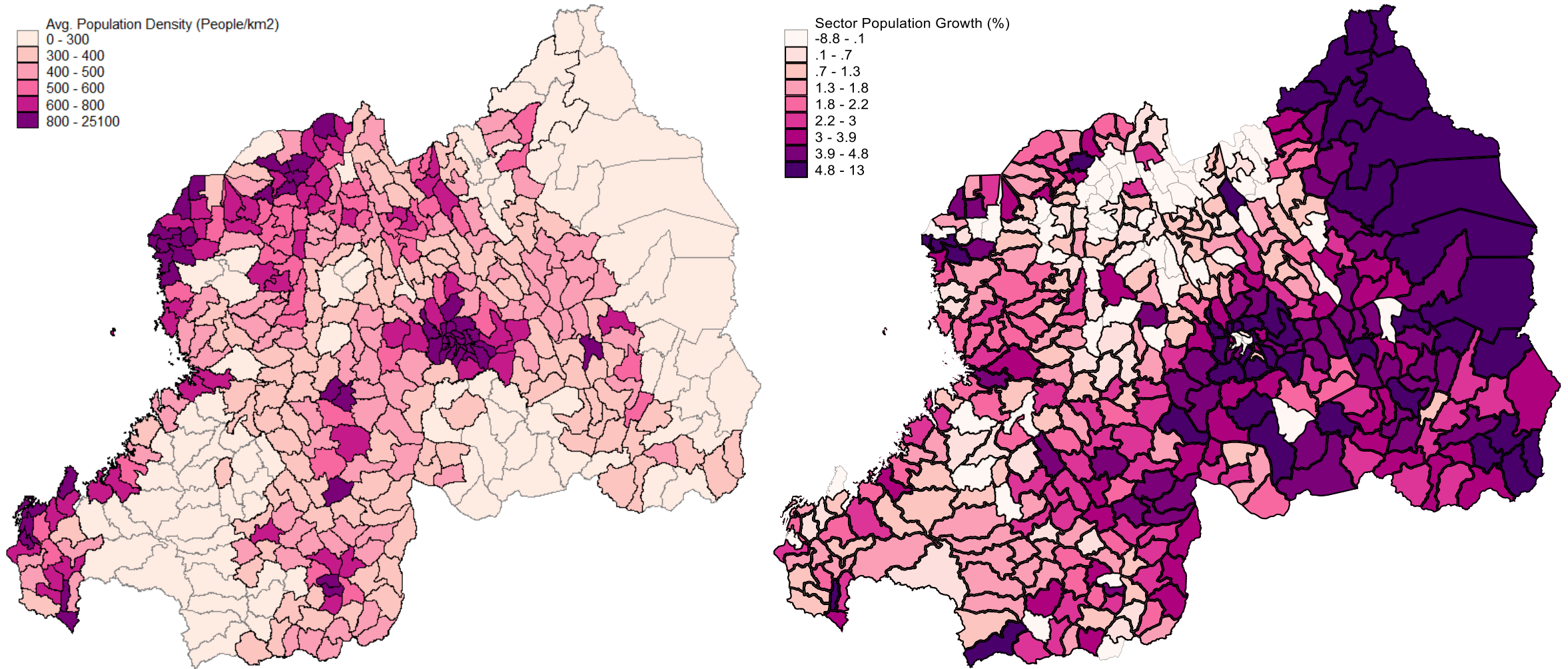# Economic Geography of Rwanda's Cities
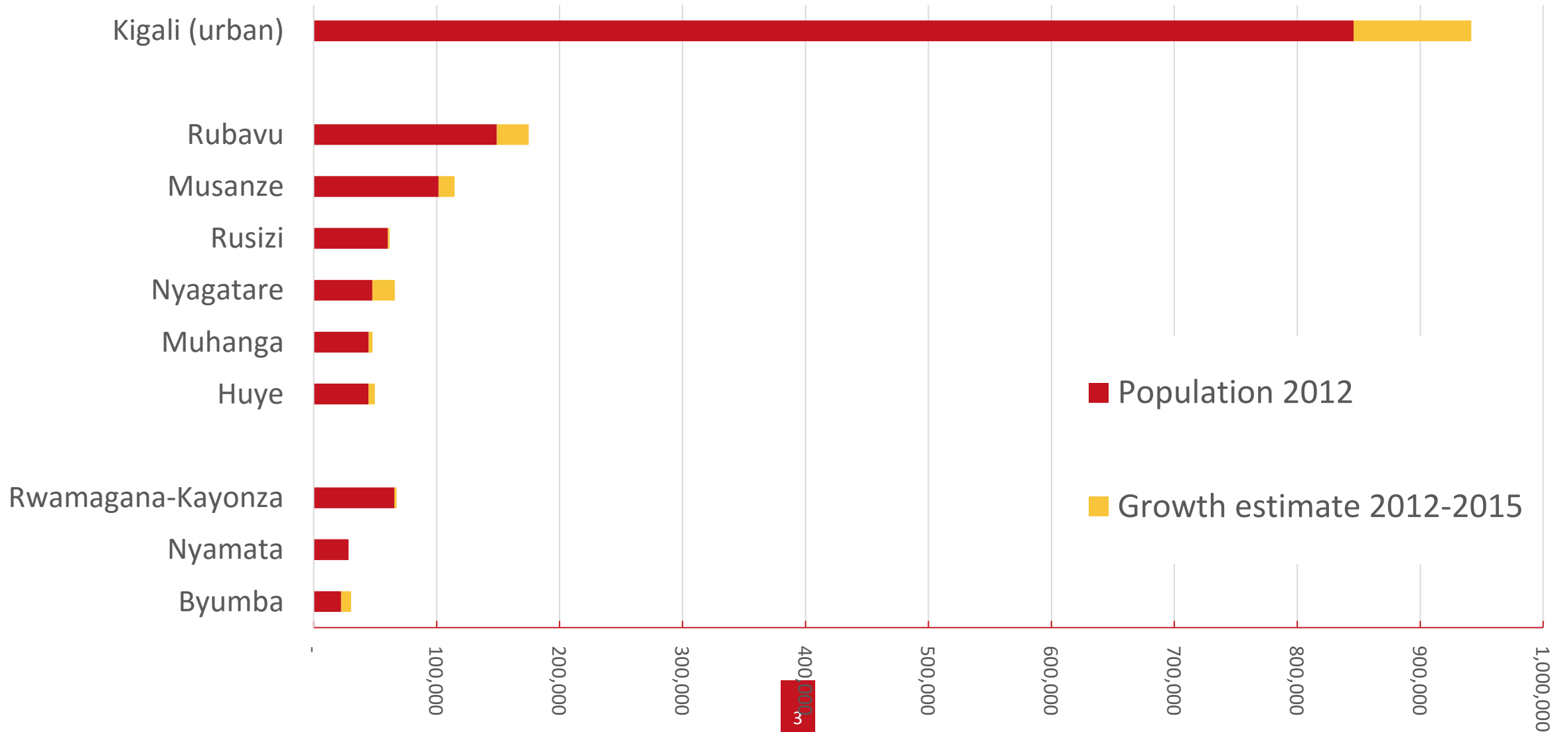
National Urban Forum – 6 February 2019

