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THE IMPACT OF COVID-19 INDUCED CAPITAL FLIGHT ON THE BOND AND FOREIGN EXCHANGE MARKETS IN GHANA

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ABSTRACT: *This paper provides evidence on the adverse effects of Covid-19 induced capital flight on the bond and foreign exchange markets in Ghana. Based on trend analysis, the study found significant portfolio reversals after the country recorded its first case of Covid-19 on March 12, 2020. This excessive capital flight had a far-reaching adverse impact on nominal exchange rate. Precisely, the Ghanaian Cedi shed earlier gains recorded in the first half of the year against the US Dollar. The prime contribution of this study is that it provides insight into the impact of the Covid-19 pandemic on the bond and foreign exchange markets in Ghana. To the best of our knowledge, this study is novel in the sense that no prior study has examined the response of the domestic bond market and nominal exchange rate to unanticipated global shocks in Ghana. The findings imply that, over-reliance on foreign portfolio inflows renders the bond and foreign exchange market vulnerable to unanticipated external shocks. Thus, the Covid-19 pandemic is a wake-up call for operationalization of policies to strategically develop the domestic bond market in order to build a wider domestic investor base to cushion the Ghanaian economy from such shocks.*

KEYWORDS: capital fight, bond market, foreign exchange market, COVID-19, Ghana
JEL: G12, G15, F31

INTRODUCTION

In recent years, most emerging and frontier economies have witnessed significant external financial inflows underpinned by positive investor confidence and burgeoning economic growth. Bailey (2005) asserted that, the significant role played by the domestic bond markets requires concerted efforts to ensure their sustainability. Thus, policymakers and international bodies are increasingly being preoccupied with formulation of appropriate policies to develop domestic bond markets to promote and sustain financial development and economic growth (Andresen, 2000; World Bank and International Monetary Fund, 2001). The bond market also known as the debt market provides alternative financing platform for governments and corporate entities to raise the needed capital to meet their financing and debt management requirements. A developed and efficient domestic bond market is essential in bridging the perennial national budget deficit gap and meeting infrastructure needs of nations (Ansah, 2015).

In Ghana, the financial market restructuring in the early 1990s led to the creation of the bond or debt market. Since the issuance of the first 5-Year debt instrument to provide foundation for active trading of bonds on the newly created Ghana Stock Exchange in 1990, the bond market has witnessed considerable improvement though it still remains largely underdeveloped. Ansah (2015) posited that one key reason attributable to the underdeveloped nature of the Ghanaian bond market is the absence of legal or operational framework to enable Metropolitan, Municipal and District Assemblies (MMDAs) to issue bonds to finance their infrastructure projects.

In spite of the apparent role of the domestic bond market in bridging the national deficit financing gap, most emerging and frontier economies have recently become more integrated into the global capital market, evidenced by much reliance on external financial inflows. The increased participation of these nations on the international capital market vindicates the rising vote of confidence by investors in these economies anchored on sound macroeconomic fundamentals, financial stability and high prospects for economic growth. On the contrary, given the significant debt servicing burden that external financing imposes on these nations, their inability to significantly finance public debts with domestic bonds highlights the structural weakness and underdeveloped nature of their domestic bond markets.

Low interest rates on debt instruments in the developed economies primarily contribute to the rising international investors' interests in high yielding asset classes such as bonds and equities in emerging and frontier economies. Economic growth theories explain that poorer nations have the tendency to grow faster than richer countries (Solow, 1956; Swan, 1956). In this regard, emerging and frontier economies such as Ghana with rapid growth can potentially offer higher returns to international investors with associated risks. In spite of the perceived attractiveness of these economies to international investors, excessive participation of emerging and frontier economies on the international capital market makes them vulnerable to unanticipated external shocks capable of triggering massive capital flights. One of such shocks in this contemporary era is the novel Covid-19 pandemic.

The transmission mechanism and global severity of the Covid-19 pandemic has left glaring and devastating impacts on the health systems of both advanced and developing economies. Many countries are facing strong excess demand for health care: too many critical patients for too few intensive care unit (ICU) beds and ventilators. Expanding health care supply requires turning hotels, barracks and possibly schools into ICU and converting selected manufacturers into ventilators makers (Surico and Galeotti, 2020). Another ravaging effect of this novel virus is the adverse impact on both micro and aggregate economic activity. As at August 13, 2020, the recorded cases of Covid-19 in Ghana stood at 41,725 according to data from the Ghana Health Service, Covid-19 Updates. Though, the number of Covid-19 cases in emerging and frontier economies are far below the recorded cases in the developed economies, bond markets in emerging and frontier economies are one of the widest hits. The World Bank Group (2020) reported the Covid-19 crisis is likely to have an enduring effect on investor confidence.

