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Working Paper

Decode China's Economic Engagement in Africa: Evolving Policies, Investment and Trade Trends, and Implications

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Decode China's Economic Engagement in Africa: Evolving Policies, Investment and Trade Trends, and Implications

Working Paper

Yuhan Zhang and Shimelse Mekonnen[1]
August 31, 2023

Executive Summary

This working paper systematically analyzes the dynamic commercial relationship between China and Africa. Utilizing Natural Language Processing and content analysis of meticulously collected policy documents, this study finds that the Belt and Road Initiative (BRI) and other proposals by President Xi have shaped the policy direction of China-Africa collaborations, highlighting areas like industrial evolution, infrastructure synergies, agricultural modernization, and sustainable development.

By exploring historical economic data, this study also finds that the BRI has significantly influenced Chinese financial commitments to Africa, with investment benefiting 30 distinct African countries, spanning sectors beyond natural resources, and involving both state-owned and private entities.

Trade data suggests emerging signs of diversification and reveals China's consistent trade surpluses with Africa, influenced by significant Chinese capital outflows. While Africa's emerging signs of diversification are encouraging, it needs to further diversify into manufacturing and services to avoid mirroring past trade patterns with the West.

Our machine learning analysis anticipates China-Africa trade to surpass $300 billion by 2025-6. In light of evolving policies and economic trajectories, this study identifies burgeoning opportunities in sectors like e-commerce, fintech, and agritech, underlying the immense potential of China-Africa commercial ties.

However, it is important to acknowledge that China-Africa commercial cooperation is not without challenges. Disparities in trade balances, concerns about debt sustainability, and local economic impacts have sometimes strained relations, which require continuing attention and further research.

Keywords

Machine Learning, Economic Policy, Belt and Road Initiative, Investment, Trade, Commercial Opportunities

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The intricate nexus between China and Africa has piqued international attention, epitomizing a sophisticated alliance that has expanded both in nuance and scope over the past decade. Most recently, the BRICS has announced that it will add six more countries, including Egypt and Ethiopia.[2] Clearly, Africa will become an even more important place for China.

Ever since Chinese President Xi Jinping heralded the inception of the Belt and Road Initiative (BRI) in 2013, the Chinese central government has rolled out quintessential policies to galvanize mercantile synergies with the African continent.

However, no published work systematically examines China's economic policies toward Africa. This working paper adopts the robust methodology Zhang (2023) developed and harnesses document analysis to derive empirical insights from our meticulously collected Chinese policy documents. In addition, we examine BRI investments in Africa and the trade trajectory between China and Africa based on historical datasets and our internal machine-learning algorithms. Finally, we analyze the implications for Chinese and African businesses.

I. China's Economic Policies Pertaining to Africa

Our acquisition of official policy documents unfolded in a tripartite manner. Initially, we searched China's African policy documents on the websites of various Chinese central government agencies. Subsequently, we deployed keywords like "中国对非政策" in Baidu – the predominant search conduit in China – to ensure no pivotal policy manuscript eluded our scrutiny. In the final phase, we triangulated our findings with reports from authoritative Chinese state-affiliated media outlets, such as articles emanating from the Xinhua News Agency.

Our analysis finds that an array of pivotal Chinese policies concerning Africa were publicized under President Xi's aegis, underscoring Africa's strategic gravitas for China. Notably, commercial collaborations, spanning trade and investments, emerge as a salient motif in China's African directives (Table 1).