Preliminary Results – pending validation

laterite

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Rwanda is urbanizing from a low base

Avg. Population Density (People/km2)
- 0 - 300
- 300 - 400
- 400 - 500
- 500 - 600
- 600 - 800
- 800 - 25100

Sector Population Growth (%)
- -8.8 - .1
- .1 - .7
- .7 - 1.3
- 1.3 - 1.8
- 1.8 - 2.2
- 2.2 - 3
- 3 - 3.9
- 3.9 - 4.8
- 4.8 - 13

Kigali is the primary city

Kigali (urban)
Rubavu
Musanze
Rusizi
Nyagatare
Muhanga
Huye
Rwamagana-Kayonza
Nyamata
Byumba

Population 2012

Growth estimate 2012-2015

-   100,000   200,000   300,000   400,000   500,000   600,000   700,000   800,000   900,000   1,000,000
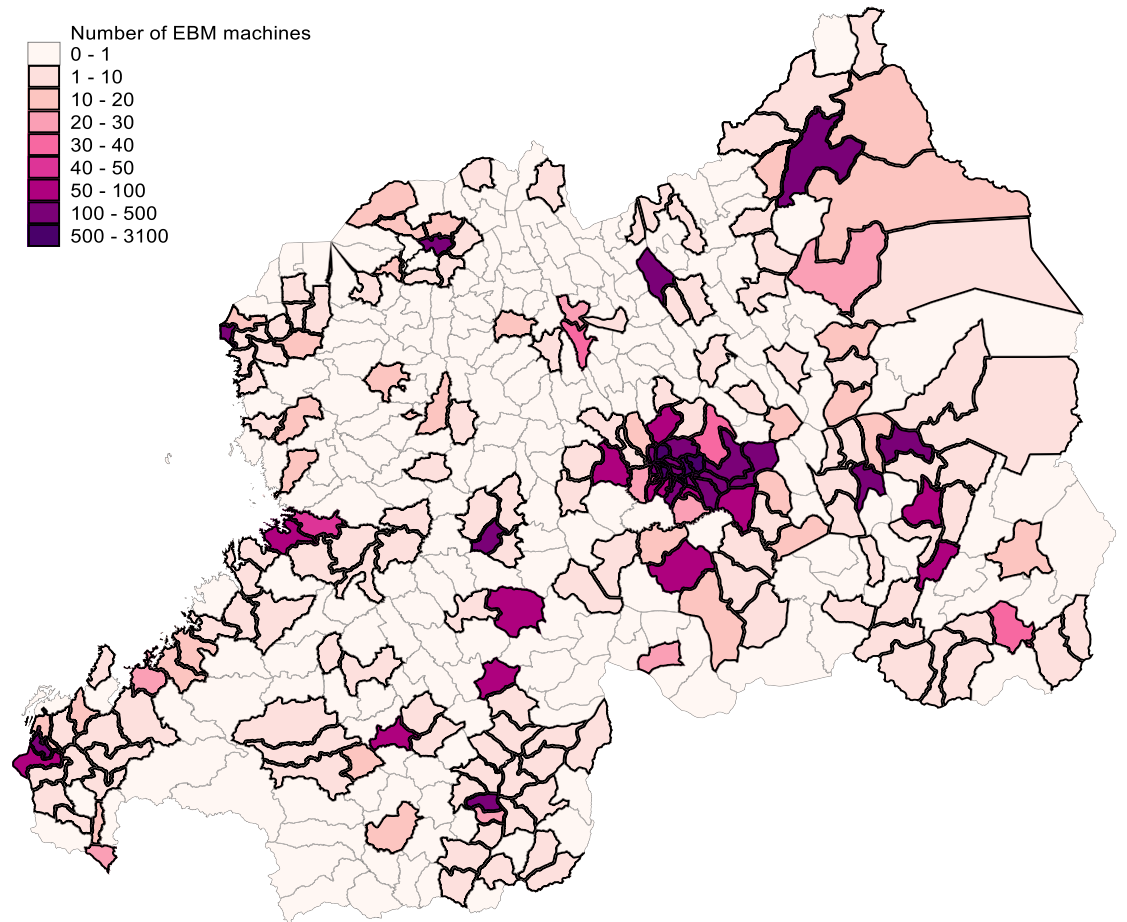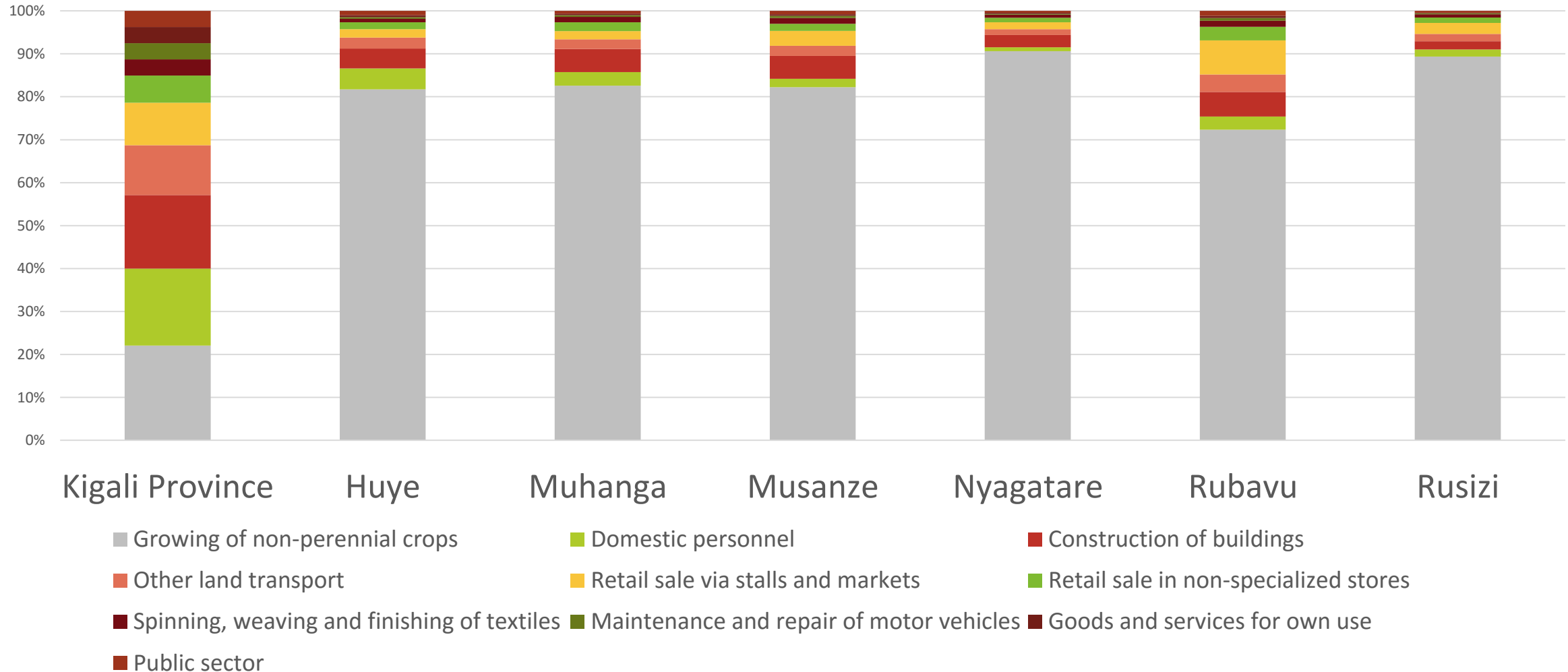
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Formal business activities are concentrated in Kigali

