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1958 - 2018

22nd Meeting of the Intergovernmental Committee of Experts

Implementing the African Continental Free Trade Area in Eastern Africa: From Vision to Action

Kigali Convention Centre 20-22 November 2018

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BoP Constraint on Economic Growth in Eastern Africa

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Kigali, Rwanda

Objectives

- What drives the current account deficits in the region?

- What is the effect of the current account deficits on growth?

Outline

Relevant literature

Econometric results

Stylized facts

Conclusion

Current account

$$GDP = C + G + I + (X - IM)$$

$$(X - IM) = (GDP - C - G) - I$$

$$X - IM = S - I$$

Current account = Capital account

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Foreign capital and economic

"Capital account liberalization is an inevitable step on the path of development, which cannot be avoided and should be embraced."
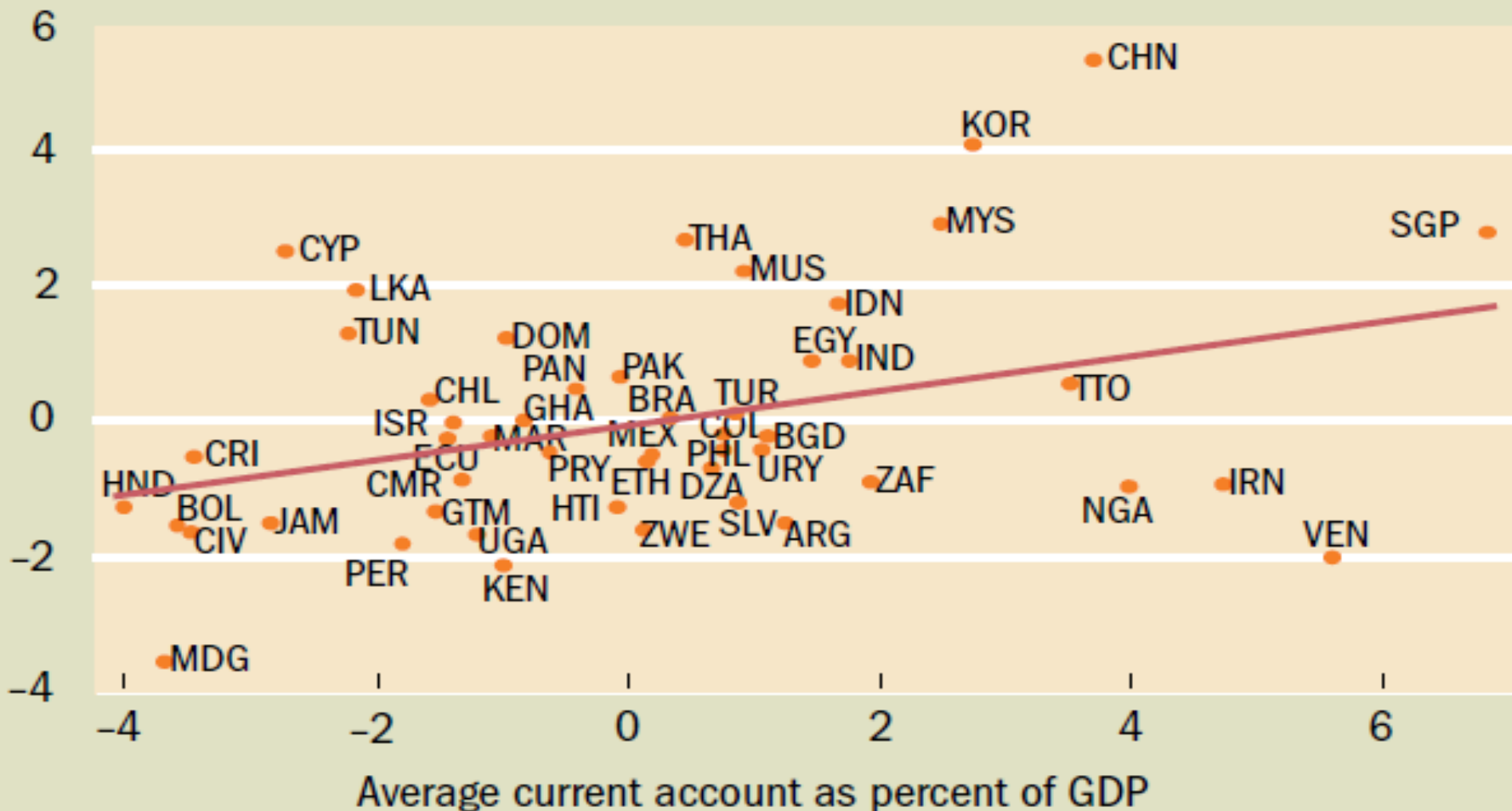
Fischer (1997)

"*Developing countries that grow rapidly rely less, not more on foreign capital*"

Rajan et al. (2007)

Golden era of financial integration, 1985-1997

(average per capita GDP growth, percent)

Average current account as percent of GDP

Source: Rajan et al. (2007)

OLS Regression (dependent variable is average annual rate of growth of GDP per capita)[a]

Independent variable	1-1	1-2[b]	1-3[c]	1-4[d]	1-5[e]	1-6	1-7	1-8
Current account balance–GDP ratio	0.093	0.107	0.196	0.106			0.107	−0.041
	(0.036)**	(0.056)*	(0.066)***	(0.057)*			(0.053)*	(0.085)
Log of initial GDP per capita	−1.770	−1.722	−1.526	−1.721	−1.695	−1.700	−1.561	−1.520
	(0.242)***	(0.249)***	(0.256)***	(0.250)***	(0.287)***	(0.286)***	(0.266)***	(0.163)***
Initial life expectancy	0.071	0.070	0.070	0.070	0.063	0.046	0.061	0.060
	(0.026)***	(0.026)**	(0.027)**	(0.026)**	(0.030)**	(0.031)	(0.026)**	(0.023)**
Initial trade policy[f]	0.987	1.016	1.702	1.013	1.009	0.897	0.718	0.564
	(0.782)	(0.817)	(0.429)***	(0.819)	(0.811)	(0.836)	(0.777)	(0.814)
Fiscal balance–GDP ratio	0.044	0.048	0.028	0.049	0.049	0.042	0.037	0.040
	(0.041)	(0.043)	(0.046)	(0.043)	(0.044)	(0.045)	(0.044)	(0.041)
Institutional quality[g]	5.759	5.568	4.981	5.589	5.921	6.474	4.469	4.121
	(1.680)***	(1.677)***	(1.130)***	(1.686)***	(1.682)***	(1.669)***	(2.111)**	(1.416)***
Net foreign assets–GDP ratio					0.005			
					(0.005)			
Gross assets–GDP ratio						0.013		
						(0.007)*		
Gross liabilities–GDP ratio						−0.007		
						(0.005)		
Investment–GDP ratio							0.074	
							(0.050)	
Domestic saving–GDP ratio								0.108
								(0.040)***

