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CHINA - AFRICA TRADE AND INVESTMENT RELATIONS UNDER THE BELT AND ROAD INITIATIVE

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Abstract: China's investment activities and infrastructure development in Africa under the Belt and Road Initiative ("BRI") have changed the prospects of economic cooperation between African countries and Asia's largest economy. Africa plays a prominent role in one of the key BRI corridors, which explains China's active engagement on the continent through the construction of hard infrastructure, port development and trade and investment activities. China is Africa's largest bilateral trading partner and foreign direct investor. This paper analyses China's investments and trade flows with Africa, the importance of African countries for the BRI and China-Africa relations within the geopolitical triangle US-EU-Russia. We applied correlation analysis to assess the intensity of the relationship between FDI and trade and an autoregressive model to extrapolate import and export data for a given period with the aim of forecasting trends in the development of China - Africa economic relations. Empirical results indicate a strong correlation between China's FDI to African countries and their trade flows. The autoregressive model estimates a substantial increase in their trade flows, which, along with China's infrastructural development in Africa, suggests a change in the dynamics of their trade cooperation and in the geographical structure of African countries' foreign trade.

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Introduction

The recomposition of international economic and political relations and global security frameworks in recent years has placed Africa at the centre of global geopolitical developments. Hardly any region remained immune to those changes and Africa was no exception. Global power shifts have altered the perspective of African states and reshaped the approach of major players to their engagement with African counterparts. Over the past decade, China has become a major player on the continent and has changed Africa's infrastructure and economic development prospects. Given their similar population sizes, the two markets have the potential to strongly integrate their economies and redesign global trade networks. Under the Belt and Road initiative, through the construction of road and railway infrastructure, port development and military presence in one of Africa's strategic ports, China projects its economic power and gradually shapes the modern development of Africa. The main instruments of China's engagement with Africa are foreign direct investments, trade promotion, lending, infrastructure development, official development assistance, military presence and port building and reconstruction, predominantly under the umbrella of the Belt and Road. The perceptions of African states towards China's activities on the continent are mainly optimistic. This is supported by the fact that China is Africa's largest bilateral trading partner and foreign direct investor.

The spectacular development of China's economy over the past four decades has changed its position and influence in international relations. China's development model was based on foreign direct investments, export oriented industrialisation and infrastructure development, and this pattern is relatively consistent with its approach in Africa. As part of the Go Global policy, integrated within the Belt and Road Initiative, Chinese companies have increased their presence in Africa and changed the pattern of China's trade and investment relations with African countries. With the new African continental free trade area (AfCFTA) agreement, that came into effect in 2021, the two initiatives in synergy have the potential to significantly alter the course of Africa's economic development. Similar to its engagement with other countries, China expects its partners to align with the "One China policy", which is a prerequisite for stable and lasting diplomatic relations.

Of all African countries, only Eswatini recognised the government of Taiwan. This had a massive impact on their trade, investment and diplomatic relations.

The change of geopolitical circumstances in the eastern part of the European continent greatly affected the relations between the states and transformed their collaboration with major powers. Some countries openly criticised Russia's activities in Ukraine, some remained restrained, while others justified the reasons for Russia's actions in the neighbouring country. This segregation has led countries to redefine their foreign policy and economic development goals and remodel their mutual cooperation. Africa now stands within the US-China-Russia-European Union geopolitical orbit.

China's flagship initiative, the Belt and Road, is considered one the most influential projects ever launched globally. Its magnitude and potential impact on the economic and infrastructure development of the countries involved are incontestable. When the Chinese president inaugurated the project in 2013, a great dose of scepticism emerged globally about its feasibility given the geographical reach, costs involved and potential risks, but at the same time, cautious optimism, owing to its potential to transform global trade and connectivity. Spanning across six land corridors and a maritime route, the BRI leaves no country across Asia, Europe, Middle East and Africa out of scope. Africa's geographic position accentuates its role in the Maritime corridor and, upon the completion of infrastructure and port development projects, in at least two land corridors - China- Pakistan and China-Indochina.

To date, 52 African countries have joined the BRI, of which 44 belong to low and lower-middle income groups. (Nedopil, 2023; NDRC, 2021; CL Brief, 2021)[1] This fact underscores the potential impact of the BRI on African economies, provided that transparent and sustainable project financing and development are ensured.

BRI financing is facilitated by Chinese largest commercial, institutional and development banks, the Silk Road Fund and multilateral institutions. Chinese commercial and policy banks are among the world's largest financial institutions and it is no wonder that development projects of the scale required to connect African countries can only be financed by organisations of such financial capacity as Chinese. The Belt and Road initiative is expected to boost China-Africa economic integration, promote industrial development and enhance the competitiveness of African markets. The BRI strategy promotes the development of hard and soft infrastructure, industrial development, financial, digital and cultural integration, thus creating development opportunities for China and countries along its corridors.

A corridor that particularly touches the African continent is the Maritime Silk Road. This is a crucial route for international trade that connects Asian and European markets. It passes through some of the most critical passages such as the Malacca Strait, the Gulf of Aden and the Suez Canal. The security of this route and the transportation of goods along the sea lines of communication remains essential for all global trading partners. The China-Pakistan corridor connects China's Xinjiang region with the Pakistan's Gwadar Port in the Arabian Sea. Presence on the eastern side of the African continent allows China to develop an alternative route for its trade

[1] No public sources have been identified to suggest that Eswatini and Mauritius were part of the BRI. China and Mauritius, however, signed an FTA in 2019, which is anticipated to open the door to the signing of a BRI MoU between the two countries.

with Africa via Pakistan, bypassing major chokepoints in Southeast Asia. Another corridor relevant for the BRI in Africa is China-Indochina, which aims to connect Southeast Asian markets with African countries along the maritime route. This is facilitated by China's presence in the Sri Lankan port of Hambantota, Gwadar Port and other ports across the Indian Ocean.

1. Literature review

China's ambitious project is expected to bring a myriad of opportunities for both China and Africa. From China's perspective, the implementation of projects in Africa should contribute to the realization of a set of economic and geopolitical goals. Africa provides access to a consumer market of 1,4 billion and access to much needed natural resources, such as crude oil, copper, cobalt, rare minerals and other. The African market requires significant infrastructural upgrading and can absorb China's excess capacity in many industrial sectors such as cement and steel, some of which can be utilized for infrastructure projects. Intensive economic activity on the African continent contributes to other BRI goals such as the internationalization of Chinese SOEs and currency, and financial integration. Access to an integrated market of 54 countries provides significant potential for trade and investment diversification. Infrastructure development in the least developed areas should contribute to a decrease in transportation costs for China's merchandise trade with Africa and in operating costs for Chinese companies' business activities in Africa. Good bilateral relations which oil rich African states support its energy stability given their share in China's imports of this strategic resource. Increased connectivity between Chinese and African firms promotes trade and investment flows and increases demand for Chinese goods, thus boosting Chinese exports to the African continent. One of the key BRI goals is the realization of its foreign policy ambitions. African countries can provide support for China's national interests through their voting power in the UN.

Considering the level of development of African countries, investment activities do not come free of risks and complexities. Unharmonized legal frameworks and disparate business culture and practice (as opposed to the EU synchronized market), the lack of expertise and limited labor skills for projects promoted within the BRI, language barriers and the lack of technology infrastructure are some of the key issues pertaining to doing business in Africa. Being among the most underdeveloped countries in the world, some African markets lack strong institutional and legal frameworks for safe investing and business, investor protection and protection against financial crime and other reputational risks, such as corruption, smuggling, illicit trade etc. One of the key threats that pose a significant challenge to China's trade is piracy in East Africa and the potential obstruction of trade routes along the Maritime Silk Road. China's economic engagement in Africa spans across the entire region and other relevant threats include the presence of terrorist groups on the continent (ISIS in the

Greater Sahara, Al Qaida in the Islamic Maghreb, Al Shabab, Boko Haram) and instabilities such as civil wars, social unrests and insurgencies. The potential inability of African debtors to service their loans carries the risk for Chinese lenders and China itself, and requires careful management of such instances to ensure its diplomatic relations with key partners and its international image remain unaffected.