Research has proven that during crisis and periods of economic uncertainties, more risk averse investors adopt conservative investment strategies; a situation that triggers a phenomenon called flight to safety or flight to quality (Caballero and Krishnamurthy, 2008; Vayanos, 2004). Flight to quality is a financial market phenomenon where investors exit or offload risky investments in return for safe investments with low price volatility, low downside risk, low default risk and high liquidity. This underscores the significant capital reversals from emerging and frontier economies like Ghana in the wake of this global health crisis. Whilst this adversely affects exchange rate stability in the affected countries, it also presents serious financing challenges on the international capital market as their abilities to raise funds are impeded. In a recent article published in 'Financial Times', Ghana's Finance Minister, Mr. Ken Ofori-Atta, succinctly echoed the financing plight and dilemma of African Finance Ministers amid the Covid-19 pandemic in his article titled 'what does an African finance minister do now?' Sub-Saharan Africa (SSA) currently accounts for majority of frontier markets bond issuance. The region's heightened affinity for foreign currency denominated bond is partly attributable to refinancing obligations of maturing foreign debt, long-term financing for infrastructure and the need to cover budget deficits. In 2019 alone, Ghana, Kenya and Benin collectively issued approximately US$5.7 billion through various Eurobond issuance on the international capital market (Cytonn Report, 2020).

The rationale of this study is to primarily examine the effect of the Covid-19 induced capital flight on the bond and foreign exchange markets in Ghana. We found significant portfolio reversals after the country recorded its first case of Covid-19 on March 12, 2020. We also found that, the excessive capital flight by foreign investors had adverse impact on exchange rate stability, forcing the Ghana Cedi to shed earlier gains recorded in the first half of the year against the US Dollar. Based on our findings, we recommend the operationalization of policies to strategically build a wider domestic investor base and to deepen the depth and breadth of the domestic bond market to cushion Ghanaian financial markets from unanticipated external shocks. The rest of the study is structured as follows. The next section presents a review of relevant literature on capital flight. This is followed by the analysis and discussions, conclusion and policy recommendation.

LITERATURE REVIEW

Financial theory explains the growth benefits of financial capital inflows to host economies. A plethora of empirical studies also exist to support this theoretical view. This implies that outflow or flight of same has far-reaching consequences on the domestic economy. In this session, we presented a review of extant literature on the potential causes of capital flight from an economy and the consequences thereof.

Ndikumana (2016) summarily discussed the earlier empirical findings on the causes and effects of capital flight from Africa. External borrowing and political instability were the driving forces of capital flight from Africa. She further opined that capital primarily flowed out of Africa through trade misinvoicing. Post 1990 scholarly works on capital flight predominantly focused on macroeconomic factors that drove capital out of the African continent aside widespread political instability. For instance, Hermes and Lensink (1992) estimated the magnitude and determinants of

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capital flight in six African countries and justified that this phenomenon was not exclusive to Latin America. They opined that increases in government guaranteed-foreign debts and overvaluation of real exchange rate are potent drivers of capital flight from Africa. Fedderke and Liu (2002) also investigated the sensitivity of four alternative measures of capital flows to their determinants in South Africa for the period 1960-1995. Their study proved that uncertainty and rates of return on financial assets determine capital inflows whilst risk measures predominantly trigger capital flight. Ndikumana and Boyce (2003) empirically investigated the determinants of capital flight from 30 SSA countries within the period 1974-1996. Their econometric analysis showed that capital flight is predominantly dictated by the size of public debt. Precisely, for every worth of Dollar borrowed externally, approximately 80 percent flowed back that same year. They found new evidence to corroborate this finding in 2011 using 33 SSA countries and data spanning from 1970-2004. However, this time around, for a worth of Dollar borrowed externally, roughly 60 cents flowed back that same year (Ndikumana and Boyce, 2011). A very recent study by Osei-Assibey *et al.* (2018) revealed that corruption instigates capital flight whilst durability of political regimes and enforcement of rule law motivate the reversal of same in SSA.

The country-specific studies presented findings to confirm the cross-country evidences. In Cameroon, Forgha (2008) used the two-stage least squares to quantitatively explain that fiscal deficits, political instability, interest rate differentials and external debt stock accounted for capital flight in the country between 1970 and 2005. In quite recent years, Henry (2013) analyzed the determinants and effects of capital flight on the Nigerian economic growth from 1980-2011 using the Ordinary Least Square (OLS) estimator. The quantitative analysis showed that political instability, fiscal deficits, interest rate differentials and external debts account for the large capital outflows from the Niger Delta region. In Ghana, Forson *et al.* (2017) used the Autoregressive Distributed Lag (ARDL) estimation technique to find that growth rate of real Gross Domestic Product (GDP), financial development, interest rate differentials, good governance and enforcement of private property rights reduce capital flight significantly. However, external debt to GDP ratio triggers capital flight.