Source: Rajan et al. (2007)

GMM Regression (dependent variable is average annual rate of growth of GDP per capita)[a]

Independent variable	3-1	3-2[b]	3-3[c]	3-4[d]	3-5	3-6	3-7	3-8[e]
Current account balance–GDP ratio	0.100	0.127	0.251	0.130	0.166	−0.001	−0.009	0.086
	(0.095)	(0.112)	(0.122)**	(0.114)	(0.124)	(0.111)	(0.093)	(0.109)
Log of initial GDP per capita	−1.977	−1.540	−2.868	−1.838	−0.766	−0.682	−1.506	−1.246
	(1.387)	(1.264)	(0.981)***	(1.341)	(1.471)	(1.407)	(1.113)	(1.407)
Initial life expectancy	0.057	0.050	0.094	0.072	−0.023	−0.034	−0.028	0.059
	(0.121)	(0.107)	(0.075)	(0.124)	(0.090)	(0.094)	(0.097)	(0.116)
Initial trade policy[f]	2.580	2.108	2.161	2.220	2.132	2.285	1.283	1.350
	(0.762)***	(0.911)**	(0.837)***	(0.941)**	(0.959)**	(0.922)**	(0.867)	(0.797)*
Fiscal balance–GDP ratio	0.167	0.188	0.094	0.182	0.097	0.208	0.126	0.147
	(0.147)	(0.161)	(0.130)	(0.136)	(0.132)	(0.222)	(0.129)	(0.087)*
Institutional quality[g]	16.825	15.182	17.136	14.561	1.562	5.331	8.475	10.462
	(5.616)***	(5.790)***	(5.296)***	(5.912)**	(4.415)	(4.407)	(5.610)	(4.884)**
Investment-GDP ratio					0.288			
					(0.110)***			
Saving-GDP ratio						0.167		
						(0.092)*		
Working-age share of total population							0.296	
							(0.158)*	
Industrial country dummy × current account balance–GDP ratio								−0.292
								(0.126)**

Source: Rajan et al. (2007)

Financing growth in Eastern Africa

Sample: 11 countries
Time period: 1990-2015
Estimator: Random effects and Feasible GLS
GMM: Designed for panels with small T and large N

$$y_{it} = B_0 + B_1 current\ account\ deficit_{it} + B_2 X'_{it} + (c_i + u_{it})$$

y_{it} annual rate of growth of GDP per capita

X'_{it}
Initial per capita income   Initial life expectancy   Openness
Fiscal balance   Inflation   Savings
Investment   ODA   Population growth
Dummy variable for the year 2002

Results: Random effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Current account deficit/GDP	-0.14***	-0.06	-0.14***	-0.04	-0.10*	-0.01	-0.09*	-0.00	-0.08
	(0.05)	(0.06)	(0.05)	(0.059)	(0.06)	(0.06)	(0.06)	(0.05)	(0.05)
Log per capita income (1990)	1.35**	1.13**	1.23***	1.11**	1.28***	1.43**	1.51***	1.49**	1.56***
	(0.59)	(0.53)	(0.34)	(0.52)	(0.37)	(0.67)	(0.50)	(0.68)	(0.55)
Life expectancy (1990)	-0.17***	-0.15***	-0.16***	-0.24***	-0.25***	-0.25***	-0.25***	-0.24***	-0.24***
	(0.05)	(0.04)	(0.03)	(0.07)	(0.06)	(0.06)	(0.05)	(0.06)	(0.06)
Openness	-0.01	-0.01	-0.01	0.00	-0.00	0.00	-0.00	0.00	-0.00
	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
Fiscal balance /GDP	0.26*	0.25*	0.22*	0.21*	0.20*	0.19*	0.19*	0.15	0.15
	(0.15)	(0.14)	(0.12)	(0.12)	(0.11)	(0.10)	(0.01)	(0.10)	(0.10)
Inflation	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***	-0.02***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Investments/GDP		0.13*		0.11		0.12		0.11	
		(0.07)		(0.08)		(0.07)		(0.07)	
Savings/GDP			0.15**		0.12*		0.12		0.10
			(0.07)		(0.07)		(0.07)		(0.07)
ODA as a share of GNI				-0.13	-0.14*	-0.13*	-0.13	-0.12	-0.12
				(0.09)	(0.08)	(0.08)	(0.08)	(0.08)	(0.08)
Population growth						0.42	0.33	0.42	0.34
						(0.34)	(0.31)	(0.29)	(0.27)
Dummy 2002								1.28	1.188
								(0.94)	(0.881)
R-squared	0.11	0.15	0.16	0.19	0.20	0.20	0.20	0.21	0.211
Wald chi-squared	1335.91	1780.64	1363.77	4749.60	8873.49	8995.82	49693.34	90096.73	191245.83
No. of observations	267	267	267	257	257	257	257	257	257

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1

Two sides of the same coin?

Balance of Payment Constraint

"In the long run, no economy can grow faster than the rate consistent with the balance of payment equilibrium on the current account, unless it can finance the ever growing deficits."

Thirlwall's Law

$$y^{**} = \frac{volume\ of\ exports}{income\ elasticity\ of\ demand\ for\ exports}$$

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Two sides of the same coin?

Differences in growth between Africa & Asia

	Annual average (% point)		Average % of merchandise exports	
	Actual growth rate	Net export effect	Primary products	Fuel + manufactured goods
Kenya	6	1	69	31
Somalia	3	-1	97	3
Tanzania	3	0	82	18
Madagascar	0	0	87	13
African average	4	2	71	29
Asian average	7	6	36	64

Source: Hussain (1999)

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Two sides of the same coin?

Is Africa's growth BoP constrained?

	Estimated y*	Actual y
Ethiopia	3.2	2.2
Kenya	6.7	6.4
Madagascar	0.9	0.5
Somalia	4.1	3.4

Source: Hussain (1999)

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Part II: Stylized Facts

East Africa's CA deficits largely driven by widening trade deficits

Source: UNCTAD.

