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**Cross-country Data
Analysis of Services Trade
– Data Availability and
Harmonization in
West Africa**

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Cross-country Data Analysis of Services Trade – Data Availability and Harmonization in West Africa

Introduction

Services are playing an increasingly important role both in developed and developing economies. The sector accounts for about half of the GDP and employment in developing countries and it is also the fastest-growing component of international trade. Global international trade in services has tripled over the last 12 years although it still only accounts for about one-fifth of total world trade. Services have a significant impact on growth and efficiency in other sectors of the economy and facilitate overall economic performance. With the development of ICT, e-services is becoming an important source of revenue for a number of developing countries and is also contributing to trade facilitation. ICTs both globalize and localize services by fragmenting some services, but also allowing the creation of new customized services to meet local needs. Trade in services is expected to increase over the coming years because the share of services in consumption tends to rise with the level of income and development. With the necessary reforms and investments the services sector can be an important sector for growth for many African countries.

This paper describes the definition and concepts of trade in services, the sources and methods of measuring and tries to capture the importance of the sector in West Africa, recent trends and prospects for its development. The paper is organized as follows: Section I provides an overall view of the statistical framework for measuring trade in services. Where possible, references are made to West Africa and countries of the region. Section II gives an overview of the West African region and looks at the recent trends in trade in services and

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the state of infrastructure in the region given its critical role in facilitating trade in goods and services.

Statistical Framework for measuring trade in services

Definition of Services

The service sector comprises a variety of highly heterogeneous economic activities. Services can be classified into distributive services (wholesale and retail, transportation and communications), producer services (advisory, legal services, banking and finance), social services (health and education), and personal services (hotels and catering). The GATT's Uruguay Round provides the legal concept of services for international trade rules.

The 2008 System of National Accounts (SNA) defines services as follows: Services are the result of a production activity that changes the conditions of the consuming units, or facilitates the exchange of products or financial assets. These types of services may be described as change-effecting services and margin services, respectively. Change-effecting services are outputs produced to order and typically consist of changes in the conditions of the consuming units realized by the activities of producers at the demand of the consumers. They can also be referred to as "transformation services". Margin services result when one institutional unit facilitates the change of ownership of goods, knowledge-capturing products, some services or financial assets between two other institutional units. Margin services are provided by wholesalers and retailers and by many types of financial institutions. Both change-effecting services and margin services are not separate entities over which ownership rights can be established. They cannot be traded separately from their production. By the time their production is completed, they must have been provided to the consumers.

Statistical framework and classifications

National accounts provide the framework for measuring major macroeconomic aggregates such as value added by various sectors of the economy, including the various components of the services sector. The Uruguay Round of Negotiations managed to bring international trade in services under common multilateral

rules. The WTO General Agreement on Trade in Services (GATS) is the first set of multilaterally negotiated and legally enforceable rules covering international trade in commercial services. Trade in services covers four modes of supply:

- **Mode 1:** Cross-border supply, where the service consumer is in his country of residence, while the service supplier is outside the country of the consumer; for example: transportation services, internet-based trade.
- **Mode 2:** Consumption abroad, where the service consumer moves outside his home territory and consumes services in another country; for example: tourism, education overseas.
- **Mode 3:** Commercial presence, where the service supplier establishes, through foreign direct investment, an enterprise in the territory of the consumer and supplies the service to the consumer; for example, where services offered by foreign-owned banks.
- **Mode 4:** Temporary movement of natural persons, where an individual who is either self-employed or working on behalf of his employer moves to the territory of the consumer to provide the service; for example: services provided by an on-site engineer.

Table 1 provides the correspondence between the modes of supply and the various statistical domains.

The Manual on Statistics of International Trade in Services (MSITS) 2010 provides a detailed and comprehensive system for the measurement of services trade. The conceptual framework of MSITS 2010 is not only built around the requirements of GATS negotiations, but also on the concepts defined in the System of National Accounts (SNA) and the Balance of Payments Manual (BPM) and those related to Foreign Affiliates Statistics (FATS).

Table 1: Correspondence between the value of trade by modes of supply and statistical domains

Modes of Supply	Statistical domains	Inadequacies
Mode 1: Cross-border supply	<ul style="list-style-type: none"> BOP: Commercial services (excl. travel, manufacturing services, repair, construction and part of transport) 	<ul style="list-style-type: none"> No distinction between modes of supply
Mode 2: Consumption abroad	<ul style="list-style-type: none"> BOP: Travel, manufacturing services, repair and part of transport 	<ul style="list-style-type: none"> Travel: Contains goods and not divided into types of services Other items: No distinction between modes of supply
Mode 3: Commercial presence	<ul style="list-style-type: none"> FATS BOP: Construction 	<ul style="list-style-type: none"> Very few countries produce FATS Construction: No distinction between Modes 3-4
Mode 4: Presence of natural persons	<ul style="list-style-type: none"> BOP: Commercial services (excl. travel) 	<ul style="list-style-type: none"> No distinction between modes of supply

Source: WTO

Balance of Payments

The MSITS 2010 statistical framework as it relates to resident/non-resident transactions is based on BPM6, which contains among other things; recommendations, definition, valuation, classification and recording of resident/non-resident trade in services. BPM6 is a primary source of statistical guidance on international trade in services, international investment transactions and economic flows associated with the movement of workers. Extensions to BPM6 are developed in MSITS 2010 which provides for a more detailed treatment of

service transactions between residents and non-residents by product category and by trading partner.