The findings on the causes of capital flight in other jurisdictions are no different from Africa's. Henry (1996) investigated why despite the beautiful sceneries in the Caribbean, capital still flowed out of Barbados, Jamaica and Trinidad and Tobago within the 1971-1987. The simple OLS estimates revealed that capital flight was sensitive to external debts, social upheavals and real interest differentials. Meanwhile in India, Chipalkatti and Rishi (2001) used a system of simultaneous equations and data spanning from 1971-1997 to arrive at similar conclusions as Boyce (1992) for the Philippines that there is an existence of financial revolving door relationship between external debt and capital flight. Lensink *et al.* (2000) examined the relationship between capital flight and political risks in a number of developing countries. After controlling for both domestic and international macroeconomic factors, they proved that political risks trigger capital flight. Harrigan *et al.* (2002) studied the determinants of capital flight from Malaysia between 1970 and 1996 using a cointegration approach. The economic analysis revealed that capital flight has a long relationship with exchange rate movements, external debts, real GDP growth and foreign direct investments. Similarly, Alam and Quazi (2003) studied the determinants of domestic capital flight in Bangladesh using the Bounds testing and the ARDL approach. They found that political

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instability, higher corporate income taxes, interest rate differentials among others significantly contribute to capital flight in Bangladesh. Cerra *et al.* (2008) used a large panel of emerging and frontier economies to demonstrate that weak institutions and macroeconomic policies significantly affected capital flight between 1970 and 2001.

The advent of the last decade was marked by a strand of empirical studies which sought to examine the economic consequences of capital flight that the African continent has experienced. In this light, Saheed and Ayodeji (2012) quantitatively studied the impact of capital flight on exchange rate and economic growth in Nigeria using the OLS estimator. They found capital flight to be a positive determinant of exchange rate and economic growth in Nigeria between 1981 and 2007. They further explained that most of the flowed out capital return to boost growth in Nigeria through importation of required capital goods and technological know-how.

Most of the empirical studies of the last decade found capital flight to have adverse effect on growth. In Nigeria for instance, Olugbenga and Alamu (2013) found that capital flight had a negative influence on growth of the Nigerian economy in the short run within the period 1981-2010 using the Johansen cointegration technique. Likewise, Bredino *et al.* (2018) found that capital flight had adverse effect on economic growth in Nigeria from 1980 to 2012. These evidences corroborate the earlier findings of Forgha (2008) and Ajayi (2012). Ndiaye (2014) also estimated the effect of capital flight on growth in a panel of Francophone countries in Africa for the period 1970-2010 using the Blundell-Bond system GMM estimator. He found that capital flight undermines growth in these countries. In Indonesia, Wahyudi and Maski (2012) found a unidirectional causal relationship running from capital flight to economic growth between 2000 and 2009.

A consensus has been built in literature regarding the determinants and effects of capital flight. However, most of these studies on causes of capital flight are outdated. Thus, these findings may not hold at present especially when democratic governance is gradually minimizing the probability of political upheavals in many African countries. Again, the strand of literature on the effects of capital flight on economies mostly focused on its impact on economic growth. However, capital flight may indirectly affect economic growth through exchange rate, inflation and other macroeconomic variables. This study fills the dearth in literature by assessing the implications of Covid-19 induced capital flight on the bond and foreign exchange markets in Ghana. To the best of our knowledge, this study is novel in the sense that no prior study has examined the response of the domestic bond market and nominal exchange rate to unanticipated global shocks in Ghana.

ANALYSIS AND DISCUSSIONS

Overview of Portfolio Flows

The novel Covid-19 pandemic has induced unprecedented capital reversals from emerging markets and frontier economies driven by the sale of domestic sovereign bonds by foreign investors. The dramatic capital outflow from these economies is due to the bleak global economic conditions and uncertainties as well as waning investor confidence. The Organisation for Economic Cooperation for Development (OECD) (2020) reported that, the magnitude and velocity of the financial outflows from emerging markets is about four times higher than what was witnessed in the 2007-

