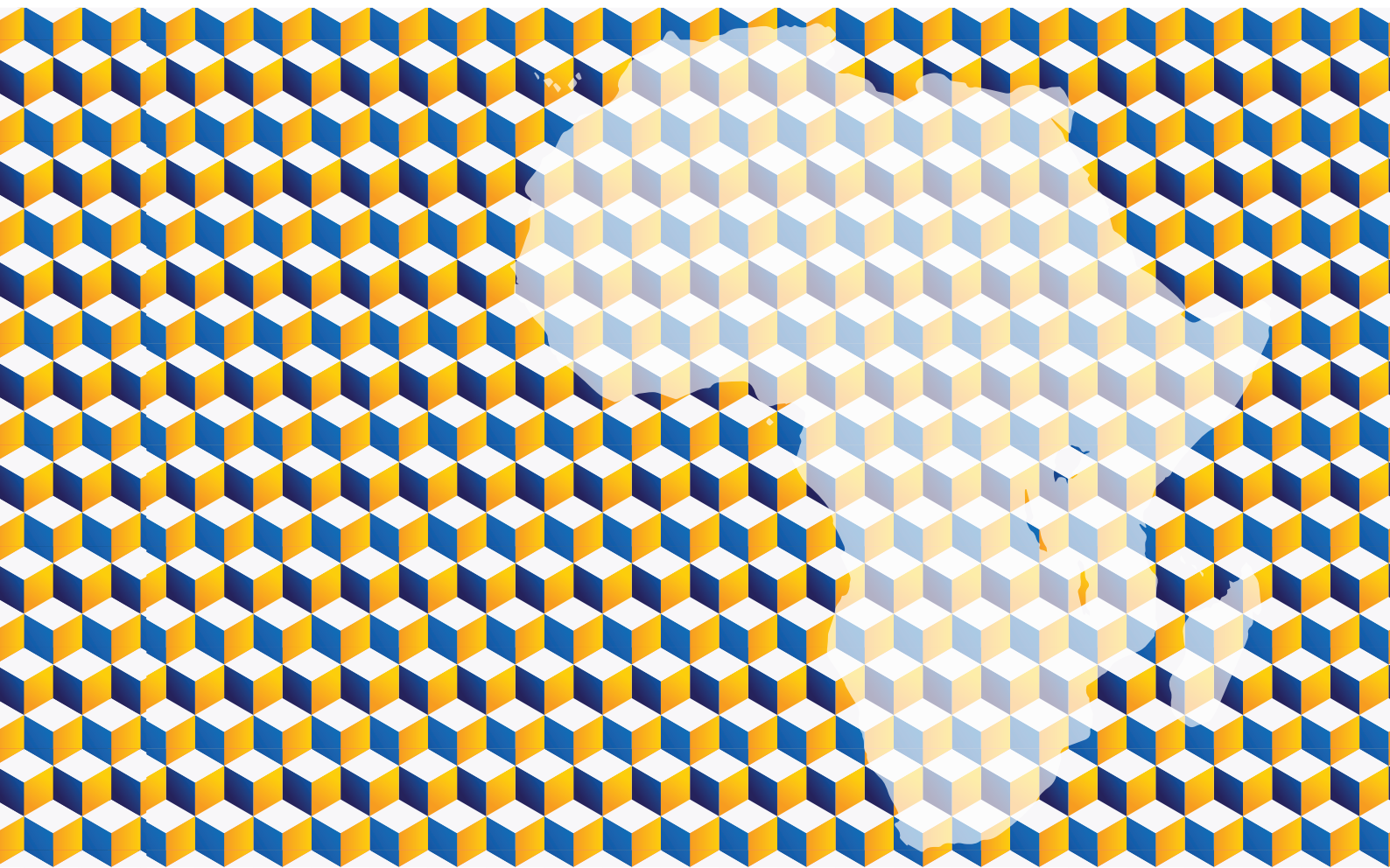


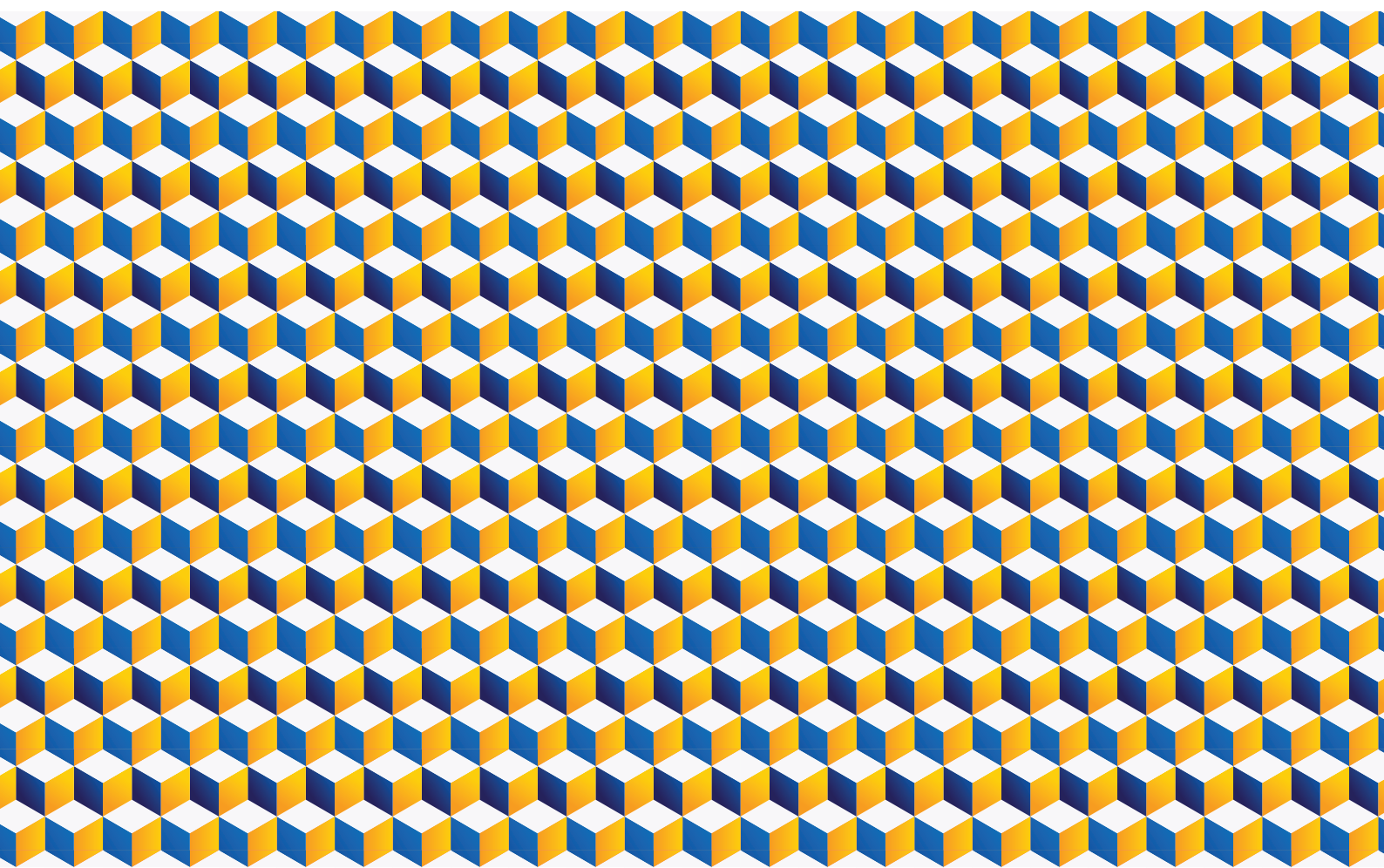
# VISA

# AFRICA INTEGRATION INDEX

Connecting for Growth,  
Economic Inclusion & Prosperity  
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you want to be



## MEASURING CONNECTEDNESS

The extent and nature of a country's connections to both the global and regional economy is one of the single biggest influencers of socio-economic change. While mainstream measures of economic integration have focussed more intently on trade flows and capital movements, they have a tendency to overlook other key pillars of economic connectedness, such as flows of information, knowledge, data and people, across borders. Measurement becomes more complex in many emerging and frontier economies, as data are often incomplete or missing entirely. This is especially true for the countries that make up Sub-Saharan Africa (Jerven, 2013). The *Visa Africa Integration Index*, now in its fourth edition, aims to improve our understanding on the importance of economic connectedness and to redress the deficit in information and knowledge about the mechanisms of socio-economic integration, which enable and promote development.

Assimilating country and industry data, together with country-specific information proprietary to Visa, the index has measured and offered insight into economic connectedness for 11 indicative Sub-Saharan economies since 2011. The latest index highlights several important observations that, overwhelmingly, confirm the earlier findings. These are detailed below in this updated version, which extends to 19 countries divided into four regions - Central Africa, East Africa, Southern Africa and West Africa - representing 75% of the subcontinent's population and 85% of output. Several clear trends emerge:



- Sub-Saharan African economies rank amongst the least connected in the world. Since our measurement began five years ago, however, the evidence points to connections growing quickly and effectively, particularly in east Africa, although Cameroon, Ghana and Zambia also stand out.
- In line with data for different countries studied over other periods, there is a strong correspondence between rising connectedness and improvements in economic and social wellbeing. Rwanda is an example of a stand out economy. Over the past five years, the country has displayed the largest relative gain in connectedness amongst the 19 countries in the index. This has manifested in a gain in per person income of 7.0% per year.
- All boats do not rise with the same tide. Kenya and Rwanda have made large gains in connectedness off relatively low bases over the five years covered by this research, Botswana has not moved much off its relatively high base, and Angola has struggled to improve off a low base. The Democratic Republic of Congo's score has fallen.
- The *Visa Africa Integration Index* makes an important and necessary contribution towards filling gaps in data and knowledge relating to many Sub-Saharan economies. It affords better understanding of the drivers and shapers of economic development in the region, helps inform data-driven policy and offers industrial and economic intelligence to business decision makers.



## WHY CONNECTEDNESS MATTERS

If the narrative that Sub-Saharan Africa will become the home of the next generation of “economic miracles” holds true, then the evidence of the past five decades, especially in nations that have shown rapid growth, shows that the pivotal factor for sustained, elevated and inclusive growth is the ability of countries to connect functionally and effectively to others.

The next issue becomes examining the extent and nature of Sub-Saharan Africa’s economic integration and connectedness. This is the subject of the Visa Africa Integration Index, which first covered the connectedness of African economies between 2011 and 2012, and which was subsequently updated for 2014, 2015 and 2016 (see Saville and White, 2013b; Saville and White, 2015a; Saville and Firth, 2016).

This index originally covered 55% of the Sub-Saharan population and three-quarters of the region’s output by measuring the depth and breadth of the connectedness of 11 African economies located in three clusters - East Africa (including Kenya, Rwanda, Tanzania and Uganda); West Africa (including Ghana and Nigeria); and Southern Africa (including Angola, Mozambique, South Africa, Zambia and Zimbabwe). With data that have recently become available, we are able to extend the coverage of the index by eight countries and refine the analysis by clustering the countries into four regions:

- i. Central Africa, which includes Angola, Cameroon and the Democratic Republic of Congo;
- ii. East Africa, covering Ethiopia, Kenya, Madagascar, Mauritius, Rwanda, Tanzania and Uganda;
- iii. Southern Africa, which includes Botswana, Mozambique, Namibia, South Africa, Zambia and Zimbabwe; and
- iv. West Africa, which includes Côte d’Ivoire, Ghana and Nigeria.



The fourth edition employs these data to extend the coverage of the index to 19 economies representing three-quarters of the population and almost nine-tenths of output.

The results of this update confirm that Africa's connectedness is rising, and in turn where connectedness rises, it translates into growing prosperity. At a deeper level of analysis, the extent and nature of the drivers - of connectedness and prosperity - differ across regions and countries. Here the *Visa Africa Integration Index* can provide valuable insights into how one of the most powerful drivers of socioeconomic development in Sub-Saharan economies works.



## GLOBAL CONNECTORS, LOCAL CHAMPIONS

Between 2001 and 2015 the world economy grew by 2.8% per year. The Sub-Saharan African economy grew faster, led by the likes of Ethiopia, Rwanda, Tanzania and Zambia. Just seventeen years ago, in 2000, Ethiopia was the world's second-poorest country with an average income of \$150 per person. An acceleration in economic performance has seen the Ethiopian economy grow by 9.2% per year over the last fifteen years - faster than China or India. This rapid growth in Ethiopia was accompanied by increasing sophistication of value chains that embraced thousands of hectares of greenhouses. It also took in new infrastructure, an expanding international airline, the export of cut flowers, coffee and vegetables to Europe. Entrepreneurship development programmes and growing ties with other fast-growing economies such as China followed. Importantly, Ethiopia's "great run" has been validated by critical developmental indicators. Life expectancy, for instance, has risen by one year every year since 2000.

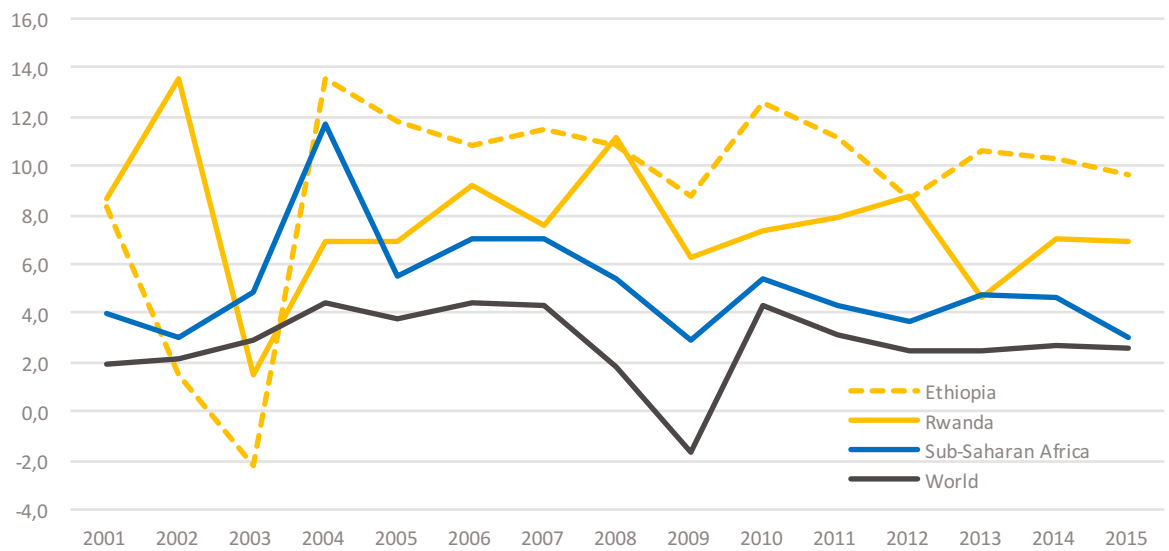
Ethiopia's is not the only connectedness success story. Rwanda's economy has grown by 7.6% per year since 2001; and Tanzania, Uganda and Zambia each grew by an average 6.7% over the same period. These elevated growth rates have resulted in the Zambian economy taking a little more than ten years to double in size. Ethiopia's doubled in just eight years. Consequently, income per person in Ethiopia had grown four times over the last fifteen years, to reach \$620 in 2015. Per capita incomes in Zambia have almost doubled over the fifteen years from \$1,000 to \$1,800. These transitions are impressive, but elevated, sustained and inclusive economic growth does not happen spontaneously.

<sup>1</sup> All per capita data are in constant 2015 prices





Economic Growth (% p.a.): 2001-2015



World Bank (2016)



Countries that achieve high and sustained growth rates that underpin economic transformation and pave the road to prosperity have common elements. A study of 100 countries, spanning the five decades from 1966-2015, identifies a small set of potent elements that are common to the so-called “miracle economies”. These features include a high rate of saving that translates into raised investment levels; a young population that feeds into a growing workforce; the development and mobilisation of human capital through access to effective education and improving healthcare; a capable government with stable, growth-oriented policies underpinned by robust institutions; and functional integration with the world economy. The identity of those countries that make up the “miracle set” over the past fifty years are well known, and include places as geographically different and industrially diverse as Botswana, Chile, China, Estonia, Japan, Poland, Singapore, South Korea, Taiwan and Vietnam.

As the experiences of these countries show, the impacts and effects of elevated, sustained and inclusive economic growth can be dramatic. Between 1966 and 2015, South Korea’s per capita income grew from \$1,400 to \$28,000 – a 20-fold increase in two generations. China’s achievement is as impressive, with income per person growing from \$900 in 1990 to

\$7,300 in 2015 – amounting to an 8-fold gain in just 25 years. The effects of these economic transformations, however, reach well beyond gains in individual income. Chile is a good example of the potential, nature and extent of rapid, sustained growth. Today the country is known for salmon exports, some of the world’s finest chardonnay and home to LATAM Airlines, one of the largest and most successful airlines flying the globe. Yet Chile was once poor.

Chilean income in the mid-1970s stood at \$700 per person, the unemployment rate was 25%, and consumer price inflation peaked at 508%. Life expectancy averaged 60 years and income inequality ranked amongst the worst in the world, with a Gini coefficient of 0.61. This economic tragedy was met by a series of policy shifts that served to raise savings, promote healthcare, advance education, stabilise institutions and establish effective, functional connections with other countries and world markets. This cocktail for stability and growth, applied over the 30 years from 1986 to 2015, saw the Chilean economy grow at an average of 5.0% per year, with just two instances of negative year-on-year growth in the entire 30 years. By 2015 the Chilean economy had come to be characterised by low and stable consumer price inflation, unemployment was largely absent, income inequality had improved materially, life



expectancy stood at 82 years and per capita income amounted to \$15,000, ranking Chile as a high-income economy. That Chile began the miracle period as a low-income, commodity-driven, factor-based economy vulnerable to external shocks with almost no evident competitive advantage lends power to the country's tale of transition and the necessary policy shifts made to achieve this.



