Sovereign Debt Through the Lens of Asset Management: Implications for SADC Countries

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ABSTRACT

Countries within the Southern African Development Community (SADC) have suffered from the COVID-19 pandemic, subsequent capital flight, and economic downturn. These forces, which were in no way due to actions within SADC, now also present a looming debt crisis for the region. This paper attempts to address debt sustainability issues from two different angles for SADC countries—a conventional "Debt-to-GDP ratio" approach and a "public sector balance sheet" approach. In addition, we assess whether and to what extent Chinese debt is a significant source of debt distress. To the extent we find certain creditor groups to warrant restructuring, we develop a series of potential policy options for alleviating the debt burden of countries in debt distress which includes first and foremost liquidity support from the multilateral financial organizations. Second, to address the long-term structural issues, SADC countries can work with patient capital holders, such as Multilateral Development Banks (MDBs), regional and national development banks from abroad. Innovative refinancing arrangements can be explored and designed carefully and worked out, including but not limited to "Asset-based refinance" and potentially debt-for-climate swaps. The advantage of these approaches is that they provide liquidity without hurting a country's credit rating. In the long term, patient capital is needed to address the country's structural issues, such as capacity development for export competitiveness.

Key words: debt sustainability, debt restructuring, public assets, pubic goods, patient capital, sustainable development

JEL Classification: O10, O19, O55

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The COVID-19 pandemic has laid bare the fact that the "hyper-globalization" has made it impossible to contain crises within national borders. Multilateral international cooperation is no longer a choice but a necessity. This paper attempts to address debt sustainability issues from two different angles for SADC countries—a conventional "Debt-to-GDP ratio" approach and a "public sector balance sheet" approach. In addition, we assess whether and to what extent Chinese debt is a significant source of debt distress. To the extent we find certain creditor groups to warrant restructuring, we develop a series of potential policy options for alleviating the debt burden of countries in debt distress.

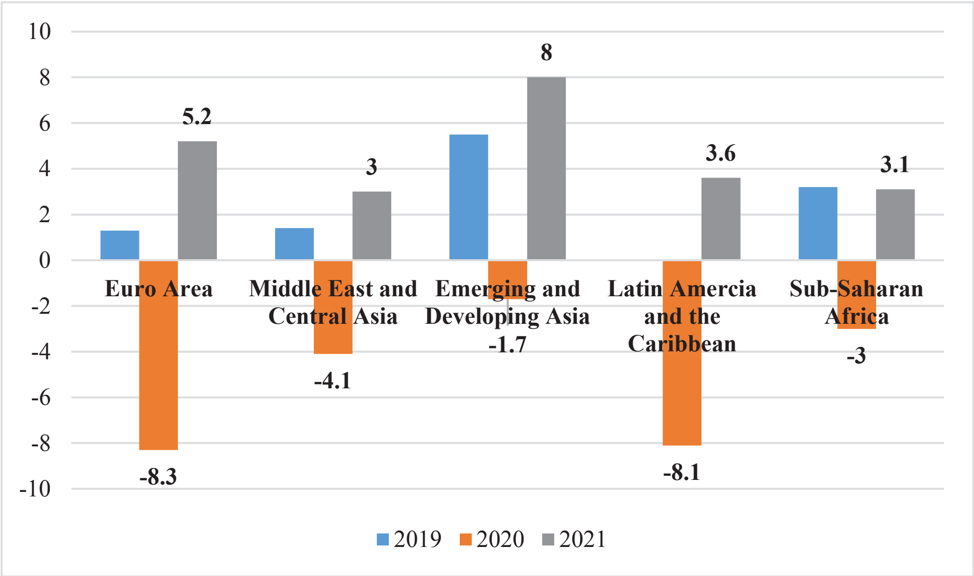
Section 1 below provides an overview of the economic impact of COVID-19 on SADC countries. Section 2 reviews the previous literature related to debt sustainability and the Heavily Indebted Poor Countries (HIPC) initiatives; Section 3 examines the sovereign debt situation using the traditional debt-to-GDP ratio, Section 4 introduces an approach focusing on asset and liabilities -- the public-sector balance sheet approach. Section 5 discusses the patient capital that is important for sustainable development; and Section 6 presents a few policy options.

1. Economic impact of COVID-19

The world economy has suffered the biggest shock since World War II due to the COVID-19 and the "great closedown". There was a "sudden stop" of capital flows and unprecedented capital outflows from Emerging Market and Developing Economies (EMDEs) in March and April of this year. The International Monetary Fund (IMF) estimated in October 2020 that the global economic growth would be –4.9 percent in 2020, after adjusted by 1.9 percentage points from its April forecast. In detail, the economic growth in the advanced economies is projected at -8 percent, compared to the -3.3 percent in EMDEs. Among all the EMDEs, the African region is estimated to see a -3 percent economic growth rate, a moderate decline compared to the European and Latin American and the Caribbean counterparts. (Figure 1.1) However, the economic impact of the pandemic on Africa might be underestimated, with smaller economies facing a contraction of up to 7.8 percent, along with a fall of public revenue in the order of five percent.