- 45% of non-micro firms are based in Kigali (Establishment Census 2017)

- Kigali has 10% more businesses than expected even given the urban population

- 85% of EBM registered sales are based in Kigali (EBM 2017/18)

Number of EBM machines
- 0 - 1
- 1 - 10
- 10 - 20
- 20 - 30
- 30 - 40
- 40 - 50
- 50 - 100
- 100 - 500
- 500 - 3100

Kigali's economy is unique in Rwanda

Legend:
- Growing of non-perennial crops
- Domestic personnel
- Construction of buildings
- Other land transport
- Retail sale via stalls and markets
- Retail sale in non-specialized stores
- Spinning, weaving and finishing of textiles
- Maintenance and repair of motor vehicles
- Goods and services for own use
- Public sector

Secondary Cities' growth could be pro-poor

- Nearly one-third of Rwanda's poor live within 20 km of a secondary city

- Academic evidence that urbanization has positive benefits for the surrounding areas

- EICV data suggests current rural-urban movements are from higher income rural population

- Future economic potential also depends on the size of the population in surrounding areas

Cities	<5kms	<10kms	<15kms
Kigali	489,000	795,000	1,095,000
Rubavu	139,000	236,000	374,000
Musanze	110,000	242,000	512,000
Muhanga	83,000	198,000	344,000
Rusizi	75,000	167,000	237,000
Nyagatare	54,000	74,000	141,000
Huye	50,000	213,000	364,000
Byumba	52,000	186,000	342,000
Kayonza	43,000	98,000	220,000
Nyamata	36,000	65,000	240,000
Rwamagana	33,000	129,000	214,000

Census 2012

Cities' current strengths align with branding

Rubavu	Musanze	Muhanga	Huye	Nyagatare
Manufacture of beverages	Construction of roads and railways	Growing of perennial crops	Research and experimental development on natural sciences and engineering	Animal production
Retail sale via stalls and markets	Provision of services to the community as a whole	Manufacture of non-metallic mineral products	Support activities to agriculture and post-harvest crop activities	Repair of personal and household goods
Short term accommodation activities	Retail sale via stalls and markets	Mining and quarrying	Higher education	Restaurants and mobile food service activities

Secondary cities rely on branches

Chart showing proportion of VAT registered businesses that are branches (yellow) and proportion of VAT sales attributable to branches (green) for cities: Kigali City, Musanze, Muhanga, Nyagatare, Rusizi, Huye, Rubavu, Kayonza, Byumba, Nyamata. X-axis from 0% to 50%.