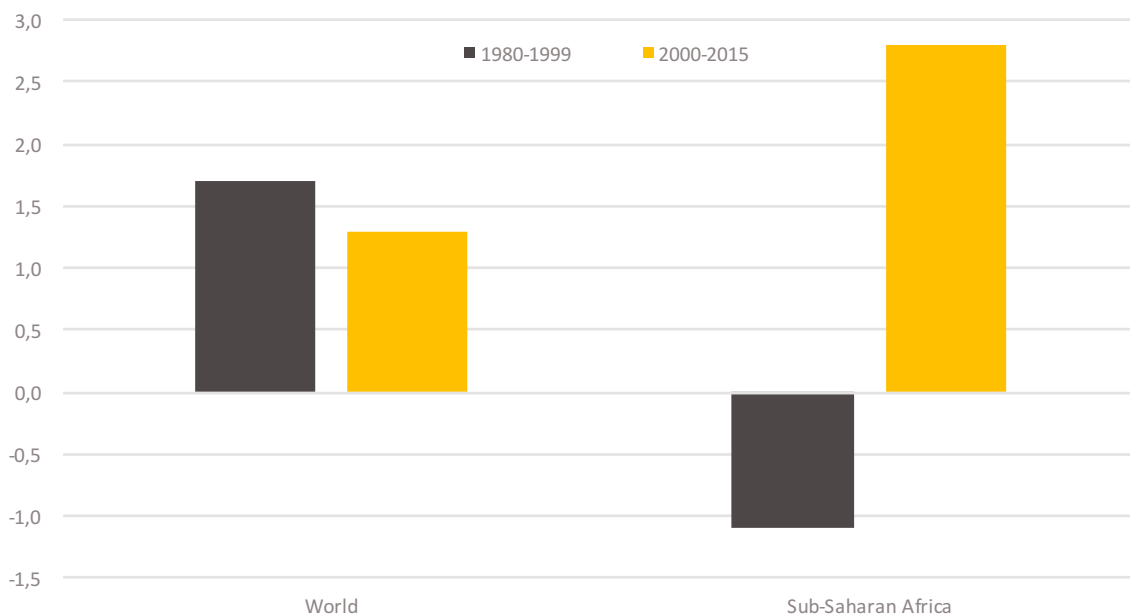
## THE EVIDENCE BEHIND “AFRICA RISING”

The ingredients required to achieve elevated, sustained and inclusive growth are common across continents and time. It is encouraging that the last fifteen years has seen the narrative extended to include, for the first time, Sub-Saharan Africa as a collective. To this end, the Sub-Saharan economy grew by only 1.7% per year over the 1980s and 1990s, lagging the world economy's average of 2.9% per year. The gap in per capita income growth rates was even wider, with Sub-Saharan Africa's per person income falling by 1.1% per year over the two decades compared to the global average that grew by 1.4% per person per year. Since the turn of the century, though, the data tell a different story. The world economy has recorded economic growth of 2.8% per year and income per person has grown by 1.3% per year. This is much in line with the previous 20 years. By contrast, Sub-Saharan Africa's economic growth rate has lifted to 5.1% per year, and per capita income has grown at an average 2.3% per year. As a result, Sub-Saharan Africa ranks as the second-fastest growing region in the world over the past fifteen years. South Africa is an exception, with income per capita stuck at \$7,500 over the past decade.

Critically, in line with experiences in the so-called “miracle economies”, this rapid growth has been, largely, accompanied by rising social mobility, economic inclusion and structural transition. For instance, life expectancy across the continent at birth has risen from 48 years in 1980 to 60 years today, which, while still too low, evidences an upward trend due to improving healthcare. Primary school enrolment rates have moved from 76.9% into 1980 to 98.4% today, pointing to improved education. Population growth remains robust, averaging 2.8% per year in the last fifteen years, compared to a slowing world population growth rate. In a similar vein, scores that measure the quality of policies and strength of institutions for 40 Sub-Saharan countries have shown steady improvement over the last two decades to stand at all-time highs today. Further, saving rates and investment levels for the world economy are largely unchanged over the past fifteen years, whereas the average savings and investment rate for Sub-Saharan economies are 30% higher today than at the turn of the century.



Growth in Per Capita Income: 1980-2015



World Bank (2016)

In short, the Sub-Saharan economic narrative shift from “left behind” to “closing the gap” is borne out by evidence of the same set of “fast growth features” as in the “growth miracles” countries. Equally important in this observation is that the elevated growth rates that emerged the “growth miracles” in the latter part of the twentieth century – and that we see in a range

of Sub-Saharan economies today – were unheard of before the 1960s. There is an important point in this note. Sustaining growth rates of more than five percent per annum over multiple decades has only been possible because the world economy is now more open and integrated.



## AN EVIDENCE-BASED APPROACH TO UNDERSTANDING THE INFLUENCE OF GLOBAL CONNECTORS & THE CAUSES OF FAST GROWTH

As noted by the Commission on Growth and Development (2008) in *The Growth Report: Strategies for Sustained Growth and Inclusive Development*, economic connections allow fast-growing economies to import ideas, technologies, know-how and know-why from the rest of the world. The world economy, when not protectionist, offers developing countries a deep, elastic market for their exports that enables specialisation of labour, makes economies of scale and scope possible, allows countries to specialise in new export lines and to improve their productivity in manifold ways. The Ethiopian example is a case in point. Economic openness also provides access to other scarce resources, such as investment funds, especially in the form of foreign direct investment.

Another resource that economic integration affords is foreign education, which often creates lasting international networks. In turn, because learning something is easier than inventing it, fast learners or technological adopters can rapidly gain ground on leading economies, which gives birth to economic “convergence” or “catch up” whereby poorer economies’ per capita incomes grow at faster

rates than richer economies. If this holds, then all economies should eventually converge in terms of per capita income. These points are supported by Jeffrey Sachs and Andrew Warner’s (1995) study of 111 countries spanning two decades. The results of this work showed that developing countries with functional economic connections had growth of 4.5% per person per year, industrialised countries had growth of 2.3% and closed economies grew by 2.0% per person per year. From this argument and evidence, sustainable, high growth is catch-up growth and connecting and integrating to the global economy through functional economic relationships is the essential resource.

In his recent work, *World 3.0: Global Prosperity and How to Achieve It*, Pankaj Ghemawat (2011) formalised a framework to capture the nature, extent and effects of global connections and economic integration. Specifically, Ghemawat identified four channels through which countries connect with others, namely the flow of goods and services or trade (T); financial integration and the movement of capital in the form of foreign investment, foreign aid



and credit extension (C); the flow of information and knowledge (I) and the movement of people (P). This TCIP framework, in turn, allows for the measurement of the extent or “depth” of a country’s economic connectedness as well as the nature or “breadth” of the connectedness.



## CONNECTED? DEEP OR BROAD?

In terms of “depth”, a country is considered to be “deeply integrated”, if the economy is particularly open and highly connected to the rest of the world. However, integration only becomes “deep and broad” if a highly-connected economy is engaged with a wide variety of counter parties across the different strands of global relationships. Angola serves as a good example, Angolan crude petroleum makes up 91% of exports with two thirds going to just three countries, China, India and the United States. This makes Angola’s connectedness narrow. Contrast this with the widely connected economy of Poland whose exports range from gas turbines and rubber tyres through to rolled tobacco and poultry. These wide-ranging exports find their markets in over seventy-five countries. Based on this, measuring economic integration by way of depth and breadth provides for a robust and granular description – as well as a better understanding – of the nature of cross-country economic integration and helps us move beyond conventional – and admittedly narrow – economic measures.

Using this framework, and supporting Sachs and Warner’s (1995) earlier evidence, Ghemawat and Altman (2011, 64) note, “Rich countries

are consistently more globally connected than poor countries”. The authors go on to show that strong, positive relationships exist between the depth and breadth of economic integration and economic growth, per capita incomes and broader socio-economic indicators. In their study of 112 countries, Ghemawat and Altman (2011, 64) report a correlation of 0.58 between economic openness and per capita incomes. They also find positive individual relationships between income and each of the four pillars of connectedness – covering trade, capital, information and people flows. Further, economic connectedness explains as much as one-fifth of economic growth across countries, and a strong positive relationship exists between economic integration and the United Nations Development Programme’s Human Development Index, with a correlation of 0.63 (Ghemawat and Altman, 2011, 64). Critically, Ghemawat’s framework also establishes that causality runs from economic integration to economic prosperity and improvements in welfare, and not the other way around.

These findings are supported by a more recent study of 142 countries, which finds a strong, positive relationship between economic prosperity and the

<sup>2</sup> The Human Development Index (HDI) is a composite measure which looks at health, education and income indicators to assess the general wellbeing of a country’s population.

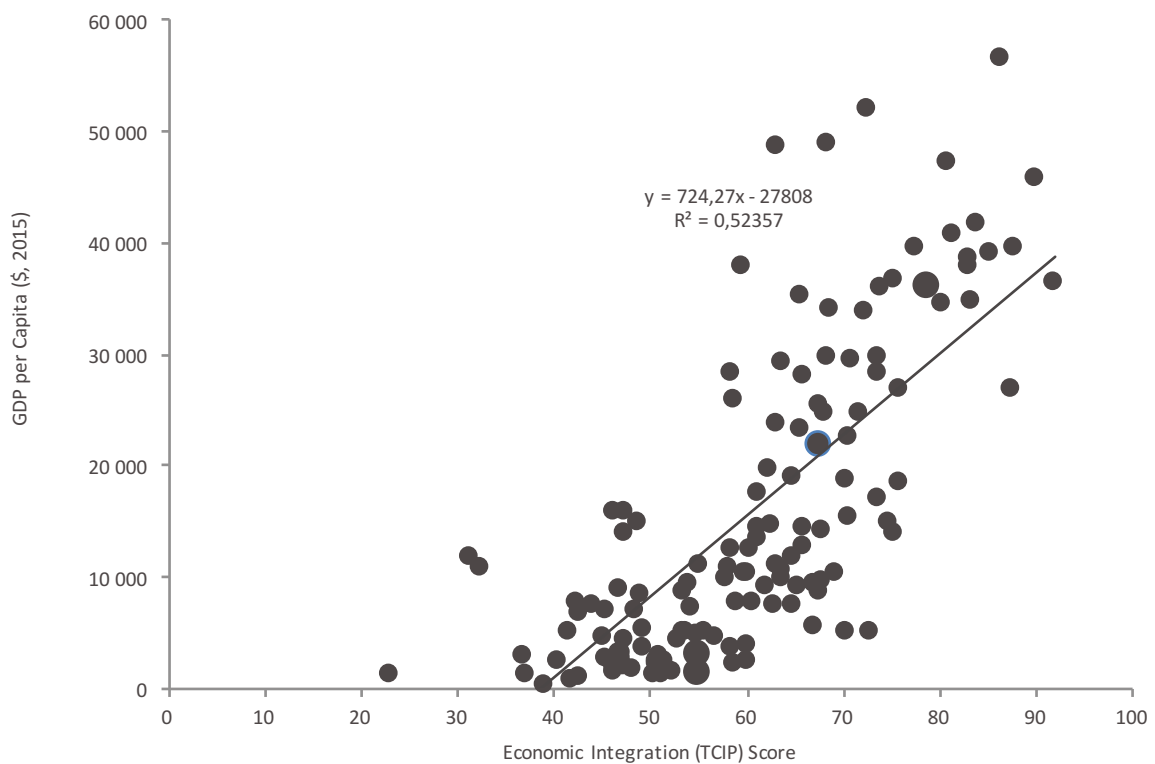




depth and breadth of trade, capital, information and people flows (Saville, 2016). To this end, the evidence suggests that as much as half of the difference in

income per person for these 142 countries can be explained by the extent and nature of economic integration.

Economic Integration & Income Per Person





## BUILDING THE INDEX

The construction of this index, which is carefully detailed in Saville and White (2013a), draws on Ghemawat's four pillars of trade, capital, information and people to measure the breadth and depth of each country's connectedness to the world economy, at large, and the region, more specifically. The tables below show the components of each of the four pillars which also are scaled to establish representativeness. For instance, trade flows are compared to the size of the economy by way of a trade-to-income ratio and internet usage is scaled by population to give a penetration ratio.

As captured in the tables, in measuring connectedness we recognise that economic integration takes place through four main channels, namely the flows of goods and services, or trade (T); the movement of foreign capital (C); exchanges of data, information, know-how and know-why (I); and the flow of people across borders as tourists, teachers, employees, and immigrants (P). We also recognise that integration takes many forms that include a consideration of depth and breadth as well as the geographic nature of economic connections.

On this score, depth refers to the extent of economic connections - where a country that has a high degree of connectedness with outside economic partners

via the so-called TCIP flows would be considered to be "deeply" integrated. In measuring breadth, a country that has a more diversified portfolio of TCIP flows would be considered to be "broadly" integrated. Dissecting connectedness in this manner is imperative as depth and breadth each play a role in explaining the contribution that economic integration plays in driving socio-economic improvement. In the same way measuring the geographic nature of economic integration is instructive because regional integration - or connecting to neighbours - is found to be a more powerful and sustained contributor to socio-economic advance than global integration per se (Saville and White, 2013a).



Table 1: VISA Africa Integration Index Depth Metrics by Component

| Pillar          | Component   | Scaling Component             |
|-----------------|---|-------------------------------|
| Trade (T)       | Merchandise trade                                 | Domestic GDP <sup>1</sup>     |
|                 | Services trade                                    | Domestic GDP                  |
|                 | Spend on freight, forwarding and courier services | Domestic GDP                  |
|                 | In-country transactions on foreign bank cards     | Total card spend              |
|                 | Road, rail and air infrastructure                 |                               |
| Capital (C)     | Foreign direct investment (FDI) stocks            | Domestic GDP                  |
|                 | Foreign direct investment (FDI) flows             | Gross fixed capital formation |
| Information (I) | Internet users                                    | Population                    |
|                 | Mobile cellular subscribers                       | Population                    |
|                 | Trade in printed publications                     | Population                    |
|                 | Social network users                              | Population                    |
|                 | Spend on data services and information            | Domestic GDP                  |
|                 | Education spend                                   | Domestic GDP                  |
| People (P)      | Immigrants (foreign born)                         | Population                    |
|                 | Tourists (arrivals and departures)                | Population                    |
|                 | International students                            | Tertiary education enrolments |
|                 | Air transport passengers                          | Population                    |
|                 | Foreign bank cards versus domestic bank cards     |                               |
|                 | Transactions on foreign bank cards                | Total bank card transactions  |

Notably, the Visa Africa Integration Index blends macroeconomic data with proprietary microeconomic data sourced from Visa Sub-Saharan Africa. The Visa information has a number of desirable attributes in the construction of the index, including:

- i. the frequency with which the information is updated, namely biannually with access to quarterly data, compared to the conventional annual production of public data;
- ii. the relatively short lags – normally three months – between the flows that are measured and the data becoming available, as compared to the relatively long lags – which can measure years – in the case of public data; and
- iii. the uniqueness of the data which provides access to valuable and reliable information on connectivity that is not available in the public domain.

Table 2: VISA Africa Integration Index Breadth Metrics by Component

| Pillar          | Component                                     | Scaling Component             |
|-----------------|---|-------------------------------|
| Trade (T)       | Merchandise trade                             | Export destination            |
|                 | Services trade                                | Product or service type       |
|                 | Spend on logistics and travel                 | Not relevant                  |
|                 | In-country transactions on foreign bank cards | Foreign issuer                |
|                 | Road, rail and air infrastructure             | Not relevant                  |
| Capital (C)     | Foreign direct investment (FDI) stocks        | Home country                  |
|                 | Foreign direct investment (FDI) flows         | Home country                  |
| Information (I) | Internet users                                | Share of population           |
|                 | Mobile cellular subscribers                   | Share of population           |
|                 | Trade in printed publications                 | Not relevant                  |
|                 | Social network users                          | Share of population           |
|                 | Spend on data services and information        | Not relevant                  |
|                 | Education spend                               | Not relevant                  |
| People (P)      | Immigrants (foreign born)                     | Host country                  |
|                 | Tourists (arrivals and departures)            | Home country and host country |
|                 | International students                        | Home country                  |
|                 | Air transport passengers                      | Destination                   |
|                 | Foreign bank cards versus domestic bank cards | Share of market               |
|                 | Transactions on foreign bank cards            | Share of market               |





## MINDING THE GAP

On this last point, those familiar with the region will recognise that data gaps, lags and omissions are a constant challenge to formulating policy and doing business in Africa. As noted by Young (2012, 1), for many of the poorest regions of the world the underlying figures supporting existing estimates of economic activity and social welfare are minimal or, in some instances, non-existent. This is particularly the case for African economies. For example, the Penn World Tables purchasing power parity data set provides real income estimates for 45 Sub-Saharan countries, yet for 24 of those countries there is no benchmark study of prices. In a similar vein, although the online United Nations National Accounts database provided GDP data in current and constant prices for 47 Sub-Saharan countries for each year from 1991, more than half of the data points are missing over a period of a decade and no constant price data had been received for any year for 15 of the countries for a period of almost 15 years (Young, 2012, 2). In addition to helping us overcome problems of missing data, the Visa data help address a second challenge in data sets, namely data robustness or accuracy. As Jerven (2013) demonstrates, even where numbers are available, figures are often misstated because of

capacity constraints, changing economic structures and large “informal” economies that behave differently from the more conventional and readily measurable “formal” economy.