With the formation of the Free Trade Area (FTA) status since 2008, the Southern African Development Community (SADC), before the pandemic, was the home of the largest amount of intraregional

Figure 1.1 Real GDP Growth Rate, Emerging Market and Developing Economies



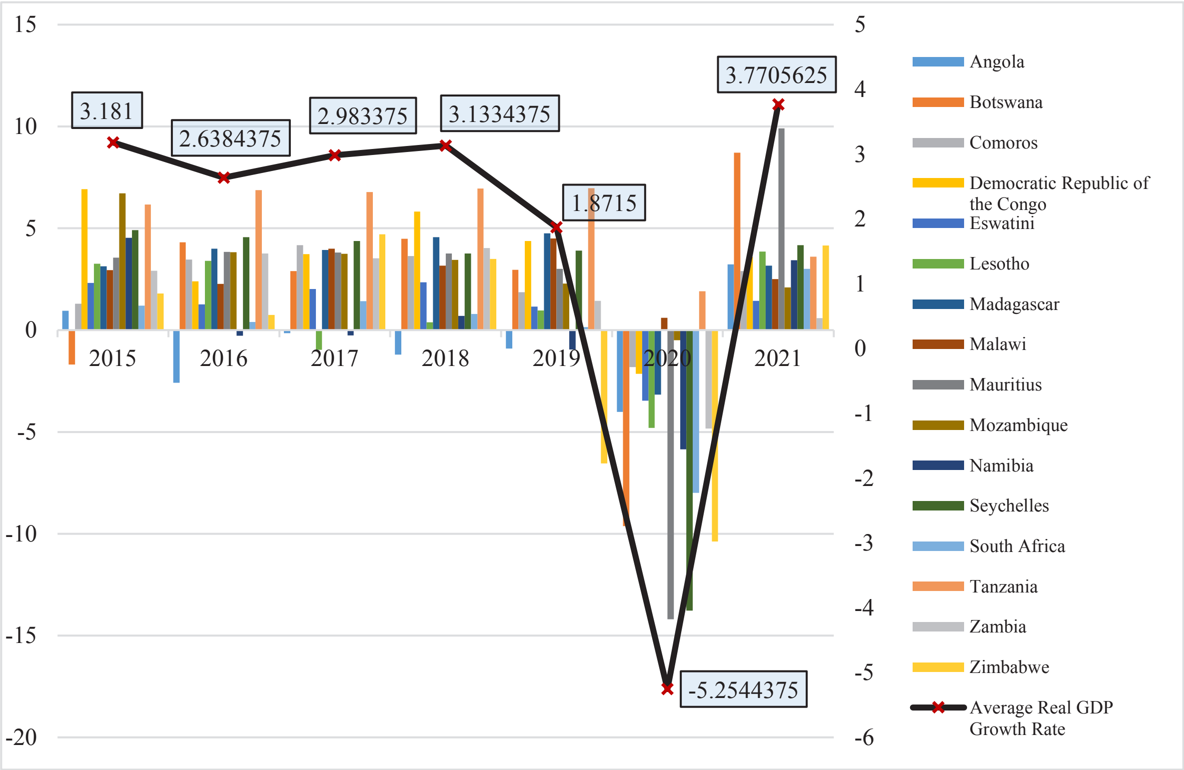
Source: IMF World Economic Outlook, October 2020.

trade in Africa.[2] Based on IMF estimates, the average GDP growth rate of the SADC countries will drop to -5.25 percent. (Figure 1.2) The IMF has also provided an overall optimistic projection for the recovery of the SADC group at 3.77 percent in the upcoming 2021. However, even before the pandemic, SADC countries' development aspirations had come under challenges, as massive financing need has led to rapidly increasing public debt.

Debt. The current wave of debt accumulation, which began in 2010, has reached record highs and spread worldwide - private sector debt has risen fast, and public sector debt almost doubled for all economies in the past decade. (Figure 1.3) The EMDEs has endured several rounds of volatility along with the current wave of debt accumulation, rising from 38 percent of GDP in 2000 to 62 percent within the past decade. The same trend can be found in low-income countries as well, whose public debt-to-GDP ratio is now 47 percent of GDP, up from 29 percent of GDP in 2010.

To foster macroeconomic stability, the SADC has set its target of 60 percent with respect to the Government Debt as a percent of GDP. Based on the African Development Bank (AfDB) data, the group has been well within its target. (Figure 1.4) Nevertheless, the SADC countries have experienced a slow-down in economic growth while the government debt is getting closer and closer to the preset target. Country performance varies dramatically; some have a Debt-to-GDP ratio of less than 15 percent, while others with a higher than 100 percent public debt-to-GDP ratio, such as Angola and Mozambique. Zambia, in particular, is currently close to default and in restructuring talks with private creditors and China Development Bank (CDB) as well.[3]

