

# Trade Integration and Global Value Chains in Sub-Saharan Africa: In Pursuit of the Missing Link

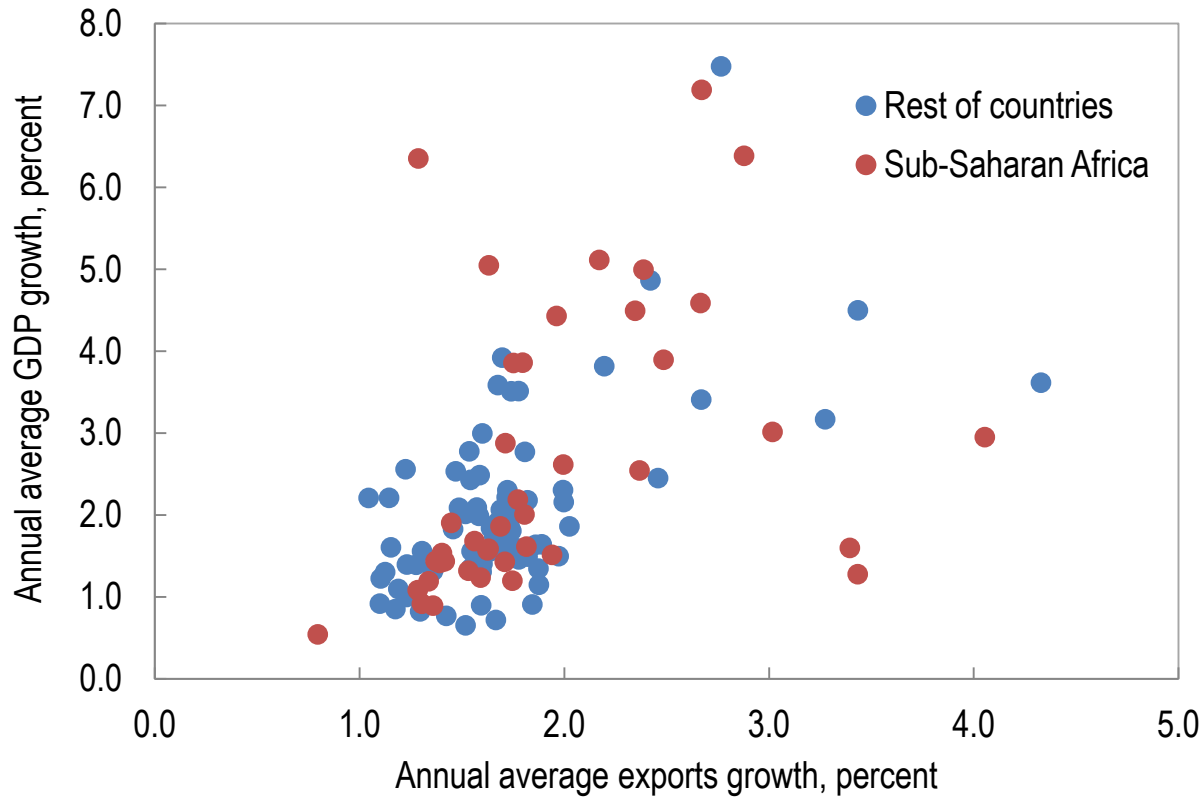
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International Monetary Fund  
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# Context



**Emerging and Developing Countries:  
Annual Average Growth of GDP and Exports, 2000–13**



Note: Sample includes emerging and developing countries with 2013 GDP per capita below US\$ 20,000.

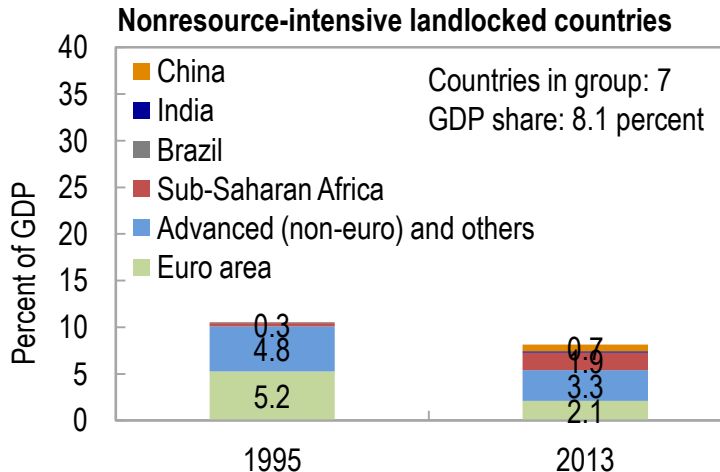
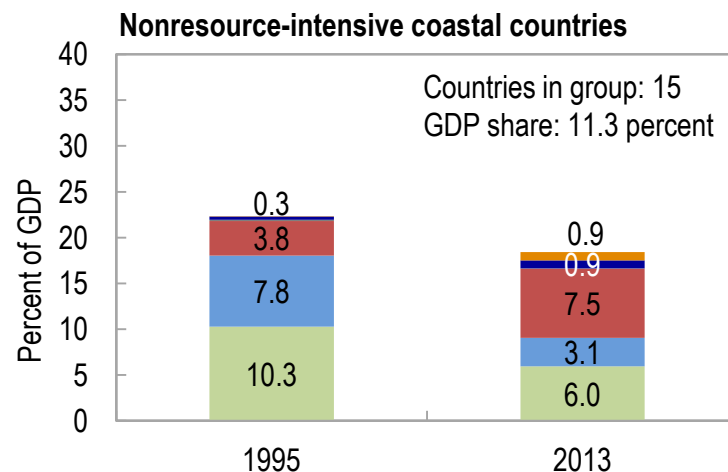
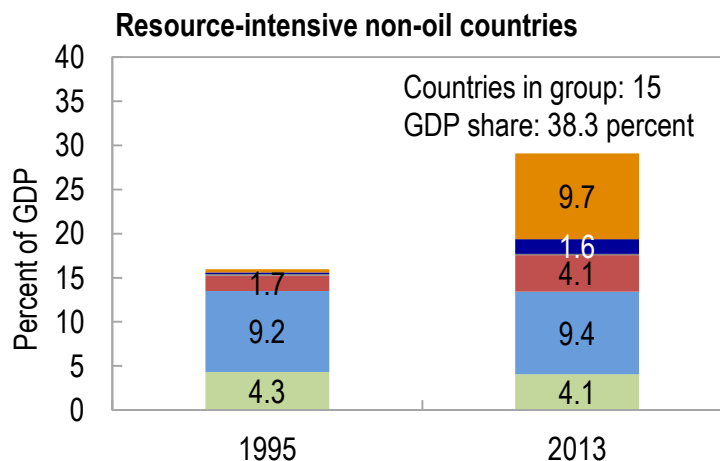
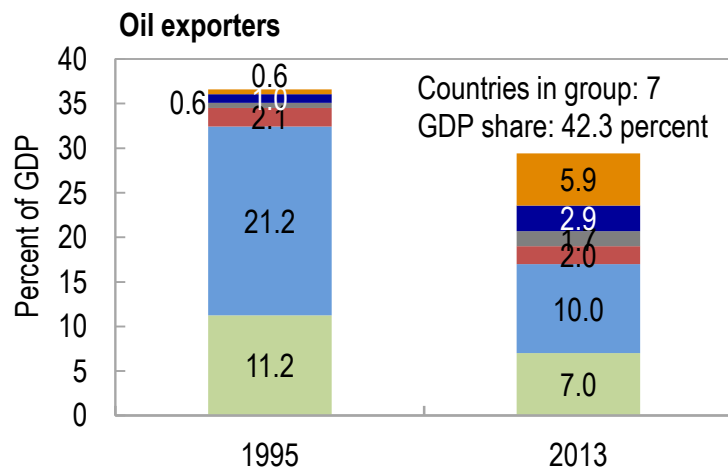


