

# How currency sanctions on Russia could disrupt trade with Africa

**Chris Heitzig**  
**Aloysius Uche Ordu**  
**Leo Holtz**

**Chris Heitzig** is a research analyst with the Africa Growth Initiative (AGI) at the Brookings Institution.

**Aloysius Uche Ordu** is the director and senior fellow of Brookings AGI.

**Leo Holtz** was a research assistant with Brookings AGI.

## **Acknowledgements**

The authors would like to thank anonymous peer reviewers for their helpful comments. The authors would also like to thank Christina Golubski for her feedback and editing.

Brookings recognizes that the value it provides is in its commitment to quality, independence, and impact. Activities supported by its donors reflect this commitment.

The Brookings Institution is a nonprofit organization devoted to independent research and policy solutions. Its mission is to conduct high-quality, independent research and, based on that research, to provide innovative, practical recommendations for policymakers and the public. The conclusions and recommendations of any Brookings publication are solely those of its author(s), and do not reflect the views of the Institution, its management, or its other scholars.

## **Abstract**

This paper uses a novel dataset to study how sanctions on Russia impact trade with Africa. We find that 95 percent of African exports and 94 percent of African imports with the world are denominated in either euros or dollars. We argue that, for economic and financial reasons, a substantial majority of Russia-Africa trade is also denominated in euros or dollars and, hence, will be affected by sanctions on relevant Russian financial institutions. We estimate that at least 1.8 percent of Africa's trade will be disrupted by the sanctions on Russia. Moreover, for some countries, sanctions could disrupt as much as 5 percent of trade revenue. These estimates, while not large enough to prioritize, are too large to dismiss during a time of tightening fiscal policy in Africa. The paper concludes by exploring the implications of the sanctions on food insecurity, resource windfalls, and the future of foreign reserve currencies in Africa.

# 1. Introduction

Financial sanctions tend to hurt both the sanctioned and the sanctioner, but they also threaten to hurt countries that are financially interlinked with the sanctioned country. Recent sanctions levied on Russia by the United States and the European Union in response to Russia's invasion of Ukraine are disrupting global trade and financial networks across the world, including in Africa. The sanctions prevent U.S. and eurozone banks, their foreign affiliates, and Russian banks based in the U.S. and eurozone countries from facilitating dollar and euro transactions on behalf of Russian entities. The problem for Africa is that roughly 95 percent of all trade is invoiced in these two sanctioned currencies alone and that a vast majority of Africa's \$14 billion trade with Russia is likely denominated in these two currencies.<sup>1</sup>

This paper uses a recently released data set<sup>2</sup> that measures the currency of trade invoicing to estimate the share of African trade that will be disrupted—that is, current financing pathways rendered inexecutable—due to the sanctions levied by the U.S. and eurozone countries on Russia (we call these effects “disruptions,” rather than losses, because they have not yet been realized, and it is uncertain how trade partners in Russia and Africa will respond to reduced financing options). We find that currency sanctions alone have the potential to disrupt 1.8 percent of all African trade and, for some countries, upwards of 5 percent of trade revenue. We also argue that for a host of political, economic, and financial reasons, these figures are a lower bound for potential disruptions. These figures, though not large enough to prioritize, are too large to dismiss during a difficult financial period for many African governments. We also surmise about the knock-on effects of the sanctions, including the potential for escalating food insecurity, change in commodity prices, demand for alternative currencies, and the future of African trade relations.

This paper is organized as follows. Section 2 delineates the sanctions that have been—or will be—imposed on Russia and how they are likely to disrupt trade between Russia and Africa. Section 3 explains the data and methods used in our estimates for disrupted trade and revenue. It also presents our estimates for those disruptions. Section 4 contextualizes our findings in the larger scene of the direct impacts of the conflict, the threats it poses on food security, the possibility of new global reserve currencies outside the dollar or the euro, and the future of trade finance in Africa. Section 5 concludes and offers policy recommendations.

## 2. Impact of financial sanctions on Russia-Africa trade

### 2.1 Description of sanctions

In response to Russia's invasion of Ukraine in early 2022, the U.S. and EU adopted significant and largely unprecedented financial sanctions against Russia. More specifically, on February 24 and 25, the U.S. and the EU levied sanctions on Russian banks that targeted correspondent and payable-through accounts. The sanctioned banks account for a vast majority of Russia's financial capital and are heavily exposed to western financial systems. U.S. sanctions on these banks also prohibit American citizens from dealing with these banks and any of their subsidiaries anywhere in the world. On February 28, the U.S. and EU banned transactions with the Russian Central Bank and the National Wealth Fund, Russia's sovereign wealth fund. On March 1, SWIFT, at the behest of the U.S. and the EU, disconnected seven Russian financial institutions (and three Belarusian financial institutions three weeks later) from its network.<sup>3</sup> On April 12, the U.S. and EU banned direct or indirect trade in investment services, including securities and other money-market instruments. Many other countries—

1 UNCTAD (2022) and Boz et al. (2020).

2 Boz et al. (2020). “Patterns in invoicing currency in global trade.” *International Monetary Fund*.

3 SWIFT. (2022). “An update to our message for the SWIFT Community.” *Society for Worldwide Interbank Financial Telecommunications*.

including Canada, the United Kingdom, Australia, South Korea, and Japan—have levied similar sanctions on Russia.

To lessen the blow of the sanctions and prop up the value of the ruble, Russia passed capital control measures. Russians are now forbidden, for example, from transferring money to foreign bank accounts. Banks and brokers are prohibited from executing cash-based foreign exchanges for dollars and euros.<sup>4</sup>

## 2.2 Sanctions inhibit Russia from financing trade

These actions could pose significant difficulties to Russia’s ability to conduct trade that is invoiced in U.S. dollars (hereby “dollars”) and euros. These currencies maintain a dominant role in facilitating international financial transactions and global trade mechanics, accounting for 90 percent of import invoicing and 88 percent of export invoicing (Table 1). For Africa, these shares are even higher: More than 94 percent of African imports and more than 95 percent of African exports are denominated in either dollars or euros.

**Table 1. Share of trade that is denominated in U.S. dollars or euros**

Continent	Share of imports (%)	Share of exports (%)
North America	97.7	96.7
Africa	94.2	95.3
South America	93.3	97.6
Europe	91.8	87.8
World	90.0	88.2
Asia	80.7	80.3
Oceania	60.5	79.7

Note: These figures are produced from a sample of 81 countries, including 14 from Africa, 40 from Europe, 3 from North America, 4 from Oceania, 20 from Asia, and 8 from South America.

Source: Authors’ calculations using Boz et al. (2020). “Patterns in invoicing currency in global trade.” International Monetary Fund. United Nations Conference on Trade and Development. (2022). Bilateral Trade Data.