Figure 1.2 Real GDP Growth Rate, SADC Countries and the Average, Percent

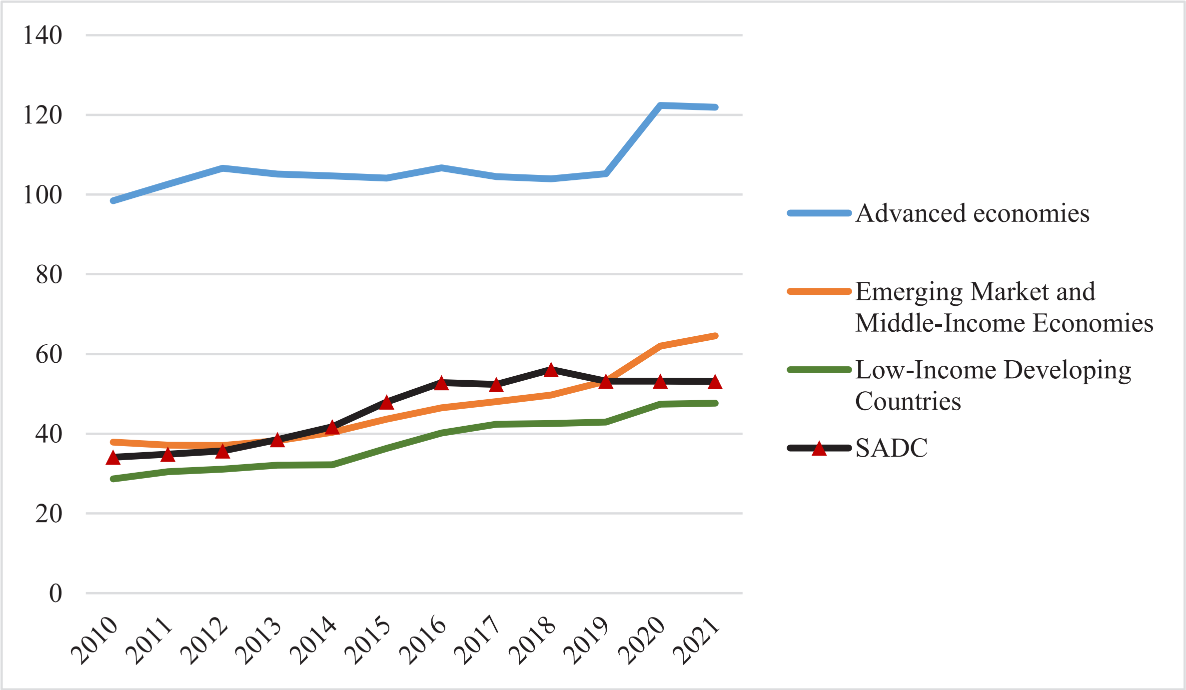


Source: IMF WEO data, updated on October 17, 2020.

[2] The SADC is comprised of 16 countries, which are: Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe.

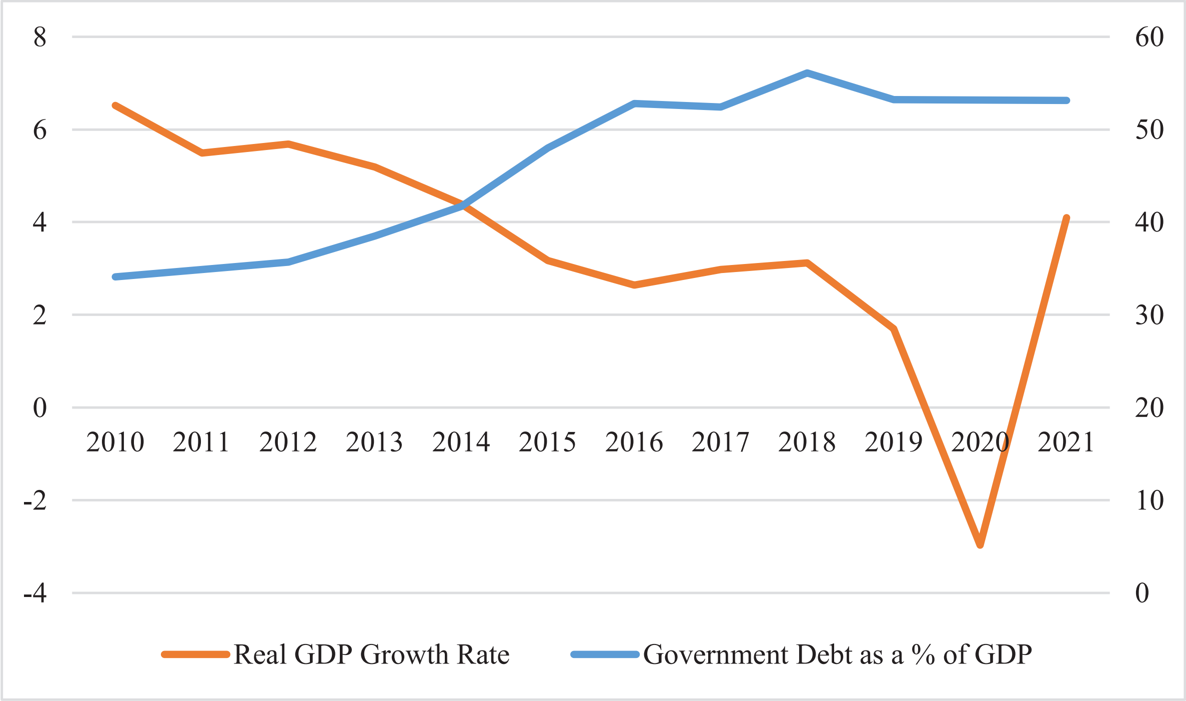
[3] A debt deferral agreement has been reached between the government of Zambia and CDB on October 28 2020, according to the Treasury Secretary of Zambia (Eric Olander, Oct 28, 2020)

