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CAPITAL FLOWS TO LOW-INCOME SUB-SAHARAN AFRICA: AN EXPLORATORY REVIEW

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THE DYNAMICS OF PUBLIC DEBT IN MALAWI: A REVIEW

Nombulelo Braiton¹ & Nicholas M. Odhiambo

Abstract

Purpose – The purpose of the paper is to examine macroeconomic and institutional factors that influence capital flows to low-income sub-Saharan African (SSAn) countries. It analyzes capital flows in a disaggregated manner: foreign direct investment, portfolio equity and portfolio debt. There is a gap in the empirical literature in examining the factors that are important for various types of capital flows to low-income SSAn countries. Low-income SSAn countries attract very low levels of foreign investment compared to other developing economies in the SSAn region and other developing economies and this paper attempts to make a contribution in this area.

Design/methodology/approach – This paper examines data on capital flows and that of various push and pull factors. Trends and dynamics of capital inflows and their macroeconomic and institutional drivers are analyzed for low-income sub-Saharan African countries. Such an analysis has not been fully explored for low-income SSAn countries.

Findings – Capital inflows to low-income sub-Saharan Africa (SSA) have increased sevenfold since the 1990s, dominated by foreign direct investment (FDI). They overtook official development assistance and aid in the 2010s. Mozambique and Ethiopia attract the largest size of FDI compared to other low-income SSAn economies, with natural resources as key factors in the former. The largest share of FDI to low-income SSAn countries comes from other SSAn countries, mostly South Africa and Mauritius. Among macroeconomic push factors, capital inflows are more closely related to commodity prices, while the volatility index and global liquidity are also important. Among macroeconomic pull factors, trade openness and economic growth appear more closely related to capital inflows. The surge in capital inflows in the 2000s also followed the implementation of several regional trade and investment agreements in the region. The improvement in internal conflict in the 1990s and mid-2000s seems to have helped support the increase in capital inflows during that period. This institutional quality variable appears to more closely track capital inflows compared to other institutional quality indicators.

There were also improvements in the investment profile, law and order, and government stability in the 1990s to early 2000s when capital inflows picked up.

Research limitations/implications – This study focuses on low-income SSAn countries, which are less studied in the empirical literature and that face immense developmental needs that require foreign and domestic capital.

Practical implications – Findings of this paper can shed light to policy makers on the factors that are most important to help the region attract capital inflows and areas where further improvement is needed in the macroeconomic and institutional environment.

Originality/value – There is a gap in the empirical literature in examining the factors that are important for attracting capital flows to low-income SSAn countries. To our knowledge, this study may be the first to explore dynamics of capital flows against institutional quality for low-income SSAn countries at a disaggregated level.

Keywords: Capital inflows, Foreign direct investment, Portfolio equity, Portfolio debt, Low-income sub-Saharan Africa

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1. Introduction

Low-income sub-Saharan African (SSAn) countries face various challenges that are macroeconomic, socio-economic and institutional in nature that limit their ability to attract capital inflows. Low-income SSAn countries in this paper are those classified by the World Bank as such, with a gross national income (GNI) per capita of \$1,085 or less while middle-income SSAn countries are those with a GNI per capita from \$1,086 to 13,205. Low-income SSAn countries attract very low levels of foreign investment compared to other developing economies in the SSAn region and other developing economies around the world. Attracting foreign investment is important for economic development and achieving the Sustainable Development Goals (SDGs) for these economies (UNCTAD, 2020). Official development assistance (ODA) and aid have been important sources of external financing; however, they have been declining over time and there's a great need for more private capital inflows to help support economic development. Private capital flows to low-income sub-Saharan Africa (SSA) have been rising over the last two decades and they, for the first time, surpassed ODA in 2011 but more is needed to help meet the developmental needs of these economies. Remittances are also an important source of inflow that helps finance economic development in low-income countries and they tend to be more stable than capital inflows but have different determinants from private capital flows (Kuckulenz and Buch, 2004). However, many low-income SSAn countries are fragile and conflict-affected (World Bank, 2022a, b), which negatively affects their ability to attain macroeconomic stability and better institutional quality and limits their ability to attract capital inflows. Addressing fragility and conflict will be important for foreign investment potential.

Over the last three decades, the empirical literature has increasingly incorporated institutional quality in the analysis of the determinant of capital inflows. The analysis of the role of institutional quality on capital flows gained momentum after the Lucas' (1990) critique that capital flows from rich to poor countries are much lower than those predicted by the neoclassical model, indicating that there are other factors that drive capital flows besides macroeconomic factors. In examining various explanations for the "Lucas paradox", Alfaro et al. (2008) found that low institutional quality was a leading explanation for why there is a lack of capital flows from rich to poor countries. The analysis of which institutional quality indicators, in addition to macroeconomic factors, matter most for capital flows to low-income SSAn countries is lacking.

This paper analyzes capital inflows to low-income SSAn countries. The paper explores the dynamics of capital flows, in a disaggregated manner, and the role of institutional factors. The selection of low-income SSAn countries is based on the World Bank's income classification. Macroeconomic push and pull factors and institutional pull factors, as informed by the empirical literature, are analyzed for low-income SSAn countries. The analysis mostly covers the post-1990 period when more data on capital flows for low-income SSAn countries and that of the institutional factors have become available.

2. Research methodology

This paper examines data on capital flows and that of various push and pull factors. Trends and dynamics of capital inflows and their macroeconomic and institutional drivers are analyzed for low-income SSAn countries. The paper focuses on gross capital inflows. There has been a shift in the focus of the empirical literature from net flows to gross flows following the experience

with the global financial crisis (GFC). Prior to the GFC, empirical literature on the determinants of capital flows focused on net capital flows including Calvo (1998), Calvo et al. (1993, 1996, 2006, 2008), Fernandez-Arias and Montiel (1996) and Milesi-Ferretti and Razin (2000). This focus was appropriate at the time given that net capital flows, which equal the excess of national consumption and investment over disposable income, were seen to have strong business cycle consequences in case of large changes (Davis et al., 2019). The focus on net capital flows traditionally stems from the view that capital flows are the financial counterpart to savings and investment and flow from capital-rich countries to capital-poor countries; whereas the period following the GFC was marked by a surge in gross capital flows that did not show up in net capital flows (Committee on International Economic Policy and Reform (CIEPR), 2012). Following the GFC, the empirical literature on capital flows shifted toward understanding drivers of gross capital flows as opposed to net capital flows given that the post-GFC period saw a rapid increase in gross capital flows that did not always show up in net capital flows (CIEPR, 2012). Studies undertaken on SSAn countries have focused on net capital flows.

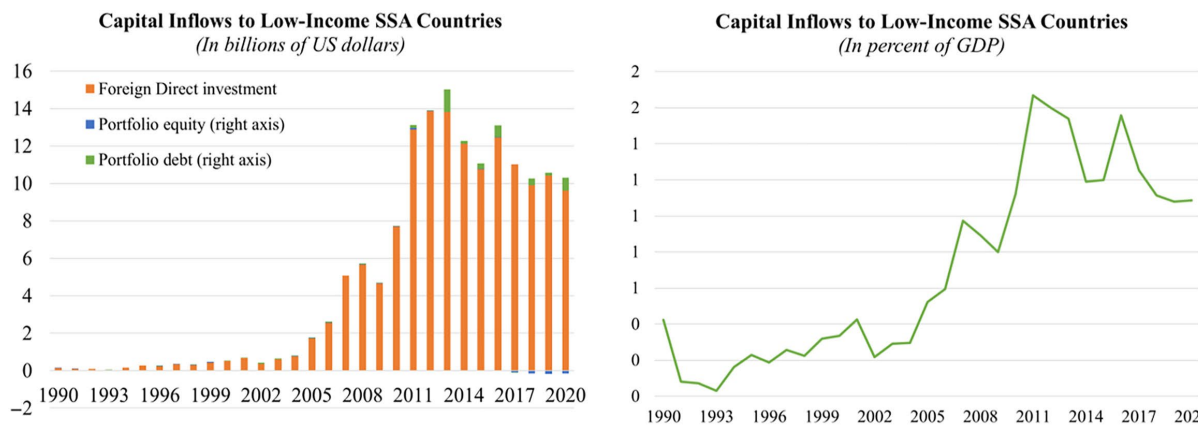
This paper concentrates on gross capital flows in line with the recent empirical literature. The measure of capital inflows in this paper comprises foreign direct investment (FDI), portfolio equity and portfolio debt. The role of institutional quality on capital flows has mostly been studied on FDI and rarely on other types of capital inflows. The paper uses descriptive data analysis to answer the question: what determines capital inflows to low-income SSA countries?