From Africa's perspective, China is likely the only country to have the capacity to finance infrastructure projects of such dimension as those required in Africa. Infrastructural development contributes to a decrease in transportation time between different regions in Africa thus promoting intra-regional development. Considering the sectoral diversity of the Belt and Road projects, in addition to hard infrastructure, significant funds are required for technology upgrading, financial integration and industry development. Participation in such initiatives allows African countries to get integrated into the global supply chains and trade networks, and promote their comparative advantages. The African continent lies between two oceans, so BRI may provide excellent opportunities for Africa's transcontinental trade. The penetration of Chinese tech firms into the African market allows the transfer of technology and expertise in digital technologies, which is essential for modern economic development. China's military presence in the Gulf of Aden enhances security for Africa's trade with other world's regions. Considering that 46 out of 54 African countries are in the low and lower-middle income groups, it is evident how BRI projects can benefit Africa, provided they are carried out in a sustainable manner and when financed through loans, without negative implications for public finances and economic welfare.

Unlike these advantages, China's economic activities may pose certain challenges for Africa as well. Chinese investments in mining and in the energy sector could have adverse environmental effects given the scale of projects in these fields.

In 2020 and 2021, China directed substantial funds towards projects in sustainable energy, such as solar/wind and hydro (Wang, 2021; Wang, 2022), which supported African goals towards sustainable development. Projects in the extractive industry, however, pose generally the highest environmental threats. One of the risks frequently cited in literature relates to debt sustainability. This is often in the context of potential asset seizures, due to a country's inability to repay its debts.

Apart from the Sri Lankan case, when China took over the Port of Hambantota, reportedly at Sri Lanka's debt-for-equity swap proposal (Dollar, 2019, p.2), no other instances of such kind have occurred till date. The US think tank The Rhodium Group extensively analyzed scenarios of BRI countries' inability to service their loans and concluded that China's management of such cases involved either deferred payment, the extension of loan repayment or debt write-offs. In the case of African countries, debt write-off was the most prevalent strategy for the management of defaulted loans. (Kratz, Feng &Wright, 2019) In 2022, China committed to redirecting 10 billion USD of its IMF reserves to the African countries and writingoff 23 interest-free loans. (Monteiro & Hancock, 2022). African countries should be cognizant of the level of their external debts, which currently stands at 160 billion USD in the case of China. (Boston University Global Development Center, 2022)

Besides African states, there are certain advantages of Chinese investments in Africa for other countries whose companies operate in Africa. Infrastructural development will certainly increase the prospects of economic engagement of the EU, US, Russia, India and other nations with Africa, by decreasing transportation costs and bringing African countries closer to the Indian Ocean and Atlantic maritime trade routes. Chinese investments in the energy sector and port infrastructure could facilitate energy supply for countries that source oil and gas from the African continent.

China's infrastructural development in locations where it is most needed, such as Africa, the Balkans, Central and Southeast Asia, through ports, roads and railways construction, contributes to all BRI member states being connected to regional and global supply chains and increases their trade with other trading partners.

2. Research methodology

Qualitative and quantitative research conducted in this paper relies predominantly on secondary data sources and information derived from available journals, policy briefings and publicly available databases. Extensive literature has been reviewed to draw relevant insights into China's interests and trade and investment strategy in Africa. The research encompassed a review of major advantages and disadvantages of the Belt and Road initiative for African countries and their position in the global BRI vision. The paper analyses China-Africa trade and investment relations through the lens of the Belt and Road and assesses the position and importance of selected African countries for the BRI corridors. It explores the position of African states in the context of great power rivalry and the US-EU-Russia-China interests in those countries. The growing influence of China and Russia in Africa undermines the US-EU lever of power and their influence on the continent.

The empirical analysis conducted in this article explored the correlation between China's FDI and trade flows with Africa, using SPSS statistical software. In addition, an autoregressive model was used to extrapolate import and export data for a given period with the aim of forecasting potential trends and developments in China-Africa economic relations. We hypothesize that China's economic and infrastructure building activities in Africa till date have changed the dynamics of their trade cooperation, which has also altered the pattern of African countries' economic collaboration with other partners in the world.

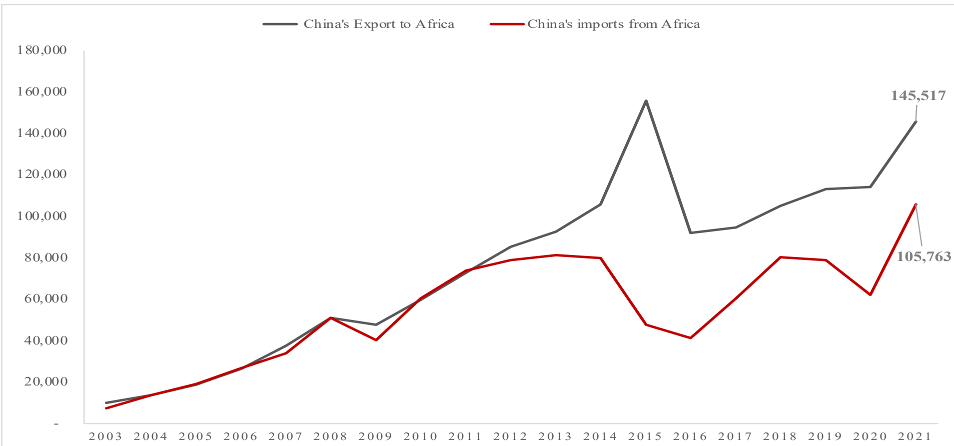
3. Results and Discussion

China's trade and investment cooperation with African countries significantly expanded in the second decade of the 21st century. Global geopolitical developments have reengineered international economic, political and security frameworks and collaborations. China's engagement with African countries is expected to continue its upward trend in the 3rd decade of the century.

3.1 China-Africa trade relations

China is Africa's largest bilateral trading partner. Over the past 20 years, China-Africa two-way trade surged almost 22-fold. Following China's accession to the WTO in 2001, trade flows with Africa significantly increased thereafter and reached 251,3 billion USD in 2021. China's exports to Africa peaked in 2015, then decreased by over 40% the following year and have since recovered to reach 145,5 billion USD in 2021. Similarly, China's imports from Africa peaked in 2013. Merchandise trade with African countries decreased by over 40% by 2015 and grew to 105,8 billion USD in 2021, thus suggesting Africa's trade deficits with China. The annual growth rate of China's export to Africa for the past 20 years was 18,2% and the rate of imports stood at 20,78%. (Figure 1)

Figure 1. China's trade with Africa (USD million)



Source: UnComtrade, as cited in: John Hopkins School of Advanced International Studies – China-Africa Research Initiative (2023)

The geographical structure of China's trade with Africa sets South Africa, Egypt, Nigeria and Algeria as the key export destinations for Chinese goods, and Angola, South Africa, DR Congo and the Republic of Congo as the key import markets. These destinations account for over 50% of China's trade with Africa. (SAIS-CARI, 2023) China exports to Africa mainly electronics, electrical equipment and machinery, while importing crude oil, copper, cobalt, precious metals and stones. (Trading Economics, 2023)

In 2021, China imported around 21 billion USD of crude oil from Angola. Good bilateral relations with this African country are crucial to ensure energy stability, as it is one of the three most prevalent oil sourcing destinations, following Russia and Saudi Arabia. These three countries together met around half of China's oil demands in 2021. (Trading Economics, 2023)

