

Trade Finance in Africa



3 December 2014

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The findings, interpretations, and conclusions expressed in this report are entirely those of the authors and do not necessarily represent the view of the African Development Bank, its Board of Directors, or the countries they represent.

ii. Executive Summary

The objective of this report is to improve understanding of the trade finance market in Africa, which remains under explored because of data scarcity. The report is based on a unique and primary survey of African commercial banks collected specifically for this purpose. The survey covered about 276 banks across 45 African countries on their trade finance activities in 2011 and 2012. The main findings of the report can be summarized as follows:

1. **The value of bank-intermediated trade finance in Africa is estimated to range from USD 330 billion to USD 350 billion.** This is roughly equal to one-third of total African trade. Notably, there is significant sub-regional heterogeneity, with the average trade finance assets per bank in Northern Africa dwarfing those of the other sub-regions.
2. **The share of bank-intermediated trade finance that is devoted to intra-African trade is limited,** and comprises approximately 18% (USD 68 billion) of the total trade finance assets of African banks. It should be noted, however, that the share of intra-African trade accounts for 11% (USD 110 billion) of the value of total African trade. Hence, while the value of trade finance that African banks devote to support intra-African trade is lower than the amount of the region's internal trade, the proportion is much higher than the latter's.
3. **There are still significant deficits in meeting the demand for trade finance in Africa.** Given the estimated rejection/approval rates reported in the survey, the conservative estimate for the value of unmet demand for bank-intermediated trade finance is USD 110 billion to USD 120 billion, significantly higher than estimated earlier figures of about USD 25 billion. These figures suggest that the market is significantly underserved. Unmet demand is also much higher in fragile and low-income countries (LICs) than in middle-income countries (MICs).
4. **Trade finance is a relatively low-risk bank activity in Africa but not to the same degree as other regions.** Average trade finance default rates in Africa (4%), while low, are still higher than other regions of the world where it averages less than 1%. Default rates are also highly variable across sub-regions. However, the trade finance default rates are significantly lower than banks' overall non-performing loans ratio.
5. **The outlook for trade finance remains positive, with about 72% of the responding banks expecting to increase their trade finance activities in the immediate future.** However, banks foresee obstacles to their trade finance portfolio growth such as low US dollar liquidity, regulation compliance, slow economic growth, and the inability to assess the credit-worthiness of potential borrowers.
6. **Trade finance is an appealing activity for African commercial banks and is attracting a growing number of players.** The majority (93%) of surveyed banks undertook trade finance activities in 2012. This high participation rate in the sector is true for all sub-regions of the continent. We also find a slight increase in the share of banks that have had trade finance assets from 92% in 2011 to 93% in 2012.

7. **Trade finance contributes about 17% of African banks' earnings on average.** Banks' share of earnings from trade finance is inversely proportional to the depth of financial markets in their home countries. Whether this adds to the diversification of banks' earnings is not clear from available data.
8. **The most common fee rate (on a quarterly basis) for issuing letters of credit in Africa remains virtually unchanged within the range of 0.5% to 1% between 2011 and 2012.** The effects of the global financial crisis seem to be abating, at least with regards to pricing in the trade finance market. While there have been significant increases in pricing for trade finance instruments during the financial crisis (2008-2010), the results of our survey suggest that pricing has stabilized between 2011 and 2012 in Africa.
9. **African banks face numerous constraints in meeting the demand for trade finance.** The survey reveals that the main constraints are limited US dollar liquidity (by far the dominant currency in international trade, and by extension, trade finance) and insufficient limits with confirming banks. Indeed, the requirement of confirmation of letters of credit (LCs) remains a major challenge for African banks as virtually all LCs issued by banks on the continent require confirmation when the counterparty is located outside the region. Given the limits on risk headroom by confirming banks for African issuing banks, a large number of the latter are highly constrained in providing needed trade finance.
10. **There is a growing list of African confirming banks, though most of these are located in the more developed markets of the region.** In fact, the biggest determinant of the likelihood of a bank confirming letters of credit is whether it is located in a country with high GDP level and financial sector development. Other factors that determine the likelihood of a bank confirming letters of credit is size (in terms of total assets) and local ownership. It is not clear to what extent African-based confirming banks can confirm letters of credit when the beneficiary of the letter of credit is located outside of the continent. Confirming banks are significantly less likely to be in low-income and fragile states.
11. **Given the above constraints, there exists a significant role for governments and development finance institutions (DFIs).** In particular, trade facilitation programs that address USD liquidity and relax constraints from binding risk limit are needed to meet the increasing demand of African firms for trade finance. Given this reality, the AfDB's trade finance program is a welcome addition to on-going trade facilitation programs instituted by a number of DFIs.

I. Introduction

Trade is an important driver of economic growth and development. The value of African trade (the sum of imports and exports) amounts to approximately two-thirds of its GDP, making it one of the most open¹ regions. These export and import flows have development implications for the continent. Exports allow African firms to access larger markets and innovate through greater competition, leading to higher productivity and growth. Imports of consumption goods are essential for consumers, while imports of machinery and other intermediate goods allow manufacturing firms to generate employment through greater production and exports.

For firms operating in Africa, trade finance is of paramount importance. When bank financing is not available, firms typically enter into inter-firm credit arrangements such as cash-in-advance and open account transactions. In a cash-in-advance arrangement, the importer extends credit to the exporter by making payment before the goods are transferred with transaction risk borne by the importer. In an open account transaction, the exporter bears the risk by transferring goods before full payment is received. Both mechanisms carry significant risk and firms mostly partake due to lack of alternatives. For instance, cash-in-advance arrangements impose liquidity-constraints and therefore limit profitability and growth. Similarly, open-account transactions are often unavailable as sellers tend to have a high risk aversion to buyers and are not willing to ship goods before full payment. To navigate these challenges, firms commonly seek trade finance from financial intermediaries, such as commercial or development banks and export promoting agencies. Bank-intermediated trade finance may be provided “off-balance sheet” in the form of documentary, commercial or standby letters of credit, promissory notes, bills of exchange, and guarantees. It may also be extended through “on-balance sheet” transactions in the form of short-term trade finance loans such as pre or post-shipment loans, trade-related revolving credit and export factoring, among others.

Despite the importance of trade finance for firms engaged in international trade, there is a great deal we do not know about the market in Africa. This includes the approximate size of trade that

¹ One of the most common definitions of openness is the ratio of trade (the sum of exports and imports) to GDP. For example, the average value of trade as a percentage of GDP for OECD countries is approximately 40%.

is facilitated by banks, its variation across countries, the share of trade finance going to intra-African trade, the importance of this sector for banks' earnings, and how the characteristics of trade finance evolve with other macroeconomic variables. Without an accurate picture of the current trade finance landscape on the continent, it is challenging for policy makers and development finance institutions (DFIs) to implement targeted programs and actions.

While the lack of data is not limited to Africa, the degree is more acute for the region. This limitation has already been recognized by a number of recent publications (BIS 2014; Auboin 2007; Auboin and Engemann 2013; Mora and Power 2011). With the impact of the 2008/09 financial crisis, there has been an increase in the rate of publications on trade finance. The World Bank, the International Monetary Fund, the Asian Development Bank and the International Chamber of Commerce have all carried out some surveys on the market. Unfortunately, the coverage of the African trade finance market in these surveys has been limited².

This report seeks to fill the above information gap. It is based on a unique survey of the trade finance activities performed by commercial banks in Africa in 2011 and 2012. Our sample covers 276 banks in 45 countries. We find a significant participation in trade finance activities by African banks through both on-balance sheet and off-balance sheet financing. Yet, despite the high participation rate of commercial banks, there is a substantial degree of unmet demand as evidenced by a significant rejection rate of finance requests made by firms. There is some silver lining in that some of the constraints faced by banks can be addressed through appropriate policies, both through individual country policies and interventions by development finance institutions such as the African Development Bank.

II. African Trade: Recent Trends

Africa's GDP grew, on average, at 4% per annum between 2000 and 2012, with trade being an important engine of this growth, mainly driven by high commodity prices. Since 2000, growth in African trade outpaced the continent's GDP growth, at about 8% per annum (Figure 1) resulting

² The World Bank survey (Malouche 2009) is an exemption as African banks constituted about half of their sample size of 78 banks.

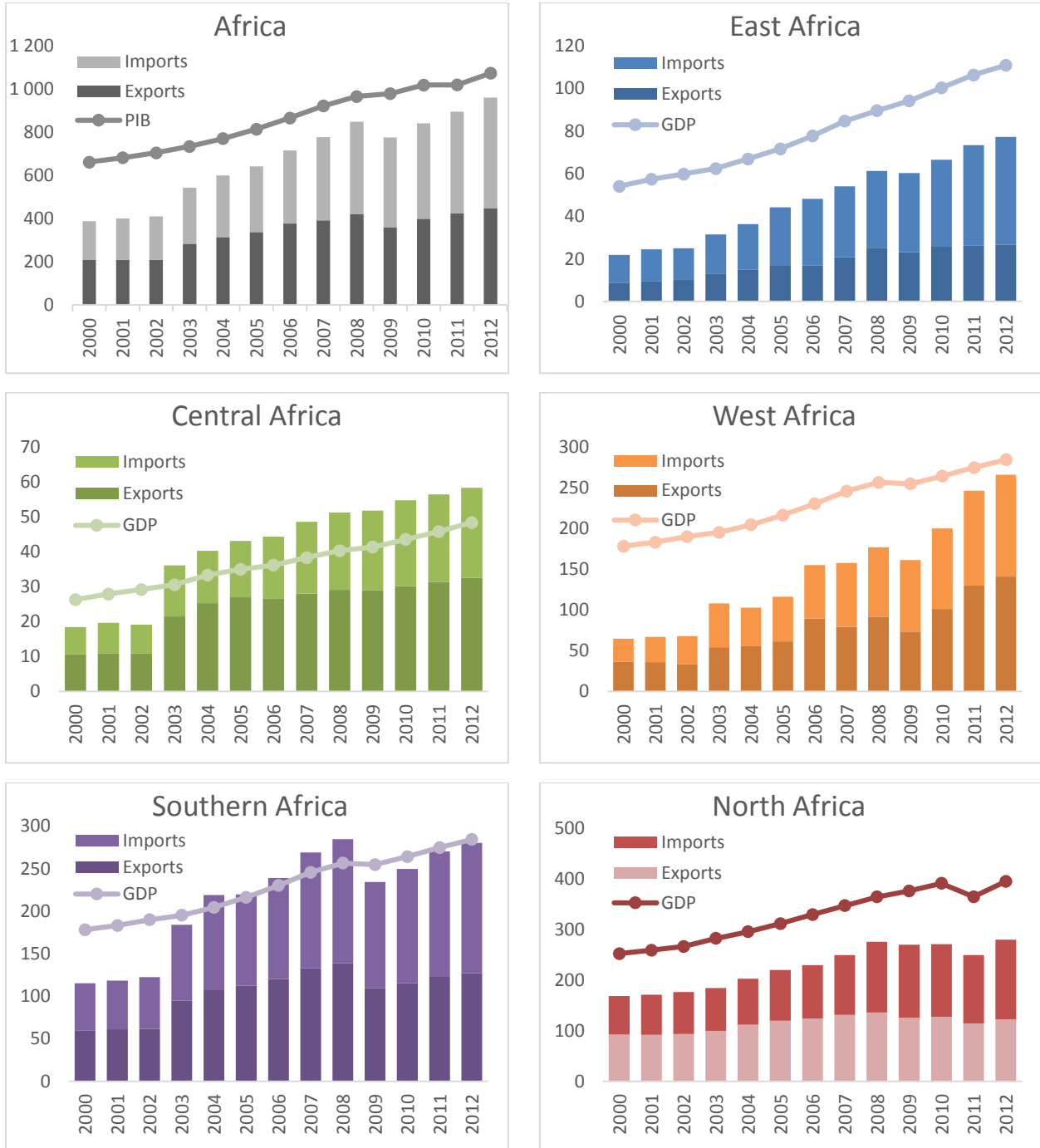
in the value of trade surpassing the USD 1 trillion mark in 2012. Growth in Africa's trade has also exceeded the global rate, which was about 4% in 2012.

Intra-African trade remains, however, very limited. Notably, among all the regions of the world, intra-regional trade is lowest in Africa, accounting for approximately 11% of the total value of African trade in 2012 (UNCTAD 2013). For Asia, Europe and Latin America, intra-regional trade represented, on average, about 51%, 68% and 21% of their trade over the period 2007-2011, respectively. The share of intra-African trade is not uniform across sub-regions. North Africa has the lowest proportion of intra-regional trade mainly because of the limited integration of the 6 countries in this sub-region (5%). The sub-region with the highest proportion of intra-regional trade is Eastern Africa (27% in 2012). Western and Southern Africa have almost similar proportions of their trade done within the region. Interestingly, this ordering of sub-regions changes when the values, instead of the proportions of intra-regional, are considered. Specifically, when expressed in US dollar values, the small proportion of intra-regional trade in North Africa surpasses the value of intra-regional trade for those of Eastern and Central Africa. Southern Africa has the largest value of intra-regional trade, almost as high as Western, Eastern and Central Africa combined.

Africa had also showed some resilience to the 2008 global crisis. Yet, in all sub-regions of the continent, GDP and trade grew at a much lower pace between 2008 and 2012 compared to pre-crisis levels. Not surprisingly, the more globally integrated Northern and Southern sub-regions experienced a more pronounced effect on their trade and GDP than other less integrated parts of the continent (e.g. Central Africa). The 2008 financial crisis affected African trade both directly through a contraction of demand for African goods and services (Berman and Martin 2010; Chor and Manova 2009) and indirectly through reduction in available trade finance facilities. Indeed, a large share of African trade depends on trade finance from local and international banks, including the confirmation of letters of credit. When the crisis hit, many international financial institutions started cutting financing for counterparts in countries that were considered high risk. This was reflected in reduced financing limits for these countries, higher pricing and stricter requirements on counter-party banks such as cash collateral, as well as shortened maturities.

Changes in prudential regulation that followed the crisis further compounded trade finance scarcity.

Figure 1: African Trade (Exports and Imports) and GDP (in USD Billions - Constant 2000).



Source: IMF Direction of Trade (2013) and African Development Bank (2013).

III. The Data

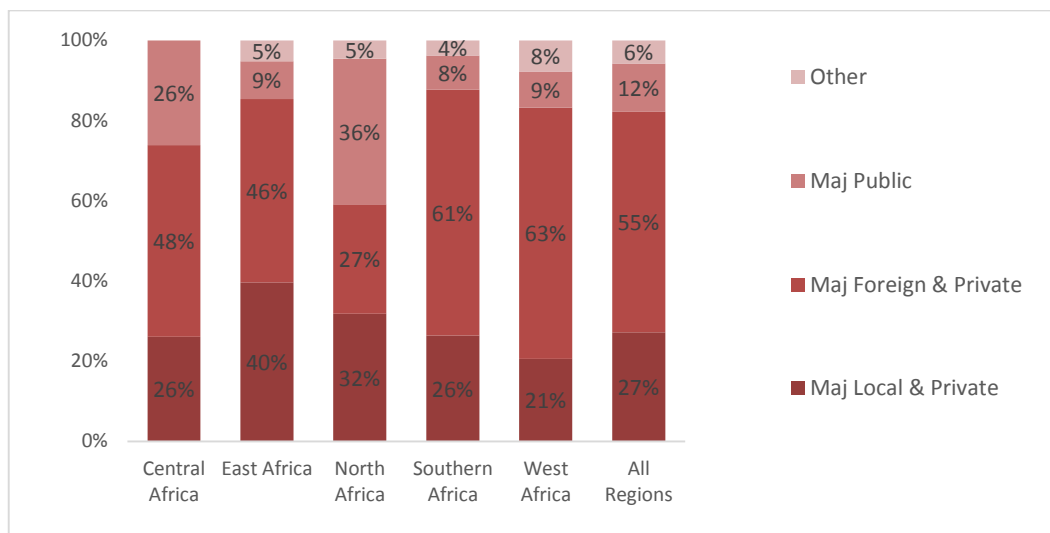
Data on trade finance used in this report come from an original survey of banks conducted by the African Development Bank in 2013. It covers trade finance activities of commercial banks over the period 2011-2012. Commercial banks were identified through Bankscope, AfDB field offices and country economists as well as contacts in African central banks and banking associations. The survey questionnaire was emailed to approximately 900 commercial banks in 52 African countries in late 2013. Follow-up enquiries were made by both email and phone calls. A total of 276 banks completed the questionnaire for 2011 and 2012, bringing the total number of observations over the 2-year period to 542. This response rate of about 30% compares favorably with those of other recent trade finance surveys. The sample covers 45 countries from all African sub-regions³. The sub-regional composition of the respondents is as follows: West Africa (27%), East Africa (21%), Southern Africa (20%), North Africa (8%) and Central Africa (4%). The data also has a good coverage of countries in terms of income level with 58% of responding banks located in low-income countries (LICs), and 23% in fragile states⁴.