Figure 1.3 Gross Debt Position, Percent of GDP, Major Economies and SADC



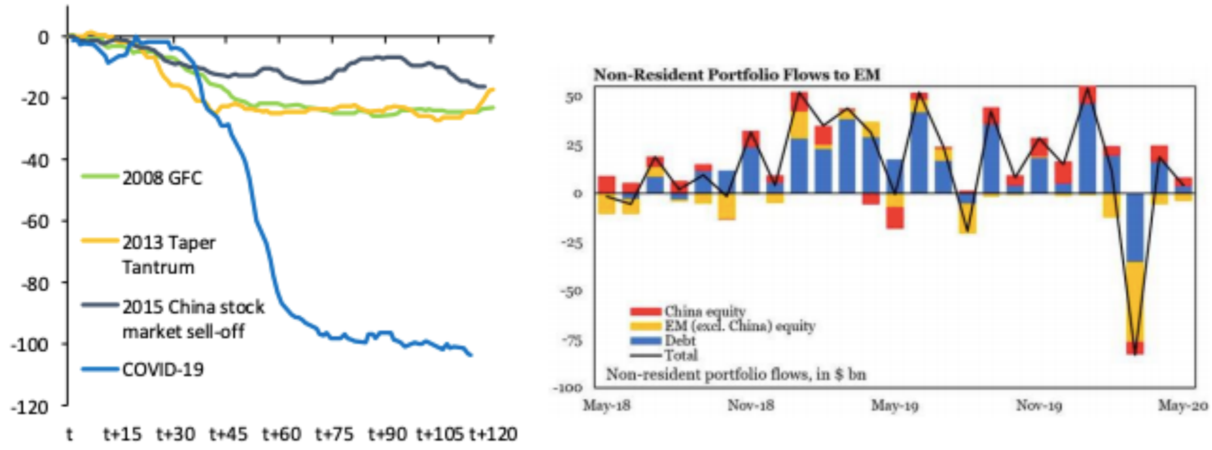
Source: IMF and AfDB. Note: Due to the data availability issue, we used the Gross Debt Position indicator provided by IMF, which includes debt liabilities in the form of special drawing rights (SDRs), currency, and deposits; debt securities; loans; insurance, pension, and standardized guarantee schemes; and other accounts payable. As for the SADC countries, Government Debt as a percent of GDP is provided by the IMF and the African Development Bank's Socio-Economic Database. Both indicators measure the public debt as a percent of the GDP.

Figure 1.4 SADC Real GDP Growth Rate Against Government Debt as a Percent of GDP



Source: IMF and AfDB databases. Note: Gov't debt using right axis.

Figure 1.5 Portfolio Flows to EMEs Today vs. Past Episodes, and Monthly Portfolio Flows to EMEs, US$ Billion



Source: IIF 2020.

Capital outflows. In March and April of this year, there was a "sudden stop" and an unprecedented large capital outflows from all Emerging Markets, according to the International Institute of Finance (IIF). These trends of the private sector portfolio investors have exacerbated the liquidity problems in EMDE countries. (Figure 1.5)

The initial threat in March and April 2020 was a global liquidity crunch, leading to the loss of official foreign exchange reserves and local currency depreciation in many EMDEs.

The pandemic is not the only challenge lying ahead. As the pandemic and economic fallout lingers for a long time to the second half of 2020 and beyond, the default rates are rising, and the need for debt restructuring is becoming more urgent. Meanwhile, global warming and climate change have devastated the living conditions of many countries, rich and poor, small and big, bringing multi-dimensional effect. New thinking such as "Asset-based refinance (ABF)", the debt-for-climate swaps are now being discussed.

2. Indicators of debt sustainability: definitions, and pros and cons

This section will briefly review the previous debt waves and the respective international debt frameworks during each period, and we will provide our comments and critiques of the conventional indicators.

2.1 Debt sustainability: Pre/Post-HIPC

The global economy has experienced three waves of debt crises and restructuring in the 1980s, 1990s and in 2008. A historic peak of the total debt of these emerging market economies reached almost 170 percent of GDP in 2018. Despite efforts made, the institutional progress on the global debt framework is not sufficient, as reflected by the continuous critics from scholars and civil societies on the global initiatives led by the World Bank and the IMF.

First, recalling the theories behind the debt dynamics is useful for the review below. Fischer and Easterly, in their seminal work, explained the debt dynamics using the following identity:

Change in d = (primary deficit/GNP) – (seignorage/GNP) + (real interest rate – growth rate) × d (1)

Where *d* denotes the debt ratio, or the ratio of government debt to GNP.

The authors provided a simple and intuitive explanation with the equation that the noninterest deficit has to be financed with new debt to the extent that this deficit exceeds the amount of money created by the central bank. Additionally, nominal interest expenditures have to be financed with new debt. Empirically, if the government is running a primary deficit larger than the amount of seignorage it can obtain, and if the real interest rate exceeds the economy's growth rate (r>g), the debt to GNP ratio will continue to soar until the public recognizes such fiscal unsustainability and stops buying government debt, which will force the fiscal policy to change.

However, many researchers have pointed out the weaknesses in the above formulation.

- Given that the denominator of the debt ratio is nominal GNP, the debt ratio will decline either with inflation or with real GNP growth as long as there's no new borrowing.[4] Such dynamics of debt and fiscal sustainability are greatly affected by the difference between the growth rate (g) and real interest rate (r), as pointed out by many scholars years ago, such as Corbo et al (1987), Morley and Fishlow (1987).

- In addition, a major problem with the above equation is that it completely ignores the public assets a country has, and the saving and investments that could increase the public assets. It has blurred the picture of what a government does: to finance consumption (salaries and pensions) or to finance investment in public goods? What is the capital formation rate per dollar of debt borrowed? What is the efficiency of this investment? (Lin and Wang, 2017, p. 64-67)

- In other words, the framework has a bias against government investment in productive assets including human capital and hard infrastructure, which could, later, become public sector assets as a cushion for debt sustainability (IMF, 2018).