This means that a key challenge in any survey of African economic development is to bolster statistical capacity. As Jerven (2013) illustrates, reliable statistics are basic to the operation of governments in developing countries, vital to non-governmental organisations and invaluable to business. In this way, the construction of the Visa Africa Integration Index and the proprietary data inputs represent a contribution to developing statistical capacity and building robust data pools. As noted, the index has been extended in 2017 to cover 19 countries. This extensive study examines countries omitted from other economic connectedness and integration indices which have been developed, such as the *A.T. Kearney Globalization Index*, Zurich ETH University's *KOF Index of Globalization*, the *Ernst & Young Globalization Index* and the *DHL Global Connectedness Index*.



Table 3: Country Coverage of Connectedness, Integration and Globalisation Indices Since Inception

|                              | <i>A.T. Kearney<br/>Globalization Index</i> | <i>KOF Index of<br/>Globalization</i> | <i>Ernst and Young<br/>Globalization Index</i> | <i>DHL Global<br/>Connectedness<br/>Index</i> |
|------------------------------|---|---------------------------------------|--|---|
| Angola                       |   |                                       |  |   |
| Botswana                     |   | ✓                                     |  | ✓   |
| Cameroon                     | ✓   | ✓                                     |  | ✓   |
| Côte d'Ivoire                |   | ✓                                     |  | ✓   |
| Democratic Republic of Congo |   | ✓                                     |  |   |
| Ethiopia                     |   | ✓                                     |  | ✓   |
| Ghana                        |   | ✓                                     |  | ✓   |
| Kenya                        |   | ✓                                     |  | ✓   |
| Madagascar                   | ✓   | ✓                                     |  | ✓   |
| Mauritius                    |   | ✓                                     |  | ✓   |
| Mozambique                   |   | ✓                                     |  | ✓   |
| Namibia                      |   | ✓                                     |  | ✓   |
| Nigeria                      |   | ✓                                     |  | ✓   |
| Rwanda                       | ✓   | ✓                                     | ✓  | ✓   |
| South Africa                 |   | ✓                                     |  | ✓   |
| Tanzania                     | ✓   | ✓                                     | ✓  | ✓   |
| Uganda                       |   | ✓                                     |  | ✓   |
| Zambia                       | ✓   | ✓                                     |  | ✓   |
| Zimbabwe                     |   | ✓                                     |  | ✓   |

Another aspect of the Visa Africa Integration Index that is worth noting is that each pillar and component is attributed a weight based on economic relevance and development contribution (Saville and White, 2015). Aside from cementing the relevance of the index in monitoring economic performance and

changes, the granularity of the index affords unique insights into economic and industrial makeup of the constituent countries.

| Pillar          | Pillar Weight (%) | Component  | Depth Weight (%) | Breadth Weight (%) |
|-----------------|-------------------|--|------------------|--------------------|
| Trade (T)       | 17.5              | Merchandise trade                                | 20.0             | 45.0               |
|                 |                   | Services trade                                   | 10.0             | 22.5               |
|                 |                   | Spend on logistics and travel                    | 15.0             | 0.0                |
|                 |                   | In-country transactions on foreign bank cards    | 15.0             | 32.5               |
|                 |                   | Road, rail and air infrastructure                | 7.0              | 0.0                |
|                 |                   | <b>Total score for (T)</b>                       | <b>100.0</b>     | <b>100.0</b>       |
| Capital (C)     | 17.5              | Foreign direct investment (FDI) stocks           | 75.0             | 75.0               |
|                 |                   | Foreign direct investment (FDI) flows            | 25.0             | 25.0               |
|                 |                   | <b>Total score for (C)</b>                       | <b>100.0</b>     | <b>100.0</b>       |
| Information (I) | 32.5              | Internet users                                   | 20.0             | 25.0               |
|                 |                   | Mobile cellular subscribers                      | 20.0             | 25.0               |
|                 |                   | Trade in printed publications                    | 10.0             | 0.0                |
|                 |                   | Social network users                             | 10.0             | 0.0                |
|                 |                   | Spend on data services and information           | 20.0             | 25.0               |
|                 |                   | Education spend                                  | 20.0             | 25.0               |
|                 |                   | <b>Total score for (I)</b>                       | <b>100.0</b>     | <b>100.0</b>       |
| People (P)      | 32.5              | Immigrants (foreign born)                        | 30.0             | 35.0               |
|                 |                   | Tourists (arrivals and departures)               | 15.0             | 0.0                |
|                 |                   | International students                           | 30.0             | 35.0               |
|                 |                   | Air transport passengers                         | 12.5             | 0.0                |
|                 |                   | Foreign bank cards versus domestic bank cards    | 6.25             | 15.0               |
|                 |                   | Transactions on foreign bank cards               | 6.25             | 15.0               |
|                 |                   | <b>Total score for (P)</b>                       | <b>100.0</b>     | <b>100.0</b>       |
|                 | 100.0             | <b>Total VISA Africa Integration Index score</b> | 400.0            | 400.0              |

At launch, the index established a number of attributes and elements for the initial 11 countries making up the index (Saville and White, 2013b). These findings have been confirmed by subsequent updates, and point to

implications for the region more generally (Saville and White, 2015a; Saville and Firth, 2016). The results of the first four editions of the index, covering the period 2011-2016, are outlined below.

<sup>3</sup> Gross domestic product.



393088 6  
22G1

29 500 KG  
67 500 LBS  
2 400 CBM  
29 500 KG  
67 500 LBS  
2 400 CBM



383462 4  
22G1

MAX. GR.  
TARE  
NET  
CU. CAP.

29 500 KG  
2 400 CBM  
29 500 KG  
67 500 LBS  
2 400 CBM

35022  
22G1

MAX. GR.  
TARE  
NET  
CU. CAP.

29 500 KG  
2 400 CBM  
29 500 KG  
67 500 LBS  
2 400 CBM

383954 3  
22G1

29 500 KG  
2 400 CBM  
29 500 KG  
67 500 LBS  
2 400 CBM

372499 3  
22G1

MAX. GR.  
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CU. CAP.

29 500 KG  
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67 500 LBS  
2 400 CBM

33672  
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MAX. GR.  
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393329 4  
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2 400 CBM

386230 7  
22G1

MAX. GR.  
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35158  
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MAX. GR.  
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67 500 LBS  
2 400 CBM

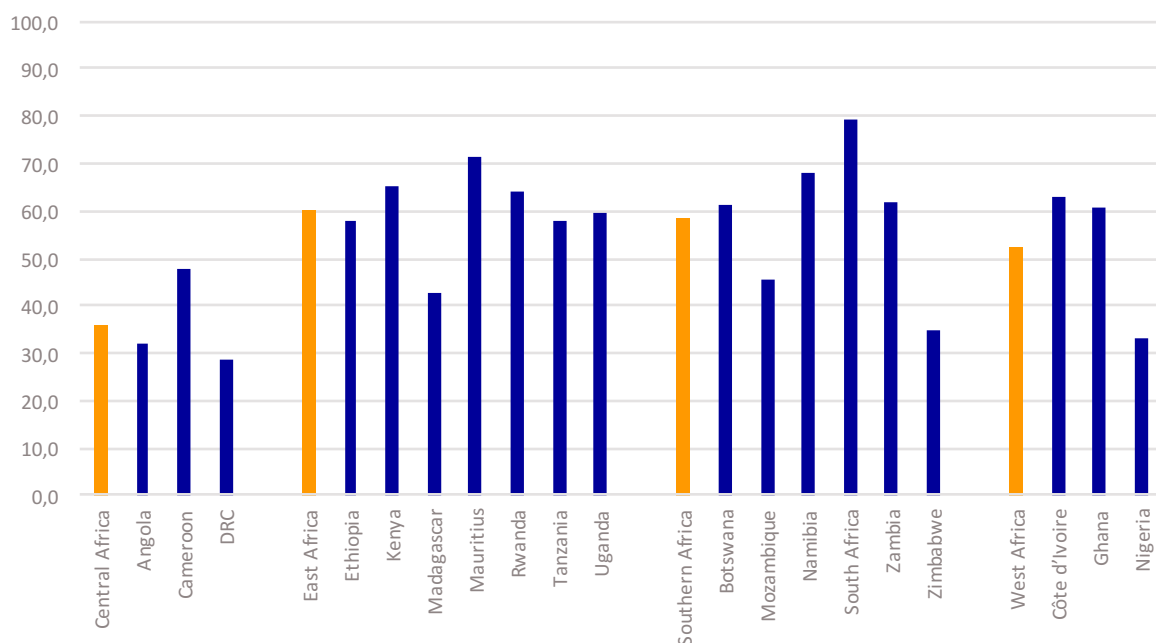


## VISA AFRICA INTEGRATION INDEX: FINDINGS OF THE FOURTH EDITION

First, as an aggregate, African economies are amongst the least integrated in the world. As outlined by Saville and White (2013a), who provide a detailed description and explanation of the index's construction, a score of 100 index points represents

the "global median" in terms of connectedness and integration. Countries in this median category are India, Panama, the Philippines and Romania, as examples. In the main, African economies lag this benchmark meaningfully.

Visa Africa Integration Index (2016)

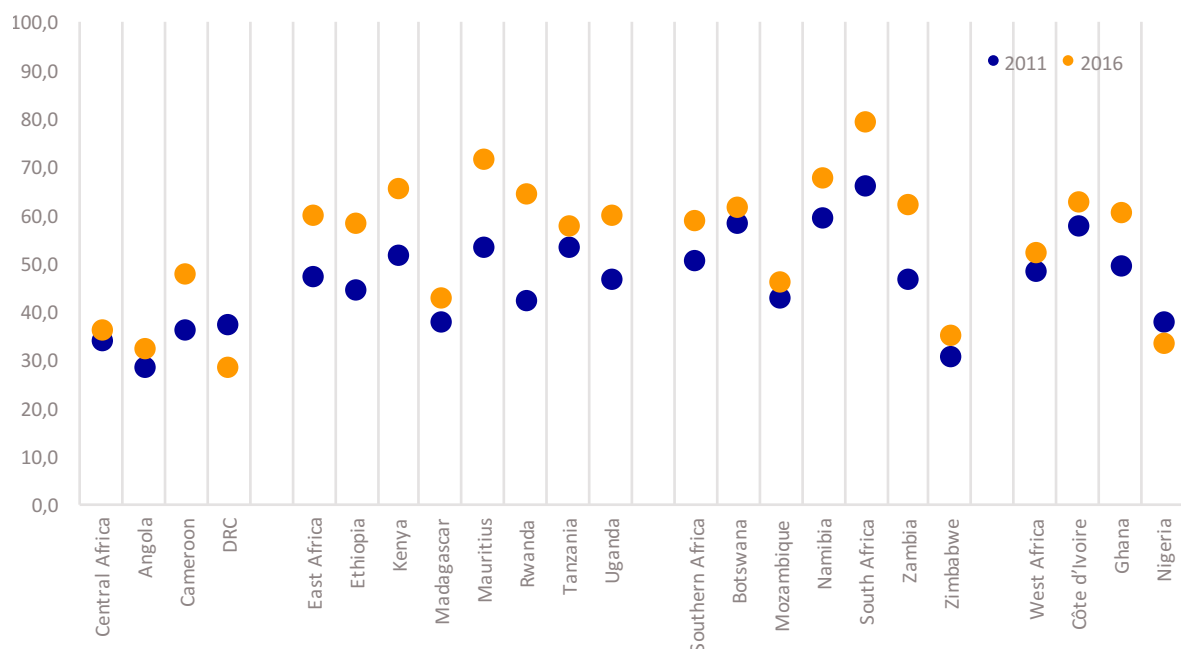




Second, the index shows that African economies are emerging off modest bases, yet demonstrating progressive structural improvements toward higher levels of integration with their respective regions and the world. East Africa, in particular, shows signs of rising connectedness over the first three survey periods. The fourth edition confirms this trend. Over the past five years, the greatest gains in economic

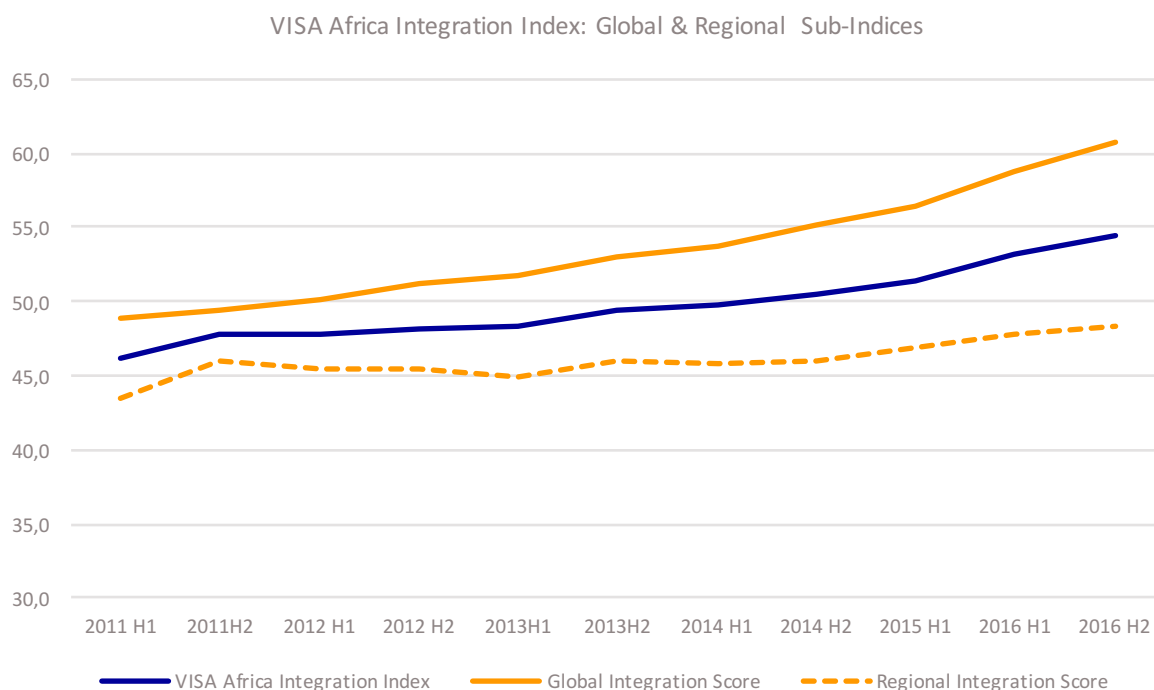
integration have been made by the East African economies of Ethiopia, Kenya, Mauritius, Rwanda and Uganda. However, in West Africa, Ghana has made quick gains; in Southern Africa, Zambia has made the greatest strides off a relatively low base; and in the cluster of countries that makes up Central Africa, Cameroon is the big mover.

VISA Africa Integration Index: 2011 and 2016



Third, the index also shows that some countries are more integrated globally than regionally and vice versa, which is important information for policy makers who aim to deepen and broaden integration in their respective regions. This is an important point because, as noted earlier, regional integration – or connecting to neighbours – is a more powerful and sustained contributor to socio-economic advance

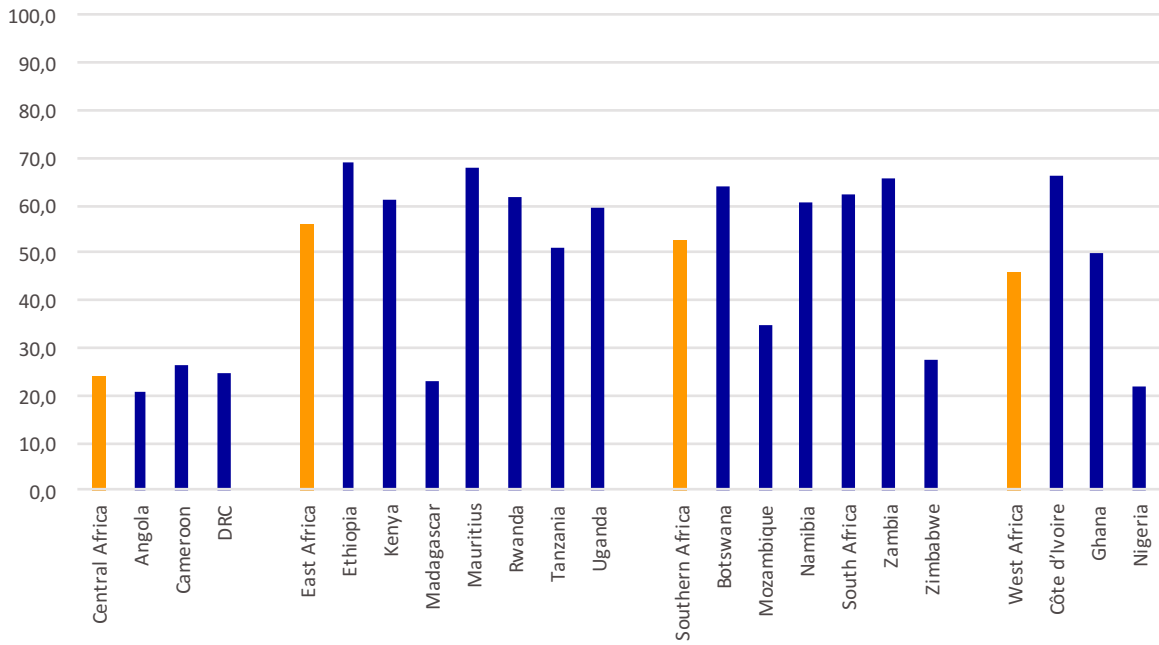
than global integration (Saville and White, 2013a). Yet, the regional connectedness for sub-Saharan economies lags other areas by a wide margin. Africa has the lowest percentage of intra-regional trade globally: only 14% of African total trade takes place with other African economies, versus 71% in Europe, 52% in South-East Asia and 40% in the North American Free Trade Area.