To conduct business-as-usual trade in the era of sanctions, Russian companies need to fund dollars and euros to purchase imports and need to enlist the help of financial intuitions to convert dollars and euros into rubles. There are four primary ways for Russian companies to access lending and exchange services via correspondent accounts and payable-through accounts:

1. U.S./eurozone banks based in the U.S./eurozone
2. U.S./eurozone banks based outside the U.S./eurozone
3. Foreign banks based in the U.S./eurozone
4. Foreign banks based outside the U.S./eurozone

Correspondent and payable-through accounts, in this context, are accounts at banks in the U.S./eurozone belonging to Russian financial institutions that conduct business in the local currency (i.e., dollars and euros). Sanctions in the U.S. and the eurozone target these accounts and prohibit

<sup>4</sup> Stubbington and Ivanova. “Russia steadies ruble with harsh capital controls and investment curbs.” *Financial Times*.

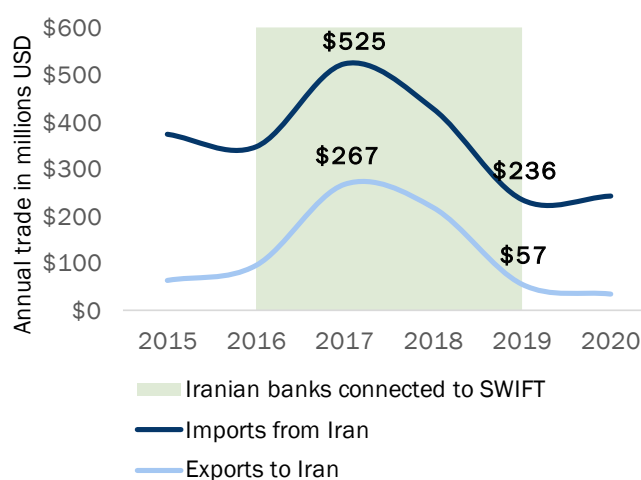
both opening or maintaining such accounts and processing any transactions related thereof.<sup>5</sup> The sanctions apply not only to American and eurozone banks (that is, those headquartered in the U.S. and their respective European nation), but also to their foreign branches and subsidiaries. The sanctions also apply to foreign financial institutions that are based in the U.S./eurozone, although not to their affiliates abroad.

These sanctions alone interrupt three of the four primary ways that Russian companies finance trade-related transactions with Africa. Trade may nonetheless continue to be carried out chiefly in dollars and euros, but in that case Russian companies would need to turn to secondary sources (interbank markets, money markets, debt capital markets and derivative markets) or tertiary sources (cross-currency swaps) to raise enough dollars and euros to pay for goods.<sup>6</sup> Russian companies may need to resort to these means to receive payments denominated in dollars and euros, and these transactions may require a foreign exchange broker to complete, as the volume of African imports is relatively large and the transactions were not expected.<sup>7</sup>

Notably, other sanctions may further interrupt the way Russia and Africa finance trade. The Russian financial institutions disconnected from SWIFT are not only blocked from secure telecommunications via SWIFT with American and eurozone banks, but *all* banks, including foreign banks based outside the U.S. and eurozone. Iran is a case in point: SWIFT sanctions on Iranian banks between 2012 and since 2019 reduced trade between Iran and Africa, even though the latter did not apply any sanctions on the former (Figure 1).

Western sanctions on Russia threaten to interrupt trade between Russia and Africa. At around \$14 billion per annum, Russia-Africa trade makes up a relatively small share of Africa's total trade. Imported goods from Russia amount to \$12 billion, accounting for just 2.6 percent of Africa's imports, while the roughly \$2 billion annual exports from Africa to Russia account for less than 1 percent of Africa's exports. That said, trade with Russia can account for a rather large share of a given country's overall trade. Moreover, since Russia-Africa trade is dominated by mostly African imports from Russia, import duties on Russian goods can locally account for a non-negligible share of trade revenue in certain countries. More immediately, key exports from Russia such as wheat to North Africa and Ethiopia or armaments to the Central African Republic and Mali could have local, acute effects, some of which might be felt more in terms of welfare than finance. According to the United Nations Conference on Trade and Development, 32 percent (\$3.7 billion) of Africa's wheat imports from 2018 to 2020 came from Russia.<sup>8</sup> It should come as no surprise, then, that African countries have already seen the price of wheat explode since Russia's invasion of Ukraine. As of late April, global wheat prices remained more than 25 percent higher than their pre-invasion levels.<sup>9</sup>

**Figure 1. Annual trade between Africa and Iran**



Note: SWIFT sanctions were lifted on Iran from January 2016 to November 2018.

Source: UNCTAD (2022).