2.2 Three waves of debt restructuring

The Heavily Indebted Poor Countries (HIPC) Initiative, originally launched by the World Bank and the IMF in 1996, was designed to address debt problems and poverty reduction. A reduction in the stock of HIPC countries' external debt to sustainable levels was under the condition of continued efforts in macroeconomic stabilization, structural adjustment. The initiative sets out the completion point at which the HIPCs are required to reduce the net present value (NPV) of external debt to a maximum of 150 percent of exports, prior to the revision in 2017.

In 2005, with poverty reduction being tied firmly with debt relief, the Multilateral Debt Relief Initiative (MDRI) cancelled 100 percent of outstanding debts, both bilateral and multilateral, to HIPC countries which reached completion point. As of January 2006, 19 countries were eligible for immediate MDRI relief. Meanwhile, this marks the start of the post-HIPC era, along with a new definition of debt sustainability as defined below.

In April 2005, the Bretton Woods institutions agreed a new Debt Sustainability Framework (DSF) for low-income countries, which included post-completion point HIPC countries. DSF was revised again in 2017, whose central part was that it associated a country's risk of debt distress with the quality of its policies and institutions as measured by the World Bank's Country Policy and Institutional Assessment (CPIA) scores, on the basis that better-performing countries would be able to bear a higher debt burden. (Table 2.2.1)

[4] For now, we ignore the small difference between GNP and GDP in developing countries.

Table 2.2.1 Debt Sustainability Framework (DSF) Country Policy and Institutional Assessment (CPIA)

Debt Sustainability Indicators	Strong (CPIA ≥ 3.75)		Medium (3.25 < CPIA < 3.75)		Weak (CPIA ≤ 3.25)	
	Old	2017 Rev.	Old	2017 Rev.	Old	2017 Rev.
PV of debt/GDP	50	55	40	40	30	30
PV of debt/exports	200	240	150	180	100	140
Debt service/exports	25	21	20	15	15	10
Debt service/budget revenue	22	23	20	18	18	14

Source: IMF (2017).

However, developing country governments and their economists have had many complaints about the DSF and the mechanism, because countries that violated these benchmarks will be defined as being in debt distress, and will lose the ability to borrow.

- The 2017 version of the IMF DSF was considered "obsolete" since it only treated the "total public debt" and missed out the fact that many governments were borrowing at market interest rates, both domestically and externally (Pinto 2019). In our view, this framework has ignored the public-sector assets, including infrastructure assets, and thus has an anti-investment bias.

- The fiscal austerity program advised by the Troika (the IMF, European Central Bank and European Commission) forced crisis countries such as Greece to "cut public spending to the bone", which "the IMF later admitted were self-defeating."[5]

- In addition, the above approach could not deal with the issues of large capital inflows and outflows under "liberalized capital account", with the latter leading to rapid decline of foreign exchange reserves and local currency depreciation. In this regard, China's experience in avoiding financial crises in the past four decades is worth studying. In each of the crisis periods (1998, 2008/09), China had used expansionary fiscal and monetary policy to support public investment in infrastructure and social spending. And so far, China has not fully liberalized the capital account yet. (Gallagher et al, 2014)

- On the other hand, the Washington-based international financial institutions (IFIs) promoted "capital account liberalization" before 2012, [6] which had led to a financial crisis in some countries (Ostry el al 2016; Gallagher, 2015). Therefore, EMDEs must be careful and vigilant against the "capital flight" as happened in March and April of 2020, during which "temporary capital controls might prove useful" (Christine Lagarde, Speech in Kuala Lumpur, Malaysia, Nov 14, 2012).

[5] Page 234, Mariana Mazzucato, 2018. *The Value of Everything: Making and taking in the Global Economy*. Penguin Random House, UK.

[6] In 2012, the IMF officially recanted its policy conditionality of opening capital account, as shown by Managing Director Christine Lagarde's speech in Malaysia indicating that temporary capital controls can be used during crises.

