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External Financial Flows and Domestic Credit Volatility Effect on Industrialization in Selected African Countries

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ABSTRACT

Countries all over the world focus on industrialization as a foundation for rapid economic development and unemployment reduction. Without stable external and domestic finance, we cannot achieve this goal. Financial volatility has an impact on a country's industrialization process. The **aim** of this study is to determine how external and domestic credit volatility affect industrialization in Africa. **Data** for some selected countries for 1992–2020 was used. The author used the Prais-Winsten regression **method** with Panel Corrected Standard Errors (PCSE) to estimate and analyze the model. Descriptive and quantitative methods of analysis were also used to analyze the long-balanced panel data set for the 17 selected African countries with available data. The **results** showed a combination of positive and negative effects of financial volatility on industrialization in Africa. The study **concludes** that domestic credit volatility has adversely affected industrialization in Africa and recommends the development of financial institutions on the continent through recapitalization, skilled manpower development and innovative development of different financial instruments.

***Keywords**:* Africa; volatility; growth; financial flows; external finance; industrialization; foreign direct investment; remittances

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ОРИГИНАЛЬНАЯ СТАТЬЯ

Влияние волатильности внешних финансовых потоков и внутреннего кредитования на индустриализацию в отдельных африканских странах

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АННОТАЦИЯ

Все страны мира уделяют особое внимание индустриализации как основе быстрого экономического развития и сокращения безработицы. Без стабильного внешнего и внутреннего финансирования эта цель не может быть достигнута. Финансовая волатильность оказывает влияние на процесс индустриализации страны. **Целью** данного исследования является изучение влияния волатильности внешних инвестиций и внутреннего кредита на индустриализацию в Африке. Были задействованы **данные** по 17 странам Африки за 1992–2020 гг. Для оценки и анализа модели автор использовал регрессионный **метод** Прайса-Уинстена с панельными стандартными поправками. В работе также

применялись описательные и количественные методы анализа долгосрочного сбалансированного набора панельных данных по 17 выбранным африканским странам. **Результаты** показали сочетание положительного и отрицательного воздействия финансовой волатильности на индустриализацию в Африке. В исследовании делается **вывод**, что нестабильность внутреннего кредитования отрицательно повлияла на индустриализацию в Африке, и рекомендуется развивать финансовые учреждения на континенте посредством рекапитализации, развития квалифицированной рабочей силы и инновационного развития различных финансовых инструментов.
Ключевые слова: Африка; волатильность; экономический рост; финансовые потоки; внешнее финансирование; индустриализация; прямые зарубежные инвестиции; денежные переводы

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Introduction

Industrialization is crucial for economic development, poverty reduction and human capital development. It was fundamental to the rapid growth and transformation of Western nations, and this reality had been demonstrated in the changes taking place among Asian countries, especially those in the South East. A driver and facilitator of this fundamental transformation besides human capital development is the availability and use of capital, both domestic and external for the development and growth of industries. Agriculture's share in the continent's gross domestic product (GDP) in developing Asia declined from 31.9 percent in the 1970s to 8.5 percent in 2018. There was also a decrease in its share of employment for the same period, from 71 percent to 33.5 percent, while industry's share increased from 14.1 percent to 25.5 percent, which was more than twice sub-Saharan Africa's share of 11.4 percent.[1] Signifying the greater role of industrialization on the continent of Asia. Africa lags behind other regions of the world in terms of manufacturing and economic restructuring. Manufacturing share in employment for the World in 2021 was 13.6 percent, while Africa's share was 7.4 percent with sub-Saharan Africa's (SSA) share was 6.7 percent while North Africa's share was 11 percent. The shares of South America, Latin America and the Caribbean and Southeast Asia were 10.9, 12 and 15 percent, respectively.[2] Implying that Africa is lagging behind other regions of the world. It is therefore necessary that Africa change this narrative for the development of the continent.