- **Sub-Saharan Africa in the Global Trade Network**
- Global Value Chain Integration
- Policy Options to Integrate into Global Value Chains

# A rapid expansion in the last 20 years, marked by new partnerships ...



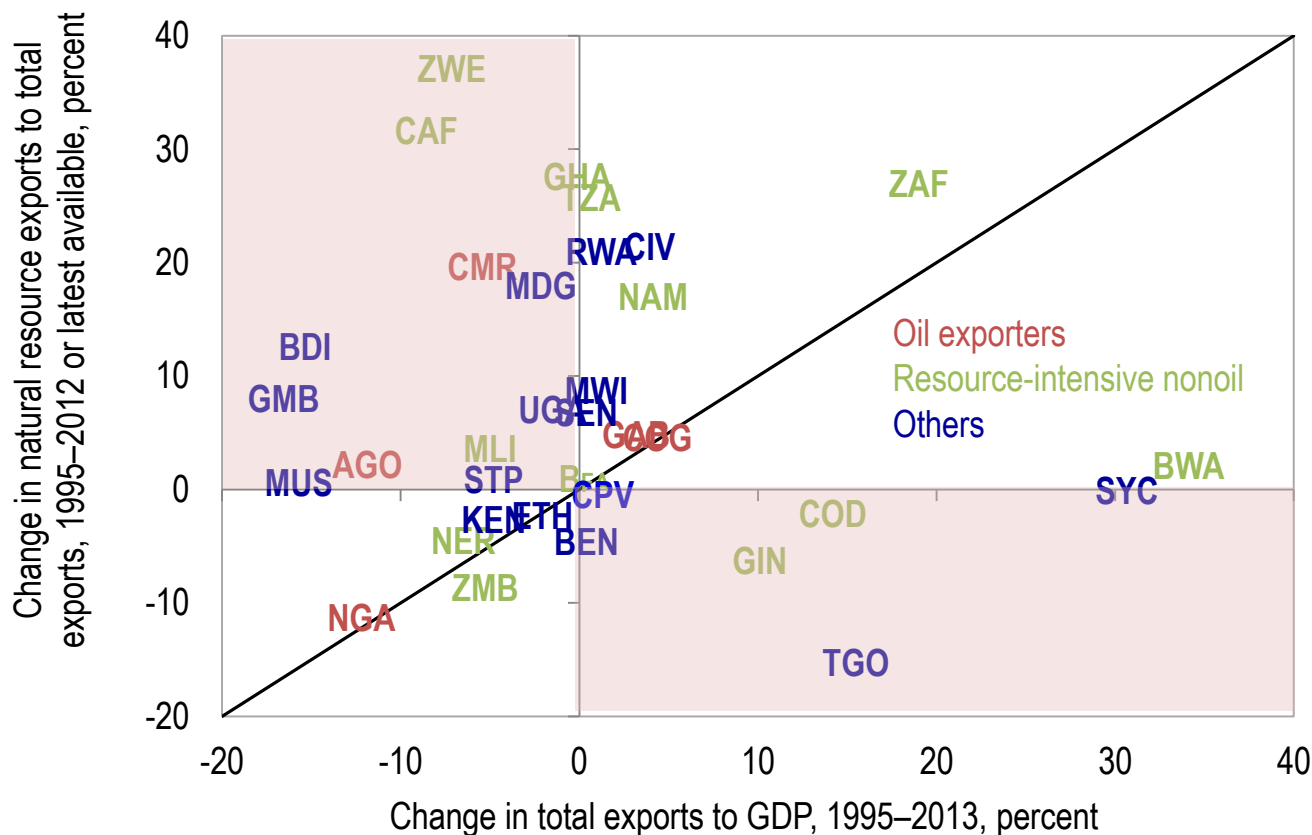
## Sub-Saharan Africa: Exports of Goods, Shares by Partner 1995-2013