3. The nature of capital flows to low-income SSA

For many low-income SSAn countries, capital inflows picked up after the mid-2000s, dominated by FDI (Figure 1). FDI picked up especially for Mozambique and Ethiopia. FDI is by far the largest type of capital inflow for low-income SSA. Portfolio inflows are far smaller for low-income SSAn countries compared to middle-income SSAn countries. Mali has had notable portfolio debt among low-income SSAn countries, averaging over \$200m (1.4% of gross domestic product (GDP)) between 2016 and 2020, while Togo has had larger negative portfolio equity inflows averaging over _ \$100m (1.8% of GDP) between 2016 and 2020.

Between 2011 and 2016, Mozambique was the highest recipient of FDI inflows among low-income SSAn countries, which surged following the discovery of natural gas offshore in the Rovuma Basin. However, political uncertainty and falling commodity prices led to a peak in FDI in 2013 and a decline between 2013 and 2018. FDI has risen again after 2018 and even during the Covid-19 pandemic in 2020 following the signing of an \$8bn deal in June 2017 with an Italian energy company Eni that is expected to produce \$1.5bn gas a year from 2022 (Williams, 2021). Prior to this, FDI in Mozambique had picked up following the peace agreement in 1992 and a breakthrough in the mid-1990s following the establishment of a large-scale aluminum smelter Mozal, where a consortium of foreign investors invested (UNCTAD, 2012). Foreign investment, however, remained limited until the discovery of the offshore natural gas, from which Mozambique is projected to become a major exporter of gas by 2023 (Privacy Shield Framework, 2022).

Figure 1. Capital inflows to low-income SSAn countries



Source(s): IMF Balance of Payments Statistics, International Financial Statistics, and author’s calculations

FDI to Ethiopia was very low for a long time and started to rise around 2013 and became the largest inflow for Ethiopia among low-income SSAn countries in 2016, surpassing Mozambique. FDI to Ethiopia was nonexistent until after the signing of the peace agreement between Ethiopia and Eritrea in December 2000 (UNCTAD, 2002). These inflows were investments directed at infrastructure and manufacturing. In 2016, Ethiopia was among the largest recipients of FDI in SSA with \$4bn FDI inflows.

Prior to the 2010s, low-income SSAn countries relied on ODA from foreign countries and multinational organizations to support their economies. This changed after 2010, when capital inflows surpassed ODA and aid in percent of GDP while ODA and aid have been declining over time (Figure 2).

South–South flows are the largest for low-income SSAn countries (Figure 3). FDI to low-income SSAn countries comes largely from sub-Saharan Africa and Europe. The South– South flows are largely absorbed by Mozambique (80%). For Mozambique, this FDI is 40% of its total FDI and comes mostly from South Africa and Mauritius. Rwanda also receives a significant portion (over 60%) of its FDI from SSA, mainly from Mauritius. Mozambique also absorbs most of the FDI from Europe (75%), largely from Portugal, the Netherlands and the United Kingdom. Ethiopia, one of the largest recipients of FDI in the region, received its largest volume of FDI from China, followed by Saudi Arabia and Turkey (United States Department of State, 2020).

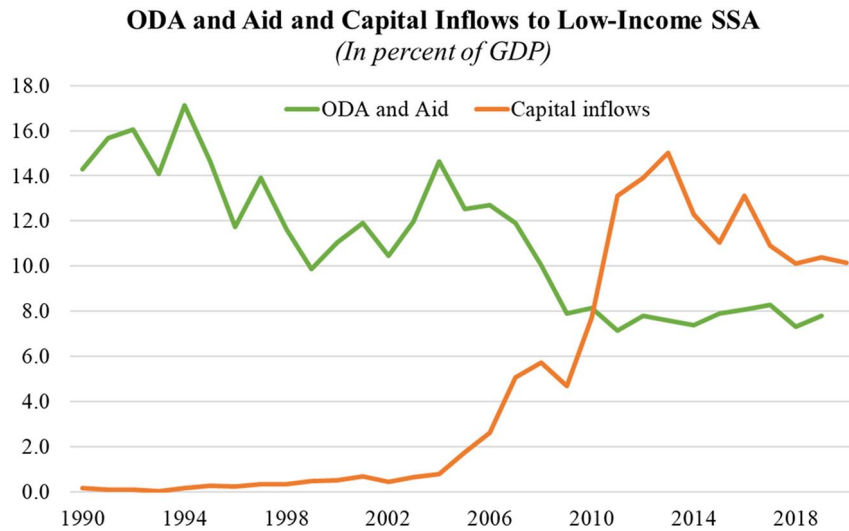
4. Factors influencing capital flows to middle-income SSA

The empirical literature identifies push and pull factors that impact capital flows. Push factors are global factors that drive capital flows from other economies to recipient countries whereas pull factors are those that attract capital flows to recipient countries. Pull factors are both macroeconomic and institutional in nature. This section discusses macroeconomic push and pull factors of capital inflows to low-income SSAn countries.

4.1 Macroeconomic factors

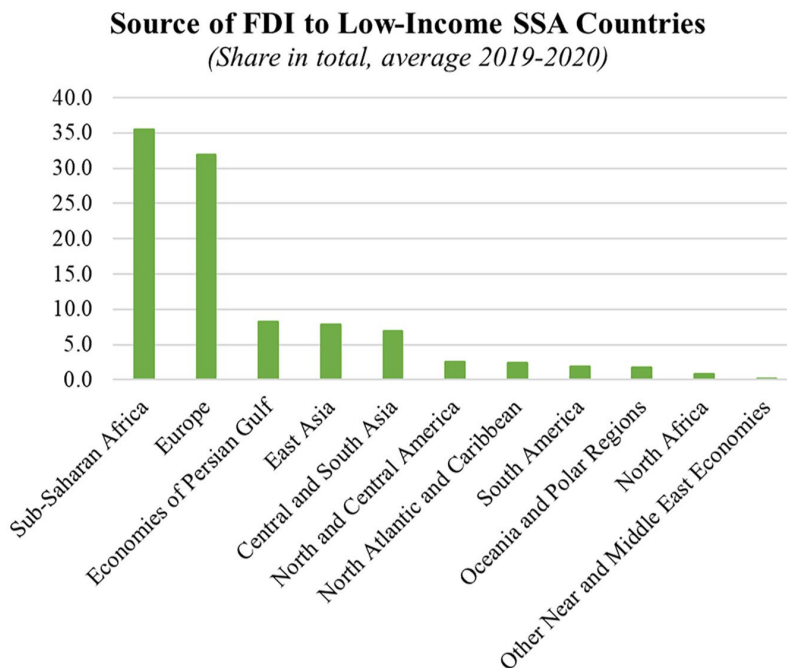
4.1.1 *Push factors.* Several macroeconomic push factors are identified in the empirical literature. The discussion below concentrates on commodity prices, risk/uncertainty, global

Figure 2. ODA and capital inflows to low-income SSA countries



Source(s): IMF Coordinated Portfolio Survey, and author's calculations

Figure 3. Source of direct investment to low-income SSA countries



Source(s): IMF Coordinated Direct Investment Survey, and author's calculations

liquidity and monetary policy in advanced economies, which feature predominantly in the literature and are likely most relevant for low-income SSA countries.