Trade between Sub-Saharan economies is hampered by high trade barriers and legacy transport infrastructure that raise the cost and increase the difficulty of doing business across borders in Africa. As evidence of this, Anabel Gonzalez, a senior director at the World Bank, notes, “due to trade barriers, a truck crossing a border in southern Africa may need to carry up to 1,600 documents because of permits and licences”. As noted earlier, the benefits to economic integration are numerous (Winter, 2017). Economic integration can serve as an incentive for foreign direct investment and help allocate production to countries with a comparative advantage, which in turn will promote specialisation and encourage economies of scale and scope. This is of particular relevance in the African context, as the continent is the most fragmented region in the world.

Almost half of the 54 countries that make up Africa have relatively small economies and population sizes of fewer than 10 million people. These markets are too small to achieve the economies of scale needed to compete internationally, and many suffer from a further disadvantage of large distances to market. While low regional integration is a collective attribute, the differences across countries varies materially, with Angola, Madagascar, Nigeria and Zimbabwe displaying the lowest regional integration in the four regions, and Cameroon, Cote d'Ivoire, Ethiopia and Zambia displaying the highest regional integration in the four regions. Extending this analysis to the regional level, East Africa and Southern Africa display a significantly higher level of regional integration than Central Africa or West Africa, which has implications for economic development and growth prospects.

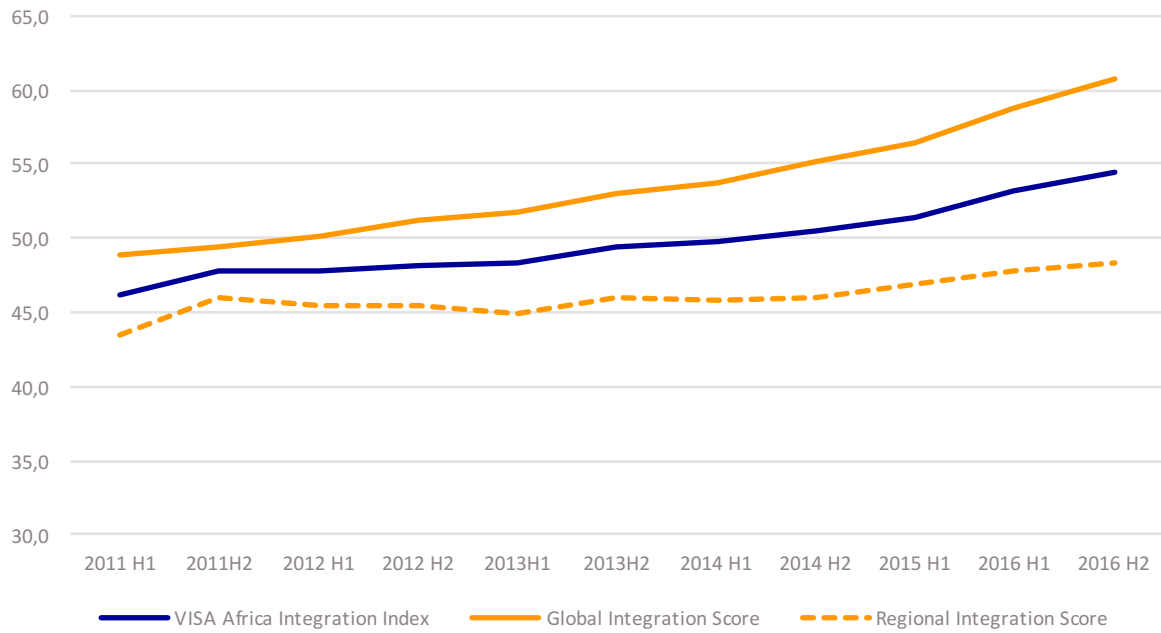
Visa Africa Integration Index: 2016 Regional Integration Score



As a collective, however, it remains the case that although the connectedness of the region is rising, the drivers are growing global connections rather than

connections to neighbours. This feature is universal for the 19 countries covered in the study.

Visa Africa Integration Index: Global & Regional Sub-Indices

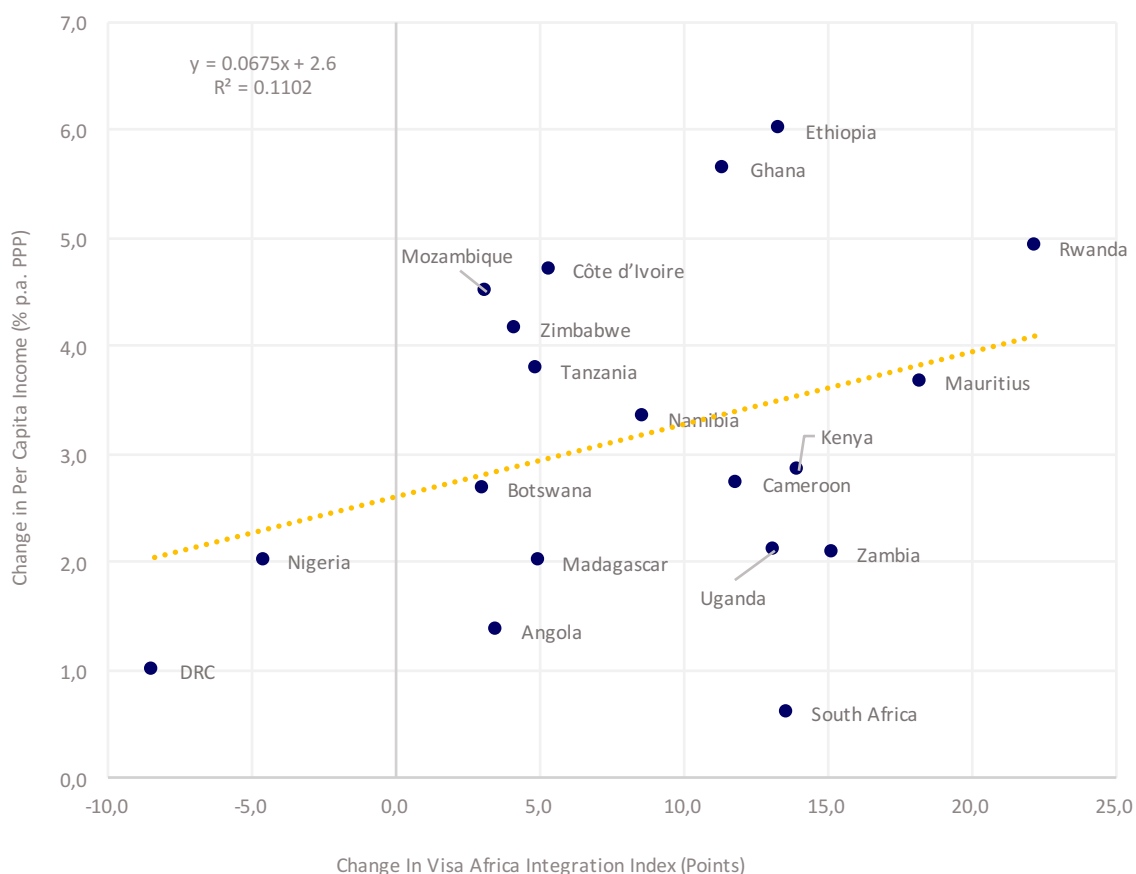


Fourth, the index underlines the differences that exist across countries, highlighting the risks that sit in the treatment of Africa as “a single market”. To this end, the appendix offers details on each of the countries, and also provides aggregate measures that capture broader trends. These features are captured in the detailed country-specific appendices.

Fifth, as shown in our earlier work, there is a strong, positive correlation between changes in economic connectedness and per capita incomes for the 19 countries over the six-year period 2011-2016 covered

by the index. This is a valuable guide in pointing to the worth and robustness of the index. To speak to the evidence, over the period 2011-2016, the fast growing economies of Ethiopia, Ghana, Mauritius, and Rwanda all displayed strong advances in economic integration. By contrast, the slower growing economies of Angola, the Democratic Republic of Congo and Nigeria struggled to promote economic connections. The result for all 19 countries points to a positive correspondence between economic integration and growth in income per person.

Change in *Visa Africa Integration Index* and Growth in Income Per Person: 2011-2016







## MEASURING AFRICA'S CONNECTEDNESS

Whilst assessing the results of the Visa Africa Integration Index justifies a volume on each country, constraints of time and space leave this task to the

user. To this end, the appendices of this report detail the results for each country and show, inter alia:

- i. global and regional connectedness for each country;
- ii. the components of global depth and global breadth by way of trade (T), capital (C), information (I) and people (P) scores;
- iii. regional depth and regional breadth; and
- iv. a composite country score.

In the final analysis, the net result is useful in pointing to potent trends that have been in place over a number of years which, in turn, help explain economic performance and changes in development observed in many parts of Africa over the past fifteen years. The differences observed between countries, however, is a critical reminder that Africa is divergent, and that the drivers, challenges, threats, risks and opportunities are different across the continent's 54 markets. In addition to this contribution to knowledge, the Visa Africa Integration Index is also a valuable tool in improving measurement of African economies' connectedness with neighbours and with the world

and advancing our understanding of how this connectedness is evolving. The most recent edition of the index adds to our efforts to close gaps that exist in knowledge and information. Beyond Africa, the Visa Africa Integration Index makes a valuable contribution to knowledge by establishing more comprehensive and robust measures of economic integration compared to those historically available.





# VISA AFRICA INTEGRATION INDEX

| VISA Africa Integration Index |                               | Reference Score (100) |         |         |         |         |         |         |         |         |         |         |         |
|-------------------------------|-------------------------------|-----------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                               |                               | 2011 H1 - 2011 H2     |         |         |         |         |         |         |         |         |         |         |         |
|                               |                               | 2011 H1               | 2011 H2 | 2012 H1 | 2012 H2 | 2013 H1 | 2013 H2 | 2014 H1 | 2014 H2 | 2015 H1 | 2015 H2 | 2016 H1 | 2016 H2 |
|                               | VISA Africa Integration Index | 46.2                  | 47.7    | 47.8    | 48.2    | 48.3    | 49.4    | 49.7    | 50.5    | 51.4    | 53.2    | 54.5    |         |
|                               | Global Integration Score      | 48.9                  | 49.5    | 50.2    | 51.1    | 51.8    | 53.0    | 53.8    | 55.2    | 56.4    | 58.7    | 60.7    |         |
|                               | Regional Integration Score    | 43.4                  | 46.0    | 45.5    | 45.4    | 45.0    | 46.1    | 45.8    | 46.0    | 46.8    | 47.7    | 48.3    |         |
|                               |                               | 2011 H1 - 2011 H2     |         |         |         |         |         |         |         |         |         |         |         |
|                               | Central African Cluster       | 100.0                 | 31.9    | 34.3    | 31.4    | 31.2    | 31.9    | 31.9    | 32.4    | 31.5    | 34.0    | 35.3    | 36.1    |
|                               | Angola                        |                       | 28.5    | 30.4    | 29.6    | 28.9    | 30.5    | 30.5    | 30.7    | 30.6    | 30.8    | 31.4    | 32.0    |
|                               | Cameroon                      |                       | 36.0    | 37.0    | 34.5    | 33.2    | 34.2    | 35.0    | 37.4    | 38.8    | 42.8    | 45.7    | 47.9    |
|                               | Democratic Republic Congo     |                       | 36.9    | 35.6    | 33.0    | 31.6    | 30.9    | 30.3    | 29.2    | 28.2    | 28.6    | 28.8    | 28.5    |
|                               | East African Cluster          | 100.0                 | 47.0    | 48.8    | 49.7    | 54.1    | 54.2    | 53.1    | 52.3    | 51.2    | 54.0    | 57.2    | 56.9    |
|                               | Ethiopia                      |                       | 44.6    | 45.0    | 44.3    | 44.2    | 45.6    | 50.7    | 48.8    | 49.9    | 52.5    | 55.1    | 58.0    |
|                               | Kenya                         |                       | 51.5    | 52.4    | 53.0    | 54.0    | 54.4    | 55.1    | 55.3    | 56.6    | 56.1    | 60.0    | 65.5    |
|                               | Madagascar                    |                       | 37.7    | 40.0    | 40.1    | 39.8    | 40.1    | 40.1    | 39.8    | 40.4    | 41.6    | 42.7    |         |
|                               | Mauritius                     |                       | 53.4    | 55.3    | 55.4    | 55.9    | 56.2    | 61.2    | 59.7    | 60.8    | 61.9    | 67.1    | 71.6    |
|                               | Rwanda                        |                       | 42.0    | 48.8    | 54.2    | 54.2    | 53.3    | 55.0    | 58.3    | 62.0    | 62.9    | 65.2    | 64.3    |
|                               | Tanzania                      |                       | 52.9    | 52.8    | 53.4    | 53.9    | 54.1    | 54.4    | 54.4    | 54.5    | 54.5    | 56.0    | 57.8    |
|                               | Uganda                        |                       | 46.7    | 47.4    | 47.2    | 48.7    | 47.9    | 48.3    | 48.7    | 49.1    | 49.5    | 55.2    | 59.8    |
|                               | Southern African Cluster      | 100.0                 | 59.5    | 61.8    | 61.3    | 69.1    | 66.1    | 64.1    | 64.7    | 66.5    | 64.3    | 67.7    | 68.5    |
|                               | Botswana                      |                       | 58.3    | 58.7    | 57.5    | 58.1    | 56.4    | 57.5    | 57.8    | 59.0    | 58.8    | 61.0    | 61.4    |
|                               | Mozambique                    |                       | 42.6    | 43.0    | 43.4    | 44.2    | 44.6    | 45.0    | 45.7    | 45.5    | 47.0    | 46.0    | 45.8    |
|                               | Namibia                       |                       | 59.2    | 61.2    | 61.0    | 62.6    | 61.0    | 62.9    | 62.6    | 62.4    | 64.4    | 66.4    | 67.8    |
|                               | South Africa                  |                       | 65.6    | 69.5    | 70.9    | 72.5    | 74.0    | 74.6    | 75.8    | 78.4    | 77.5    | 78.1    | 79.3    |
|                               | Zambia                        |                       | 46.5    | 47.8    | 49.1    | 50.3    | 51.8    | 53.2    | 55.0    | 56.4    | 59.1    | 60.2    | 61.8    |
|                               | Zimbabwe                      |                       | 30.7    | 31.4    | 31.4    | 31.1    | 30.9    | 31.2    | 31.2    | 31.3    | 31.2    | 34.3    | 34.9    |
|                               | West African Cluster          | 100.0                 | 48.1    | 53.1    | 49.9    | 54.9    | 54.8    | 53.6    | 52.3    | 51.1    | 53.9    | 62.8    | 62.3    |
|                               | Côte d'Ivoire                 |                       | 57.5    | 58.4    | 58.0    | 58.3    | 58.1    | 59.1    | 59.2    | 59.1    | 60.0    | 61.6    | 62.8    |
|                               | Ghana                         |                       | 49.1    | 52.3    | 52.2    | 53.8    | 54.3    | 54.7    | 55.4    | 57.7    | 59.7    | 60.1    | 60.5    |
|                               | Nigeria                       |                       | 37.7    | 39.4    | 39.6    | 40.6    | 40.0    | 40.5    | 39.4    | 39.6    | 39.2    | 36.6    | 33.1    |