5 U.S. Treasury. (2022). "DIRECTIVE 2 UNDER EXECUTIVE ORDER 14024." *U.S. Department of the Treasury*.

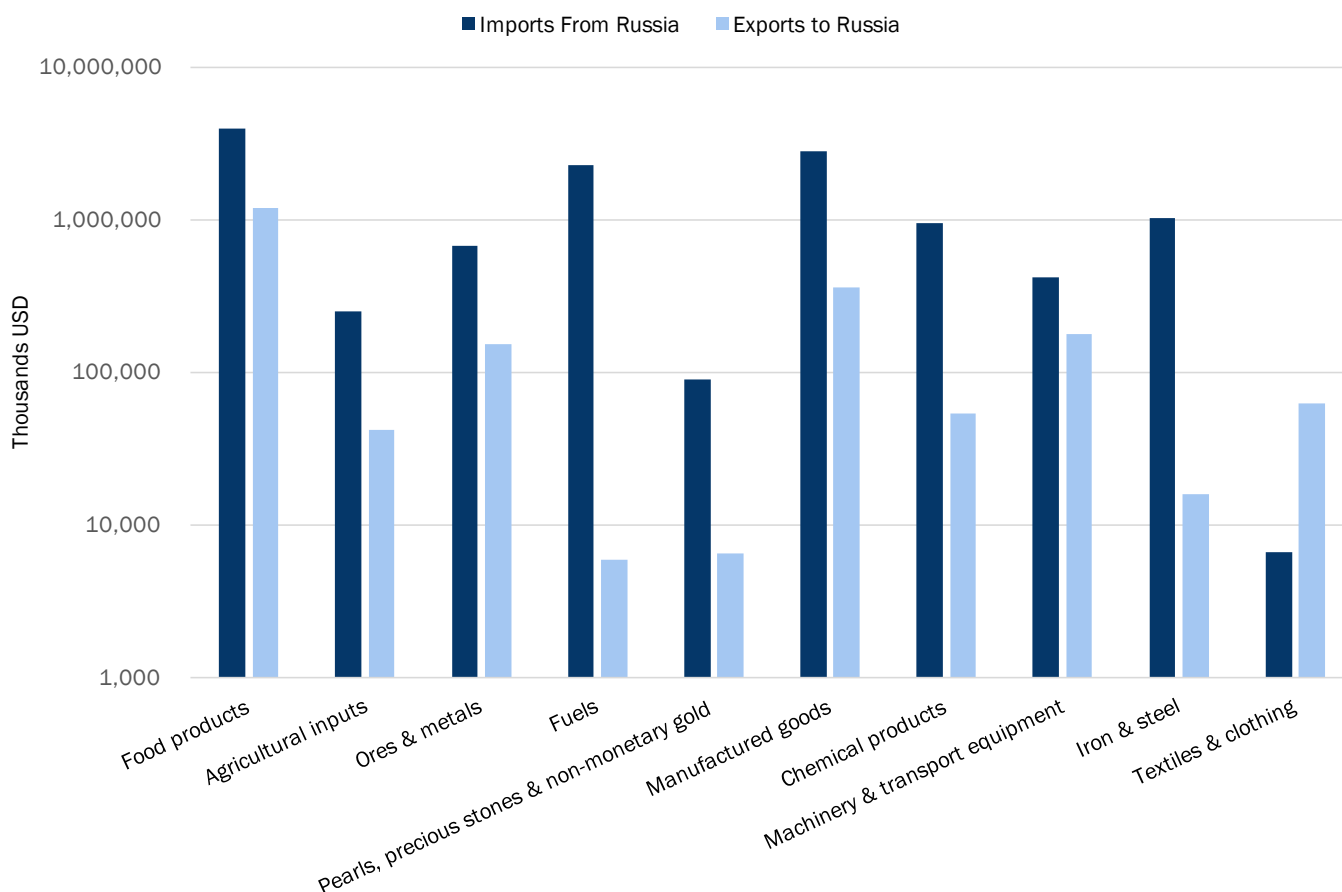
6 IMF. (2022a). "Global Financial Stability Report: Lower for Longer." Annex 5.1. *International Monetary Fund*.

7 Chrystal, K. A. (1984). *A guide to foreign exchange markets*. St. Louis Federal Reserve Bank.

8 UNCTAD. (2022b). "The Impact on Trade and Development of the War in Ukraine." United Nations Conference on Trade and Development. UNCTAD rapid assessment.

9 IMF. (2022b). *Africa Regional Economic Outlook*. *International Monetary Fund*.

**Figure 2: African merchandise trade with Russia, selected goods, 2019**



Note: Logarithmic scale base 10. 2019 data selected to mitigate COVID-19 pandemic related trade anomalies.

Source: "Merchandise trade matrix in thousands U.S. dollars, annual, 2016-2020," UNCTADstat, United Nations Conference on Trade and Development, 2022.

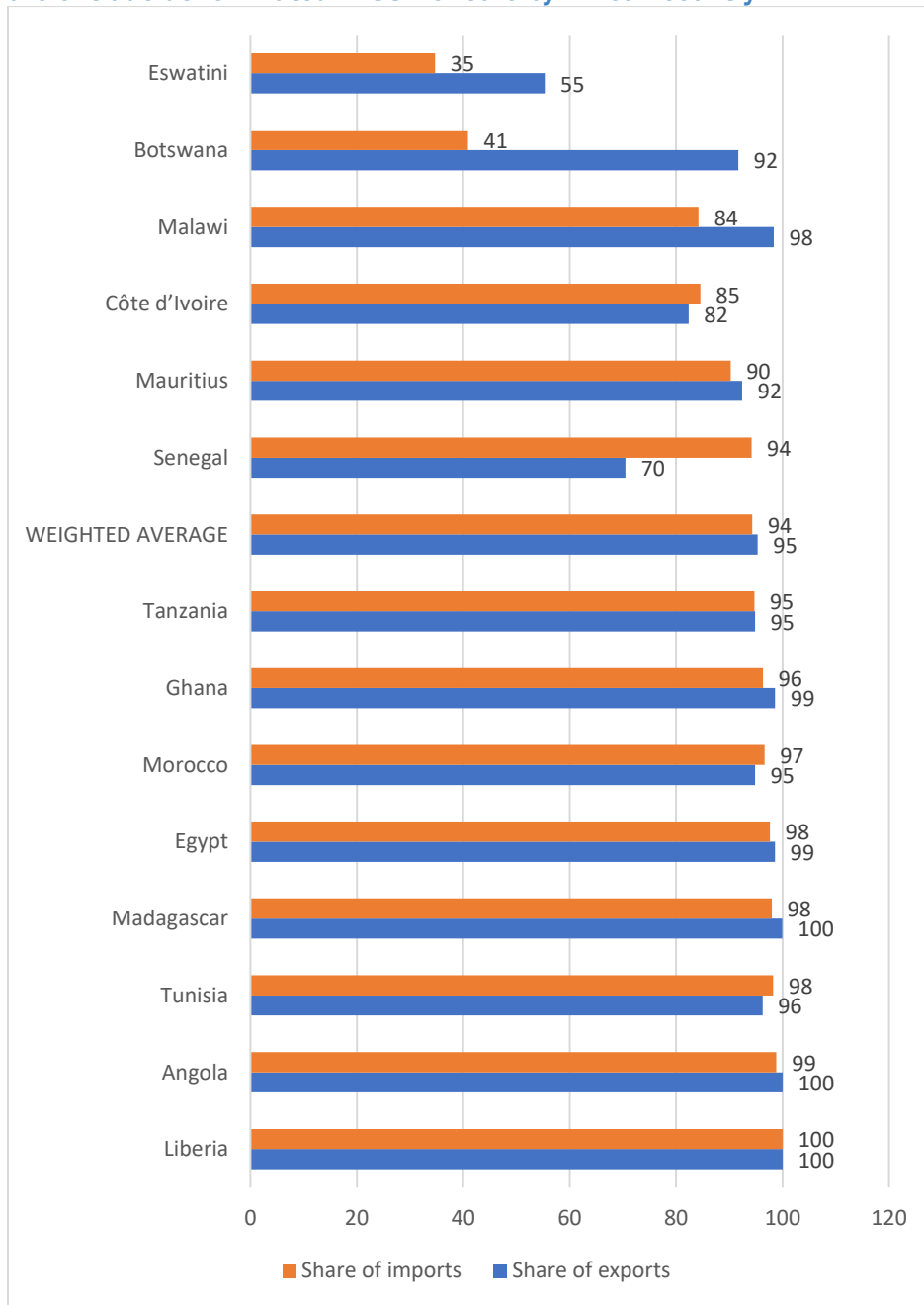
### 3. Estimates for trade disruptions

#### 3.1 Data

To estimate the degree of these disruptions on African trade, we rely on a number of data sets. Chiefly, we rely on data from Boz et al. (2020), which has unilateral trade invoicing data for 14 African countries (see Table 5 in the Appendix). To date, this is the most representative data set assembled on the currency of invoicing for Africa. We combine trade invoicing data for these countries (which account for 32 percent of Africa’s GDP) with UNCTAD bilateral trade data between Africa and Russia and UNCTAD’s Trade Analysis Information System (TRAINS) database. The latter database, which contains import duties by product and country, contains Russia-specific data for a subset of our sample. We choose four large economies in this sample to highlight.