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East Africa's CA deficits largely driven by widening trade deficits

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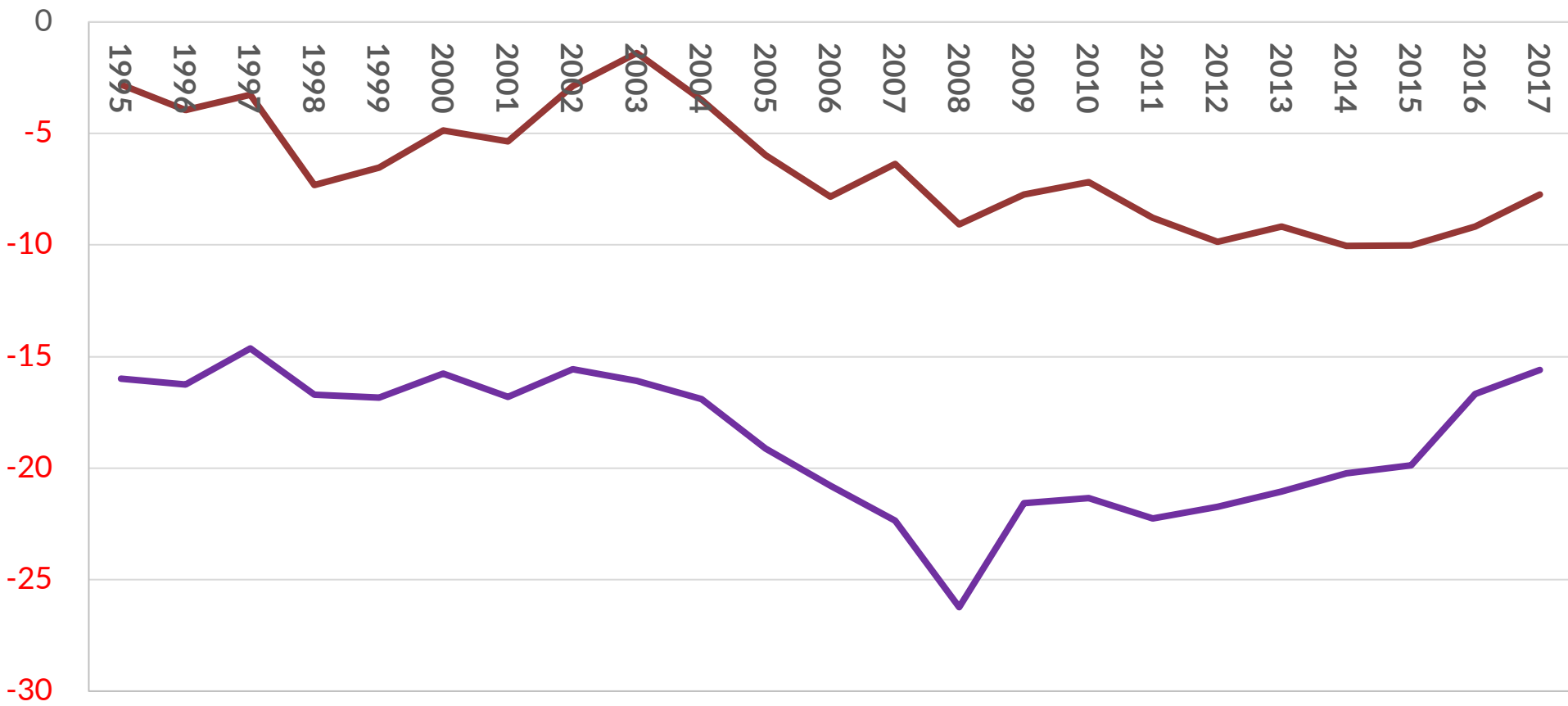
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Reflection of structural trade problems?
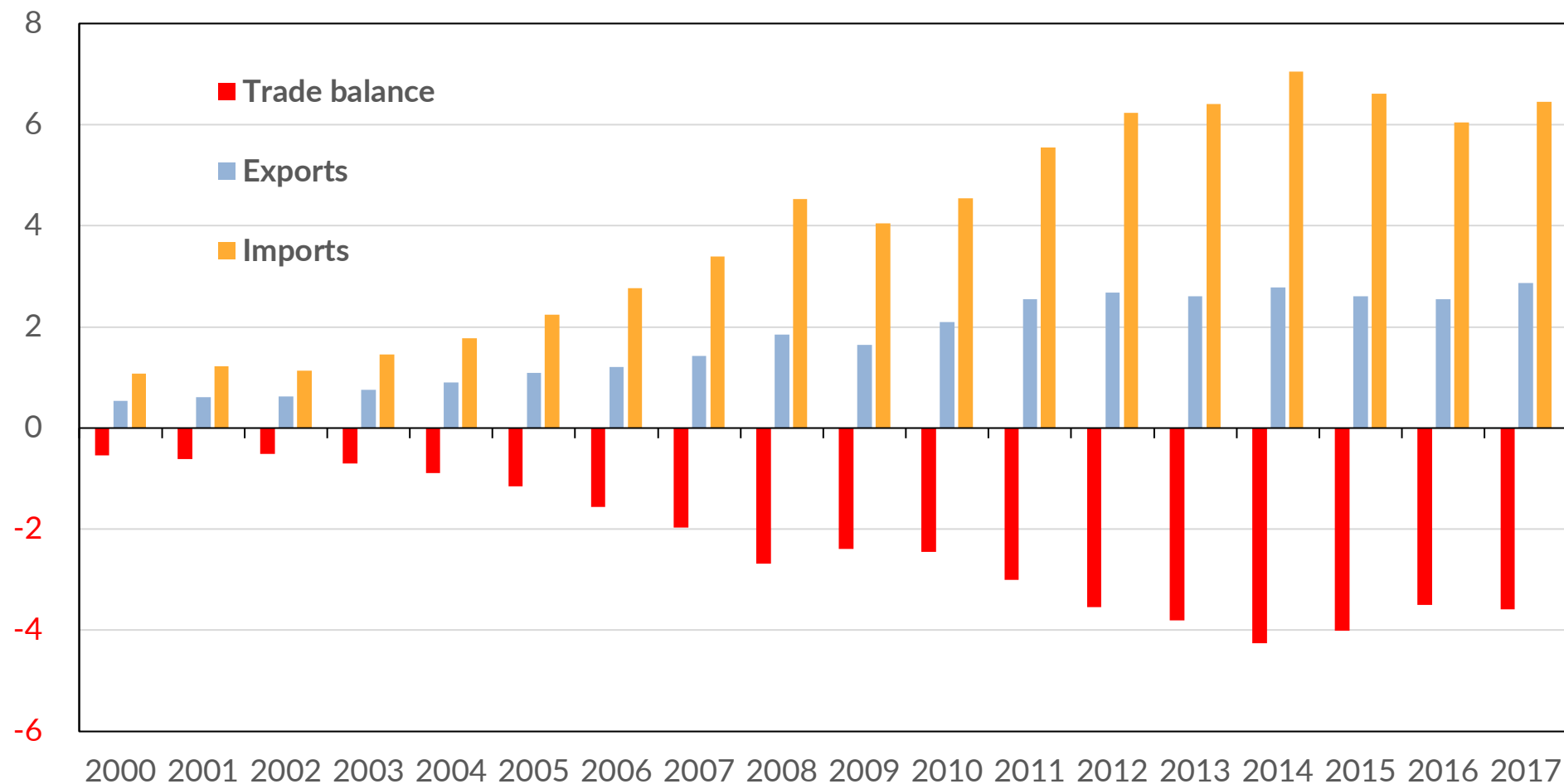
Legend:
- Trade balance (red)
- Exports (blue)
- Imports (orange)