Various industrialization policies have been implemented by countries in Africa over the years. These include state-led and import substitution industrialization strategies of the 1960s and 1970s, the structural adjustment policy programs (SAPs) of the 1980s, and the investment climate reforms of the 2000s. Despite all these approaches, Africa's share in the world's manufacturing value added was less than that of other developing countries. Africa's share in 2021 was 1.9 percent (which was its share in 1980), while for Latin America and the Caribbean it was 4.2 percent, and for Asia it was 54.1 percent.[3,4] There had been two resolutions adopted by the United Nations (UN) declaring decades of Africa's industrialization. In 2016, the third industrial development decade resolution for Africa (2016–2025) was adopted. It was aimed at promoting the industrial development of the continent that is sustainable and inclusive.[5] The African Union's Agenda 2063 provides for the transformation and industrialization of Africa as one of its priority objectives.

Africans constitute about 1.3 billion, or 17 percent, of the world population.[5] Despite this population size, the continent supplies only 3 percent of global GDP and 2 percent of global manufacturing value added (MVA). The world's MVA per capita is almost nine times that of Africa. The MVA growth rate for the world and Africa between 2012

[1] Asian Development Bank. Asia's Journey to Prosperity. 2020.
[2] UNIDO. International Yearbook of Industrial Statistics. 2023 edition.
[3] United Nations Industrial Development Organization (UNIDO). International Yearbook of Industrial Statistics: Edition 2022, Vienna: United Nations Industrial Development Organization.
[4] United Nations Economic Commission for Africa (UNECA) and African Union (AU). Dynamic Industrial Policy in Africa. Addis Ababa. United Nations Economic Commission for Africa. 2014.
[5] United Nations Industrial Development Organization (UNIDO). Competitive Industrial Performance Report. 2020, Vienna. United Nations Industrial Development Organization.

and 2019 was 2.1 and 0.7 percent, respectively, but the continent's MVA share in GDP increased from 10 to 10.6 percent, while the world's share increased from 16.1 to 16.5 percent within the same period.[6] This underscores the need for Africa to boost its industrialization process.

Finance is critical to boosting the industrialization process in Africa. Without adequate financing, achieving the desired level of industrialization will almost be impossible. Financing for industrialization is usually generated both from internal and external sources. Large investments in new factories and plants, alongside infrastructure, are necessary for rapid growth. In Asia, it was financed largely by domestic savings because the financial system in the region channeled these savings into investments. External financing, such as foreign direct investment, multilateral development bank funding, and remittances for overseas workers, played important roles in many countries.[7] This showed that rapid and effective industrialization requires both domestic and external funding. Africa has encountered the challenge of effectively financing industrial development. Domestic credit to the private sector as a percentage of GDP for sub-Saharan Africa was very low. Between 2000 and 2022, it was an average of 55.3 percent, while the world average in 2021 was 160.9 percent, which was more than twice that of SSA.[8] The use of domestic resources alone is inadequate to attain the status of an industrialized continent because of the skill, technology transfer, and other benefits associated with the inflow of external capital.

The Monterrey consensus of 2002 was on external financial flows for development, with a focus on foreign investment, external debt, official development assistance and exports. The heads of state(s) and governments identified and committed themselves to mobilizing both domestic and external financial resources for sustained long-term growth and development, poverty reduction, inclusive growth and an equitable global economic system.[9] Remittances have also become an additional source of external financial flow into countries, especially in Africa, Asia and Latin America. These are important sources of funding support for developing countries, especially Africa. The volatility of these external financial sources of funding could have positive or negative effects on Africa's industrialization drive. It can result in negative long-term growth, a reduction in consumption and investment, an unstable macroeconomic policy environment, weak institutions and a fall in the standard of living.