... but it is not all about commodities



### Sub-Saharan Africa: Change in Exports Shares



# Centrality of Trade



- PageRank algorithm based on Brin and Page (1998)
- centrality score of each exporting country is computed as the probability of being chosen in the trading network by an importing country:

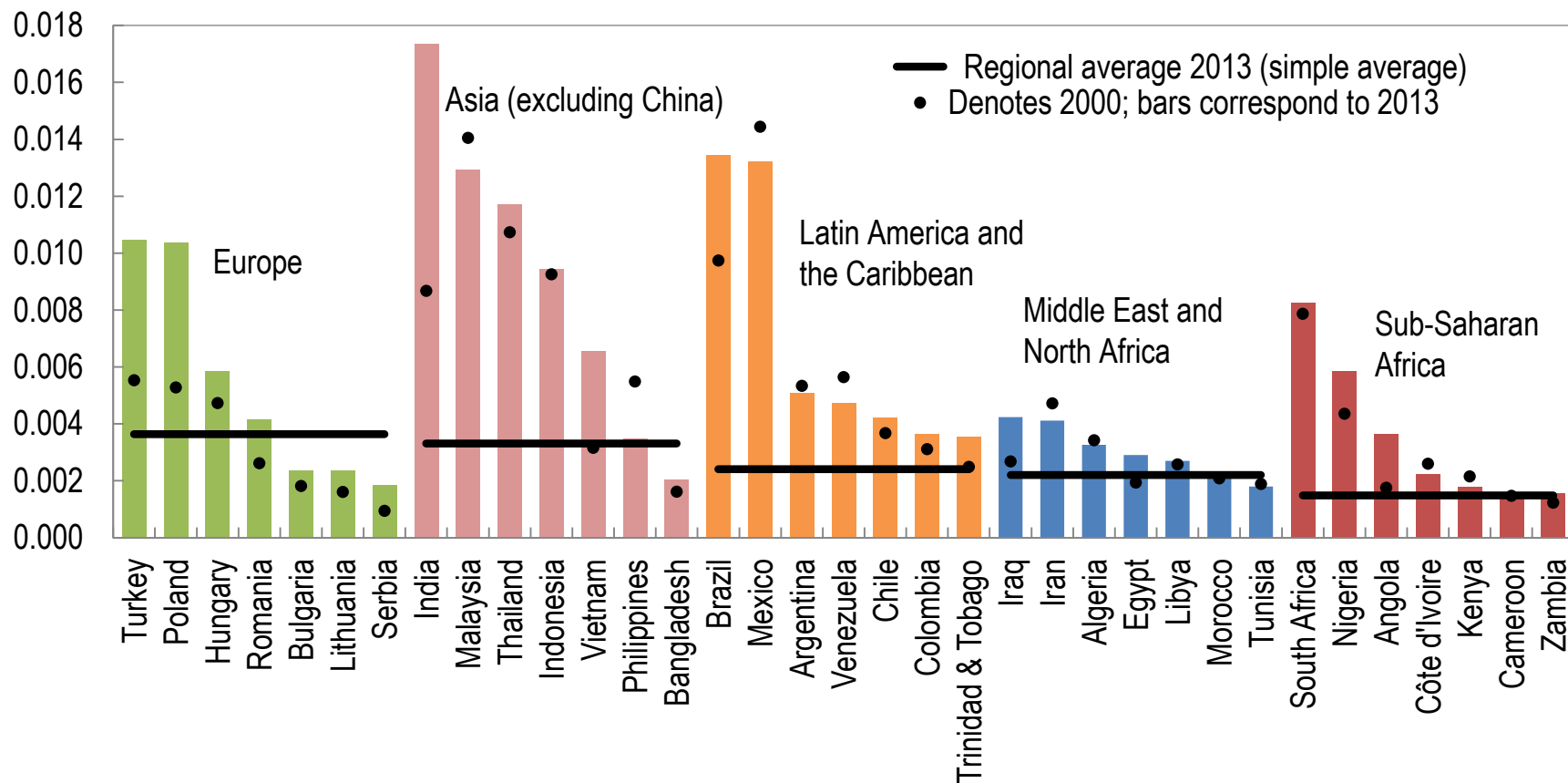
$$C(i) = p \sum_{j \rightarrow i} \left[ \frac{1}{d_j} C(j) \right] + \frac{1-p}{N}, \quad \text{for } i = 1, \dots, N$$

- where  $C$  is the centrality of country  $i$ ,  $j$  is a country that  $i$  exports to,  $d_j$  is the number of countries that  $j$  is exporting to, and  $(1-p)$  is probability of starting the random walk from another country  $i$

The rapid expansion of SSA's trade, however, has barely matched the rapid growth of global trade flows



World: Trade Centrality per Region, 2000-13



# Gravity Model



$$\ln x_{ijt} = \alpha^{Ex} M_{it-1}^{Ex} + \alpha^{Im} M_{jt-1}^{Im} + \theta D_{ijt-1} + \alpha_t + u_{ijt}$$