The balance of payments summarizes the transactions of an economy with the rest of the world. BPM6 statistics are arranged within a coherent structure to facilitate their use and adaptation for various purposes. It comprises the current account, the capital and financial account. The current account records flows of goods, services, income and current transfers. Services are further broken down into 12 components:

1. Manufacturing services on physical inputs owned by others.
2. Maintenance and repair services (not included elsewhere)
3. Transport.
4. Travel.
5. Construction.
6. Insurance and pension services.
7. Financial services.
8. Charges for the use of intellectual property (not included elsewhere).
9. Telecommunications, computer and information services.
10. Other business services.
11. Personal, cultural and recreational services.
12. Government goods and services (not included elsewhere).

For analysis purposes, more details are needed than the BPM6 classification. MSITS 2010 has introduced the Extended Balance of Payments Services Classification (EBOPS) 2010, a disaggregated subsystem of the BPM6 services classification. EBOPS 2010 contains main categories that are identical to the 12 major BPM6 standard services components, as well as further details that are consistent with BPM6. Most services delivered under Mode 3 and Mode 4 are not well covered or identified, although some indicators are quite useful such as foreign direct investment for Mode 3.

Foreign Affiliates Statistics (FATS)

The international delivery of a number of services requires close contact between producers and consumers, which is often achieved through locally established affiliates (Mode 3: commercial presence). However, because foreign-controlled affiliates are resident entities in their host countries, their sales in these countries are not captured in the BOP, which only records transactions between residents and non-residents. FATS measures the activity of foreign affiliates and allows the compilation of these transactions. FATS are useful to understand the phenomenon of globalization. Most of the variables for FATS are drawn from SNA 2008. FATS variables are classified as a first priority on an activity basis, by their primary activity, according to ISIC Categories for Foreign Affiliates in services (ICFA Rev.1).

Data sources and methods

In the context of defining and implementing economic policy at country, sub-regional and regional level, it is important to compile data on international trade in goods and services. While the framework and compilation of data on trade in goods is well-advanced in most countries of the region, for services trade it still needs to be improved. Data on services is compiled in the context of the national accounts and balance of payments, while household surveys provide some data on employment in services.

The compilation of balance of payments statistics draws from two main sources: the International Transactions Reporting System (ITRS) and enterprise surveys. Others sources such as surveys of travelers and household expenditure surveys, official sources and government transactions are used to complement these sources. The ITRS is a data collection system in which international payments channeled through domestic banks are reported to the central bank together with additional information on the specific services for which the payments are made. Domestic banks act as intermediaries and report on their customers' international settlements. This is supplemented by direct reporting of transactions settled outside the domestic banking system. The advantage of the system is that it provides comprehensive and timely BOP statistics and

involves a relatively small number of reporters. The main difficulty is reporting on the type of service which leads to misclassifications.

Enterprise surveys can constitute a source of statistics on international trade in services. Data is collected through surveys of representative samples of international transactions. The quality of the data depends on techniques used for the sampling, questionnaire design and processing as well as the quality of the business register. Some countries like the USA and the UK use a system of enterprise surveys while some others use ITRS. Most countries use a combination of both.

Within the West Africa region, each country has its own practices, sources and methods, which are documented in the metadata and is available from the GDDS web site of the IMF. Data on trade in services is usually published at part of the balance of payments statistics at varying levels of breakdown of services. Although BPM6 has been published, the available statistics are still based on the BPM5 which is used by most of the countries of the region. In the case of Cote D'Ivoire, the compilation of data on trade in services draws mainly on data collected from a range of questionnaires and surveys of the main economic operators (enterprises, international organizations, administrations). The framework of these questionnaires distinguishes between transactions with France, with the other WAEMU countries, and with other countries. In Nigeria, the BOP data are compiled from data provided by the banking system i.e. the ITRS system.

For transportation all countries estimate freight and insurance as a percentage of the cost, insurance and freight (c.i.f.) value of imports, which is obtained from customs. The coefficient is usually based on a survey of customs declaration forms and varies by country. Nigeria applies a coefficient of 10%; Ghana applies a rate of 9 % of total c.i.f. value of all non-oil imports and 2.4 % of oil import c.i.f. value; in Gambia freight is estimated as 12.4 % of imports and insurance at 1.9 %. Estimated for 'other transportation' are based on data from the airport and port authorities while estimates for other services are based on surveys and in some cases benchmark data is extrapolated in line with import values.

Harmonization of the data on trade in services can be achieved when all countries in the region use the same system based on international standards and classifications. Countries of the WEAMU use the same methodology; BPM5 and the data are harmonized. BOP are compiled both at the national

level for each country and at the regional level for WEAMU. The next step is to move to the most recent norms and standards. Most of the other countries of the region are using BPM5, while some like Ghana are still using BPM4. As the countries of the region adopt and implement BPM6, the data will be better harmonized. However additional effort is necessary on the sources and methods so as to improve the coverage and quality of the data. Although countries tend to use common concepts and definitions, each system has its own strengths and weaknesses and the quality of the statistics varies across countries. The analysis of discrepancies between countries' statistics and mirror data from partner countries provides useful information on the discrepancies and the quality of the data.

