

INTRA-AFRICA TRADE IN SERVICES AND THE PROSPECTS OF AfCFTA

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Presentation Outline

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- Progress in services negotiations 5 priority service sectors and Schedules on specific commitments for 7 additional sector
- Thus accessing the potential benefits of AfCFTA on intra-services is a key agenda that can be through projecting the future (simulation methods) or at present

Study focus

- Study projects the potential benefits of AfCFTA by examining the performance of intra-Africa trade in services under the General Agreement on Trade in Services (GATS)

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- 1-digit level classification has **12 major service export sectors** which are further disaggregated into **27 sectors** at 2-digit level and **66 sectors** at 3-digit level

⇒ We adopt one-digit level classifications for **total services** & **8** service export sectors

Why should we draw attention to services trade?

- Technology, infrastructure, connectivity and focus on services trade policy have placed services at the center of world Commerce
- Service-led growth has been observed in developing countries too
- Service exports have grown ten-fold in developing countries since 1990 which is double the growth in the developed world (Loungani et al., 2017)
- Pre-mature deindustrialization in developing countries

Motivation for focusing on Africa's intra-Africa trade in services

- Despite the steady rise in services sector contribution to GDP in most African countries intra-services trade is still low
- Need to tap into the potential of intra-Africa trade in services especially through the opportunities created with the establishment of AfCFTA
- Opportunity in AfCFTA's approach to negotiate Trade in goods and trade in Services concurrently

Objectives

- To establish the determinants of trade in Services within Africa particularly the role of GATs

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- To determine the role of trade facilitation
 - Soft infrastructure - Regulatory policies and procedures governing services trade
 - Hard infrastructure - Mobile subscriptions and internet access etc.

Data

Variable	Definition	Description	Source
Dependent			
<i>Service</i>	Categories of services	Includes, separate services in USD millions: Total; Travel; Transport; Financial; Insurance; Telecommunication; Other Business Services, Construction; Personal, Cultural and Recreational services	OECD
Independent			
<i>GATS</i>	General Agreement on Trade in Services	Dummy if a country is a signatory to GATS	Hofmann et al. (2017; 2019)
<i>TZD</i>	Time Zone Differences	Difference in hours between capitals of COMESA countries and their partners	CEPII database
<i>D</i>	Distance	Bilateral distance (kilometers) between capitals of COMESA countries and their partners country	CEPII database
<i>CL</i>	Common language	Dummy if a partner has a common language with a COMESA country	CEPII database
<i>CC</i>	Common Currency	Dummy if a partner has a common currency with a COMESA country	CEPII database
<i>CONT</i>	Contiguity	Dummy if a partner has a common border with a COMESA country	CEPII database
<i>GDPO</i>	GDP origin	Natural logarithm of GDP (Current) (USD millions) for COMESA countries	CEPII database
<i>GDPD</i>	GDP partner	Natural logarithm of GDP (Current) (USD millions) of an importer	CEPII database
<i>Goods</i>	Trade in goods	Natural log of total bilateral trade in goods between COMESA countries and their partners in Africa (USD millions)	WITS
<i>TFIS</i>	Trade facilitation in services	Dummies for competition policy and labour market regulation. Regulatory quality index ranges from -2.5 (weak regulation) to 2.5 (strong regulation). Mobile subscriptions, Fixed telephone subscriptions, Broadband subscriptions & Internet access.	Hofmann et al. (2017; 2019) and WGI

Note: OECD is OECD-WTO Balanced Trade in Services Statistics; WITS is World Integrated Trade Solution database and WDI is World Development Indicators. Data for all variables is from 1995 to 2019

Empirical Model

- Employ a PPML estimator of the gravity model

$$\sum_{ab} [T_{ab} - \exp(\ln\gamma + \alpha\ln Y_a + \beta\ln Y_b - \delta\ln D_{ab} + \theta Z_{ab} + \ln\varepsilon_{ab})] X_{ab} = 0$$

- T_{ab} represents value of trade flows between country a and b
- Y_a is the GDP of country a (exporter)
- Y_b is the GDP for country b (importer)
- D_{ab} is the distance between the two countries
- $\gamma, \alpha, \beta, \theta$ are parameters to be estimated
- Z_{ab} includes additional covariates together with multilateral resistance terms
- ε_{ab} is the error term and $X_{ab} = [1, \ln Y_a, \ln Y_b, \ln D_{ab}, Z_{ab}]$
- $\ln\gamma, \alpha, \beta, \delta, \theta$ are obtained by running a Poisson regression model of services exports

Preference of PPML over a log-linearized OLS

- Assumes a non-negative integer or count dependent variable unlike OLS that omits zero bilateral trade values upon log-linearization because the natural logarithm of zero is undefined
- Besides handling the problem of heteroscedasticity and zero flows, the PPML approach is also available in many econometric software (like Stata which is used in this study)
- Also avoids Jensens inequality bias and does not suffer from the problem of equidispersion that assumes identical mean and variance of the dependent variable

Summary Statistics results

- Trade among the 51 African countries (1995-2019)

Variable	N	Mean	Std. Dev.	Min	Max
Services (US\$ million)					
Total	61,250	2.5	11.4	0.0001	542
Construction	61,250	0.173	2	0	116
Financial	61,250	0.024	0.322	0	20.3
Insurance	61,250	0.013	0.195	0	14.1
Other business services	61,250	0.296	2.05	0	102
Personal, cultural, and recreational	61,250	0.0083	0.104	0	7.39
Telecommunication	61,250	0.0279	0.266	0	12.7
Transport	61,250	0.802	3.66	0	157
Travel	61,250	0.888	6.33	0	372

Note: Intra-Africa trade was **2.1%** on average. Intra-regional trade in services within Africa is strong among North African countries followed by West and East African countries respectively.