3. Assessing debt sustainability of SADC countries: all creditors, including China

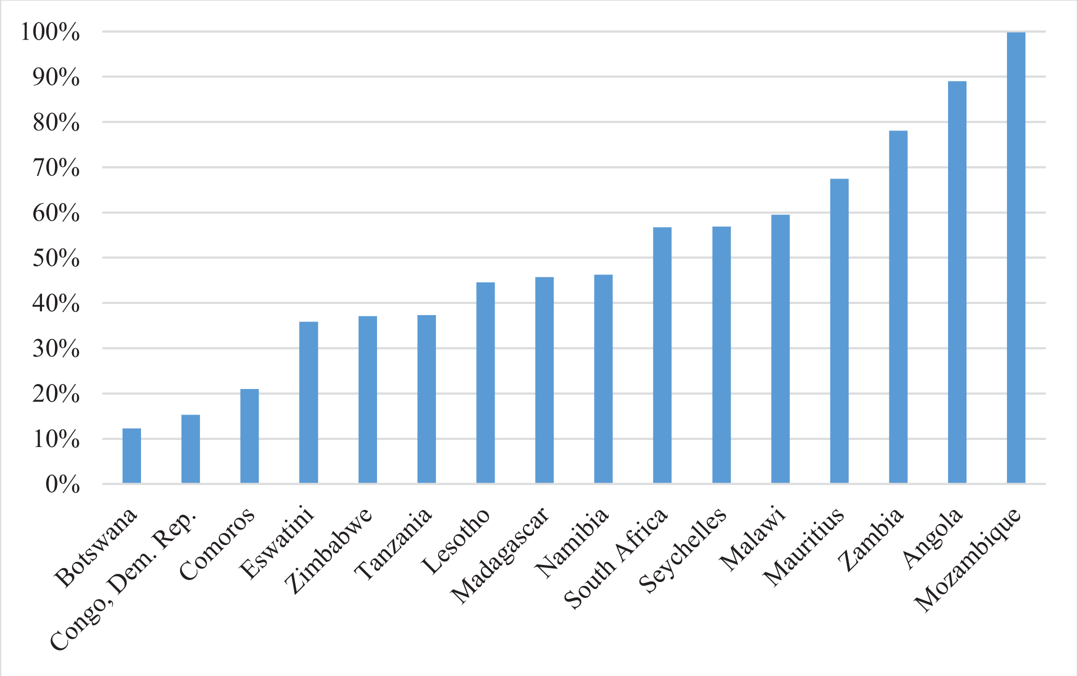
In this section, we first utilize the conventional indicators of Debt-to-GDP ratios in our descriptive analysis, and then provide critiques on this measure. An alternative measure of government Net Worth (as asset minus liability) will be presented in Section 4.

3.1 Sovereign debt databases and SADC data analysis

Using the IMF 2018 Global Debt Database (GDD), we found that four SADC countries have a debt level exceeding the SADC target of 60 percent. As we noted earlier, the debt-to-GDP ratio, of course, is not sufficient as a single indicator to determine debt sustainability. (Figure 3.1.1)

We examine the external debt of these nine SADC countries using the international debt database provided by the Debt Service Suspension Initiative (DSSI) and found the following preliminary results for the nine SADC countries with available data.[7] The debt accumulation in the past few years is already a warning for the debtor countries, even without the pandemic. The total debt of the nine countries in 2014 was $65.54 billion, which had accumulated to over $86 billion in 2018. In addition, the level of indebtedness varies from country to country. Among the nine SADC countries, Angola is the most indebted country, whose total debt has exceeded $39 billion in 2018. Meanwhile, Zambia, Mozambique and Tanzania all had a total debt of over US$10 billion for the past few years. Other countries had relatively lower total external debt. (Figure 3.1.2)

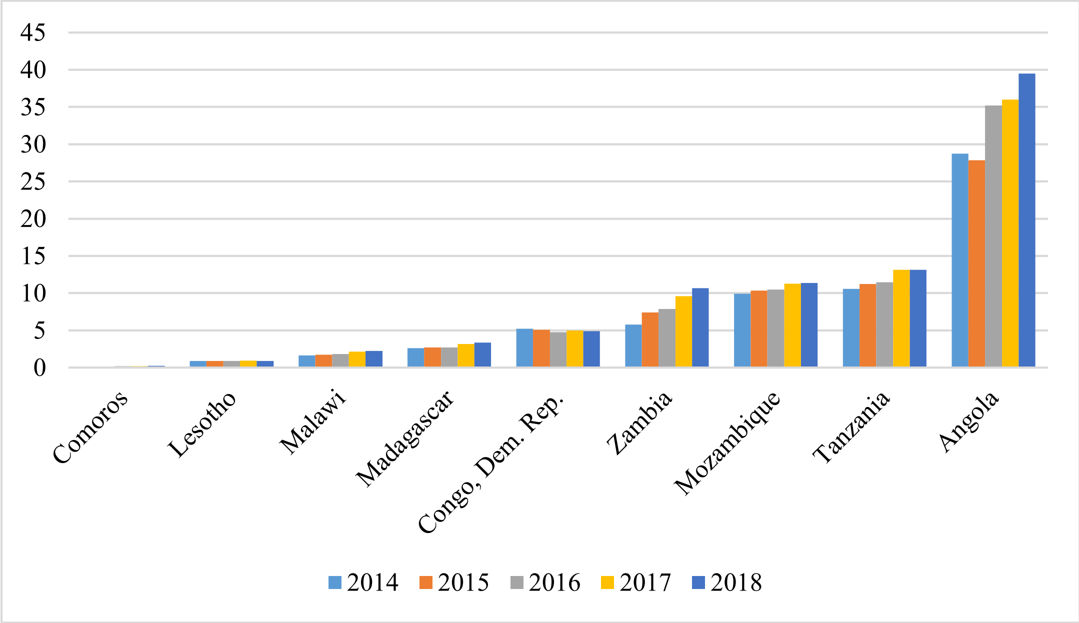
Figure 3.1.1 Government Debt-to-GDP Ratio, SADC Countries, Percent, 2018



Source: Authors, based on IMF Global Debt Database (GDD). Note: Given the constraint of data availability, we used general government debt (percent of GDP) for the Democratic Republic of the Congo (DRC), Mauritius and Tanzania, and central government debt (percent of GDP) for the rest.

[7] Angola is also eligible under the DSSI for debt suspension, given its high level of indebtedness, despite that it is not a low-income country.