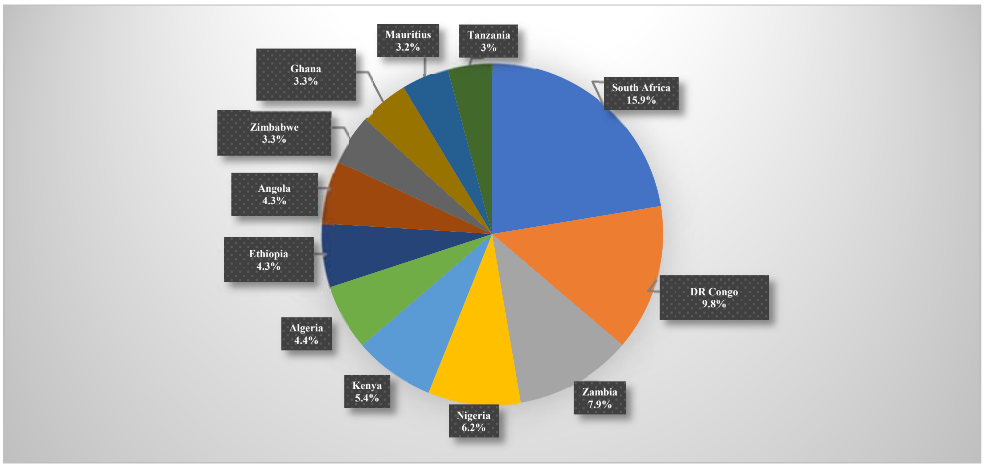
South Africa is an important import and export destination for Chinese goods. Its bilateral relations with China are underpinned by joint membership in the BRICS bloc. Egypt is China's strategic trading partner, partly due to its importance for the realization of the Belt and Road goals in Africa. China has a strong trade relationship with Nigeria - the richest (in terms of GDP) and the most populous country in Africa. It also has a developed economic collaboration with DR Congo, one of the world's richest countries in terms of natural resources, and with The Republic of Congo, an oil-rich African state. Considering some of China's economic and geopolitical goals within the Belt and Road, namely energy stability and export promotion, it is no wonder why these countries top the list of China's key trading partners.

3.2 Chinese investments in Africa

China's FDI flows to Africa have increased 67-fold since 2003 and in 2021 amounted to 5 billion USD. FDI stocks toward African countries stood at 51 billion USD in 2021, whereas 65% of these funds have been invested since the initiation of the BRI. This emphasizes the impact of the initiative on Africa's economic development. Of the total investment value, 37% of funds were directed towards construction and 23% towards mining projects during the period of 2003-2021. South Africa, DR Congo, Zambia, Nigeria, Kenya and Algeria received 50% of all FDIs directed to Africa, with South Africa being the most preferred destination for investing. No FDIs were placed in the economies of Eswatini and Somalia. Figure 2 depicts the key FDI destinations that constitute 71% of the total investment value for the mentioned period. The remaining countries attracted less than 3% of all Chinese investments in Africa. In 2021 alone, DR Congo was the key destination for Chinese capital flows into Africa, attracting over 1 billion USD, followed by Zambia and Guinea. (SAIS-CARI, 2022a)

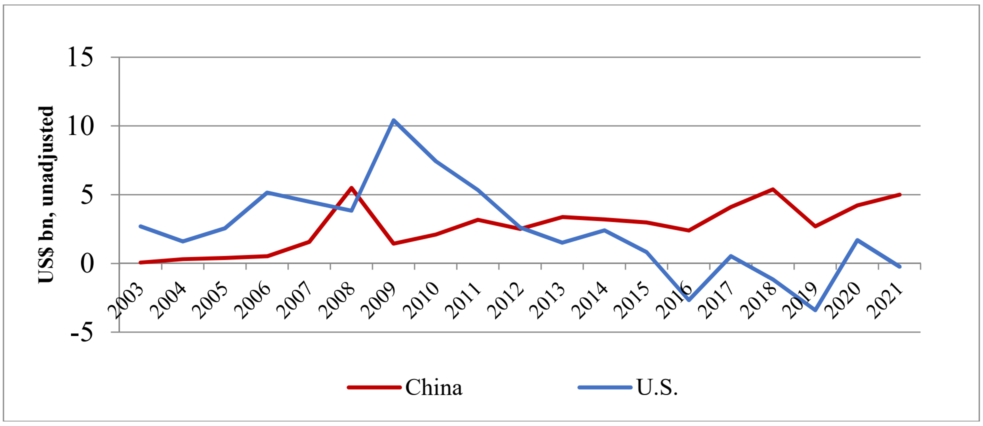
A comparison of US and Chinese FDI stocks in Africa for the same period suggests that the US FDI dominated until 2012, when China took over. This is likely due to China's increased engagement with African countries under the BRI. (Figure 3)

Figure 2 - Key African destinations for Chinese FDI



Source: The Statistical Bulletin of China's Outward Foreign Direct Investment, China's Ministry of Commerce, as cited in: John Hopkins School of Advanced International Studies – China-Africa Research Initiative (2022a)

Figure 3 - China and US FDI Flows to Africa



Source: The Statistical Bulletin of China's Outward Foreign Direct Investment, China's Ministry of Commerce & U.S. Bureau of Economic Analysis, as cited in: John Hopkins School of Advanced International Studies – China-Africa Research Initiative (2022a)

China Global Investment Tracker, a database published by The American Enterprise Institute, incorporates China's investment, construction and BRI projects in Africa for the period 2005-2023. According to the source, China has invested around 55 billion USD since 2013 in various projects across Africa, of which 42 billion USD relate to BRI projects. The geographical structure of China's investments in Africa showed that DR Congo, Guinea and Zimbabwe were the top three destinations for China's investment projects categorized as BRI since 2013, whereas Guinea attracted the highest amount of greenfield projects. In terms of sectors, the metal industry (largely copper, steel, aluminum) was the dominant sector, followed by energy (mostly oil and gas) and real estate (property). With regard to construction projects, transport (mainly railway, shipping, automotive), energy (predominantly hydro) and real estate (construction) account for 83% of the total value of construction projects. It is worth mentioning that the investments in coal projects constituted 9,8% of the total value of energy projects (predominantly invested in Zimbabwe between 2015-2020) whereas hydro energy accounted for 40%. (American Enterprise Institute, 2022) [2]

Between 2000-2020, African countries borrowed 160 billion USD from China, over half of which for transport and energy projects. Angola secured 43 billion USD from China, predominantly for mining and energy projects, followed by Ethiopia 13,7 billion USD, Zambia 10,1 billion USD and Kenya 9.3 billion USD. Around 80% of these funds were provided by China's policy banks. The loans for mining projects were active between 2011-2016, when they dropped significantly in 2017 and subsequently ceased. Lending activities peaked in 2016 (28,4 billion USD), after which they dropped and in 2020 amounted to 1,9 billion USD. (Boston University Global Development Policy Center, 2022) Around 20% of African debt relates to Chinese loans.

China is a significant Official Development Assistance provider to African countries. China's aid is usually provided through interest-free loans, concessions and grants. Between 2015-2018, 45% of China's foreign aid was disbursed to African countries (SAIS-CARI 2022b)

China's companies have financed, operated or constructed 10 ports across Africa and over 15 ports have been planned or under construction. On the east/northeast side of Africa, existing or under construction projects with China's involvement include the ports of Egypt, Eritrea, Djibouti, Somalia, Kenya, Tanzania, Mozambique and Madagascar. On the central/west side, these include Angola, Sao Tome & Principe, Gabon, Cameroon, Nigeria, Togo, Ghana, Ivory Coast, Guinea and Senegal. China is also present in the ports of Mauritania and Namibia, whereas the port in Cherchell, Algeria is currently under construction. (Breuer, 2017, p.3)

Chinese investments in African ports increase trade potential between those countries and China, the rest of Asia and Europe, given their proximity to the Maritime Silk Road corridor on the east/northeast side of the continent and their relative proximity to European western ports, thus promoting Africa's GDP growth. For China, a presence in these ports means better control of maritime trade routes and, where a military presence is established, control of major risks that threaten its economic or geopolitical interests. Ports in the Gulf of Guinea, on the west side of

[2] Figures provided relate to the projects for the period 2013-2022, all categorised as BRI.

Africa, are located within an important shipping zone for the supply of oil and gas and other goods between Africa and Europe.

China and Egypt have collaborated to develop the Suez Canal Corridor, one of the key strategic passages for Asia-Africa-Europe maritime transport. The extension of the Suez Canal is underway. China's engagement in Egyptian ports and the Canal has strategic importance for its economic and geopolitical goals within the Belt and Road Initiative.