At the international level, data on trade in services for African countries, including those in West Africa, can be accessed from a number of sources:

- IMF Balance of Payments Statistics database
- UN Service Trade database, available at: unstats.un.org/unsd/ServiceTrade/default.aspx)
- WTO's International Trade Statistics, available at: www.wto.org/English/res_e/statis_e/statis_e.htm

However there is a time lag for data to be available in the international databases, and many countries do not provide the full breakdown by type of services.

Statistics by trading partner

Detailed breakdown of the data on trade in services by country, types of services supplied and consumed, and country of residence of trading partners are important for various analytical purposes. The data is useful for showing developments in trends and patterns of trade for different types of services. It also provides a reliable basis for the multilateral and bilateral trade in services negotiations carried out under the GATS. Furthermore, bilateral comparisons with trading partner statistics using "mirror statistics" constitute an important tool for reconciling differences and contributing to improved data quality. In this

context harmonization and use of standard classifications and definitions and a common geographical basis for all trade in services data is critical.

MSITS 2010 recommends that statistics on international trade in services be compiled on an individual trading partner basis, at least at the level of the 12 major components of the BPM6 classification of services, and where possible, at the more detailed EBOPS 2010 level. However, compiling statistics by trading partner is resource-intensive and may be difficult in some circumstances due to issues related to disclosure and incompleteness of information. Compilers are recommended to compile those statistics identified as most relevant to their economies at a detailed partner economy level.

Improving Trade in Service Statistics in West Africa

The 2008 SNA, the Balance of Payments 6th edition (BPM6), ISIC Rev.4 and CPC Version 2, now set out the fundamental framework that serves as the basis for reliable and comparable services statistics, including trade. Most countries of the region are still using BPM5 and very few of them report the full BPM5 requested details. With the adoption of these frameworks it is expected that countries begin compiling data according to new standards in the near future. MSITS 2010 proposes a phased approach to implementation so that countries, can implement developments gradually. The successful implementation of the new international standard framework depends upon and can be facilitated by a number of factors such as: the allocation of the necessary resources by government; effective technical assistance from international and regional economic communities; and the organization of regional technical and training workshops for compilers of these statistics. Co-operation and co-ordination between national institutions such as Central Banks, National Statistical Offices, customs, and Ministries of Trade is critical. These institutions collect and manage a wide range of data on trade in services which can be shared and used for reconciling and improving data quality. Data collected from ITRS systems needs to be complemented with other sources such as official government sources, and sample surveys of at least the large enterprises and in this regard it is important to develop and maintain up-to date business registers. International and regional institutions need to collaborate and join their efforts to support national initiatives to improve the compilation of trade in services. In this regard UNCTAD is cooperating with the African Development Bank to improve

statistics on trade of goods and services, foreign direct investment and further breakdowns by partner countries. Within West Africa, WEAMU and UNCTAD have agreed to undertake a project to put in place a system for statistics on trade in services based on international standards. The objective is to build country capacity to compile this data and constitute a regional database on trade on services for the region. The data will be useful for comparative and impact analyses. The activities to be undertaken include: training of country staff, the setting up of a permanent structure for data collection processing and dissemination, and undertaking pilot surveys to identify capacity building needs.

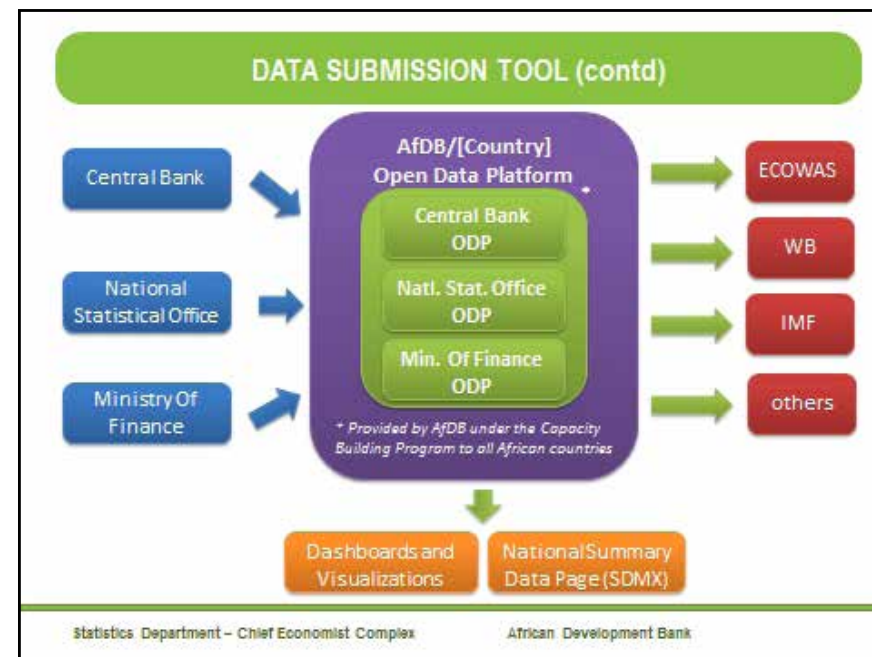
Dissemination of statistics on trade in services is also critical, so that it is easily available to policy makers, researchers and the public in general. The data needs to be up-to date and sources and methods well documented in the metadata. Data available at the national level also needs to feed easily into regional and international databases. As has been highlighted earlier, data available at the regional/international level is not sufficiently updated and documented as that published at the international level. The data also needs to be standardized.