The trade invoicing data reveal heterogeneity in dollar and euro use across African economies, but usage is generally high for both exports and imports (Figure 3). Although outliers exist, such as Eswatini, where trade is largely conducted with other currencies, on average, dollars and euros tend to account for a vast majority of both import invoicing and export invoicing for African countries.

**Figure 3. Share of trade denominated in USD or euro by African country**



Source: Authors' calculations using Boz et al. (2020). "Patterns in invoicing currency in global trade." International Monetary Fund. United Nations Conference on Trade and Development. (2022). Bilateral Trade Data.

### 3.2 Methodology

Calculations for trade disruptions rely on several key assumptions and definitions. First, by the term "disruption" we do not mean "loss," but simply that the traditional payment method between the traders in Africa and Russia respectively has been closed. As of this writing, it remains uncertain how African and Russian trading partners will respond to sanctions. If they find alternative forms of



financing the transaction or alternative trading partners, this sum could be recouped. If no alternative is found, the trade and corresponding trade revenue would be forfeited.

Ideally, we would use invoicing data, trade volumes, and tariff data by partner and good. Unfortunately, data constraints require us to restrict our scope and make assumptions about the underlying data. The weakness of the trade invoicing data described in Section 3.1 is that it only contains data on unilateral invoicing (that is, only aggregates of countries with respect to the world) rather than bilateral invoicing (e.g., the currency denomination between, say, Ghana and Russia). We, therefore, assume that the share of each African country's trade (and for each product) with Russia invoiced in dollars and euros mirrors its share with the rest of the world (for Africa as a whole, these figures are 94 and 95 percent, respectively). Although several other foreign currencies mediate African trade, such as British pound sterling and the Chinese renminbi, neither African currencies nor rubles are popular currencies with which to conduct trade because of the risk of exposure, namely, the cost of holding the currencies when they lose value. This makes foreign exchange fees between them expensive and uncompetitive compared to dollars and euros.

Furthermore, we assume that all Russia-Africa trade invoiced in dollars or euros risks being disrupted by these and related sanctions. For many reasons, we believe that the share of Russia-Africa trade conducted in dollars and euros serves as a lower bound for the share of trade disrupted for our sample. First, dollars and euros are not the only currencies that carry sanctions. Russian accounts and transactions in British sterling, Japanese yen, Australian dollars, and other commonly-used currencies also faced sanctions. Second, trade would be denominated in local currencies if and only if exchange costs and foreign currency risks were higher than dealing in local currencies. Yet for the Russian ruble and many African currencies, the exchange costs and foreign currency risks could prove to be quite high in normal times. Third, since Russia's invasion of Ukraine on February 24, 2022, the value of the ruble has fluctuated tremendously, at one point losing nearly half its value. The ruble's volatility is not likely to appeal to African trade partners. Fourth, the invoicing data from Africa are from 2018, but evidence suggests that the share denominated in euros and dollars has only risen since 2018.<sup>10</sup> Fifth, the situation is still changing on the ground, meaning sanctions could expand in severity and country coverage. In mid-March, sanctions were expanded to include Belarusian financial institutions. Allies of Ukraine have warned that sanctions could be imposed on China should it support Russia in its invasion.

The total trade disrupted in a given year is therefore estimated by the following equation:

$$D_c = \sum_p S_c^I I_{c,p} + S_c^E E_{c,p}$$

where  $D_c$  is the value of trade disrupted in a given year for country  $c$ ,  $S_c^I$  and  $S_c^E$  are, respectively, a country's share of imports and exports denominated in either dollars or euros, and  $I_{c,p}$  and  $E_{c,p}$  are a country's annual imports and exports of good  $p$  with Russia. Our estimate for  $D_c$  is likely lower than the true value of  $D_c$  because  $S_c^I$  and  $S_c^E$  are likely below the actual share of trade between Russia and a given African country's share of trade invoicing denominated in sanctioned currencies. In the absence of data on which goods are more or less likely to be invoiced using dollars or euros, we assume that the share of imports and exports denominated in dollars and euros for each country is the same for each product. We then use this information to calculate the expected revenue disrupted by the sanctions on Russia and report these figures both as a share of total trade revenue (Figure 3) and by product (Figure 4).

Because TRAINS tariff data covers primarily tariffs on imports rather than exports, we are restricted to looking at African trade revenue disruptions stemming from duties on imports. In the end, the trade revenue disrupted from import tariff lines is likely very close to the total trade revenue disrupted. In

<sup>10</sup> McGuire et al. (2021) and Aldasoro and Ehlers (2018).

general, countries tend to derive most of their trade revenue from import tariffs rather than export tariffs.<sup>11</sup> Additionally, African imports from Russia account for 87 percent of trade between the two parties. These reasons suggest that the trade revenue from export tariffs may be a very small share of the total trade revenue generated by trade between Russia and Africa. As with disrupted trade, estimates for trade revenue disruptions should be interpreted as a lower bound for actual disruptions to trade revenue for imports as well as exports denominated in all sanctioned currencies (not only euros and dollars).

