Towards an estimate of informal cross-border trade in Africa
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Abstract

Official trade statistics typically capture only formal trade. In order to accurately monitor intra-African trade, it is important to understand the scale of informal trade. Reliable data on informal cross-border trade (ICBT) is also crucial to building awareness among policymakers of the importance of this phenomenon and to make a case for policy action. This paper provides a comparative analysis of the ratio of informal to formal trade for African countries for which data is available. Based on this assessment, the paper makes the first ever attempt to estimate the total value of ICBT in Africa. We estimate that the value of ICBT is significant across all African subregions. Our estimate found ICBT to be equivalent to between 7 and 16 per cent of formal intra-African trade flows, and to between 30 and 72 per cent of formal trade between neighbouring countries. Those figures are significant and have important implications for the value, composition and sophistication of intra-African trade, particularly between neighbouring countries. Within the context of efforts to implement the Agreement Establishing the African Continental Free Trade Area, ICBT data collection must be institutionalized in order to facilitate accurate tracking of intra-African trade flows.

Table 1: Overview of informal intra-African trade flows

<table>
<thead>
<tr>
<th></th>
<th>Low estimate</th>
<th>High estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value of informal cross-border trade (ICBT)</td>
<td>$ 10 441 049 381</td>
<td>$ 24 872 409 487</td>
</tr>
<tr>
<td>Value of total intra-African trade**</td>
<td></td>
<td>$ 150 953 154 938</td>
</tr>
<tr>
<td>Share of ICBT in total value of cross-border trade between neighbouring countries</td>
<td>Low estimate 30%</td>
<td>High estimate 72%</td>
</tr>
<tr>
<td>Ratio of ICBT to total value of intra-African trade</td>
<td>Low estimate 7%</td>
<td>High estimate 16%</td>
</tr>
</tbody>
</table>

Sources: **UNCTADstat; authors’ calculations.

Acknowledgements

The analysis in this paper would not have been possible without the data made available by a number of data collection institutions and agencies across the continent. In particular, the authors would like to thank the Bank of Uganda, the National Bank of Rwanda and the Togo National Institute of Statistics and Economic and Demographic Studies (INSEED) for sharing unpublished disaggregated national data sets. The authors are also grateful for the detailed and helpful comments provided by Tancrède Voituriez, a professor at the Sciences Po Paris School of International Affairs, and Senior Research Fellow, Governance of Sustainable Development, at the Institute for Sustainable Development and International Relations.
1: Introduction

Official trade statistics typically capture only formal trade, and leave out informal trade, which leads to underestimates of overall intra-African trade volumes, both at the continental level and within regional economic communities. Although some estimates have been made of informal cross-border trade (ICBT) in Africa, these are few in number, and are usually incomplete in terms of commodity coverage or data collection points. Furthermore, these estimates may not capture the full extent of informal trade, including the extent of night trade and the trade in under-declared goods. The methodological tools used by statistical agencies are far from consistent and the findings of monitoring exercises are not widely distributed or made available to the public. Data on the informal trade in services is even scarcer than data on the informal trade in goods.

The dearth of reliable and regular data on ICBT has contributed to a lack of recognition of its important economic role, both at the micro and macro levels. Data that provides an accurate overview of ICBT is crucial in the formulation, implementation and monitoring of effective trade and investment policies. Data on ICBT is needed not only to facilitate investment and policy planning but also to respond to the particular needs of informal traders, many of whom are women. For example, coronavirus disease (COVID-19) border management responses and regulations have been limited to goods that are transported using trucks, and are not applicable to informal traders moving across borders on foot. Estimates on ICBT are also essential in the development of accurate trade statistics, which in turn facilitate accurate estimates of gross domestic product (GDP) and exchange and inflation rates, and facilitate the development of robust macroeconomic management and stabilization policies. ICBT data can, moreover, be used to estimate forgone revenue stemming from informal economic activity. Lastly, reliable data on ICBT in agricultural products is crucial when measuring household food balance sheets, which are key indicators of household nutrition and food security.

On 1 January 2021, trading officially began under the landmark Agreement Establishing the African Continental Free Trade Area. This makes the collection of accurate data on ICBT even more important. The Agreement was adopted to boost intra-African trade but without data on ICBT, policymakers tracking implementation of the Agreement will be unable to develop fully accurate models of intra-African trade flows.

2: Definition

There is no universally agreed definition of ICBT and the phenomenon is often conflated with “smuggling” and other illegal practices. “Smuggling” or “illegal trade”, “unrecorded cross-border trade” and “small-scale cross-border trade” are just a few of the terms that have been associated with, or considered equivalent to, the phenomenon that we are describing in this paper as “informal cross-border trade”. Indeed, one of the difficulties of discussing ICBT is that analysts tend to employ different terminologies in different ways and to include or exclude informal practices that fit or do not fit their methodologies and conceptual frameworks. Some of the most common dividing lines that are used to distinguish between formal and informal trade are: whether or not the movement of goods has been recorded by customs authorities; whether taxes and duties have or have not been paid; whether the trader has or has not registered his or her business; and the size of the business or the volume of consignments transported across the border. A comprehensive discussion of “informal trade” and potential definitions of that phenomenon is provided in Cantens, Ireland and Raballand
(2015), who problematize some of the most common approaches:

For example, it is common to say that informal trade is the trade that is not reported in national statistics and that this non-report [sic] constitutes a definition of informality. If the first part of the sentence may be partially true – an informal trade transaction may be partially informal and thus partially reported in national statistics – the second part of the sentence – identifying the non-report to informality – is a methodological choice assuming that informality will be explored quantitatively. This is legitimate as an exploratory choice but this cannot be a “definition” of informal trade. If it was the case, this definition would assume that “statistics” have some kind of necessary pre-existence and informality would have a negative dimension according to what should be done (reporting quantitatively) and would be a hole to be filled in knowledge.