| VSA Africa Integration Index        |                                   | Reference Score (100) |        |         |         |        |        |         |         |         |         |         |         |
|-------------------------------------|-----------------------------------|-----------------------|--------|---------|---------|--------|--------|---------|---------|---------|---------|---------|---------|
|                                     |                                   | 2011 H1               | 2011H2 | 2012 H1 | 2012 H2 | 2013H1 | 2013H2 | 2014 H1 | 2014 H2 | 2015 H1 | 2015 H2 | 2016 H1 | 2016 H2 |
|                                     | VSA Africa Integration Index      | 46.2                  | 47.7   | 47.8    | 48.2    | 48.3   | 49.4   | 49.7    | 50.5    | 51.4    | 53.2    | 54.5    |         |
|                                     | Global Integration Score          | 48.9                  | 49.5   | 50.2    | 51.1    | 51.8   | 53.0   | 53.8    | 55.2    | 56.4    | 58.7    | 60.7    |         |
|                                     | Regional Integration Score        | 43.4                  | 46.0   | 45.5    | 45.4    | 45.0   | 46.1   | 45.8    | 46.0    | 46.8    | 47.7    | 48.3    |         |
|                                     |                                   | 2011 H1               | 2011H2 | 2012 H1 | 2012 H2 | 2013H1 | 2013H2 | 2014 H1 | 2014 H2 | 2015 H1 | 2015 H2 | 2016 H1 | 2016 H2 |
| Central African Charter             | 100.0                             | 31.8                  | 34.3   | 31.4    | 31.2    | 31.8   | 31.9   | 33.4    | 31.5    | 34.6    | 31.3    | 36.1    |         |
|                                     | Angola                            | 28.5                  | 30.4   | 29.6    | 28.9    | 30.5   | 30.5   | 30.7    | 30.6    | 30.8    | 31.4    | 32.0    |         |
|                                     | Cameroon                          | 36.0                  | 37.0   | 34.5    | 33.2    | 34.2   | 35.0   | 37.4    | 38.8    | 42.8    | 45.7    | 47.9    |         |
|                                     | Democratic Republic Congo         | 36.9                  | 35.6   | 33.0    | 31.6    | 30.9   | 30.3   | 29.2    | 28.2    | 28.6    | 28.8    | 28.5    |         |
| <b>ANGOLA</b>                       | 2010 VSA Africa Integration Index | 28.5                  | 30.4   | 29.6    | 28.9    | 30.5   | 30.5   | 30.7    | 30.6    | 30.8    | 31.4    | 32.0    |         |
|                                     | 2180 Global Integration Score     | 37.1                  | 38.1   | 38.3    | 38.8    | 39.9   | 40.0   | 40.8    | 40.9    | 41.7    | 43.0    | 43.3    |         |
|                                     | 7190 Depth Component              | 40.4                  | 40.3   | 40.0    | 40.8    | 39.2   | 39.2   | 38.2    | 39.0    | 38.7    | 38.5    | 34.8    |         |
| 17.5                                | (T) Trade                         | 33.0                  | 32.6   | 33.6    | 33.8    | 33.5   | 34.2   | 34.3    | 34.8    | 35.2    | 34.4    | 34.8    |         |
| 17.5                                | (C) Capital                       | 48.0                  | 48.1   | 48.2    | 48.4    | 50.7   | 50.7   | 51.6    | 50.9    | 50.2    | 52.5    | 55.3    |         |
| 32.5                                | (I) Information                   | 17.0                  | 20.1   | 18.9    | 18.8    | 20.9   | 21.0   | 21.2    | 21.1    | 20.7    | 22.4    | 24.1    |         |
| 32.5                                | (P) People                        | 10.7                  | 10.7   | 10.8    | 10.8    | 10.9   | 11.0   | 11.0    | 11.1    | 11.4    | 11.6    | 11.8    |         |
|                                     | 7190 Breadth Component            | 27.8                  | 29.6   | 28.5    | 28.3    | 28.6   | 29.5   | 28.8    | 28.6    | 28.7    | 28.5    | 28.2    |         |
| 17.5                                | (T) Trade                         | 14.5                  | 14.9   | 15.7    | 16.2    | 15.8   | 15.8   | 15.8    | 15.8    | 15.8    | 15.8    | 15.5    |         |
| 17.5                                | (C) Capital                       | 39.1                  | 39.9   | 38.7    | 40.1    | 40.5   | 39.9   | 42.7    | 43.3    | 42.0    | 43.9    | 43.8    |         |
| 32.5                                | (I) Information                   | 4.2                   | 4.5    | 4.6     | 5.0     | 5.2    | 5.3    | 5.6     | 5.2     | 6.1     | 6.6     | 7.1     |         |
| 32.5                                | (P) People                        | 9.9                   | 10.0   | 10.0    | 10.1    | 10.0   | 10.0   | 10.0    | 10.0    | 10.0    | 9.7     | 9.5     |         |
|                                     | 7180 Regional Integration Score   | 31.8                  | 32.3   | 31.0    | 31.1    | 31.2   | 31.1   | 29.8    | 29.5    | 28.9    | 28.7    | 28.7    |         |
|                                     | 500 Depth                         | 5.2                   | 6.6    | 7.1     | 7.5     | 7.3    | 7.1    | 7.3     | 7.1     | 7.1     | 7.8     | 7.8     |         |
| 500                                 | Breadth                           | 34.1                  | 35.7   | 35.9    | 33.7    | 33.9   | 33.8   | 33.4    | 33.2    | 33.8    | 33.0    | 32.8    |         |
| <b>CAMEROON</b>                     | 2010 VSA Africa Integration Index | 36.0                  | 37.0   | 34.5    | 33.2    | 34.2   | 35.0   | 37.4    | 38.8    | 42.8    | 45.7    | 47.9    |         |
|                                     | 7190 Global Integration Score     | 41.8                  | 41.8   | 41.3    | 41.6    | 41.8   | 41.1   | 41.8    | 42.2    | 41.8    | 41.9    | 43.1    |         |
|                                     | 7190 Depth Component              | 31.1                  | 31.8   | 31.0    | 31.8    | 31.6   | 31.9   | 31.9    | 31.5    | 31.1    | 31.1    | 31.6    |         |
| 17.5                                | (T) Trade                         | 7.4                   | 6.8    | 6.6     | 6.7     | 6.4    | 6.2    | 6.0     | 5.6     | 6.6     | 7.2     | 7.3     |         |
| 17.5                                | (C) Capital                       | 10.4                  | 9.9    | 9.3     | 8.8     | 8.5    | 8.2    | 8.5     | 8.7     | 9.0     | 9.1     | 9.3     |         |
| 32.5                                | (I) Information                   | 4.4                   | 4.4    | 4.4     | 4.5     | 5.6    | 6.7    | 7.8     | 8.3     | 9.4     | 10.5    | 11.5    |         |
| 32.5                                | (P) People                        | 14.1                  | 14.4   | 14.7    | 14.9    | 15.2   | 15.4   | 15.6    | 15.9    | 16.1    | 16.3    | 16.5    |         |
|                                     | 7190 Breadth Component            | 49.2                  | 52.2   | 49.6    | 50.1    | 50.2   | 50.1   | 47.3    | 48.0    | 48.4    | 48.7    | 48.7    |         |
| 17.5                                | (T) Trade                         | 9.8                   | 13.6   | 12.8    | 12.0    | 10.1   | 8.1    | 11.0    | 13.9    | 13.7    | 13.4    | 13.1    |         |
| 17.5                                | (C) Capital                       | 9.8                   | 8.4    | 7.4     | 6.7     | 6.0    | 5.5    | 5.7     | 5.7     | 6.6     | 7.0     | 7.4     |         |
| 32.5                                | (I) Information                   | 26.0                  | 25.9   | 25.9    | 26.4    | 32.9   | 39.4   | 45.8    | 49.0    | 55.6    | 61.9    | 67.7    |         |
| 32.5                                | (P) People                        | 3.5                   | 4.2    | 3.4     | 5.2     | 4.2    | 5.1    | 4.8     | 5.4     | 4.6     | 6.4     | 5.5     |         |
|                                     | 7190 Regional Integration Score   | 29.3                  | 30.2   | 29.8    | 31.8    | 31.1   | 31.9   | 32.2    | 31.8    | 31.7    | 29.8    | 28.6    |         |
|                                     | 500 Depth                         | 5.8                   | 12.1   | 12.1    | 12.3    | 5.8    | 6.7    | 8.8     | 8.9     | 8.7     | 12.7    | 11.8    |         |
| 500                                 | Breadth                           | 30.8                  | 28.1   | 28.6    | 23.5    | 24.9   | 24.9   | 23.4    | 22.9    | 22.9    | 24.9    | 23.3    |         |
| <b>DEMOCRATIC REPUBLIC OF CONGO</b> | 2010 VSA Africa Integration Index | 35.8                  | 35.8   | 35.0    | 31.6    | 30.2   | 30.1   | 29.2    | 28.2    | 28.6    | 28.8    | 28.5    |         |
|                                     | 7190 Global Integration Score     | 46.8                  | 44.2   | 41.3    | 41.1    | 38.2   | 37.8   | 36.0    | 36.5    | 34.8    | 33.5    | 32.8    |         |
|                                     | 7190 Depth Component              | 46.7                  | 45.4   | 47.1    | 46.2    | 48.8   | 48.8   | 48.5    | 48.1    | 48.8    | 48.4    | 48.1    |         |
| 17.5                                | (T) Trade                         | 23.7                  | 19.3   | 15.8    | 15.6    | 15.8   | 16.3   | 16.8    | 15.3    | 14.9    | 14.9    | 14.8    |         |
| 17.5                                | (C) Capital                       | 19.7                  | 19.5   | 19.2    | 19.0    | 17.9   | 16.9   | 16.4    | 15.8    | 15.3    | 15.4    | 15.4    |         |
| 32.5                                | (I) Information                   | 4.4                   | 4.0    | 3.7     | 3.5     | 3.3    | 3.1    | 3.0     | 2.8     | 2.7     | 2.6     | 2.5     |         |
| 32.5                                | (P) People                        | 8.9                   | 8.6    | 8.4     | 8.1     | 7.9    | 7.6    | 7.4     | 7.2     | 6.9     | 6.7     | 6.5     |         |
|                                     | 7190 Breadth Component            | 40.8                  | 38.8   | 35.5    | 33.8    | 35.8   | 31.8   | 28.3    | 27.9    | 27.4    | 27.3    | 26.0    |         |
| 17.5                                | (T) Trade                         | 6.6                   | 7.0    | 7.3     | 7.3     | 7.3    | 7.3    | 7.4     | 7.7     | 7.9     | 8.0     | 8.0     |         |
| 17.5                                | (C) Capital                       | 3.0                   | 2.7    | 2.5     | 2.4     | 2.3    | 2.1    | 2.1     | 2.0     | 2.1     | 2.1     | 2.2     |         |
| 32.5                                | (I) Information                   | 23.5                  | 21.4   | 19.6    | 18.5    | 17.5   | 16.6   | 15.8    | 15.0    | 14.3    | 13.7    | 13.1    |         |
| 32.5                                | (P) People                        | 7.8                   | 5.9    | 6.2     | 7.8     | 4.6    | 5.7    | 3.3     | 3.2     | 3.1     | 3.7     | 2.7     |         |
|                                     | 7180 Regional Integration Score   | 35.8                  | 37.0   | 36.7    | 33.3    | 32.5   | 31.8   | 31.4    | 31.0    | 31.7    | 30.0    | 28.4    |         |
|                                     | 500 Depth                         | 1.2                   | 8.5    | 8.8     | 5.1     | 8.0    | 8.3    | 8.3     | 8.1     | 8.7     | 8.5     | 9.8     |         |
| 500                                 | Breadth                           | 37.3                  | 28.8   | 27.8    | 26.1    | 23.0   | 23.5   | 23.1    | 22.7    | 23.8    | 23.5    | 22.6    |         |

| VISA Africa Integration Index   |                 | Reference Score (100)                      |             |             |             |             |             |             |             |             |             |             |             |
|---------------------------------|-----------------|--|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                 |                 | 2011 H1                                    | 2011 H2     | 2012 H1     | 2012 H2     | 2013 H1     | 2013 H2     | 2014 H1     | 2014 H2     | 2015 H1     | 2015 H2     | 2016 H1     | 2016 H2     |
| VISA Africa Integration Index   |                 | 46.2                                       | 47.7        | 47.8        | 48.2        | 48.3        | 49.4        | 49.7        | 50.5        | 51.4        | 53.2        | 54.5        |             |
| Global Integration Score        |                 | 48.9                                       | 49.5        | 50.2        | 51.1        | 51.8        | 53.0        | 53.8        | 55.2        | 56.4        | 58.7        | 60.7        |             |
| Regional Integration Score      |                 | 43.4                                       | 46.0        | 45.5        | 45.4        | 45.0        | 46.1        | 45.8        | 46.0        | 46.8        | 47.7        | 48.3        |             |
|                                 |                 | 2016 H1                                    | 2016 H2     | 2017 H1     | 2017 H2     | 2018 H1     | 2018 H2     | 2019 H1     | 2019 H2     | 2020 H1     | 2020 H2     | 2021 H1     | 2021 H2     |
| <b>East African Cluster</b>     |                 | <b>100.0</b>                               | <b>47.0</b> | <b>48.8</b> | <b>49.7</b> | <b>50.1</b> | <b>50.2</b> | <b>51.1</b> | <b>52.3</b> | <b>53.2</b> | <b>54.0</b> | <b>57.2</b> | <b>59.9</b> |
| Ethiopia                        |                 |  | 44.6        | 45.0        | 44.3        | 44.2        | 45.6        | 50.7        | 48.8        | 49.9        | 52.5        | 55.1        | 58.0        |
| Kenya                           |                 |  | 51.5        | 52.4        | 53.0        | 54.0        | 54.4        | 55.1        | 55.3        | 56.6        | 56.1        | 60.0        | 65.5        |
| Madagascar                      |                 |  | 37.7        | 40.0        | 40.1        | 39.8        | 40.1        | 40.1        | 40.1        | 39.8        | 40.4        | 41.6        | 42.7        |
| Mauritius                       |                 |  | 53.4        | 55.3        | 55.4        | 55.9        | 56.2        | 56.2        | 59.7        | 60.8        | 61.9        | 67.1        | 71.6        |
| Rwanda                          |                 |  | 42.0        | 48.8        | 54.2        | 54.2        | 53.3        | 55.0        | 58.3        | 62.0        | 62.9        | 65.2        | 64.3        |
| Tanzania                        |                 |  | 52.9        | 52.8        | 53.4        | 53.9        | 54.1        | 54.4        | 54.4        | 54.5        | 54.5        | 56.0        | 57.8        |
| Uganda                          |                 |  | 46.7        | 47.4        | 47.2        | 48.7        | 47.9        | 48.3        | 48.7        | 49.1        | 49.5        | 55.2        | 59.8        |
| <b>ETHIOPIA</b>                 |                 | <b>100.0 VISA Africa Integration Index</b> | <b>44.6</b> | <b>45.0</b> | <b>44.3</b> | <b>44.2</b> | <b>45.6</b> | <b>50.7</b> | <b>48.8</b> | <b>49.9</b> | <b>52.5</b> | <b>55.1</b> | <b>58.0</b> |
| /100 Global Integration Score   |                 |  | 37.4        | 36.7        | 35.5        | 37.2        | 36.6        | 35.9        | 38.2        | 39.3        | 41.9        | 43.4        | 46.9        |
| /100 Depth Component            |                 |  | 39.0        | 39.2        | 38.8        | 38.7        | 38.0        | 37.3        | 37.8        | 38.1        | 38.8        | 41.2        | 46.7        |
| 17.5                            | (T) Trade       |  | 11.7        | 10.9        | 10.3        | 9.8         | 10.1        | 10.5        | 10.4        | 10.3        | 9.6         | 9.1         | 8.7         |
| 17.5                            | (C) Capital     |  | 14.2        | 13.7        | 13.1        | 12.5        | 11.4        | 10.4        | 10.1        | 9.8         | 9.5         | 9.8         | 10.1        |
| 32.5                            | (I) Information |  | 2.6         | 3.6         | 4.4         | 5.2         | 5.8         | 7.4         | 7.6         | 7.8         | 9.8         | 13.3        | 16.4        |
| 32.5                            | (P) People      |  | 6.5         | 7.1         | 7.7         | 8.2         | 8.7         | 9.2         | 9.7         | 10.2        | 10.6        | 11.0        | 11.4        |
| /100 Breadth Component          |                 |  | 39.8        | 39.2        | 38.4        | 38.8        | 41.3        | 40.4        | 38.7        | 40.9        | 41.7        | 43.5        | 47.1        |
| 17.5                            | (T) Trade       |  | 8.7         | 8.7         | 8.8         | 9.7         | 10.7        | 10.3        | 9.8         | 9.7         | 9.6         | 10.0        | 10.2        |
| 17.5                            | (C) Capital     |  | 18.5        | 17.8        | 17.0        | 16.3        | 14.9        | 13.5        | 13.1        | 12.7        | 12.4        | 12.8        | 13.2        |
| 32.5                            | (I) Information |  | 2.6         | 3.6         | 4.4         | 5.2         | 5.8         | 7.4         | 7.6         | 7.8         | 9.8         | 13.3        | 16.4        |
| 32.5                            | (P) People      |  | 10.0        | 8.2         | 8.3         | 7.6         | 9.9         | 9.2         | 10.1        | 10.7        | 11.9        | 7.5         | 7.3         |
| /100 Regional Integration Score |                 |  | 51.7        | 53.2        | 51.7        | 51.2        | 52.0        | 51.9        | 54.4        | 55.9        | 58.4        | 60.9        | 65.0        |
| 50.0                            | Depth           |  | 23.2        | 25.8        | 25.1        | 26.1        | 25.6        | 26.3        | 26.3        | 29.6        | 30.2        | 30.7        | 30.7        |
| 50.0                            | Breadth         |  | 28.6        | 27.4        | 26.6        | 25.2        | 26.0        | 25.3        | 28.0        | 26.0        | 28.2        | 26.9        | 34.3        |
| <b>KENYA</b>                    |                 | <b>100.0 VISA Africa Integration Index</b> | <b>51.5</b> | <b>52.4</b> | <b>53.0</b> | <b>54.2</b> | <b>54.4</b> | <b>55.1</b> | <b>55.3</b> | <b>56.6</b> | <b>56.1</b> | <b>60.0</b> | <b>65.5</b> |
| /100 Global Integration Score   |                 |  | 57.3        | 55.8        | 57.7        | 58.1        | 58.0        | 58.1        | 59.4        | 58.8        | 61.3        | 63.3        | 69.9        |
| /100 Depth Component            |                 |  | 60.0        | 60.7        | 60.1        | 60.2        | 59.1        | 59.6        | 62.3        | 62.7        | 61.8        | 66.0        | 72.8        |
| 17.5                            | (T) Trade       |  | 18.6        | 18.2        | 17.9        | 17.4        | 17.2        | 17.6        | 16.8        | 16.9        | 16.9        | 16.6        | 17.0        |
| 17.5                            | (C) Capital     |  | 19.7        | 19.7        | 20.0        | 20.3        | 20.1        | 20.1        | 20.3        | 19.9        | 19.3        | 21.6        | 24.1        |
| 32.5                            | (I) Information |  | 16.2        | 15.4        | 15.6        | 16.6        | 17.7        | 17.7        | 19.6        | 20.3        | 19.9        | 25.6        | 31.3        |
| 32.5                            | (P) People      |  | 14.4        | 14.4        | 14.6        | 14.8        | 15.1        | 15.2        | 15.4        | 15.6        | 14.9        | 15.2        | 15.5        |
| /100 Breadth Component          |                 |  | 31.6        | 35.5        | 35.4        | 37.2        | 39.0        | 39.6        | 38.8        | 44.1        | 41.3        | 47.0        | 51.9        |
| 17.5                            | (T) Trade       |  | 14.6        | 14.7        | 14.9        | 15.2        | 14.9        | 15.3        | 15.3        | 16.0        | 15.8        | 15.8        | 15.6        |
| 17.5                            | (C) Capital     |  | 9.8         | 9.3         | 8.9         | 8.9         | 10.9        | 9.6         | 8.9         | 8.7         | 9.3         | 10.4        | 11.7        |
| 32.5                            | (I) Information |  | 3.4         | 3.6         | 3.8         | 5.1         | 4.4         | 6.6         | 6.2         | 10.9        | 9.8         | 12.7        | 15.6        |
| 32.5                            | (P) People      |  | 7.7         | 7.8         | 7.8         | 8.0         | 7.8         | 8.1         | 8.1         | 8.4         | 8.3         | 8.7         | 9.0         |
| /100 Regional Integration Score |                 |  | 62.8        | 61.1        | 63.3        | 64.8        | 64.8        | 65.0        | 65.3        | 66.9        | 66.3        | 68.8        | 74.1        |
| 50.0                            | Depth           |  | 30.7        | 31.8        | 31.1        | 31.8        | 31.0        | 31.1        | 31.4        | 31.3        | 31.4        | 33.9        | 38.8        |
| 50.0                            | Breadth         |  | 32.0        | 29.2        | 32.2        | 33.0        | 33.7        | 33.9        | 33.9        | 35.5        | 34.9        | 34.9        | 35.3        |
| <b>MDRIGALCA</b>                |                 | <b>100.0 VISA Africa Integration Index</b> | <b>31.7</b> | <b>41.0</b> | <b>49.1</b> | <b>49.8</b> | <b>49.1</b> | <b>49.1</b> | <b>49.1</b> | <b>49.1</b> | <b>49.9</b> | <b>50.4</b> | <b>52.7</b> |
| /100 Global Integration Score   |                 |  | 31.3        | 34.8        | 37.0        | 38.8        | 37.7        | 38.2        | 38.8        | 39.3        | 39.8        | 40.9        | 42.4        |
| /100 Depth Component            |                 |  | 37.5        | 34.8        | 37.0        | 38.1        | 37.6        | 38.3        | 39.1        | 39.8        | 40.4        | 41.8        | 43.1        |
| 17.5                            | (T) Trade       |  | 18.5        | 19.2        | 19.8        | 19.9        | 18.6        | 18.1        | 18.4        | 18.7        | 18.6        | 18.4        | 18.2        |
| 17.5                            | (C) Capital     |  | 36.4        | 37.6        | 38.9        | 40.1        | 41.1        | 42.0        | 42.4        | 42.8        | 43.2        | 44.0        | 44.9        |
| 32.5                            | (I) Information |  | 0.3         | 0.6         | 0.8         | 0.9         | 1.1         | 1.4         | 1.5         | 1.5         | 2.0         | 2.7         | 3.4         |
| 32.5                            | (P) People      |  | 2.3         | 2.4         | 2.5         | 2.1         | 1.8         | 1.9         | 1.9         | 1.8         | 1.7         | 1.6         | 1.5         |
| /100 Breadth Component          |                 |  | 37.4        | 40.8        | 42.0        | 41.8        | 40.8        | 40.0        | 40.8        | 41.7        | 41.2        | 41.1        | 41.7        |
| 17.5                            | (T) Trade       |  | 11.2        | 11.4        | 11.5        | 11.6        | 11.7        | 11.1        | 10.5        | 9.8         | 9.0         | 8.7         | 8.4         |
| 17.5                            | (C) Capital     |  | 33.8        | 35.3        | 36.7        | 38.0        | 36.3        | 35.4        | 35.8        | 35.2        | 33.9        | 34.0        | 34.1        |
| 32.5                            | (I) Information |  | 1.3         | 2.2         | 3.0         | 3.7         | 4.2         | 5.7         | 5.9         | 6.1         | 7.8         | 10.8        | 13.5        |
| 32.5                            | (P) People      |  | 1.1         | 1.0         | 0.8         | 0.7         | 0.5         | 0.8         | 0.7         | 0.7         | 0.5         | 0.6         | 0.8         |
| /100 Regional Integration Score |                 |  | 23.8        | 29.1        | 31.2        | 31.8        | 32.6        | 31.1        | 31.7        | 31.9        | 31.6        | 32.7        | 33.9        |
| 50.0                            | Depth           |  | 4.9         | 7.0         | 8.1         | 8.5         | 8.0         | 7.9         | 7.9         | 7.8         | 8.2         | 8.6         | 9.1         |
| 50.0                            | Breadth         |  | 36.0        | 32.1        | 33.1        | 33.3        | 34.6        | 33.2        | 33.8        | 34.1        | 33.4        | 33.9        | 34.9        |