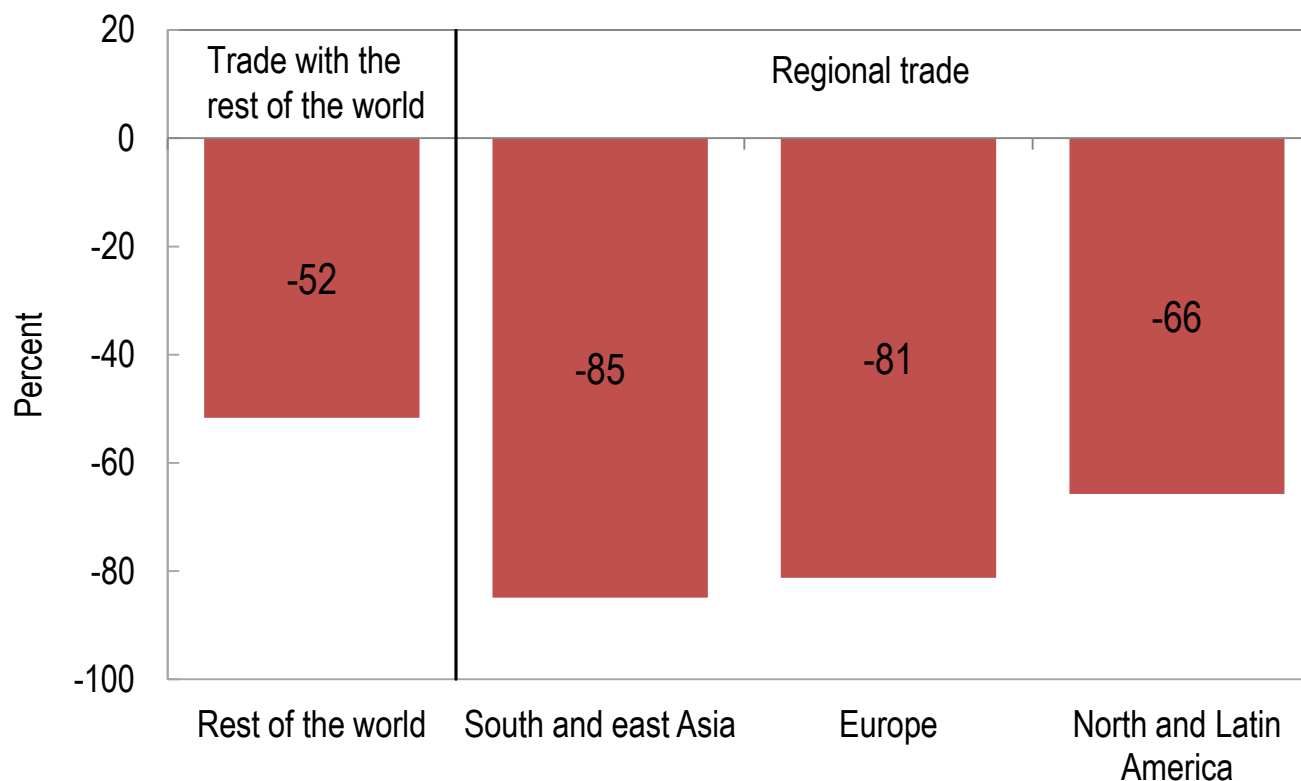
- exports from exporting country  $i$  to importing country  $j$  in year  $t$ ,  $x_{ijt}$ , are conditioned on  $M_{it-1}^{Ex}$  and  $M_{jt-1}^{Im}$ , which denote the vectors of the attributes of exporter  $i$  and importer  $j$  in year  $t-1$ .
- Factors that affect trade costs between  $i$  and  $j$  are represented by  $D_{ijt-1}$  and  $u_{ijt}$  denotes the unobserved bilateral trade cost determinants



# Still substantial potential for further trade integration...



### Sub-Saharan Africa: Trade Flows Compared with Other Regions



Note: Sub-Saharan Africa trade compared with trade of other regions, after controlling for size, level of development, cultural ties, and geographical conditions.

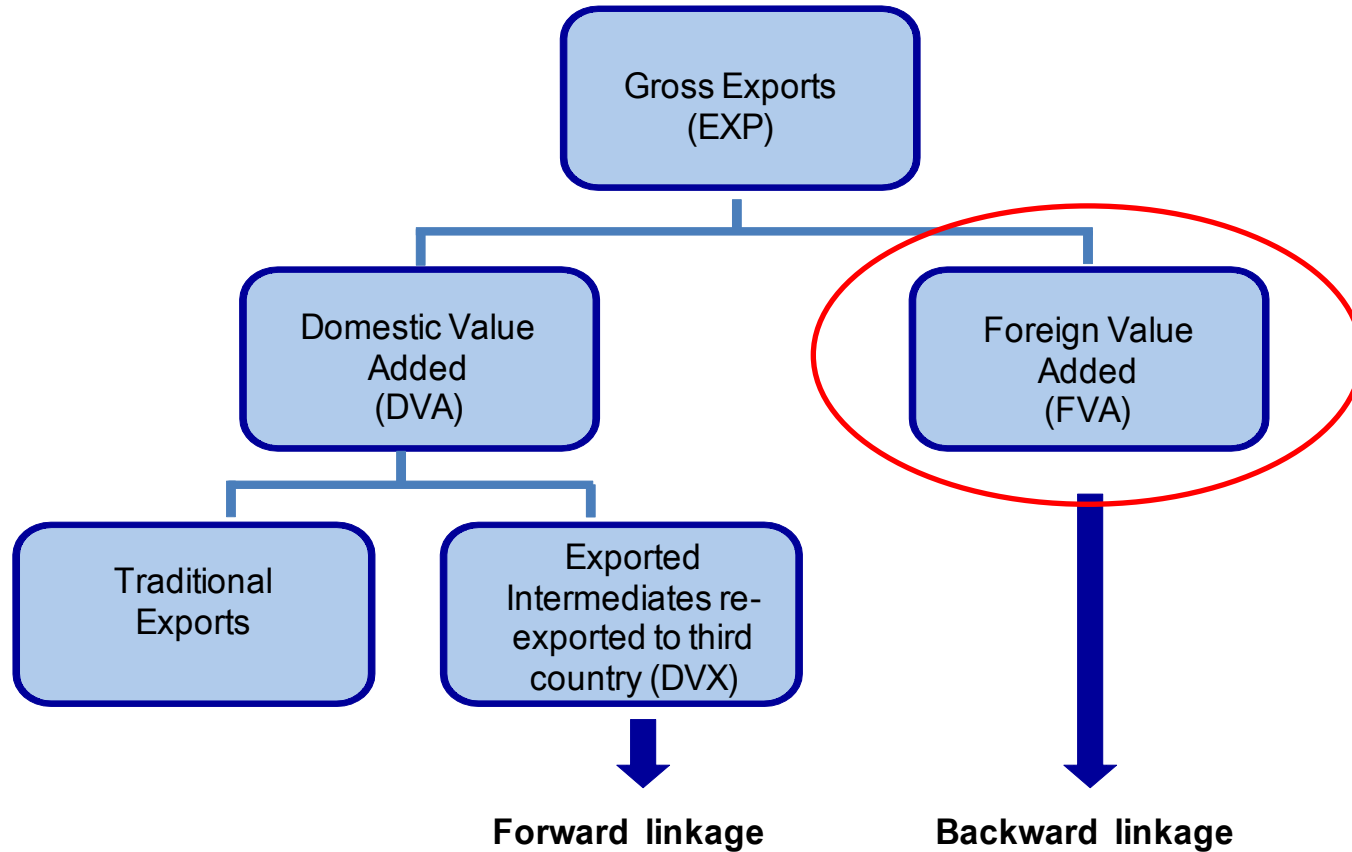


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# Breakdown of Gross Exports