Taxation is another example of the existing continuum between informal and formal activities. Taxation was often represented as a dividing line between formal and informal (MacGaffey, 1987), but cross-border traders who are represented by the authorities as “informal” pay some taxes or fully pay certain taxes and not others. One can be “informal” according to a specific regulation and cannot be so for another: Lautier (1995) exposes the case of traders who are identified at the municipality and pay the required local taxes but do not pay for social security.

The size of the company is not always admissible as a criterion defining the informal sector. For instance, a merchant working in the formal sector uses his logistical means or partners with informal traders to diversify his business and achieve greater profit margins via smuggling or importing without submitting a declaration to Customs [...] In general, it is now well accepted that the distinction between “formal” and “informal” does not apply to operators who often divide their activities between the two sectors (Ødegaard, 2008).

The concept of informality allows us to move beyond the legal/illegal divide, recognizing that some non-compliant practices are nevertheless “legitimate”, and efforts should be made to legalize them, while others are “illegitimate”, and should remain illegal. In the case of trade, the difference between “informal cross-border trade” and “illegal trade” or “smuggling” is essentially motivational: whereas “smuggling [is] based on the wish to pay no or fewer taxes, or to profit from trade in prohibited goods such as crystal meth”, informal cross-border traders avoid formalities for more legitimate reasons (Cantens, Ireland and Raballand 2015). They may not be able to afford the costs of trading formally, for example, or might not have the skills or the knowledge needed to comply with trade regulations. In a study of small-scale cross-border traders (SSCBTs) in the Common Market for Eastern and Southern Africa (COMESA) region, for instance, the International Trade Centre (ITC, 2019) argues that:

...a distinction should be made between “smugglers” and SSCBTs: the former act in bad faith to avoid legitimate controls and revenue-raising activities at borders, whilst the latter find themselves constrained to trade in unorthodox ways, either because they do not have the skills and knowledge required to comply with trade-related regulations and border procedures, or because the costs of formal trade are simply too high for them to bear. SSCBTs engage in cross-border trade in good faith, as it is one of the best livelihood options available to them; many of them [express] a wish to formalize and respect the laws and regulations that govern cross-border trade.

From a data-collection perspective, the definition of informal cross-border trade should recognize these complexities but nevertheless focus firmly on the practical implications for practitioners. In practical terms, it is impossible to collect data, formulate policies and draft, enact or implement legislation, without a clear definition of ICBT. There is therefore a clear need to define "informal cross-border trade" in the context of data collection and policy-making, if only to facilitate the work of policymakers, border officials, statisticians, enumerators and advocacy groups on the ground. Without seeking to resolve the conceptual challenges that we have explored in this section, the estimates for ICBT presented in this paper are based on the broadest possible definition of that phenomenon, including both “semi-formal” trade and so-called “entrepôt” trade, as defined by
Lesser and Leeman (2009), following the example of Bouet, Pace and Glauber (2018) and the United Nations Conference on Trade and Development (UNCTAD) (2019), namely:

...informal cross-border trade refers to trade in legitimately produced goods and services, which escapes the regulatory framework set by the government, as such avoiding certain tax and regulatory burdens. Informal trade thus refers to goods traded by formal and informal firms that are unrecorded on official government records and that fully or partly evade payment of duties and charges. Such goods include commodities which pass through unofficial routes and avoid customs controls, as well as goods that pass through official routes with border crossing points and customs offices yet involve illegal practices. Such practices can comprise under-invoicing (i.e., reporting a lower quantity, weight or value of goods to pay lower import tariffs), misclassification (i.e., falsifying the description of products so that they are misclassified as products subject to lower tariffs), misdeclaration of the country of origin, or bribery of customs officials. Goods traded informally can cover both small volumes of goods, transported by individual traders crossing the border by foot or by bicycle, as well as larger volumes transported in containers by land, sea or air. Informally-traded goods can originate from (and be produced in) world markets or come from neighbouring countries.

In practice, this is the definition employed by most current data collection initiatives in Africa, which are designed to collect data on all merchandise leaving/entering the country carried on foot, bicycles, push carts, motorcycles, vehicles, wheelchairs, donkeys and boats, both in large and small quantities, that is not recorded by customs authorities, in addition to undeclared or under-declared merchandise of traders on formal customs declaration documents, and to exclude goods properly (100 per cent) declared and verified by customs officials on declaration documents (ECA and Afreximbank, 2020).