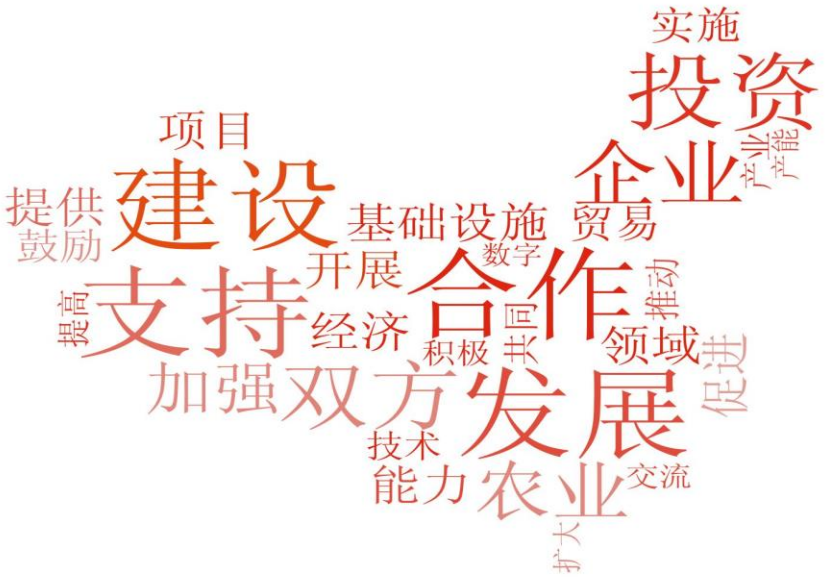
[2] O'Neill 2023

Table 1. China's major policies toward Africa (2015-August 2023)

Source: Authors' analysis based on publicly available policy documents

By leveraging natural language processing, a machine learning technique, we discern words such as "construction", "cooperation", "development", "investment", "agriculture", "trade", "infrastructure", and "capacity" hold sway in the examined policy documents (Figure 1).

Figure 1. Most Commonly Used Words in China's Key Policy Documents Related to China-Africa Commercial Cooperation



Source: Authors' analysis based on published Chinese policy documents

An in-depth content analysis of the policy documents unveils major avenues the Chinese government aims for commercial collaboration.

Industrialization as a Catalyst for Growth

China's commitment to Africa's industrialization is evident. Perceiving it as a pivotal avenue for collaboration, China accentuates sectoral alignment and proficiency cooperation. The objective extends beyond mere promotion of industrialization; it seeks to establish a robust foundation for Africa's fiscal autonomy and long-term progression. By tackling impediments such as infrastructure constraints and skill deficits, China endeavors to augment Africa's manufacturing capacities, quality of life, and employment prospects. The inception of economic zones, technological hubs, and industrial precincts epitomizes this allegiance. Chinese enterprises are incentivized not merely to invest, but to assimilate their operations, forging a mutually advantageous nexus.

Agricultural Modernization and Food Security

Agriculture remains integral to numerous African economic structures. China's strategic direction accentuates the imperative of this sector's evolution. By disseminating agricultural innovations and best practices, China aims to enhance Africa's agricultural methodologies and value chains. The objective encompasses not just yield augmentation but also food security assurance and bolstering the global competitiveness of African niche commodities. Endeavors such as agritech demonstration initiatives and the delegation of agricultural specialists to Africa fortify this dedication.

Infrastructure Development

Infrastructure is a critical component of economic growth. China's policy encourages its enterprises and financial institutions to be at the forefront of Africa's infrastructure development. From railways and roads to communications and electricity, the scope is vast. The priority is to ensure these projects cater to contemporary requisites while bolstering Africa's industrial evolution. Initiatives such as Kenya's modern railway, emblematic of the profound synergy between China and Africa, highlight the magnitude and resonance of these ventures.

Financial Cooperation

Financial collaboration underpins numerous Sino-African ventures. Mechanisms like concessional finance, the China-Africa Development Fund, and the BRICS New Development Bank have been harnessed to cultivate Sino-African fiscal convergence. The aspiration is to meticulously channel financial resources to ventures yielding collective expansion.

Trade Facilitation

Trade remains an integral facet of Sino-African rapport. China's pledge to escalate imports from Africa, especially in the non-resource segments, signifies diversification endeavors. Pursuits aimed at refining market protocols, bolstering customs synergies, and digital commerce promotion encapsulate China's comprehensive strategy towards trade enhancement.

Green Development

China's green development initiatives in Africa underscore the importance of sustainable growth. From addressing climate change to promoting wildlife conservation, the initiatives are comprehensive. The establishment of the China-Africa Environmental Cooperation Center is a significant step in fostering collaboration in environmental management and sustainable practices.

Capacity Building

China's capacity-building initiatives are orchestrated to sculpt Africa's imminent leaders. From scholarship endowments to vocational education hubs, the emphasis is on furnishing Africa's youth with the requisite competencies to spearhead their continent's ascendancy.

China's diplomatic strategies with Africa transcend mere economic metrics; they encapsulate a comprehensive strategic alliance. Through an amalgamation of industry-led growth, agriculture modernization, infrastructural innovation, fiscal synergy, trade expansion, eco-conscious initiatives, and proficiency enhancement, China envisions an alliance poised to sculpt the "common destiny" of both regions.