We estimate the trade revenue disrupted for an African country due to Russian sanctions as follows:

$$R_c = \sum_p \tau_{c,p} D_{c,p}$$

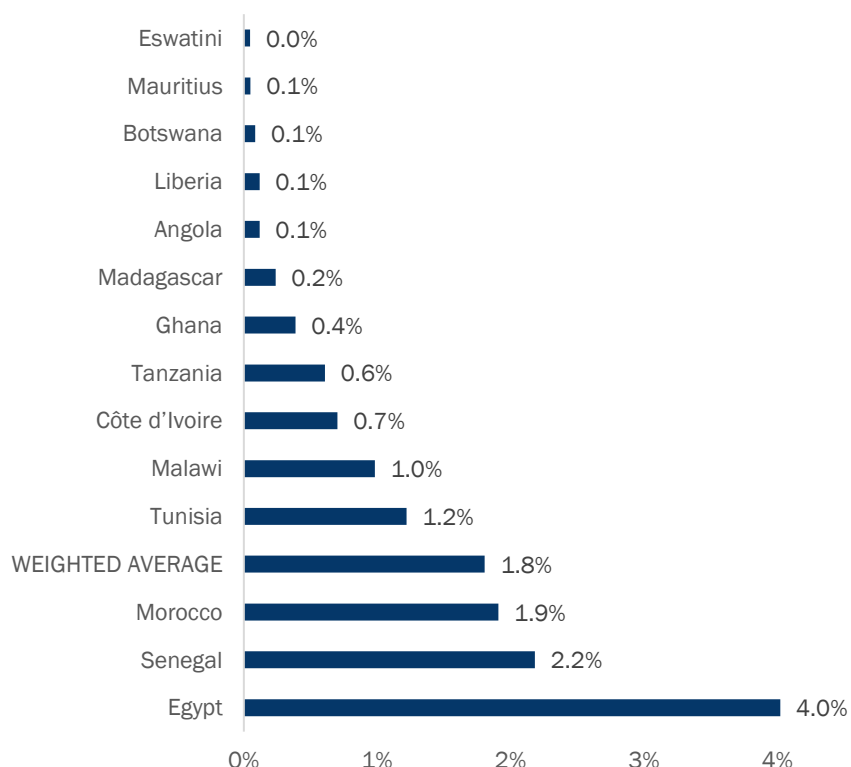
where  $R_c$  is the estimate trade revenue disrupted,  $\tau_{c,p}$  is the import tariff of country  $c$  on good  $p$  from Russia, and  $D_{c,p}$  is the estimated trade disrupted in country  $c$  for good  $p$ . Note that trade revenue here does not include sources of trade revenue outside tariffs, such as direct exports by state-owned enterprises or dividends from resource rents.

### 3.3 Estimates for disruption to trade

While most African countries tend to invoice trade in dollars or euros, the volume of trade with Russia varies widely, which means there is wide variation across countries in terms of share of trade disrupted by sanctions (Figure 4). In Egypt, for instance, we estimate at least 4 percent of trade is at risk of being disrupted, whereas in Mauritius this figure stands at just 0.1 percent. On average, we find that sanctions threaten to disrupt at least 1.8 percent of African trade.

Africa's export portfolio with Russia differs distinctly from its import portfolio, meaning that disruptions will impact some goods more than others. Cereals will be the main import affected, accounting for 35 percent of disrupted imports (Figure 5). Notably, a decline in cereal imports due to sanctions, along with rising food prices stemming from supply reduction, raise concerns of food price hikes in Africa and thereby general concerns for food insecurity. In addition to cereal, petroleum

**Figure 4. Share of overall trade disrupted by USD/EUR sanctions**

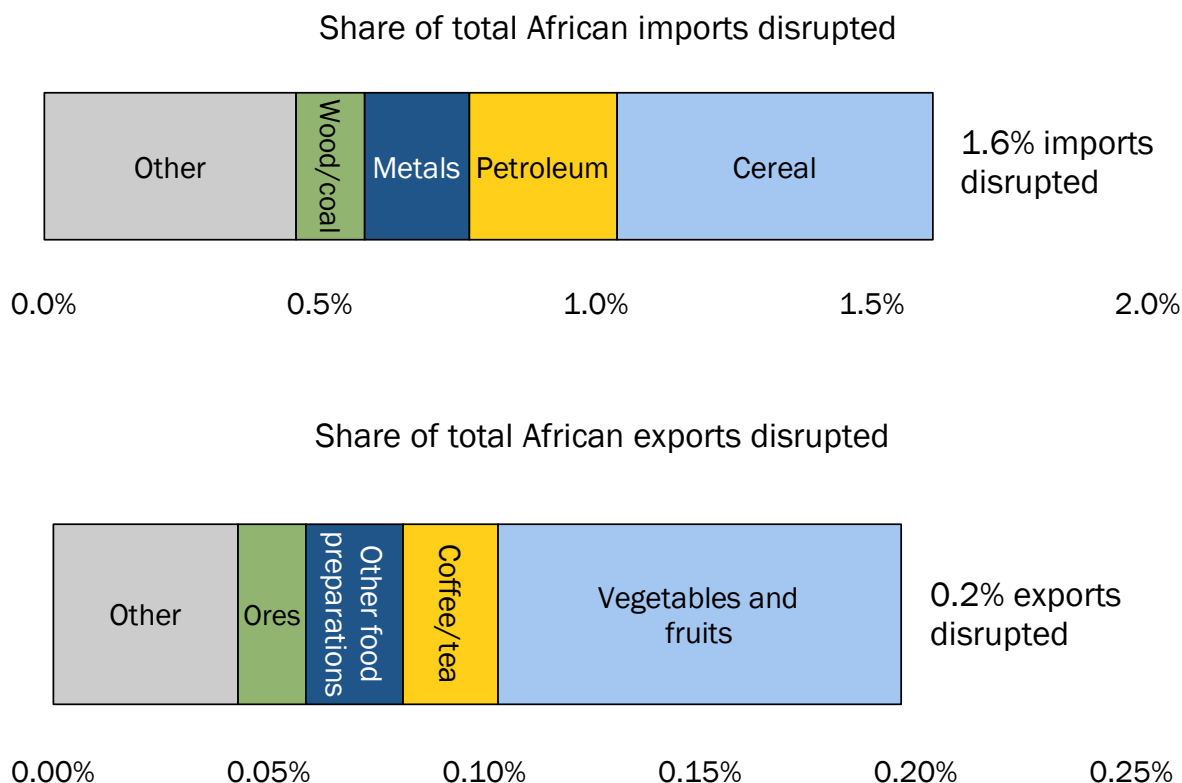


Source: Authors' calculations using Boz et al. (2020).

<sup>11</sup> Data from the World Development Indicators show that countries from all regions of the world, including Africa, tend to derive all or close to all of their tariff revenue from import tariffs. The three most notable exceptions are the founding members of the Eurasian Economic Union: Russia, Kazakhstan, and Belarus.

products and metals account for 17 and 12 percent of disrupted imports, respectively. A majority of disrupted exports will be food-related items: In fact, fruits and vegetables together account for nearly 50 percent of disrupted exports, while coffee and tea are responsible for an additional 11 percent.

**Figure 5. Share of exports and imports affected by USD/EUR sanctions**



Note: These figures are produced from a data set of 81 countries, including 14 from Africa, 40 from Europe, 3 from North America, 4 from Oceania, 20 from Asia, and 8 from South America.