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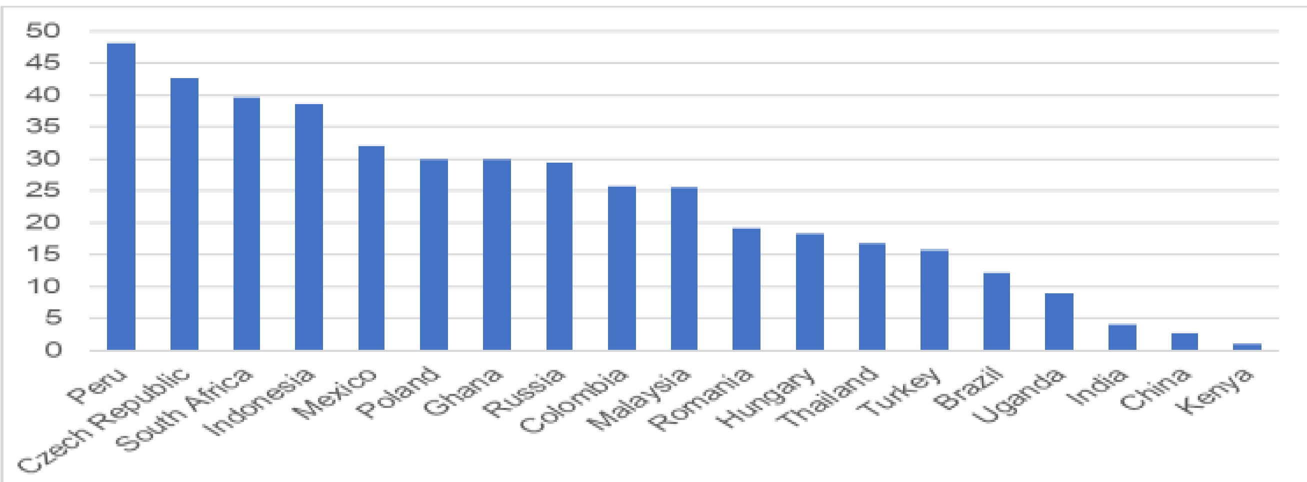
2008 global financial crisis. The preference for safe and liquid asset with low price volatilities engenders portfolio reversals from high risk emerging markets as risk averse investors fly to safety. In March 2020 alone, the Institute of International Finance (IIF) Capital Flows Tracker (2020) observed that a sum of US$83.3 billion worth of portfolio outflows from emerging markets. The IIF's report highlights Ghana as one of the SSA countries with high volumes of Covid-19 induced portfolio reversals. The significant portfolio outflow from Ghana's bond market highlights the increased exposure of Ghana's domestic bond market to external shocks. Figure 1 presents some selected emerging and frontier markets that have witnessed significant Covid-19 induced capital flight from their domestic bond markets

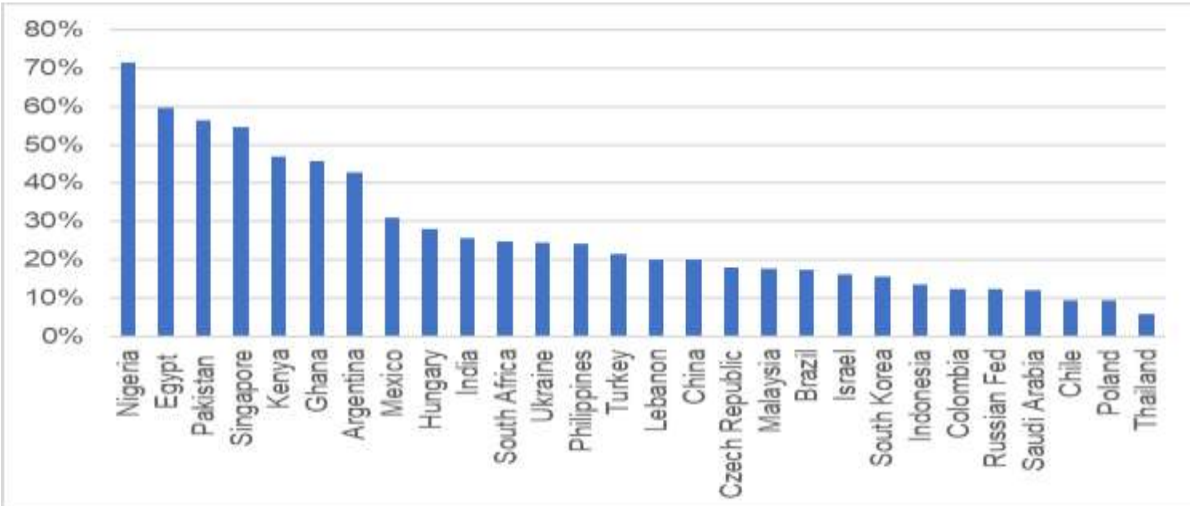
Figure 1: Covid-19 Induced Capital Flight from Emerging and Frontier Markets



Source: Institute of International Finance (IIF)