PPML Gravity Regression Results (by service)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variable	Total	Travel	Transport	Telecommunication	Construction	Financial	Insurance	OBS	PCR
GATS	0.252* (0.135)	0.397* (0.216)	0.511*** (0.134)	0.367*** (0.136)	-0.240 (0.151)	0.528* (0.287)	-0.728*** (0.153)	0.342*** (0.124)	0.794 (0.627)
GDP	0.591*** (0.045)	0.756*** (0.048)	0.557*** (0.042)	0.645*** (0.087)	0.713*** (0.074)	0.616*** (0.079)	0.435*** (0.119)	0.391*** (0.049)	0.509*** (0.080)
Distance	-0.784*** (0.168)	-0.788** (0.322)	-2.928*** (0.107)	0.489*** (0.141)	-2.640*** (0.091)	0.235 (0.262)	-0.549*** (0.212)	-0.462*** (0.166)	-0.682 (0.563)
Time Zone Difference	0.146* (0.089)	0.230 (0.166)	-3.596*** (0.302)	1.657*** (0.344)	-3.515*** (0.265)	0.315** (0.155)	-2.025*** (0.148)	0.064 (0.095)	6.691*** (0.395)
Common currency	0.296* (0.155)	0.132 (0.305)	0.527* (0.283)	2.371*** (0.709)	0.146 (0.479)	1.811*** (0.565)	-0.230 (0.626)	0.600*** (0.213)	1.657*** (0.403)
Contiguity	0.190 (0.159)	0.694*** (0.214)	-2.981*** (0.363)	5.824*** (0.514)	-6.633*** (0.402)	1.239** (0.486)	-1.264*** (0.255)	0.379 (0.232)	13.304*** (0.585)
Common language	0.431*** (0.106)	0.669*** (0.153)	-1.486*** (0.050)	1.998*** (0.283)	-2.090*** (0.237)	0.094 (0.239)	2.085*** (0.414)	0.206* (0.118)	8.114*** (0.338)
Goods	0.086*** (0.032)	0.020* (0.010)	0.033*** (0.008)	0.039*** (0.012)	0.033*** (0.012)	0.119*** (0.021)	-0.006 (0.020)	0.123*** (0.026)	0.002 (0.020)
Constant	-25.595*** (2.006)	-30.285*** (2.729)	-2.863*** (1.054)	-41.485*** (2.684)	-0.745 (2.061)	-36.608*** (4.523)	-33.153*** (2.916)	23.097*** (1.829)	-31.452*** (6.726)
Observations	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250	61,250
R-squared	0.913	0.897	0.874	0.857	0.879	0.932	0.776	0.902	0.871

Note: Standard errors are in parentheses. Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OBS means Other Business Services; Personal means Personal, Cultural and Recreational services. All models have pair fixed effects.

PPML Gravity Regression Results (by trade facilitation indicator)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Variable	Total	Travel	Transport	Telecommunication	Construction	Financial	Insurance	OBS	PCR
Competition policy	0.498*** (0.124)	0.591*** (0.160)	-0.044 (0.210)	0.227 (0.256)	1.105** (0.534)	1.147*** (0.199)	0.723*** (0.239)	0.734*** (0.224)	1.689*** (0.476)
Labour Regulation	0.205 (0.154)	0.200 (0.192)	0.238* (0.137)	0.099 (0.285)	0.311 (0.522)	-0.017 (0.354)	0.649* (0.349)	-0.049 (0.436)	1.233* (0.669)
Cultural cooperation	-0.199 (0.169)	-0.085 (0.211)	0.223 (0.190)	0.068 (0.245)	-1.441** (0.692)	-0.761** (0.351)	-0.330 (0.344)	-0.789** (0.374)	-0.188 (0.646)
Regulatory quality origin	0.698*** (0.101)	1.128*** (0.159)	0.327*** (0.094)	0.497*** (0.157)	0.216 (0.331)	0.808*** (0.224)	0.010 (0.248)	0.880*** (0.152)	0.822*** (0.232)
Mobile subscriptions	0.001 (0.001)	0.000 (0.002)	-0.000 (0.001)	0.003** (0.001)	0.002 (0.003)	0.002 (0.002)	-0.003 (0.003)	0.001 (0.001)	0.006** (0.003)
Fixed telephone subscriptions	0.067*** (0.008)	0.081*** (0.011)	0.045*** (0.009)	0.057*** (0.015)	0.118*** (0.019)	0.062*** (0.013)	0.003 (0.021)	0.059*** (0.012)	0.071*** (0.019)
Broadband subscriptions	0.152*** (0.030)	0.185*** (0.045)	0.086*** (0.024)	0.177*** (0.036)	0.286*** (0.040)	0.138*** (0.038)	0.028 (0.046)	0.102*** (0.032)	0.143*** (0.043)
Internet access	0.020*** (0.004)	0.025*** (0.006)	0.015*** (0.003)	0.028*** (0.004)	0.017** (0.008)	0.162*** (0.054)	0.024 (0.096)	0.016*** (0.006)	0.023*** (0.008)

Note: Standard errors are in parentheses. Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. OBS means Other Business Services; Personal means Personal, Cultural and Recreational services. All models have pair fixed effects. **Services Trade Restrictiveness Index (STRI) data limited for most countries in Africa**

Insights

- Hard indicators of trade facilitation improve trade in services within Africa compared to soft factors
- Services-specific policy, for instance the protocol on trade in services in the AfCFTA, is likely to boost intra-African trade in services

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Thank You