Legend:
- Proportion of VAT registered businesses that are branches
- Proportion of VAT sales attributable to branches

Secondary cities rely on trade with Kigali

- Kigali acts as a central hub connecting different parts of the country

- Kigali has 12% more of intra-Rwanda trade than expected given a gravity model of the urban population

- Businesses outside of Kigali are more dependent on trade with outside their own district

- Density of district's road infrastructure is positively associated with trade.
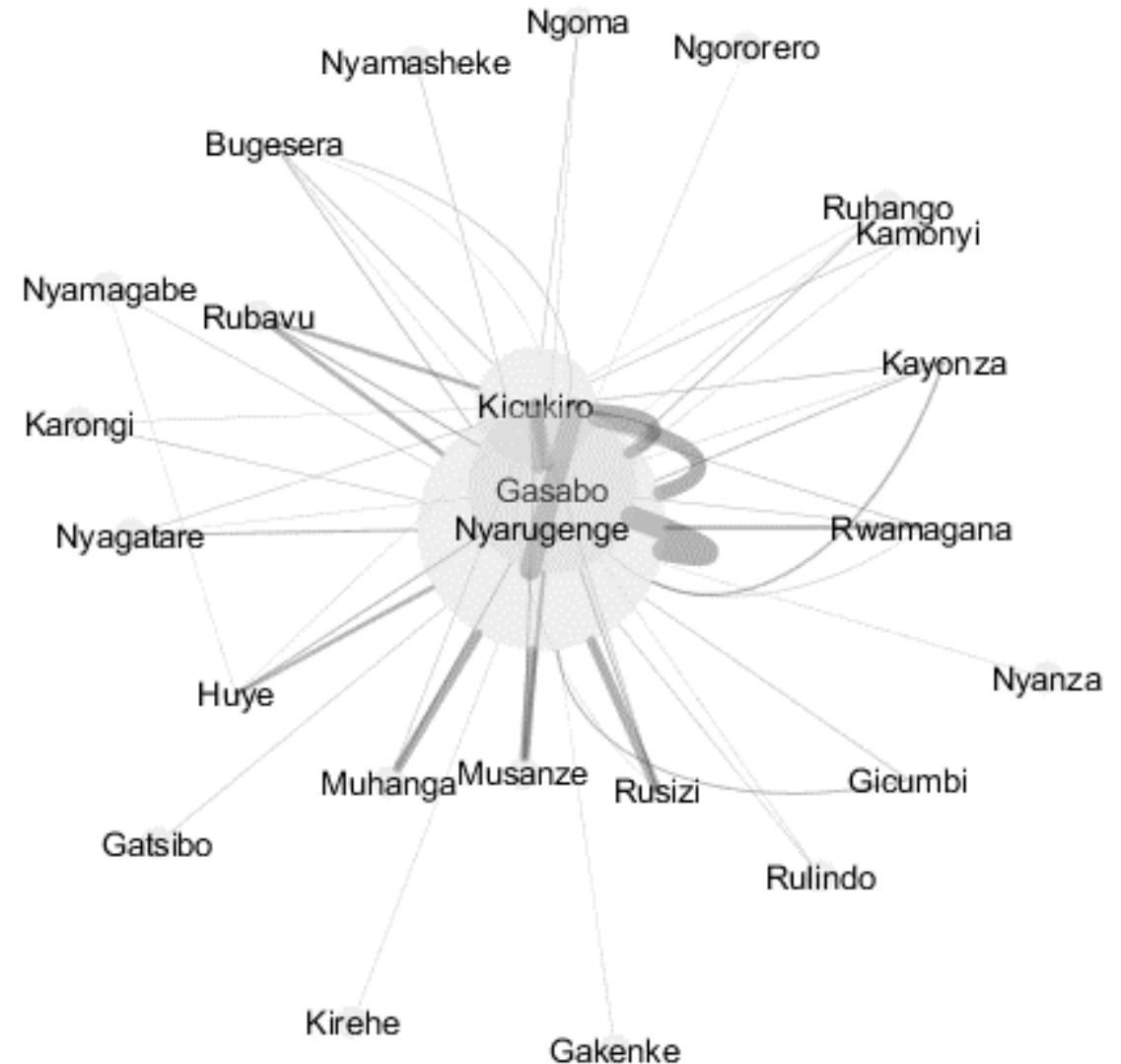
Urbanization → business density → specialization