IIF also reports that Ghana is one of the emerging economies with high debt refinancing obligations for the year 2020. Ghana has approximated 48% maturing debt refinancing obligations. This is likely to hinder the ease of accessibility to the international capital market by Ghana. Also, the mid-year budget review presented recently by Ghana's Finance Minister indicated that the overall fiscal deficit stands at 6.3% of GDP and is projected to hit 11.4% by the end of the year. This raises many questions as to how the nation will meet its debt refinancing needs and bridge the budget deficit gap. Obviously, in difficult times when external financing is not feasible, domestic bond markets turn out as the surest bet for most economies during these challenging times. Thus, it is imperative to draw the attention of all relevant stakeholders towards the development of Ghana's local bond market to leverage the numerous benefits it presents. Figure 2 highlights selected emerging markets with huge refinancing obligations in 2020.

Figure 2: Selected Emerging Markets with Huge Refinancing Obligations in 2020



Source: Institute of International Finance (IIF)

The financial and capital account component of the balance of payment provides a useful indicator of the financial inflows and outflows. Trend analysis of the financial and capital account shows a topsy-turvy trend. Nonetheless, the 2019 financial year saw significant improvement underpinned by strong external financial inflows due to rising investor confidence in the country. The rise in the financial and capital account balance was projected to continue through the 2020 financial year until everything was marred by the unforeseen outbreak of the Corona virus pandemic. In response to the Covid-19 induced volatile financing condition on the international capital market as well as capital flight from Ghana's domestic bond market, the financial and capital account which recorded a surplus of US$2,706.66 million in the first quarter of 2019 decreased to US$1,375.67 million in the first quarter of 2020, representing a reduction of US$1,330.99 million. In the recent mid-year budget review, Ghana's finance minister attributed the steep decline in the financial and capital account balance to lower inflows of net foreign capital coupled with higher portfolio outflows. The dramatic capital reversals from Ghana evidenced by deteriorating financial and capital account balance is an ample justification of why Ghana ranks high among the emerging and frontier economies that experienced significant Covid-19 induced capital flight per the data and statistics of IIF. A recent report by the World Bank Group (2020) indicated that, due to the ongoing Covid-19 crisis, accessing the international debt market remains costly or impossible for many emerging markets and developing economies which confirms the decline in the financial and capital account balance for the First Quarter of 2020. The domestic bond market is therefore the surest bet for most economies during these challenging times. Thus, the global health crisis has further highlighted the inevitable necessity of developing Ghana's domestic bond market to support the nation's debt management strategy and development agenda.

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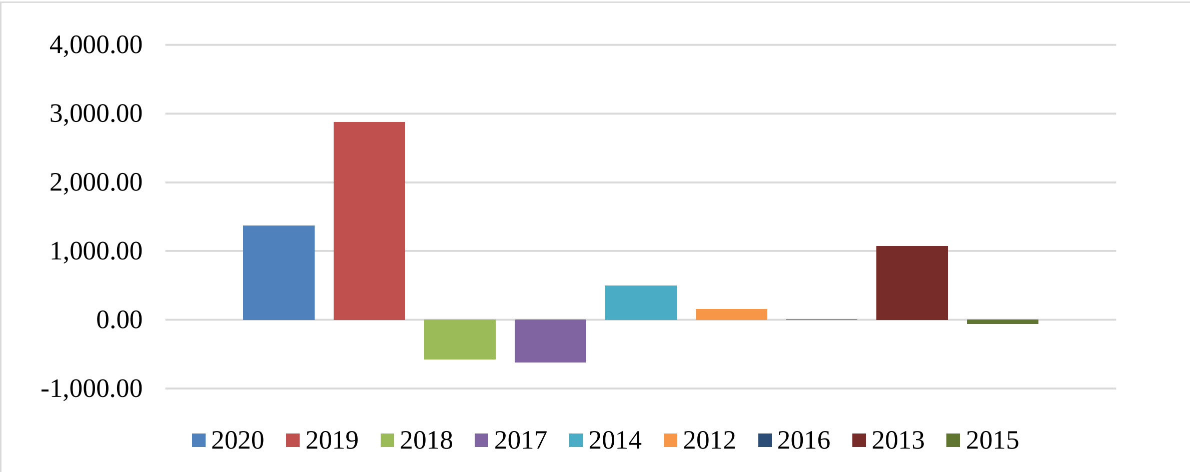
Figure 3: Quarter 1 Trend in Financial and Capital Account in US$ Million