Around 10% of global shipping is carried out via the Suez Canal. The EU and the US oil trade with the Gulf countries is also reliant on this passage. The Suez Canal is the fastest trade route between Atlantic and Indian Ocean and a strategic crossing for navies deployed in the Indian Ocean. (Lutmar, Rubinovitz, 2023, p.vii,xi,4) *COSCO Shipping,* one of the largest Chinese shipping companies, holds 25% stake in a new terminal in the Egyptian Sokhna port. (Deol, 2023) Another Chinese shipping firm, *Hutchison Ports,* operates the ports of Alexandria and El Dekheila and has announced an investment of 700 million USD in the ports of Alexandria and Ain Sokhna. (Hutchison Ports, n.d.)

Chorev (2023, p.15) argues that: "*China's involvement in the development of the Canal zone might give control over communications infrastructure and more, that could be utilized when needed against the US naval operations in the region. The Russian navy also considers the Suez Canal a strategic passageway for the deployment of its fleet.*"

Djibouti is yet another important location in East Africa for China's geostrategic interests in Africa. According to SAIS-CARI (2022a), Chinese FDI flows to Djibouti have significantly increased since the initiation of the BRI and reached the peak in 2017 with 105 million USD. This represents an increase by a factor of 50 in comparison to 2013, when they amounted to 2 million USD. Chinese investments have since dropped and in 2021 registered the value at the level of 2014.

In terms of their trade relations, Djibouti's exports to Africa in 2013 were scarce (270.000 USD) and have since grown to reach 56 million USD in 2021. The import of goods from China increased from 1 billion in 2013 to 2,6 billion USD in 2021. (SAIS-CARI, 2023) Despite intensified trade relations, Djibouti remains one of Africa's highest indebted countries to China. It owes 1,5 billion USD, which constitutes over 40% of its GDP. (Boston University Global Development Policy Center, 2022) The majority of these funds were used for the construction of Ethiopia-Djibouti railway, Ethiopia - Djibouti water pipeline, Doraleh Port and Djibouti Free Trade Zone. (Nyabiage, 2022a) China also financed the Ethiopia-Djibouti railway, with an estimated cost of 4 billion USD, making it one of the most expensive Chinese-financed projects in East Africa.

Djibouti is crucial to Ethiopia's economic interests as 95 % of Ethiopia's inbound trade is processed through the Port of Djibouti. Ethiopia has expressed interest in investing in the port and gaining leverage over this strategic gateway. (Maasho, 2018) China has transferred the manufacturing process in light industries to Ethiopia, where the final products are then exported to Western markets. (Demissie, Weigel, Xiaoyang, 2016, p. 32) Djibouti's strategic geographic location near the Bab el Mandeb Strait, which controls access to the Mediterranean, Read Sea and the Indian Ocean, places this small African country at the center of the great powers' sphere of influence, owing to the fact that the region hosts the military bases of Italy, United States, France, Spain, Germany, United Kingdom and Saudi Arabia. (Yimer, 2021) China has also established a military base in Djibouti, as a move to protect its geoeconomics and geopolitical interests in the region. The base serves, *inter alia*, to protect Chinese vessels from piracy and facilitate the quick evacuation of its citizens in case of emergency. (Stein & Uddhammar, 2021)

Apart from port development, China participates in the construction of Africa's railways, such as those in Kenya, Ethiopia, Tanzania and Uganda.

Such investments facilitate the construction of free economic zones and industrial parks, which contributes to industrial development, brings employment opportunities and enables more efficient transportation, thereby accelerating Africa's economic growth. (Otele, 2020, p.279)

The majority of African nations that participate in AfCFTA are also BRI member states. It is expected that these initiatives in synergy will stimulate trade, investments and infrastructure development within the region. China and African countries have developed four national level economic and trade cooperation zones in Egypt, Ethiopia, Nigeria and Zambia across various industries in primary, secondary and tertiary sectors, predominantly through joint venture arrangements. A total of 33 African states have signed bilateral investment treaties with China, facilitating the establishment of free economic zones. (Fu & Eguegu, 2021, p.2, 10-18)

China has built an oil terminal in Kenyan Mombasa Port and the Port of Lamu. (Reuters, 2018; Olander, 2021) It has also financed the Mombasa-Nairobi standard gauge railway via a 3,6 billion USD loan agreement. (Nyabiage, 2022b) The railway reportedly contributes to 2% of Kenya's GDP. (Global Times, 2022) These strategic projects enabled Kenya to better integrate into the Maritime Silk Road corridor and advance its trade relations with China. Since the initiation of BRI, Kenya's export to China has quadrupled, whereas imports have doubled. (SAIS-CARI, 2023) Several other railway projects are planned or under construction, to link Kenya with South Sudan, Uganda, Rwanda and Burundi, as well as Tanzania with Zambia, DR Congo and Angola. (Brauer, 2017, p.3) The projects would allow these countries to reach the Indian Ocean and the Maritime Silk Road, via Kenya and Tanzania.

Kenya borders South Sudan, a country that generates a significant portion of GDP (over 60%) through oil exports. It is an importing trading partner of China, which imports most of its oil reserves, thus creating economic dependence. (Kaczmarek, 2019, p.148)

Central African state DR Congo is considered one the world's richest countries in terms of natural resources. China and DR Congo collaborate in the production and extraction of refined cobalt. As part of 6 billion USD agreement "minerals for infrastructure", concluded before the BRI, China got access to copper and cobalt mining in exchange for building infrastructure. It is estimated that DR Congo lies on half of the world's cobalt reserves. (CMS Legal Services EEIG, 2021, p.10)

In Sub-Saharan Africa, China is mostly interested in countries with seaport access that, due to their geographical advantage, provide lower operating costs. In this region, Russia and China are the key arms suppliers. China is the major security partner and has deployed over 2000 personnel for peacekeeping missions. The region is important for China's supply of oil, metal and minerals. (Mohseni-Cheraghlou, Aladekoba, 2023, p. 3,12-15) Some sources have speculated China's interests in building another military facility in Africa, in Equatorial Guinea. (Phillips, 2021) This would enable it to gain significant leverage in the strategically important Gulf of Guinea.

Mukwaya and Mold (2018, p.13) analysed the economic impact of the BRI on East African countries and estimated that a 10% reduction in import and export trade margins could elevate the GDP growth rate by 0,4-1,2% and exports by 192 million USD, thus stimulating intra-regional trade.

Lastly, Chinese investments in ports and potential military presence on the west side of Africa could significantly increase China's economic engagement with West African countries and ultimately allow it to gain leverage in the Atlantic Ocean.

3.3. China-Africa relations within the geopolitical triangle Russia-EU-US

African countries stand at the crossroads of strategic competition between the East and the West. Africa's security challenges and resource potential have drawn the attention of major powers towards the region. African countries' association with the European Union stems from their colonial past and with China from their economic dependence and reliance on infrastructural development. Since the Soviet times, African states have collaborated with Russia in the field of security, whilst the role of the US as a global hegemon has been essential in the economic development of Africa. The crisis in Ukraine that emerged in 2022 led many countries to redesign their mutual collaboration and urged the EU to rethink its relations with African countries. The EU interests in Africa have economic, energy and security dimensions. Most African states had long been European colonies and have since the postcolonial age maintained strong ties with EU countries, through economic, political or security cooperation.

The EU-Africa relations are structured within an institutional framework that addresses key areas of cooperation, challenges and opportunities. The EU has a specially designed strategy to address some of the most challenging African regions such as: the Horn of Africa, Sahel and the Gulf of Guinea. The EU has deployed security missions in these areas, namely in Mali, Niger, Somalia and CAR, as well as in Libya and Mozambique, to manage major threats arising from these territories. (European Council / the Council of the European Union, n.d.)