Y-axis: 8, 6, 4, 2, 0, -2, -4, -6

X-axis: 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017

Source: UNCTAD.

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What drives the trade deficits?

Trade balance as a share of GDP by product groups, 2017

Country	Food items	Agricultural raw materials	Fuels	Manufactured goods	Ores, metals, precious stones and non-monetary gold
Burundi	-2%	0%	-3%	-13%	2%
Comoros	-9%	-1%	-1%	-21%	0%
D.R. Congo	-2%	0%	2%	-8%	14%
Djibouti	-7%	0%	-1%	-32%	0%
Eritrea	-5%	1%	-1%	-11%	3%
Ethiopia	1%	0%	-2%	-15%	0%
Kenya	0%	1%	-3%	-12%	0%
Madagascar	0%	0%	-4%	-17%	6%
Rwanda	0%	0%	0%	-14%	7%
Seychelles	15%	-1%	-4%	-42%	0%
Somalia	-8%	2%	0%	-2%	0%
Tanzania	2%	0%	-8%	-22%	6%
Uganda	2%	0%	-2%	-6%	1%

Source: UNCTAD.

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Large trade imbalance with new trading partners

Trade balance between the East African Community and China and India

- Imports from China and India (left axis)
- Exports to China and India (left axis)
- Trade balance (left axis)

Source: UNCTAD.

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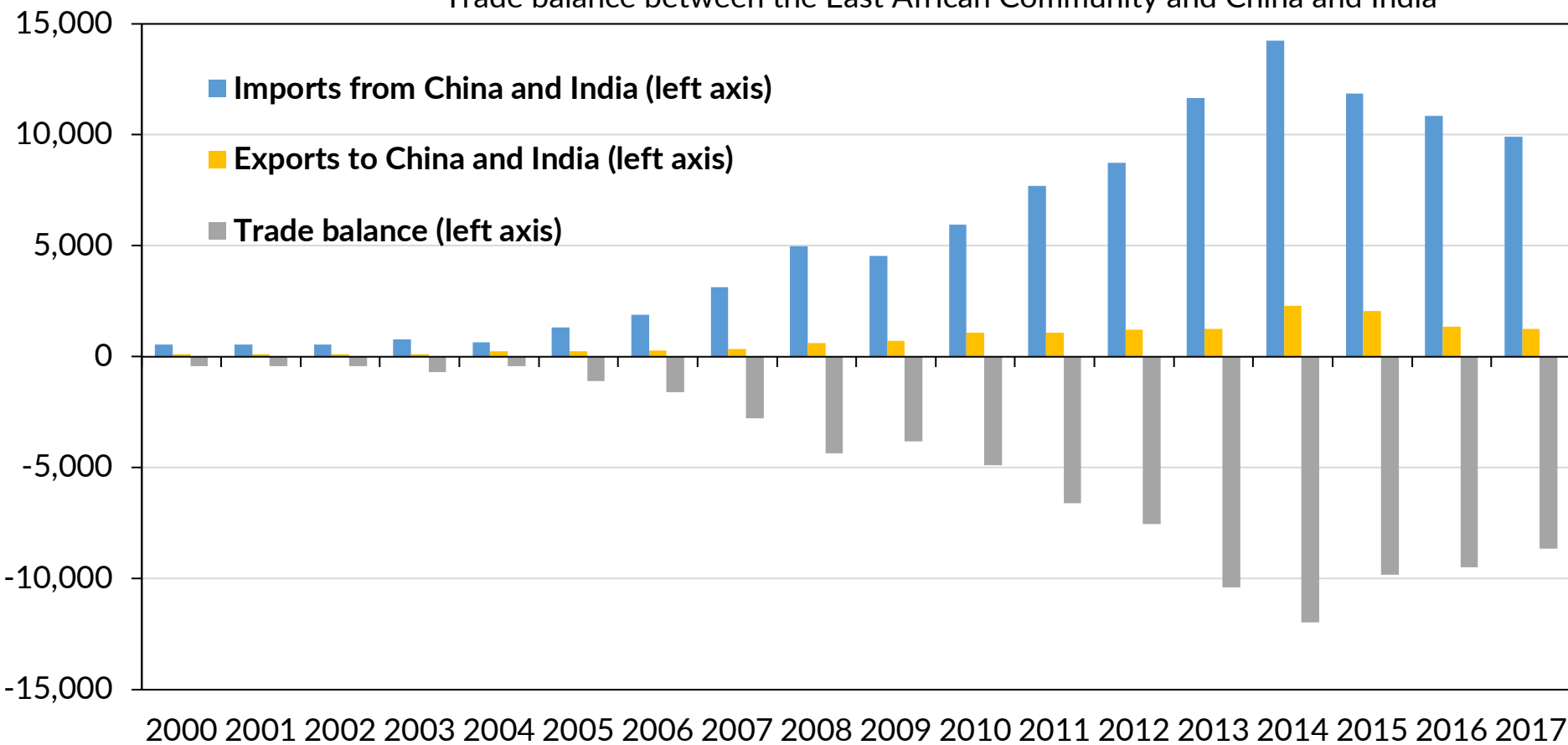
EAC's export composition has changed little over the past decade

Composition of EAC trade by main products

Legend:
- All food items
- Agricultural raw materials
- Fuels
- Manufactured goods
- Ores, metals, precious stones and non-monetary gold
- Others

X-axis labels: 2003-2007, 2013-2017, 2003-2007, 2013-2017, 2003-2007, 2013-2017

Y-axis: 0% to 100%

Source: UNCTAD.