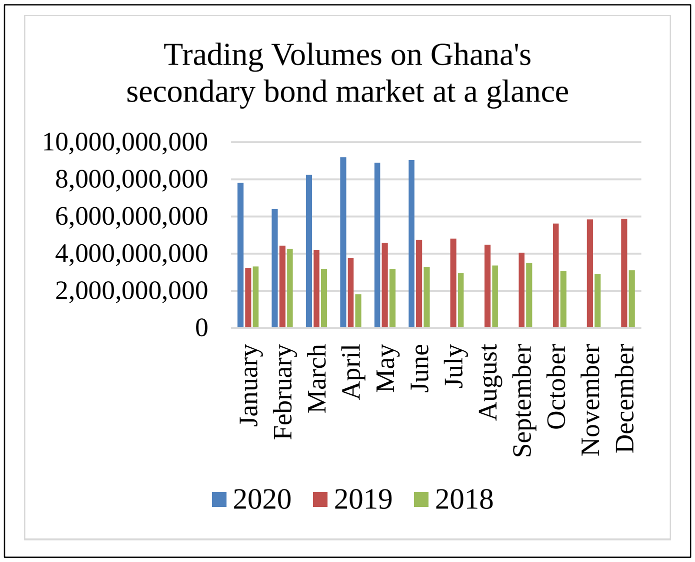


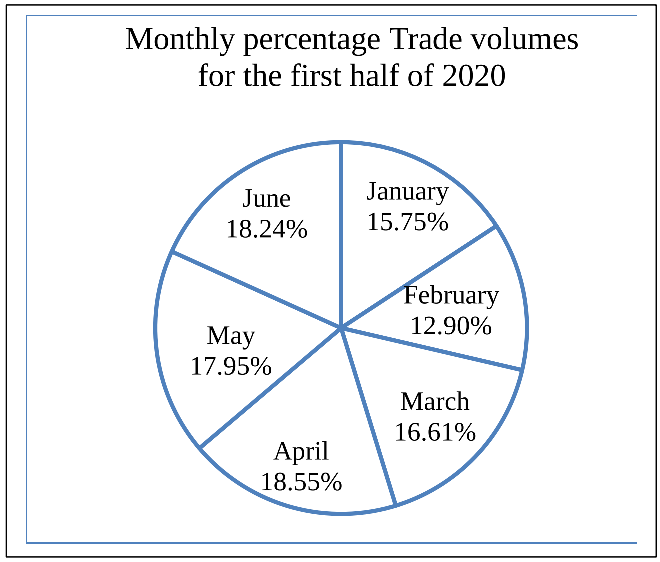
Source: Authors' own illustration based on data from Bank of Ghana

Ghana's Domestic Bond Market Reaction to Covid-19 pandemic

As earlier established, Ghana's bond market is one of the bond markets in SSA adversely affected by significant portfolio reversals by foreign investors. Data and statistics from the Ghana Fixed Income Market (GFIM), a subsidiary of the Ghana Stock Exchange (GSE), responsible for the secondary trading of all existing debt securities in Ghana corroborate IIF's report that Ghana's bond market is among emerging and frontier economies to be greatly affected by Covid-19 induced portfolio outflow. As several countries recorded cases of Covid-19 with no recorded case in Ghana, trading activities on the secondary bond market were normal. However, bond traders in Ghana opined that as the country recorded its first case of Covid-19 on March 12, 2020, there was unusual volatility in trading activities on the bond market due to increased selling pressures from offshore investors in an attempt to safeguard their investments. Thus, trade volumes increased drastically in March 2020, peaking in the month of April 2020. These two months being the incipient stages of Covid-19 accounted for 35.17% of the total trade volumes as at the end of the second half of the year. External selling pressures continued to gain momentum as foreign investors keenly monitored the Covid-19 trends in Ghana and efficacy of Ghana's response actions and measures. The months of May and June likewise also saw huge trading volumes, collectively accounting for 36.20% of total bond trade volumes by half year. Figure 4 shows Ghana's bond market's reaction to the Covid-19 pandemic.

Figure 4: Trends in Secondary Bond Market Trading Activities





Source: Authors' own illustration based on data from Ghana Fixed Income Market (GFIM) status report.