3: Current estimates of ICBT in Africa

A number of national, regional and intergovernmental initiatives have been undertaken to collect data on ICBT in Africa. Although those initiatives are often incomplete in terms of commodity coverage and data points, or are not implemented on a regular basis, they still offer important insights. Currently, no continental-wide framework or initiative tracks ICBT flows for Africa as a whole, and prior to this paper, no researcher had attempted to estimate the total value of ICBT flows on the continent.

This section presents an overview of current data collection initiatives on ICBT for each of the five subregions in Africa, namely: North Africa, West Africa, Central Africa, East Africa and Southern Africa. Data availability varies across the subregions, with the most complete and comprehensive data sets available for East and West Africa. On the other hand, there is little data available on ICBT flows in North Africa.

3.1 Central Africa

Cameroon is one of the few countries in which the country’s national statistics agency, in this case the Institut National de la Statistique (National Institute of Statistics) has conducted an official data collection exercise on ICBT. The outcomes of the exercise in Cameroon are summarized in a publication entitled “Enquête sur les échanges transfrontaliers de marchandises au Cameroun: Bilan méthodologique et résultats” (Institut National de la Statistique du Cameroun 2014).

Furthermore, several independent studies have been carried out on ICBT between Cameroon and its neighbours in the Economic and Monetary Community of Central Africa (CEMAC) region, including Nkendah and others (2011) and Nkendah (2013), and between Cameroon and Nigeria, including Amin and Hoppe (2013) and Ndumbe (2013).

The only research that has been completed at the subregional level was sponsored by the Economic
Community of Central African States (CEEAC) and consisted of a survey of 467 informal cross-border traders, including 371 women, in 9 ECCAS member States, namely: Burundi, Cameroon, the Congo, Gabon, Equatorial Guinea, the Central African Republic, the Democratic Republic of Congo, Rwanda and Chad (CEEAC, 2018).

3.2 East Africa

Several ICBT data collection initiatives have been undertaken in the East African subregion. These include efforts conducted by national statistical offices and the Market Analysis Subgroup of the subregional Food Security and Nutrition Working Group (FSNWG), currently chaired by the Famine Early Warnings Systems Network (FEWS-NET) and comprising the Food and Agricultural Organization of the United Nations (FAO), FEWS-NET, the East Africa Grain Council (EAGC), the EAGC Regional Agricultural Trade Intelligence Network, the Uganda Bureau of Statistics and the Kenya National Bureau of Statistics. In 2013, in order to facilitate improved collaboration and data sharing among data providers in the region, EAGC, the Uganda Bureau of Statistics, FAO, FEWS-NET, the United States Agency for International Development (USAID), the International Livestock Research Institute, the Regional Strategic Analysis and Knowledge Support System (ReSAKKS) and the Alliance for Commodity Trade in Eastern and Southern Africa, partnered to develop a harmonized methodology for ICBT data collection in the East Africa and Southern Africa subregions.

Uganda and Rwanda are the only two countries in Africa that systematically collect data on ICBT at their borders. Uganda has been collecting data on ICBT since 2005 and Rwanda has been doing so since 2009 (World Bank, forthcoming). Figure I provides an overview of informal and formal cross-border trade flows in Uganda between 2015 and 2019. Some limited data has also been made available by the Kenyan National Bureau of Statistics, covering informal trade flows in the

Figure I: Formal and informal trade in Uganda by trade flow (imports/exports), 2015–2019, $ and as a share of the total

Source: Bank of Uganda.

Data has also been collected through a series of ad hoc surveys at the easternmost borders of the Democratic Republic of the Congo. These include two surveys conducted by International Alert, an independent international peacebuilding organization, and have provided substantive data on informal cross-border traders operating in that border region. The first survey covered 1,005 traders operating at three border crossings between Goma in the Democratic Republic of the Congo and Gisenyi in Rwanda (Kimanuka and Lange, 2010). The second covered a total of 3,640 traders operating at four border crossings in the Great Lakes region, namely Bukavu – Cyangugu (Democratic Republic of the Congo – Rwanda), Uvira – Gatumba (Democratic Republic of the Congo – Burundi), Arua (Democratic Republic of the Congo – Uganda) and Cibitoke – Bugarama (Democratic Republic of the Congo – Burundi) (Kimanuka and Titeca, 2012).


3.3 North Africa

The most comprehensive estimate of the overall scale and scope of ICBT in the North Africa subregion is provided in Ayadi and others (2013), who used mirror statistics, field observations and interviews with customs officials and cross-border traders to assess ICBT flows between Tunisia and its two neighbours, namely Libya and Algeria.

Another serious attempt to generate quantitative data on ICBT in the North Africa subregion was made by Bensassi and others (2017), who used mirror statistics, satellite imagery and a survey of traders to estimate informal trade between northern Mali and southern Algeria.

Timmis (2017) provides an overview of the gender breakdown among informal cross-border traders in Algeria, Egypt, Libya, Morocco and Tunisia.

3.4 Southern Africa

Official data on ICBT in Southern Africa is limited to reports by the Namibia Statistics Agency on ICBT, the most recent of which was published in 2019 (Namibian Statistics Agency, 2019).

In addition, the COMESA secretariat is currently compiling gender-disaggregated statistical data on small-scale cross-border trade at four border crossings between Zambia and its neighbours, namely Mwami – Mchinji (Zambia – Malawi), Chirundu (Zambia–Zimbabwe), Kasumbalesa (Zambia – Democratic Republic of the Congo) and Nakonde – Tunduma (Zambia – United Republic of Tanzania (COMESA, 2018).