In 2012, the African Development Bank (AfDB) launched the Africa Information Highway (AIH) to facilitate data dissemination and access on the continent. Data Portals have been installed at the national statistical offices (NSO) in most African countries. Open Data Platforms have been installed in all NSOs and is now being extended to the Central Banks. The AIH initiative involves establishing live data links between the AfDB and regional member countries' (RMCs) national statistical offices, central banks, and line ministries on the one hand (country data), and development partners, international organizations and other users including the general public on the other. This arrangement will facilitate data exchange, validation, analysis, and dissemination among all stakeholders. The system incorporates a Data Submission Tool that will facilitate direct reporting of country data to the AfDB's data portal, using common international standards and SDMX, thus positioning the AfDB as a hub for development data on African countries. With the new system in place countries upload their data once to their Opendata platform and this data is available to all institutions; the regional and international databases are automatically and regularly updated (see figure below).

The Data Submission tool has been piloted in 6 countries jointly with the IMF; another 6 countries are now being covered and the objective is to extend it to all African countries. The Platform facilitates the sharing of data between

countries, regional and international institutions. It reduces the reporting burden on countries and facilitates data harmonization and the adoption of standard international classifications and standards in the region.

Figure 1: Data Submission Tool



Source: AfDB

Trends in trade in services in West Africa

Overview of the West Africa Region

The West Africa Region as defined in this note comprises 15 countries of the region. It has a combined population of 318.5 million, representing about 30% of the population of continent and a total GDP of 586.2 US\$ bn, 26.2% of Africa's GDP. Six of the countries of the region are fragile states having suffered from war or civil strife over the past years. Furthermore, three countries of the region

are land-locked and rely on neighboring countries for their access to world markets. Average per capita GDP of the region is about 1840 US\$, varying from 393US\$ in Niger to 3608 US\$ in Cabo Verde. The region is well endowed with natural resources and is a major exporter of mining and agricultural products including crude oil, aluminum, uranium, diamonds, phosphates, cocoa, coffee, rubber, and cotton.

Table 2 : West Africa - Selected Indicators 2013

	Area	Population	GDP at current prices	Per capita GDP	Trade-to-GDP ratio
	1000 km ²	millions	millions US\$	US\$	%
Benin	114.8	10.1	7.6	752.0	43.6
Burkina Faso	274.0	16.5	11.0	669.8	64.0
Cape Verde	4.0	0.5	1.8	3608.2	111.0
Côte d'Ivoire	322.5	19.8	24.7	1244.1	105.0
Gambia	11.3	1.8	0.9	526.0	76.4
Ghana	238.5	25.4	39.5	1555.5	98.3
Guinea	245.9	11.5	5.6	492.4	91.6
Guinea-Bissau	36.1	1.7	0.9	552.2	43.8
Liberia	111.4	4.2	1.8	423.3	166.8
Mali	1240.2	14.9	10.3	691.0	71.0
Niger	1267.0	17.2	6.7	393.3	68.6
Nigeria	923.8	168.8	453.8	2687.8	67.9
Senegal	196.7	13.7	14.0	1023.6	73.7
Sierra Leone	71.7	6.0	3.7	626.6	97.9
Togo	56.8	6.6	3.9	582.2	93.7
Total West Africa	5114.6	318.5	586.2	1840.6	74.5
Africa	30415.9	1071.6	2236.6	2067.3	71.5

Source: AfDB Statistics Department

Services (49.6%) constituted almost half of the GDP of the West Africa region followed by industry (26.4%) and agriculture (24.0%). The share of services in GDP has increased significantly from 32.4% in 2000 and is largely accounted for by Nigeria, particularly with the rebased national accounts data which has brought about a 60% re-evaluation of the nominal GDP and the incorporation of a number of sectors such as mobile telecommunications and other services which were not properly captured in previous estimates. Further breakdown of the services sector indicates the growing importance of transport, storage and communications, trade, finance, real estate and business services (see Table3). Industry is dominated essentially by mining and quarrying including crude oil production.

Table 3 : West Africa - Share of GDP by sector, percentage

	2000	2012
Agriculture, forestry and fishing	28.5	24.0
Industry	39.1	26.4
Mining and quarrying	27.6	14.1
Manufacturing	7.5	7.2
Electricity, gas and water	1.0	1.2
Construction	3.0	3.9
Services	32.4	49.6
Wholesale and retail trade, hotels and restaurants	13.4	16.4
Transport, storage and communication	4.1	11.3
Finance, real estate and business services	6.6	12.6
General government services	6.0	4.9
Personal services	2.4	4.3
GDP at factor cost	100.0	100.0

Source: AfDB Statistics Department

Services employ a large share of the labor force in many of the countries. In Nigeria for instance, services are the main sector of activity for 33% of the population and about two thirds of which are women. In Ghana, the services sector provides employment to 32.2% of those employed, the second most

important sector after agriculture with 52%. A survey in the capital cities of the WEAMU countries indicates that the informal sector accounts for a large share (76%) of the labor market, followed by the formal private sector (14%) and the public sector accounting for 8%.