The survey also included questions about some basic but key information such as size (total assets, deposits and equity) and financial soundness. Those data show some variation in bank characteristics across countries. The modal responding bank is majority privately-owned by a non-national (foreign) entity (Figure 2). Foreign ownership is particularly dominant for banks located in West and Southern Africa. About 12% of responding banks are majority government-owned. This proportion varies significantly across sub-regions. Government ownership is significantly higher in North Africa (36%) and Central Africa (26%) than in other sub-regions. East Africa has the highest proportion (40%) of domestic privately-owned commercial banks.

³ The full list of countries represented in the sample is presented in the Appendix.

⁴ See the Appendix for a list of country classifications.

Figure 2: Distribution of Bank Type (Ownership Structure) by Sub-Region.



Bank size, as measured by total assets, also varies significantly across sub-regions (Figure 3). Responding banks in Southern and North Africa are significantly larger in terms of assets, equity and customer deposits than those located in other sub-regions, especially in Central and West Africa. This result reflects the larger size of economies in these sub-regions as well as their more advanced financial systems. The larger size of many North African banks also reflects the dominance of public sector banks where government resources, including those derived from oil and gas, are often deposited.

The data also show that responding banks are profitable, though far from universally so. The average rate of return on assets (ROA) in 2011 and 2012 was approximately 1% per annum (Figure 4) while the average return on equity (ROE) stands at 14%. Returns are quite heterogeneous across sub-regions, with the most profitable banks located in Southern Africa and the least profitable situated in the Central Africa sub-region. These rates are also correlated with ownership structure, with private locally owned banks exhibiting the highest returns.

In terms of soundness, the average non-performing loans (NPLs) ratio for our responding banks stands at approximately 9% (Figure 5), but this indicator is highly variable across sub-regions and ownership types. Average NPL ratio is highest for West African banks at 12% and lowest

for those in Southern Africa at 4%. Banks with majority government ownership have also the highest average NPL ratio (16%) and those with majority private and foreign ownership low average NPL ratio (7%). The positive relationship between performance and foreign ownership of banks in Africa is consistent with other findings (Figueira et al. 2006). The lower performance of government-owned banks supports the widely held belief that they are more prone to mismanagement.

Figure 3: Distribution of Bank Size by Assets, Deposits, Equity (Tier 1) and Profit (in USD million).

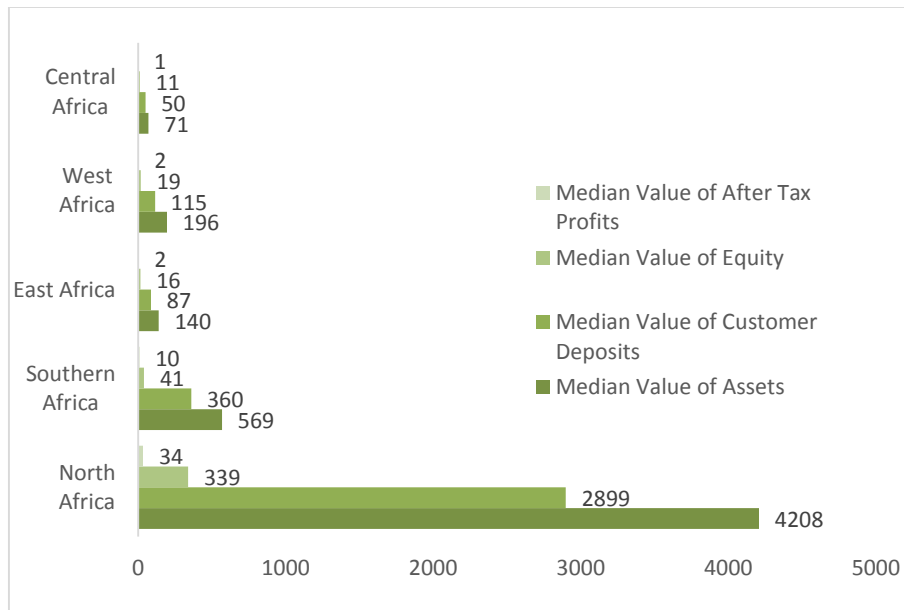


Figure 4: Average Bank's Return on Assets (ROA) and Return on Equity (ROE).

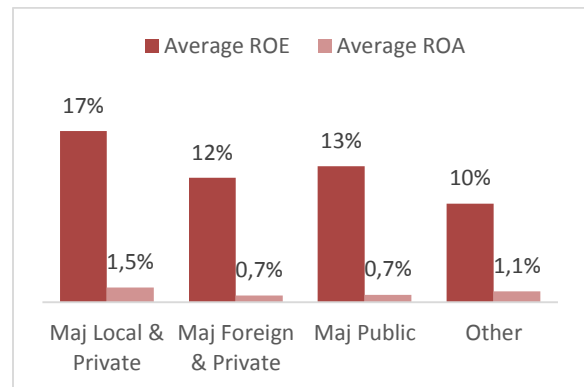
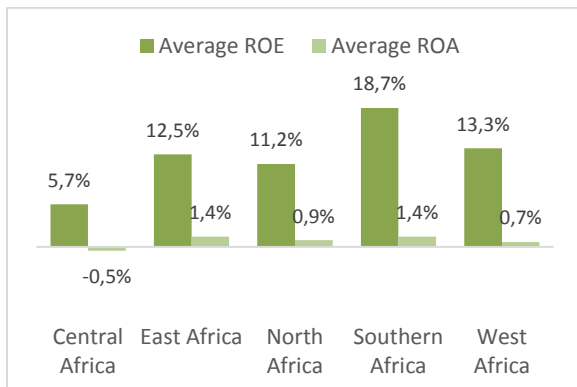
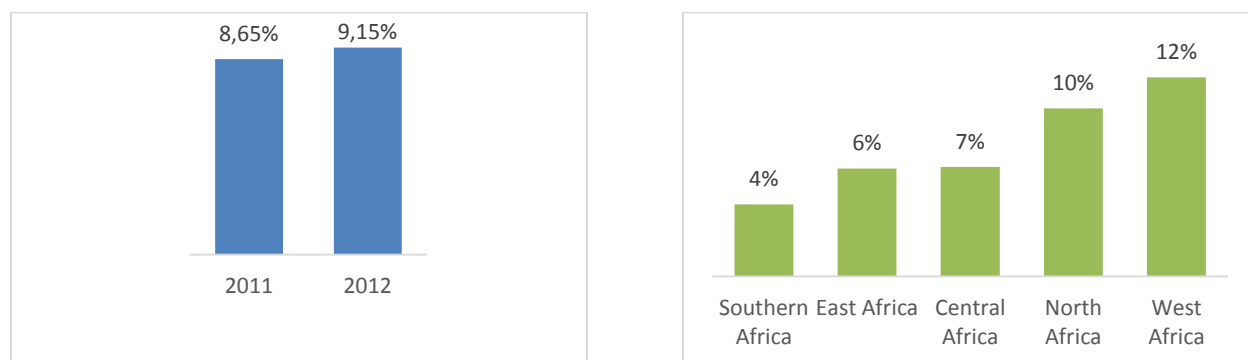


Figure 5: Average Bank's Non-Performing Loans (NPLs) Ratio by Year and Sub-Regions.



IV. Main Findings

The focus of this report is on bank-intermediated trade finance in Africa. The survey focuses on the intermediation activities of African commercial banks where the underlying transactions financed are the exchange of goods and services between firms in different countries. Usually, these transactions are short-termed and asset-backed, which makes them low-risk. Banks are also versatile in terms of instruments for trade finance. Specifically, financing can be provided through both on-balance sheet and off-balance sheet instruments.

a. Participation in Trade Finance by African Banks

Nearly all African commercial banks engage in trade finance (Figure 6). Indeed, about 93% of banks in our sample had trade finance assets. This proportion is roughly the same in both 2011 and 2012. This high level of participation holds across the different sub-regions. Specifically, the participation rate of commercial banks in trade finance in Central, East, North, Southern and West Africa are 100%, 91%, 95%, 89% and 94%, respectively (Figure 7). In addition, there is no significant difference between fragile and non-fragile states in terms of the proportion of banks engaged in trade finance.

Figure 6: Proportion of Banks Engaged in Trade Finance by Year.

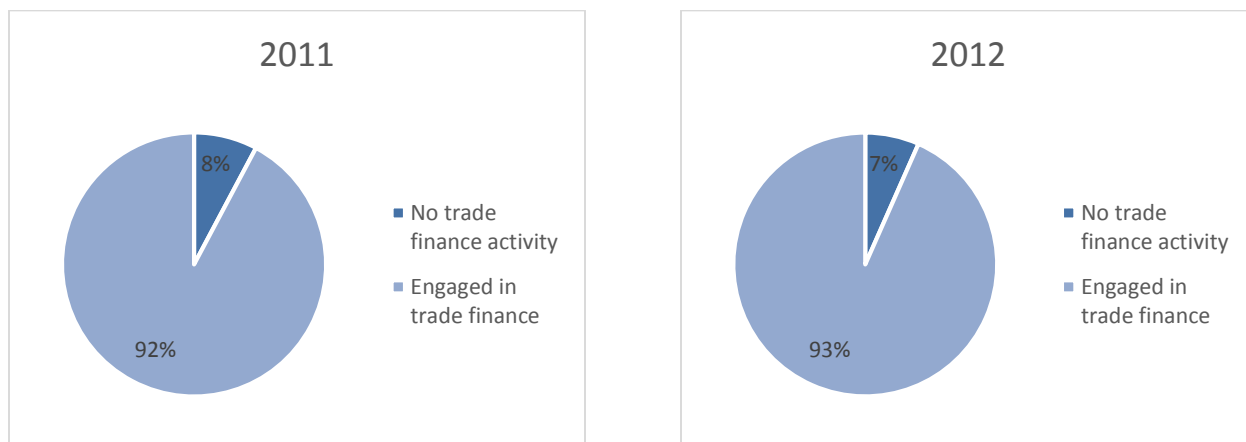
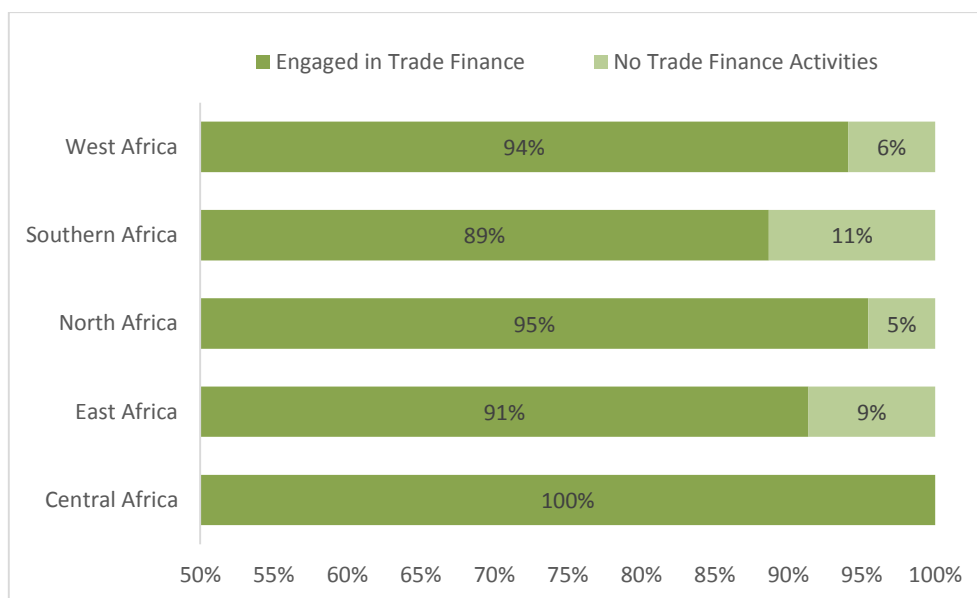


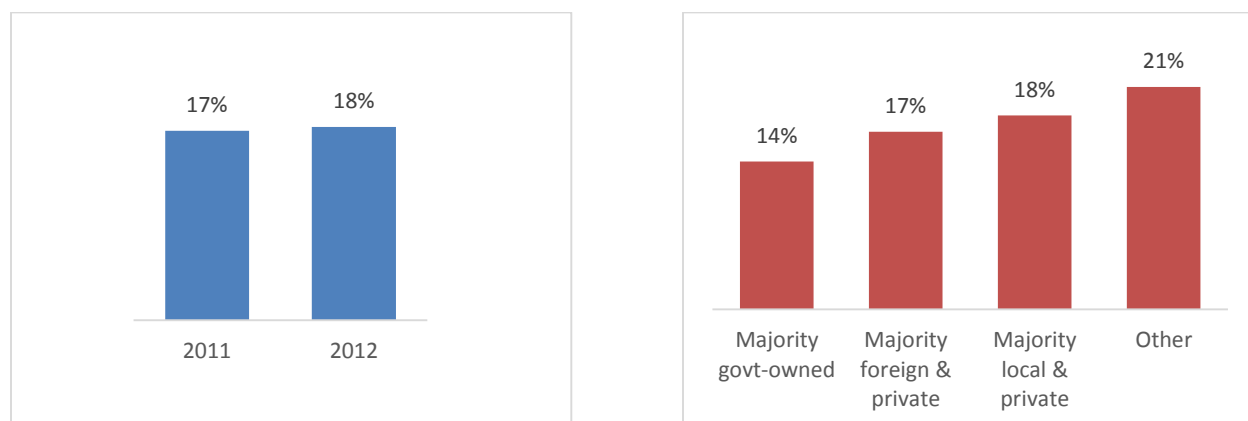
Figure 7: Proportion of Banks Engaged in Trade Finance by Sub-Region.



b. Importance of Trade Finance for African Banks

Our survey also reveals that trade finance generates significant income for our responding banks. On average, about 17% of banks' income comes from trade finance. This share remained stable over the period 2011- 2012 (Figure 8) and is relatively lower for banks that are majority government owned (14%). This group is followed by majority foreign-owned banks at 17%, while 18% of the income for majority private (local) banks comes from trade finance. Banks with other forms of ownership structure report the highest share of income from trade finance (21%).

Figure 8: Average Share of Bank’s Income from Trade Finance by Year and Bank Type.

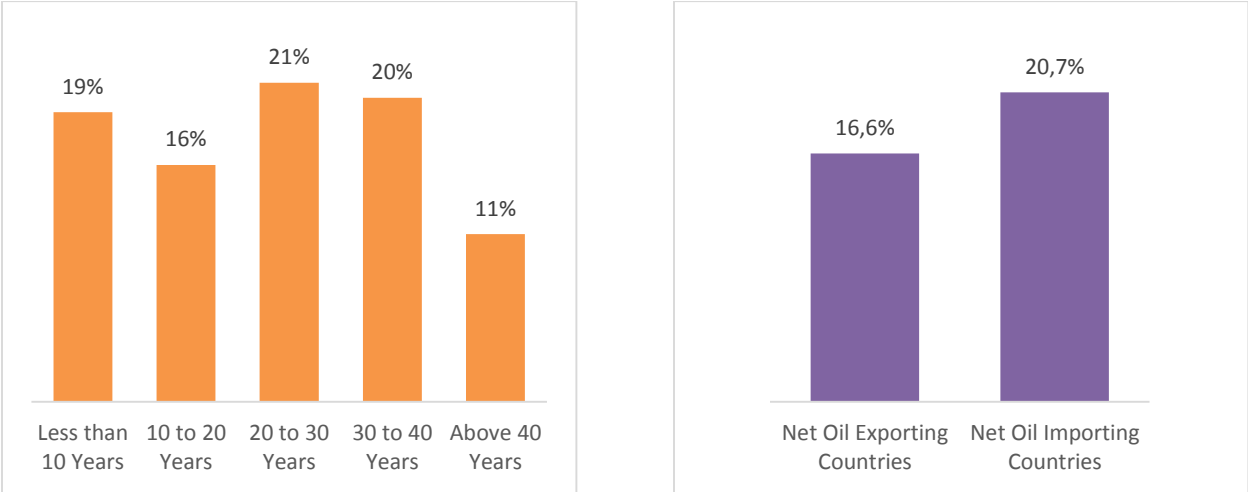


There is a greater variation in the share of income produced from trade finance geographically. The share is lowest in Southern Africa (12%) and highest in West Africa (21%). There is also negative correlation between the level of financial sector development⁵ and the share of banks’ income from trade finance activities. For instance, banks in fragile and low-income countries derive a greater share of their income from trade finance (25% and 19% respectively) relative to non-fragile states and middle-income countries (15% and 16% respectively). This result could reflect the greater supply of trade finance and/or higher level of competition in more developed countries, which would tend to reduce margins and therefore income. It is also likely that banks in relatively more advanced countries have a wider range of financial products, making their incomes more diversified. The difference could also reflect a higher level of demand for bank-intermediated trade finance in less developed countries since firms located in these countries have less access to alternatives to trade finance such as inter-firm credit (trade credit). We also find that banks in oil-importing countries derive a greater share of their income from trade finance (21%) than those in oil exporting countries (17%) (Figure 9). This difference could reflect greater demand for bank-intermediated trade finance in oil importing countries where African importers are often subject to more stringent requirements than African sellers. It should be noted that this finding could reflect government efforts to facilitate trade in such sectors considered strategic (e.g. energy). For instance in Ghana, the Central Bank has trade facilitation

⁵ We proxy financial sector development by the ratio of private credit to GDP.

programs to support trade finance for strategic sectors of which oil importation is the most important component.