Figure 1. Decomposition of Gross Exports



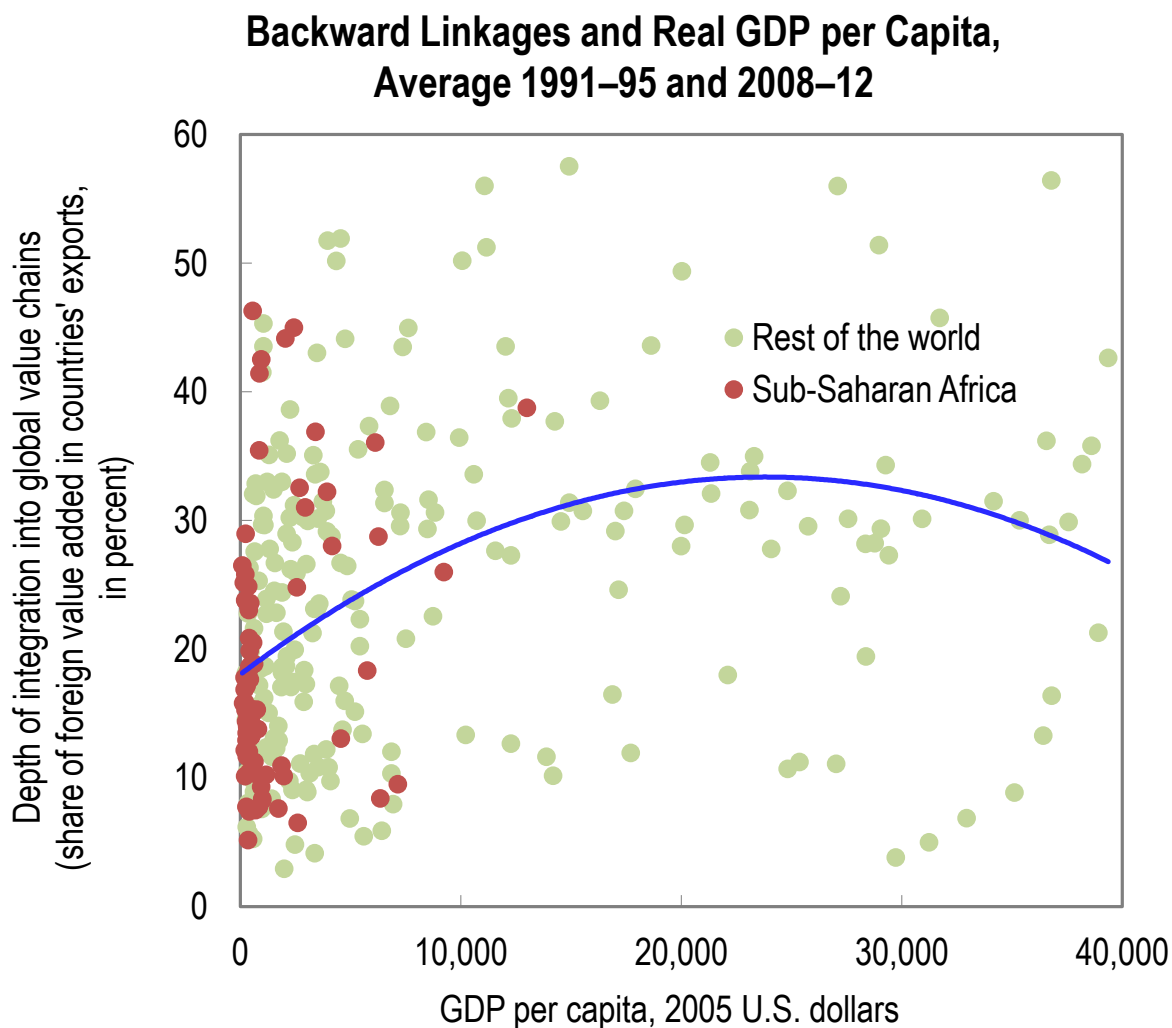
Source: Koopman et al. (2010)

# Data



- Eora Multi-Region Input-Output tables
- Covers 188 countries between 1990 – 2012
- 26 common sector data
- Follow Koopman et al. (2010) approach