Impact of Covid-19 Induced Capital Flight on the Foreign Exchange Market

The Covid-19 induced volatilities on Ghana's domestic bond market had a ripple effect on the exchange rate as significant amount of financial portfolio flowed out of the country following the onset of the deadly virus in Ghana. The US Dollar is the dominant international currency for international trade transactions in Ghana. Moreover, non-residents or foreign investors who invest in Ghana's local currency bonds are required to settle executed bond trades with US Dollar irrespective of the originating country of the foreign investor. In effect external financial inflows for bond transactions on the domestic bond market are denominated in US Dollar. Thus, it is important to assess the effects of the Covid-19 induced portfolio reversal on the USD/GHS exchange rate. The pre-Covid-19 era for the major part of the first quarter of 2020 saw the domestic currency (Ghana Cedi) posting impressive gains against the US Dollar. The exchange rate was GHS5.5342 to a Dollar at the beginning of the year. Prior to the first recorded case of Covid-19 on March 12, 2020 in Ghana, the Cedi had appreciated by 4.56% against the US Dollar by March 11, 2020. This compares favorably to a year-to-date depreciation of 8.56% and 0.04% for the same period in 2019 and 2018 respectively. It appeared that the Cedi was making significant stride against the US Dollar in the first quarter of 2020, a development which is uncharacteristic of first quarter USD/GHS trends. This period is usually characterized by depreciation of the Cedi against the greenback as importers demand a lot of Dollars to repay goods acquired on credit for the Christmas season whilst multinational companies build up Dollar reserves for repatriation of dividends paid on previous year's financial performance. The Cedi unconventionally appreciated against the US Dollar in spite of these first quarter exchange rate pressures. However, upon recording first case of Covid-19 on March 12, 2020, the Cedi's fortune dampened. The outbreak of the virus in Ghana increased the country's risk profile, forcing foreign investors to offload their domestic bond holdings. As stated earlier, foreign investors invest in local bonds in Ghana by

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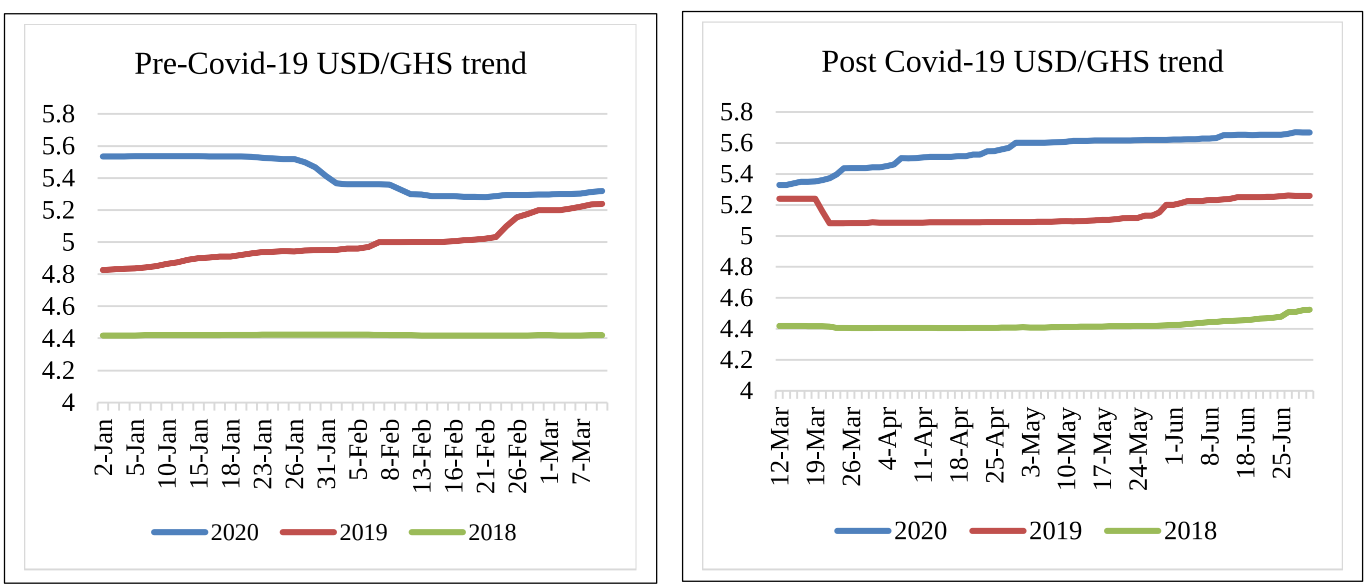
settling with equivalent US Dollar amount. In effect when they are exiting the local bond market, they are paid in US Dollar equivalent. Thus, the increased selling pressure which sparked volatilities on the local bond market after the outbreak of Covid-19 in Ghana directly affected the exchange rate. The excessive capital reversal witnessed from March 12 to mid of April 2020 eroded earlier gains recorded by the Cedi against the US Dollar. Between March 12 and March 31, 2020, the Covid-19 induced portfolio reversals from Ghana caused the Cedi to depreciate by 2.15%. This resulted into 1.66% year-to-date appreciation of the Cedi against the Dollar as at March 31, 2020. As Covid-19 case counts continued to increase through the month of April, the Cedi shed the impressive 4.56% gains made against the greenback in the pre-Covid-19 era to register year-to-date depreciation of 1.21% by April 30, 2020. Whilst acknowledging that other factors such as international trade activities, external borrowings affect the exchange rate, it is worthy of mention that during this period, most international borders were closed with significant decline in trade volumes. Thus, it is plausible to affirm that the major factor that adversely accounted for the depreciation of the Cedi within this period is the Covid-19 induced capital flight from Ghana; a development which was attested to by the Finance Minister in the mid-year budget review. By the end of the first half of the year, the Cedi had cumulatively depreciated by 2.41% on year-to-date basis against the US Dollar. Figure 5 presents a clearer view of the forgoing discussions.