Intra-regional trade

The region comprises a number of overlapping sub-regional groupings, the two main ones being the Economic Community of West African States (ECOWAS) and the West African Economic and Monetary Union (WAEMU). ECOWAS, grouping all the 15 countries of the region, was founded on May 28, 1975 with the adoption of the ECOWAS Treaty in Lagos. Its mission is to promote economic integration in all fields of economic activity, particularly industry, transport, telecommunications, energy, agriculture, natural resources, commerce, monetary and financial issues, social and cultural matters etc. WEAMU was created by treaty in 1994 and groups together eight countries of the region using a common currency, the CFA franc. One of the objectives of the union is to create a common market based on the free mobility of people, goods, services and capital, on the right of setting up businesses as well as a common external tariff and trade policy. In spite of these initiatives and efforts aimed at promoting regional integration not much progress has been achieved as is reflected in the level of inter-regional trade (see Table 4), although the figures do not take into account informal trade across the borders.

Table 4 : Intra.-regional trade in ECOWAs and WAEMU as % of total exports or imports

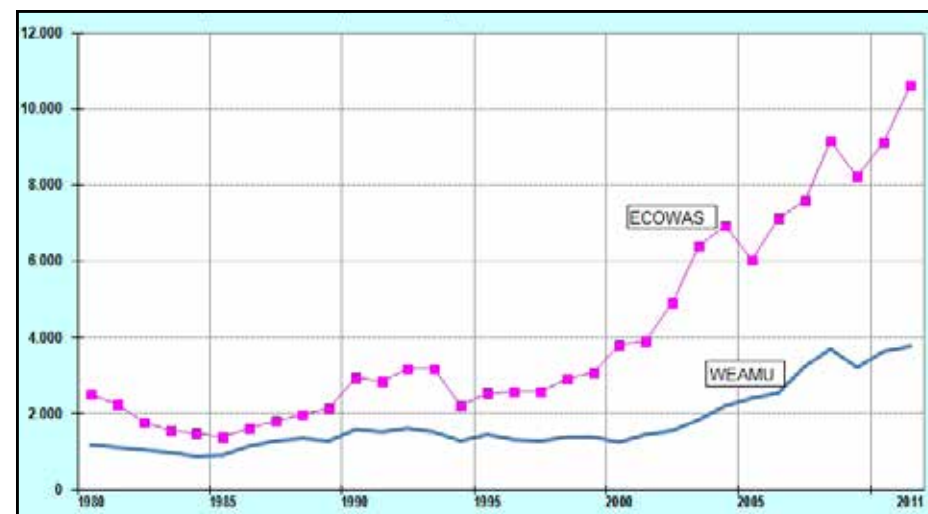
	1995	2000	2005	2012
ECOWAS				
Exports	10.3	9	9.7	7.5
Imports	8.4	12.5	13.6	10.4
WAEMU				
Exports	16.1	15.2	14.2	13.5
Imports	7.5	10.4	9.8	10

Source: UNCTADStat

Trends in exports and imports of services

Growth in exports of services was almost stagnant in the period 1980-2000, with services growing by an annual rate of 0.2% in WEAMU and 2.1% in ECOWAS (see Chart 1). The trend was much higher after 2000, growing by an annual average of 10.7% in WEAMU and slightly lower at 9.8% in ECOWAS. However, both regions were not able to keep pace with growth in exports with the rest of Africa, witnessing a decline in their share of African exports of services; the share of the WEAMU region falling from 8.8% in 1980 to 4.1% in 2011 and the share of the ECOWAS region falling from 18.7% to 11.5% during the same period.

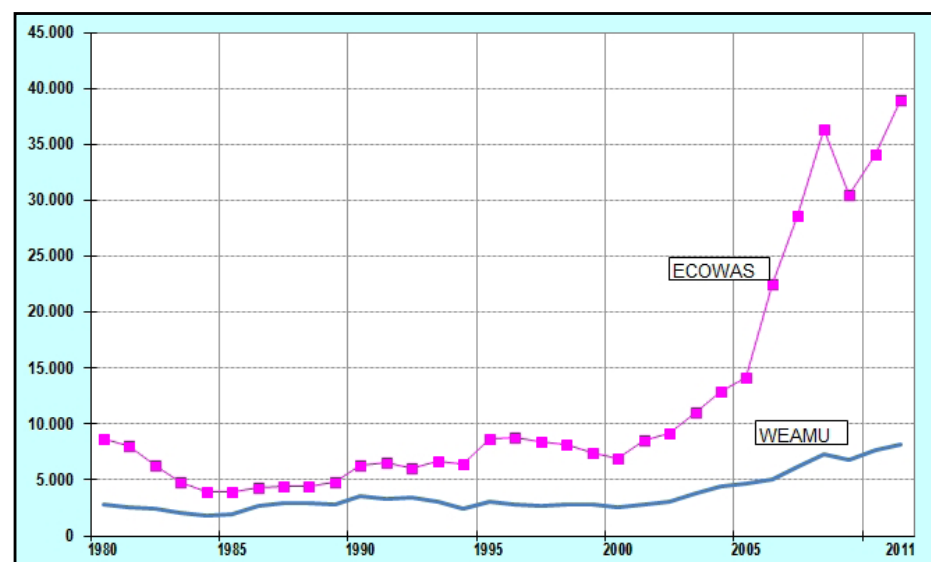
Chart 1 : West Africa exports of services (billions US\$)



Source: Author's calculations based on UNCTADStat

Imports of services followed a similar trend, almost stagnant over the period 1980-2001, and rising much more rapidly over the period 2001-2011, growing at an annual rate of 11.6% in the WEAMU region and 16.3% in the ECOWAS region (see Chart 2). However, growth of services exports was not able to keep pace with the rest of the continent. The share of the WEAMU in Africa fell from an average of 9% in the early 80's to 4.9% in 2011. ECOWAS witnessed a slower decline in its share from 29.3% to 23.1% over the same period.