France plays a principal role in preserving security on the African continent. Some African territories pose significant threats to the EU security, in the form of terrorism, insurgencies, illicit trade, smuggling, immigration, human trafficking and organized crime. This creates tensions specifically for the southern EU member states, due to their close geographical proximity to the African continent. It underscores the necessity for a strong mutual cooperation, to ensure the key EU interests are preserved. With the emergence of the crisis in Ukraine, the need for collaboration with Africa is even more pronounced. The change in the EU's energy policy highlighted the role of African countries in providing stability for those member states that were heavily reliant on Russian oil and gas. The EU imports substantial amount of oil resources from Africa, especially from its west coast, whereas its oil trade with the Gulf states uses the passages in the eastern and northeastern part of the African continent. With the new EU energy strategy, it is anticipated that African states will play a more prominent role in supplying the EU with the key strategic resources.

The EU may consider some African countries for LNG and hydrogen procurement, such are Egypt, Algeria, Nigeria, Senegal and Angola. (Komminoth, 2022) The Gulf of Guinea is a strategic corridor for trade in oil and gas and other goods between Africa and Europe and is significantly exposed to the risk of piracy, illegal trade, kidnapping, smuggling and trafficking. (European Union External Action, 2021) It participates 10% in the EU's oil and 4% in gas imports. (Council of the European Union, 2014, p.2)

The importance of African countries for the EU can be recognized in the investment package of 150 billion within the Global Gateway initiative, dedicated for projects in digital infrastructure, sustainability, healthcare, energy, transport, agriculture and other fields, which is anticipated to promote the economic development within the AfCFTA area. (European Commission, n.d.) Furthermore, the EU and its member states provided 65 billion EUR in Official Development Assistance to Africa. Even though it presents both opportunities and challenges for the EU, Africa is not at the top of the priority list for the EU member states, as each of the 27 countries has its own agenda and considerations. (De Fougieres, Labastie, 2022) Given Africa's comparative advantages, the EU could consider partially moving the manufacturing process in some basic industries from Asia to Africa. (Shopov, 2020)

The EU's interests in Africa are affected by the increased presence of Russia and China and their economic, security and military engagement on the continent. Increased China and Russia's collaboration with African states decreases the EU and

US' influence in the region. China's investments in African ports affect the EU energy policy insofar some of those ports are crucial for the export of oil and gas, minerals and other strategic resources to the EU. Considering that African countries rely heavily on Chinese loans for infrastructure building, their increase to critical levels could create further pressure for the EU and multilateral institutions to support in the management of defaulted loans, as it was, for example, the case of Montenegro.

Bodomo (2019, p.115) had investigated conditions and conditionalities of Africa's relations with the EU and China and concluded that China was less conditional in its bilateral engagement with African states than the EU, resulting in increased investment and infrastructure development activities in Africa.

The US engagement in Africa declined at the beginning of the second decade of the 21st century, when, due to terrorist attacks in 2011, the country focused its attention on threats originating from the Middle East, thus diminishing its influence in Africa and creating space for China to gain a foothold. (Otele, 2020, p.270)

Rising Chinese and Russian influence in Africa have prompted the US to adopt a new strategy for Sub-Saharan Africa in 2022. Speculations about the potential new Chinese military base in Equatorial Guinea have caused further anxiety about its implications for the US interests in West Africa.

Africa poses both threats and opportunities for the US. Terrorism, piracy and organized crime in Africa are among the greatest challenges for the US. They pose significant risks for the US maritime navigation, trade flows, energy supply and markets. Some terrorist groups operating in Africa are linked to the world's biggest terrorist organizations, such as ISIS and Al-Qaida. US engagement with African countries is therefore essential to mitigate these risks and preserve stability and security. The US is concerned with China's growing influence in Africa, which diminishes its dominance and potentially the support from African countries in multilateral forums concerning US global agendas. Close collaboration with African countries is vital to swiftly address any potential outbreak of a pandemic. In contrast to these risks, Africa provides great opportunities for US economic interests. It provides access to a consumer market of 1,4 billion that is anticipated to grow and reach a quarter of world's population by 2050. Africa provides access to key minerals, such as platinum, tantalum and tourmaline, some of which may be used for military purposes. (Harris, 2017, pp.1-7, 17)

China's intensive economic activities in Africa reduce the potential of US companies to penetrate African markets and gain significant market shares given the price competitiveness of Chinese products and limited purchasing power of Africa's population.

In the aftermath of Russian economic and military support to African countries for the liberation movements during the Cold War, its influence in Africa has since declined. This changed when the current Russian president came into power. Russian activities in Africa have economic and security dimensions. Its economic interests encompass the exploration of minerals, such as uranium, crucial for the nuclear power industry, aluminum and other key minerals that can be used for military purposes, and the construction of energy facilities such as hydropower stations and nuclear plants. (Besenyö, 2019) Russia's engagement with African countries could secure their support for its national and global agendas through their voting power in the UN. Their security collaboration involves the provision of military training, arms and technology to control existing threats such as insurgencies, civil wars or extremism. (Paczynska, 2020, pp.1-4)

Siegle (2021) suggests that some of Russia's goals in Africa include revenue generation through oil fields exploration in Libya and access to deep water ports in the Mediterranean, which could enable a physical presence close to NATO EU southern area. The author further highlights Russia security cooperation agreements and interest in obtaining access to ports across the key maritime points in Mediterranean and the Red Sea to secure access for naval operations.

Donelli (2023) argues that Russia's engagement in Africa involves "*security agreements and the use of private military companies*". The author suggests that through limited export controls and low-interest loans, Africa provides access to defense products that are compatible with the Soviet style ones used by some African arms forces.

Security collaboration with African countries enables Russia to gain significant leverage on the African continent and together with China, offer a counterbalance to the US-EU influence in the region.

3.4 Empirical results

Africa's favorable geographic position along key maritime routes in the Atlantic and Indian Oceans offers great alternatives for China's increased appetite for ports and hard infrastructure. China has already established its presence in key African and certain Indian Ocean ports, which is a relevant factor in hypothesizing that their trade relations are likely to expand in the near term. The emergence of Covid-19 in 2019 had a significant impact on China-Africa trade and the investment dynamics and even though the exchange recovered in 2021, the consequences of the pandemic on trade and investment growth rates will most likely be felt in foreseeable future.

One aim of this study was to assess whether China's trade flows with African countries over the past 20 years moved in the same direction and at the same pace as the investment flows and ascertain the correlation between the two variables. In this section, we conducted correlation analysis to analyze those trends, which offered a starting point for the second part of the analysis, where we extrapolated trade and investment data to draw conclusions about the potential for tighter economic collaboration and interdependence between the trading partners.

Table 1 gives an overview of China’s FDI, Import and Export with African countries between 2003-2021.

Table 1 - China’s trade with and investment flows to African countries (mln USD)

Year	FDI	Export	Import
2003	74.81	10,124.76	7,409.09
2004	317.43	13,729.95	13,740.25
2005	391.68	18,602.94	18,987.40
2006	519.86	26,583.92	26,794.39
2007	1,574.31	37,373.32	33,911.46
2008	5,490.56	51,089.01	51,041.51
2009	1,438.87	47,635.11	40,306.93
2010	2,111.99	59,807.45	60,265.67
2011	3,173.14	72,919.40	73,634.16
2012	2,516.66	85,133.66	78,911.07
2013	3,370.64	92,570.97	81,113.19
2014	3,201.92	105,832.84	79,858.53
2015	2,977.92	155,695.57	47,526.79
2016	2,398.73	91,984.61	41,273.03
2017	4,104.98	94,499.21	60,210.01
2018	5,389.11	104,949.33	80,336.63
2019	2,704.39	113,050.93	78,683.32
2020	4,225.61	113,957.67	61,948.53
2021	4,986.65	145,517.39	105,762.78

Source: SAIS-CARI (2023) and SAIS-CARI (2022a)

Based on the data in Table 1, it can be observed that China’s FDI flows to African countries between 2017-2021 recorded an annual average increase of 25,37%, exports of 10% and imports of 25,34%.

Assessing the correlation between the variables requires, in the first place, to assess the normality of the distribution, to determine whether the Pearson's or Spearman's correlation test should be used. The normality test is carried out through the Kolmogorov-Smirnov and Shapiro-Wilk tests. Both of these tests have a null and an alternative hypothesis. When the test indicates that the p-value is greater than 0.05, the null hypothesis is accepted and the variables have a normal distribution, in which case Pearson's correlation should be used. Alternatively, when a normal distribution is not established, i.e. when the p-value is below 0,05, Spearman's correlation is used.