Data is also available from non-official sources, including FEWS-NET, which monitors cross-border trade in staple foods throughout the region, with a focus on informal flows (FEWS-NET, 2020).

Lastly, ad hoc studies have been conducted by Macamo (1999), Ndlela (2006), Crush and Tevera (2010), Ama and others (2013), Ama, Mangadi and Ama (2014), Peberdy and others (2015), Chikanda and Tawodzera (2017), Nshimbi and Moyo (2017) and UNCTAD (2019).

3.5 West Africa

The most comprehensive long-term data collection exercise in the subregion has been led since 2013 by the Permanent Inter-State Committee for Drought Control in the Sahel (CILSS). This initiative tracks informal cross-border trade in food, fisheries and agro-silvo-pastoral products and has recently been re-branded ECOWAS Informal Cross Border Trade (ECO-ICBT) due to its integration into the Economic Community of West African States (ECOWAS) Informal Trade Regulation Support Programme (ECOWAS, 2018).

Between September and December 2019, ECA and Afreximbank conducted a pilot data collection project along the Abidjan-Lagos transport corridor to collect data on informal cross-border trade, expanding the scope of data collection to address “existing data gaps (...) such as gender
disaggregation, payment methods and coverage of all commodities rather than only agricultural ones" (ECA and Afreximbank, 2020).

Data has also been collected at the national level in Nigeria (Central Bank of Nigeria, 2016), Sierra Leone (International Growth Centre, 2018) and, in the context of a subregional data collection initiative by West African Economic and Monetary Union (WAEMU) member States, including Benin (National Institute for Statistics and Economic Analysis (INSAE), 2012) and Togo (National Institute of Statistics for Economic and Demographic Studies (INSEED), 2019).

Efforts are underway to coordinate all of these data collection initiatives under the ECOWAS Informal Trade Regulation Support Programme, the West Africa subregion’s flagship strategy on informal cross-border trade, and to integrate the data into official national and regional statistical databases (WAEMU, CILSS and ECOWAS, 2019).

4: Towards an estimate of ICBT in Africa

There are significant variations in the nature of ICBT and the profile of informal cross-border traders across the continent. Our overview of current data sources suggests that, in some cases, ICBT amounts to only a small fraction of formal trade flows between two trading partners, while in other cases, it can be larger by several orders of magnitude. Informal cross-border trade is also very diverse and available data suggest that the portfolio of products traded informally is more diverse than its formal equivalent (Bensassi, Jarreau and Mitaritonna (2019).

ICBT flows can also be categorized in various ways: on the one hand, legitimate and “quasi-formal” trade may go unrecorded due to insufficient human resources at customs offices, or the lack of incentives to record flows that are not subject to import duties; on the other hand, informal cross-border trade may be akin to “smuggling” and involve goods that, legally, are subject to trade restrictions, such exports of subsidized fuel from Algeria, or imports into Nigeria. Lastly, the profile of informal cross-border traders varies substantially. They include “subsistence” traders who have resorted to ICBT as a last resort in order to make a living for themselves and their families, and even successful entrepreneurs who earn much more than the local minimum wage as a result of their cross-border activities. In most subregions, particularly in East and Southern Africa, women make up the majority of informal cross-border traders, but there are some notable exceptions, including in the North and Central African regions (Afreximbank, 2020).

Furthermore, a number of other challenges make it difficult to estimate the value of ICBT flows in Africa. The absence of a continent-wide dataset collected according to consistent methodological principles makes it a particularly daunting task to estimate the value of informal cross-border trade in Africa. The adoption of the African Continental Free Trade Agreement is likely to strengthen intraregional cooperation on matters related to trade, and there is therefore an urgent need to raise the profile of ICBT across the continent with a view to ensuring that future trade policies and trade facilitation instruments take into account the needs of informal cross-border traders.

In this paper, we, the authors, have formulated the first ever “best endeavour” estimate of the value of ICBT across the continent. By comparing that estimate to formal trade flows, we hope to make a creative and original contribution to the expanding literature on ICBT, highlighting its significance and ensuring that it remains high on the agendas of policymakers.

4.1 Methodology

Our estimate is based on the ratio of informal to formal trade between countries for which we have data. Some of the data sets discussed earlier provided figures for both informal and formal trade during the data-collection period, facilitating a direct calculation of the ratio of informal to formal trade. For data sets for which those figures were unavailable, the following steps were taken:

-...
Numerator (informal trade): Several of the data sets did not cover a one-year period: in some countries, such as Togo, an annualized figure was available; in others, values were up-rated to generate a figure for the annual value of informal trade. When the data was reported in a currency other than United States dollars, the value was multiplied by the average exchange rate during the data collection period. Uganda and Rwanda had both collected informal trade data for several years, and in those cases, ratios for all of the years were generated and an average ratio was calculated to be used in the estimate. In the case of Nigeria, the data set covered a one-year period that spanned two different calendar years (2013 and 2014); we therefore chose to generate ratios of informal to formal trade for both years, using one figure for the numerator (informal trade) but two different figures for the denominator (formal trade in 2013 and in 2014).