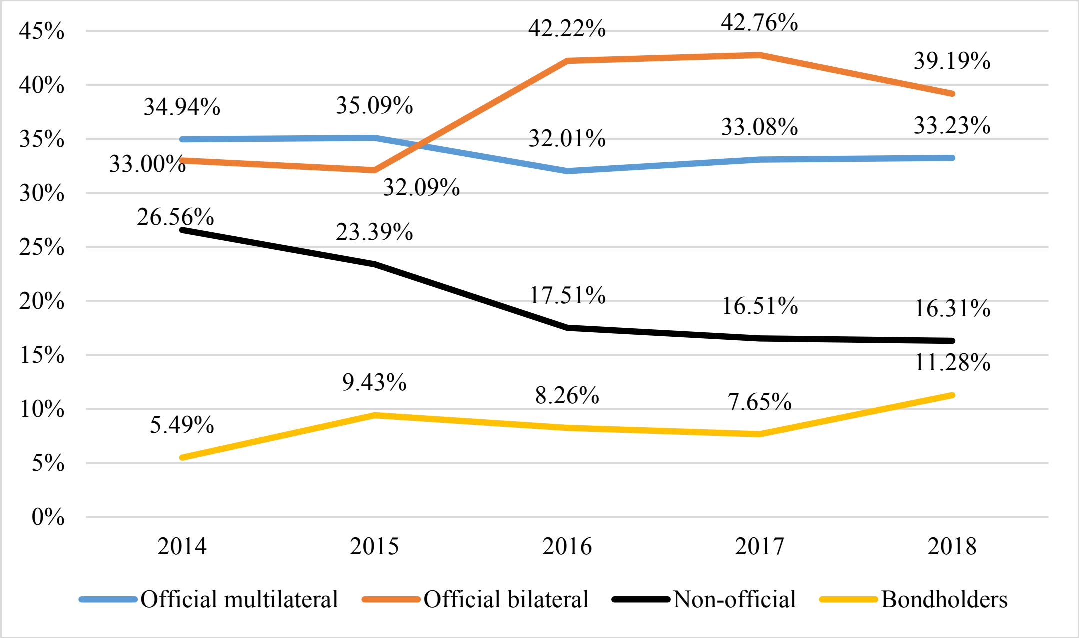
Figure 3.1.2 Total External Debt of Nine SADC Countries, US$ billion, 2014-2018



Source: World Bank-IMF DSSI database, accessed in October 2020.

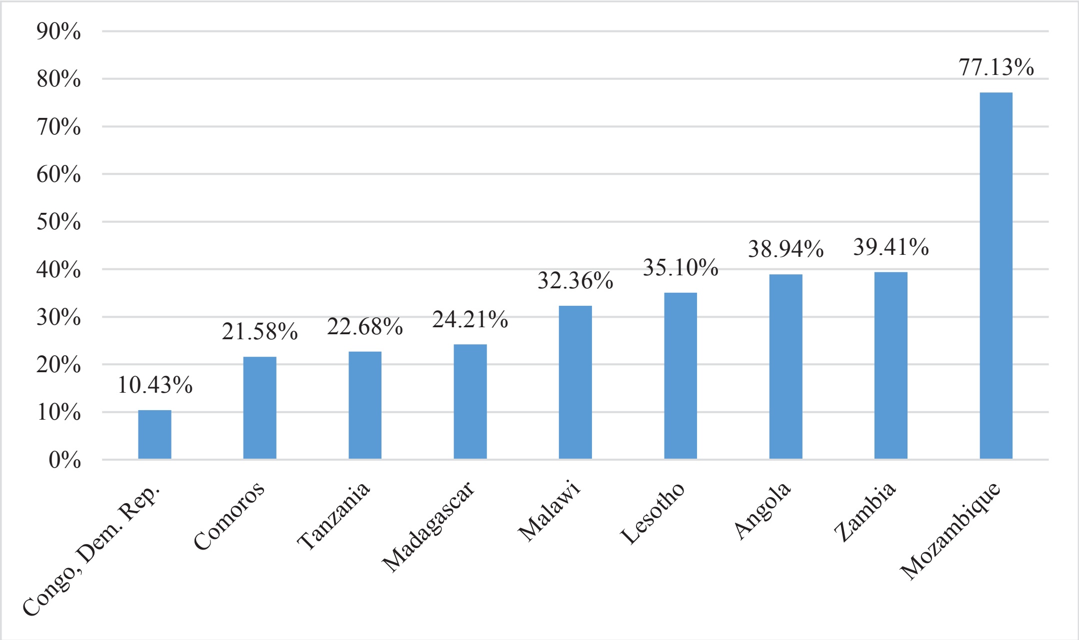
Despite of some similarities, the major creditor type of these countries varies a lot. In general, the official multilateral and bilateral creditors are the major creditors, to whom these countries owe over 60 percent of the total external debt. An interesting trend observed is that the amount owed to the non-official creditors is decreasing while the portion owned to the bondholders has been rising in recent years (Figure 3.1.3). However, debt issues are very country-specific. For example, the portion

Figure 3.1.3 External Debt of Nine SADC Countries by Creditor Type, Percent of Total Debt, 2014-2018



Source: World Bank-IMF DSSI database accessed on 17 October, 2020.

Figure 3.1.4 External Debt-to-GDP Ratio, Nine SADC Countries, 2018



Source: World Bank-IMF DSSI, WDI.

of the external debt of Angola owing to the official bilateral creditors is declining with a growing share owing to the non-official bilateral creditors. On the other hand, over 80 percent of the external debt of low-income countries (LIC) like Malawi is owed to the official multilateral creditors such as the International Development Association (IDA) of World Bank, IMF and the African Development Bank.