In terms of external debt, aggregate net financial inflow, debt and equity combined for low- and middle-income countries in 2019 was $ 0.9 billion, which was 15 percent lower than the comparable 2018 figure.[10] This was a period of growth on the African continent, driven by the prices of natural resources, declining conflicts in the region and high demand in China. The World Bank further stated that total external debt stock increased by 5.4 percent in 2019 to $ 8.1 trillion, with the fastest debt stock accumulation of 9.7 percent in sub-Saharan Africa (SSA), followed by South Asia with 7.6 percent. External debt stock in SSA increased between 2010 and 2019. It was $ 296 billion USD in 2010 and increased to $ 625 billion in 2019. This represents an increase of 111.14 percent between 2010 and 2019, thus showing some volatility. Gross National Income (GNI) per annum in the region increased on average by 3.2%, while debt increased by 9 percent for the same period.[11] This implied an increase in external debt stock for financing activities in the region.

External shocks such as the Lehman Brothers' collapse in 2010 and the fall in the prices of natural resources, especially crude oil, beginning from 2014 to 2016, led to recession in some countries, especially oil-dependent countries such as Nigeria. Also, the COVID-19 pandemic contributed significantly to African countries experiencing various degrees of uncertainty and volatility in financial flows, which adversely affected industrial value added on the continent. These series of external shocks, coupled with adverse climate

[6] United Nations Industrial Development Organization (UNIDO). International Yearbook of Industrial Statistics: Edition 2022, Vienna: United Nations Industrial Development Organization.

[7] Asian Development Bank. Asia's Journey to Prosperity. 2020.

[8] World Bank's World Development Indicators. URL: https://databank.worldbank.org/source/world-development-indicators#

[9] United Nations. Monterry Consensus of the International Conference on Financing for Development. International Conference on Financing for Development. Geneva. United Nations.2003.

[10] World Bank. Debt Report 2021, Washington DC, World Bank Group.

[11] United Nations Industrial Development Organization (UNIDO). Competitive Industrial Performance Report. 2020, Vienna. United Nations Industrial Development Organization.

change, contributed to the increase in poverty on the continent and further enhanced the level of demand uncertainty. The war in Ukraine had also contributed to the uncertainty and volatility, especially with regards to food prices and investments in the region.

Foreign direct investment (FDI) is crucial for industrialization because of its ability to transfer technology and improve industrial capacity utilization. Africa's share of global FDI had been low and even declined between 2019 and 2020. In 2019, Global FDI stock was $ 36 trillion, but in Africa and South Asia, FDI in 2019 declined. In Africa, it was by 10 percent to $ 45 billion, while in South Asia, the decline was by 5 percent to $ 474 billion. In Latin America and the Caribbean, it increased by 10 percent to $ 164 billion. In 2020, global investment flows declined by one-third to $ 1 trillion from $ 1.54 trillion in 2019.[12] Africa had the highest decline and the lowest FDI compared to other regions. According to Haraguchi et al. [1], policymakers in developing countries will need to pay attention to investment (both public and private) if they are to develop and fulfill their potential.

Financial volatility has posed serious challenges for countries, especially when it is caused by or results in a financial crisis. According to Edwards [2], the 1990s were characterized by financial crises such as the Mexican Peso collapse of 1994 and the Thai Baht crisis of 1997 that spread to the Philippines, South Korea, Malaysia and Indonesia. The crises of the 1990s also affected Brazil and Russia. All of these crises had large financial flows or volatilities at the center. These volatilities and associated crises had contributed to an output decrease and increase in unemployment and poverty [3], thus negating the benefits of diversification, welfare improvement and poverty reduction, technology transfer and unemployment reduction [4].

The continent of Africa has been a major exporter of primary products such as iron ore, crude oil, diamonds, various agricultural products, etc. Despite this, the continent has not been able to achieve the high standard of living found in industrialized countries, particularly those attained in advanced western countries. In Africa, exports as a percent of GDP fell from an average range of 25 to 29 percent between 2010 and 2013 to 24 percent in 2014 and an average of 21 percent between 2015 and 2017.[13] The total percentage share of manufacturers in merchandise trade for the continent was 18.5 as exports and 62 as imports in 2013.[14] Manufacturing share in exports for Africa in 2022, compared to the rest of the world and other regions of the world, is low. It was 37 percent for Africa compared to 76.5 percent for the world and 44.3 and 60.3 percent for South America and Latin America and the Caribbean.[15] Exports from Africa declined by 6.1 percent more than imports decline between 2019 and 2020.[16] The low share of manufacturers in exports affects the development of industries and the continent's economic growth. According to Samouel and Aram [4], some Latin American countries and others from East and Southeast Asia experienced remarkable growth because of their export promotion, which contributed to the prosperity of the industrial sector.