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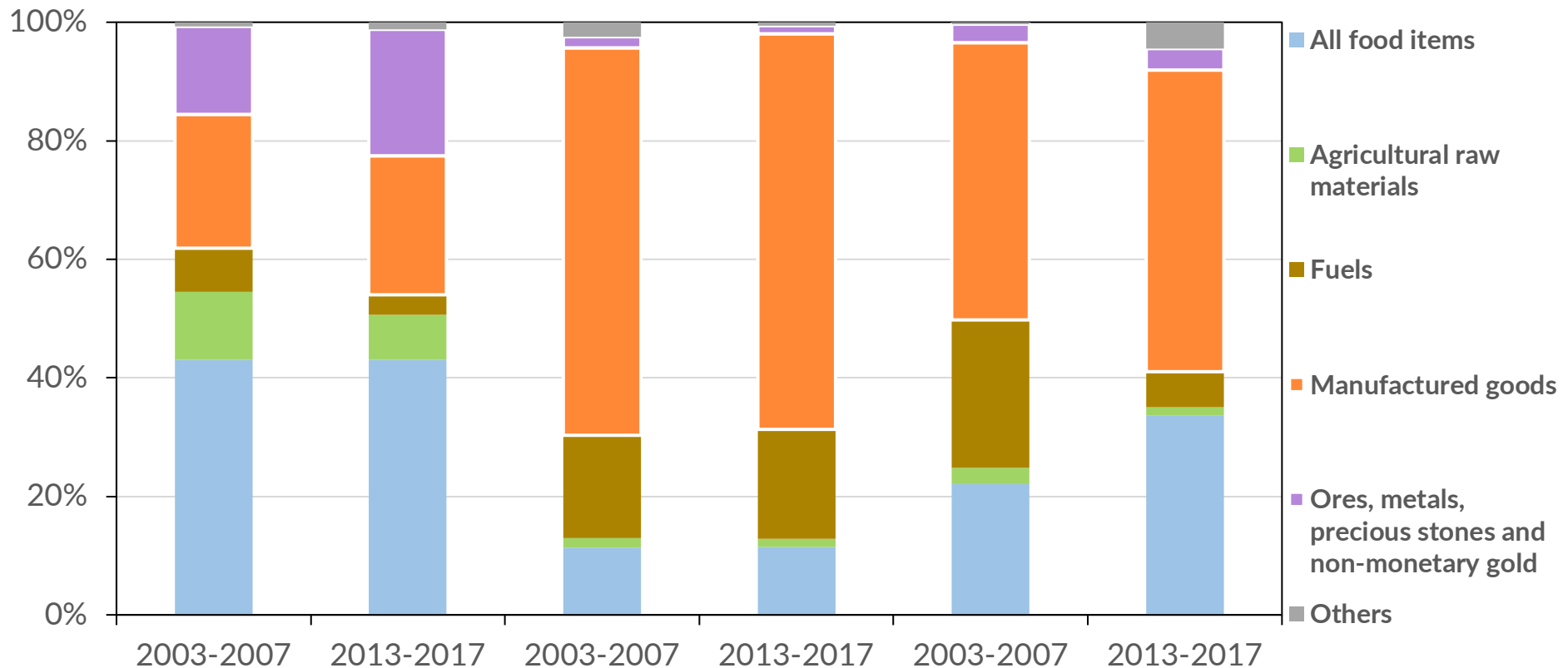
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Part III: The other side of the coin
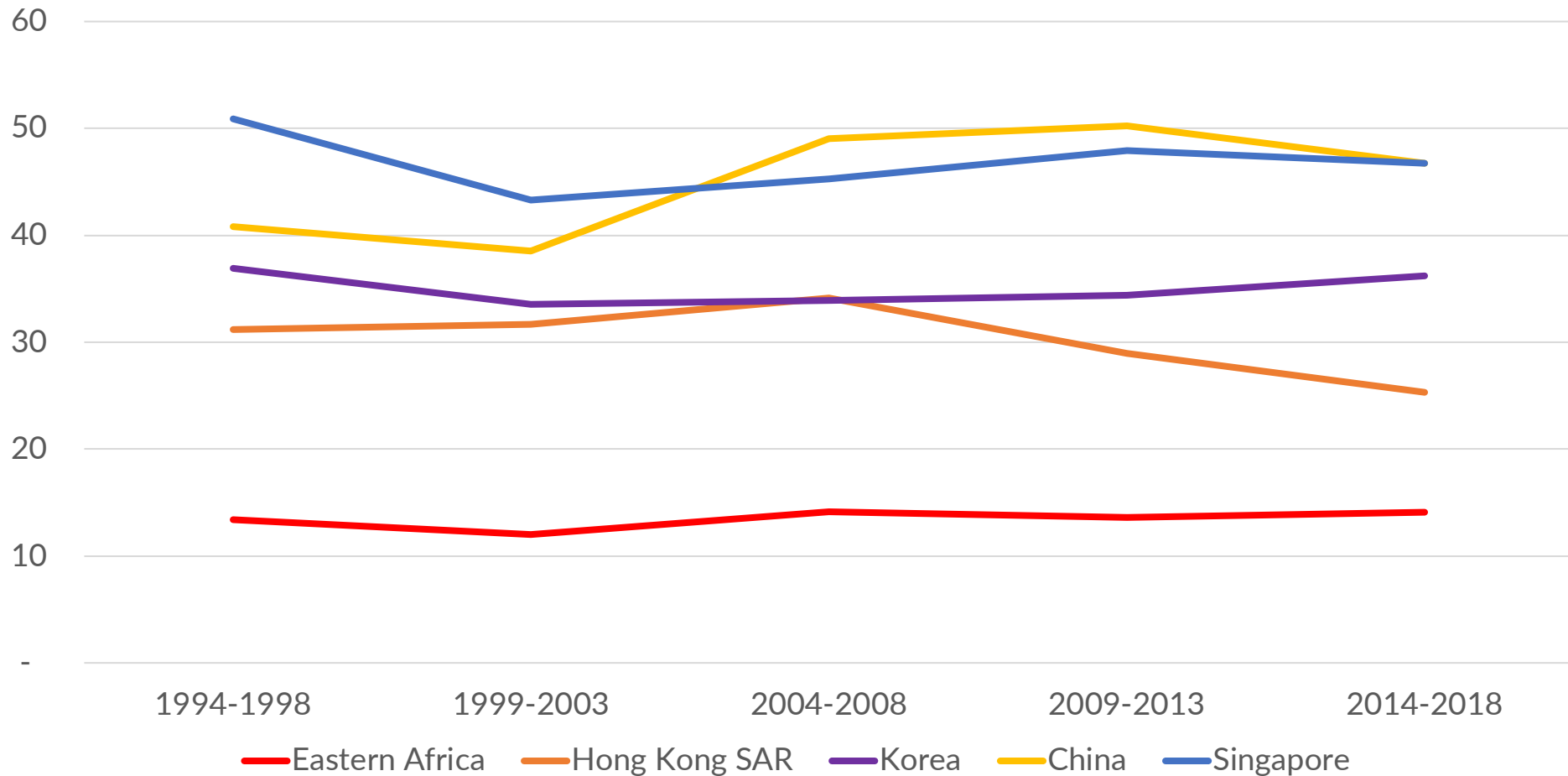
Stylized facts