Figure 9: Average Share of Income from Trade Finance by Bank Age and Country Type.



c. Trade Finance Assets: On and Off-Balance Sheet Transactions

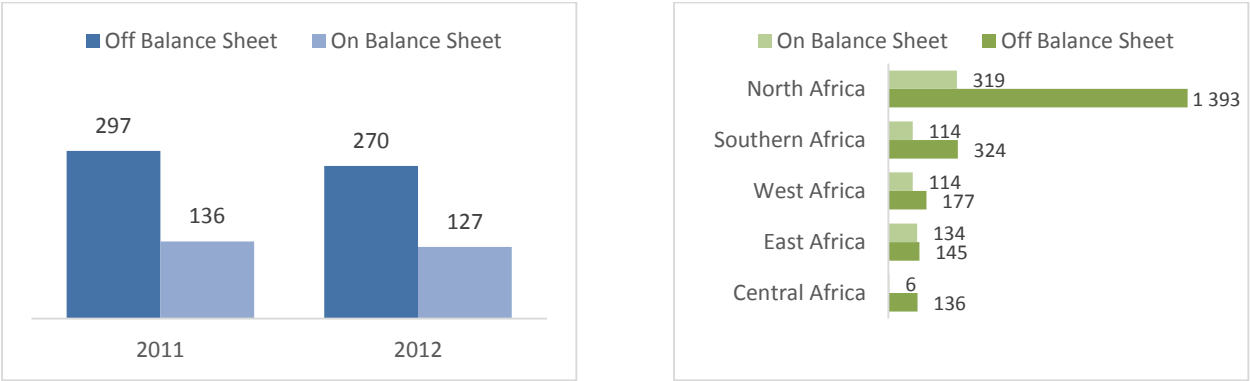
Banks undertake trade finance both through on-balance sheet and off-balance sheet operations. The main on-balance sheet trade finance instruments are short-term loans such as pre-export loans, post-import loans and trade-related revolving credit, while the key off-balance sheet activity is the issuing of letters of credit. In Africa, our sample suggests that off-balance sheet operations are more commonly used, with the average annual value of off-balance sheet trade finance assets of USD 297 million in 2011 and USD 270 million in 2012. On the other hand, the average value of on-balance sheet trade finance assets was USD 136 million in 2011 and USD 127 million in 2012. This is consistent with the composition of bank assets in more developed countries where off-balance sheet activities constituted high proportion of assets in the period leading to and including the financial crisis (Kalemli-Ozcan et al. 2012). Both on-balance and off-balance sheet operations have declined in 2012 compared to 2011 which is consistent with the findings of the survey conducted by the International Chamber of Commerce on mostly advanced countries. The latter shows a decline in certain trade finance activities over this period

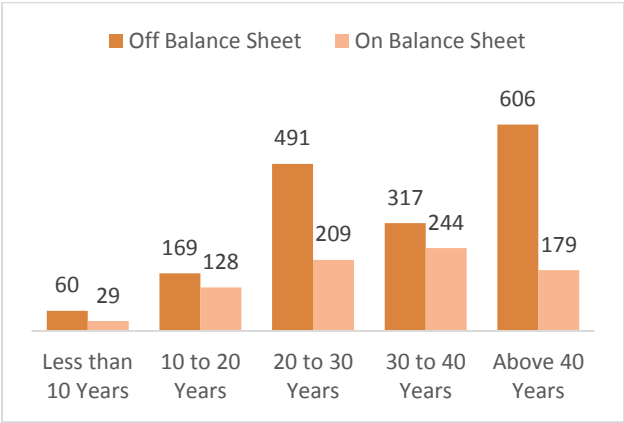
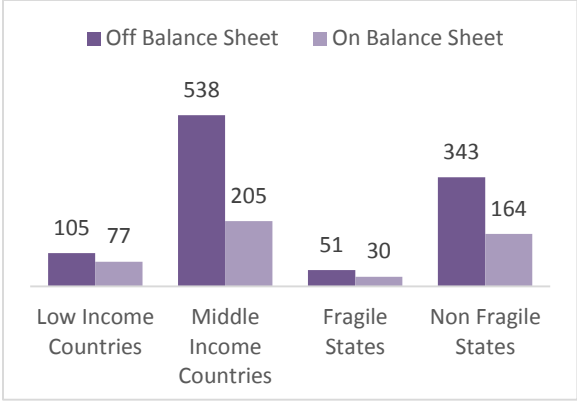
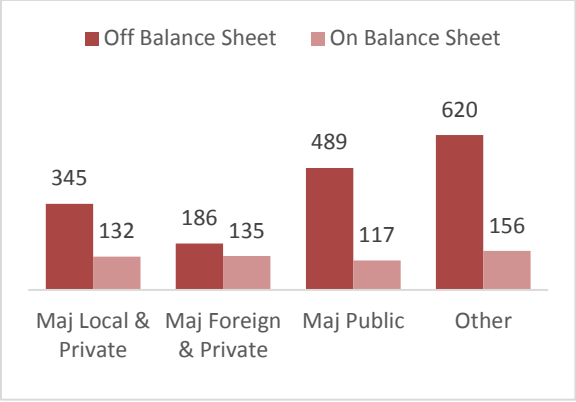
as well. For instance, a majority of banks in that survey reported either a decline or no change in both import and export letters of credit over this period (ICC 2013).

There are major differences across sub-regions in the average value of trade finance assets. Specifically, the average values for both off-balance (USD 1.4 billion) and on-balance sheet (USD 319 million) trade finance assets of North African banks dwarf those of other sub-regions (Figure 10). Most of these figures in North Africa are driven by banks in Algeria and Egypt. The average trade finance asset values in West and East Africa are more representative of the continent in terms of size. Central Africa has the lowest average values for on-balance sheet (USD 6 million) and off-balance sheet (USD 136 million) trade finance assets.

The average value of off-balance sheet transactions is significantly higher than for on-balance sheet trade finance transactions. This could be the result of balance sheet restrictions that are more exacting for on-balance sheet instruments.

Figure 10: Average Values of On and Off-Balance Sheet Trade Finance Assets by Various Categories (in million USD).





d. The Size of Bank-Intermediated Trade Finance in Africa

From average values of trade finance assets and the proportion of commercial banks engaged in trade finance, we provide a rough estimate of the size of bank-intermediated trade finance market on the continent. This value amounts to about USD 350 billion in 2011 and USD 330 billion in 2012⁶. The value of African trade (sum of imports and exports) stood at approximately USD 950 billion in 2011 and USD 1 trillion in 2012. Therefore, our survey data suggests that the level of trade finance provided by African commercial banks covers about 1/3 of the value of African trade flows in 2011 and 2012. The majority of this bank-intermediated trade finance (about 68%) was done using off-balance sheet instruments (e.g. letters of credit), while the rest was financed with on-balance sheet instruments (e.g. short-term loans).

⁶ This estimate is based on the following key assumptions: the mean value of on an off-balance sheet trade finance transactions (**Figure 10**), the share of banks providing trade finance in Africa (**Figure 6**), the fact that banks in Africa usually finance about 70% of the underlying value of goods traded and the estimated number of commercial banks on the continent.

The above estimate is within the range found in other recent studies focusing on the global trade finance market. For instance, BIS (2014) estimates global bank-intermediated trade finance to range between USD 6.5 trillion to USD 8 trillion in 2011, covering about one-fifth to a third of global trade. Within this amount, it is estimated that African bank-intermediated trade finance represents about 5% or roughly USD 300-400 billion. Similarly, the IMF and BAFTA-IFSA (2011) estimate that bank-intermediated trade finance covers about 40% of total trade, while Dornel (2014) estimates the share of bank-intermediated trade finance in Africa to be about 30%, which is very close to our estimate.

While global estimates of the value of bank-intermediated trade finance vary depending on the source, there seems to be consensus on the relative regional shares of the market. The Asia-Pacific region is the largest, accounting for about 45% of global trade finance. This has been attributed to the relatively long distance between the Asia Pacific region and its trading partners and the types of goods traded (e.g. cars and commodities). The European region is estimated to be next in line, with about 30%. Africa and Latin America regions are each estimated to account for no more than 5% (BIS 2014).

e. Trade Finance Supporting Intra-African Trade

Intra-African trade stood at approximately USD 130 billion in 2011 (UNCTAD 2013), representing about 11% of the total value of African trade. This is however an underestimation of trade flows among African countries since a significant amount of informal cross-border trade takes place on the continent. Yet, even if the value of informal trade were to be included, it is doubtful that the degree of intra-African trade would match that of intra-regional trade in other parts of the world. For instance, intra-regional trade in Europe and Asia, as a share of their total trade, exceeds 65% and 40% respectively.

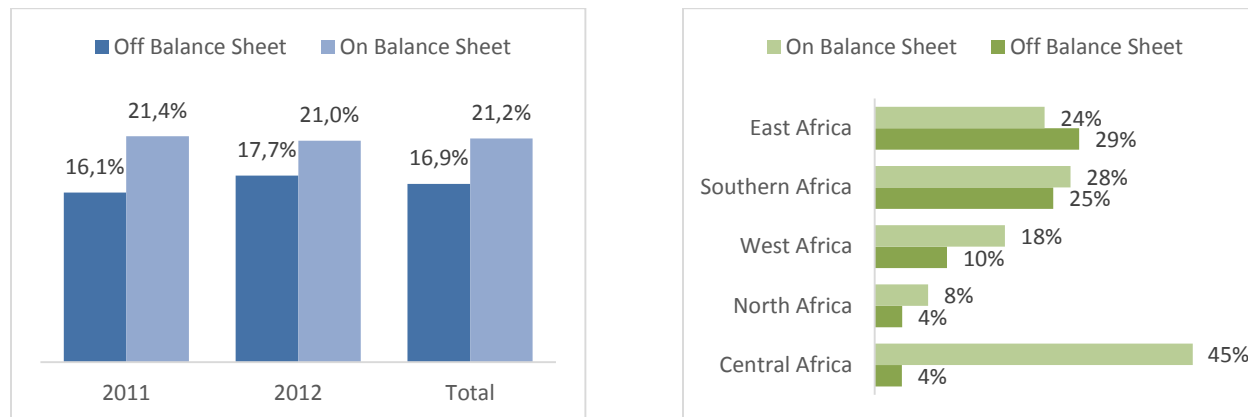
Facilitating intra-African trade is important for a number of reasons. First, intra-regional trade helps to address the constraint posed by the large number of small African economies. These small sizes are impediments to the exploitation of economies of scale, which hinder firm growth and economic development. Second, intra-regional trade in Africa contributes to economic sophistication. For instance, the share of the manufacturing sector in intra-African trade is relatively higher than in total African trade, which tends to be dominated by the export of

primary commodities. Intra-regional trade is particularly important for landlocked African countries – a group that faces significant barriers to global integration. Therefore, the facilitation of intra-regional trade through trade finance can contribute to Africa’s economic transformation and enhanced macroeconomic resilience.

The proportion of bank-intermediated trade finance that is dedicated to intra-African trade is roughly equal for both on-balance and off-balance sheet financing. The average share of trade finance provided by our responding banks to support intra-African trade stood at 16.9% and 21.2% in 2011 and 2012 respectively. Interestingly, there are significant variations in the financing of intra-African trade by banks across sub-regions (Figure 11). North Africa shows the lowest share of financing of intra-African trade while Southern and East Africa show the highest averages. This sub-regional difference is not surprising as trade finance is reflective of the underlying pattern in goods and services traded, and Northern Africa sub-region has the lowest proportion of trade among its countries than the other sub-regions on the continent.

It is also noteworthy that the proportion of financing that banks devote to intra-African trade (17% to 21%) – while not particularly high – compares favorably with the intra-African proportion of total African trade (11%). However, it is important to note that the actual value of bank-intermediated intra-African trade (USD 56-73 billion) is still lower than the total value of intra-African trade (about USD 110 billion). Also interesting is the fact that the share of on-balance sheet intra-African trade finance is higher than the off-balance sheet, unlike the overall picture for total trade finance for African banks. It is not clear what accounts for this particular difference for trade finance dedicated to intra-African trade.

Figure 11: Average Share of Banks' On and Off-Balance Sheet Trade Finance Assets Supporting Intra-African Trade by Year and Sub-Region.



f. Letters of Credit

The most prominent component of off-balance sheet trade finance assets is the letter of credit. Letters of credit are vital to international trade given that counterparties are often separated by distance and face high levels of information asymmetry, which makes contract enforcement and risk assessment difficult. This can be particularly problematic when firms have no pre-existing business relationships. In a typical scenario, an exporter (seller) requests the importer to produce a letter of credit that would represent a guarantee that the issuing bank⁷ would pay him (seller) provided terms of the contract are fulfilled. This letter of credit provides comfort to the exporter (seller⁸) that the payment for the goods transferred will be made since an established financial institution is not expected to default on a payment. From his end, the exporter engages his bank to help process the letter of credit. The exporter could also request a 'confirmation' of the issued letter of credit. Confirmation could be done by the exporter's bank or a different bank. It means that the bank providing the confirmation (confirming bank) becomes obligated to pay the seller (exporter) if the issuing bank defaults, while it sends the documents to the issuing bank for its reimbursement. This intermediation effectively transfers risks to the parties best suited to handle them. Specifically, the seller/exporter's exposure is to the confirming bank, whose exposure is to the issuing bank, whose exposure is to the importer.

⁷ The bank that opens or issues the letter of credit is known as the issuing bank.

⁸ Also known sometimes as the 'beneficiary'.

According to BIS (2014), letters of credit account for about 50% of the value of global trade finance. In Africa, our survey suggests that virtually all banks engaged in trade finance issue letters of credit. The proportion of responding banks that issued letters of credit was 94% in 2011 and 96% in 2012 (Figure 12). These rates are similar across banks with different ownership structures, as well as across sub-regions. As will be discussed later, most of these letters of credit require confirmation⁹.

The average number of letters of credit issued by African banks in 2011 and 2012 are 380 and 400 respectively (Figure 13). The average annual value of these issued letters of credit over this 2-year period ranged from USD 1.65 million to USD 2.34 million. In addition, there is a slight positive correlation between the average value of letters of credit by banks and the GDP level of the country. The average values differ significantly across sub-regions. For instance, the average value of a letter of credit is USD 0.6 million in East Africa and USD 7 million in Southern Africa. There is also significant variation across bank types. For instance, the average value of letters of credit for majority public or government-owned banks (USD 5 million) is significantly higher than other types of banks, which all have average values less than USD 2 million (Figure 12).

⁹ Confirmation would arise when the exporter needs extra comfort about the letter of credit issued by the importer's bank. This usually arises when the importer is from a country that is perceived as risky or the knowledge about the importer's bank is limited.

Figure 12: Average Number of Letters of Credit Issuances and Proportion of Banks Issuing Letters of Credit by Various Categories.