Chart 2 : West Africa imports of services (billions US\$)



Source: Author's calculations based on UNCTADStat

The balance of services trade in West Africa has been constantly negative and increasing over time. The region reported a deficit in services transactions of 28.3 US\$ bn in 2011, a significant increase from 3 US\$ bn in 2000, and is second only to the central Africa region with a deficit of 37.5 US\$ bn, other regions have relatively lower deficits (Table 5). The surge in the deficit was mainly due to the huge increase of imports of services which more than quintupled over 2000-2011 while exports almost tripled. All countries of the region recorded negative services balances, with Nigeria accounting for more than 75% of the regional balance.

Table 5 : Services exports and imports 2000-2011
in Millions US\$ Dollars at current prices and exchange rates

ECONOMY	Exports			Imports			Balance	
	2000	2011	Growth rate	2000	2011	Growth rate	2000	2011
Benin	136	360	9.2	192	575	10.5	-56	-215
Burkina Faso	31	395	25.9	140	1081	20.4	-109	-687
Cape Verde	108	577	16.5	100	319	11.1	7	258
Côte d'Ivoire	482	927	6.1	1227	2709	7.5	-745	-1782
Gambia	n/a	153	n/a	n/a	68	n/a	n/a	84
Ghana	504	1871	12.7	584	3667	18.2	-79	-1795
Guinea	68	77	1.2	285	572	6.5	-217	-495
Guinea-Bissau	5	18	12.8	29	85	10.4	-24	-68
Liberia	n/a	604	n/a	n/a	1243	n/a	n/a	-639
Mali	99	408	13.7	335	1070	11.1	-236	-663
Niger	38	137	12.5	132	940	19.6	-94	-803
Nigeria	1833	3387	5.7	3300	24573	20.0	-1467	-21186
Senegal	387	1134	10.3	405	1240	10.7	-18	-107
Sierra Leone	42	160	12.9	113	255	7.7	-71	-95
Togo	62	407	18.7	118	502	14.1	-56	-96
Total West-ern Africa	3795	10613	9.8	6958	38901	16.9	-3164	-28288
<i>of which WEAMU</i>	<i>1240</i>	<i>3784</i>	<i>10.7</i>	<i>2577</i>	<i>8204</i>	<i>11.1</i>	<i>-1337</i>	<i>-4419</i>
Eastern Africa	5300	18600	12.1	6100	19500	11.1	-800	-900
Middle Africa	1400	3900	9.8	6400	41400	18.5	-5000	-37500
Northern Africa	17005	42500	8.7	14500	45000	10.8	2505	-2500
Southern Africa	5800	16600	10.0	7200	22500	10.9	-1400	-5900
Africa	33300	92400	9.7	41700	168100	13.5	-8400	-75700

Note: Growth rates are calculated for 2000-2011. Source: UNCTAD, UNCTADStat

undertaken in 2009. The BCEAO recently revised this ratio to 14.4% (freight 13.9%, insurance 0.5%) of imports (c.i.f.). The methodology is based on BPM6 and consists of determining the structure of imports in volume by main group of products and by geographical zones based on official statistics over the past 5 years; deduction of freight ratio by commodity groups and/or geographical zone; estimation of the global freight ratio as a weighted average of freight and insurance paid on goods and recorded in the external trade database.

Due to unavailability of data in international databases or in the analysis section of the balance of payments in central bank annual reports, it has not been possible to do further analysis of trade in services by trading partner. Further work is needed to identify the origin and destination of these services so that the data can be analyzed and translated in policy actions to stimulate inter-regional trade in services.

Infrastructure deficit in West Africa

Boosting trade in services necessitates good infrastructure in terms of road networks and corridors, high performing ports and airports, efficient and reliable railway systems (where they are available), good telephone and internet connections, and sufficient power generation capacity to satisfy national/regional demand. A number of studies have examined the importance and/or role of infrastructure for economic development of Africa (Calderón & Servén, 2010; Ajakaiye & Ncube, 2010, etc.). Infrastructure provides access to key economic inputs such as knowledge, resources, and technology; reduces the barriers to free movement of goods and persons, and increases access to the market for goods and services. Transport infrastructure promotes cross-border trade and investment, improves countries' competitiveness, and raises domestic output, thus fostering regional integration. In contrast, poor infrastructure reduces the mobility of different factors of production, impacting negatively on productivity by increasing overheads, logistics, and transportation costs, thereby reducing local enterprises' ability to compete internationally.