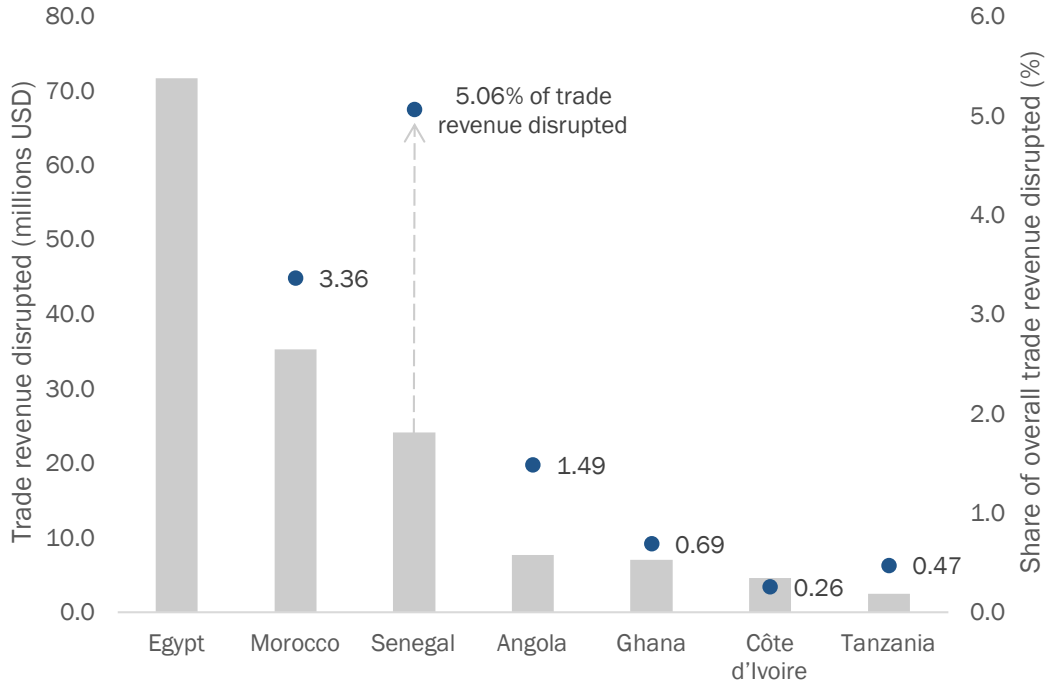
Source: Authors' calculations using UNCTAD bilateral trade data.

### 3.4 Estimates for disruptions to revenue

Estimates for disrupted trade revenue are comparably high for some countries, even relative to overall trade revenue. In Egypt, more than \$70 million in import duties are at risk of disruption; similarly, more than 5 percent of all trade revenue of Senegal's import duties risk disruption. Overall, though, our analysis suggests that, for some countries, sanctions on Russia could cause upwards of 5 percent of all trade revenue to be disrupted due to dollar/euro sanctions alone (see Figure 6). This figure, which could fall in the tens of millions of dollars, is too small to take priority, yet too big to dismiss entirely.

Because import portfolios and corresponding duties differ widely across African countries, the trade revenue lost by import also differs. In Angola, for example, 59 percent of the projected 8 percent of disrupted revenue is in weapon import duties alone. In Egypt, vehicles and telecom equipment account for 21 and 12 percent, respectively, of disrupted revenue. Taxes on petroleum imports seem to generate a significant share of tax revenue in a lot of the countries for which we have data. In Senegal, petroleum duties account for nearly two-thirds of all trade revenue with Russia.

**Figure 6. Disrupted trade revenue (millions of USD)**

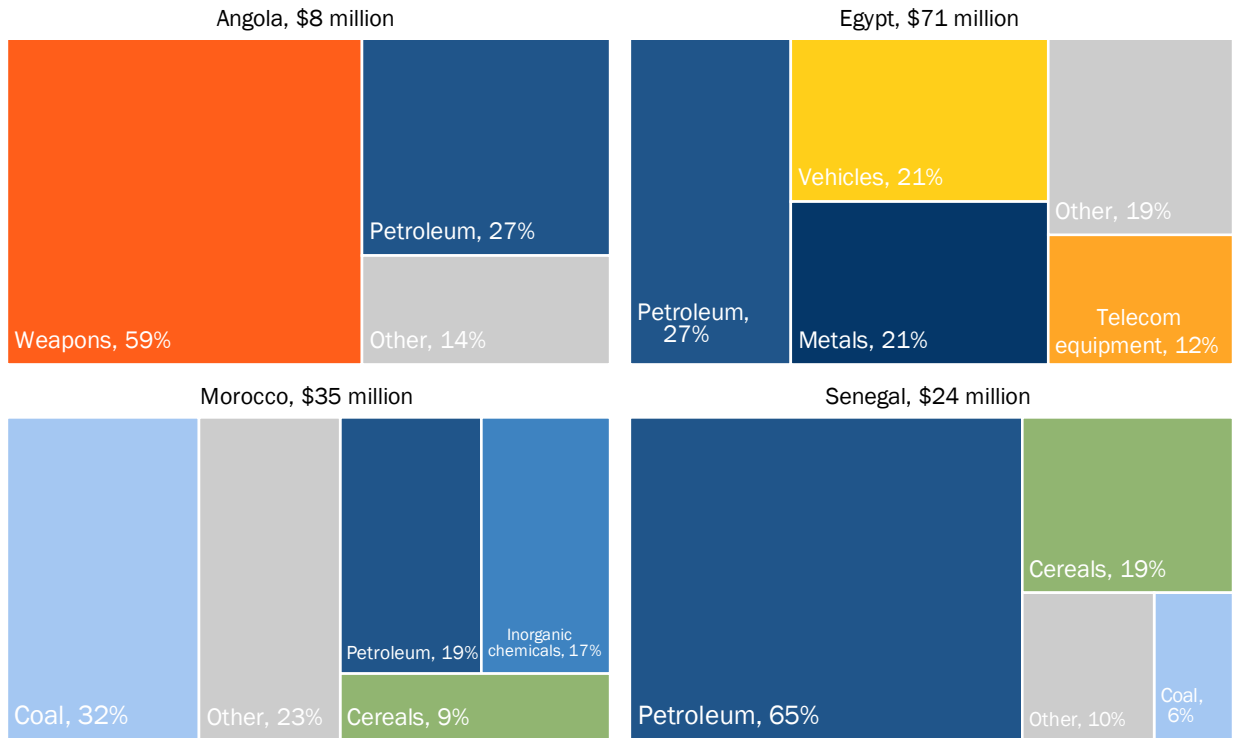


Note: We have trade and tariff data for the seven countries listed above. We do not have total trade revenues for Egypt, which is why its share of overall trade revenue disrupted is omitted.

Source: Authors' calculations using World Development Indicators and UNCTAD's Trade Analysis Information System (TRAIN) database.