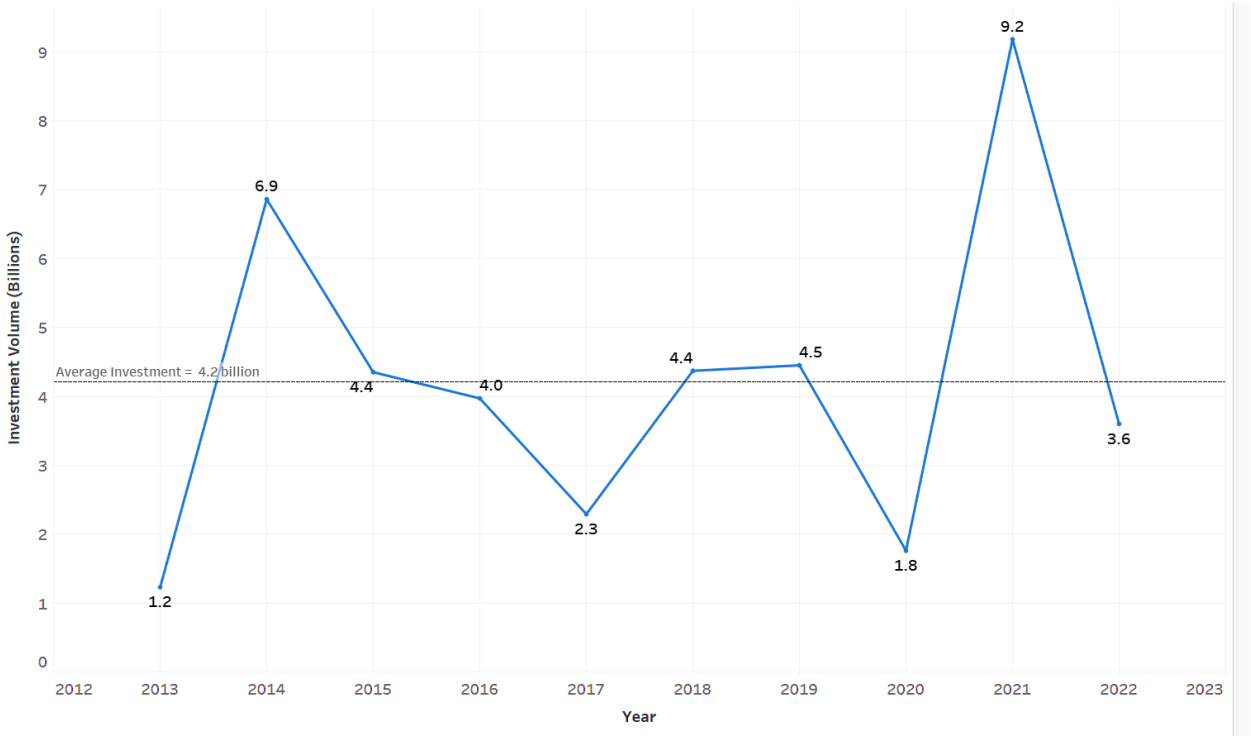
II. China's BRI Investments in Africa

With strong government support, China's investment in Africa through BRI has been massive. In this section, we delve into the BRI investment dataset created by the China Global Investment Tracker[3] and elucidate the contours of Chinese commitments in the region.

Variability in Annual Investment

The annual capital infusion by the BRI in Africa has displayed marked oscillations over time. 2014 marked a zenith with investments touching $6.8 billion, an accolade again achieved in 2021 at $9.2 billion. Yet, the trajectory has not been consistently ascendant. Noteworthy troughs were evident in 2017 and 2020, with capital allocations contracting to $2.3 billion and $1.8 billion, respectively (Figure 2). These variations in investment paradigms epitomize the fluidity of BRI investments, mirroring global economic cycles, policy recalibrations, and shifting strategic imperatives.

Figure 2. BRI Investments in Africa (2013-2022)



Source: Authors' analysis based on data from China Global Investment Tracker

For instance, the 2014 surge in Chinese financial commitments to Africa can be primarily attributed to the official inauguration of the BRI in 2013.