Table 2 - Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
FDI	.110	19	,200*	.954	19	.460
Exports	.119	19	,200*	.958	19	.524
Imports	.128	19	,200*	.961	19	.596

Source: Authors' calculation in statistical software SPSS

As it can be observed from Table 2, all the variables, according to the Shapiro-Wilk and Kolmogorov-Smirnov tests, have the p-value greater than 0,05 (Sig.), suggesting they are normally distributed, in which case the null hypothesis is accepted. Based on the results, we further calculate the Pearson's correlation coefficient for the selected variables.

Table 3 - Pearson's Correlation coefficients

		FDI	Export	Import
FDI	Pearson Correlation	1	,713**	,773**
	Sig. (2-tailed)		.001	.0001
	N	19	19	19
Export	Pearson Correlation	,713**	1	,781**
	Sig. (2-tailed)	.001		.000
	N	19	19	19
Import	Pearson Correlation	,773**	,781**	1
	Sig. (2-tailed)	.000	.000	
	N	19	19	19

** Correlation is significant at the 0.01 level (2-tailed)

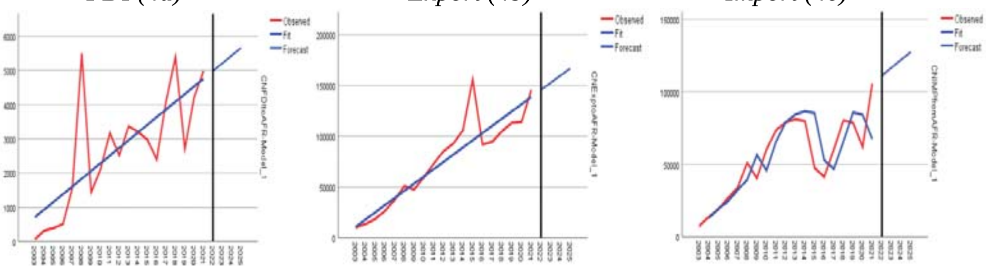
Source: Authors' calculation in statistical software SPSS

The results of the Pearson' correlation analysis suggests that the value of the correlation coefficient between FDI and Exports is 0,713, and the value of the correlation coefficient between FDI and Imports is 0,773. Since the correlation coefficients have positive values, it can be concluded that the values of FDI and Exports, and FDI and Imports, moved in the same direction. Both coefficients have a value greater than 0,50 suggesting a strong relationship between the variables. (Cohen, 1988, pp.75-80) Based on the results in Table 2, the p-value is 0,0001 at the 0,01 significance level, which indicates that there is a statistically significant correlation between foreign direct investments and export/import of goods.

In the second part of the analysis, we apply an autoregressive model to forecast FDI and trade data for the period 2022-2025.

Figure 4. The extrapolation of FDI, Import and Export data from 2022 to 2025

FDI (4a) *Export (4b)* *Import (4c)*



Source: Authors' calculation in statistical software SPSS

The extrapolation of the FDI data is less reliable due to the existing larger deviations of the empirical data from the trend line, as it can be observed from Figure 4a. As for the Import and Export data, the values are more reliable since the deviations of the empirical data from the trend line are less prominent.

In 2025, the model predicts the FDI values to be 5,659 million USD and Export values to be 166,806 million USD. In 2021, Chinese FDIs to Africa were USD 4,986 million USD, while Exports were 145,5 million USD. The Holt model of autoregression analysis was used for both variables to forecast the data. The model forecasts the value of Imports to be 127,619 million USD. In 2021, the value of Chinese imports from Africa were 105,8 million USD. The ARIMA model of autoregression analysis was used to forecast import data. In comparison to 2021 values, in 2025, this model suggests an increase of 13,48% for FDI, 14,63% for Exports and 20,67% for Imports. We also assessed lower and upper thresholds for the examined variables. In the case of FDI, the model forecasts lower threshold to be -35,5% (LCL) and upper to be 62,47% (UCL). For Exports, the range is -10,88% (LCL) to 40,14% (UCL) and for Imports, the range is -45,76% to 87,09%.

Considering that over the past 5 years, FDI values have grown annually by 25,37%, we anticipate that the likely change in FDI flows in 2025 may be within the average and maximum forecasted values (13,48% to 62,47%). These results should, however, be taken with caution, given the deviations of the empirical data from the trend line. On the other hand, export values increased by 10%, indicating a likely increase at the level of the average suggested value (at 14,63%), with a reasonable possibility to move upwards towards the upper level of 40,14%. Import values within this timeframe increased by 25,34%, implying a potential increase in 2025 above the average suggested value of 20,67% towards the upper level of 87,1%.

Conclusion

Since 1979, China's economy has grown at an unprecedented pace, registering average annual growth rate of 9,2%. Despite a mild slowdown during the pandemic, in 2021 China recorded a GDP growth rate of 8,1%. GDP per capita increased 20,6 % compared to the previous year. China's main economic and geopolitical tool - the Belt and Road Initiative, aims to integrate Asian, Middle Eastern, African and European markets. China has already become the largest bilateral trading partner of the EU (merchandise trade), Africa, Russia and the largest Middle Eastern economies.

Africa lies along the lines of the key BRI corridor - the Maritime Silk Road and gives China direct access to the EU along East African states and the Suez Canal. Out of 54 African countries, 52 have joined the Belt and Road Initiative, of which 87% belong to low and lower-middle income groups. Provided that sustainable financing and awareness of the debt burden are ensured, the initiative has tremendous potential to accelerate Africa's economic development. China is the only global player interested in and financially capable of building the infrastructure in Africa on the scale needed for tangible infrastructural upgrade. Other African partners either have limited interests or presence in the continent or are interested in different dimensions of cooperation. The presence in ports on the eastern and western sides of Africa provides excellent connectivity along the Indian Ocean and the Atlantic, while the military presence and increased economic engagement with African states provide an opportunity to pursue its economic, military and geostrategic goals. It also creates the potential for diplomatic support in multilateral forums, and energy stability.

Integrating countries with the seaport access with the mainland ones provides an opportunity to connect them to the China-Pakistan Economic Corridor, bypassing critical passages in the Indian Ocean for both China and African countries. Huawei is currently developing an underwater fibre-optic cable that aims to connect China, East Africa and Pakistan, and ultimately reach Europe, which would further reinforce China's influence in the region. Africa offers a significant export potential across 54 markets.

One of the risks often cited in the literature relates to the alleged "debt trap", however, this is rather exaggerated, owing the fact that no such instances and asset seizures were initiated by China to support such a hypothesis. Pertaining to African countries, debt write-off has been the most common China's strategy to manage bad debts. Sri Lanka remains the only controversial case of asset seizure; however, the information from a reputable source suggested that this was a debt-for-equity deal, initiated by Sri Lanka itself. China is a significant ODA provider to Africa and has recently committed to redirecting 10 billion USD of its IMF reserves to African countries. Another risk frequently mentioned is related to environmental threats. A database from a reputable source suggested that the Chinese investments in coal projects constituted 9,8% of the total value of energy projects whereas hydro energy accounted for 40%. The geographical distribution of coal projects remains limited mainly to Zimbabwe. African countries stopped borrowing funds from China for mining projects in 2017. Angola has, till date, borrowed the highest amount of funds from China - 43 billion USD, which represents 64% of its GDP. Angola is one of the most important trading partners of China, with the annual exports of around 21 billion USD, almost entirely related to crude oil. China's key economic partners in Africa are Egypt, South Africa, Nigeria, Angola and DR Congo, as trade partners, FDI destinations and/or BRI strategic countries. The first three are the largest African economies, whereas DR Congo and Angola are resource rich countries.

The influence of great powers on the African continent has changed in the past two decades. The US had been a prominent foreign direct investor in Africa until 2012 (in terms of annual FDI flows), when China emerged. This coincides with the major US' security challenge post September 2011 and the change of the country's strategic priorities. A decrease in influence in Africa created space for China to step in. Russia's influence in Africa increased when the current president came into power, and its engagement on the continent has since encompassed arms sales, security collaboration and exploration of natural resources. The EU plays a role in peace efforts in Africa and is a major trading partner. Due to EU energy policy change, African countries (specifically in the Gulf of Guinea) could increase their exports of oil and gas to the EU, thus increasing their trade volumes and figures with the EU.