The nature of Africa's exports and its poor industrial linkage contributed to the rapid migration of manpower from the continent in search of avenues where their skills could be better utilized to attain a higher quality of life. This situation is aggravated by the quality of leadership in the continent, natural and man-made disasters and the fact that it becomes international news. The dearth of skilled manpower, conflicts and crisis in the continent affect the flow of external funding to the continent and contribute to making it volatile. This is because capital is highly mobile, and private investors look for the highest possible return for their investments and safe repatriation of their investments.

According to [5], volatilities in developing countries are affected by volatilities from various sources. This includes a bigger share of exogenous shocks' in developing countries from financial markets as a result of "sudden stops" of capital inflow. Instability from domestic shocks generated by policy mistakes that are self-inflicted and

[12] United Nations Conference on Trade and Development (UNCTAD).World Investment Report 2020: International Production Beyond the Pandemic, Geneva, United Nations. 2020.

[13] World Bank's World Development Indicators. URL: https://databank.worldbank.org/source/world-development-indicators#

[14] United Nations Economic Commission for Africa. Industrializing Through Trade. Economic Report Africa, 2015.

[15] UNIDO. International Yearbook of Industrial Statistics. 2023 edition.

[16] United Nations Conference on Trade and Development 2021. Handbook of Statistics 2021.

intrinsic instability of the development process are also weak. These occurrences are detrimental to the development of countries and the wellbeing of citizens. This study focuses on the effect of external financial flows and domestic credit volatility on industrialization in Africa. It measures volatility based on the standard deviation of FDI, personal remittances, domestic credit, exports and official development assistance (ODA) based on data from the World Development Indicators (WDI).

Review of empirical literature

The literature on volatility covers a wide range of areas with various findings. In a study on volatility and growth, it was found that exchange rate volatility had a negative effect on economic growth among Central and Eastern European countries during the period 2002–2018 [6]. Volatility and long run economic growth had an inverse relationship, and this was found to be worse in countries that were poor, institutionally underdeveloped, undergoing intermediate stages of financial development, or could not conduct countercyclical policies [7]. The financial crisis in Asia and exchange rate volatility were studied in [8]. the authors used EGARCH(1,1) and found that before the crisis, only three currencies displayed evidence of exchange rate asymmetries in their conditional variance, but after the fall in currencies, only one did not display a significant rise in volatility and asymmetry. Aid volatility and its costs were studied by Kharas [9], and the author found a cost of between 0.07 and 0.28 dollars on donor and recipient countries dead weight loss, which was about 1.9 percent of GDP. Another study [10] instigated country size, economic size and volatility. The study found that a one percent standard deviation increase in trade increases growth by 38 percent, but it was insignificant with regards to volatility.