Looking at the relationships over time in Rwandan cities there's some evidence that

- Urbanization (population density) increases before business density
- business density increases before specialization/complexity

Based on this Rubavu stands out as a high potential secondary city – it's population is high compared to current level of specialization.
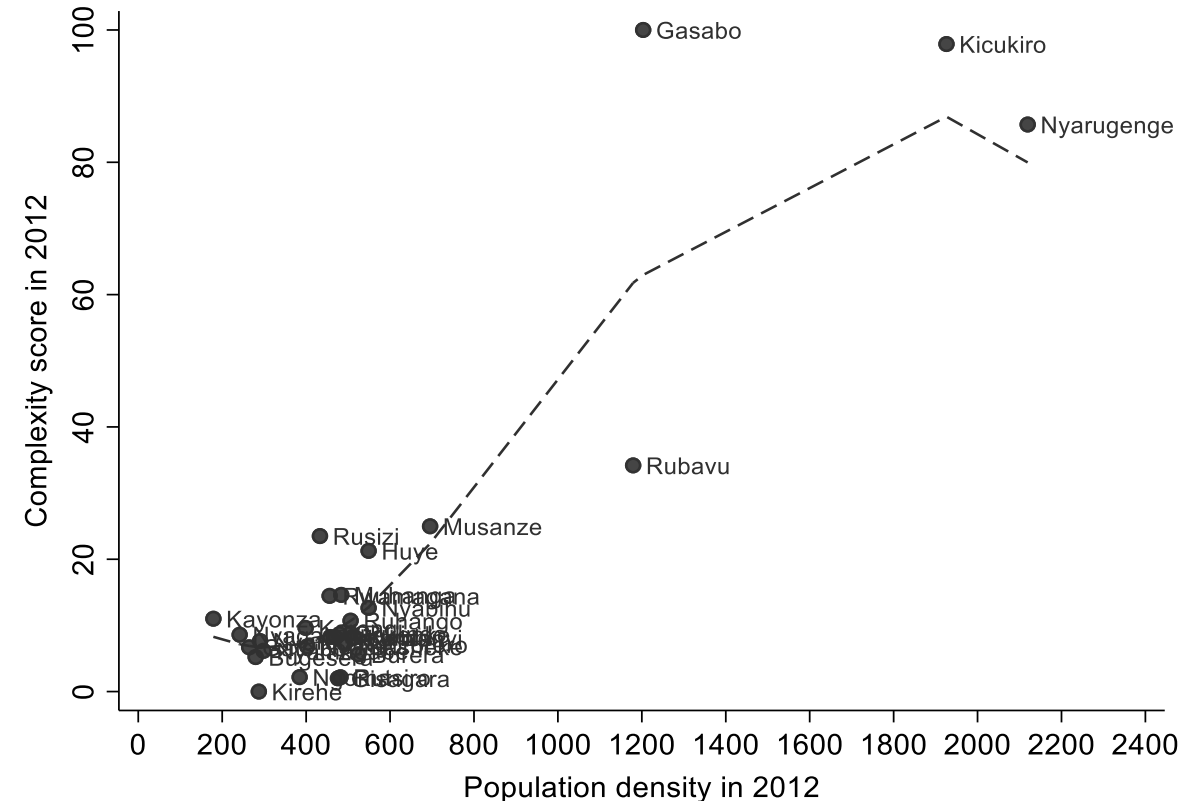
# Discovering high-potential, low-risk sectors

Applying the Smart Specialization Framework used in the EU to Rwanda's economic data can identify economics sectors to prioritise that are:
(i)   achievable and hence "related" to the current strengths of a location;
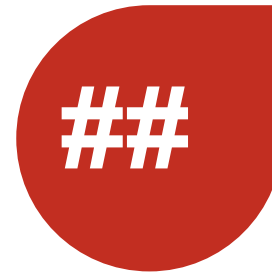(ii) more advanced or "complex" than the current set of economic activities.