4.1.1.1 Commodity prices. Given that many developing economies are commodity exporters, commodity prices have been found to play a role in influencing foreign investment in these countries. For example, Clark et al. (2016) found a significant and positive relationship between changes in commodity prices and net capital inflows in emerging market economies. Figure 4 illustrates a strong relationship between commodity prices and capital inflows to low-income SSAn countries. The relationship is positive as higher commodity prices have been associated with higher capital inflows and declining commodity prices have been associated with declining capital inflows with FDI having a closer relationship with commodity prices compared to portfolio inflows.

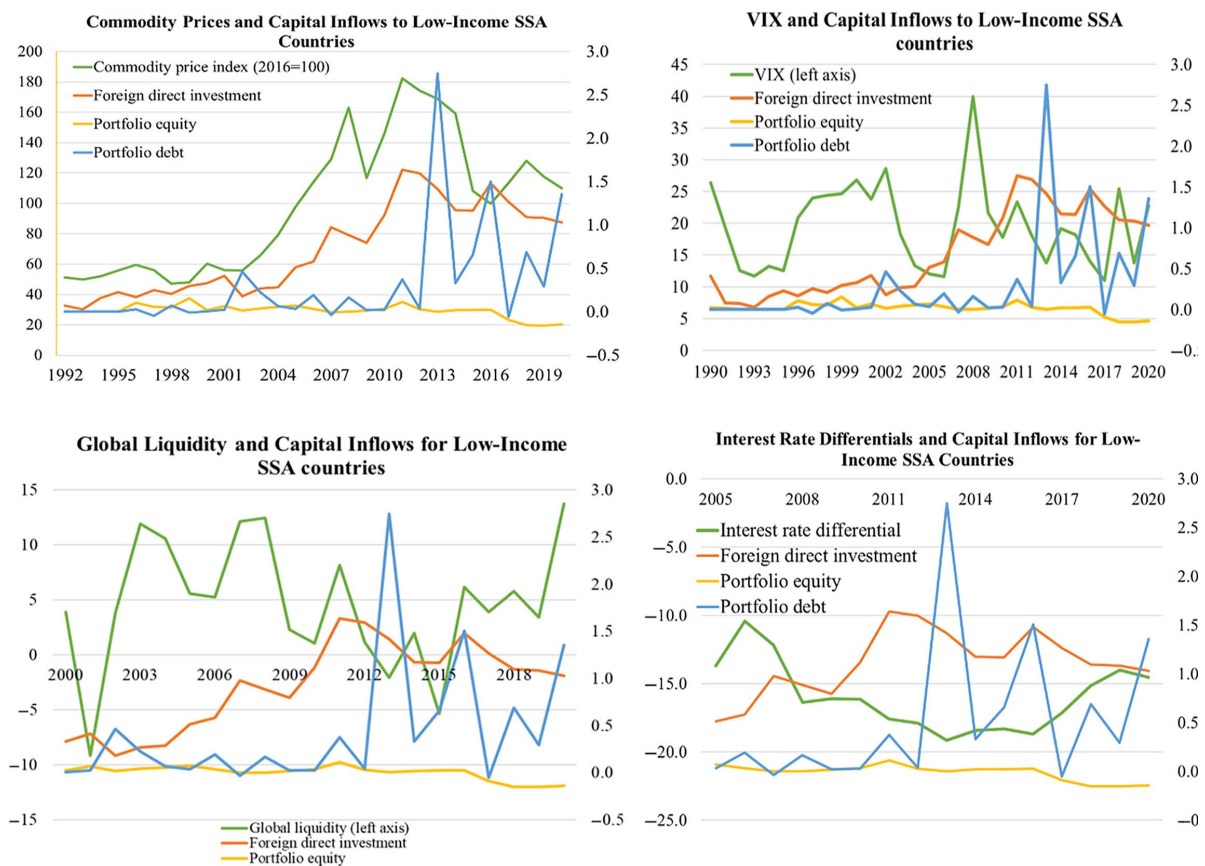
4.1.1.2 VIX. The volatility index (VIX) is a proxy for the combination of perceived risk and risk aversion. The VIX by the Chicago Board Options Exchange is a real-time market index representing the market's expectations for volatility over the coming 30 days and is based on S&P 500 index options. It has been found to be an important determinant of capital flows and the relationship can depend on the type of capital flow analyzed. For example, Ahmed and Zlate (2014) found a significant and negative relationship between the VIX and portfolio equity and portfolio debt inflows. Byrne and Fiess (2016) found the relationship between the VIX and portfolio equity to be significant and negative while that portfolio debt to not be significant. Figure 4 illustrates the relationship between the VIX and capital inflows to SSAn countries. A higher VIX indicates higher perceived risk in the options market and a lower level of the VIX indicates a higher level of confidence. Capital inflows to low-income SSAn countries were increasing around the same time as the VIX rose, showing that foreign investment was flowing into these economies as risk and uncertainty increased in the options markets in advanced economies.

4.1.1.3 Global liquidity. Global liquidity can be an important determinant of capital inflows to developing economies. In a study of SSAn countries, Opperman and Adjasi (2017) found global liquidity to be a significant determinant of the volatility of capital inflows as it lowers FDI volatility while increasing portfolio equity volatility. Like Forbes and Warnock (2012), global liquidity is measured as the year-on-year growth in the global money supply, with global money supply being the sum of broad money in the United States, Euro-zone, Japan and the United Kingdom. From the early 1990s until the 2007/08 GFC, capital inflows to low-income SSA increased while global liquidity increased. Global liquidity appears to have fallen sharply during the GFC while capital inflows to low-income SSA fell moderately. This is likely because FDI tends to be a resilient type of capital flow given its generally long-term nature. Portfolio debt appears to have tracked global liquidity closer compared to other capital inflows over the last decade.

4.1.1.4 Interest rate differentials. The stance of monetary policy in advanced economies versus that in the domestic recipient economy is generally captured through interest rate differentials. The idea is that capital will flow from countries with low interest rates to those with significantly higher interest rates. Interest rate differentials have been found to be an important determinant of capital inflows. For example, Ahmed and Zlate (2014) found the interest rate differential to be significant and have a positive relationship with net and gross capital inflows. They also found the interest rate differential to have a significant and positive relationship with net and gross total portfolio inflows (sum of portfolio equity and debt). The interest differential

used here is the Fed Funds rate minus domestic interest rate. A negative number indicates that the domestic interest rates exceed the Federal Funds rate and the more negative domestic rates become, the higher capital inflows are expected to be. Figure 4 illustrates that the interest rate differential between the Fed Funds rate and domestic interest rates was negative and declined and became increasingly negative from 2006 to 2013, indicating accommodative US monetary policy at the time with the Fed Funds rate declining and remaining low, including during the GFC in 2007/08. During that time, capital inflows to low-income SSA countries rose and then declined somewhat when the Fed Funds rate began to rise after 2015. Portfolio debt flows to low-income SSA appear to have risen the most when interest rate differentials became more negative while FDI also increased.