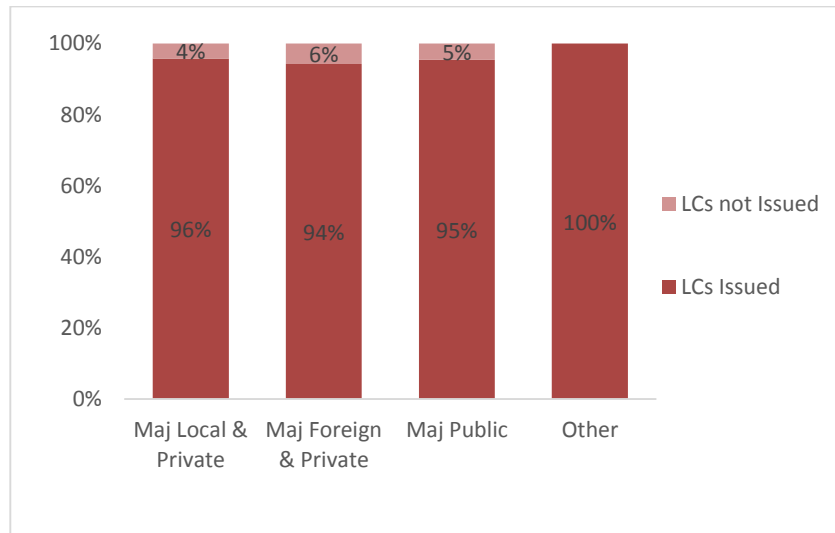
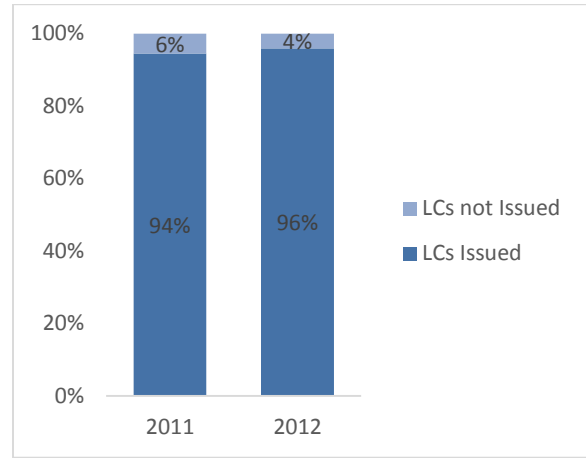
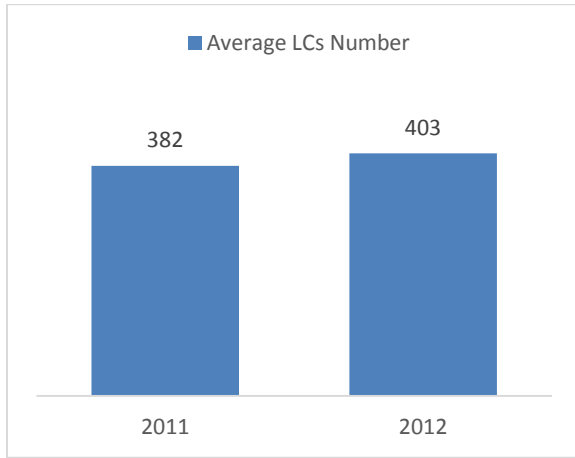
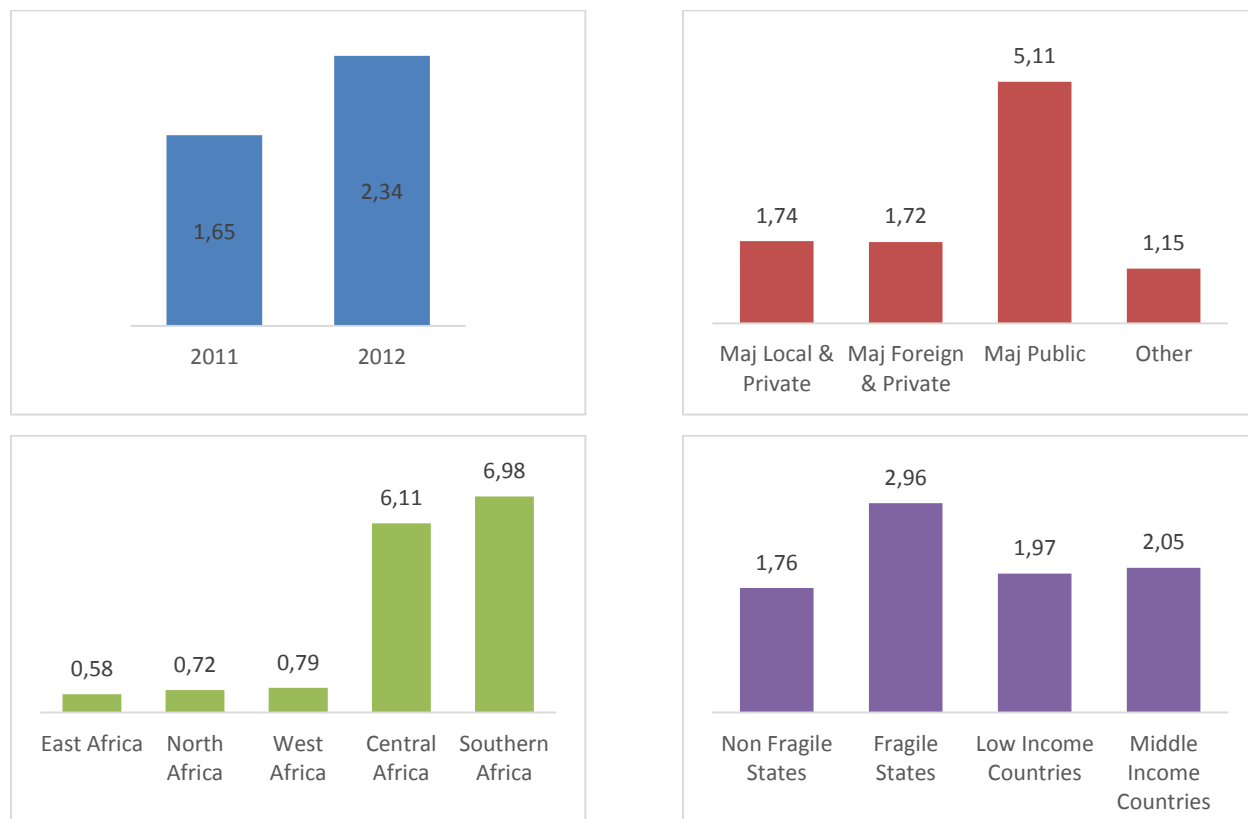


Figure 13: Average Values of Letters of Credit Issuances by Various Categories (in million USD).



f.1. Pricing of Letters of Credit

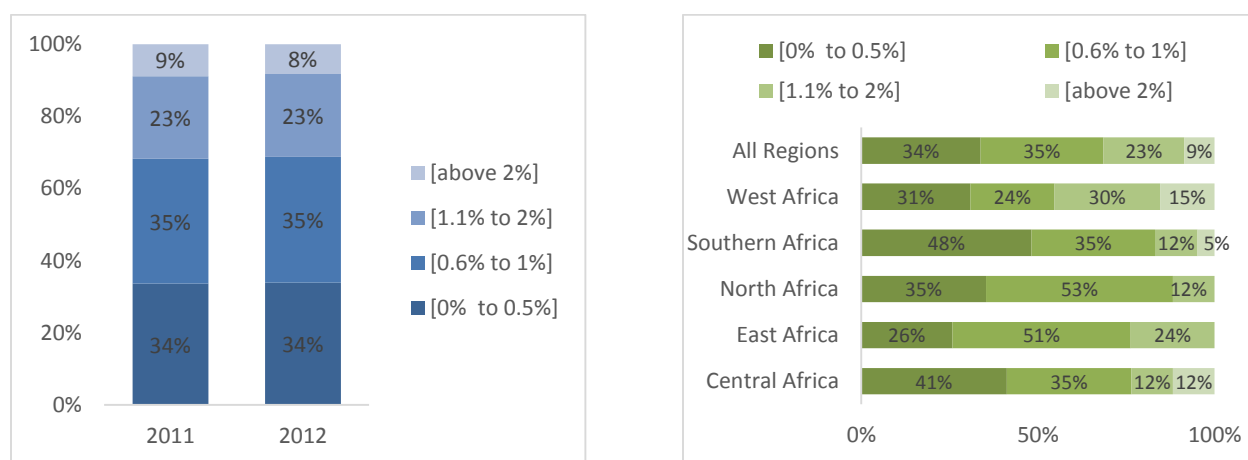
Pricing of a major instrument such as a letter of credit is an important indicator of constraints faced by banks, and by extension the availability of financing to firms. The distribution of the fee rates (on a quarterly basis) for banks in our sample in issuing letters of credit are presented in figure 14. The most frequently reported range for quarterly fee rate for issuing a letter of credit is between 0.6% and 1%. For about two-thirds of the responding banks, the quarterly fee rate for letters of credit does not exceed 1%. It appears that fees charged for issuing letters of credit in Africa do not significantly differ from other regions.

The distribution of fee rates for African banks has not changed much between 2011 and 2012. Unfortunately, it is difficult to tell how the distribution of the current rates compares to the height of the 2008 financial crisis or to the pre-crisis level. In ICC's survey of banks in 2013, the majority of banks reported no increase in fees between 2011 and 2012 compared to the preceding two years. So there is some evidence that pricing for letters of credit has stabilized somewhat

after the increases that were registered in 2009 and 2010. Given the conclusion reached by the IMF/BAFT-IFSA (2011) survey that the letter of credit pricing increased by about 2 percentage points between 2009 and 2010, current rates are likely to be higher than the pre-crisis level.

Across countries, there seems to be a correlation between fees charged for opening letters of credit and the level of financial sector development. This difference is noticeable in figure 14, which shows that North and Southern African banks charge the lowest average fee rate when issuing letters of credit. It is likely that lower fee is the result of greater competition among banks in relatively more advanced economies. The correlation is not perfect, however, as East Africa shows a slightly higher average fee rate than the Central African sub-region.

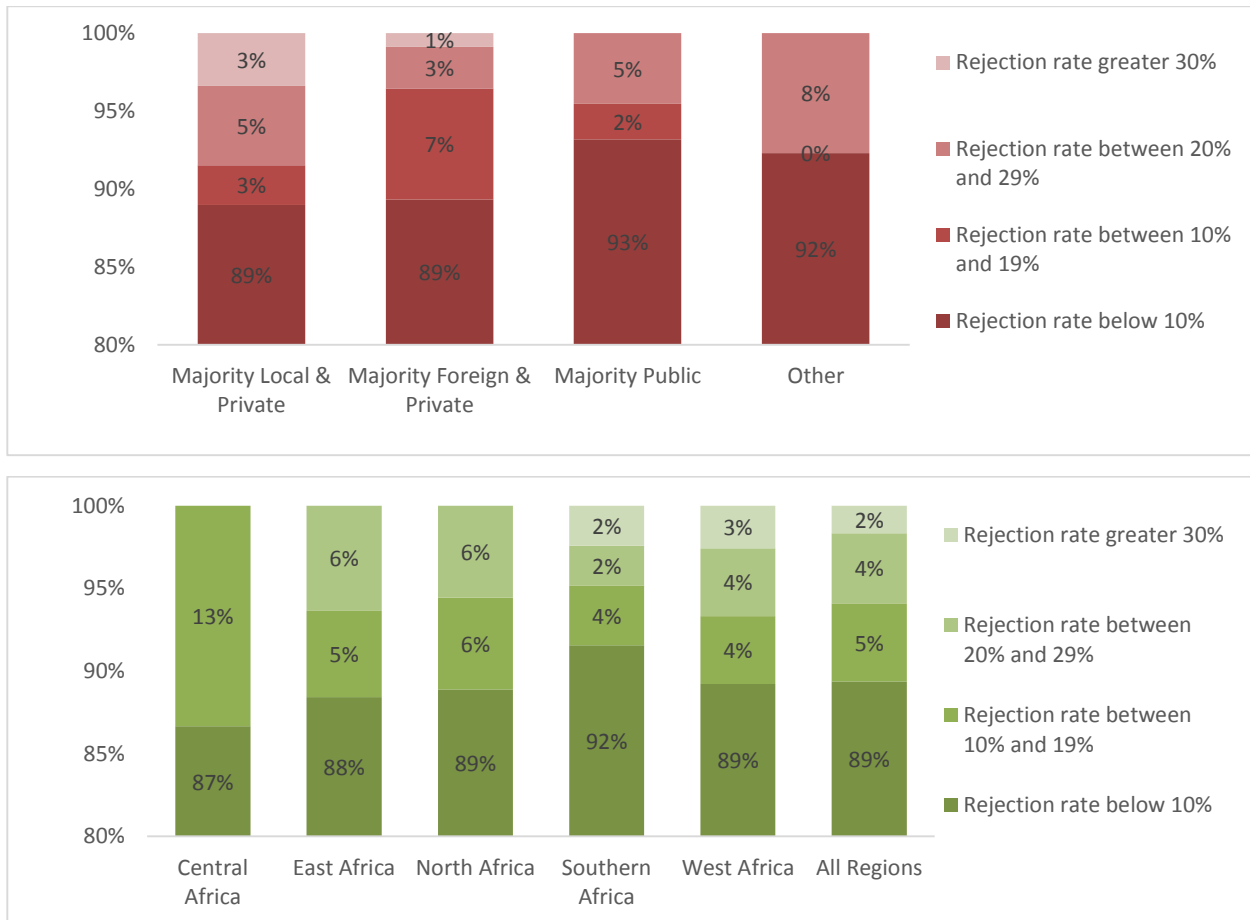
FIGURE 14: Average Fee Rate (quarterly) for Letters of Credit Issuance by Year and Sub-Region.



f.2. Unmet Demand: Rejection Rates for Letters of Credit

A major issue relevant for policy is understanding the level of unmet trade finance demand. For African banks, direct information on this deficit has been lacking due to limited data. We provide some evidence on this using the unmet demand levels provided by commercial banks. The modal rejection rate in banks issuances of letters of credit is about 10% (Figure 15). Only about 2% of the banks have a rejection rate of over 30%. This rate is lower than rejection rates reported on regular loans from banks in Africa. The lower rejection rate could reflect the lower risk that trade finance entails compared to a regular loan as it is short termed and often asset backed.

Figure 15: Distribution of Banks' Rejection Rates for Issuing Letters of Credit by Sub-Region and Bank Type.



Reasons put forward by responding banks to justify rejections of letters of credit are quite varied (Figure 17). The most commonly cited reason (40%) for rejection is concern about the credit worthiness of clients. This underscores the limited capacity of most African banks in appraising the credit risk of their clients, in the absence of well-functioning credit reporting systems. In more developed markets, this problem is mitigated by the presence of credit bureaus that provide credible information on the credit histories of borrowers, in addition to the widespread use of audited financial statements in applicable circumstances. Client credit worthiness, while a persistent problem, can also be exacerbated during or after a financial crisis. This is because counterparts in other regions of the world may require more stringent requirements that can compel African banks to be more risk averse even though trade finance is not as risky as other

bank activities (Malouche 2009). This issue is particularly important for foreign-owned African banks.

Another major reason for rejecting letters of credit requests cited by banks is limited foreign currency liquidity (especially US dollars) (Figure 16). This constraint does not seem to be specific to Africa and emerges as a universal problem in the trade finance market (BIS 2014). About 80% of letters of credit are denominated in US dollars (ICC 2012) making it the main currency for trade finance transactions. On the other hand, the Euro accounted for 7% of trade finance globally in 2012, though this share is likely to be higher for Africa given the size of African-European trade. While the Euro, and especially the Chinese Renminbi should play larger roles in this market, the US dollar is expected to remain the dominant currency in trade finance at least in the foreseeable future.

Another significant reason for banks rejecting requests to issue letters of credit is the inadequacy of limits granted to them by confirming banks. For reasons of risk management best practices and prudential requirements, confirming banks establish limits by issuing bank and country. The size of the limit granted to each African bank is usually positively correlated with country size but negatively correlated with country's fragility and risk. In fact, many foreign-based confirming banks require cash collateral from African banks to confirm letters of credit when the limits are exhausted even though trade finance transactions are asset-backed and self-liquidating.

Risk Participation Agreements (RPAs) provided through trade facilitation programs offered by development finance institutions such as the AfDB are particularly suited to address this type of constraint¹⁰. In a typical RPA, the AfDB equally shares the credit risk, on a portfolio basis, with a confirming bank for trade finance transactions that are originated by African banks. This allows confirming banks to increase their limits for African banks and enable them to confirm a larger volume or greater number of letters of credit issued by these banks.

The size of the balance sheet is another significant constraint. About 13% of respondents identified small size of balance sheet as a binding constraint. This constraint probably reflects

¹⁰ The African Development Bank's trade finance program is described in more detail in Box 1.

risk management guidelines. In any case, this constraint is likely to become even more significant when the new Basel III requirements are fully implemented in 2018 and are adopted by financial institutions in Africa. A related constraint is that of single obligor limit, cited by 16% of our responding banks. Small balance sheet size is the likely underlying reason for rejecting letters of credit application when single obligor limit is cited.

There is also a positive correlation between rejection rates and US dollar liquidity. Specifically, banks with rejection rates over 30% are significantly more likely to declare US dollar liquidity as a major constraint (Figure 17). Similarly, when insufficient limit from confirming banks is a binding constraint, banks are likely to have a high rejection rate for letters of credit requests. In addition, quarterly fee rates are likely to be higher for banks that are particularly constrained by US dollar unavailability and lack limits with their confirming banks.

Figure 16: Reasons for Banks’ Rejection of Letter of Credit Applications.