|                  |   | 2011 H1 | 2011H2 | 2012 H1 | 2012 H2 | 2013H1 | 2013H2 | 2014 H1 | 2014 H2 | 2015 H1 | 2015 H2 | 2016 H1 |
|------------------|---|---------|--------|---------|---------|--------|--------|---------|---------|---------|---------|---------|
| <b>MAURITIUS</b> | <b>3000 VISA Africa Integration Index</b> | 51.4    | 55.3   | 55.4    | 59.8    | 56.2   | 61.2   | 59.7    | 60.8    | 61.8    | 61.1    | 71.8    |
|                  | <b>(180) Global Integration Score</b>     | 66.7    | 66.5   | 61.7    | 66.4    | 66.7   | 71.8   | 78.6    | 71.0    | 76.8    | 74.0    | 76.8    |
|                  | <b>500 Depth Component</b>                | 57.3    | 64.6   | 65.5    | 66.4    | 66.9   | 71.1   | 75.8    | 75.9    | 74.2    | 74.5    | 77.2    |
| 17.5             | (T) Trade                                 | 16.9    | 17.1   | 17.2    | 16.6    | 16.0   | 16.2   | 16.5    | 16.4    | 16.2    | 16.0    | 15.9    |
| 17.5             | (C) Capital                               | 13.2    | 13.9   | 14.7    | 15.4    | 15.6   | 15.8   | 16.3    | 16.9    | 17.5    | 17.7    | 18.0    |
| 32.5             | (I) Information                           | 6.8     | 9.0    | 10.8    | 12.6    | 13.9   | 17.8   | 18.2    | 18.6    | 18.3    | 18.3    | 20.7    |
| 32.5             | (P) People                                | 20.4    | 20.6   | 20.9    | 21.1    | 21.3   | 21.5   | 21.8    | 22.0    | 22.2    | 22.4    | 22.7    |
|                  | <b>500 Breadth Component</b>              | 64.1    | 62.4   | 69.0    | 65.8    | 69.6   | 59.6   | 68.5    | 79.1    | 61.3    | 73.4    | 75.7    |
| 17.5             | (T) Trade                                 | 15.6    | 16.9   | 16.4    | 17.2    | 17.4   | 17.8   | 17.0    | 15.9    | 14.8    | 14.6    | 14.3    |
| 17.5             | (C) Capital                               | 12.5    | 13.5   | 14.3    | 15.1    | 14.4   | 14.0   | 14.5    | 14.7    | 16.1    | 16.6    | 17.2    |
| 32.5             | (I) Information                           | 5.8     | 7.7    | 9.2     | 10.8    | 12.0   | 15.3   | 15.7    | 16.0    | 16.0    | 16.9    | 19.2    |
| 32.5             | (P) People                                | 30.1    | 24.3   | 20.0    | 21.8    | 19.9   | 23.7   | 21.3    | 23.6    | 20.4    | 25.3    | 23.0    |
|                  | <b>(180) Regional Integration Score</b>   | 46.0    | 48.1   | 48.1    | 48.1    | 47.2   | 51.4   | 48.8    | 49.5    | 51.8    | 48.2    | 47.8    |
|                  | <b>500 Depth</b>                          | 21.5    | 23.8   | 23.1    | 25.8    | 24.9   | 24.9   | 25.1    | 24.8    | 21.3    | 26.3    | 30.4    |
|                  | <b>500 Breadth</b>                        | 24.5    | 25.2   | 21.9    | 21.5    | 22.7   | 26.7   | 23.8    | 24.7    | 21.8    | 25.9    | 15.4    |
| <b>RWANDA</b>    | <b>3000 VISA Africa Integration Index</b> | 41.0    | 48.8   | 54.2    | 54.2    | 53.3   | 55.8   | 56.3    | 61.0    | 61.9    | 65.2    | 64.3    |
|                  | <b>(180) Global Integration Score</b>     | 61.8    | 65.2   | 66.5    | 64.4    | 63.8   | 64.8   | 61.7    | 64.8    | 64.2    | 64.8    | 67.0    |
|                  | <b>500 Depth Component</b>                | 54.9    | 56.4   | 70.5    | 70.8    | 74.2   | 74.8   | 82.1    | 88.2    | 81.1    | 90.8    | 81.1    |
| 17.5             | (T) Trade                                 | 16.9    | 17.4   | 17.8    | 17.9    | 17.7   | 17.9   | 18.0    | 18.9    | 19.7    | 14.0    | 13.9    |
| 17.5             | (C) Capital                               | 9.1     | 8.9    | 8.8     | 8.7     | 9.6    | 9.6    | 11.7    | 14.1    | 16.5    | 12.2    | 13.0    |
| 32.5             | (I) Information                           | 7.5     | 7.4    | 7.4     | 7.4     | 7.8    | 10.7   | 14.4    | 17.8    | 18.1    | 18.4    | 18.7    |
| 32.5             | (P) People                                | 22.5    | 22.7   | 40.5    | 39.8    | 39.2   | 38.5   | 37.9    | 37.3    | 36.8    | 36.2    | 35.7    |
|                  | <b>500 Breadth Component</b>              | 31.7    | 34.0   | 34.6    | 35.2    | 37.6   | 36.8   | 41.7    | 45.5    | 41.8    | 54.9    | 52.8    |
| 17.5             | (T) Trade                                 | 12.5    | 12.7   | 12.6    | 12.8    | 12.6   | 12.7   | 12.8    | 12.9    | 13.0    | 15.2    | 12.6    |
| 17.5             | (C) Capital                               | 4.7     | 4.8    | 4.7     | 4.9     | 6.1    | 5.3    | 4.9     | 4.8     | 4.9     | 6.3     | 6.7     |
| 32.5             | (I) Information                           | 9.0     | 10.9   | 11.6    | 11.9    | 13.3   | 13.2   | 17.8    | 21.9    | 22.3    | 22.7    | 23.1    |
| 32.5             | (P) People                                | 5.5     | 5.7    | 5.7     | 5.7     | 5.6    | 5.6    | 5.7     | 5.7     | 5.7     | 6.7     | 7.7     |
|                  | <b>(180) Regional Integration Score</b>   | 40.2    | 52.5   | 55.0    | 53.3    | 56.7   | 61.1   | 54.8    | 57.8    | 51.4    | 64.8    | 62.5    |
|                  | <b>500 Depth</b>                          | 11.8    | 13.4   | 12.5    | 12.9    | 13.1   | 15.2   | 15.9    | 17.8    | 14.3    | 21.6    | 25.9    |
|                  | <b>500 Breadth</b>                        | 28.9    | 38.0   | 41.4    | 41.6    | 37.6   | 39.4   | 38.9    | 39.5    | 34.8    | 43.0    | 37.0    |
| <b>TANZANIA</b>  | <b>3000 VISA Africa Integration Index</b> | 52.8    | 52.8   | 51.4    | 52.3    | 54.1   | 54.4   | 54.4    | 54.5    | 54.8    | 58.0    | 57.8    |
|                  | <b>(180) Global Integration Score</b>     | 60.5    | 64.1   | 69.1    | 66.7    | 61.8   | 61.7   | 61.8    | 61.1    | 61.4    | 62.1    | 64.3    |
|                  | <b>500 Depth Component</b>                | 57.1    | 58.8   | 69.2    | 67.8    | 66.6   | 66.1   | 66.8    | 66.8    | 65.8    | 65.4    | 65.7    |
| 17.5             | (T) Trade                                 | 11.2    | 12.5   | 13.4    | 14.1    | 14.2   | 14.3   | 14.4    | 14.4    | 13.9    | 13.4    | 13.6    |
| 17.5             | (C) Capital                               | 8.7     | 10.9   | 13.1    | 15.5    | 18.0   | 20.4   | 22.8    | 23.0    | 22.8    | 22.7    | 22.6    |
| 32.5             | (I) Information                           | 31.9    | 29.6   | 28.3    | 27.2    | 26.5   | 25.4   | 24.4    | 24.2    | 24.6    | 24.9    | 25.3    |
| 32.5             | (P) People                                | 5.5     | 5.8    | 5.9     | 6.1     | 5.9    | 6.0    | 5.0     | 4.8     | 4.6     | 4.4     | 4.2     |
|                  | <b>500 Breadth Component</b>              | 63.8    | 65.3   | 59.8    | 58.8    | 58.2   | 57.2   | 58.1    | 55.9    | 56.4    | 58.9    | 63.7    |
| 17.5             | (T) Trade                                 | 14.2    | 14.1   | 14.0    | 14.0    | 14.3   | 14.4   | 14.4    | 14.4    | 14.4    | 14.1    | 11.5    |
| 17.5             | (C) Capital                               | 10.4    | 10.3   | 10.0    | 10.1    | 10.1   | 10.1   | 10.0    | 10.0    | 10.0    | 11.3    | 11.7    |
| 32.5             | (I) Information                           | 31.9    | 29.6   | 28.3    | 27.2    | 26.5   | 25.4   | 24.4    | 24.2    | 24.6    | 24.9    | 25.3    |
| 32.5             | (P) People                                | 7.3     | 7.3    | 7.3     | 7.3     | 7.4    | 7.4    | 7.3     | 7.3     | 7.3     | 10.7    | 15.2    |
|                  | <b>(180) Regional Integration Score</b>   | 47.3    | 46.5   | 46.4    | 47.1    | 46.8   | 47.2   | 47.3    | 47.9    | 47.8    | 48.8    | 50.9    |
|                  | <b>500 Depth</b>                          | 11.2    | 11.2   | 11.7    | 11.8    | 12.0   | 11.3   | 12.4    | 11.7    | 11.9    | 11.8    | 14.5    |
|                  | <b>500 Breadth</b>                        | 34.1    | 34.3   | 34.8    | 35.5    | 34.8   | 34.9   | 35.1    | 35.3    | 35.1    | 34.0    | 34.4    |
| <b>UGANDA</b>    | <b>3000 VISA Africa Integration Index</b> | 46.7    | 47.4   | 47.2    | 46.7    | 47.9   | 46.1   | 46.7    | 49.1    | 48.8    | 55.2    | 55.8    |
|                  | <b>(180) Global Integration Score</b>     | 61.2    | 65.2   | 65.6    | 61.8    | 66.5   | 67.4   | 67.8    | 68.1    | 61.6    | 67.8    | 69.1    |
|                  | <b>500 Depth Component</b>                | 51.7    | 54.8   | 62.1    | 61.7    | 61.6   | 61.1   | 61.7    | 61.4    | 57.7    | 54.2    | 61.7    |
| 17.5             | (T) Trade                                 | 17.4    | 17.1   | 17.0    | 16.7    | 16.4   | 16.8   | 16.5    | 16.7    | 17.0    | 13.8    | 14.1    |
| 17.5             | (C) Capital                               | 18.1    | 17.9   | 17.8    | 17.6    | 18.1   | 18.1   | 17.8    | 17.7    | 17.6    | 19.6    | 19.6    |
| 32.5             | (I) Information                           | 8.8     | 9.3    | 9.8     | 10.0    | 10.0   | 10.1   | 10.2    | 11.5    | 13.9    | 16.1    | 18.2    |
| 32.5             | (P) People                                | 7.5     | 7.5    | 7.6     | 7.5     | 7.1    | 7.1    | 7.2     | 7.2     | 7.2     | 9.7     | 9.9     |
|                  | <b>500 Breadth Component</b>              | 36.7    | 38.8   | 39.1    | 40.0    | 41.4   | 41.7   | 44.1    | 47.0    | 51.4    | 55.9    | 58.7    |
| 17.5             | (T) Trade                                 | 15.6    | 15.5   | 15.2    | 15.3    | 15.4   | 15.5   | 15.7    | 15.8    | 16.0    | 15.3    | 15.1    |
| 17.5             | (C) Capital                               | 11.0    | 10.7   | 10.2    | 10.2    | 10.4   | 10.3   | 10.4    | 10.4    | 10.5    | 10.1    | 10.4    |
| 32.5             | (I) Information                           | 1.1     | 3.3    | 4.6     | 5.3     | 6.5    | 7.7    | 8.9     | 11.6    | 15.7    | 20.2    | 22.8    |
| 32.5             | (P) People                                | 9.1     | 9.1    | 9.0     | 9.1     | 9.1    | 9.1    | 9.2     | 9.2     | 9.3     | 10.2    | 10.4    |
|                  | <b>(180) Regional Integration Score</b>   | 48.8    | 54.4   | 54.9    | 53.3    | 56.5   | 61.1   | 62.9    | 62.4    | 61.8    | 62.0    | 66.4    |
|                  | <b>500 Depth</b>                          | 19.3    | 18.0   | 15.6    | 18.4    | 17.2   | 17.8   | 17.7    | 18.0    | 18.8    | 18.9    | 25.9    |
|                  | <b>500 Breadth</b>                        | 29.3    | 34.1   | 34.7    | 34.8    | 34.9   | 34.5   | 34.6    | 34.5    | 34.1    | 34.0    | 32.6    |