[3] China Global Investment Tracker 2023

Contrastingly, 2021's resurgence of Chinese investment in Africa is owing to three main reasons. First, the COVID-19 pandemic deeply affected the global economy in 2020 (Baldwin and Freeman 2022, Vogel and Fligstein 2020). By 2021, as economies began to recover, China saw an opportunity to resume heavy investments abroad, aiding Africa's recovery while also securing China's economic interests. Second, amid the U.S.-China trade war and global high-tech competition (Zhang and Chang 2021, Eichengreen 2023), China looked to strengthen its geo-political ties with Africa. Third, on the policy front, at the Beijing Summit of the 2018 China-Africa Cooperation Forum, President Xi proposed the "Eight Major Actions" for the ensuing years, accentuating domains like industrial evolution, infrastructural synergies, trade facilitation, eco-conscious development, and capacity building (Xinhua News, 2018).

The contractions observed in 2017 and 2020 were predominantly instigated by exogenous shocks. In 2017, China's BRI investment in Africa dropped significantly due to a slew of unfruitful projects. Some analyses indicate that China "suffered great investment losses in politically unstable countries" (Yang 2018). Some attribute the decline to debt issues, as many of these projects are funded through loans, and Chin's investments in Africa raised concerns about Africa's rising debt levels.[4] In 2020, the global outbreak of the COVID-19 pandemic disrupted international commerce, including foreign direct investments. This event likely significantly reduced Chinese investments in Africa as the world grappled with the pandemic's negative impact.

Pan-African Geographical Spread

Investments stemming from the BRI demonstrate an expansive geographical distribution across Africa rather than a myopic focus on select nations. A total of 30 distinct African nations have derived economic gains from the BRI. Notably, the Democratic Republic of the Congo boasts the zenith of investment receipt, aggregating to $10 billion. Nevertheless, nations including Guinea, Zimbabwe, Namibia, South Africa, Tanzania, Nigeria, Zambia, Ethiopia, and Kenya prominently feature among the chief beneficiaries.

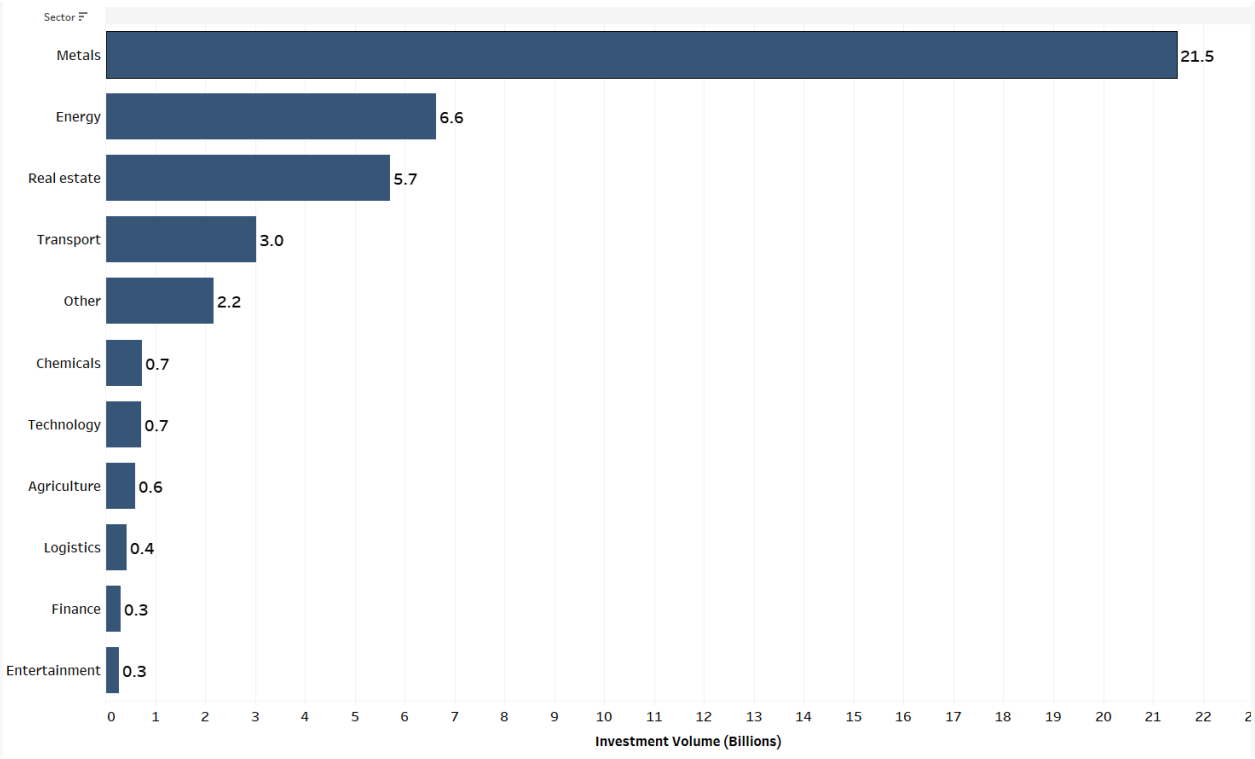
A regional analysis of these investments portrays East Africa as the predominant beneficiary. However, West Africa trails just marginally, with both Southern and North Africa also procuring notable investments. This broad geographical spread underscores the BRI's commitment to a holistic African engagement, emphasizing regional connectivity and collaboration rather than a narrow, concentrated approach.