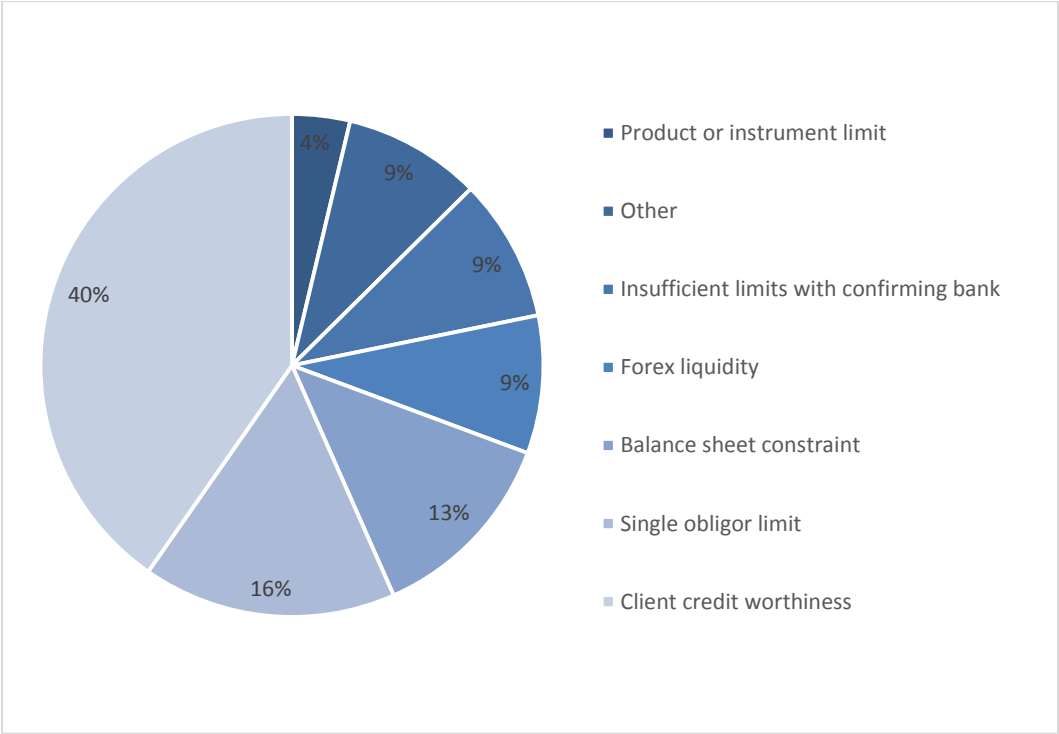
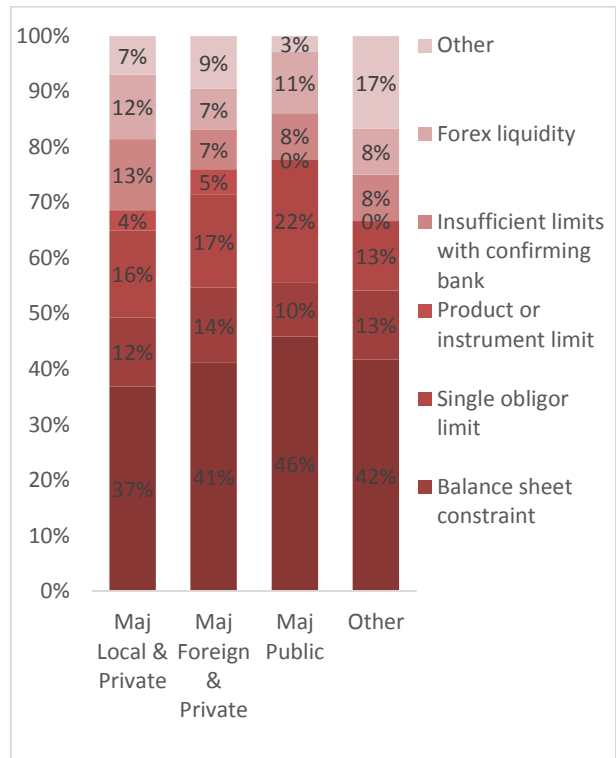
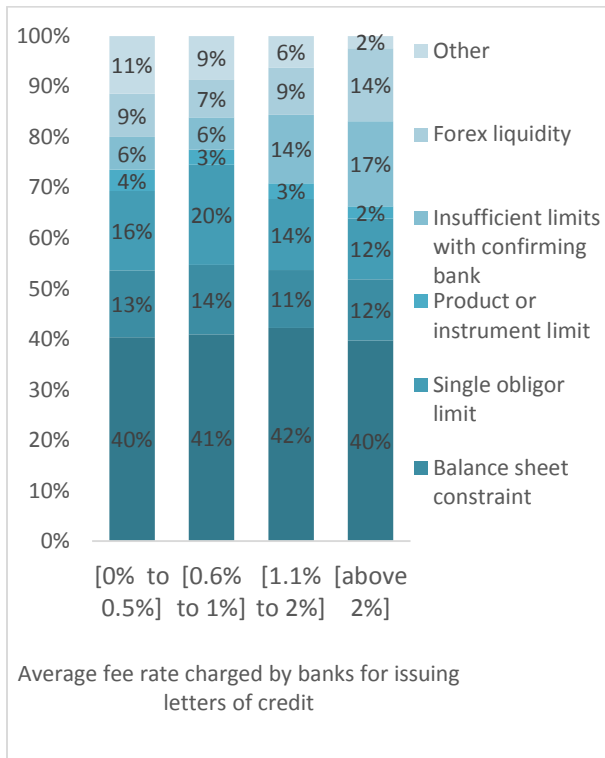
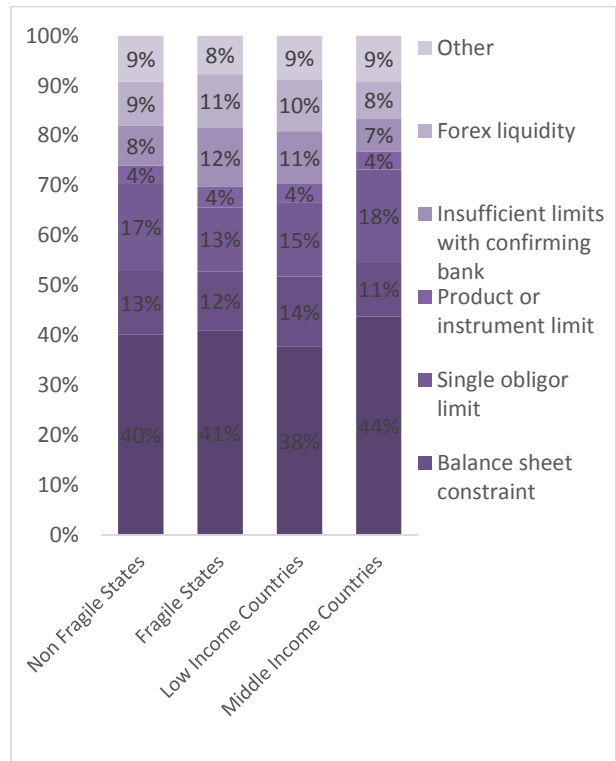
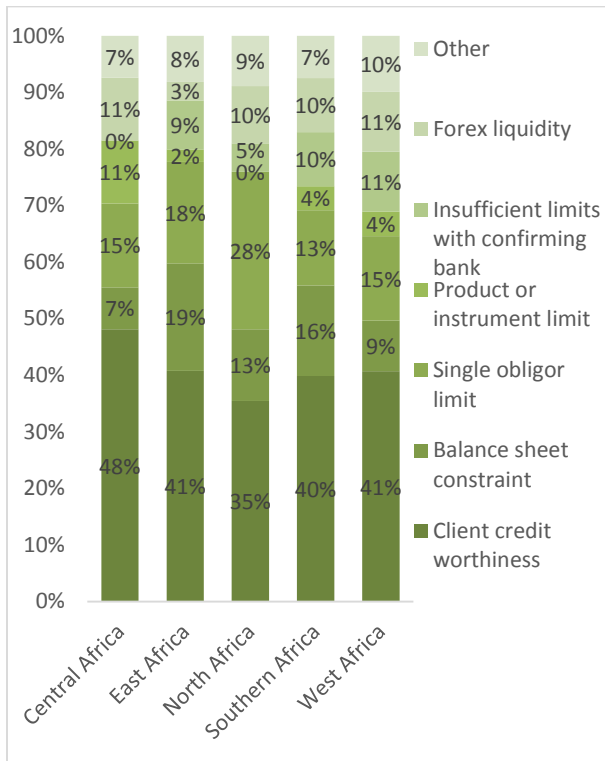
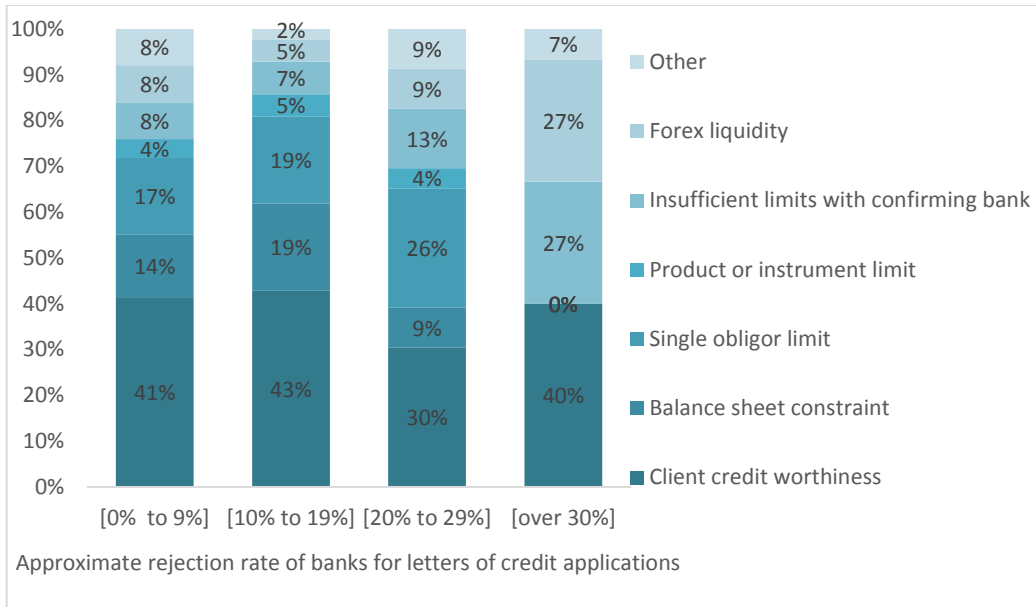


Figure 17: Reasons of Banks' Rejection of Letters of Credit Applications by Various Categories.





g. On-balance Sheet Trade Finance Facilities (e.g. Short-Term Pre-Export and Post-Import Loans)

The most commonly used on-balance sheet instruments are short-term trade finance loans and trade-related revolving credits. These instruments are critical for many firms as they help tidy over liquidity needs when goods are exported, or provide needed working capital for the import of machinery or other inputs. The figures reported under this category are likely an underestimate since some short term loans made to firms may be trade finance-related but are not always recorded as trade finance assets.

The average approval rate for on-balance sheet facilities for banks in our sample is 75% (Figure 18). There is therefore a much higher rejection rate compared to off-balance sheet operations. This number may underestimate the unmet demand for such instruments since not every firm that needs a trade finance loan may submit an application. There is likely a selection bias in that those most likely to get favorable responses are those that apply in the first place. It is also noteworthy that the rejection rate of trade finance loans in Africa is higher than those reported for other regions of the world (Danielson and Scott 2004). This is consistent with the well documented evidence in the literature that African firms face bigger challenges to access finance.

In terms of bank characteristics, bank age seems to be a significant determinant of approval rate of trade finance loans. Banks that have been in operation for at least 40 years have an approval rate of about 81%, while those with less than a decade of operation have an approval rate of about 65%. The significance of bank age on approval rate holds even after controlling for other bank characteristics such as size in a multivariate regression. It is also noteworthy that approval rates are positively associated with overall bank profit or returns on asset. While there are differences in approval rate depending on ownership type (Figure 18), this difference disappears when other bank characteristics are controlled for.

Difference in approval rates between low-income and middle-income countries is not significant (Figure 19). The approval rate for banks in fragile states (72%) is slightly lower than in non-fragile states. In general, banks in larger economies (as measured by GDP levels) have higher approval rates than those in smaller economies even when bank characteristics are controlled for.

Figure 18: Average Approval Rates of On-Balance Sheet Trade Finance Transactions by Various Categories.

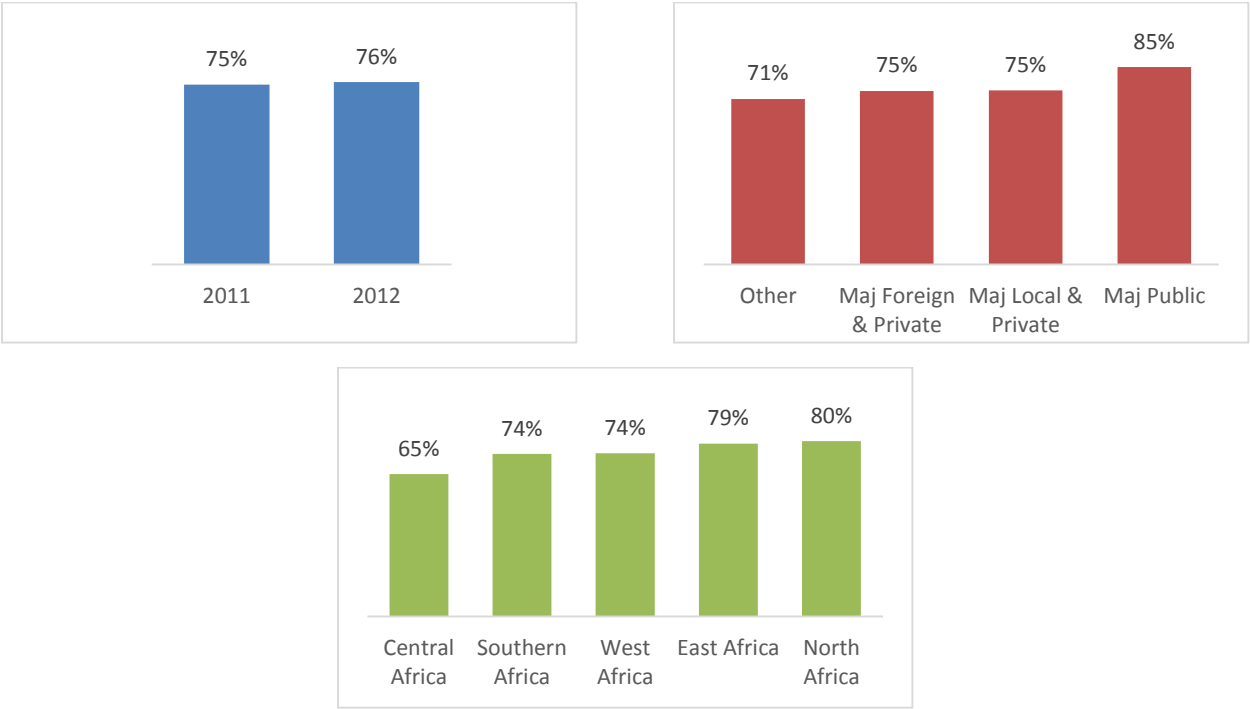
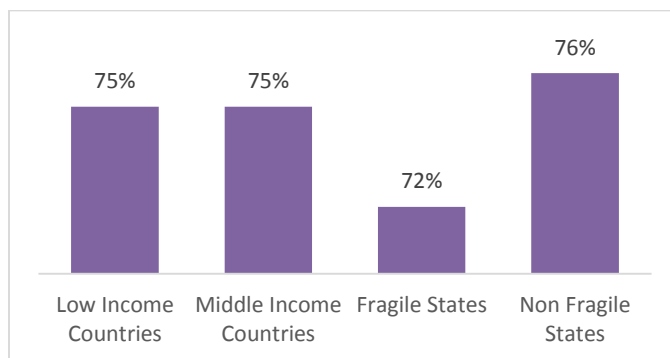


Figure 19: Average Approval Rates of On-Balance Sheet Trade Finance Transactions by Country Type.



g.1. Reasons for Rejecting On-Balance Sheet Trade Finance Requests

While there are some differences, reasons put forward by banks for denying on-balance sheet trade finance (Figure 20) largely mirror reasons cited for denying the issuances of letters of credit. For instance, client credit worthiness is the most frequently reported reason (42%) for banks’ rejection of an on-balance sheet trade finance facility. Also, single obligor limit (16%) and balance sheet constraint (15%) are highly prevalent. The single obligor limit constraint also suggests that many African banks have small capital that constraint their ability to process large transactions. Banks in fragile states, LICs and MICs show no significant differences in the reasons for rejections such facilities (Figure 21).

Figure 20: Banks’ Reasons for Rejecting Firms’ On-Balance Sheet Trade Finance Facilities Application.