Figure 4. Capital flows and push factors^{1/}



Source(s): IMF commodity prices database, IMF Balance of Payments, and author's calculations

Note(s): ^{1/} FDI and portfolio flows are in percent of GDP

4.1.2 Pull factors.

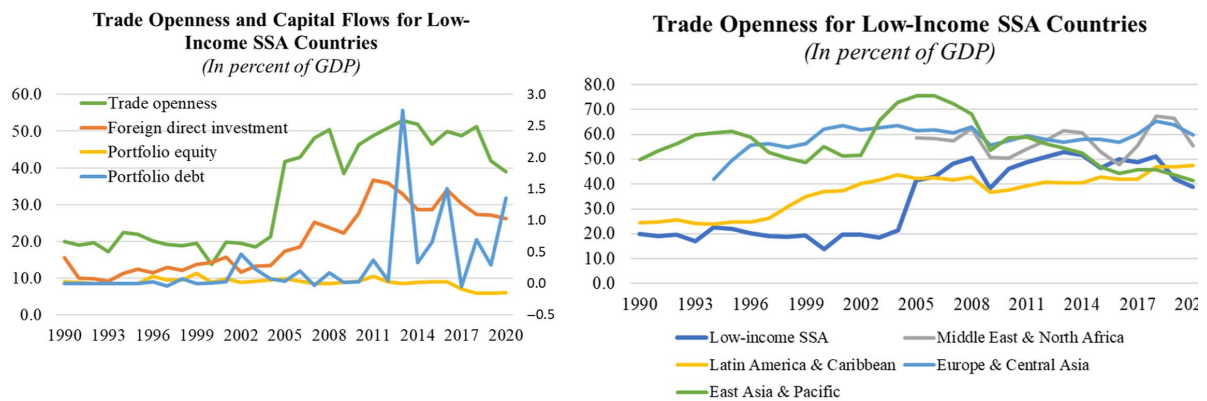
4.1.2.1 Trade and capital account openness. Studies have found trade openness to be a significant and positive determinant of capital inflows overall (Alfaro et al., 2008). Trade openness here is measured as exports and imports in percent of GDP. Figure 5 shows that capital inflows to low-income SSA countries, particularly FDI, have moved closely with trade openness. Low-income SSA economies were the least open compared to economies in other

regions prior to 2005, after which there was an increase in openness, surpassing that of the Latin American and Caribbean region and the East Asia and Pacific region briefly in mid-2010s, but declined thereafter to being the least open.

The significant growth in cross-border capital flows over the last three decades has been partly ascribed to capital account liberalization in emerging and developing economies. The Chinn and Ito (2006) index is generally used as a measure of capital account openness. It is a binary dummy variable that codifies the tabulation of restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions and has higher values, the more open the country is to cross-border capital transactions. Figure 6 illustrates capital account openness using the Chinn and Ito (2006) index and capital inflows for low-income SSA countries in percent of GDP. It shows some increase in capital account openness since the 1990s and capital flows rose during the period of more capital account openness. While middle-income SSA countries tend to be more open, the difference in capital account openness is small. Liberia, Rwanda and Madagascar have much higher capital account openness compared to other low-income SSA countries. Further, their Chinn and Ito (2006) score is comparable to that of middle-income SSA countries such as Botswana and Mauritius. They however do not attract as much capital inflows as these middle-income economies, indicating that other factors are more at play in driving foreign investment.

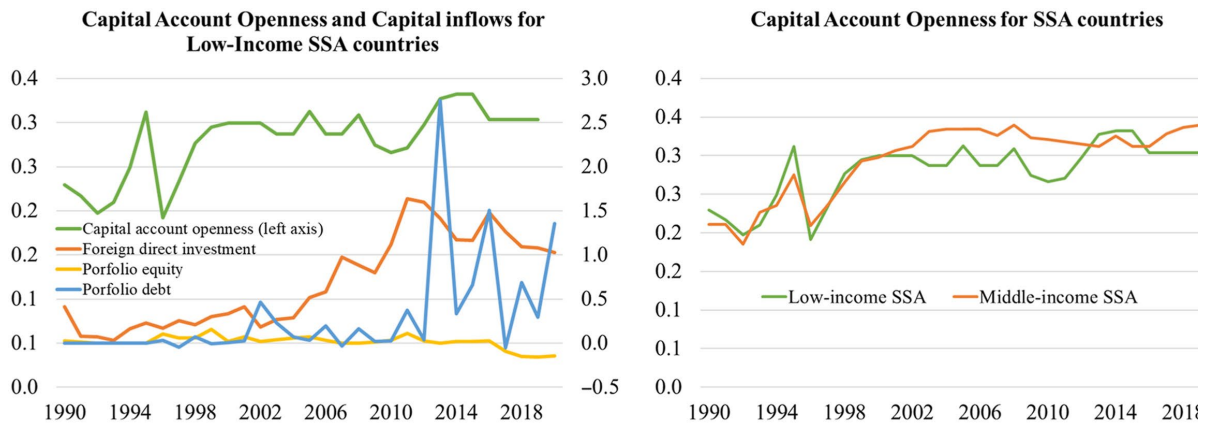
Low-income SSA countries are part of a number of regional trade and investment agreements that have become more active over the last three decades (Table 1). They are part of Southern African Development Community (SADC), Economic Community of West African States (ECOWAS), the East African Community, Common Market for Eastern and Southern Africa (COMESA) and West African Economic and Monetary Union (WAEMU). Some of these regional trade and investment blocks have signed trade and investment partnership agreements with other countries and/or regions. For example, ECOWAS has a trade and investment agreement with the US and the EU, which were both signed in 2014. Some low-income SSA countries are also part of the African Continental Free Trade Agreement that was adopted in 2018, which aims at several objectives including aiding the movement of capital, facilitating investment and moving toward the establishment of a customs union in the future. Some countries are also part of the African Growth and Opportunity Act, which provides duty-free treatment to goods of designated SSA countries that has been in place since 2000. The forging of these trade and investment agreements coincided with a period when there was a significant increase in capital inflows to low-income SSA countries. This likely had a positive impact on trade and investment between members.

Figure 5. Trade openness and capital flows to low-income SSAn countries



Source(s): IMF Balance of Payments Statistics, International Financial Statistics, and author’s calculations

Figure 6. Capital account openness in low-income SSAn countries



Source(s): Chinn and Ito (2006), IMF Balance of Payments, and author’s calculations

4.1.2.2 Economic growth. The need for faster economic growth in SSA to help achieve the SDGs is well acknowledged by the international community and the domestic economies. Figure 7 shows that low-income SSAn countries experienced a significant increase in economic growth between the early 1990s and the GFC, after which growth has slowed. The growth experience appears to have also mirrored that of capital inflows around the same time, which is indicative of the important role that capital inflows, especially FDI, have on economic growth in recipient economies that has been found in the empirical literature. Real GDP growth in low-income SSAn countries has not been sufficient relative to these countries’ developmental needs, given the size of their population, as real GDP per capita remains low compared to other regions.

4.1.2.3 Private sector credit. Private sector credit can be an important determinant of capital inflows. For example, Opperman and Adjasi (2017) found private sector credit to be an important determinant for FDI volatility for SSAn countries. Also, Forbes and Warnock (2012) found private sector credit to be an important determinant of banking flows, which are

embedded within portfolio flows. It is generally expected that when private sector credit to GDP rises fast, it can deter foreign investors given that fast credit growth can allude to financial stability risk. Private sector credit to GDP also indicates that financial depth and reverse causality can occur where capital inflows can help fund domestic private sector credit. Private sector credit generally correlates strongly with countries' income levels with higher income countries having a much larger size of private sector credit compared to low-income countries. In Figure 8, the growth in private sector credit to low-income SSAn countries has been declining somewhat over the last decade, coinciding with a moderation in FDI and the relationship with capital inflows does not appear to be as strong as that of trade openness and commodity prices, which are shown above. Capital flow measures are in percent of GDP in the figure.