Prioritization of Key Sectors

The sectoral distribution of BRI investments in Africa is revealing. Predominantly, sectors like Metals, Energy, and Real Estate have been at the forefront, with Metals alone securing a staggering $21.5 billion. Energy and Real Estate sectors have garnered $6.6 billion and $5.7 billion, respectively. While other sectors, such as Transport, Chemicals, and Technology, have also seen investments, they lag in comparison (Figure 3). This sectoral preference aligns with China's broader strategic objectives in Africa, encompassing raw material procurement, energy security enhancement, and infrastructural development.

[4] China Africa Research Initiative 2023

Figure 3. BRI Investments in Africa



Source: Authors' analysis based on data from China Global Investment Tracker

Types of investors

Both state-owned enterprises (SOEs) and private companies are involved in the BRI (Table 2). A meticulous examination of the BRI's investment dataset for Africa reveals the critical role of Chinese state-owned enterprises. Specifically, state-owned investors have spearheaded 62 investments, juxtaposed against the 36 investments embarked upon by private investors. Intriguingly, the mean investment quantum for both state-affiliated and private investors exhibits negligible divergence, standing at $390 million and $380 million, respectively, suggesting the pivotal role state-owned enterprises play within the BRI's blueprint while simultaneously spotlighting the substantial leverage wielded by private-sector investors.