Denominator (formal trade): The ratios were calculated using formal trade figures contained in the UN Comtrade Database. The authors looked up import/export figures for the year during which the ICBT data collection exercise was carried out, as reported by the country collecting ICBT data. Two exceptions were made, namely in the case of ECA and Afreximbank (2020) and in the case of the Enquête sur les flux transfrontaliers non enregistrés au Togo (Survey on unregistered cross-border flows in Togo) (EFTNE-Togo, 2019), for which the authors took the most recent data available as reported by the importer in the UN Comtrade Database.2

The authors also utilized data published in reports and online databases, along with data made available by national statistics offices and other data collection agencies. For some countries, information on trade flows from more than one data source was analysed. Two separate lists were generated: one of the lowest possible ratios of informal to formal trade, and the other of the highest possible ratios. The two lists allowed the authors to determine the lower and upper bounds of their estimate. Table 1 sets out the final ratios that were used in that estimate, by trade flow and by data source, as well as the collection period for the data that was used to calculate the ratio.

Estimated ratios of informal to formal trade flows range from 0.0004:1 (exports from South Africa to Namibia, based on data collected by the Namibian Statistics Agency in 2019) to 415:1 (exports from the Niger to Nigeria, based on data collected by the Nigerian Central Bank in 2013–2014). The distribution of the estimated ratios is positively skewed, with a few very high ratios at selected borders where one would expect to observe more “entrepôt” trade. The mean ratio was 5.6:1 (low estimate) or 13.9:1 (high estimate), while the median ratio was 0.26 (low estimate) or 0.48 (high estimate). Taken together, those figures suggest that the ratio of informal to formal trade across the continent is likely to be very high.

Once the final list of ratios was formulated, they were applied to the most recent corresponding

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1 Up-rating was done through simple multiplication. For example, the Namibian Statistics Agency provides data for a one-month period, so values were multiplied by 12; the data collection initiative by the Kenyan National Bureau of Statistics covers a three-month period, so we multiplied the values by four.
2 This exception was made because we wanted to ensure that the formal trade figure used to calculate the ratio was consistent with the formal trade figures to which the ratios were eventually applied, when estimating the value of ICBT for that specific trade flow.
Table 2: Ratio of informal trade to formal trade, by trade flow, year and data source

<table>
<thead>
<tr>
<th>Flow</th>
<th>Ratio of informal to formal trade (low)</th>
<th>Data source</th>
<th>Year (low)</th>
<th>Ratio of informal to formal trade (high)</th>
<th>Data source (high)</th>
<th>Year (high)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angola → Namibia</td>
<td>0.022</td>
<td>Namibia Statistics Agency (2016)</td>
<td>2015</td>
<td>0.022</td>
<td>Namibia Statistics Agency (2016)</td>
<td>2015</td>
</tr>
<tr>
<td>Algeria → Tunisia</td>
<td>0.367</td>
<td>Ayadi and others (2014)</td>
<td>2013</td>
<td>0.514</td>
<td>Ayadi and others (2014)</td>
<td>2013</td>
</tr>
<tr>
<td>Algeria → Mali</td>
<td>15.000</td>
<td>Bensassi and others (2017)</td>
<td>2014</td>
<td>40.000</td>
<td>Bensassi and others (2017)</td>
<td>2011</td>
</tr>
<tr>
<td>Burkina Faso → Togo</td>
<td>0.253</td>
<td>EFTNE-Togo (2019)</td>
<td>2019</td>
<td>0.253</td>
<td>EFTNE-Togo (2019)</td>
<td>2019</td>
</tr>
<tr>
<td>Côte d’Ivoire → Ghana</td>
<td>0.002</td>
<td>ECA and Afreximbank (2020)</td>
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<tr>
<td>Flow</td>
<td>Ratio of informal to formal trade (low)</td>
<td>Data source</td>
<td>Year (low)</td>
<td>Ratio of informal to formal trade (high)</td>
<td>Data source</td>
<td>Year (high)</td>
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</tr>
<tr>
<td>Libya → Tunisia</td>
<td>0.288</td>
<td>Ayadi and others (2014)</td>
<td>2013</td>
<td>0.480</td>
<td>Ayadi and others (2014)</td>
<td>2013</td>
</tr>
<tr>
<td>Mali → Algeria</td>
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<td>Bensassi and others (2017)</td>
<td>2014</td>
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<td>Bensassi and others (2017)</td>
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<tr>
<td>Namibia → South Africa</td>
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<td>2015</td>
<td>0.000</td>
<td>Namibia Statistics Agency (2016)</td>
<td>2015</td>
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<tr>
<td>South Africa → Namibia</td>
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<td>2015</td>
<td>0.000</td>
<td>Namibia Statistics Agency (2016)</td>
<td>2015</td>
</tr>
</tbody>
</table>

**Notes:**
- Data sources are listed for both low and high values.
- Years are specified for both low and high values.
<table>
<thead>
<tr>
<th>Flow</th>
<th>Ratio of informal to formal trade (low)</th>
<th>Data source</th>
<th>Year (low)</th>
<th>Ratio of informal to formal trade (high)</th>
<th>Data source (high)</th>
<th>Year (high)</th>
</tr>
</thead>
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<td>EFTNE-Togo (2019)</td>
<td>2019</td>
<td>0.213</td>
<td>EFTNE-Togo (2019)</td>
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<td>0.514</td>
<td>Ayadi and others (2014)</td>
<td>2013</td>
</tr>
<tr>
<td>Zambia→Namibia</td>
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<td>2015</td>
<td>0.001</td>
<td>Namibia Statistics Agency (2016)</td>
<td>2015</td>
</tr>
</tbody>
</table>