...hampered by high dependency ratios?

Legend:
- Child dependency ratio in 2015
- Old-age dependency ratio in 2015
- Total dependency ratio in 2050

Countries (left to right): Uganda, D.R. Congo, Somalia, Tanzania, Burundi, Eritrea, South Sudan, Ethiopia, Africa, Madagascar, Kenya, Rwanda, Comoros, Djibouti, World, Seychelles
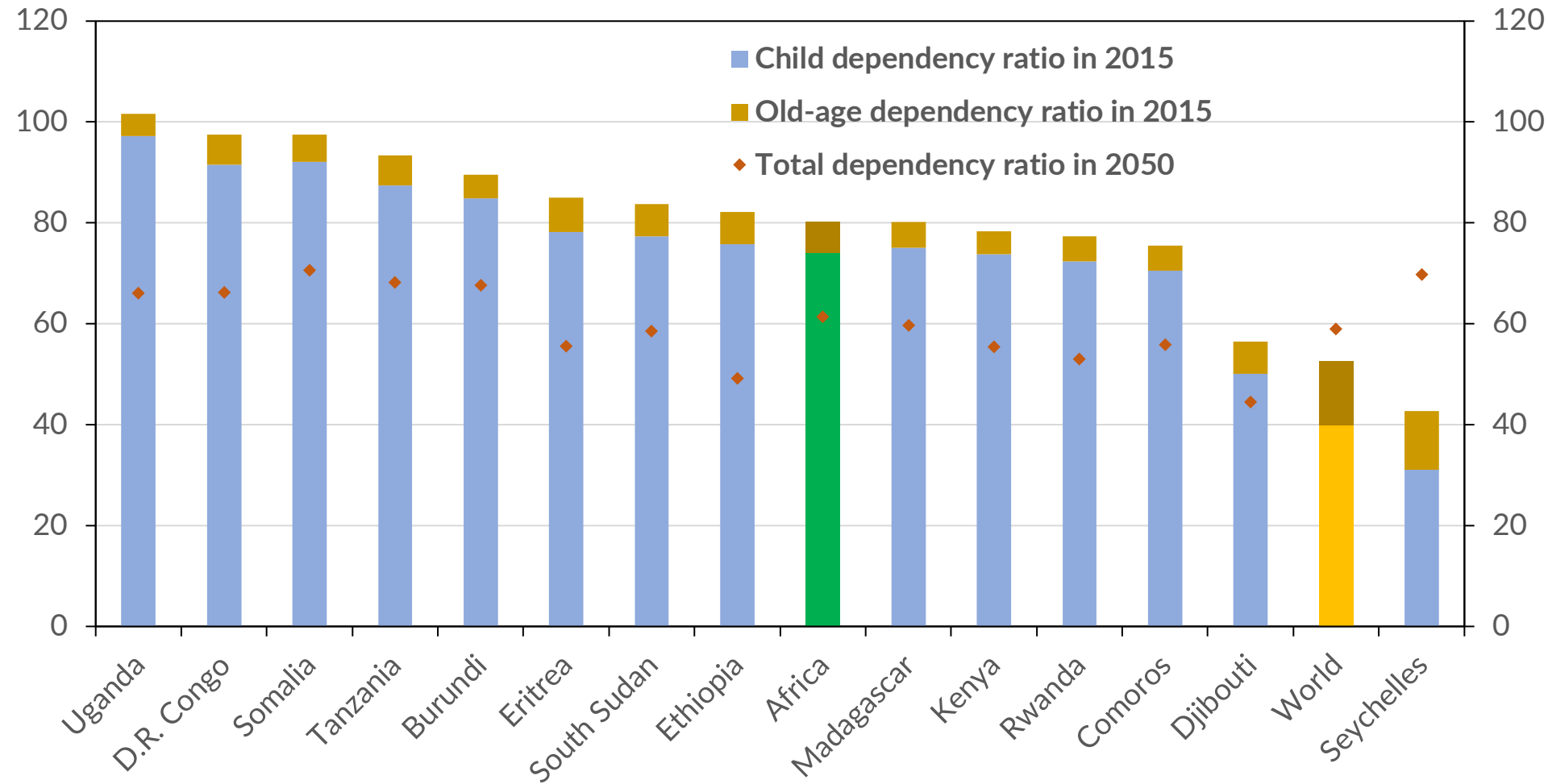
Source: UNDESA

Stylized facts

Investment increasing despite low savings

Total investment (% of GDP) Gross national savings (% of GDP)

Source: IMF

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Stylized facts

FDI on the rise...