Table 2. SOEs and Private Companies Involved in the BRI

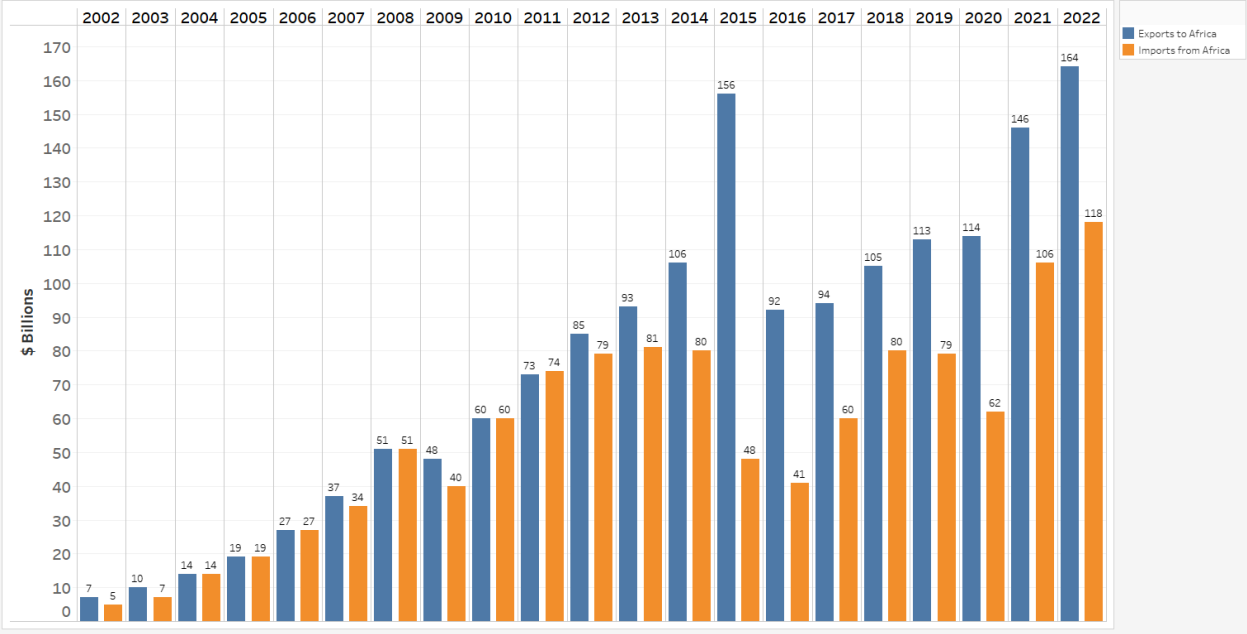
SOEs involved in the BRI	Private companies involved in the BRI
● China Petroleum and Chemical (Sinopec)	● Shanghai Zendai
● Aluminum Corporation of China (Chinalco)	● Anhui Foreign Economic Construction
● China National Nuclear	● Hongqiao
● China Nonferrous	● Huajian
● China Energy Engineering	● Solargiga
● Zhenfa New Energy	● Sichuan Department of Agriculture
● China International Trust and Investment (CITIC)	● Hebei Zhongbo Platinum
● China National Building Material	● China Dreal
● Power Construction Corp. (PowerChina)	● Guangzhou Dongsong
● China Railway Construction	● Zhejiang Huayou Cobalt
● China Communications Construction	● Guodian
● Sinoma	● Shandong Iron
● Asian and African Business Management	● Zijin Mining
● China Lilongwe Grand	● Shenzhen Energy
● China Molybdenum	● China Development Bank
● Beijing Auto (BAIC)	● Shanxi Building Material
● Fujian Construction Engineering	● Qingdao Hengshun
● CEFC China Energy	● Jiangsu Sunshine
● Jiangxi International Cooperation Corp	● Shenyang Lan Sa
● Aviation Industry Corp. (AVIC)	● Jiangxi Water
● China Poly	● Tidfore Heavy Equipment
● China Minsheng Investment	● Hanrui Cobalt
● China Aerospace Science and Technology	● Qingyuan Keweike Mineral
● Sinosteel	● Shandong Ruyi
● Jiangxi investors	● StarTimes
● Tebian Electric Apparatus (TBEA)	● Sunny Yi Feng
● China Railway Construction	● Wuxi No. 1 Cotton Mill
● Power Construction Corp. (PowerChina)	● Huawei Technologies
● Huaxin Cement	● Meituan Dianping-led consortium
● West China Cement	● Sun Share Investments
● China National Petroleum Corp. (CNPC)	● China Merchants
● China National Offshore Oil (CNOOC)	● China Molybdenum
● Jiangxi Ganfeng	● Contemporary Amperex
● Three Gorges	● Dalian Jiayou Logistics
● Contemporary Amperex Tech	● Shandong Weiqiao
● Minmetals	● Chifeng Jilong
● Sichuan Road and Bridge	● Chengtun Mining
● Sichuan Yuhua Industrial	● Tsingshan

Source: Authors' analysis based on data from China Global Investment Tracker

III. Trade

From the early 2000s to 2021, Africa's export trajectory to China witnessed exponential growth, amplifying over twenty-fold. Notably, China's commerce outflows to Africa burgeoned, reaching a commendable $165 billion from an erstwhile modest annual export of $1.3 billion in 1993. Simultaneously, its commerce inflows from the continent surged from $0.35 billion to $117 billion. A pivotal observation is China's trade surpluses with a persistent trade imbalance (Figure 4).[5] As Pettis noted, "To the extent that BRI financing causes an increase in net capital exports from China, it must also cause an increase in the Chinese trade and current account surpluses."[6] Indeed, the capital account can drive the trade account.[7]

Figure 4. China's Trade with Africa



Source: Authors' analysis based on data from China Africa Research Initiative and UN Comtrade

China-Africa trade has seen consistent growth since 2013. Weak commodity prices since 2014 have impacted African exports to China. However, Chinese exports to Africa remained relatively stable.

There was a drop in China-Africa trade value to $176 billion in 2020, down from $192 billion in 2019. However, it rebounded to $251 billion in 2021. In 2021, leading exporters to China from Africa were South Africa, Angola, and the Democratic Republic of Congo. Conversely, Nigeria,

[5] China Africa Research Initiative 2023

[6] Pettis 2018

[7] Zhang 2018

South Africa, and Egypt were the top buyers of Chinese goods.[8] In April 2023, the trade value between Africa and China was recorded at $25.5 million. China exported goods valued at $17.1 million to Africa and imported goods worth $8.3 million.[9]

While resources indubitably command the commercial spectrum, burgeoning evidence suggests emerging signs of diversification in trade compositions. Recent policy recalibrations in China have catalyzed an augmentation in non-resource exports from Africa. Through the institution of zero-tariff inducements for a vast array of taxable commodities originating from the least-developed African nations, China telegraphs its expansive import aspirations.