Source: Authors’ compilation.
formal trade data from the UN Comtrade Database. Data reported by the importer were prioritized because import data is widely known to be more reliable than export data, as customs authorities have an incentive to properly monitor and control products that are coming into their territories, especially when those goods are subject to import duties. The most recently available data reported by the importer was used. If data was not available for the past 10 years (due to delays in trade data reporting), corresponding figures as reported by the exporter were used. The ratios were applied to the formal trade figures in order to formulate the estimates of informal cross-border trade flows. Those estimates are set forth in the annex to the present report.

4.2 Main findings: Estimates of informal cross-border trade in Africa

The aforementioned calculations allowed us to generate an estimate of the value of ICBT for those countries for which data was available. The overall estimate of the value of ICBT in Africa was $5.1 billion (low estimate) or $15.0 billion (the high estimate). In order to calculate the share of ICBT in overall intraregional African trade, we needed to estimate the value of ICBT for those countries for which no data was available. For those countries, we used the median ratio of 0.26 (for our low estimate) and 0.48 (for our high estimate), which gave us our final estimate of approximately $10.4 billion (low estimate) and $24.9 billion (high estimate).

When divided by the total value of intra-African trade, as reported by UNCTADstat ($151 billion), we calculated that ICBT accounted for 7 per cent and 16 per cent of formal intra-African trade flows, (low and high estimates, respectively). This may seem lower than expected. However, it is important to bear in mind that our estimate is based exclusively on ICBT flows between neighbouring countries. When we calculate our final estimate as a percentage of intra-African trade, the presence of high-value bilateral flows between non-neighbouring countries increases the value of our denominator and reduces the final figure.

Our estimate of the total value of ICBT between neighbouring countries is equivalent to between 30 and 72 per cent of formal trade between neighbouring countries. If the estimates are added to the total value of formal trade flows within the region, intra-African trade as a proportion of overall African trade (which includes trade with countries outside the continent), increases from 14.5 to between 15 and 16.9 per cent.

The median ratios used in the estimate assume that the value of informal trade across borders between neighbouring countries in Africa is equivalent to between 26 and 48 per cent of the value of formal trade between those countries. That is a substantial figure. We can compare those two median ratios to the ratios that have

| Table 3: Value of informal cross-border trade and intra-African trade, the share of cross-border trade accounted for by informal cross-border trade and the ratio of cross-border trade to total intra-African trade |
|-------------------------------------------------|------------------------------------------------------------------------------|-----------------------------------------------------------------|
| Value of informal cross-border trade            | Low estimate                                                                 | $10 441 049 381.14                                              |
|                                                | High estimate                                                                | $24 872 409 487.93                                              |
| Value of intra-African trade                    | Source: UNCTADstat                                                            | $1 509 531 154 938.00                                            |
| Share of ICBT in total value of cross-border trade between neighbouring African countries | Low estimate                                                                 | 30%                                                             |
|                                                | High estimate                                                                | 72%                                                             |
| Ratio of ICBT to total value of intra-African trade | Low estimate                                                                 | 7%                                                              |
|                                                | High estimate                                                                | 16%                                                             |

*Source: Authors’ calculation.*
been collected by Uganda and Rwanda, the two countries that collect regular and reliable data on ICBT on the continent. For 2018, the lowest share for Uganda was 12 per cent (exports to South Sudan) and the highest was 57 per cent (exports to the Democratic Republic of the Congo), as illustrated in figure II. Our median ratios are between those two figures. For 2016, the lowest share for Rwanda was 1 per cent (exports to and imports from the United Republic of Tanzania) and the highest was 183 per cent (exports to Uganda). Our median ratios are, once again, between those two figures.

Our estimate should be compared with the following estimates from other sources.

- ECA (2013) estimated that that ICBT was equivalent to approximately 90 per cent of official trade flows in some African countries;
- Afrika and Ajumbo (2013) estimated that ICBT accounted for between 30 and 40 per cent of total trade among Southern African Development Community (SADC) countries;
- Nshimbi and Moyo (2017) suggested that ICBT accounted for some 40 per cent of trade among member countries of the Common Market for Eastern and Southern Africa (COMESA).

However, it is important to recognize that we are not comparing like with like. The estimate presented in this paper is the first-ever continental estimate for ICBT, whereas the estimates referred to above are country or regional examples, which cannot be considered representative for the continent as a whole. Our estimate utilizes data from a range of years, including data collected up until 2019, whereas the other estimates were published at a much earlier date. Furthermore, the methodological underpinnings of the above estimates have not been made available by the researchers undertaking the relevant studies, rendering comparative assessments less meaningful.