On financial and capital flows, literature focused on emerging and market economies because of the developments in the Asian region. It was found that volatility in capital flows in emerging markets was explained more by push factors than pull factors. US monetary policy stance and economic performance, as well as global risk aversion, influence the volatility of capital flows to emerging markets and developing economies [11]. Financial volatility in emerging market economies, according to [12], was enhanced by the presence and activities of foreign banks in emerging countries. The volatility of foreign direct investment was increased by financial integration in emerging markets [13]. A Raddatz [14] study found that internal sources are the main causes of instability in low-income economies. External factors explained only small variations in low-income countries' output. The direct industrial effect of capital flows was considered by Tasdemir [15], where it was found that capital flows were associated with the movement of resources from the manufacturing sector in advanced economies, emerging market economies, and the Middle East and North Africa. Attention had not been given to the volatility issue on the African continent. The reallocation of resources from high-technology to low-technology firms within the manufacturing sector was also associated with capital flows in these countries. Efobi et al. [16] found in a study of forty-nine African countries that remittances drive industrialization in Africa at certain initial levels of industrialization. Capital flows were found by [17] to be associated with growth in highly externally dependent firms, which was driven by debt rather than equities, but in the long run, equities contribute to growth. This breaks down during crises thus emphasizing the need for stable capital flows. Foreign direct investment was found to have had a positive effect that was statistically significant on industrial performance in Africa, but without the expected growth in savings, technology transfer and improved domestic productivity [18]. In sub-Saharan Africa, it was found by [19] that foreign direct investment as a component of capital inflow had an adverse effect on industrial development with a unidirectional causality. It was also found that financial development had a positive effect on the development of industries with bi-directional causality. Keji [20] found that in Nigeria, FDI contributed to the slow growth of industrial output, thus implying an inverse link between industrial output growth in the country and FDI. The negative effect of FDI on SSA was found by [21]. In terms of international trade, a study [22] found that industrialization in Africa had been enhanced by trade openness between 1990 and 2019. Literature had not given attention to financial volatility and industrial development, especially in Africa. This paper intends to fill this gap.

Methodology

The Cobb-Douglas production function shows that output is dependent on factors, such as production, labor and capital as inputs in the production function. This relationship is depicted as follows:

$$Y = A\left(K^{\alpha} L^{\beta}\right), \quad (1)$$

where Y is output, A is total factor productivity, K is capital and L is labor. α and β are elasticities of capital and labor, respectively. Total factor productivity is that portion of industrial output that is not accounted for by capital and labor. This is difficult to measure in practice.

To achieve the objective of this study, data from the World Bank's World Development Indicators (WDI) was used for the period 1991–2020 for a panel of 17 African countries with available data (Benin, Botswana, Burkina Faso, Cabo Verde, Cameroon, Congo Republic, Cote d'Ivoire, Egypt Arab Republic, Gabon, Ghana, Kenya, Morocco, Niger, Nigeria, Rwanda, Togo, Tunisia). Volatility was measured for each country using growth standard deviations of exports as a percentage of gross domestic product, net foreign direct investment as a percentage of gross domestic product, net official development assistance as a percentage of gross national income and personal remittances received as a percentage of gross domestic product for external financial flows, while for macroeconomic volatility, the standard deviation of inflation for each country was used. The model is specified as follows;

$$Q_{it} = f\left(SDFdi_{it,} SDEx_{it} SDNetOda_{it}, SDPerR_{it,} X_{it,} U_{it}\right), (2)$$

where Q_{it} is manufacturing valued added (proxy for industrialization) in country I at time t, $SDFdi_{it}$ is foreign direct investment volatility in country I at time it, $SDEx_{it}$ is exports volatility of country i at time t, $SDNetOda_{it}$ is net official development assistance volatility to country I at time t, $SDPerR_{it}$ is volatility of personal remittances to country I at time t, X_{it} is a collection of other explanatory variables such as domestic credit to private sector, population as proxy for labor, $SDIfl_{it}$ is inflation volatility, a proxy measure for macroeconomic volatility.

Long panel data were used where the time dimension was greater than the cross-sectional dimension. This will give rise to a possible autocorrelation problem; therefore the Prais-Winsten regression for panel corrected standard errors (PCSE) was used. The variables were tested for stationary and were found to be stationariness at level based on the Levin-Lin and Chu (LLC) test.