| VSA Africa Integration Index |                                    | Botswana Score (OEI) |        |         |         |        |        |         |         |         |         |         |  |
|------------------------------|------------------------------------|----------------------|--------|---------|---------|--------|--------|---------|---------|---------|---------|---------|--|
|                              |                                    | 2011 H1              | 2011H2 | 2012 H1 | 2012 H2 | 2013H1 | 2013H2 | 2014 H1 | 2014 H2 | 2015 H1 | 2016 H1 | 2016 H2 |  |
|                              | VSA Africa Integration Index       | 46.2                 | 47.7   | 47.8    | 48.2    | 48.3   | 49.4   | 49.7    | 50.5    | 51.4    | 53.2    | 54.5    |  |
|                              | Global Integration Score           | 48.9                 | 49.5   | 50.2    | 51.1    | 51.8   | 53.0   | 53.8    | 55.2    | 56.4    | 58.7    | 60.7    |  |
|                              | Regional Integration Score         | 43.4                 | 46.0   | 45.5    | 45.4    | 45.0   | 46.1   | 45.8    | 46.0    | 46.8    | 47.7    | 48.3    |  |
|                              |                                    | 2011 H1              | 2011H2 | 2012 H1 | 2012 H2 | 2013H1 | 2013H2 | 2014 H1 | 2014 H2 | 2015 H1 | 2016 H1 | 2016 H2 |  |
| Southern African cluster     | 100.0                              | 54.5                 | 51.8   | 54.2    | 59.4    | 58.8   | 64.1   | 64.7    | 65.5    | 66.3    | 67.7    | 68.5    |  |
|                              | Botswana                           | 58.3                 | 58.7   | 57.5    | 58.1    | 56.4   | 57.5   | 57.8    | 59.0    | 58.8    | 61.0    | 61.4    |  |
|                              | Mozambique                         | 42.6                 | 43.0   | 43.4    | 44.2    | 44.6   | 45.0   | 45.7    | 45.5    | 47.0    | 46.0    | 45.8    |  |
|                              | Namibia                            | 59.2                 | 61.2   | 61.0    | 62.6    | 61.0   | 62.9   | 62.6    | 62.4    | 64.4    | 66.4    | 67.8    |  |
|                              | South Africa                       | 65.6                 | 69.5   | 70.9    | 72.5    | 74.0   | 74.6   | 75.8    | 78.4    | 77.5    | 78.1    | 79.3    |  |
|                              | Zambia                             | 46.5                 | 47.8   | 49.1    | 50.3    | 51.8   | 53.2   | 55.0    | 56.4    | 59.1    | 60.2    | 61.8    |  |
|                              | Zimbabwe                           | 30.7                 | 31.4   | 31.4    | 31.1    | 30.9   | 31.2   | 31.2    | 31.3    | 31.2    | 34.3    | 34.9    |  |
| <b>BOTSWANA</b>              | 100.0 VSA Africa Integration Index | 58.3                 | 58.7   | 57.5    | 58.1    | 56.4   | 57.5   | 57.8    | 59.0    | 58.8    | 61.0    | 61.4    |  |
|                              | Global Integration Score           | 58.0                 | 58.5   | 58.5    | 58.8    | 58.0   | 58.3   | 58.7    | 57.0    | 58.8    | 58.8    | 58.6    |  |
|                              | Depth Component                    | 73.4                 | 72.0   | 74.3    | 73.4    | 74.1   | 77.0   | 76.9    | 80.5    | 81.7    | 81.1    | 84.3    |  |
| 17.5                         | (T) Trade                          | 14.6                 | 15.1   | 15.6    | 16.8    | 18.0   | 17.5   | 17.1    | 16.5    | 15.9    | 16.7    | 17.5    |  |
| 17.5                         | (C) Capital                        | 13.8                 | 13.3   | 12.9    | 12.4    | 11.8   | 11.3   | 11.2    | 11.1    | 11.0    | 10.9    | 10.8    |  |
| 32.5                         | (I) Information                    | 15.2                 | 14.0   | 14.6    | 12.4    | 13.8   | 15.1   | 16.8    | 18.4    | 19.9    | 20.1    | 20.2    |  |
| 32.5                         | (P) People                         | 29.8                 | 30.5   | 31.2    | 31.8    | 32.5   | 33.1   | 33.7    | 34.3    | 34.9    | 35.4    | 35.9    |  |
|                              | Breadth Component                  | 31.6                 | 29.1   | 26.7    | 29.4    | 27.9   | 31.1   | 30.5    | 30.7    | 31.6    | 34.6    | 32.1    |  |
| 17.5                         | (T) Trade                          | 18.6                 | 16.2   | 13.7    | 13.4    | 13.0   | 13.7   | 14.3    | 14.1    | 14.0    | 13.7    | 13.4    |  |
| 17.5                         | (C) Capital                        | 11.2                 | 12.0   | 12.3    | 12.3    | 11.0   | 10.0   | 9.9     | 9.6     | 10.6    | 10.8    | 11.1    |  |
| 32.5                         | (I) Information                    | 10.2                 | 11.0   | 11.6    | 12.4    | 13.8   | 15.1   | 16.8    | 18.4    | 19.9    | 20.1    | 20.3    |  |
| 32.5                         | (P) People                         | 24.0                 | 17.1   | 15.5    | 19.0    | 16.1   | 20.1   | 17.1    | 20.6    | 15.4    | 18.5    | 16.9    |  |
|                              | Regional Integration Score         | 61.6                 | 66.9   | 64.5    | 64.8    | 63.8   | 65.6   | 61.0    | 61.0    | 61.8    | 63.5    | 64.2    |  |
| 50.0                         | Depth                              | 47.0                 | 48.7   | 47.2    | 47.4    | 43.7   | 45.6   | 43.7    | 45.7    | 43.8    | 46.5    | 47.4    |  |
| 50.0                         | Breadth                            | 36.6                 | 37.2   | 37.3    | 37.4    | 37.1   | 37.3   | 37.3    | 37.5    | 37.2    | 37.0    | 36.8    |  |
| <b>MOZAMBIQUE</b>            | 100.0 VSA Africa Integration Index | 41.6                 | 41.0   | 41.4    | 41.2    | 44.0   | 41.0   | 41.7    | 45.5    | 47.8    | 46.0    | 45.8    |  |
|                              | Global Integration Score           | 47.2                 | 47.5   | 47.0    | 48.2    | 48.8   | 49.6   | 51.8    | 51.8    | 51.8    | 54.0    | 57.0    |  |
|                              | Depth Component                    | 56.3                 | 57.0   | 58.0    | 58.5    | 58.8   | 61.8   | 61.1    | 63.1    | 61.8    | 64.3    | 66.9    |  |
| 17.5                         | (T) Trade                          | 18.0                 | 18.1   | 18.3    | 18.4    | 17.3   | 17.6   | 18.3    | 19.2    | 19.4    | 19.0    | 18.4    |  |
| 17.5                         | (C) Capital                        | 20.5                 | 20.5   | 20.0    | 20.0    | 23.5   | 23.5   | 24.1    | 24.1    | 24.0    | 25.1    | 26.4    |  |
| 32.5                         | (I) Information                    | 7.9                  | 8.0    | 8.7     | 8.5     | 7.6    | 7.6    | 6.8     | 6.9     | 6.8     | 4.6     | 4.6     |  |
| 32.5                         | (P) People                         | 9.9                  | 10.4   | 11.0    | 11.5    | 10.1   | 10.2   | 9.9     | 9.9     | 9.6     | 7.6     | 7.5     |  |
|                              | Breadth Component                  | 38.2                 | 37.9   | 37.6    | 37.8    | 40.5   | 40.0   | 44.7    | 46.6    | 41.8    | 55.6    | 57.1    |  |
| 17.5                         | (T) Trade                          | 14.5                 | 14.6   | 14.5    | 14.4    | 14.2   | 14.2   | 14.1    | 14.0    | 14.0    | 15.8    | 16.3    |  |
| 17.5                         | (C) Capital                        | 8.1                  | 8.0    | 7.8     | 8.0     | 8.1    | 8.0    | 8.1     | 8.1     | 8.2     | 9.2     | 9.5     |  |
| 32.5                         | (I) Information                    | 8.1                  | 7.8    | 8.0     | 8.0     | 10.7   | 11.2   | 14.9    | 15.0    | 22.0    | 22.9    | 23.8    |  |
| 32.5                         | (P) People                         | 7.4                  | 7.5    | 7.4     | 7.5     | 7.5    | 7.5    | 7.6     | 7.6     | 7.7     | 7.6     | 7.5     |  |
|                              | Regional Integration Score         | 38.1                 | 38.8   | 39.0    | 40.2    | 38.7   | 40.1   | 38.4    | 38.0    | 38.1    | 38.0    | 34.2    |  |
| 50.0                         | Depth                              | 28.1                 | 28.4   | 25.6    | 27.3    | 27.0   | 27.3   | 27.0    | 26.8    | 26.7    | 24.3    | 22.7    |  |
| 50.0                         | Breadth                            | 33.6                 | 33.3   | 33.4    | 33.8    | 32.7   | 32.8   | 32.5    | 31.8    | 31.4    | 31.7    | 31.8    |  |
| <b>NAMIBIA</b>               | 100.0 VSA Africa Integration Index | 59.1                 | 61.2   | 61.0    | 61.8    | 62.0   | 61.9   | 62.8    | 61.8    | 64.4    | 66.4    | 67.8    |  |
|                              | Global Integration Score           | 61.1                 | 62.7   | 64.1    | 67.3    | 66.5   | 68.6   | 68.4    | 67.8    | 71.4    | 74.7    | 76.1    |  |
|                              | Depth Component                    | 62.8                 | 63.8   | 64.1    | 63.8    | 65.7   | 66.6   | 67.5    | 67.6    | 68.8    | 70.6    | 72.1    |  |
| 17.5                         | (T) Trade                          | 14.8                 | 14.9   | 14.9    | 14.8    | 14.7   | 14.9   | 15.2    | 16.0    | 16.8    | 16.7    | 16.6    |  |
| 17.5                         | (C) Capital                        | 16.3                 | 16.6   | 16.9    | 17.1    | 17.7   | 18.2   | 18.2    | 18.2    | 18.2    | 18.6    | 19.0    |  |
| 32.5                         | (I) Information                    | 9.1                  | 9.0    | 9.0     | 9.2     | 9.3    | 10.2   | 10.1    | 10.0    | 11.1    | 13.2    | 15.2    |  |
| 32.5                         | (P) People                         | 23.5                 | 22.9   | 22.2    | 24.7    | 24.0   | 23.3   | 24.0    | 23.4    | 22.7    | 22.1    | 21.5    |  |
|                              | Breadth Component                  | 58.9                 | 62.0   | 65.1    | 68.8    | 67.4   | 70.6   | 69.4    | 66.1    | 74.1    | 76.7    | 78.3    |  |
| 17.5                         | (T) Trade                          | 12.0                 | 13.4   | 14.8    | 14.5    | 14.3   | 14.5   | 14.6    | 14.8    | 14.9    | 15.2    | 15.4    |  |
| 17.5                         | (C) Capital                        | 9.5                  | 7.8    | 7.1     | 9.6     | 8.3    | 10.0   | 8.9     | 7.6     | 11.1    | 9.9     | 8.0     |  |
| 32.5                         | (I) Information                    | 14.4                 | 14.4   | 14.4    | 14.7    | 14.9   | 16.2   | 16.0    | 15.9    | 17.7    | 21.1    | 24.2    |  |
| 32.5                         | (P) People                         | 22.9                 | 26.5   | 28.8    | 30.0    | 29.9   | 29.9   | 29.9    | 29.8    | 30.4    | 30.6    | 30.8    |  |
|                              | Regional Integration Score         | 57.1                 | 58.7   | 57.9    | 57.8    | 58.8   | 57.1   | 56.8    | 57.0    | 57.8    | 58.3    | 60.1    |  |
| 50.0                         | Depth                              | 40.4                 | 42.5   | 42.9    | 41.1    | 38.6   | 39.6   | 38.7    | 39.8    | 38.7    | 41.8    | 42.4    |  |
| 50.0                         | Breadth                            | 36.7                 | 37.2   | 37.0    | 36.7    | 36.9   | 37.5   | 37.3    | 37.3    | 37.4    | 37.4    | 37.8    |  |

|                     |  | 2011 H1 | 2011H2 | 2012 H1 | 2012 H2 | 2013H1 | 2013H2 | 2014 H1 | 2014 H2 | 2015 H1 | 2015 H2 | 2016 H1 |
|---------------------|--|---------|--------|---------|---------|--------|--------|---------|---------|---------|---------|---------|
| <b>SOUTH AFRICA</b> | <b>300.0 VISA Africa Integration Index</b> | 81.6    | 81.5   | 79.0    | 77.4    | 79.0   | 78.6   | 75.8    | 75.4    | 71.3    | 71.1    | 71.3    |
|                     | <b>7190 Global Integration Score</b>       | 77.6    | 82.1   | 83.8    | 85.4    | 88.9   | 89.1   | 103.8   | 87.6    | 81.8    | 96.2    | 86.0    |
|                     | <b>7190 Depth Component</b>                | 81.6    | 85.7   | 85.5    | 85.5    | 87.6   | 87.6   | 91.5    | 88.7    | 100.1   | 101.1   | 105.5   |
| 17.5                | (T) Trade                                  | 20.4    | 20.5   | 20.8    | 20.9    | 21.1   | 21.5   | 21.7    | 21.5    | 21.3    | 19.4    | 19.2    |
| 17.5                | (C) Capital                                | 24.0    | 24.6   | 25.2    | 25.7    | 26.5   | 26.4   | 26.5    | 26.9    | 27.1    | 25.4    | 24.5    |
| 32.5                | (I) Information                            | 23.3    | 26.6   | 25.5    | 25.0    | 25.5   | 25.3   | 25.1    | 28.1    | 27.7    | 27.3    | 26.9    |
| 32.5                | (P) People                                 | 23.9    | 24.0   | 24.0    | 24.0    | 24.5   | 24.4   | 24.3    | 24.1    | 24.1    | 30.0    | 30.9    |
|                     | <b>7190 Breadth Component</b>              | 81.6    | 84.4   | 81.0    | 79.1    | 88.3   | 81.8   | 88.5    | 84.3    | 81.8    | 88.3    | 80.5    |
| 17.5                | (T) Trade                                  | 16.5    | 16.5   | 16.7    | 16.8    | 16.6   | 16.7   | 16.5    | 16.4    | 16.7    | 18.3    | 19.3    |
| 17.5                | (C) Capital                                | 21.2    | 22.4   | 23.2    | 23.0    | 24.5   | 23.5   | 26.3    | 28.4    | 24.0    | 23.1    | 22.3    |
| 32.5                | (I) Information                            | 14.7    | 18.3   | 21.0    | 24.0    | 28.0   | 31.2   | 32.7    | 38.6    | 38.0    | 37.5    | 37.0    |
| 32.5                | (P) People                                 | 11.2    | 11.2   | 11.2    | 11.2    | 11.1   | 11.1   | 11.0    | 10.9    | 11.1    | 9.4     | 11.8    |
|                     | <b>7190 Regional Integration Score</b>     | 51.7    | 54.8   | 56.0    | 58.8    | 58.7   | 59.1   | 58.3    | 59.3    | 60.8    | 60.9    | 62.8    |
|                     | <b>500.0 Depth</b>                         | 35.8    | 18.9   | 39.6    | 22.8    | 21.3   | 21.3   | 23.8    | 21.7    | 21.8    | 21.9    | 22.5    |
|                     | <b>500.0 Breadth</b>                       | 37.8    | 37.3   | 37.4    | 37.8    | 37.8   | 37.8   | 37.8    | 37.7    | 38.4    | 38.0    | 40.0    |
| <b>ZAMBIA</b>       | <b>300.0 VISA Africa Integration Index</b> | 48.5    | 47.8   | 49.1    | 48.1    | 51.8   | 51.2   | 50.0    | 54.4    | 55.1    | 56.1    | 61.8    |
|                     | <b>7190 Global Integration Score</b>       | 34.6    | 34.1   | 37.1    | 38.8    | 41.8   | 41.8   | 44.7    | 46.8    | 48.8    | 54.3    | 54.0    |
|                     | <b>7190 Depth Component</b>                | 41.4    | 37.7   | 43.1    | 43.2    | 44.5   | 44.2   | 48.5    | 53.5    | 51.7    | 57.7    | 61.1    |
| 17.5                | (T) Trade                                  | 12.7    | 13.8   | 14.8    | 15.9    | 14.9   | 15.3   | 15.6    | 15.8    | 15.9    | 17.8    | 19.0    |
| 17.5                | (C) Capital                                | 6.9     | 7.3    | 7.7     | 8.4     | 11.3   | 11.3   | 13.5    | 15.0    | 17.2    | 17.6    | 18.0    |
| 32.5                | (I) Information                            | 7.8     | 8.8    | 9.9     | 10.9    | 10.6   | 10.9   | 11.7    | 12.1    | 13.1    | 15.1    | 17.2    |
| 32.5                | (P) People                                 | 7.9     | 7.8    | 7.7     | 8.0     | 7.6    | 7.8    | 7.6     | 7.6     | 7.4     | 7.1     | 6.9     |
|                     | <b>7190 Breadth Component</b>              | 31.6    | 32.5   | 34.3    | 34.4    | 38.3   | 40.3   | 41.0    | 41.8    | 46.8    | 48.3    | 54.8    |
| 17.5                | (T) Trade                                  | 6.0     | 5.9    | 5.8     | 7.9     | 8.3    | 8.6    | 9.0     | 9.3     | 9.7     | 9.4     | 9.1     |
| 17.5                | (C) Capital                                | 20.4    | 20.2   | 20.4    | 20.2    | 20.2   | 20.3   | 19.4    | 18.6    | 20.1    | 20.5    | 21.0    |
| 32.5                | (I) Information                            | 1.8     | 1.9    | 3.6     | 3.8     | 5.4    | 7.0    | 8.0     | 9.3     | 11.6    | 13.7    | 15.6    |
| 32.5                | (P) People                                 | 4.5     | 4.5    | 4.5     | 4.5     | 4.5    | 4.5    | 4.6     | 4.6     | 4.6     | 5.8     | 9.1     |
|                     | <b>7190 Regional Integration Score</b>     | 38.1    | 38.4   | 40.0    | 40.7    | 40.1   | 41.7   | 42.2    | 46.0    | 48.3    | 49.0    | 50.0    |
|                     | <b>500.0 Depth</b>                         | 25.0    | 25.0   | 25.5    | 26.8    | 27.8   | 29.1   | 30.7    | 31.1    | 31.8    | 33.4    | 35.1    |
|                     | <b>500.0 Breadth</b>                       | 31.1    | 34.4   | 34.4    | 34.1    | 34.8   | 34.3   | 34.5    | 34.5    | 34.1    | 34.3    | 32.4    |
| <b>ZIMBABWE</b>     | <b>300.0 VISA Africa Integration Index</b> | 30.7    | 31.4   | 31.4    | 31.1    | 33.9   | 31.2   | 33.2    | 31.3    | 31.2    | 34.3    | 34.0    |
|                     | <b>7190 Global Integration Score</b>       | 31.4    | 32.1   | 32.6    | 32.8    | 33.8   | 31.2   | 32.1    | 31.1    | 31.8    | 38.4    | 42.2    |
|                     | <b>7190 Depth Component</b>                | 31.7    | 31.7   | 32.0    | 32.1    | 33.1   | 33.4   | 33.8    | 31.8    | 31.8    | 36.5    | 40.5    |
| 17.5                | (T) Trade                                  | 11.2    | 11.0   | 10.8    | 10.5    | 10.3   | 10.4   | 10.4    | 10.5    | 10.6    | 11.6    | 12.4    |
| 17.5                | (C) Capital                                | 8.2     | 8.2    | 8.1     | 8.0     | 8.3    | 8.3    | 9.2     | 9.8     | 10.3    | 11.3    | 11.5    |
| 32.5                | (I) Information                            | 7.1     | 7.1    | 5.8     | 4.6     | 4.3    | 4.3    | 4.4     | 4.5     | 4.4     | 7.5     | 8.6     |
| 32.5                | (P) People                                 | 7.3     | 7.3    | 7.3     | 7.2     | 7.3    | 7.4    | 7.0     | 6.9     | 6.3     | 8.1     | 8.0     |
|                     | <b>7190 Breadth Component</b>              | 31.2    | 31.3   | 31.2    | 31.8    | 31.8   | 31.8   | 34.9    | 34.4    | 31.8    | 41.4    | 43.9    |
| 17.5                | (T) Trade                                  | 10.4    | 10.5   | 10.4    | 10.3    | 10.3   | 10.3   | 10.4    | 10.5    | 10.6    | 14.1    | 13.7    |
| 17.5                | (C) Capital                                | 13.2    | 13.0   | 12.9    | 13.2    | 13.1   | 13.1   | 12.7    | 12.6    | 12.8    | 13.0    | 13.4    |
| 32.5                | (I) Information                            | 3.0     | 3.1    | 3.2     | 3.4     | 3.5    | 3.7    | 4.0     | 4.5     | 5.3     | 6.4     | 7.6     |
| 32.5                | (P) People                                 | 6.6     | 6.7    | 6.7     | 6.8     | 6.8    | 6.8    | 6.8     | 6.9     | 6.9     | 8.7     | 9.2     |
|                     | <b>7190 Regional Integration Score</b>     | 27.8    | 29.1   | 29.1    | 29.2    | 29.0   | 29.1   | 30.0    | 29.5    | 29.8    | 36.2    | 37.6    |
|                     | <b>500.0 Depth</b>                         | 13.6    | 13.1   | 13.6    | 13.8    | 13.8   | 14.0   | 13.8    | 13.2    | 14.8    | 14.3    | 14.1    |
|                     | <b>500.0 Breadth</b>                       | 34.2    | 34.2   | 34.3    | 34.2    | 34.2   | 34.2   | 34.3    | 34.3    | 34.2    | 34.3    | 34.4    |