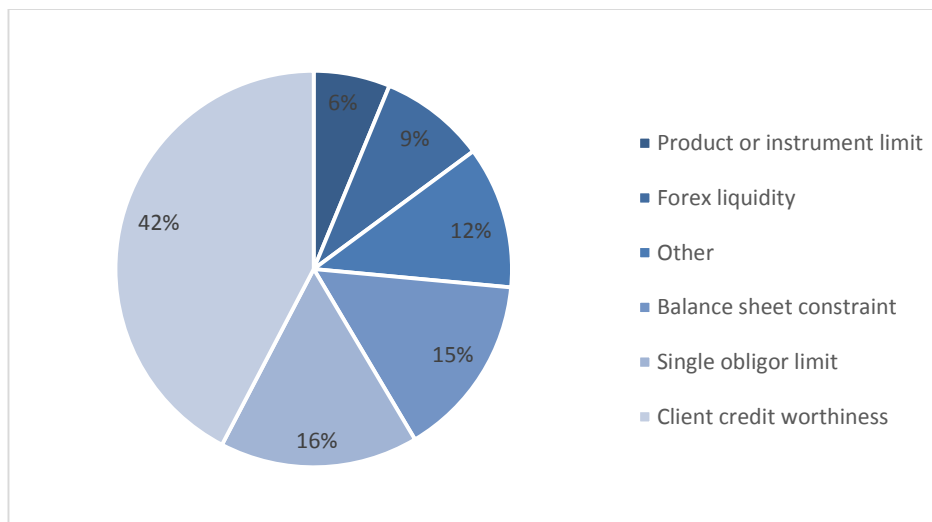
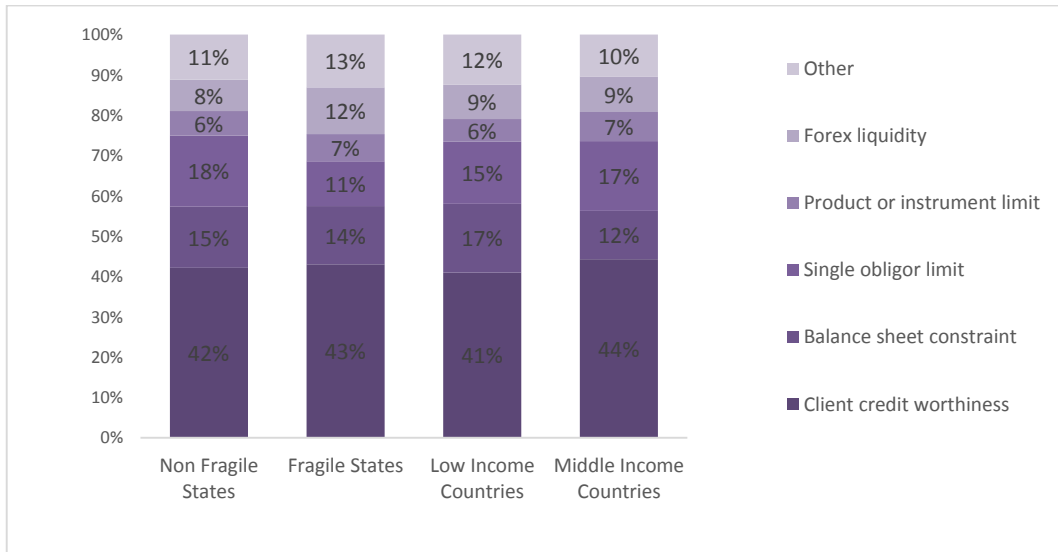
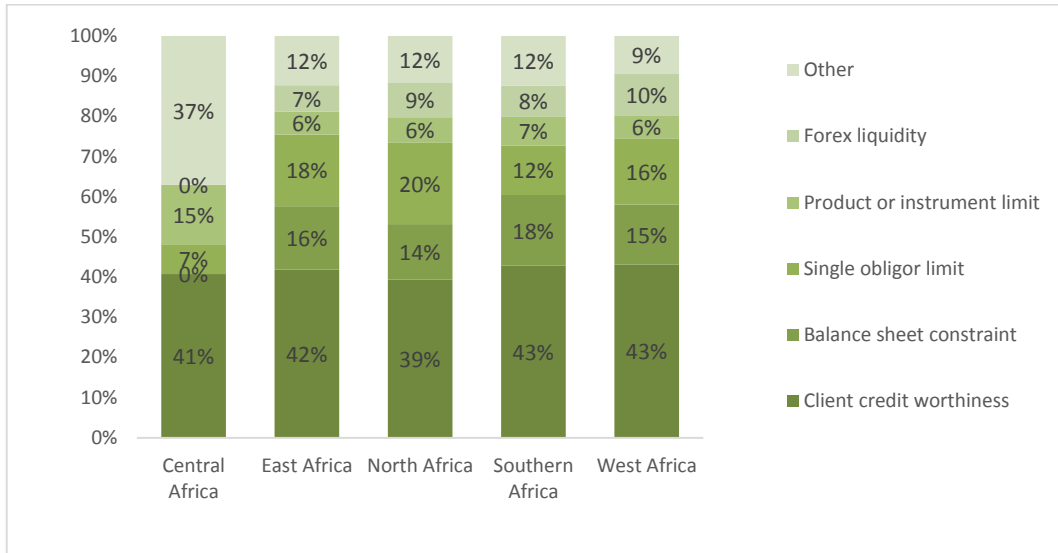
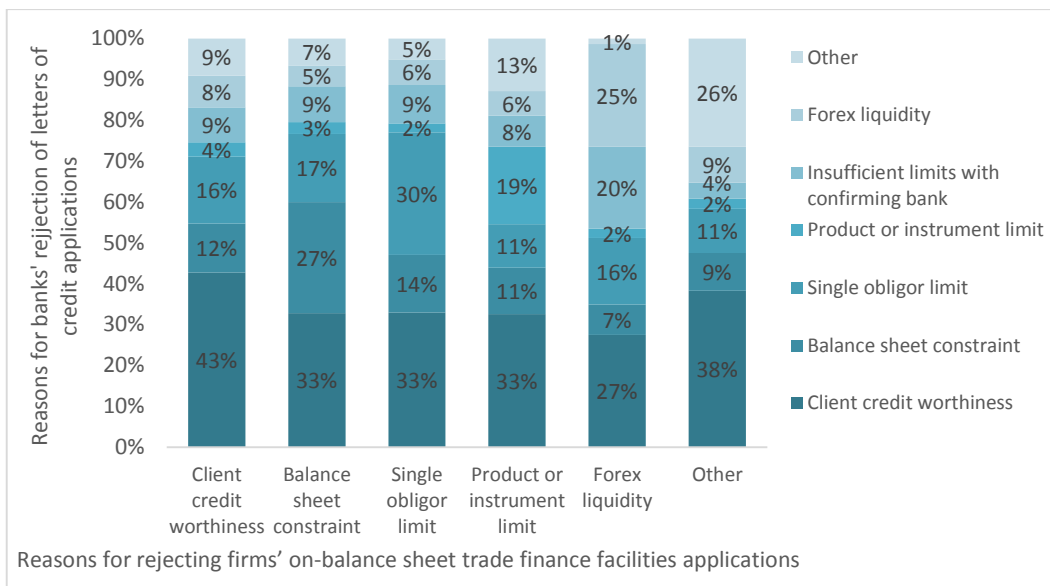
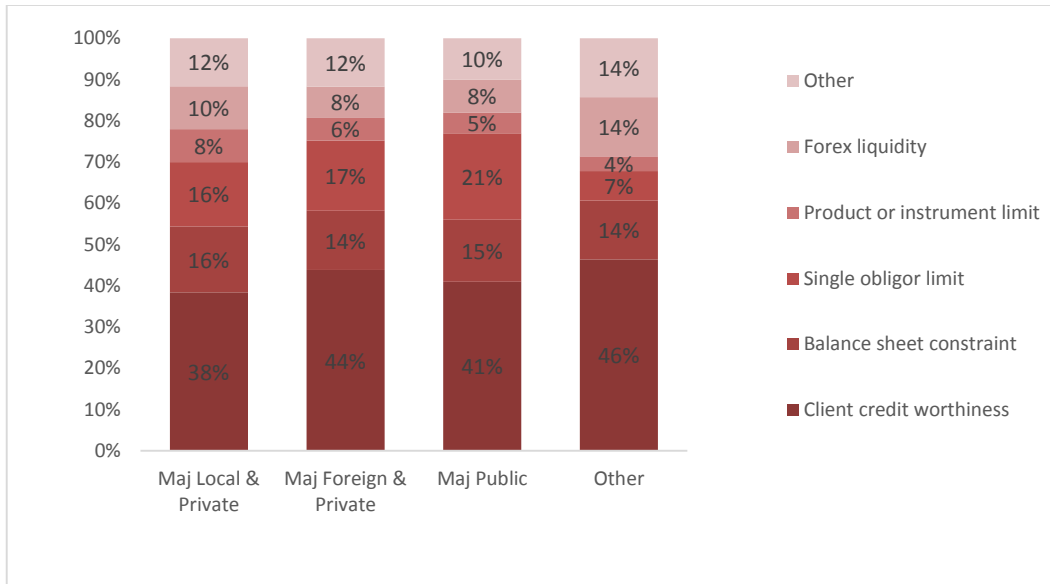


Figure 21: Banks' Reasons for Rejecting Firms' On-Balance Sheet Trade Finance Facilities Application by Various Categories.





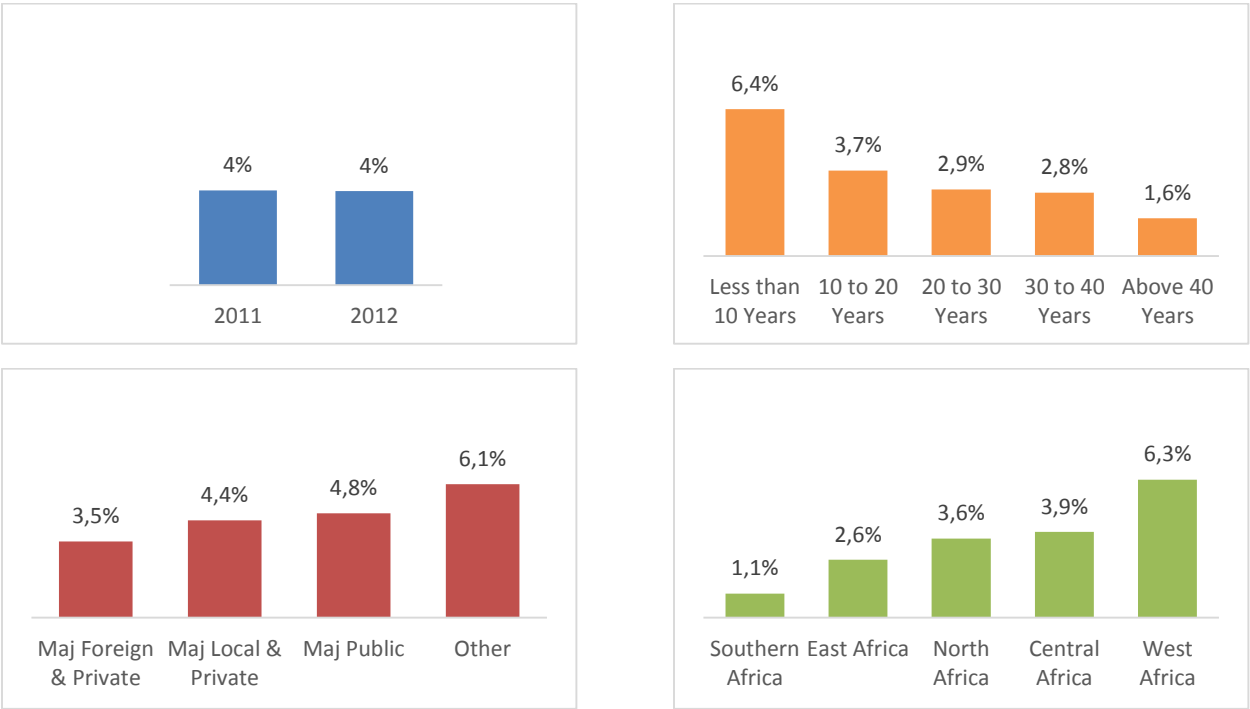
h. Default Rates on Trade Finance Operations

This report provides first estimates of default rates on trade finance operations of African banks. Our findings are consistent with the view that trade finance is less risky compared to the average intermediation activities of banks because it is short-termed, self-liquidating and asset-backed. Specifically, the average default rate on trade finance operations reported by our responding banks in 2011 and 2012 is 4% (Figure 22). This is significantly lower than their average non-performing loan (NPL) ratios, which stood at about 9% over the same period.

Notably, our findings suggest that default rates on trade finance operations in Africa are much higher than in other regions. So while it may be low risk compared to other African banking activities, trade finance is hardly a ‘free lunch’ for African banks. By way of comparison, trade finance default rates of major international banks are much lower – about 0.2%. This reported difference provides some basis for the higher risk aversion that international banks have towards African markets.

As one would expect, trade finance default rates are positively correlated with NPLs ratios (correlation coefficient of 0.4). Our data also shows that default rates on trade finance operations are negatively correlated with bank age, which is probably an indicator of experience in the sector. On the other hand, default rates are positively correlated with banks’ share of income from trade finance. The correlation is robust even when other factors are considered such as banks size and location.

Figure 22: Average Default Rates on Trade Finance Activities by Various Categories.



i. Size of Unmet Demand for Trade Finance in Africa

Based on our estimate of the trade finance market size in Africa and the approval rates reported by our responding banks, it is possible to provide a rough estimate of the size of unmet demand in trade finance in Africa. This estimate is important because it represents a key barometer of the degree of limited access to finance in this market. It also provides policy makers with an important indicator to help prioritize interventions given competing demands on limited budgets.

Our estimate of unmet bank-intermediated trade finance demand in Africa is approximately USD 120 billion and USD 110 billion in 2011 and 2012 respectively. Given that approval rates are positively correlated with banks' total assets, this unmet demand is expected to be higher in less developed regions of the continent. It should be noted that this unmet demand does not include demand for trade credit insurance, a significant form of intermediation in trade finance, which is not covered by our survey.

j. The Market for Confirming Banks

As documented earlier, letters of credit are commonly used to support African trade operations. African countries, and by extension their financial institutions, are considered risky in other regions of the world. Due to this risk perception, letters of credit issued by African banks almost invariably require confirmation by other commercial banks that are often located in a more developed region.

In 2011 and 2012, approximately 130 banks were identified as major confirming banks for the letters of credit issued by our responding banks. Ten (10) confirming banks account for 52% of the confirmations observed in our sample over the 2-year period (Figure 23). These are: Standard Chartered bank (9%), Citibank (9%), Deutsche Bank (7%), Commerzbank (7%), Standard Bank (5%), Union de Banques Arabes et Françaises (5%), HSBC (4%), BNP Paribas (3%), Société Générale (3%) and Banque BIA (2%). Interestingly, among the top 10 confirming banks, only Standard Chartered Bank is headquartered in Africa, though most of these top banks also have African-based subsidiaries. Naturally, these top confirming banks are major banks with strong international presence given the necessity to carry out due diligence on issuing banks where their credit exposures lie.

Among the full list of confirming banks, there are numerous banks that are owned by African entities. These include major commercial banks such as EBI SA, Mauritius Commercial Bank, FirstRand, Banque Marocaine du Commerce Extérieur, First Bank of Nigeria, Ghana International Bank, Bank of Africa, Nedbank, Kenya Commercial Bank, ABSA and Attijariwafa Bank. It should be pointed out that some of the subsidiaries of the above mentioned banks that provide confirmation are incorporated outside the continent (e.g. EBI SA is a subsidiary of Ecobank incorporated in France). Among Development Finance Institutions (DFIs) that directly engage in trade finance, as opposed to indirect engagement through financial intermediaries, only the International Finance Institution (IFC)¹¹ and the Africa Export and Import Bank (Afreximbank) feature among the list of confirming banks.

This high proportion of confirming banks based outside Africa is mostly reflective of the fact that most of the trade in Africa is undertaken with countries outside the region. These developed regions have a high demand for confirmation of LCs issued by African banks because they usually have high risk aversion towards Africa. Therefore, it is not surprising that the value of Africa-specific trade finance assets of major international banks are overwhelmingly for exports of goods into Africa as the seller (exporter) is usually seeking to transfer risk to established banks that can perform the necessary due diligence on the issuing banks.

The list of confirming banks reveals that commercial banks confirming the bulk of African letters of credit include several Global Systemically Important Banks (G-SIB)¹² (Figure 24). Given the reach and network of these institutions, their over-representation among the top confirming banks is not surprising. In 2011 and 2012, G-SIB comprised 16% of banks that

¹¹ While some banks reported the IFC as a confirming bank, it is likely that the confirmation will be done by a commercial bank through the Global Trade Finance Program.

¹² G-SIBs or more generally, global systemically important financial institutions (G-SIFIs) is a special category of financial institutions that are identified by the Basel Committee on Banking Supervision for special regulation to lessen their likelihood of failure, which can be a major shock to the global economy. The list was started in 2011, and is updated annually. While no formal criteria for the categorization is available, inclusion in the G-SIBs/G-SIFIs list seems to be based mainly on the financial institution's size and reach. The composition of the G-SIBs/G-SIFIs list changes only a little each year as it is mainly composed of the same financial institutions that are major players globally, either directly or through subsidiaries.

confirmed the letters of credit issued by African banks. This share remained stable over the 2-year period.

Figure 23: Top International Confirming Banks for Letters of Credit Issued by African Banks.