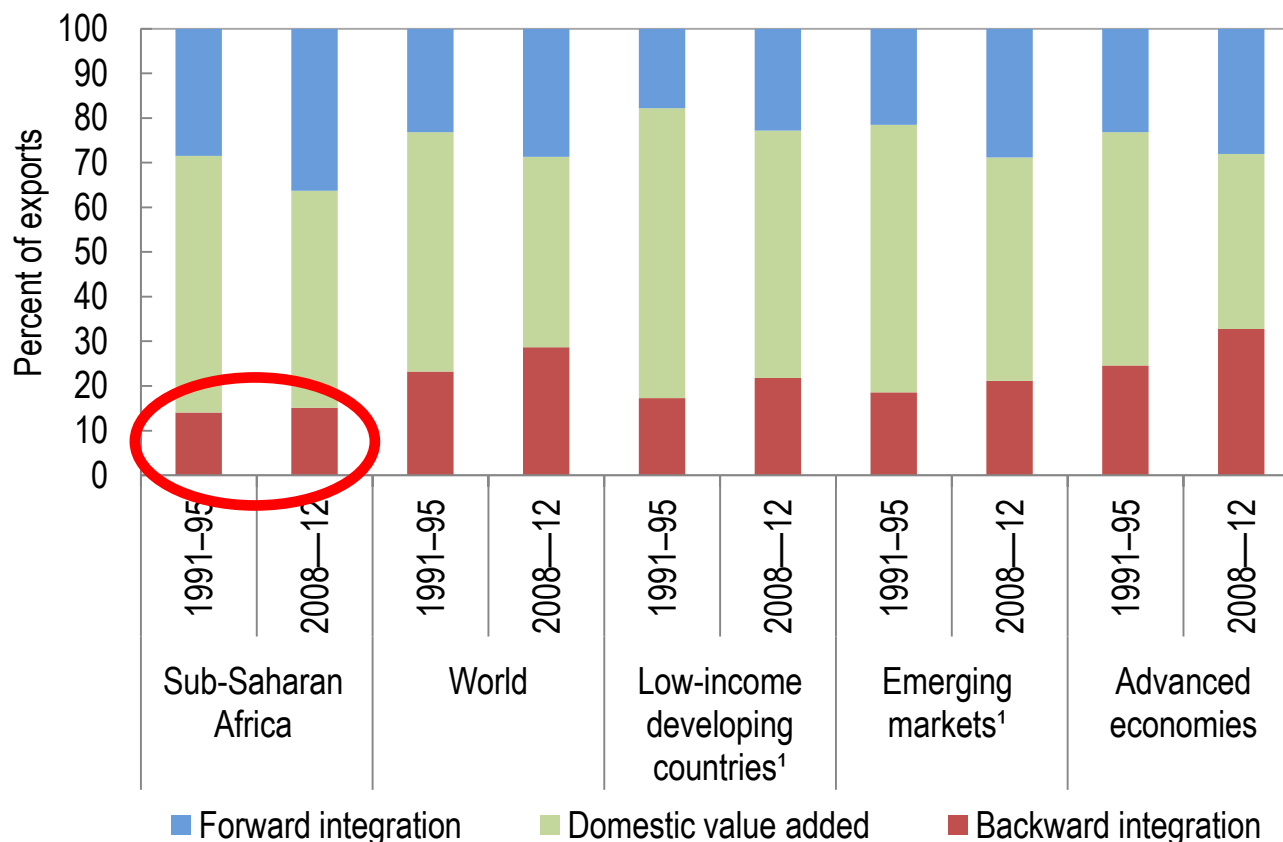
# Integration in Global Value Chains (GVC)