The empirical results suggest a strong correlation between China's FDI and trade with African countries. China's FDI are anticipated to grow in 2025 within the average and maximum forecasted values (13,48% to 62,47%) compared to 2021 values. Due to existing deviations, the results are to be taken with caution. The export values are likely to increase to the average suggested value (at 14,63%), moving toward the upper level of 40,14%. Th import values are anticipated to grow above the average suggested value of 20,67% towards upper level of 87,1%. In 2021, in comparison to 2020, China's exports to Africa increased 27,7%, while imports grew 70,7%. This implies that both imports and exports may continue to grow at a faster rate and by 2025 move towards the upper forecasted values.

Considering high import and export growth rates in 2021 in comparison to 2020, the change in total trade volumes and FDI flows (raising China and declining US trade and investment flows) it can be concluded that China's economic and infrastructure building activities in Africa have changed the dynamics of trade cooperation and the pattern of African countries' economic collaboration with other partners in the world. African countries are in the field of strategic competition between the East and the West. Declining western influence creates space for greater China / Russia dominance. China is now the largest African, Russian and European bilateral trading partner which leads to a hypothesis that, in economic terms, Afro-Eurasian integration is slowly taking shape.

References

American Enterprise Institute (2022) *China Global Investment Tracker*, Washington D.C., available at: https://www.aei.org/china-global-investment-tracker/, accessed: 22.04.2023.

Besenyö, J. (2019) *Russia in Africa: can it offer an alternative to the US and China?,* The Conversation, available at: https://theconversation.com/russia-in-africa-can-it-offer-an-alternative-to-the-us-and-china-117764 , accessed: 15.04.2023.

Bodomo, A. (2019) Africa-China-Europe relations: Conditions and conditionalities, *Journal of International Studies*, 12(4), p.115

Boston University Global Development Policy Center (2022) *Chinese Loans to Africa Database*, available at: http://bu.edu/gdp/chinese-loans-to-africa-database, accessed: 23.04.2023.

Breuer, J. (2017) *Two Belts, One Road? The role of Africa in China's Belt & Road initiative*, Stiftung Asienhaus, p.3

Chorev, S. (2023) *The Suez Canal: Forthcoming Strategic and Geopolitical Challenges*, in: The Suez Canal: Past Lessons and Future Challenges, Lutmar, C., Rubinovitz, Z. (ed.) Palgrave Studies in Maritime Politics and Security, Palgrave Macmillan, Springer Nature Switzerland AG, p. 15

CMS Legal Services EEIG (2021) *Belt and Road Initiative: The View from Africa*, CMS Legal Services EEIG 2021, p.10

Cohen, J. (1988) *Statistical Power Analysis for the Behavioral Sciencies*, 2nd edition, Lawrence Erlbaum Associates, pp. 75-80

CL Brief (2021) *Belt and Road Initiative comes to São Tomé and Príncipe*, available at: https://www.clbrief.com/belt-and-road-initiative-comes-to-sao-tome-and-principe/, accessed: 21.04.2023.

Council of the European Union (2014) *EU Strategy on the Gulf of Guinea*, Foreing Affairs Council meeting, available at: https://www.eeas.europa.eu/sites/default/files/eu_strategy_on_the_gulf_of_guinea_7.pdf , p.2, accessed: 21.04.2023.

De Fougieres, M., Labastie, C.V. (2022) *EU-AU Summit: A New Approach in Africa-Europe Relations?*, Institute Montaigne, Paris, France, available at: https://www.institutmontaigne.org/en/expressions/eu-au-summit-new-approach-africa-europe-relations#:~:text=The%20EU%2DAU%20summit%20aligns,bilateral%20ties%20with%20the%20continent. accessed: 22.04.2023.

Demissie, A., Weigel, M., Xiaoyang,T. (2016) *China's Belt and Road Initiative and its Implications for Africa*, WWF Kenya, p.32

Deol, P. (2023) China's COSCO buys 25% stake in Sokhna container terminal in Egypt for $375mln, *Zawya*, available at: https://www.zawya.com/en/projects/industry/chinas-cosco-buys-25-stake-in-sokhna-container-terminal-in-egypt-for-375mln-eheeo6lf, accessed: 28.04.2023.

Dollar, D. (2019) *Understanding China's Belt and Road Infrastructure Project in Africa*, Brookings Institution, Washington D.C., p. 2, available at: https://www.brookings.edu/wp-content/uploads/2019/09/FP_20190930_china_bri_dollar.pdf , accessed: 25.04.2023.

Donelli, F. (2023) *Russia's engagement with Africa: Understanding mutual Russia-Africa interests in an era of global competition*, Trends Research and Advisory, available at: https://trendsresearch.org/insight/russias-engagement-with-africa-understanding-mutual-russia-africa-interests-in-an-era-of-global-competition/ , accessed: 17.04.2023.

European Commission (n.d.) *EU-Africa: Global Gateway Investment Package*, доступно на: https://commission.europa.eu/strategy-and-policy/priorities-2019-2024/stronger-europe-world/global-gateway/eu-africa-global-gateway-investment-package_en accessed: 22.04.2023.

European Council and the Council of the European Union (n.d.) *EU-Africa relations*, available at: https://www.consilium.europa.eu/en/policies/eu-africa/#:~:text=The%20aim%20of%20the%20Africa,EU%2DAfrican%20Union%20summit, accessed: 24.04.2023.

European Union External Action (2021) EU Maritime Security Factsheet: The Gulf of Guinea, available at: https://www.eeas.europa.eu/eeas/eu-maritime-security-factsheet-gulf-guinea_en#:~:text=In%202020%2C%20according%20to%20the,increase%20between%202019%20and%202020. accessed: 20.04.2023.

Fu, Y., Eguegu, O. (2021) *Mapping the Future of China–Africa Relations: How the Continent can Benefit*, South African Institute of International Affairs, Occasional Paper 333, October 2021, p.2, 10-18

Global Times (2022) *China-built Mombasa-Nairobi Railway contributes more than 2% to Kenya's GDP: FM*, available at: https://www.globaltimes.cn/page/202208/1272826.shtml , accessed: 26.04.2023.

Harris, G.T. (2017) *Why Africa matters to US national security*, Atlantic Council- Africa Center, p.1, 3,7,17

Huawei (2017) *Huawei Marine and Tropical Science Commences Work on the Construction of the PEACE Submarine Cable Linking South Asia with East Africa*, News and Events, available at: https://www.huawei.com/en/news/2017/11/PEACE-Submarine-Cable-SouthAsia-EastAfrica, accessed: 27.04.2023.

Hutchison Ports (n.d.) *Our Ports*, available at: https://hutchisonports.com/en/ports/world/hutchison-ports-alexandria/, accessed: 25.04.2023.

Johns Hopkins University School of Advanced International Studies - China Africa Research Initiative - SAIS-CARI (2023) *China Africa Trade (China's imports from African Countries & China's exports to African Countries)*,Washington D.C., available at: http://www.sais-cari.org/data-china-africa-trade, accessed: 22.04.2023.

Johns Hopkins University School of Advanced International Studies - China Africa Research Initiative - SAIS-CARI (2022a) *Chinese Investment in Africa (*Chinese FDI Flow to African Countries), Washington D.C., available at: http://www.sais-cari.org/chinese-investment-in-africa, accessed: 22.04.2023.

Johns Hopkins University School of Advanced International Studies - China Africa Research Initiative - SAIS-CARI (2022a) *Chinese Investment in Africa* (Chinese FDI Flow to African Countries & US FDI Stock in Africa) Washington D.C., available at: http://www.sais-cari.org/chinese-investment-in-africa, accessed: 22.04.2023.

Johns Hopkins University School of Advanced International Studies - China Africa Research Initiative - SAIS-CARI (2022b) *Chinese Global Foreign Aid,* Washington D.C., available at: http://www.sais-cari.org/data-chinese-global-foreign-aid, accessed: 22.04.2023.