**Figure 7. Sanctions on Russia threaten to disrupt trade revenue flows derived from a narrow range of products.**

Share of import revenue disrupted by product, select countries



Source: Authors' calculations using World Development Indicators and UNCTAD's Trade Analysis Information System (TRAIN) database.

## 4. Global implications

### 4.1 Broader impacts of conflict and sanctions

In the short term, the most devastating trade-related impact for Africa will be the disruption to importing Russian, as well as Ukrainian, cereal grains. Russian food products are a leading staple of Africa's imports from the country, making up more than 5 percent of the continent's food imports. Disruptions to Africa's food systems have the potential to inflate local food prices, particularly in North Africa where many economies rely heavily on cereal imports.<sup>12</sup> Africa already has one of the highest food insecurity rates in the world<sup>13</sup> with 452 million Africans enduring food insecurity.<sup>14</sup> Coupled with Africa's increased reliance on imported staple foods over the years,<sup>15</sup> any disturbance to Africa's food system threatens the health and wellbeing of African households.

Despite the relatively low level of exports to Russia, the overwhelming concentration of African exports to Russia in the agricultural sector, particularly fruits and vegetables, suggests trade interference will be most pronounced among African farmers, agro-processors, and agro-businesses—whose need to find new markets will be time sensitive given that food products are perishable.

Due to ballooning fertilizer costs<sup>16</sup> and record-high global food prices,<sup>17</sup> we speculate net welfare losses for consumers and, despite higher market prices, agricultural producers given their exposure to higher operating costs. Exporters and agribusinesses, however, may stand to gain from the volatility in global agricultural markets, as they skirt direct exposure to the extraordinary increases in the prices of key farming inputs. Meanwhile, governments and philanthropic organizations, to alleviate food insecurity and the unraveling of human development among vulnerable populations, may feel pressure to intervene with food subsidies and aid.

The chaos in the oil market is a resource boom for Africa's 10 oil-producing countries, including Algeria, Angola, and Nigeria. However, the challenge of convincing parliaments to invest the windfalls in sustainable economic development rather than an opportunity to delay urgently needed reforms remains. For oil importers, however, the price hike is reminiscent of the fuel, food and financial crises of 2008-2009 and the impact for these countries may actually be worse this time around.

### 4.2 Potential (or lack thereof) for a new global reserve currency

Russian firms will eventually lack access to enough dollars and euros to continue settling the same volume of transactions they did previously. At this point, African businesses will face a choice in their transactions with Russian firms: utilize alternative forms of currency or find other business partners. The choice matters. The latter option faces switching costs and rising costs of doing business. The former approach faces financial risks, including currency risks and exchange costs.

Suppose, for instance, that African businesses choose the first option. The most appealing alternatives to the dollar or euro are perhaps the **Japanese yen, pound sterling, or Swiss francs**—which all carry sanctions prohibiting their use by Russia. Of the unsanctioned currencies, the ruble itself would certainly be an attractive option to Russian businesses. It is unlikely, however, that their African counterparts would find it attractive. The volatility and uncertainty surrounding their ruble's value would pose significant risks to financial institutions that would help settle transactions between Russia and Africa, and these risks would be passed on to businesses in the form of higher exchange costs.

---

12 David, Callee, "Ripple effects of a Russia-Ukraine war," *Oxford Economics*, 2022.

13 Smith, Michael D. and Meade, Birgit, "Who Are the World's Food Insecure? Identifying the Risk Factors of Food Insecurity Around the World," *U.S. Department of Agriculture*, 2019.

14 "Africa – Regional Overview of Food Security and Nutrition 2021," *European Commission*, 2021.

15 Nicole M. Mason, et al., "Wheat Consumption in Sub-Saharan Africa: Trends, Drivers, and Policy Implications," *Michigan State University*, 2012.

16 "World Bank Commodities Price Data (The Pink Sheet)," *The World Bank*, 2022.

17 "FAO Food Price Index," *Food and Agriculture Organization of the United Nations*, 2022.

Another option is the **Chinese renminbi**. As the currency of the world's second-largest economy and one of the five currencies underpinning the value of the IMF's special drawing rights, the renminbi certainly has the clout to assuage the concerns of financial institutions settling transactions. In fact, China's Cross Border Interbank Payment System (CIPS)—which offers secure messaging, clearing, and settlement services for cross-border transactions denominated in renminbi—is a growing rival to SWIFT. However, the degree of renminbi available for settling foreign transactions is relatively small. According to the IMF, as of the last quarter in 2021, renminbi accounted for less than 3 percent (\$336 billion) of foreign exchange reserves globally.<sup>18</sup> In contrast, dollars and euros accounted for nearly 80 percent of all foreign reserves. China's strict capital controls make it difficult for investors to acquire large, liquid quantities of renminbi. While China is Africa's top trading partner, it remains to be seen whether Africa could raise enough renminbi to finance all of Africa's trade with Russia, especially at a time when Russia, whose annual trade exceeds \$670 billion, is in hot pursuit of RMB itself.<sup>19</sup> Indeed, early evidence suggests that the share of global transactions processed in RMB fell from 2.7 percent in December 2021 to 2.2 percent in March 2022. Renminbi may end up playing a much more prominent role in settling cross-border transactions, but it will likely take time to grow into its new role.<sup>20</sup>

A weakness similar to the one faced by renminbi plagues **cryptocurrencies**. Not only is there not enough available cryptocurrency to finance Russia's trade, not enough cryptocurrency to do so even exists. Russia's annual trade volume almost exceeds the market capitalization (in U.S. dollars) of the world's most popular cryptocurrency, bitcoin. Even if Russia and its trading partners were to convert enough rubles into bitcoin to finance their trade, it would result in the value of bitcoin rising so high that it would not be worth settling such transactions.

## 5. Conclusion and policy recommendations

We employ recent data to estimate what share of African trade is at risk of being disrupted and what the costs could be in terms of revenue. We find that sanctions could disrupt upwards of 1.8 percent of African trade—mostly concentrated in imports—and, under a worst-case scenario, disrupt upwards of 5 percent of African trade revenue. African policymakers must be agile in addressing worsening food insecurity caused by soaring food prices and disrupted trade with Russia. We also argue that disruptions could destroy old partnerships and create new ones. The sanctions offer opportunities to strengthen ties with Russia, but also offer opportunities to draw closer to the U.S. and Europe. Regrettably, in the face of war, a middle ground appears to be quickly evaporating.