# Sub-Saharan Africa as a whole still has some way to go to integrate in GVCs...



**Sub-Saharan Africa: Global Value Chains Participation, Average 1991–95 and 2008–12**

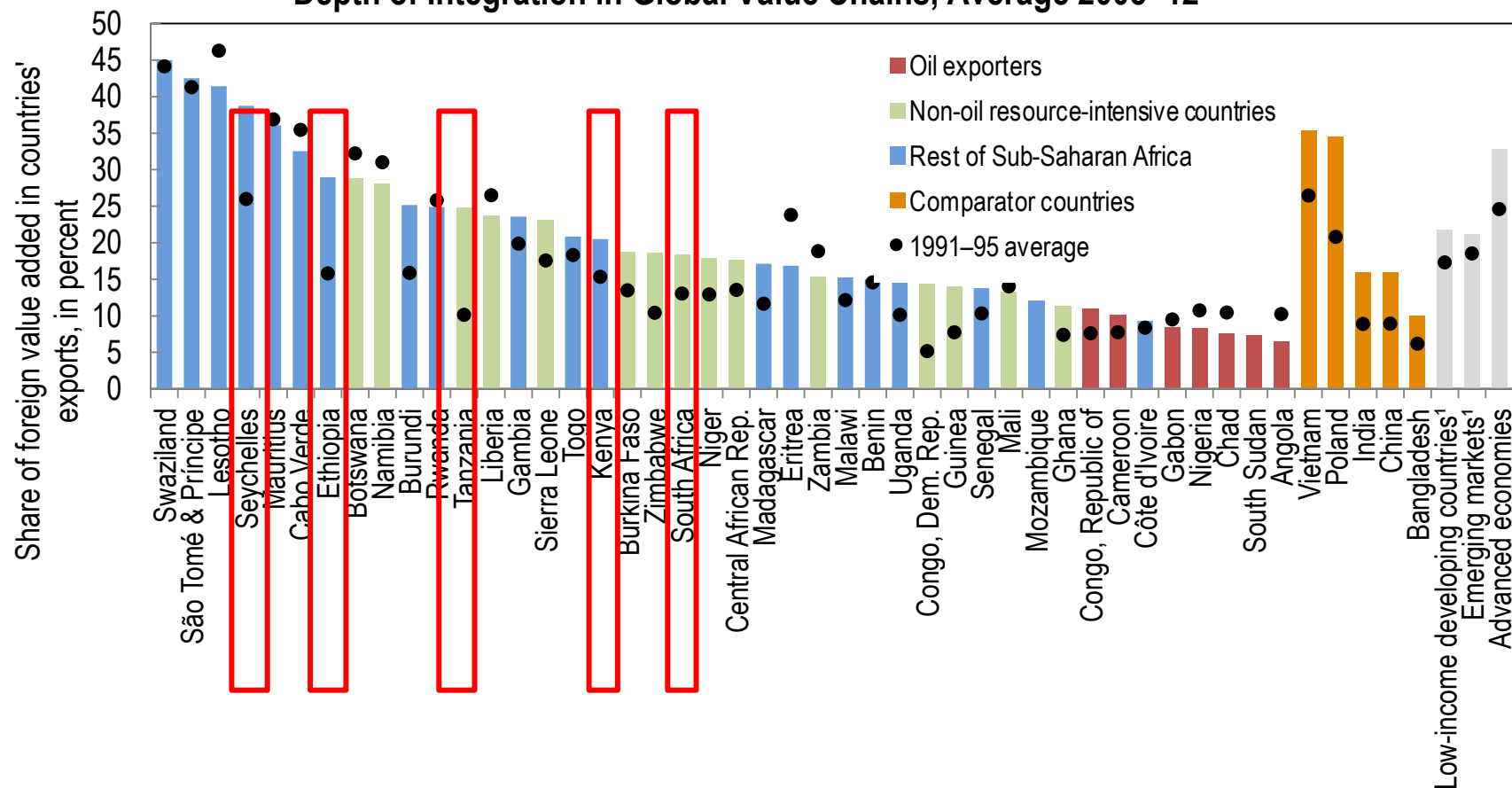


<sup>1</sup> Excluding sub-Saharan African countries.

...but there is heterogeneity across the region



**Sub-Saharan Africa and Comparator Countries:  
Depth of Integration in Global Value Chains, Average 2008–12**

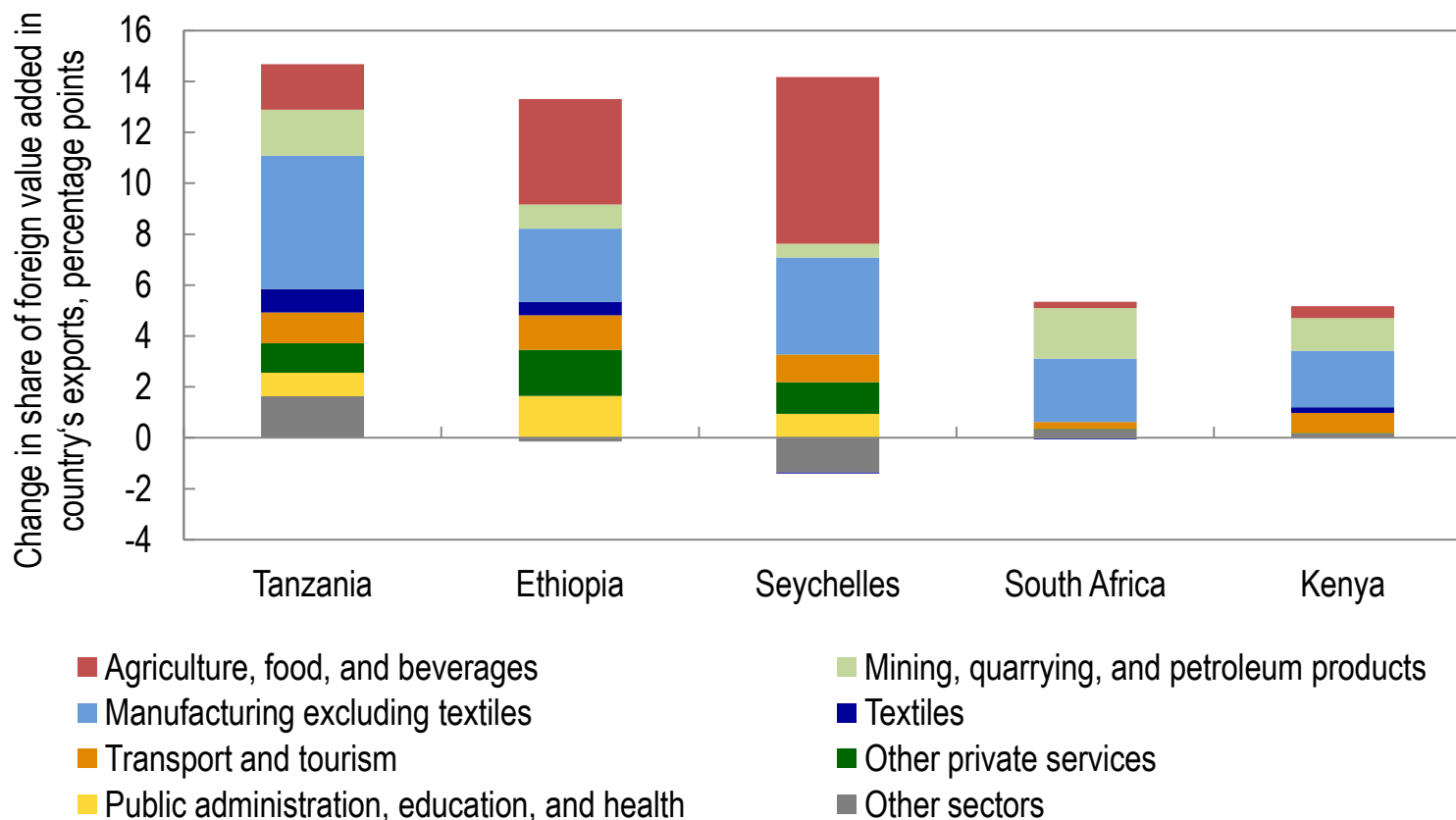


<sup>1</sup> Excluding sub-Saharan African countries.