| VISA Africa Integration Index |                               | Reference Score (100)                     |             |             |             |             |             |             |             |             |             |             |             |
|-------------------------------|-------------------------------|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                               |                               | 2011 H1                                   | 2011H2      | 2012 H1     | 2012 H2     | 2013H1      | 2013H2      | 2014 H1     | 2014 H2     | 2015 H1     | 2015 H1     | 2016 H1     | 2016 H1     |
|                               | VISA Africa Integration Index | 46.2                                      | 47.7        | 47.8        | 48.2        | 48.3        | 49.4        | 49.7        | 50.5        | 51.4        | 53.2        | 54.5        |             |
|                               | Global Integration Score      | 48.9                                      | 49.5        | 50.2        | 51.1        | 51.8        | 53.0        | 53.8        | 55.2        | 56.4        | 58.7        | 60.7        |             |
|                               | Regional Integration Score    | 43.4                                      | 46.0        | 45.5        | 45.4        | 45.0        | 46.1        | 45.8        | 46.0        | 46.8        | 47.7        | 48.3        |             |
|                               |                               | 2011 H1                                   | 2011H2      | 2012 H1     | 2012 H2     | 2013H1      | 2013H2      | 2014 H1     | 2014 H2     | 2015 H1     | 2015 H1     | 2016 H1     | 2016 H1     |
| West Africa Cluster           | 100.0                         | 44.1                                      | 44.8        | 44.9        | 44.9        | 44.8        | 44.4        | 44.4        | 44.1        | 44.8        | 44.8        | 44.8        | 44.8        |
|                               | Côte d'Ivoire                 | 57.5                                      | 58.4        | 58.0        | 58.3        | 58.1        | 59.1        | 59.2        | 59.1        | 60.0        | 61.6        | 62.8        |             |
|                               | Ghana                         | 49.1                                      | 52.3        | 52.2        | 53.8        | 54.3        | 54.7        | 55.4        | 57.7        | 59.7        | 60.1        | 60.5        |             |
|                               | Nigeria                       | 37.7                                      | 39.4        | 39.6        | 40.6        | 40.0        | 40.5        | 39.4        | 39.6        | 39.2        | 36.6        | 33.1        |             |
| <b>COTE D'IVOIRE</b>          |                               | <b>2010 VISA Africa Integration Index</b> | <b>57.5</b> | <b>58.4</b> | <b>58.0</b> | <b>58.3</b> | <b>58.1</b> | <b>59.1</b> | <b>59.2</b> | <b>59.1</b> | <b>60.0</b> | <b>61.6</b> | <b>62.8</b> |
|                               | Global Integration Score      | 59.8                                      | 58.8        | 59.9        | 59.8        | 59.9        | 59.9        | 59.9        | 59.9        | 59.9        | 59.9        | 59.9        | 59.9        |
|                               | Depth Component               | 84.3                                      | 84.2        | 85.9        | 82.7        | 85.8        | 81.2        | 81.2        | 89.7        | 81.3        | 82.9        | 84.1        |             |
| 17.5                          | (T) Trade                     | 13.1                                      | 13.3        | 13.4        | 12.5        | 11.6        | 11.5        | 11.3        | 11.3        | 11.4        | 10.9        | 10.4        |             |
| 17.5                          | (C) Capital                   | 9.7                                       | 9.5         | 9.4         | 9.2         | 9.2         | 9.1         | 9.0         | 9.0         | 8.9         | 8.8         | 8.7         |             |
| 32.5                          | (I) Information               | 6.8                                       | 7.0         | 7.2         | 7.5         | 7.7         | 8.7         | 8.7         | 8.6         | 9.9         | 12.2        | 14.3        |             |
| 32.5                          | (P) People                    | 34.9                                      | 34.4        | 34.0        | 33.5        | 33.1        | 32.6        | 32.2        | 31.8        | 31.4        | 31.0        | 30.6        |             |
|                               | Breadth Component             | 37.1                                      | 37.8        | 37.7        | 40.1        | 42.1        | 44.0        | 44.7        | 43.1        | 47.3        | 51.0        | 54.4        |             |
| 17.5                          | (T) Trade                     | 8.9                                       | 9.2         | 9.4         | 10.6        | 11.7        | 11.7        | 11.7        | 12.2        | 12.6        | 12.8        | 12.9        |             |
| 17.5                          | (C) Capital                   | 8.6                                       | 8.4         | 8.3         | 8.1         | 7.7         | 7.4         | 7.3         | 7.1         | 6.8         | 6.7         | 6.6         |             |
| 32.5                          | (I) Information               | 10.0                                      | 10.3        | 10.6        | 11.1        | 11.4        | 12.8        | 12.8        | 12.7        | 14.6        | 18.0        | 21.0        |             |
| 32.5                          | (P) People                    | 9.5                                       | 9.4         | 9.3         | 10.3        | 11.3        | 12.1        | 12.8        | 13.0        | 13.2        | 13.6        | 13.9        |             |
|                               | Regional Integration Score    | 44.1                                      | 44.1        | 45.2        | 45.1        | 44.5        | 44.2        | 44.4        | 44.5        | 44.5        | 44.2        | 44.4        |             |
| 50.0                          | Depth                         | 28.2                                      | 28.8        | 28.8        | 29.6        | 28.8        | 29.1        | 29.2        | 29.2        | 29.1        | 28.0        | 28.1        |             |
| 50.0                          | Breadth                       | 36.0                                      | 36.2        | 35.9        | 35.5        | 36.1        | 35.0        | 36.2        | 36.1        | 36.4        | 36.5        | 36.1        |             |
| <b>GHANA</b>                  |                               | <b>2010 VISA Africa Integration Index</b> | <b>49.1</b> | <b>52.3</b> | <b>52.2</b> | <b>53.8</b> | <b>54.3</b> | <b>54.7</b> | <b>55.4</b> | <b>57.7</b> | <b>59.7</b> | <b>60.1</b> | <b>60.5</b> |
|                               | Global Integration Score      | 47.8                                      | 52.8        | 51.5        | 52.4        | 54.4        | 51.2        | 54.4        | 61.0        | 44.8        | 44.0        | 51.2        |             |
|                               | Depth Component               | 57.8                                      | 58.3        | 58.1        | 58.2        | 58.9        | 60.6        | 61.4        | 67.1        | 70.8        | 76.0        | 77.4        |             |
| 17.5                          | (T) Trade                     | 18.6                                      | 18.5        | 18.6        | 18.5        | 18.7        | 19.0        | 19.1        | 18.9        | 18.6        | 20.2        | 20.3        |             |
| 17.5                          | (C) Capital                   | 19.1                                      | 19.4        | 19.5        | 19.7        | 20.9        | 20.8        | 22.0        | 23.4        | 24.8        | 20.2        | 21.0        |             |
| 32.5                          | (I) Information               | 9.0                                       | 9.3         | 8.9         | 8.8         | 9.5         | 10.0        | 10.4        | 13.7        | 16.6        | 19.2        | 21.6        |             |
| 32.5                          | (P) People                    | 11.1                                      | 11.1        | 11.1        | 11.1        | 10.8        | 10.9        | 11.0        | 11.0        | 10.9        | 14.4        | 14.4        |             |
|                               | Breadth Component             | 37.7                                      | 41.7        | 41.9        | 41.8        | 43.3        | 43.7        | 44.4        | 44.9        | 44.8        | 42.0        | 41.0        |             |
| 17.5                          | (T) Trade                     | 8.6                                       | 8.8         | 8.8         | 8.9         | 8.9         | 8.9         | 8.9         | 9.0         | 9.0         | 8.5         | 7.9         |             |
| 17.5                          | (C) Capital                   | 17.6                                      | 18.2        | 18.4        | 19.3        | 19.5        | 19.2        | 19.4        | 19.2        | 19.4        | 19.4        | 19.7        |             |
| 32.5                          | (I) Information               | 3.5                                       | 8.6         | 9.7         | 10.5        | 12.9        | 13.4        | 14.0        | 18.5        | 22.4        | 25.9        | 29.2        |             |
| 32.5                          | (P) People                    | 8.0                                       | 8.0         | 8.0         | 8.1         | 8.0         | 8.1         | 8.1         | 8.2         | 8.2         | 8.2         | 8.2         |             |
|                               | Regional Integration Score    | 50.4                                      | 53.7        | 52.9        | 53.2        | 54.0        | 54.3        | 54.3        | 54.4        | 54.3        | 52.3        | 49.9        |             |
| 50.0                          | Depth                         | 31.3                                      | 33.8        | 33.5        | 33.9        | 34.6        | 34.8        | 35.2        | 35.2        | 35.3        | 35.6        | 35.8        |             |
| 50.0                          | Breadth                       | 39.1                                      | 39.9        | 39.4        | 39.3        | 39.3        | 39.4        | 39.2        | 39.1        | 39.9        | 36.7        | 34.1        |             |
| <b>NIGERIA</b>                |                               | <b>2010 VISA Africa Integration Index</b> | <b>37.7</b> | <b>39.4</b> | <b>39.6</b> | <b>40.6</b> | <b>40.0</b> | <b>40.5</b> | <b>39.4</b> | <b>39.6</b> | <b>39.2</b> | <b>36.6</b> | <b>33.1</b> |
|                               | Global Integration Score      | 44.5                                      | 44.8        | 45.1        | 45.4        | 45.9        | 46.4        | 46.8        | 45.0        | 46.2        | 46.5        | 46.2        |             |
|                               | Depth Component               | 51.0                                      | 50.4        | 51.0        | 52.1        | 52.9        | 51.1        | 46.4        | 46.6        | 41.8        | 45.3        | 46.0        |             |
| 17.5                          | (T) Trade                     | 15.7                                      | 15.7        | 15.9        | 15.9        | 15.4        | 15.7        | 13.9        | 13.5        | 12.9        | 7.9         | 9.2         |             |
| 17.5                          | (C) Capital                   | 21.8                                      | 21.7        | 21.6        | 21.4        | 21.5        | 21.4        | 15.3        | 13.0        | 10.4        | 13.9        | 13.3        |             |
| 32.5                          | (I) Information               | 9.9                                       | 10.3        | 10.3        | 10.3        | 11.3        | 11.3        | 12.3        | 13.0        | 12.5        | 16.9        | 20.8        |             |
| 32.5                          | (P) People                    | 3.6                                       | 4.0         | 4.3         | 4.6         | 4.8         | 4.8         | 5.0         | 5.1         | 5.1         | 6.6         | 6.7         |             |
|                               | Breadth Component             | 38.0                                      | 38.4        | 38.1        | 38.6        | 38.7        | 39.5        | 41.3        | 45.5        | 42.8        | 43.8        | 39.1        |             |
| 17.5                          | (T) Trade                     | 9.8                                       | 9.9         | 9.9         | 9.9         | 9.9         | 9.9         | 10.0        | 10.0        | 10.3        | 7.7         | 5.0         |             |
| 17.5                          | (C) Capital                   | 16.7                                      | 16.8        | 16.6        | 16.9        | 16.9        | 16.9        | 17.5        | 18.2        | 18.2        | 18.0        | 18.0        |             |
| 32.5                          | (I) Information               | 3.6                                       | 3.7         | 3.7         | 3.8         | 4.1         | 4.6         | 5.6         | 6.7         | 8.2         | 9.5         | 10.3        |             |
| 32.5                          | (P) People                    | 7.9                                       | 7.9         | 7.9         | 8.0         | 8.0         | 8.0         | 8.1         | 8.2         | 8.3         | 8.3         | 5.8         |             |
|                               | Regional Integration Score    | 38.4                                      | 38.9        | 38.1        | 38.7        | 38.2        | 38.8        | 38.8        | 38.2        | 38.4        | 38.7        | 38.7        |             |
| 50.0                          | Depth                         | 6.8                                       | 7.8         | 7.8         | 7.5         | 8.5         | 8.8         | 8.8         | 8.8         | 8.9         | 8.8         | 8.8         |             |
| 50.0                          | Breadth                       | 21.6                                      | 21.1        | 21.3        | 21.1        | 21.7        | 21.1        | 21.2        | 21.6        | 21.1        | 19.9        | 12.9        |             |



## REFERENCES

- Commission on Growth and Development (2008) *The Growth Report: Strategies for Sustained Growth and Inclusive Development*. World Bank: Washington, DC.
- Ghemawat, P. (2011) *World 3.0: Global Prosperity and How to Achieve It*. Harvard Business Press: Boston, Massachusetts.
- Ghemawat, P. with Altman, S. (2011), *DHL Global Connectedness Index 2011: Analyzing Global Flows and their Power to Increase Prosperity*. Deutschepost DHL: Bonn, Germany.
- Jerven, M. (2013) *Poor Numbers: How We Are Misled by African Development Statistics and What to Do about It*. Cornell University Press: London.
- Sachs, J.D. and Warner, A.M. (1995) *Economic Convergence and Economic Policies*. NBER Working Paper No. 5039. Issued February 1995
- Saville, A.D. (2016) *Visa Africa Integration Index 2016: The Case of Nigeria*. Produced for Visa Sub-Saharan Africa: October 2016.
- Saville, A.D. and Firth, K. (2016) *Realising Potential, Connecting Africa: Visa Africa Integration Index, Third Edition*. Visa Sub-Saharan Africa. Available via: <http://bit.ly/2p9MqMm>.
- Saville, A.D. and White, L. (2013a) *Connecting Africa, Realising Potential: Visa Africa Integration Index*. Working Paper. Available via: <http://bit.ly/1DCscx6>.
- (2013b) *Connecting Africa: Visa Africa Integration Index, First Edition*. Visa Sub-Saharan Africa. Available via: <http://bit.ly/2otTIBK>.
- (2015a) *Realising Potential: Visa Africa Integration Index, Second Edition*. Visa Sub-Saharan Africa Available via: <http://bit.ly/2ou3IFv>.
- (2015b) *Ensuring that Africa Keeps Rising: The Economic Integration Imperative*, South African Journal of International Affairs, Vol. 22(1).
- (2016) *Bringing Pankaj Ghemawat to Africa: Measuring African Economic Integration*, South African Journal of Economic and Management Science, Vol. 19(1).
- Young, A. (2012) *The African Growth Miracle*. NBER Working Paper No. W18490, October 2012.