Table 1. Membership of SSAn countries in regional agreements^{1/}

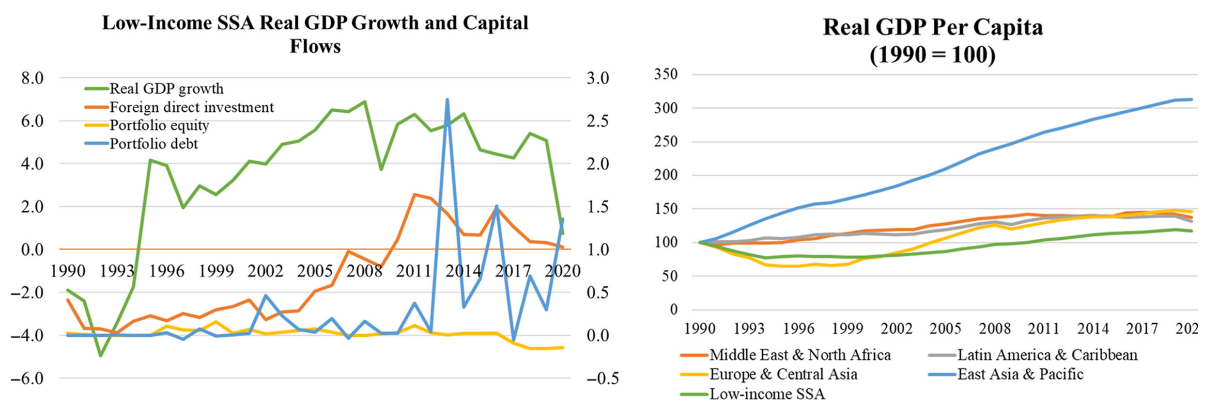
SADC (16)	ECOWAS (15)	East African Community (6)	COMESA (19)	WAEMU (8)
<i>Low-Income SSA Members</i>				
D.R. Congo	Burkina Faso	Burundi	Burundi	Burkina Faso
Madagascar	The Gambia	Rwanda	D.R. Congo	Guinea-Bissau
Malawi	Guinea	South Sudan	Ethiopia	Mali
Mozambique	Guinea-Bissau	Uganda	Madagascar	Niger
	Liberia		Malawi	Togo
	Mali		Rwanda	
	Niger		Uganda	
	Togo			
<i>Middle-Income SSA Members</i>				
Angola	Benin	Kenya Tanzania	Comoros	Benin
Botswana	Cabo Verde		Djibouti	Côte D'Ivoire
Comoros	Cote d'Ivoire		Egypt	Senegal
Eswatini	Ghana		Eritrea	
Lesotho	Nigeria		Kenya	
Mauritius	Senegal		Libya	
Namibia	Sierra Leone		Mauritius	
Seychelles			Seychelles	
South Africa			Sudan	
Tanzania			Swaziland	
Zambia			Zambia	
Zimbabwe			Zimbabwe	

Note(s): 1/Given data availability, low-income SSA countries included in this study are D.R. Congo, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Liberia, Rep. of Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Sierra Leone, Togo and Uganda

4.1.2.4 Public debt. In the World Bank's list of heavily indebted poor countries (HIPC), many of them are low-income SSAn countries (World Bank, 2022b). High indebtedness can discourage capital inflows. As indicated in chapter 2, sovereign debt crises have been observed to intersect with sudden stops of capital flows as well as severe exchange rate

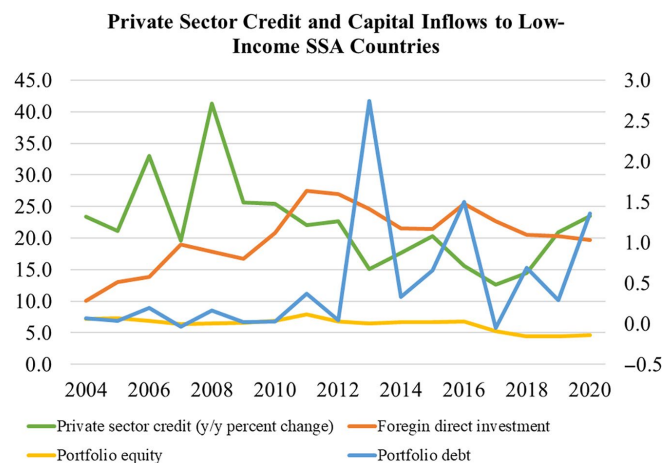
depreciation/devaluations, and banking crisis with the interactions deepening the crisis. Public debt has been found to be an important determinant of capital flows. For example, Cerutti et al. (2019) found public debt to have a positive and significant relationship with portfolio debt and largely during the period covering the GFC while the relationship with portfolio equity was found to be insignificant. Figure 9 illustrates that debt to GDP for low-income SSA countries declined significantly in the early 2000s. The decline mostly followed debt reliefs from the joint IMF and World Bank HIPC initiative that was launched in 1996 from which many low-income countries benefitted. The relationship between capital inflows to low-income SSA countries and debt to GDP was negative for the most part over the last two decades (Figure 9) where capital inflows increased as debt to GDP declined. In recent years, debt to GDP is rising again, while capital inflows have slowed.

Figure 7. Real GDP growth



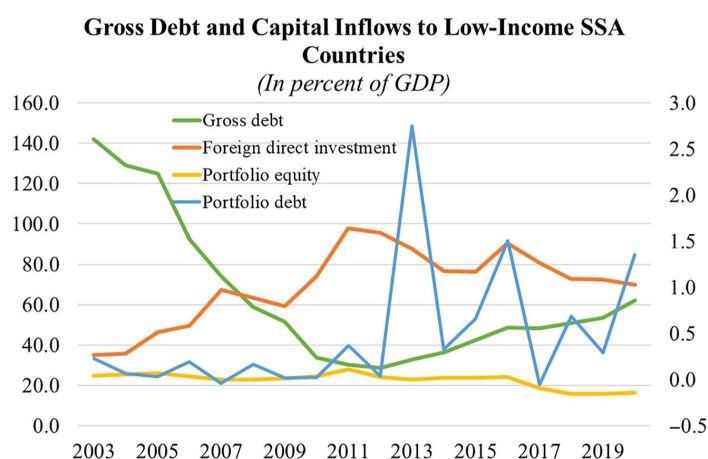
Source(s): IMF Balance of Payments, World Bank’s World Development Indicators, and author’s calculations. Capital inflows are in percent of GDP

Figure 8. Private sector credit to GDP and capital flows to low-income SSA countries



Source(s): IMF’s International Financial Statistics and author’s calculations

Figure 9. Public debt to GDP and capital flows to low-income SSAn countries



Source(s): IMF Fiscal Monitor, International Financial Statistics, and author’s calculations

4.2 The institutional factors

This section focuses on institutional quality as a factor in attracting capital inflows to low-income SSAn countries. Beyond attracting capital inflows, institutional quality matters for macroeconomic management and developmental outcomes and the empirical literature backing this is vast (such as Chang (2010), Acemoglu and Robinson (2008), Glaeser and La Porta (2004), Gradstein (2004), Kaufmann and Kraay (2002)). Even though limited, the analysis of capital flows in SSA tends to be dominated by experiences in high- and middle-income economies whose inflows are much larger in magnitude and whose economies tend to be more open, have deeper financial markets and better institutional quality (Opperman and Adjasi, 2017; De Vita and Kyaw, 2008). Studies on SSA also tend to leave out the role of institutional quality as a determinant of capital flows. This section is an exploratory review of institutional quality against capital flows in low-income SSA countries.