Africa's economic and social development is hampered by the lack of adequate basic infrastructure such as roads, power supply, telecommunications, and public transport. West Africa performs worse than other regions, coming in third position on most aggregate infrastructure indicators (Table 7).

Table 7 : Benchmarking West Africa's infrastructure with other regions

	Western	Eastern	Southern	Central
Paved road density	38	29	92	4
Fixed-line telephone density	28	6	80	13
Mobile telephone density	72	46	133	84
Internet density	2	2	4	1
Generation capacity	31	16	176	47
Electricity coverage	18	6	24	21
Improved water	63	71	68	53
Improved sanitation	35	42	46	28

Source: AICD

The aggregate figures invariably mask substantial country variations within the region. The Infrastructure index, which summarizes the level of infrastructure development in a country compared to other African countries, varies from lows of 5 in Niger and 7.5 in Sierra Leone to 44.1 in Cabo Verde, well below that of South Africa (79), one of the best performers on the continent (Table 8).

The availability of good regional infrastructure, especially good road networks, promotes economic exchange between countries across different sectors, intra-regional trade and integration. (Buys et al., 2010; Ndulu, 2006; Mbekeani, 2010; Bafoil & Ruiwen, 2010; AfDB, 2012; UNCTAD, 2013). Table 9 provides some information on the relative importance of transport corridors in West Africa compared to other regions. The region is lagging behind in terms of the length of the road network. Investment in infrastructure needs to be significantly scaled up to close this gap. The AfDB is supporting initiatives such as the Program for Infrastructure Development (PIDA) and the Infrastructure Consortium of Africa (ICA) to mobilize funds and fast track infrastructure development on the continent. Estimates for the most recent PIDA study suggest that of the priority projects to be completed before 2020, transport requires the second-largest amount of funding with an estimated \$25.4 billion in investment needed. The Lagos-Dakar Corridor is one of nine trans-African highways on the continent supported by the program to facilitate land transport. The highway will link the various capitals of the countries along its path.

Table 8 : West Africa's infrastructure deficit (Data for 2010)

	Infra-structure Index	Paved Roads	Road Network	Net Generation	Phone subscription
		(km per 10,000 inhabitants)	(km per km ² of exploitable land area)	(KWh per capita)	(fixed line and mobiles per 100 inhabitants)
Benin	13.7	2.0	2.2	16.1	81.5
Burkina Faso	15.3	2.3	5.8	40.7	35.5
Cape Verde	44.1	18.8	8.8	578.6	89.5
Côte d'Ivoire	17.8	3.3	2.7	289.9	77.6
Gambia	24.7	4.2	3.3	133.1	88.4
Ghana	21.1	5.7	5.1	336.7	72.6
Guinea	12.4	4.3	2.2	97.1	40.3
Guinea-Bissau	10.6	6.4	1.0	44.2	39.5
Liberia	11.2	1.6	1.2	83.9	39.5
Mali	10.3	3.6	0.4	33.8	49.2
Niger	5.0	2.5	0.5	16.1	25.1
Nigeria	17.6	1.8	2.2	157.0	55.8
Senegal	21.7	3.8	0.8	222.7	69.9
Sierra Leone	7.5	1.5	2.0	24.7	34.3
Togo	10.8	4.1	2.7	21.1	44.2
ECOWAS (Simple Average)	16.3	4.4	2.7	139.7	56.2
<i>Memo Item: South Africa</i>	<i>79.0</i>	<i>12.5</i>	<i>3.4</i>	<i>4825.7</i>	<i>108.9</i>

Source: AfDB Statistics Department

Table 9 : Relative performance of transport corridors in Africa

Corridor	Length	Road in good condition	Trade density	Implicit velocity	Freight tariff
	kms	%	(mn US\$ per km)	(km per hour)	US\$ per ton-km)
Western	2050	72	8.2	6.0	0.08
Central	3280	49	4.2	6.1	0.13
Eastern	2845	82	5.7	8.1	0.07
Southern	5000	100	27.9	11.6	0.05

Note: Implicit velocity is the total distance divided by the total time taken to make the trip, including time spent stationary at ports, border crossings, and other stops. Source: Terevaninthorn and Raballand 2009.

Energy generation and access plays a critical role for the socio-economic development of a country; driving growth and productivity and contributing to social well-being and welfare. Sub-Saharan Africa has inadequate generation capacity, limited electrification, low power consumption, unreliable services and high costs (Africa's Infrastructure: A Time for Transformation, World Bank). Although the continent is well endowed with hydropower and thermal resources only a small fraction of its power generation potential has been developed. Furthermore a significant number of countries have low generation capacity, well below the minimum efficiency scale contributing to high costs of production. Pooling energy resources through regional power trade reduces power costs, extends the market beyond national borders and stimulates investment in power generation in countries with a comparative advantage. Four power pools have been established on the continent to promote mutually beneficial trade in electricity. The West Africa Power Pool (WAPP, the second largest pool on the continent) serves countries of the ECOWAS region and aims to increase the overall level of electrification in the region. Within WAPP, Benin, Togo and Burkina Faso import power from Cote d'Ivoire and Ghana; and Niger imports from Nigeria. Both countries generate power from natural gas. In spite of these developments power trade among countries in the region is still low at around 6% in WAPP (the highest is 10% in SAPP).