(US$ billion)

Source: UNCTAD

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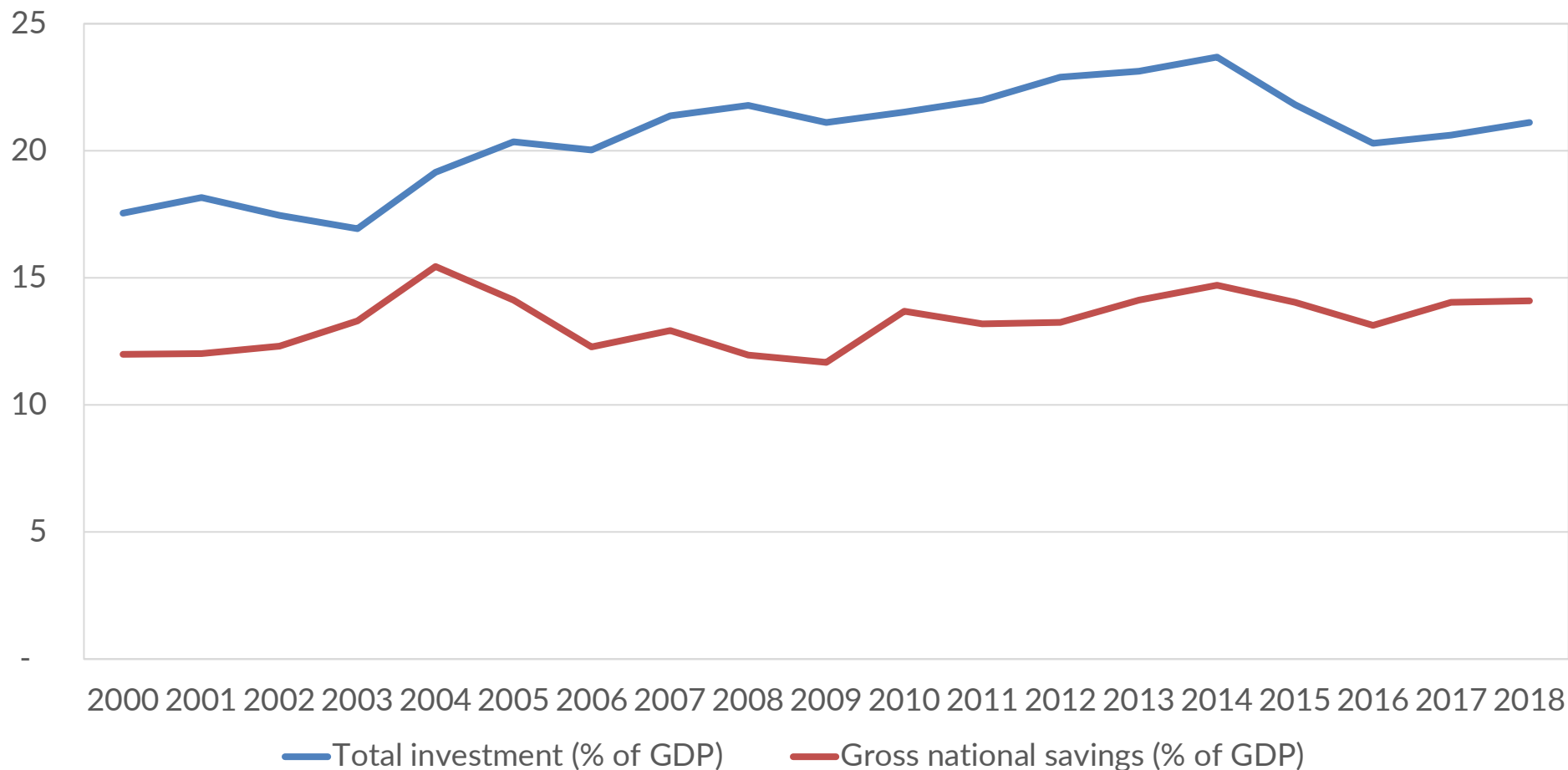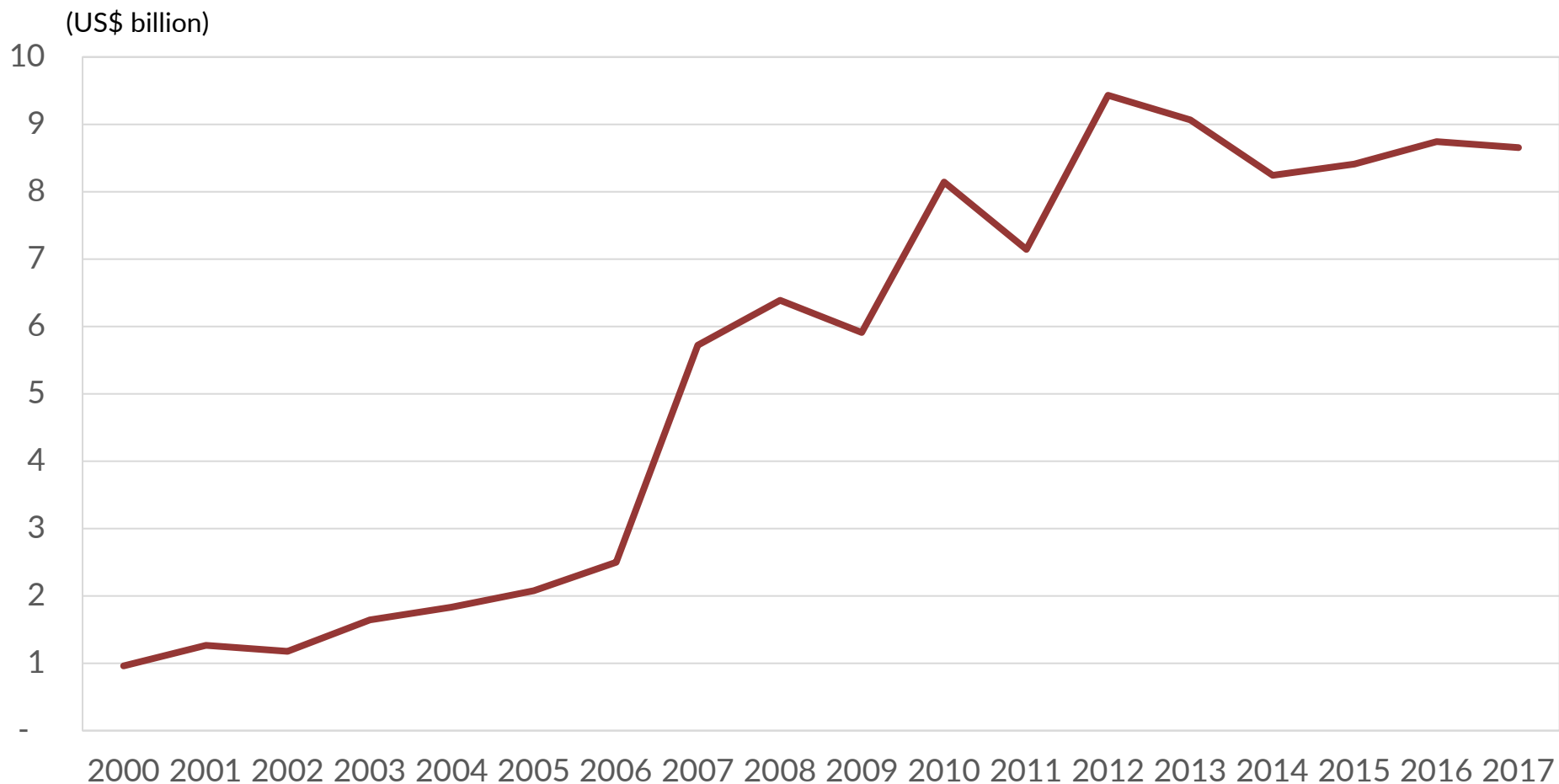
Stylized facts