Kaczmarek, F. (2019) *African Dimension of the Belt and Road Initiative*, Przegląd Strategiczny 2019, Issue 12, p.148

Komminoth, L. (2022) EU unveils plans to boost African LNG and hydrogen links, *African Business*, available at: https://african.business/2022/05/energy-resources/the-eu-unveils-plans-to-boost-african-lng-and-hydrogen-links#:~:text=The%20REPowerEU%20Plan%20sets%20out,bcm%20of%20imported%20Russian%20gas. accessed: 22.04.2023.

Kratz,A., Feng, A.,Wright, L. (2019) *New Data on the "Debt Trap" Question*, Rhodium Group, available at: https://rhg.com/research/new-data-on-the-debt-trap-question/, accessed: 24.04.2023.

Lutmar, C., Rubinovitz, Z. (ed.) (2023) *The Suez Canal: Past Lessons and Future Challenges*, Palgrave Studies in Maritime Politics and Security, Palgrave Macmillan, Springer Nature Switzerland AG, p. vii, xi, 4

Maasho, A. (2018) Ethiopia to take stake in Port of Djibouti, its trade gateway -state media, *Reuters*, available at: https://www.reuters.com/article/ethiopia-djibouti-idUSL8N1S81QA, accessed: 29.04.2023.

Mohseni-Cheraghlou, A., Aladekoba, N. (2023) *China in Sub- Saharan Africa: Reaching far beyond natural resources*, Atlantic Council Geoeconomic Center, Issue Brief, p. 3,12-15

Monteiro, A., Hancock, T. (2022) China to Waive Some Africa Loans, Offer $10 Billion in IMF Funds, *Bloomberg*, available at: https://www.bloomberg.com/news/articles/2022-08-23/china-to-waive-some-africa-loans-offer-10-billion-in-imf-funds#:~:text=China%2C%20the%20largest%20government%20creditor,to%20nations%20on%20the%20continent , accessed: 25.04.2023.

Mukwaya, R., Mold, A. (2018) *Modelling the economic impact of the China Belt and Road Initiative on East Africa*, Conference papers 333014, Purdue University, Center for Global Trade Analysis, Global Trade Analysis Project, p.13

National Development and Reform Commission -NDRC (2021) *The Chinese Government and the Government of Burkina Faso Signed the Belt and Road Initiative Cooperation Document,* available at: https://en.ndrc.gov.cn/news/pressreleases/202111/t20211130_1306258.html, accessed: 25.04.2023.

Nedopil, C. (2023) "*Countries of the Belt and Road Initiative*"; Green Finance & Development Center, Shanghai, FISF Fudan University, available at: https://greenfdc.org/countries-of-the-belt-and-road-initiative-bri/ , accessed: 28.04.2023.

Nyabiage, J. (2022a) Djibouti suspends China and other loan repayments, banks on forgiveness, *South China Morning Post*, available at: https://www.scmp.com/news/china/diplomacy/article/3201251/djibouti-suspends-china-and-other-loan-repayments-banks-forgiveness , accessed: 29.04.2023.

Nyabiage, J. (2022b) Report casts doubt on Chinese debt-trap threat to Kenya's Mombasa port, *South China Morning Post*, available at: https://www.scmp.com/news/china/diplomacy/article/3174555/report-casts-doubt-chinese-debt-trap-threat-kenyas-mombasa, accessed: 26.04.2023.

Olander, E. (2021) *The New Upgraded Chinese-built Port in Lamu is ready to go*, China Global South Project, available at: https://chinaglobalsouth.com/2021/05/11/the-new-upgraded-chinese-built-port-in-lamu-is-ready-to-go/ , accessed: 29.04.2023.

Otele, O.M. (2020) China-Africa Relations: Interdisciplinary Question and Theoretical Perspectives, *The African Review* 47(2020), p.270, 279

Paczynska, A. (2020) *Russia in Africa: Is Great Power Competition Returning to the Continent?,* Deutsches Institut für Entwicklungspolitik, Briefing paper 15/2020, pp.1-4

Phillips, M.M. (2021) China Seeks First Military Base on Africa's Atlantic Coast, U.S. Intelligence Finds, *The Wall Street Journal,* available at:

https://www.wsj.com/articles/china-seeks-first-military-base-on-africas-atlantic-coast-u-s-intelligence-finds-11638726327, accessed: 29.04.2023.

Reuters (2018) *China's CCCC wins $398 mln contract to build Mombasa oil terminal*, available at: https://www.reuters.com/article/kenya-cccc-idAFL5N1VZ5IA, accessed: 26.04.2023.

Shopov, V. (2020) *The inevitable partner: Why Europe needs to re-engage with Africa*, European Council on Foreign Relations, available at: https://ecfr.eu/article/commentary_the_inevitable_partner_why_europe_needs_to_re_engage_with_africa/, accessed: 20.04.2023.

Siegle, J. (2021) *Russia's Strategic Goals in Africa*, Africa Center for Strategic Studies, available at: https://africacenter.org/experts/joseph-siegle/russia-strategic-goals-africa/ , accessed: 16.04.2023.

Stein, P., Uddhammar, E. (2021) China in Africa: *The Role of Trade, Investments, and Loans Amidst Shifting Geopolitical Ambitions*, ORF Occasional Paper No. 327, August 2021, Observer Research Foundation, available at: https://www.orfonline.org/research/china-in-africa/ , accessed: 27.04.2023.

Trading Economics (2023) *China Indicators*, available at: https://tradingeconomics.com/china/indicators , accessed: 24.04.2023.

Wang, C.N. (2021) *China Belt and Road Initiative (BRI) Investment Report 2020*, Green Finance and Development Center, available at: https://greenfdc.org/china-belt-and-road- initiative-bri-investment-report-2020/,accessed:28.04.2023.

Wang, C.N. (2022) *China Belt and Road Initiative (BRI) Investment Report 2021*, Green Finance and Development Center, available at: https://greenfdc.org/brief-china-belt-and- road-initiative-bri-investment-report-2021/ , accessed:28.04.2023.

Yimer, N.A. (2021) How Djibouti Surrounded Itself by Military Bases, *Politics Today*, available at: https://politicstoday.org/djibouti-surrounded-by-military-bases-of-china-us-france-uk-germany-others/ , accessed: 29.04.2023.

TRGOVINSKI I INVESTICIONI ODNOSI KINE I AFRIČKIH ZEMALJA U OKVIRU INICIJATIVE „POJAS I PUT"

Apstrakt: Kineske investicione aktivnosti i infrastrukturni razvoj u Africi u okviru inicijative „Pojas i put" promenili su izglede ekonomske saradnje afričkih zemalja i najveće azijske privrede. Afrika ima istaknutu ulogu u jednom od ključnih koridora Puta svile, zbog čega je Kina aktivno angažovana na kontinentu kroz izgradnju infrastrukture, razvoj luka, trgovinske i investicione aktivnosti. Kina je najveći bilateralni trgovinski partner Afrike i strani direktni investitor. Ovaj rad analizira investicione i trgovinske tokove Kine i Afrike, značaj afričkih zemalja za Put svile i odnose Kine i Afrike u geopolitičkom trouglu SAD-EU-Rusija. Primenili smo korelacionu analizu za procenu intenziteta odnosa SDI i trgovine i autoregresioni model za ekstrapolaciju podataka o uvozu i izvozu za dati period sa ciljem predviđanja trendova u razvoju ekonomskih odnosa Kine i Afrike. Empirijski rezultati ukazuju na snažnu korelaciju između SDI i trgovinskih tokova Kine i afričkih zemalja. Autoregresioni model predviđa značajno povećanje njihovih trgovinskih tokova, što, uz infrastrukturni razvoj Kine u Africi, sugeriše promene u dinamici njihove trgovinske saradnje i geografskoj strukturi spoljne trgovine afričkih zemalja.

Ključne reči: Ekonomski odnosi Kine i afričkih zemalja, Put svile, Pojas i put, kineske investicije u Africi.

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