Results and discussion of findings

Table presents the results of how volatility in external financial flows and domestic credit to

Table

Result of volatility effect on MVA (industrialization) in Africa

Variables **Manufacturing Value Added**	Coefficient	Panel Corrected Standard Error	Z	P>|z|
Domestic credit to private sector by banks	−0.375***	0.145	−2.58	0.010
Exports	0.007	0.097	0.07	0.945
External debt	0.008	0.033	0.23	0.818
Foreign Direct Investment	0.460***	0.117	3.92	0.000
inflation	−0.020	0.049	−0.40	0.688
Net ODA	0.324***	0.075	4.31	0.000
Personal remittances	0.055	0.318	0.17	0.862
Population	1.376***	0.291	4.73	0.000
Constant	−11.396**	4.839	−2.36	0.019

Note: *,**,*** signifies statistical significance at 10, 5 and 1 percent, respectively.

Source: Author's computation.

the private sector affects manufacturing value added (industrialization) in Africa.

From *Table,* volatility in domestic credit to the private sector had a negative effect on industrialization with a statistically significant coefficient. This implies that as domestic credit changes in unexpected ways, industrialization is adversely affected. This is because stable funding for industrial development is largely provided by domestic financial institutions. When it becomes volatile, it makes planning and access to funding for entrepreneurs very difficult, which eventually hampers growth. Among small manufacturers, only one in three has access to a loan or line of credit. Those who suffer most are in Sub-Saharan Africa, with only 15 percent having access to financial services, compared to 17 percent for LDCs and 44.2 percent for Latin America[5]. Conflicts in African countries, such as the Arab Spring uprising that affected countries like Egypt, Tunisia, Libya, Sudan, and the Boko Haram crisis in Nigeria, coupled with drought in the Horn of Africa have made domestic credit volatile, with adverse effects on industrialization on the continent. Also, political tension associated with elections in countries of the continent contributed to such volatilities. The weak nature of financial institutions on the continent has made it difficult for sustainable long-term funding for industrialization. Therefore, credits are available only for the short term, thus making funding for industrial development volatile. This is coupled with the underdeveloped nature of money and capital markets with limited financial instruments. This makes switching to other forms of funding very difficult, thereby amplifying domestic credit volatility. Financial deepening was found in a study on Mexico and the USA by [23] to reduce growth volatility. Jarretta, Mohaddes, and Mohtadi [24] did a study among oil-producing countries with weak and better financial institutions that were subjected to the oil price shocks of 2014. Better financial institutions were found to reduce output volatility.

Foreign direct investment volatility has had a positive effect on industrialization in Africa. The coefficient is statistically significant. This finding implies that the changes in the net inflow of FDI, manufacturing output in Africa contribute to its growth. A combination of factors is responsible for this finding; the increasing role of domestic funding to the manufacturing sector, the impact of micro, small and medium scale enterprises in the manufacturing sector further ensured stability. Also, the intrafirm inflow by multinational enterprises, which is less volatile due to the greater certainty of the business environment in Africa, had contributed to this finding. According to the World Bank,[17] FDI has been the least volatile and most resilient component of financial flows. Moreover, the investment climate in Africa has been improving over the years, making Africa a more investment-friendly continent. This had led to improvements in FDI inward stock on the continent compared to the outward stock. The inward stock in 2000, 2010 and 2021 was 153 062, 623 756, 1 026 320 million dollars (respectively), while the outward stock for the corresponding periods was 39 815, 137 363, 301 252 million dollars (respectively). Between 2020 and 2022 FDI inflows more than doubled from 39 billion dollars to 83 billion dollars, and from this was inflated by a single large intrafirm transaction [25], which was less prone to negative volatility. Moreover, the manufacturing sector, is more stable in its response to world price volatility.

Net official development assistance volatility had a positive effect on industrialization in Africa with a statistically significant coefficient. The amount of net ODA had been relatively stable, between 3 and 4 percent of gross national income, with a standard deviation of about 1 percent. Aid volatility given in response to natural disasters, successive droughts and other related problems serves as a form of insurance and generates volatility disbursement effects, which is good aid. Increased production of goods and services to support those affected by such disasters will yield a positive aid volatility effect on industrialization. But it can also be costly for recipient countries because it magnifies the real business cycle and generates negative income shocks in developing countries.