**Figure II: Ugandan formal and informal exports by destination, (estimated value ($ million) and share of total trade), 2018**

Source: Authors’ calculation.
4.3 Limitations

Estimating the value of ICBT in Africa is challenging for several reasons. This explains why no attempt has been made to estimate total ICBT flows in Africa prior to this paper. There is no continent-wide data set collected according to consistent methodological principles that can be used as a basis for such an estimate. Only Rwanda and Uganda collect ICBT data on a regular basis; other countries have carried out ad hoc studies that are not directly comparable with one another due to inconsistent data collection methodologies or varying definitions of ICBT. Our calculations are also limited due to the following factors:

- Data is available for only 61 of the 214 trade flows to be considered in order to estimate total ICBT in Africa. The authors have therefore extrapolated from available data in order to estimate the 153 trade flows for which no data is available;

- Estimates of ICBT tend to be underestimates, as it is almost impossible to fully capture data on all informal cross-border trade flows (including goods transported along unofficial trade routes or at night, and under-declared goods transported along formal routes). Furthermore, most data sets used refer to goods transiting through a limited number of border crossings, and do not take into account what may be significant volumes of goods transiting through other border crossings;

- Estimates of informal imports and exports may, in some cases, be inflated by the phenomenon of informal re-exports and informal transit trade, as a distinction is rarely made between those two trade flows in existing data sets;

- Certain countries have no formal trade data reporting requirements and data collection initiatives have been carried out in some countries on an ad hoc basis. The authors were, moreover, obliged to estimate current ICBT flows for certain countries on the basis of trade flow data that was several years and, in one case, several decades out of date.

5: Policy implications

These are the first ever estimates of the value of ICBT flows within Africa, and have important policy implications for a continent that has, at least since colonial times, been largely outward-looking. A reassessment of the weight of intra-African trade in overall trade flows and its potential implications for employment creation and economic integration may encourage policymakers to increase their investments in intra-regional connectivity, including in soft and hard infrastructure, such as roads, public transport, marketplaces and border infrastructure, and in trade-related services, such as foreign exchange services, market information systems, trade finance and business-matchmaking services. A significant proportion of those investments should specifically target small-scale cross-border traders, including women, who have different needs from those of large-scale traders.

It is critical to strengthen efforts to track ICBT flows in Africa. Currently, there is no universally agreed definition of ICBT. Certain data collection agencies include smuggling in the definition, while others identify smuggling as a form of illegal trade that should not be captured within ICBT. Data collection takes place, primarily, at border crossings where customs officials are already present, whereas other data collection exercises also take place along unofficial trade routes. Some agencies limit the definition of ICBT to cover only agricultural goods, while others take a more comprehensive approach and consider all products traded, sometimes even including informal cross-border trade in services in the definition. The World Bank and COMESA use the term “small-scale cross-border trade” instead of informal cross-border trade. The many definitions of ICBT makes comparability of data sets impossible. Without a common definition of ICBT, it is very difficult to understand what ICBT truly means to stakeholders. This not only causes confusion but can undermine buy-in and support for ICBT data collection initiatives, which may
be misinterpreted as tax raising efforts. At the same time, without a standard definition of ICBT, it is difficult to aggregate ICBT and estimate its contribution to intra-African trade.

There are also significant differences in the methodologies adopted to track ICBT. Surveys typically adopt one of three techniques for collecting ICBT data, namely, border observation, tracking of movement of large vehicles, and stocktaking at open markets. Some methodologies collect ICBT data flows on the basis of the general trade system for compiling international merchandise trade statistics, whereas others adopt a more ad hoc approach. Units of measurement applied to the same product are not always the same. Data is also not always collected at the same frequency. Some survey exercises collect data every day of the month, while others collect data on a select number of days each month and extrapolate for the remaining days. Daily data collection may be constrained to daylight hours, or also include night trade. Some data collection methodologies have been automated and now rely on communications technology, whereas others have maintained manual data collection sheets. Gender disaggregation has been incorporated into some survey methodologies. Beyond surveys, some researchers have developed estimates based on so-called "mirror statistics".

As is the case with formal trade, assessing ICBT requires a common methodology, including a standard definition of the phenomenon. If reliable data on ICBT were collected across the board, there would be no need to rely on "best endeavour" estimates like the one presented in this paper. Good international practice recommends the use of a common nomenclature in the collection and dissemination of trade statistics, with the aim of facilitating comparability of data. The rule with respect to formal data collection is the utilization of the Harmonized Commodity Description and Coding System (HS), developed by the World Customs Organization and in use since 1998, and the Standard International Trade Classification (SITC). ICBT data estimates that have been recorded using the HS and SITC systems, including those of the national statistical offices of Benin, Kenya, Nigeria, Rwanda and Uganda, can be integrated more easily into official statistics, and are therefore particularly useful in informing balance of payments statistics and economic policies. In developing a common definition for ICBT, it will therefore be crucial to ensure alignment with formal trade statistics.

The methodology adopted by the Uganda Bureau of Statistics for ICBT data collection can be used as a starting point for the development of a common continental ICBT data collection framework for the East and Southern African subregions. It has been identified as best practice for the measurement of ICBT in the 2010 International Merchandise Trade Statistics Compilers Manual, and has also been approved by the United Nations Economic and Social Council (United Nations, 2013).