# Some countries have made substantial progress



**Selected Sub-Saharan African Countries:  
Sectoral Contributions to Change in Share of Foreign Value in Exports  
Added in Exports, 1991–95 to 2008–12**





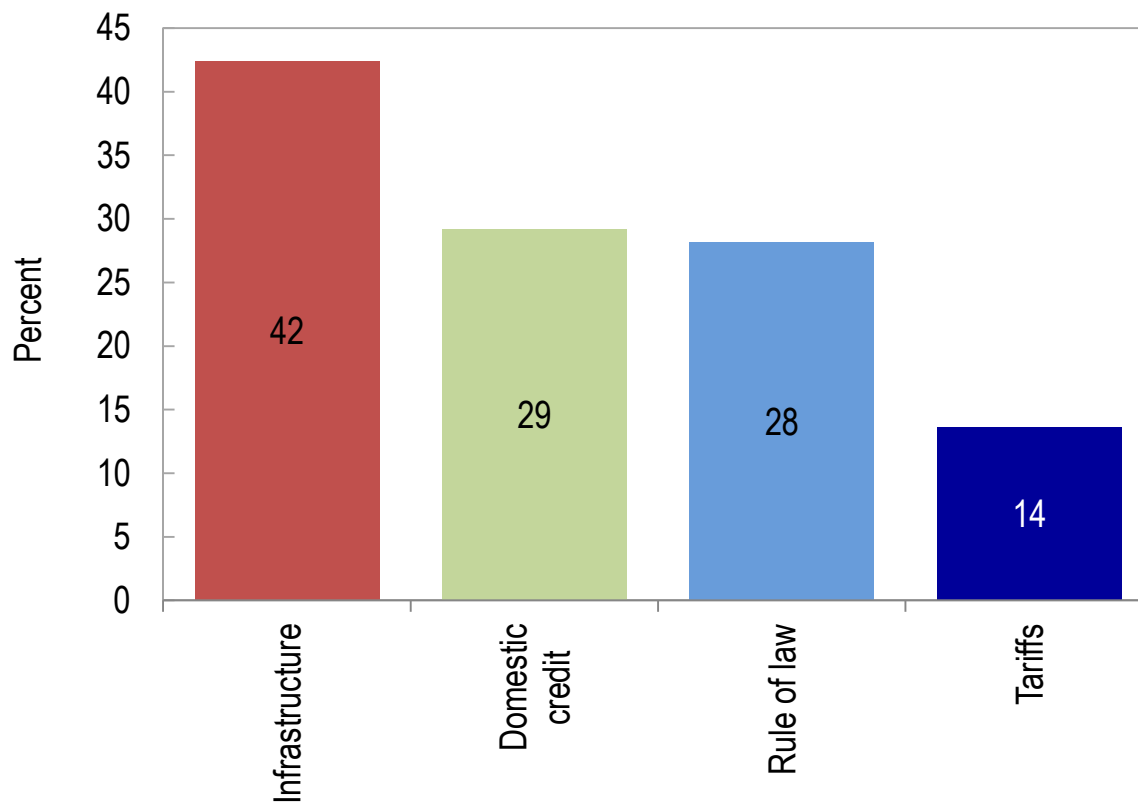


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# Policy levers to facilitate further trade integration



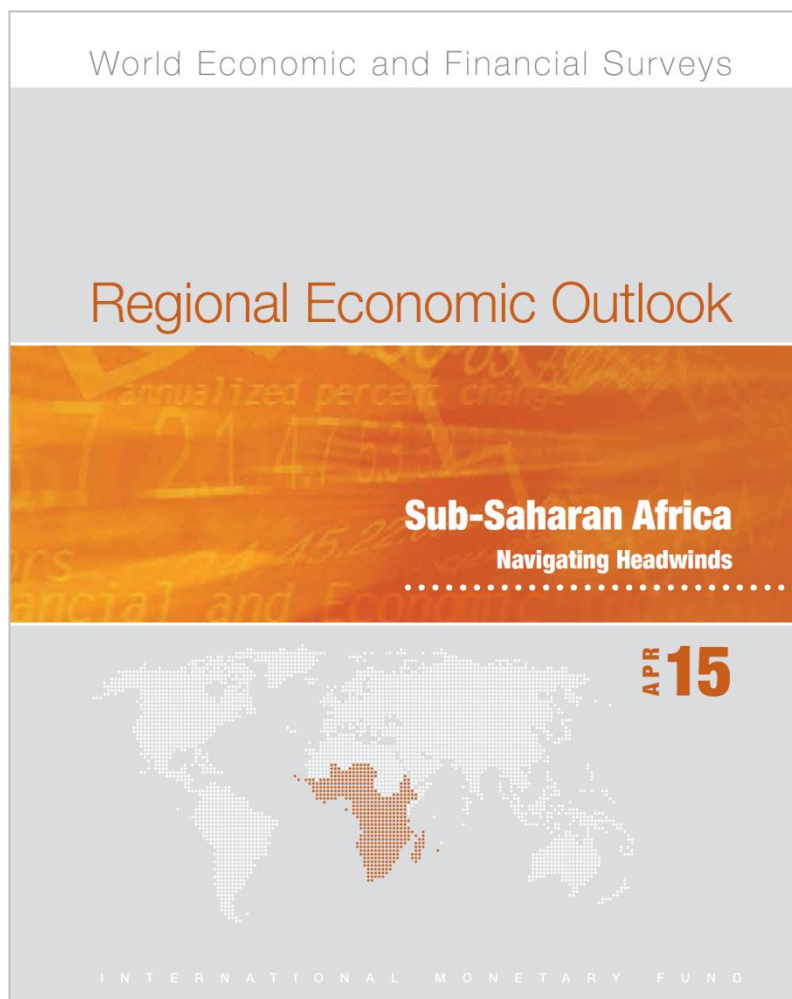
## Sub-Saharan Africa: Potential Increase in Trade



Note: Percent increase in sub-Saharan Africa's trade if the variable moves from the average for sub-Saharan Africa to the average for the rest of the world.



- A formidable expansion in SSA's trade over the last 20 years, but still significant potential for further trade integration.
- Integration in Global Value Chains can provide that opportunity, and support economic diversification and structural transformation.
- Better infrastructure, lower tariffs and nontariff barriers, and improved access to credit, business climate and education outcomes key to that process.



# Thank You!

The online edition of the  
*Regional Economic Outlook  
for sub-Saharan Africa*  
is now available at  
[www.imf.org](http://www.imf.org)



## Few facts on SSA's growth in trade and income 1995–2013

- cumulative nominal GDP growth was 350%
- increase for goods exports was **500%**
- global trade expanded by 260%
- export/GDP rose from 201.5% in 1995 to 27.5% in 2013; import/GPD increased from 19% to 23%