Population had a positive effect on industrialization. This points to the influence of demand for the goods produced by firms due to the continent's population size. According to UNIDO,[18] about 1.3 billion people, or 17 percent of the

[17] World Bank. Debt Report 2021, Washington DC, World Bank Group.

[18] United Nations Industrial Development Organization (UNIDO). International Yearbook of Industrial Statistics: Edition 2022, Vienna: United Nations Industrial Development Organization.

world's population, lived in Africa in 2019. This will definitely have a positive demand effect on goods and services because domestic demand is a major source of demand for many countries. Also, the skill applied in the production of goods and services by labor in the manufacturing industries of the continent.

Conclusion and recommendations

Industrializing Africa is necessary if it to live up to its full potential. The continent had a higher level of MVA share in gross domestic product compared to the world. External finances are crucial for the realization of this goal. The volatility of FDI, net ODA had positive effects on MVA, which implied that these were good volatilities, while domestic credit to private sector volatility had a negative effect.

The capacity of financial institutions in many African countries is so weak that they are unable to mobilize large-scale capital for firms and households to facilitate industrialization on the continent. Commercial and other developmental banks of countries should be recapitalized. This will enable them to provide long-term funds, and will minimize domestic credit volatility, reduce the cost of borrowing and facilitate industrialization.

The Africa Union (AU) should set up a regional monetary policy coordinating agency that will work toward harmonizing domestic policy differences. The agency should facilitate the establishment of a common regional monetary policy framework. This will eventually reverse the high level of monetary and credit policy heterogeneity and facilitate more capital inflows into the continent.

Governments on the continent should broaden the space for capital market development through technological innovation and infrastructure, improvements in regulatory frameworks, the enforcement of contracts and the curbing of illicit financial flows. This will provide an additional avenue for domestic credit mobilization that will facilitate industrialization.

The continent will have to consolidate on the good volatilities by improving on regional trade and investment policies, especially the Africa continental free trade area, which will boost manufacturing output both for intra-regional and export trade with other regions of the world.

Domestic stability should be pursued through the establishment of strong institutions, micro- and macro-prudential policies and credit guarantees by governments. This will minimize domestic financial volatility on the continent.

REFERENCES

1. Haraguchi N., Martorano B., Sanfilippo M. What Factors Drive Successful Industrialization? Evidence and Implications for Developing Countries. *Structural Change and Economic Dynamics.* 2019; Jun1;49:266–276. URL: https://doi.org/10.1016/j.strueco.2018.11.002
2. Edwards S. Introduction to Capital Flows and the Emerging Economies: Theory, Evidence, and Controversies. In Capital Flows and the Emerging Economies: Theory, Evidence, and Controversies 2000; Jan 1: 1–12. University of Chicago Press. URL: https://www.nber.org/system/files/chapters/c6162/c6162.pdf
3. Cailloux J., Griffith-Jones S. Global Capital Flows to East Asia: Surges and Reversals. In: Griffith-Jones S., Gottschalk R., Cailloux J., editors. International Capital Flows in Calm and Turbulent Times. Michigan: University of Michigan Press; 2003.
4. Samouel B., Aram B. The Determinants of Industrialization: Empirical Evidence for Africa. *European Scientific Journal*. 2016; Apr 1;12(10):219–239. URL: https://core.ac.uk/download/pdf/328025425.pdf
5. Loayza N., Rancie`re R., Serve´n L., Ventura J. Macroeconomic Volatility and Welfare in Developing Countries: An Introduction. *The World Bank Economic Review.* 2007;21(3):343–357. DOI: 10.1093/wber/lhm017.
6. Morina F., Hysa E., Ergün U., Panait M., Voica MC. The Effect of Exchange Rate Volatility on Economic Growth: Case of the CEE Countries. *Journal of Risk and Financial Management.* 2020; Aug 10;13(8):177. DOI: 10.3390/jrfm13080177.
7. Hnatkovska V., Loayza N. Volatility and Growth. In: Azeinman J.J., Pinto B, ed. Managing Economic volatility and Crises. Cambridge: Cambridge University Press; 2005:65–100.
8. Baharumshah A.Z., Wooi H.C. Exchange Rate Volatility and the Asian Financial Crisis: Evidence from South Korea and ASEAN-5. *Review of Pacific Basin Financial Markets and Policies.* 2007;10(2):237–264. URL: https://doi.org/10.1142/S 0219091507001057