Example on the left is Gisenyi Sector, Rubavu District and suggests growing (i) financial services (ii) photographic activities; and (iii) travel agency and tour operator activities.
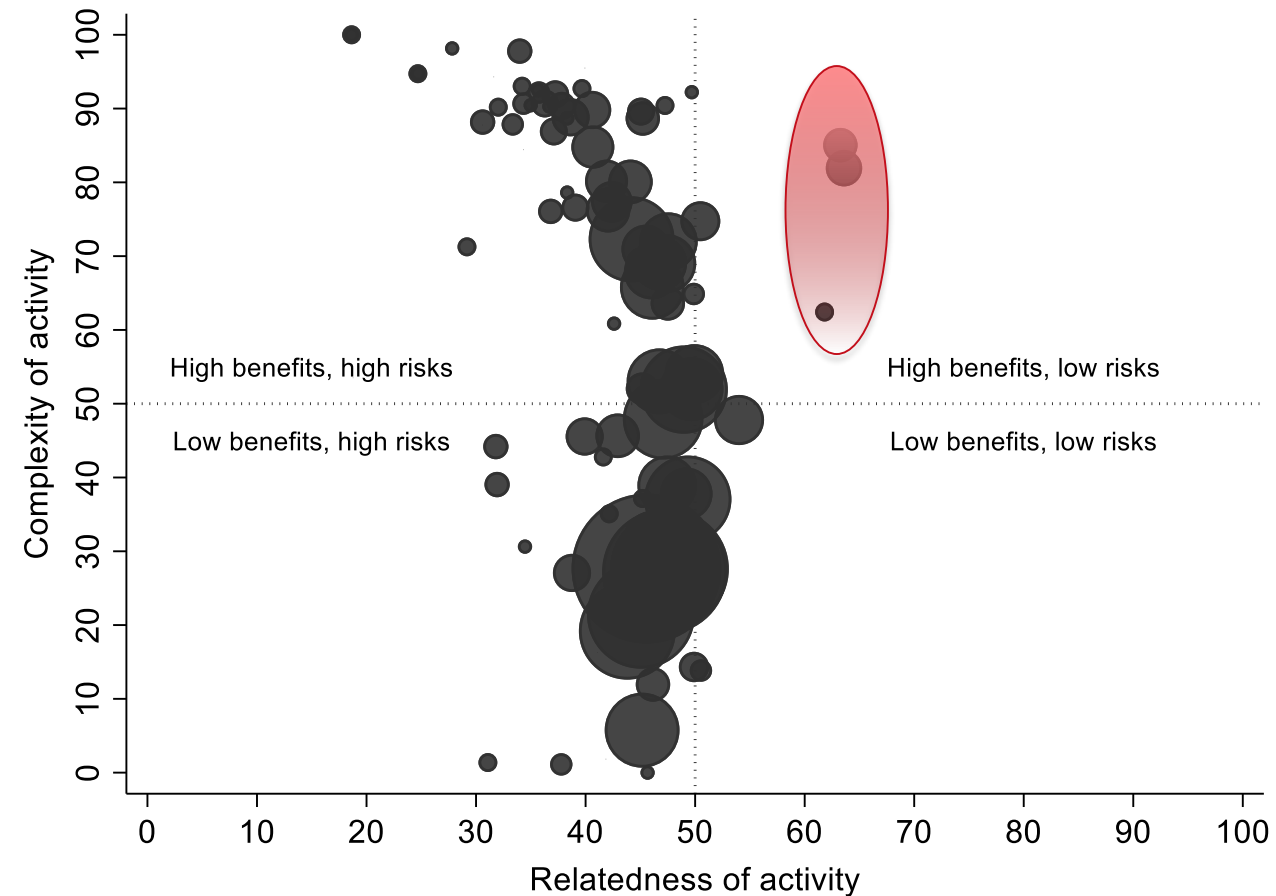
Conclusions
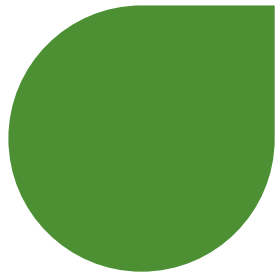
Current strengths align with secondary cities branding.

Secondary cities need urban population growth to fully benefit from specialization.

Secondary cities are dependent on trade with Kigali and branches.

Rwanda has some world class data for understanding economic geography including city specifics.

Much more in the forthcoming report!

Thank you.

Report prepared by Dimitri Stoelinga, Anirudh Rajashekar and Marion Richard with support from Mike O'Doherty, Carlo Menon and David Wickland.

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