### Recommendations

1. **African financial institutions should raise funds apart from dollars and euros for purposes of facilitating trade.** These institutions could be national (central banks) or regional trade finance institutions like the African Export-Import Bank. It is likely that demands for currencies other than dollars and euros may increase in the coming years to finance the nearly \$14 billion of annual trade with Russia. Moreover, these institutions should make sure to hedge their exposure risks in these countries by hedging exposure in those currencies by, for instance, buying foreign currency swaps.
2. **African governments should help companies find alternatives to Russian goods where logistically feasible.** Sanctions will likely raise the cost of doing trade with Russia. Elevated transaction costs may price Russian companies out of both export and import markets for

18 IMF. (2022b). "The World Currency Composition of Official Foreign Exchange Reserves." International Financial Statistics. *International Monetary Fund*.

19 *The Economist*. "Russia looks to Chinese financial plumbing to keep money flowing." *The Economist*.

20 Prasad, E. (2015). *The dollar trap*. Princeton University Press.

certain goods. For these goods, policymakers should facilitate new partnerships for African companies by eliminating informational and infrastructural barriers.

3. **Relevant African ministries and legislatures should mitigate food insecurity through subsidies and, where possible, increasing food supply.** Sanctions may directly reduce the quantity of the food exported to Africa, but supply chain disruptions caused by the war may indirectly increase the price of food commodities like cereal and wheat sold across the world, including Africa. Regional policymakers should coordinate with food organizations in the region to ensure that even the poorest consumers have access to food despite the elevated prices.
4. **African governments should prepare for revenue shortfalls by broadening tax base.** The risk of lost revenue is of a magnitude that is too small to prioritize, but too large to ignore. The lost revenue comes at a time when finances are tight and debt sustainability is dwindling for many countries in the continent. Policymakers should consider revenue duties stemming from trade with Russia as a vulnerable source of income when budgeting in the near future. They can ensure against these disrupted duties by accelerating efforts to bring more companies and individuals into the tax base through formalization and digitization. Policymakers should be mindful to not raise VAT and GST on food products during this time when the prices of some staple goods remain high.
5. **Political and business leaders should take advantage of rapidly evolving global trade relations.** With the U.S. and Europe looking to ween off many Russian goods and outright banning others, there is an opportunity for Africa to step into the void left by Russia. The U.S. and Europe see Africa as a more politically viable long-term exporter of gas. There is an excellent opportunity for projects such as the Trans-Saharan Pipeline to attract external financing while global interest rates remain low (and despite recent increases are likely to remain well below their levels during the Great Moderation). External financing need not—and probably should not—come in the form of increased debt. At a time when broad outlooks on equities remain lukewarm, energy projects could entice a fraction of the estimated \$120 trillion held globally by institutional investors and commercial banks.<sup>21</sup> Funding could also come internally from resource revenue windfalls, or externally from public partners looking to divest from Russian oil and private companies looking to take advantage of trans-Mediterranean governmental cooperation on energy matters.

---

<sup>21</sup> AfDB. (2018). "Financing Africa's Infrastructure: New Strategies, Mechanisms, and Instruments." African Economic Outlook. African Development Bank.

## 6. References

- Aldasoro, I., & Ehlers, T. (2018). The geography of dollar funding of non-US banks. *Bureau of International Settlements Quarterly Review December*.
- Bahaj, S., & Reis, R. (2020). Jumpstarting an international currency. *The Bank of England*.
- Boz, E. et al. (2020). "Patterns in invoicing currency in global trade." *International Monetary Fund*.
- Chrystal, K. A. (1984). A guide to foreign exchange markets. *St. Louis Federal Reserve Bank*.
- Davis, C. (2022). "Ripple effects of a Russia Ukraine war." *Oxford Economics*.
- The Economist. "Russia looks to Chinese financial plumbing to keep money flowing." *The Economist*.
- EI-Erian, M. A. (2022). "The Ukraine War's Multifaceted Economic Fallout." *Project Syndicate*.
- IMF. (2022a). "Global Financial Stability Report: Lower for Longer." *International Monetary Fund*.
- IMF. (2022b). Africa Regional Economic Outlook. *International Monetary Fund*.
- IMF. (2022c). "The World Currency Composition of Official Foreign Exchange Reserves." *International Financial Statistics. International Monetary Fund*.
- Li, G. X. How Currency Risk Management Can Boost Access to Trade Finance in Africa. *CIAT*, 60.
- McGuire, P., Shim, I., Shin, H. S., & Sushko, V. (2021). Outward portfolio investment and dollar funding in emerging Asia.
- Oramah, B. (2021). Afreximbank in the Era of the AfCFTA. *J. Afr. Trade*, 8, 24-35.
- Resnick, D. (2022). "What does the war in Ukraine mean for Africa?" *Brookings Africa Growth Initiative*.
- Stubington, T. and Ivanova, P. "Russia steadies ruble with harsh capital controls and investment curbs." *The Financial Times*.
- SWIFT. (2022). "An update to our message for the SWIFT Community." *Society for Worldwide Interbank Financial Telecommunications*.
- UNCTAD. (2022a). Merchandise and services trade for bilateral pairings. *United Nations Conference on Trade and Development*.
- UNCTAD. (2022b). "The Impact on Trade and Development of the War in Ukraine." *United Nations Conference on Trade and Development. UNCTAD rapid assessment*.
- U.S. Treasury. (2022). "DIRECTIVE 2 UNDER EXECUTIVE ORDER 14024." *U.S. Department of the Treasury*.
- White, A. and Holtz, L. (2022). "Figure of the week: African countries' votes on the UN resolution condemning Russia's invasion of Ukraine." *Brookings Africa Growth Initiative*.
- World Bank. (2022). World Development Indicators. *World Bank Group*.



## 7. Appendix

**Table A1. Countries in sample**

<b><u>Africa</u></b>	<b><u>Europe</u></b>
Angola	All 27 EU countries
Botswana	Albania
Cote d'Ivoire	Belarus
Egypt	Bosnia and Herzegovina
Eswatini	Iceland
Ghana	Macedonia
Liberia	Moldova
Madagascar	Montenegro
Malawi	Norway
Mauritius	Russia
Morocco	Serbia
Senegal	Switzerland
Tanzania	Ukraine
Tunisia	United Kingdom
<b><u>Asia</u></b>	<b><u>North America</u></b>
Cambodia	Bahamas
India	Costa Rica
Indonesia	United States
Israel	
Japan	<b><u>Oceania</u></b>
Kyrgyz Republic	Australia
Malaysia	Fiji
Maldives	New Zealand
Mongolia	Solomon Islands
Saudi Arabia	
South Korea	<b><u>South America</u></b>
Taiwan	Argentina
Thailand	Brazil
Timor	Chile
Uzbekistan	Colombia
Azerbaijan	Ecuador
Armenia	Paraguay
Georgia	Suriname
Kazakhstan	Uruguay
Turkey	