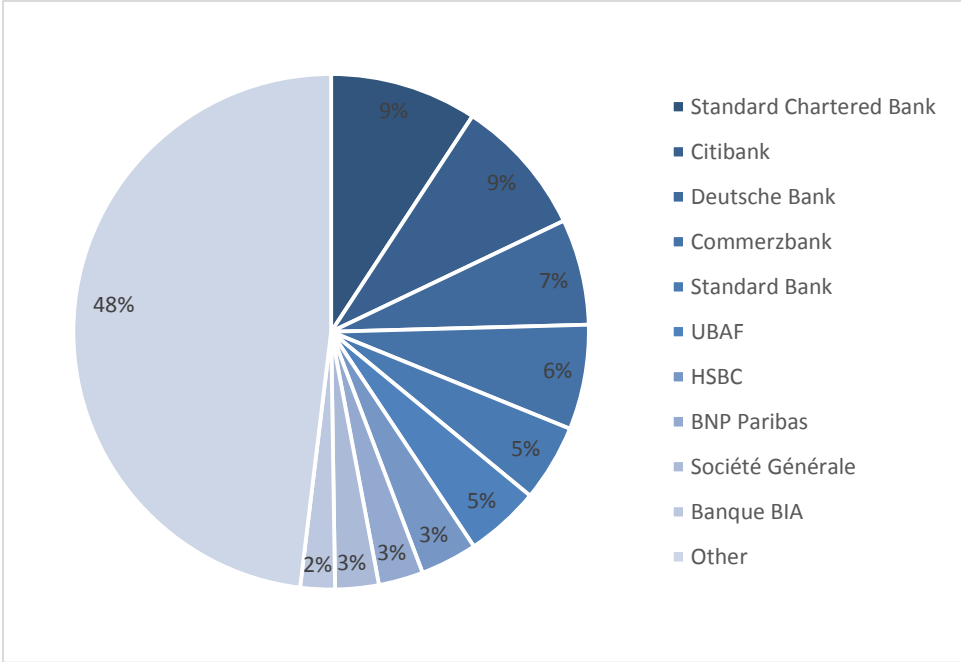
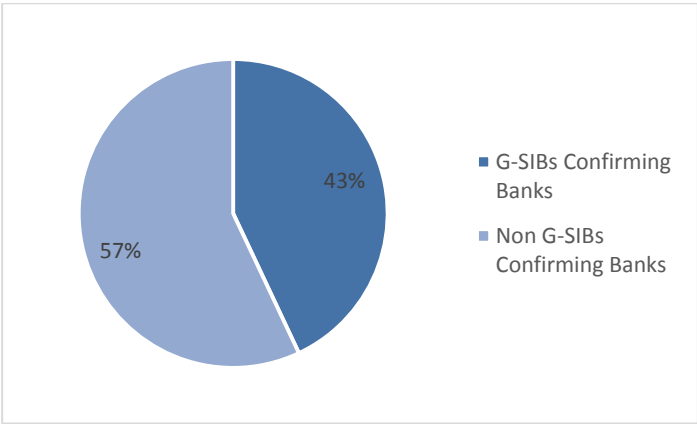


Figure 24: Proportion of Global Systemically Important Banks (G-SIBs) among International Banks Confirming Letters of Credit Issued by African Banks.



k. Africa-Based Confirming Banks

While a large number of confirming banks are based outside Africa, there are a significant number of African-based banks that engage in this activity. Specifically about 33% of our

responding banks have served as a confirming bank (Figure 25). It is not clear from the data if all or most of the confirmations are done for letters of credit issued by other African banks. The sub-regions with the highest proportion of African confirming banks are North and Central Africa while the sub-regions with the lowest are West and Eastern Africa.

The average annual value of trade finance assets for which African banks performed confirmation services in 2011 and 2012 stood at USD 295 million and USD 446 million, respectively (Figure 26). It is not clear if this positive trend is a reflection of increasing risk perception over time or from the growth in trade over time. Given the end of the global financial and resumption of growth on the continent, it is likely the above trend is reflective of trade and GDP growth.

There is also significant variation across sub-regions in value of letter of credit confirmation. The average annual values of confirmed letters of credit in North (USD 951 million) and Southern Africa (USD 969 million) are significantly higher than the other sub-regions. In terms of ownership type, banks with majority government ownership have the highest average value (USD 1.4 billion), far above privately (USD 801 million) or foreign-owned banks (USD 39 million).

The non-uniformity in the prevalence of confirming banks' presence in all countries raises the question about the determinants of being a confirming bank in Africa. On bank characteristics, the results of a multivariate regression suggest that the main determinants are size and ownership structure. Specifically, larger assets and majority ownership by government or a local entity increases the likelihood that a bank confirms letters of credit. Presumably banks with majority foreign ownership leave confirmation activity to their parent companies, which are normally located outside the continent. Our results also show that, the size of the economy (measured by GDP level) and the level of financial sector development (measured by private credit to GDP ratio) are major determinants of a bank becoming a confirming one. It is also noteworthy that, when considered together, macroeconomic variables have greater explanatory power in predicting the likelihood of a bank confirming letters of credit in Africa than bank-level variables. This suggests that becoming a confirming bank is highly dependent on the economic

environment in which the bank operates, which would explain why African confirming banks tend to be located in more developed areas (North and Southern Africa).

FIGURE 25: PROPORTION OF AFRICAN-BASED CONFIRMING BANKS AND THEIR DISTRIBUTION BY SUB-REGION.

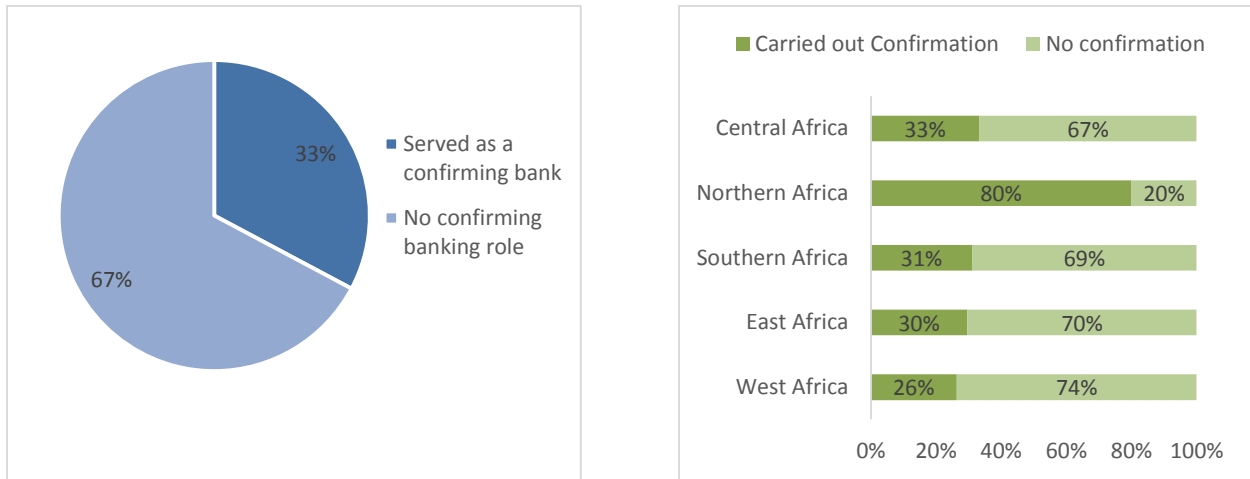
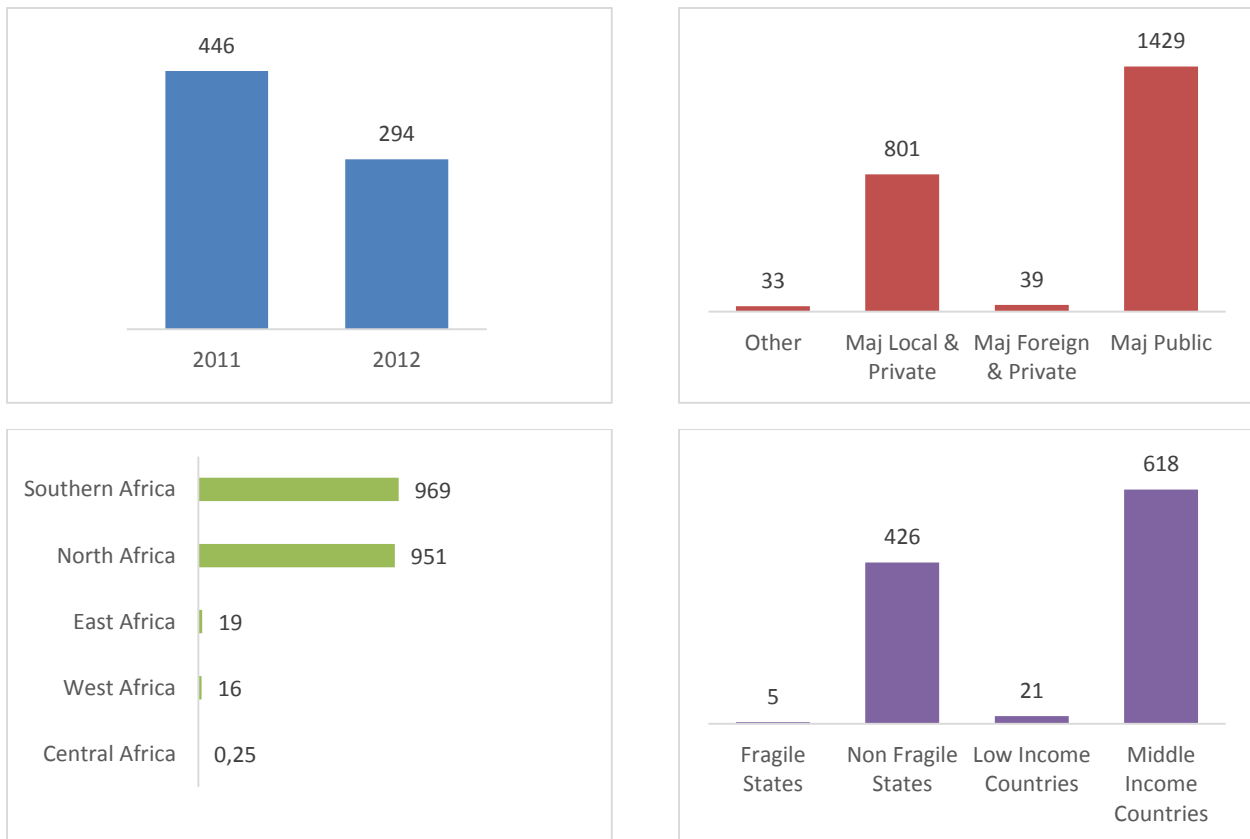


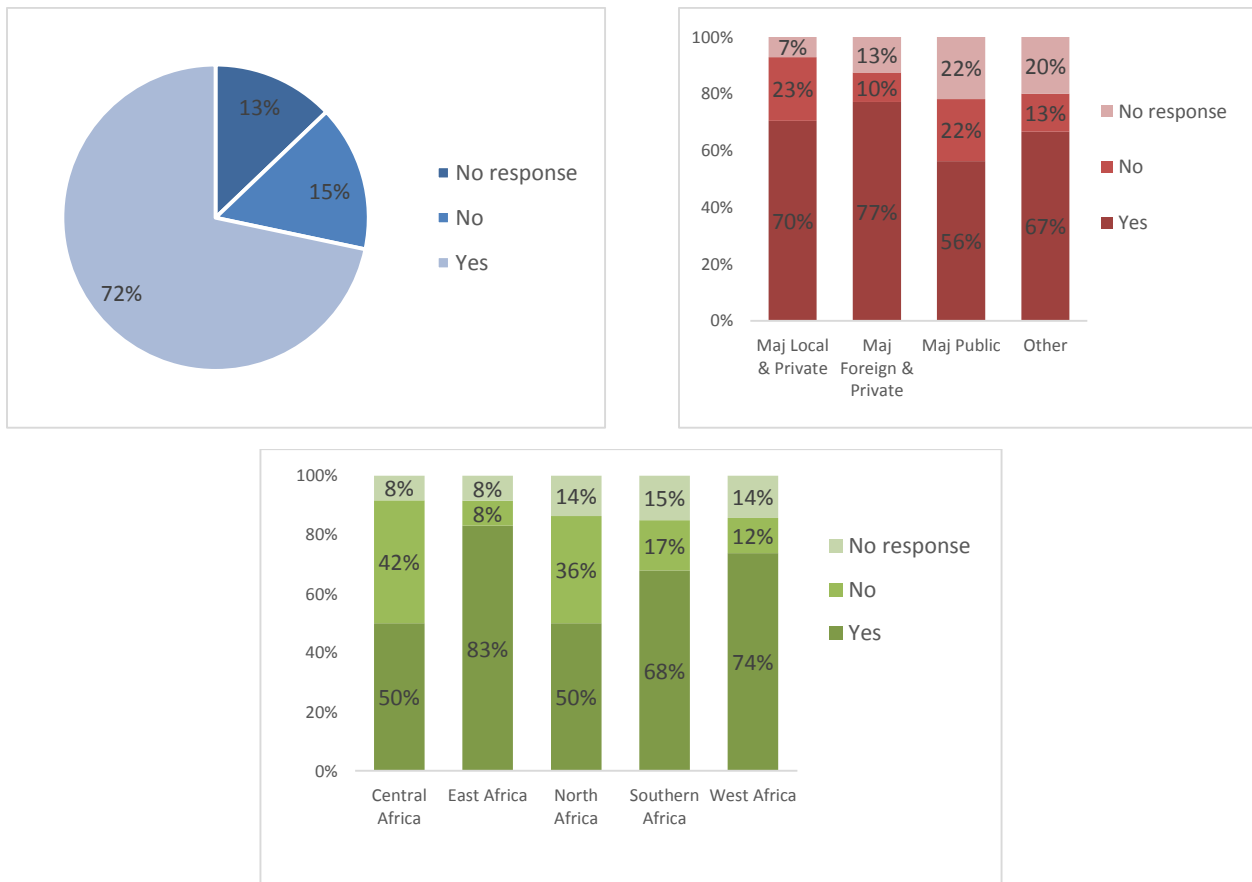
Figure 26: Average Annual Value of Trade Finance Confirmation by African-Based Banks (in million USD).



I. Outlook for Trade Finance Activities

With the resumption of GDP growth and trade in the post 2008 crisis period, the need for trade finance is bound to continue its growth. The African Economic Outlook (2014) expects GDP growth on the continent to average about 5% from 2013 to 2015. Given the correlation between GDP and trade, the demand for trade finance is expected to remain high. Therefore, it is not surprising that a large majority of banks (72%) expect to increase their trade finance assets in the immediate future (Figure 27). Only a small minority (15%) expects no increase in trade finance lending in the upcoming year. Among banks with majority government ownership, only 56% expected increase in trade financing lending. This lower optimism among this latter group may reflect the fact that management decisions of majority government-owned banks depend on a range of considerations, which may not be exclusively commercial in nature.

Figure 27: Proportion of Banks in 2012 that Expect an Increase in their Trade Finance Activities in the Following Year by Various Categories.



The most frequently cited impediment to growth of trade finance operations is economic growth (Figure 28). This contrasts with the positive growth outlook forecasted for Africa. It is noteworthy that banks located in North Africa are the most likely to cite this as a barrier, which is understandable as the sub-region has been suffering from sluggish growth since 2011 as a consequence of both the Arab spring and slow growth in Europe, which is the region’s main trade partner. Foreign exchange liquidity is the next most cited threat to growth of trade finance activities. This is a major constraint that is unlikely to be fully addressed by banks. Capital constraint is the third most cited threat for banks. This concern is more prevalent for banks that are majority government-owned. It is also a concern that seems to be relatively more prevalent for banks that are located in East and Southern Africa relative to the other sub-regions (Figure 29). It is not clear what accounts for these particular sub-regional differences. Bank regulation is another major concern. Whether this is related to compliance with regulation that is specific to trade finance is not clear. Some other concerns raised by banks include intense competition with other banks, solvency of clients and lack of centralized credit risk information systems.

Figure 28: Banks’ Reported Constraints to their Trade Finance Portfolio Growth.