Among the leading investment destinations

Top 15 countries by FDI projects, 2017

		2016	2017	Change in Rank vs. 2016	Share (2017)	% Change
	South Africa	139	96	-	13%	-31%
	Morocco	81	96	+1	13%	19%
	Kenya	40	67	+3	9%	68%
	Nigeria	51	64	+1	9%	25%
	Ethiopia	16	62	+7	9%	288%
	Egypt	79	56	-2	8%	-29%
	Ghana	28	43	+1	6%	54%
	Tanzania	22	35	+1	5%	59%
	Algeria	17	24	+2	3%	41%
	Cote d'Ivoire	34	23	-3	3%	-32%
	Uganda	9	14	+6	2%	56%
	Zimbabwe	7	13	+7	2%	86%
	Rwanda	11	12	+2	2%	9%
	Mozambique	15	11	-1	2%	-27%
	Zambia	13	11	-	2%	-15%
	Others	114	91	-	13%	-20%
	Total	**676**	**718**		**100%**	**6%**

Source: EY

Stylized facts

... ODA still an important source of inflow
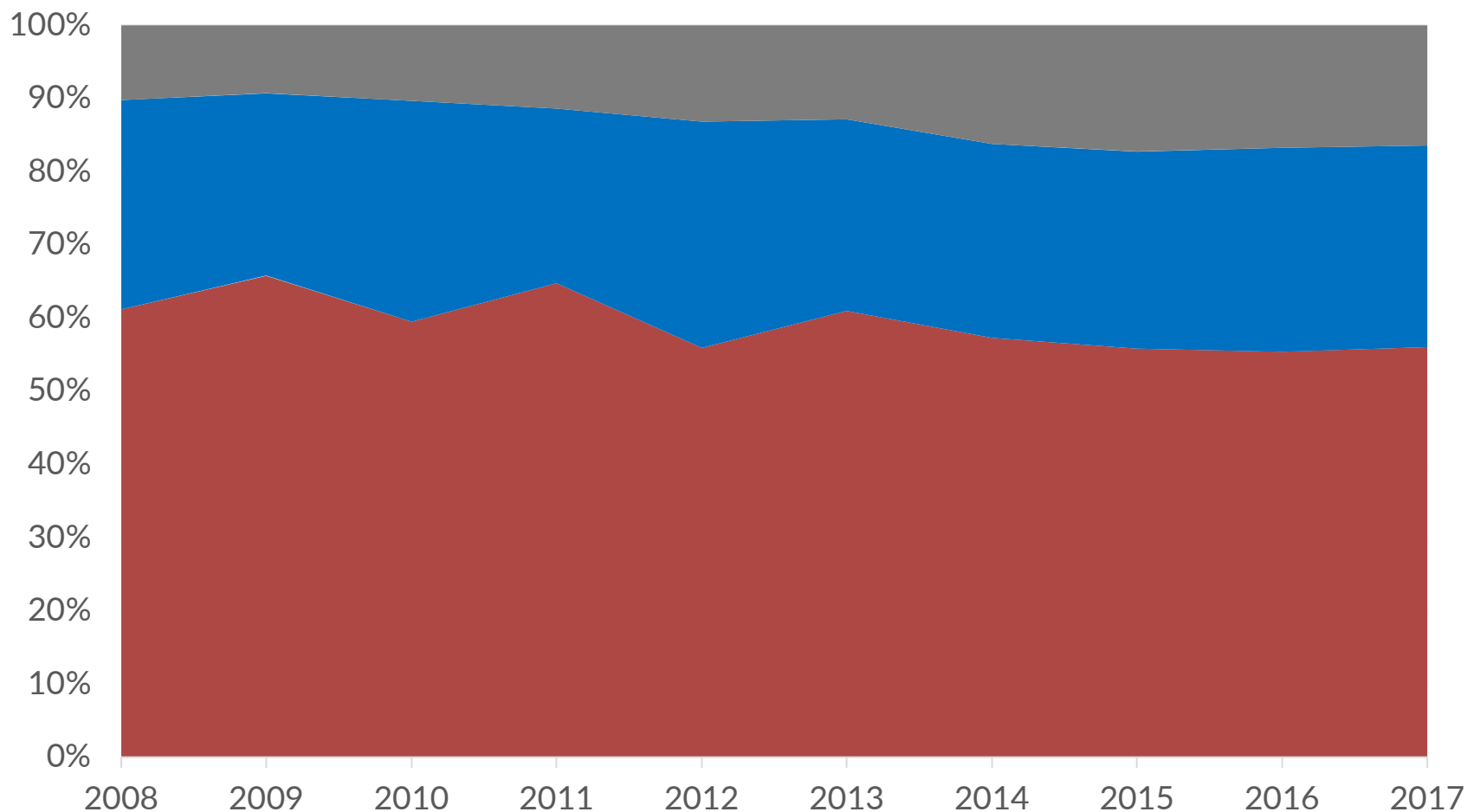
Source: WDI

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Why care about capital flows?

- Macroeconomic effects:

- ➢ Real effective exchange rate appreciation

- ➢ Stifles manufactured exports

Source: WDI

Conclusions

- Region's growth potential is negatively affected by sustained trade deficits – in some cases, quite seriously so.

- Trade deficits are driven by weak productive capacities on the export side, as well as high consumer demand for imports. Breaking that cycle is no easy task.

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- More research is required into the ultimate determinants of the trade performance in the region:

  - ➢ Distributional questions – who is driving the large import bills?

  - ➢ Why are there few export 'success stories' in the region?

  - ➢ What are the key bottlenecks in developing productive capacities?

  - ➢ Why are savings rates so persistently low, despite faster economic growth?

▪ The implications of the AfCFTA for the balance of payments.

In aggregate, it is not a tool to improve the trade balance over the short-to-medium term – but by the creation of intra-continental value-chains and the building up of productive capacities, contribute to a longer-term solution?

Thank You!

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