Empirical studies mostly use institutional variables sourced from the International Country Risk Guide (ICRG) and the World Bank’s World Governance Indicators but the later were discontinued in 2021. Thus, the ICRG indicators of institutional quality are used in this paper. The following eight institutional factors are discussed: bureaucracy quality, corruption, democratic accountability, government stability, internal conflict, investment profile, law and order, and external conflict. The performance of low-income SSA countries on the institutional quality indicators is illustrated by country (Figure 10) with average scores over 2010 to 2020, and as a group over time against the three measures of capital inflows, which are FDI, portfolio equity and portfolio debt (Figure 11), and the discussion follows below.

4.2.1 Bureaucracy quality. Data shows that bureaucracy quality in low-income SSAn countries deteriorated somewhat in the early 1990s, coinciding with a decline in capital flows to the region. Bureaucracy quality measures up to 4 points, with 4 being the best. There has been an improvement in bureaucracy quality since, and capital inflows have also increased, up until around 2011 when FDI declined and there was a spike in portfolio debt – likely due to other factors – while bureaucracy quality for low-income SSAn countries continued to improve. Bureaucracy quality quantifies institutional strength of bureaucracy to the extent it minimizes

revisions of policy when governments change. Malawi has the best score of the low-income SSAn countries of 2.5 on average over the last ten years – out of a 4-score total – on bureaucracy quality among low-income SSAn countries. Malawi's score is comparable to scores of middle-income SSAn countries such as Ghana (2.5) and Kenya (2.5), which score well on bureaucracy quality. The Gambia, Uganda and Guinea (2.0) also score comparably to emerging market economies such as Brazil (2.5), Russia (2.0), China, People's Rep. (2.0) and South Africa (2.0) while India (3.0) is one of the best performers on bureaucracy quality. Other low-income SSA countries have low scores, with some scoring zero (Somalia, Liberia, the Democratic Republic of Congo, Togo, Sierra Leone and Mali). Low scores indicate that the country lacks the cushioning effect of a strong bureaucracy and government changes tend to be traumatic in terms of policy formulation and day-to-day administrative functions (The PRS Group, 2014). This indicates a need for significant improvement in bureaucracy quality for many low-income SSA countries to make an environment that can attract higher capital inflows.

4.2.2 Internal conflict. Following a decline in the early 1990s, low-income SSA countries improved their standing on internal conflict, followed by an increase in capital inflows to the region. The measure has a score of 0 (very high risk) to 12 (very low risk). The score on internal conflict has plateaued in recent years while capital inflows have also been on a decline. Sierra Leone, the Gambia and Madagascar have better scores among low-income SSA countries on internal conflict on average over the last ten years, scoring over 8, out of a total of 12 points. In comparison, middle-income SSAn countries mostly score better on internal conflict with Botswana generally leading and as of February 2022, Botswana (11.0) was among the countries receiving the top score in the world, second to Switzerland (11.5). Internal conflict is an assessment of political violence in a country and considers factors such as civil war/coup threat, terrorism/political violence and civil disorder. While improving the environment for foreign and domestic investment is key in all low-income SSAn countries by reducing internal conflict, this is much more urgent in many low-income SSAn countries that have very low scores on this measure of institutional quality.

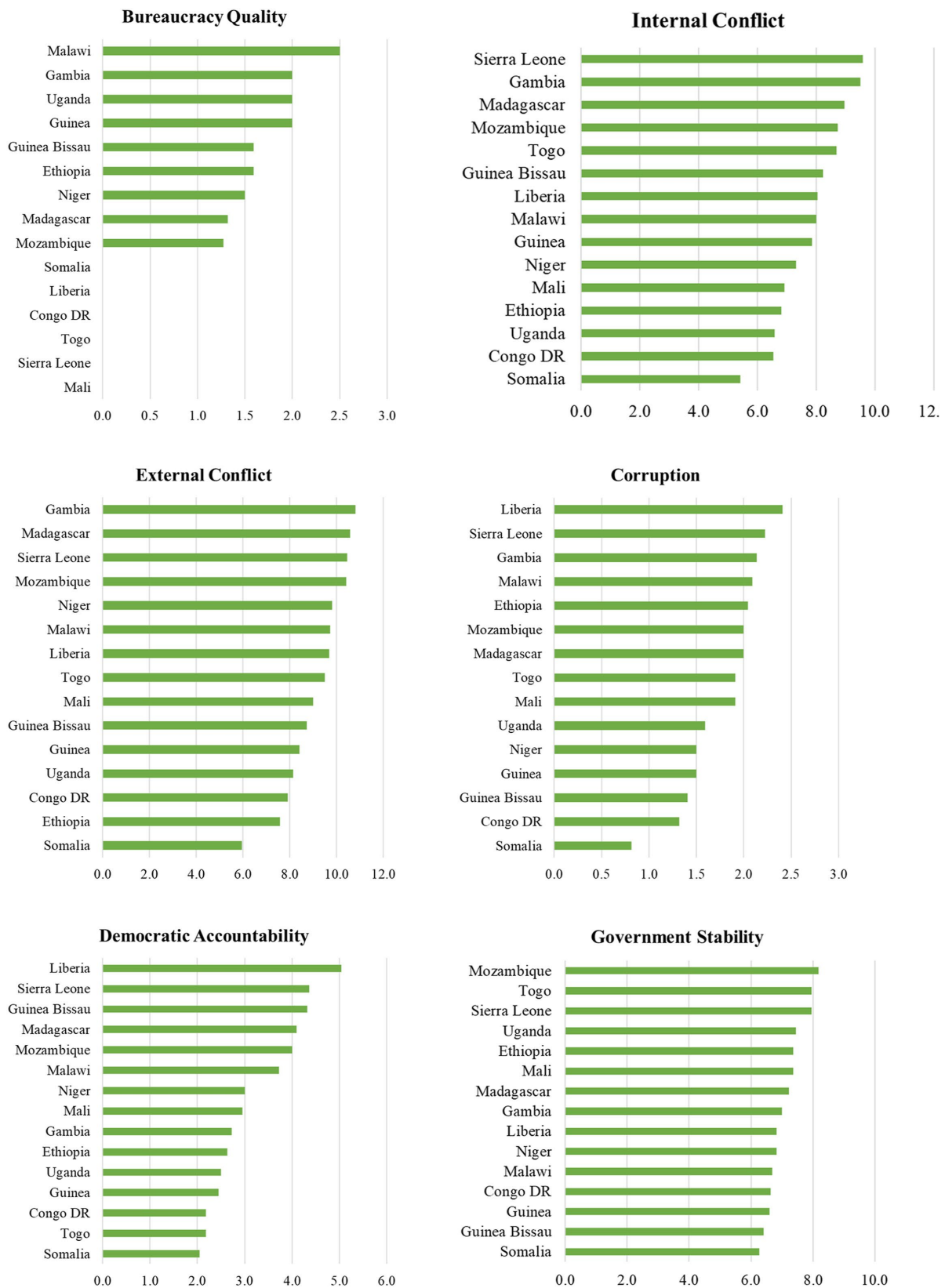
4.2.3 External conflict. Low-income SSAn countries do better in external conflict compared to internal conflict. The scores are on a higher level on external conflict even though the trend appears similar on the two institutional quality indicators. The Gambia (10.8 score on average over the past ten years) does best among low-income SSA countries on external conflict, followed by Madagascar (10.6) and Sierra Leone (10.5) on a 12-point scale and the other low-income SSAn countries do relatively well, except Somalia whose score is much lower. The scores of many low-income SSAn countries on external conflict are like that of middle-income SSAn countries, which are at the upper level of this indicator and generally do well. External conflict assesses the risk to the incumbent government from foreign action ranging from nonviolent external pressure to violent external pressure. It considers factors such as war, cross-border conflict and foreign pressure. The institutional quality measures reflect that conflict in sub-Saharan African countries in recent decades has generally been country-specific (internal conflict) rather than between countries (external conflict) as low-income SSAn countries tend to score better on external conflict than some large economies (The People's Republic of China, Turkey, Israel and Russia) that receive large capital inflows.