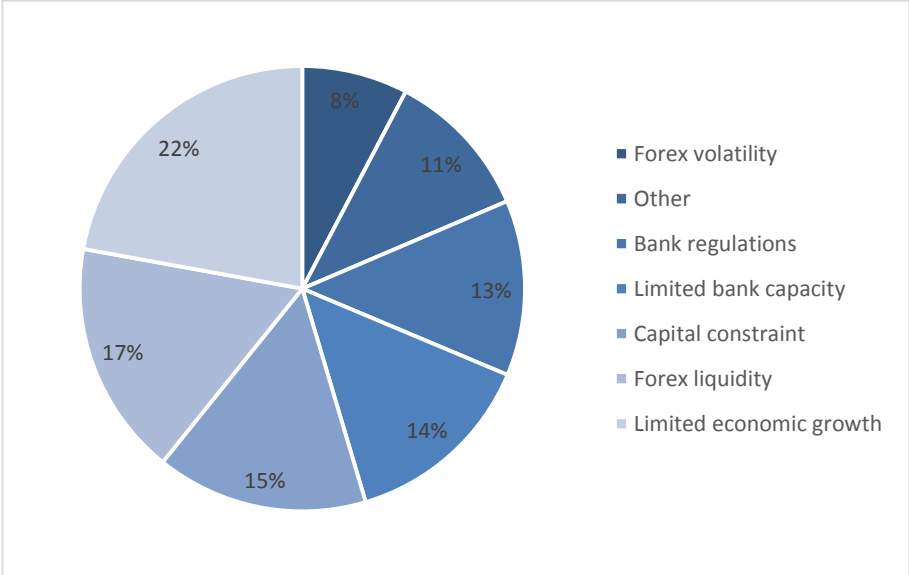
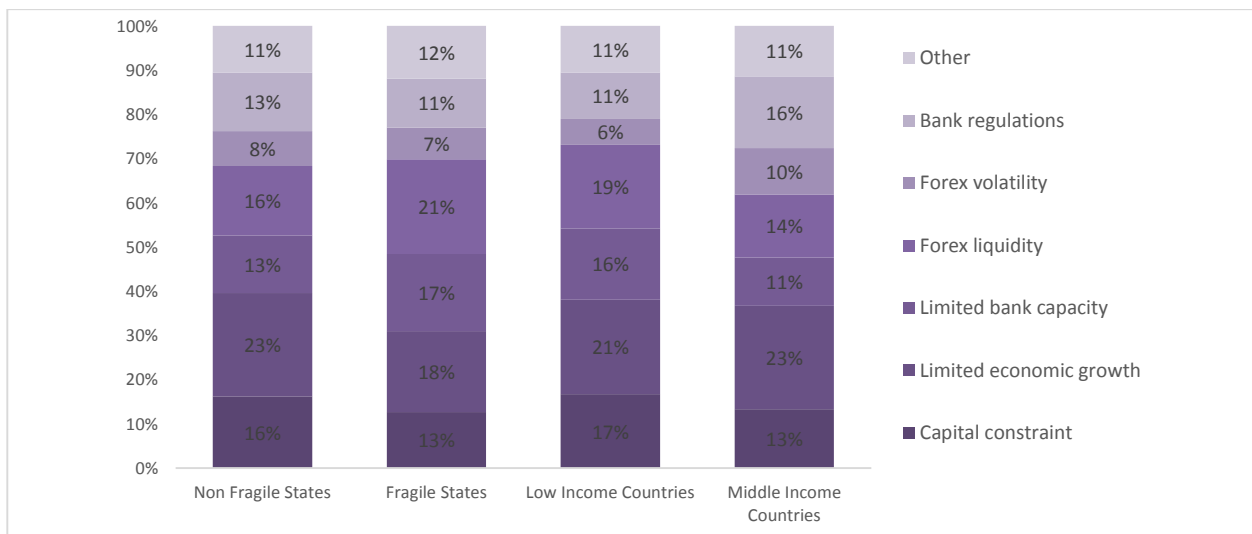
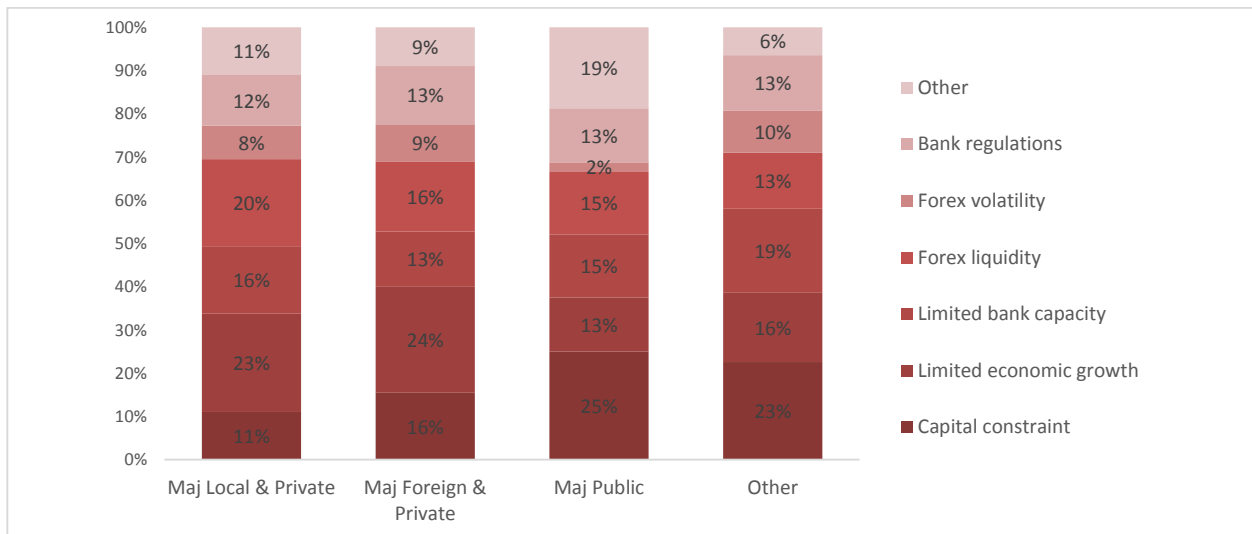
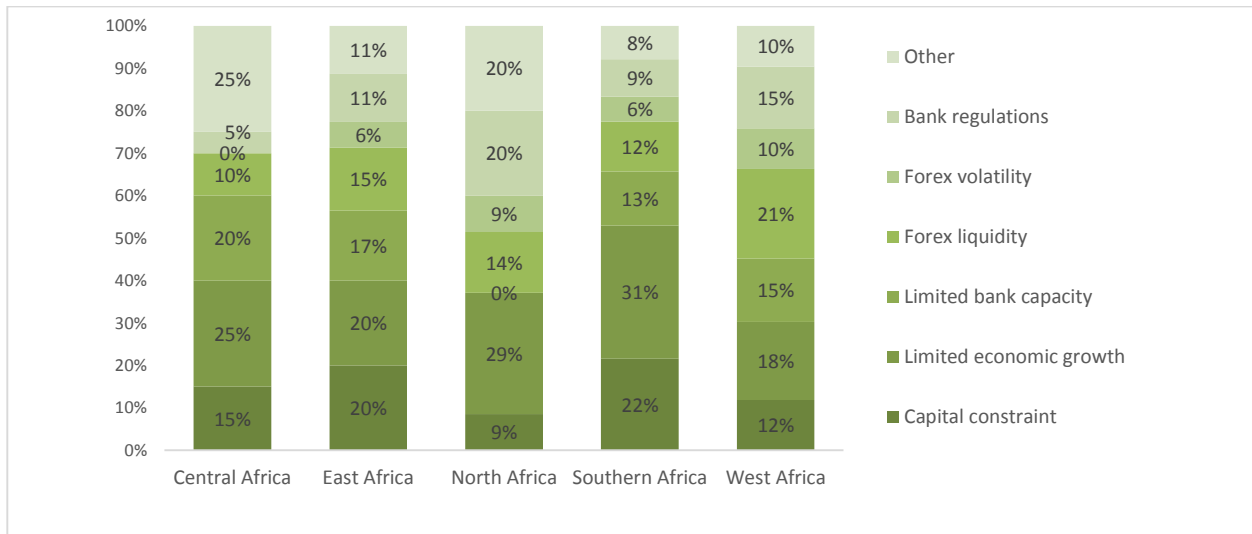


Figure 29: Banks' Reported Constraints to Their Trade Finance Portfolio Growth by Various Categories.



Box 1: The African Development Bank's Trade Finance

With the approval of the USD 1 billion Trade Finance program in 2013, the Bank significantly stepped up its efforts to improve access to finance in the trade finance market in Africa. The instruments used by the Bank under this program are Risk Participation Agreements (RPA), Trade Finance Lines of Credit (TF-LOC) and Commodity Finance Facility (CFF). In RPAs, the AfDB enters into 3-year agreements with international commercial banks to share the credit risk on trade finance transactions originated by African banks. This allows confirming banks to increase their exposure to African banks issuing letters of credits and other instruments. As the preceding sections show, limits with confirming banks are binding for a large number of African banks. Under the TF-LOC, the AfDB extends 4-year lines of credit to facilitate the provision of short to medium finance such as pre-export and post-import loans for African firms, particularly SMEs. Since almost all TF-LOCs are disbursed in US dollars, these projects are likely to ameliorate the USD liquidity constraint that is prevalent among African banks. As of 31 May 2014, the Bank has approved 8 RPAs and 4 TF-LOCs under this program (Table 1). The average number of issuing banks in Africa covered per RPA project is about 100. Both the RPA and TF-LOC projects are projected to support at least USD 10 billion worth of trade, including a substantial share of intra-African trade.

While the above figures are impressive, they address just a fraction of the estimated unmet demand in this sector on the continent. Therefore, there is a strong case for scaling up the Bank's trade finance program after its initial 3-year period. Furthermore, there is evidence that the Bank's trade finance projects so far have been well targeted. Specifically, 5 of the Bank's 8 RPAs that have been approved are with banks that feature among the top 10 confirming banks for letters of credit issued by African banks. And 2 of the RPAs (Afreximbank and Ecobank) are with African-based confirming banks that finance a significant amount of intra-African trade.

It should be noted that even before this trade finance program, the African Development Bank has been active in addressing constraints in the trade finance market on the continent. It spearheaded the creation in 1993 of the African-Export-Import Bank (Afreximbank), an international financial institution with a trade promotion mandate. Afrximbank currently has assets worth about USD 4.5 billion. It also helped create the PTA bank, which is also mostly engaged in trade finance. More recently, the AfDB is one of the DFIs that are implementing the Global Trade Liquidity Program (GTLP). It contributed USD 500 million to the USD 4 billion GTLP, which offers guarantees to banks on payments risk from emerging markets. The GTLP was a crisis response program that was designed by the development community and implemented by DFIs to address the trade finance shortage caused by the global financial crisis.

Table 1: Selected Projects Approved by the African Development Bank under its Trade Finance Program.

	Risk Participation Agreements (RPAs)*	Trade Finance Lines of Credit (TF-LOCs)
Citibank N.A.	USD 50 million	
Standard Chartered Bank	USD 200 million	
BNP Paribas	EUR 40 million	
UT Bank (Ghana)		USD 20 million
Union de Banques Arabes et Françaises	USD 50 million	
Africa Export and Import Bank (Afreximbank)	USD 100 million	USD 150 million
Ecobank Transnational Incorporated	USD 100 million	USD 100 million
Commercial International Bank Egypt	USD 50 million	
Commerzbank AG	USD 100 million	
Shelter Afrique		USD 20 million

*In RPAs, the AfDB usually shares credit risk with the institutions, not exceeding 50%. So the AfDB's contribution to the RPA facility is 50%.

V. Conclusion

Trade finance is vital in facilitating international trade, and therefore critical for economic growth. It is especially critical when trading parties are separated by distance, firms are small in size, contract enforcement is difficult or information asymmetry is prevalent. Given the continent's large number of small countries, a relatively high level of trade openness and underdeveloped financial systems, greater trade facilitation is important for Africa. Yet, despite this importance, up to date information on African trade finance is limited. This makes it difficult for policy makers to understand the market and design targeted policy response. This report is an attempt to remedy the information gap on trade finance in Africa. It is based on a primary survey of commercial banks in Africa. About 900 commercial banks in 52 countries were contacted in late 2013. The response rate of about 30% resulted in good geographic coverage, with a sample of 276 banks from 45 countries

The survey data provides a good picture of the trade finance landscape on the continent. Most commercial banks were found to be active in trade finance. The size of bank-intermediated trade finance was over USD 300 billion in both 2011 and 2012, covering about a third of the total value of the region's trade. This estimated size of the market is within the range suggested by other reports. The data also suggests that the value of bank-intermediated trade finance declined from 2011 to 2012, which is consistent with the findings of other trade finance reports. The large size of the bank-intermediated trade finance notwithstanding, there is a significant unmet demand based on bank rejection rate data. This unmet demand is conservatively estimated to be at least USD 110 billion. There are also numerous constraints that prevent banks from meeting firms' demand for trade finance. Among these are the inability to thoroughly assess the credit worthiness of clients, limited US dollar liquidity and insufficient limits with confirming banks (for issuing letters of credit).

The size of the unmet demand suggests a role for development finance institutions such as the African Development Bank and governments to help improve access to finance in this market. The nature of the constraints also suggests that AfDB's recently approved Trade Finance Program is well-positioned to relax those constraints and improve access to finance for firms.

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Appendix

Figure A 1: Countries Breakdown of the Surveyed Banks.

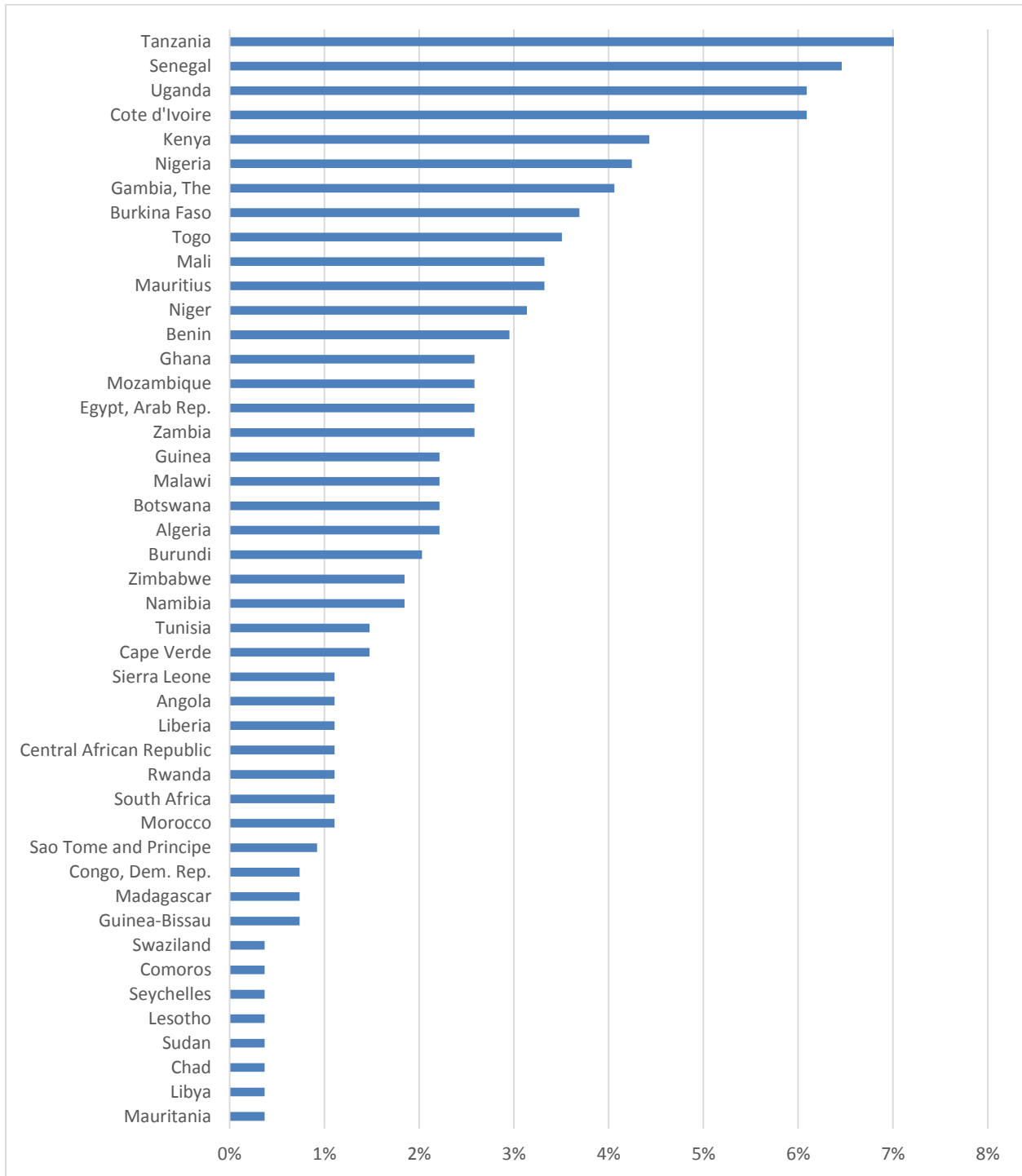


Table A 1: Sub-Regional Breakdown.

Central Africa	Eastern Africa	Northern Africa	Southern Africa	Western Africa
Angola	Burundi	Algeria	Botswana	Benin
Central African Republic	Comoros	Egypt, Arab Rep.	Lesotho	Burkina Faso
Chad	Kenya	Libya	Madagascar	Cape Verde
Congo, Dem. Rep.	Rwanda	Mauritania	Malawi	Cote d'Ivoire
Sao Tome and Principe	Sudan	Morocco	Mauritius	Gambia, The
	Tanzania	Tunisia	Mozambique	Ghana
	Uganda		Namibia	Guinea
			Seychelles	Guinea-Bissau
			South Africa	Liberia
			Swaziland	Mali
			Zambia	Niger
			Zimbabwe	Nigeria
				Senegal
				Sierra Leone
				Togo

Table A 2: Other Country Groupings*.

Low-Income Countries (LICs)	Fragile States	Middle-Income Countries (MICs)
Benin	Burundi	Algeria
Burkina Faso	Central African Republic	Angola
Burundi	Chad	Botswana
Central African Republic	Comoros	Cape Verde
Chad	Congo, Dem. Rep.	Cote d'Ivoire
Comoros	Cote d'Ivoire	Egypt
Congo, Dem. Rep.	Guinea	Ghana
Gambia, The	Guinea-Bissau	Lesotho
Guinea	Liberia	Libya
Guinea-Bissau	Sao Tome and Principe	Mauritania
Kenya	Sierra Leone	Mauritius
Liberia	Sudan	Morocco
Madagascar	Togo	Namibia
Malawi	Zimbabwe	Nigeria
Mali		Sao Tome and Principe
Mozambique		Senegal
Niger		Seychelles
Rwanda		South Africa
Sierra Leone		Sudan
Tanzania		Swaziland
Togo		Tunisia
Uganda		Zambia
Zimbabwe		

*We use the World Bank country classification. Countries that do not appear in the table are not included in our sample.