Commencing in 2018, China's strategic policy to dismantle import impediments for select African commodities—encompassing sesame, chili, avocados, cashew nuts, and apples—precipitated a marked escalation in agricultural exports from Africa. The impetus underpinning such initiatives is unambiguous: to expedite the ingress of a more diverse assortment of African commodities, especially within agricultural and manufacturing sectors, into the expansive Chinese marketplace. This diversification trajectory is palpable in the subsequent growth of these agricultural exports from erstwhile negligible benchmarks.

However, one must appraise these transitions with discerning scrutiny. Although laudable, the ascendancy in non-resource exports has its genesis in a humble foundation. An intricate, comprehensive exploration is requisite to discern if this trajectory emblemizes a genuine transition from predominant resource exports. The evolving policies implemented by the Chinese government, amalgamated with specific data trends, allude to an uptrend in agricultural exports, but the longitudinal trend remains under observation.

The stratospheric ascendancy in Sino-African commerce is emblematic of China's economic renaissance and intricate, multi-dimensional rapport with Africa. Harnessing historical datasets and past commerce trajectories, our in-house predictive analytics, underpinned by machine learning, posit that the commerce quantum shared between China and Africa is poised to surpass the $300 billion benchmark imminently.

IV. Implications for Chinese and African Businesses

With the existing business activities between China and Africa and the evolving Chinese government policies promoting China-Africa commercial cooperation, it is expected to witness massive potential business opportunities for companies and investors on both sides.

Infrastructure Development

Construction & Engineering: With China's emphasis on building roads, railways, ports, and other infrastructural projects, there is a significant opportunity for construction firms, architects, and civil engineering companies to collaborate on large-scale projects.

[8] Ibid

[9] Statista 2023

Technology & Equipment Suppliers: Infrastructure projects require machinery, technology, and equipment. Firms manufacturing or supplying these can find a vast market in Africa, especially if they can offer after-sales services and training.

Project Management & Consultancy: As these projects are vast and complex, there is a need for expert project management and consultancy services to ensure they are completed efficiently and effectively.

Agricultural Modernization

Agri-tech: With the push for modernizing Africa's agriculture, companies specializing in agricultural technology, from drone farming to precision agriculture, can find a significant market.

Supply Chain & Logistics: As agricultural output increases, there will be a need for efficient storage, processing, and transportation solutions. This opens doors for firms specializing in cold storage, warehousing, and logistics.

Seed & Fertilizer Companies: Introducing high-yield and disease-resistant crop varieties can be a game-changer. Companies that produce such seeds or organic fertilizers can tap into this potential.

E-commerce & Digital Expansion

Online Marketplaces: The burgeoning e-commerce scene in Africa offers opportunities for firms to either set up new online marketplaces or collaborate with existing ones.

Digital Payment Solutions: With e-commerce comes the need for secure and efficient digital payment solutions. Companies that offer these services, especially those tailored to the African market, can thrive.

Logistics & Delivery: Efficient delivery systems are crucial for e-commerce. Firms that offer logistics solutions, including last-mile delivery services, can find a growing demand.

Green & Sustainable Development

Renewable Energy: Companies specializing in solar, wind, and hydro energy solutions can collaborate on projects to increase Africa's renewable energy capacity.

Environmental Consultancy: With a push for sustainable practices, environmental consultancy firms can offer their expertise in ensuring eco-friendly projects.

Waste Management: With urbanization and development comes the challenge of waste. Companies that offer innovative waste management and recycling solutions can play a crucial role.

Financial Services & Fintech

Microfinance & Lending Platforms: Given the entrepreneurial spirit in Africa, there is a demand for microfinance solutions. Fintech firms that offer accessible lending platforms can fill this gap.

Insurance: As businesses grow, there is a need for varied insurance products, from crop insurance for farmers to business insurance for SMEs.

Digital Banking: With a significant portion of Africa's unbanked population, digital banking solutions catering to this demographic can be revolutionary.

Education & Skill Development

Online Education Platforms: Companies offering online courses, especially vocational training, can cater to Africa's growing young population.

Skill Development Centers: Setting up centers that offer training in skills that are in demand, like digital marketing, coding, or machinery operation, can be lucrative.

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