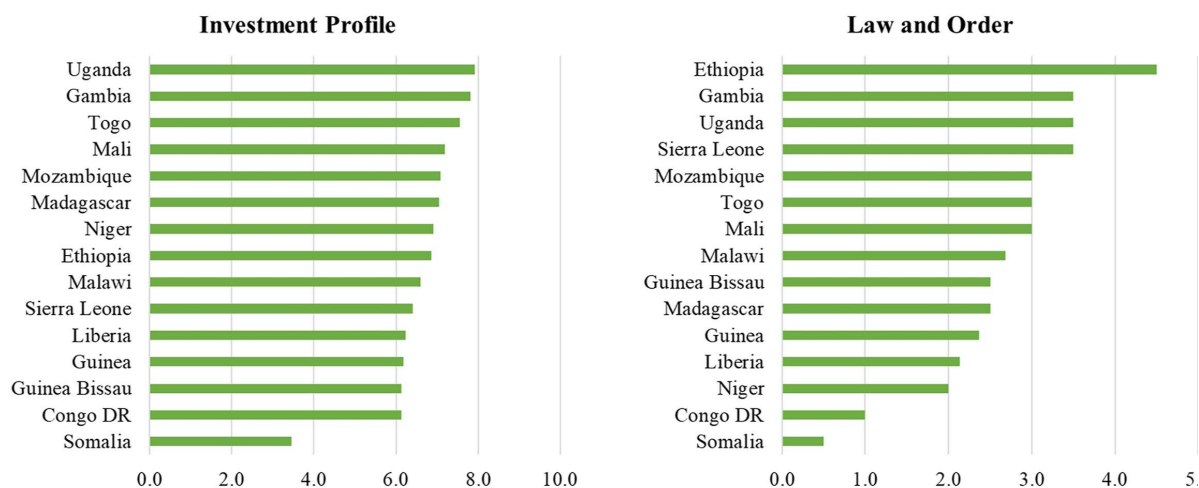
4.2.4 Corruption. Data shows that low-income SSAn countries' standing on corruption, as an indicator of institutional quality, has been deteriorating in the last two decades. The deterioration was occurring even as capital inflows to the region increased. The deterioration

in 2012 occurred in several countries, while some countries continued to improve their standing on corruption, such as Sierra Leone (2.2 score on average over the last ten years). Liberia (2.4), Sierra Leone and the Gambia (2.1) have better scores among low-income SSA countries. In comparison, middle-income SSA countries tend to score much better, for example, Botswana and Namibia have had high scores of 3.6 and 3, respectively, on average over the last ten years. Corruption is an area where low-income SSAn countries need to make a significant improvement. It has been found that strengthening governance and mitigating corruption in sub-Saharan African countries could be associated with large growth dividends in the long run (Hammadi et al., 2019). The data here shows that mitigating corruption is more urgent for low-income SSAn countries to reverse the trend of deterioration in the indicator and help improve the region's ability to attract foreign investment and help support economic growth.

4.2.5 Democratic accountability. Following a decline in the early 1990s, democratic accountability has been improving in the region while significant improvement is still needed in several low-income SSAn countries. Data shows that Liberia (5.0) does best among low-income SSAn countries, followed by Sierra Leone, Guinea Bissau and Madagascar who also do well, with scores above 4 on average over the last ten years on a scale up to 6. In comparison, middle-income SSAn countries tend to do even better, with Kenya, Ghana and South Africa leading with scores 5 and above, on average in the last ten years. In recent years, it does not appear that democratic accountability was a factor in the decline of capital inflows to low-income SSAn countries given that this institutional quality indicator continued to improve. It is also notable that some economies that received large capital inflows across the world do not necessarily fair well on democratic accountability, for example, the People's Republic of China, Russia and Hong Kong have low scores on democratic accountability, indicating that other factors are more important in driving foreign investment.