Africa is one of the fastest growing regions in terms of mobile telephony. With the spread of the basic mobile phone the digital divide for voice services is closing at a rapid pace. Internet connectivity is an important determinant for taking advantage of the growing market for trade in business services, which is being enabled by ICTs. The quality of internet connection has improved and bandwidth has significantly increased on the continent with the installation of a number of submarine cables. More specifically in West Africa, the SAT-3 WASC cable links South Africa to Portugal and to some coastal countries of West Africa, enabling the region to access the world cable system and international networks. However, further challenges remain in terms of developing terrestrial backbone networks. Countries like Senegal and Cape Verde were connected much earlier and have started to benefit from the development of e-services with the setting up of a number of call-centres, working for American and European clients and benefitting from easy access to a dual telephone-internet system and the low cost of local staff. Prospects for internet development in the region are positive although the rural urban divide will persist because of poor electricity access and limited fixed-line connections.

Enhancing services trade

A good business climate fosters the development of the services sector, including trade in services. Table 10 below provides the latest business indicators for countries of the West Africa region, highlighting the best performer of the region, the worst performer and the comparative performance of the best performer in Africa and the world. There is a lot of catching up to do with other countries of the region and with the best performer on the continent. While many countries have agreed to undertaking trade reforms, particularly regarding goods, progress in the area of services have been more erratic. Impediments to trade in services mainly occurs through direct controls on market access and through treatment of foreign providers that is less favorable than that of national ones either through quantitative restrictions/prohibitions in certain sectors to foreign companies; additional licensing or certification requirements; additional taxes or charges; and lack of access to distribution networks.

Table 10 - West Africa: Doing Business Indicators 2014

Economy	Ease of Doing Business Rank (total of 189 countries)	Starting a Business Time (days)	Getting Electricity Rank	Trading Across Borders						
				Export			Import			
				Rank	Documents	Time	Cost	Documents	Time	Cost
Benin	174	15	158	119	6	26	1030	7	27	1520
Burkina Faso	154	13	158	174	10	41	2455	9	49	4430
Cape Verde	121	10	88	95	7	19	1125	7	18	925
Côte d'Ivoire	167	8	55	165	9	25	1990	10	34	2710
Gambia	150	27	78	99	6	23	1190	7	21	895
Ghana	67	14	79	109	6	19	875	7	42	1360
Guinea	175	16	69	136	7	36	915	9	31	1390
Guinea-Bissau	180	9	455	125	6	25	1448	6	22	2006
Liberia	144	4.5	465	142	10	15	1220	12	28	1320
Mali	155	11	120	160	6	26	2440	10	32	4405
Niger	176	17	115	178	8	57	4475	10	62	4500
Nigeria	147	28	260	158	9	22	1380	13	33	1695
Senegal	178	6	113	80	6	12	1225	5	14	1740
Sierra Leone	142	12	113	140	7	25	1185	9	30	1575
Togo	157	19	74	110	6	24	1015	7	29	1190
Africa's best performer	20	2	30	12	4	10	595	5	10	577
World's best performer	1	2	18	1	3	6	450	3	4	440

Note: Documents in numbers, time in days, costs in US\$ per container. Source : Doing Business 2014, World Bank

A number of studies have shown that liberalizing trade in services is likely to yield substantial gains in growth and welfare, particularly for developing countries, including African countries. Many services are intermediate inputs for the production of goods and other services and with competition their prices are expected to fall, leading lower costs of production and increased competitiveness. Comparison of cost insurance freight (c.i.f.) prices with free on board (fob) prices shows that the margin has declined for all regions except Africa, which also records the highest margin. Simulations for Tunisia indicate that the liberalization of a number of key services sectors could yield gains equivalent to seven percent of GDP. Another study indicates that opening the financial and telecom sectors impacts positively on growth by up to 1.5 percent. On the other hand, some concerns have been raised by developing countries on the effects on the balance of payments, the negative impact on poverty with possible job retrenchment and higher prices for public utilities and transport as utilities are privatized, impacting upon household consumption.

A number of countries, including some in West Africa, have been engaged in services trade reforms in synergy with other reforms such as domestic deregulation, privatization of utilities, financial reforms and trade liberalization in goods sectors. The objective is to improve competition in the private sector, increase the efficiency of state-owned companies and strengthen export competitiveness. Table 10 provides some doing business indicators, the ease of doing business, the time for starting a business and getting electricity and indicators relating to trading across borders, for countries in West Africa. Countries of the region are well behind and need to improve the business climate and facilitate trading with other partners to be competitive.

Conclusion

The paper has attempted to provide a better understanding of trade in services, the statistical framework for its measurement, data limitations, the relative importance of services in the economy and recent trends in trade in services in the West Africa region. The paucity of data on the issue calls for reinforcing the capacity of the institutions involved in compilation and analysis of such data; better collaboration between the various institutions involved, such as customs, central bank, statistical offices, related ministries and large public and private corporations; the use of international methodologies and standards for sharing of

data; and the use of the latest IT tools to facilitate the processing and dissemination of the data for policy use, the private sector and the public in general. As the level of income rises in the region the share of services will increase. Services can facilitate growth in other sectors of the economy and contribute to higher growth in the region. The infrastructure gap needs to be addressed to facilitate the movement of goods, services and people and the business climate improved to promote private investment and public private partnerships.

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