Ideally, ICBT monitoring should be led by national governments to ensure full domestic ownership, institutionalization and long-term sustainability. National statistics offices face acute resource and capacity constraints, however. This can impede data collection efforts and make it difficult for national statistical offices to conduct and institutionalize any new data collection exercises, such as ICBT monitoring. This explains why many ICBT data collection initiatives in Africa have been either donor driven or one-off government exercises (excluding those conducted by Kenya, Rwanda and Uganda). Institutionalization can be supported as follows:

- In the short-term, conducting ICBT surveys on a periodic basis can help to provide a snapshot of the status of ICBT and its contribution to the economy. In a context of resource and capacity constraints, governments may consider carrying out a 6- or 12-month ICBT data collection exercise once every five years, and then scale up. A benchmark study can also help to demonstrate the benefits of ICBT monitoring and encourage more regular and frequent data collection. Donor-funded data collection pilot exercises can play a crucial role in kicking off the process of ICBT monitoring and establishing data collection systems;

- In the medium- to long-term a shift from donor to government-financed and operated ICBT monitoring is required in order to ensure full domestic ownership, institutionalization
and long-term sustainability. There is a need for donors to upscale support to national statistical offices. Attracting the support of the country’s central bank can also be helpful in ensuring the financial sustainability and scale of the exercise. For example, the Bank of Uganda has provided crucial financial backing to ICBT monitoring in Uganda. At the same time, to avoid duplication of efforts and reduce costs, particularly if more than one agency is carrying out ICBT monitoring within a specific subregion or trade corridor, efforts should be made to share out the border points covered (which can expand coverage) and develop a common coding system;

- Targeted capacity-building efforts are needed to train staff at national statistical offices on how best to collect ICBT data. Development partners can provide important support in that regard. Advocacy efforts should be explored to build interest in the project, with the end goal of raising the capacity and resources of national statistical offices.

Given the resource and capacity constraints faced by many countries in Africa, regional economic communities can play an important role in addressing gaps and/or supporting ICBT data collection initiatives. Several regional economic communities have already drawn up strategic plans that require the monitoring and collection of trade-related data. In East and Southern Africa, the East African Community (EAC) and COMESA have both adopted simplified trade regimes to support informal traders and have also developed a standardized manual for monitoring ICBT. In West Africa, ECOWAS has adopted the 2018–2022 Informal Trade Regulatory Support Programme to guide efforts to integrate informal trade in national and regional strategies, including through data collection. Working closely with African countries’ national statistical offices, regional economic communities across the continent can play an important role in strengthening ICBT data collection capacities, addressing data gaps and coordinating data collection.

A comprehensive African Union framework should be adopted to streamline the collection of ICBT data. Moreover, the full potential of ICBT should be harnessed within the context of the landmark Agreement Establishing the African Continental Free Trade Area. In that connection, the adoption of the Agreement has demonstrated that, with strong commitment, relevant stakeholders can

Figure III: Relative shares (per cent) and value ($ million) of formal and informal exports by Uganda, 2006–2020

![Figure III: Relative shares (per cent) and value ($ million) of formal and informal exports by Uganda, 2006–2020](image-url)
negotiate and conclude key agreements on trade extremely rapidly. Strong pan-African efforts are now needed to facilitate the adoption of a common continent-wide definition of ICBT and a standardized data collection methodology. Efforts to that end could be coordinated by a continental ICBT taskforce. That taskforce should be led by the African Union Commission and comprise representatives from regional economic communities and leading pan-African institutions, including ECA, Afreximbank and the African Development Bank. The task force would provide technical guidance to facilitate the development of a common African Union framework for ICBT data collection, and to support the subsequent implementation phase. The task force would achieve this through regular consultations with key institutions in member States, including national statistical offices, central banks, ministries of trade and customs authorities.

The pandemic has strengthened the case for collecting data on ICBT for policy and planning purposes. Currently, policy measures and regulations to facilitate safe cross-border trade during the COVID-19 pandemic have only been applicable to goods transported by truck, and fail to address the high proportion of cross-border trade that is informal and involves traders moving across borders on foot. Measures taken to contain the pandemic have contributed to a significant drop in ICBT flows, with serious negative repercussions for the livelihoods of informal traders (Sommer, Luke and Masila, 2020). For Uganda, for example, a country that collects ICBT data on a regular basis, total ICBT in the second quarter of 2020 was a mere $3 million, a huge drop from the $125 million recorded during the same period in 2019. Furthermore, and as illustrated in figure III above, total Ugandan informal exports declined by some 43 per cent in 2020, while the value of formal exports increased significantly.3 Reliable and regular ICBT data is critical to identifying such adverse impacts and, in turn, informing critically important policy adjustments.

3 Bank of Uganda Statistics.
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## Annex

Value of formal trade (most recent available figures provided in the UN Comtrade Database) and estimates of the value of informal trade (authors’ calculations)

<table>
<thead>
<tr>
<th>Trade flow</th>
<th>Value of formal trade used in the estimate</th>
<th>Estimate of informal trade (low)</th>
<th>Estimate of informal trade (high)</th>
</tr>
</thead>
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<td>$61 025 534.40</td>
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<td>Dem. Rep. of the Congo→Angola</td>
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<td>$15 187 438.39</td>
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<td>Ethiopia→South Sudan</td>
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<td>Estimate of informal trade (high)</td>
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<td>Estimate of informal trade (high)</td>
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