Figure 10. Institutional quality in low-income SSAn countries by country



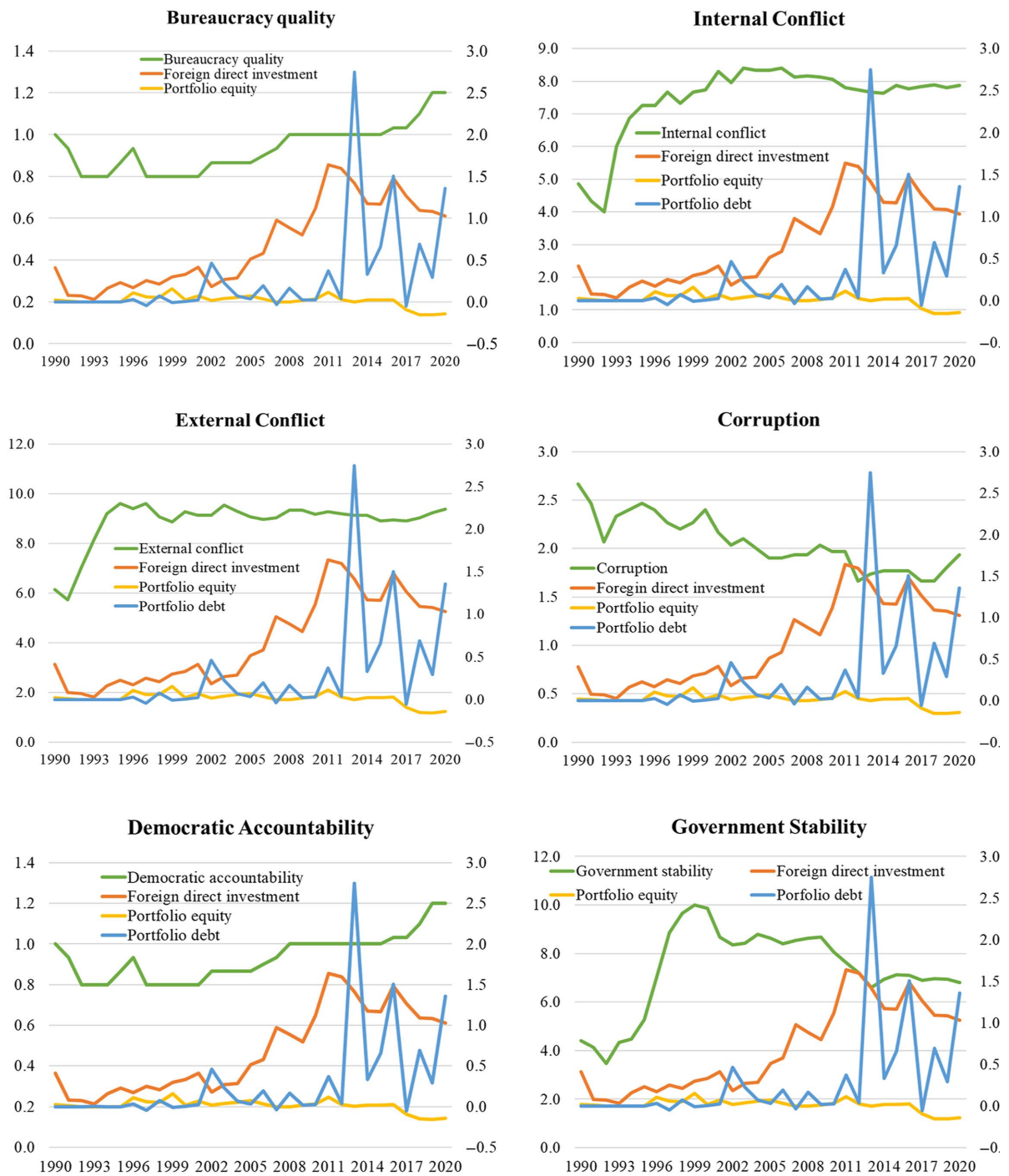


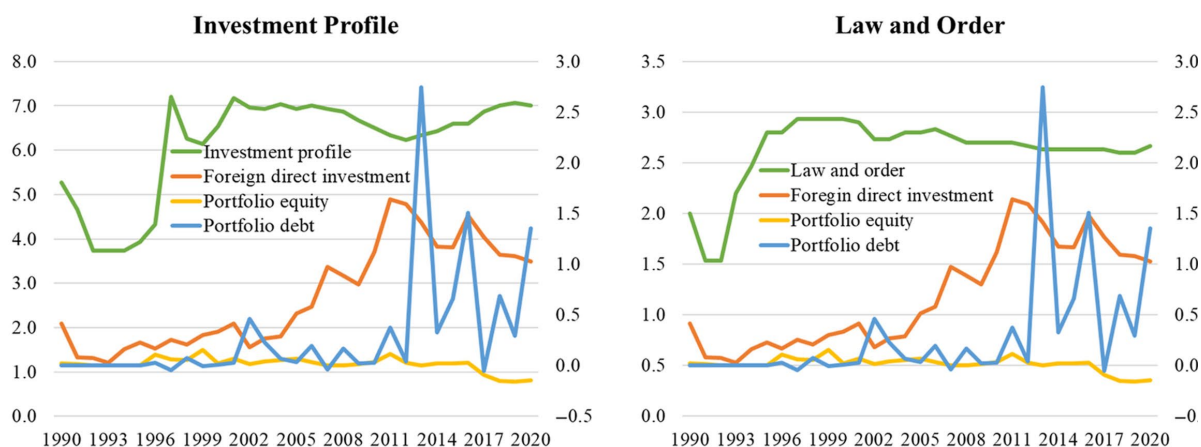
Source(s): ICRG and author’s calculations. Bureaucracy quality and Corruption score up to 4. Democratic accountability, government stability, and law and order score up to 6. Internal conflict, external conflict, and investment profile score up to 12

4.2.6 Government stability. Following a significant improvement in the scoring on government stability by low-income SSAn countries in the mid-1990s, data shows that the score has been deteriorating over the last decade. Though there’s been a slight improvement over the last five years, coinciding with a slight increase in capital inflows, it remains far below its peak in the late 1990s and capital inflows to low-income SSAn countries are still below their peak in 2011. Mozambique that attracts the most capital inflows among low-income SSAn countries has the best score on government stability (8.2). Togo and Sierra Leone, both with 8.0 scores on a scale up to 12, also do better than other low-income SSA countries and the other countries are also not that far off. In comparison, middle-income SSAn countries score better on government stability with Namibia and Tanzania scoring above 8.0. It is also notable here that some economies that received large capital inflows across the world do not necessarily fair well on government stability, for example, Argentina, Brazil, Israel, Austria, Hong Kong, Thailand and Turkey have low scores on government stability, indicating that other factors are more important in driving foreign investment in those countries.

4.2.7 Investment profile. Data shows that after improving in the mid-1990s, scores of low-income SSAn countries on the investment profile have plateaued. Uganda, the Gambia and Togo lead low-income SSAn countries on the investment profile with scores just below 8.0 on average over the last ten years. In comparison, middle-income SSAn countries tend to do better, especially Botswana (10.0 score) and South Africa (above 8.0). The decline in scores on the investment profile does not appear to have deterred capital inflows overall during the sharp increase in the early 2000s to 2011, which were rising due to other factors, but their decline in the early 1990s coincided with a decline in capital inflows. It is notable that economies that attract large capital inflows across the world do very well on the investment profile, signaling the importance of this factor in attracting foreign investment. The investment profile assesses factors affecting risk to investment that are not covered by the other institutional quality indicators. It covers factors such as contract viability/expropriation, profits repatriation and payment delays, which are critical to making an investment viable.

Figure 11. Institutional quality in low-income SSAn countries and capital inflows





Source(s): ICRG and author’s calculations. Bureaucracy quality and Corruption score up to 4. Democratic accountability, government stability, and law and order score up to 6. Internal conflict, external conflict, and investment profile score up to 12

The Democratic Republic of Congo receives large capital flows among low-income SSAn countries but tends to not do well in many institutional quality measures compared to the other countries, which indicates that investors look at other factors besides institutional factors for investment decisions. It is also notable that Somalia, which comes last in all institutional quality indicators except bureaucracy quality does not appear to attract capital inflows and data for the country’s balance of payments is lacking.

4.2.8 Law and order. Data shows that some low-income SSAn countries do much better on law and order. Ethiopia has by far the largest score (4.5) on law and order among low-income SSAn countries and does better than many advanced and emerging market economies. The scores of low-income SSAn countries have plateaued over the last decade after an improvement in the mid-1990s and they do not appear to have moved closely with capital inflows in the late 1990s to the 2000s. The economic literature indicates that there is a threshold for law and order where an inflow of foreign capital can exacerbate the ex-ante institutional deficit and push countries to specialize even more in industries that are less reliant on a good contracting environment (Igan et al., 2022), in explaining the sometimes lack of a relationship between law and order and capital inflows. In this measure of institutional quality, the “law” part assesses strength and impartiality of the legal system, while the “order” part assesses popular observance of the law. It is notable that economies that attract large capital inflows across the world do very well on the law and order, signaling the importance of this factor in attracting foreign investment. Law and order tend to be critical for contract enforcement and an environment where investment is viable.

5. Concluding remarks

This paper explored the nature of capital flows to low-income SSAn countries and the macroeconomic and institutional factors that can drive them. Capital inflows to low-income SSAn countries surged between the early 2000s and 2011, after which they declined but remain far higher than the level prior. The capital inflows are predominantly FDI, while portfolio flows are very small. Many low-income SSAn countries are fragile and conflict affected, which can negatively impact their ability to attract foreign investment. Mozambique and Ethiopia have tended to attract the largest size of FDI compared to other low-income SSAn economies. The

largest size of capital inflows to low-income SSA countries comes from sub-Saharan Africa, mainly South Africa and Mauritius. More capital inflows are needed to support economic growth and socio-economic development, especially as ODA and foreign aid are declining. Commodity prices seem to track capital inflows more closely than the other macroeconomic push factors. Among macroeconomic pull determinants of capital inflows, trade openness and economic growth appear to have had a close relationship with capital inflows. The surge in capital inflows in the 2000s also followed the implementation of several regional trade and investment agreements in the region. On institutional factors, capital inflows to the region increase when internal conflict improved in the 1990s to mid-2000s. There were also improvements in the investment profile, law and order, and government stability in the 1990s to early 2000s when capital inflows picked up.

This paper focused on exploring the dynamics of capital flows to low-income SSA in a disaggregated manner comprising FDI, portfolio equity and portfolio debt. Such dynamics have not been fully explored in low-income sub-Saharan African countries. An area of further study is to empirically analyze the determinants of capital flows, including institutional factors and in a disaggregated manner, in low-income SSA countries.

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