Figure 5: Trends in USD/GHS Currency Pair



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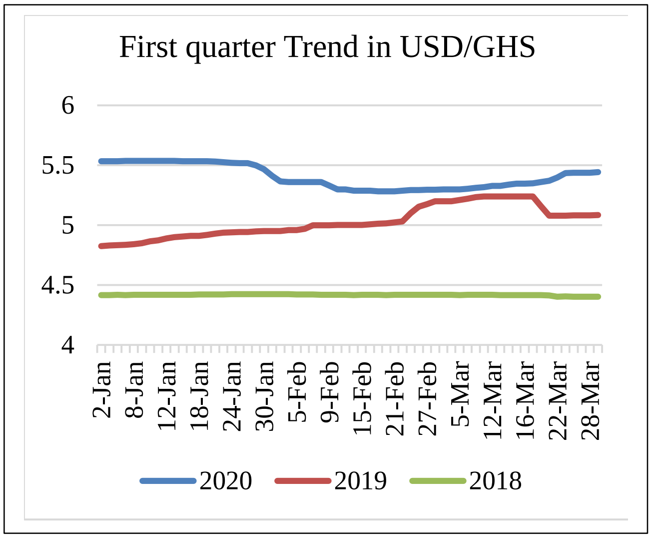

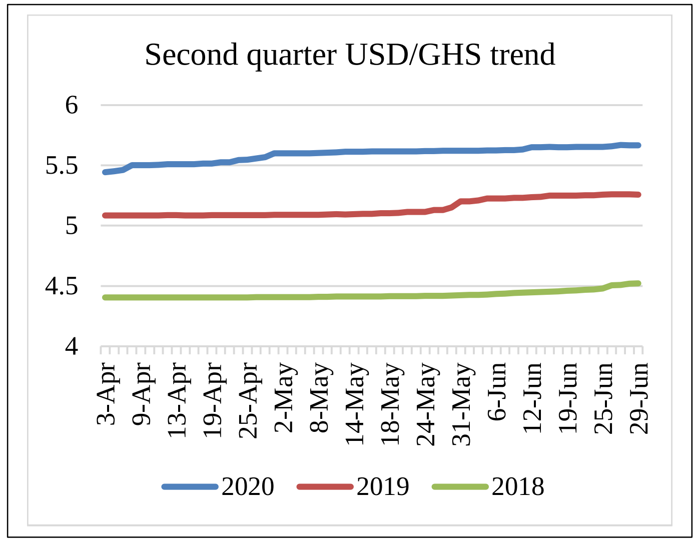

Source: Authors' own illustration based on data from Bank of Ghana

CONCLUSION AND POLICY RECOMMENDATION

This paper provides evidence on the adverse effects of Covid-19 induced capital flight on the bond and foreign exchange markets in Ghana. We found significant portfolio reversals after the country recorded its first case of Covid-19 on March 12, 2020. We also found that, the excessive capital flight by foreign investors had adverse impact on exchange rate stability, forcing the Ghana Cedi to shed earlier gains recorded in the first half of the year against the major trading currency, the US Dollar. The descriptive and trend analysis showed that over-reliance on foreign portfolio inflows renders the bond and foreign exchange markets vulnerable to unanticipated external shocks. The prime contribution of this study is that it provides insight into the impact of the Covid-19 pandemic on the bond and foreign exchange markets in Ghana. Secondly, as the first study to access the impact of external or global shocks on the domestic bond and foreign exchange market in Ghana, we contribute to the dearth of literature on this theme. Thus, the study provides a baseline for future research in this field in the Ghanaian context. Based on the findings, we recommend the operationalization of policies to strategically develop the domestic bond market and build a wider domestic investor base to cushion the Ghanaian financial markets from unanticipated external shocks.

Future Research

This paper has provided a descriptive evidence of the reaction of the domestic bond and foreign exchange markets to external shocks. With the availability of data in the future, a more empirical research should be conducted given the paucity of literature on this theme from the Ghanaian context. Given that the bond market in Ghana is still in the nascent stage with low domestic investor participation, future research should focus on accessing how to widen the domestic investor base to increase the country's ability to raise enough domestic funds to mitigate the excessive borrowing cost and repercussion associated with excessive participation on the international capital market.

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