9. Kharas H. Measuring the Cost of Aid Volatility. Wolfensohn Center for Development. Working Paper 3. 2008. URL: https://www.brookings.edu/wp-content/uploads/2016/06/07_aid_volatility_kharas.pdf (accessed on 20.12.2023).
10. Pagliari M.S., Hanan S.A. The volatility of capital flows in emerging markets: Measures and determinants. *Journal of International Money and Finance.* 2024 May 15:103095. URL: https://doi.org/10.1016/j.jimonfin.2024.103095
11. Alouini O., Hubert P. Country Size, Economic Performance and Volatility. *Revue de l'OFCE.* 2019;164:139–163. URL: https://www.cairn-int.info/revue-de-l-ofce-2019–4-page-139.htm&wt.src=pdf
12. Beck R. The volatility of capital flows to emerging markets and financial services trade. *CFS Working Paper*. 2000/11.2000;1–24.
13. Neumann R.M., Penl R., Tanku A. Volatility of capital flows and financial liberalization: Do specific flows respond differently? *International Review of Economics and Finance.* 2009;18(3):488–501.
14. Raddatz C. Are External Shocks Responsible for the Instability of Output in Low-Income Countries? *Journal of Development Economics.* 2007;84(1):155–187.
15. Tasdemir F. Do capital Flows Cause (De)Industralization? *Economic Forum Egypt.* 2023. In: ERF 29th Annual Conference. 4–6 May.
16. Efobi U., Asongu S., Okafor C., Tchamyou V., Tanankem B. Remittances, Finance and Industrialisation in Africa. *Journal of Multinational Financial Management.* 2019;49:54–66. DOI: 10.1016/j.mulfin.2019.02.2002
17. Ignan D., Kulan A.M., Mirzaei A. The Real Effects of Capital Flows in Emerging Markets. *Journal of Banking and Finance.* 2020;119. DOI: 10.1016/j.jbankfin.2020.105933
18. Adegboye F.B. Foreign Direct Investment and Industrial Performance in Africa. *The Social Sciences*. 2016;11(24):5830-5837.
19. Appiah M., Gyemfi A.B., Adebayo S.I., Bekun F.V. Do Financial Development, Foreign Direct Investment and Economic Growth Enhance Industrial Development? Fresh Evidence from Sub-Sahara African Countries. P*ortuguese Economic Journal*. 2023;22:203-227. DOI: 10.1007/s10258-022-00207-0
20. Keji S.A. Industrial Output Growth and Foreign Direct Investment in Nigeria. *Future Business Journal*. 2023;9(58).
21. Oduola M., Bello M.O., Popoola R. Foreign Direct Investment, Institution and Industralisation in Sub-Sahara Africa. *Economic Change and Restructuring.* 2022;55:577-606. DOI: 10.1007/s10644-021-09322-y
22. Mignamissi D., Nguekeng B. Trade Opennes-Industrialization Nexus Revsited in Africa. *Economic Change and Restructuring*. 2022;55:2547-2575. DOI: 10.1007/s10644-022-09401-8
23. Cermeño R., García M.J., González-Vega C. Financial Development and the Volatility of Growth: Time Series Evidence for Mexico and United States. Monetaria. 2016;195-232.
24. Jarretta U., Mohaddes K., Mohtadi H. Oil price volatility, financial institutions and economic growth. *Energy* Policy. 2019;126:131-144.
25. Eregha P. Foreign Direct Investment Inflow, Volatility and Domestic Investment in West Africa. *Journal of Developing Areas*. 2015;49(2):273-294.

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