We also calculated the external debt-to-GDP ratio for all these nine countries and found that the debt-to-GDP ratio is 31.66 percent on average. However, there are large differences among countries in terms of the external debt-to-GDP ratio. The external debt is 77 percent of the GDP for Mozambique, while it is slightly over ten percent for the DRC (Figure 3.1.4). Based on the June 2020 IMF's assessment on the risk of external debt distress, Tanzania and Madagascar are among the low-risk group, the Democratic Republic of the Congo, Comoros, Malawi and Lesotho are among the moderate group, while Mozambique (as well as Angola) is regarded as being in debt distress.[8]

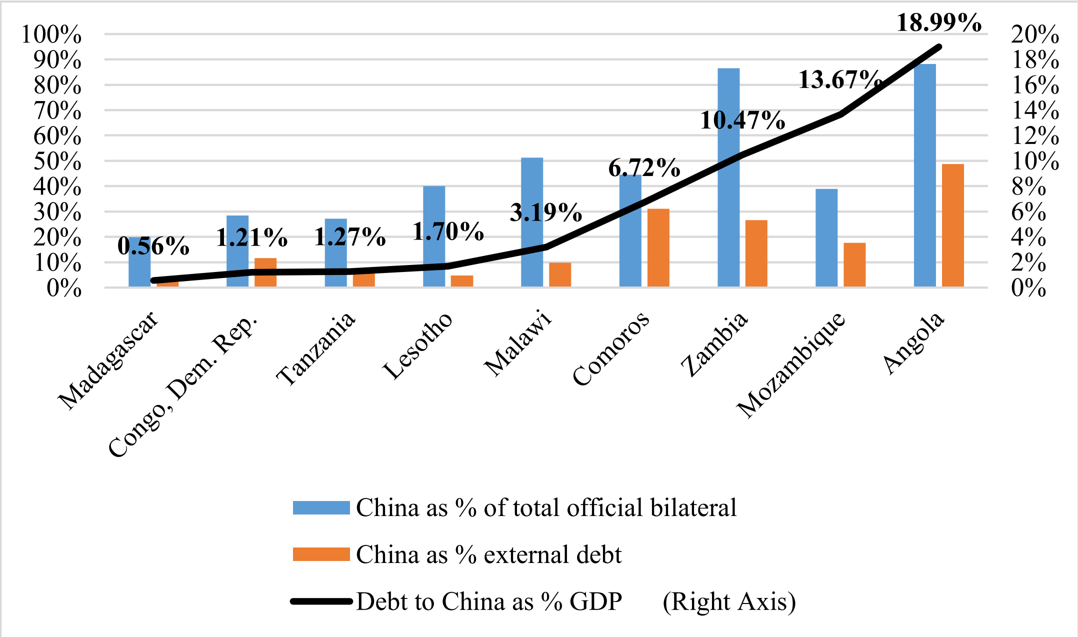
3.2 China as the creditor: an analysis based on DSSI

China has been portrayed as "the largest creditor", or to be more specific, "the largest official bilateral creditor" in the world. But in fact, these misperceptions were due to the non-transparency of various Chinese lenders and the lack of data on global sovereign debt, as pointed out by Acker et al. (2020). Using the DSSI database, we provide a descriptive analysis on Chinese lending to the nine SADC countries covered by the DSSI initiative. (Figure 3.2.1)

On average, China is the creditor of 17.6 percent of the external debt for SADC countries, including both official and non-official, which is around six percent of the GDP for the nine SADC countries. In particular, for Zambia, Mozambique and Angola, the borrowing from China is over ten percent of their GDP. More than 86 percent of Zambia's official bilateral debt is owed to China, and 88 percent in Angola's case. On average, almost half of the official bilateral debt of these nine SADC countries is owed to China. Although these proportions of debt owed to China seemed high in these countries,

[8] As mentioned, Angola is not a low-income country, thus it is not among the list of countries assessed by the IMF.

Figure 3.2.1 Chinese Lending to Nine SADC Countries, %, 2018



Source: authors, based on DSSI database 2020. Note: Debt owed to China = Official bilateral debt owed to China + Non-official bilateral debt owed to China. The left axis is for China as % of total official bilateral debt and China as % of external debt, the right axis is for the Debt to China as % of GDP.

evidence also shows that the Chinese debt relief for these countries has been going on for many decades (Acker et al., 2020).

However, the above analysis using the conventional measure of Debt-to-GDP ratio fails to provide a full picture because it ignores the Asset side of the public-sector balance sheet, and it neglects the sources of debt –whether it arises due to consumption or investment. This bias in measurement has led to a policy bias against investment, especially investment in infrastructure in low-income countries over many decades. We will return to this topic in Section 4.

4. Debt relief through development: investing in public asset

Investing in public infrastructure is now widely recognized to be beneficial for economic development in developing countries. For example, investment in transportation can greatly reduce the transport cost and facilitate trade. However, building infrastructure is lumpy, risky and it takes a long time to complete, and hence very expensive for host countries. Here we present another angle of assessing a country's creditworthiness, which encourages investment in public assets. If the public sector asset increases, the cushion for debt distress becomes thicker and stronger.

An alternative measure of debt sustainability: public sector net worth

Public assets are critical in current debt discussions. The IMF 2018 study on "Managing Public Wealth" highlights the importance of using Public Sector Balance Sheet (PSBS), including all government-owned and controlled enterprises, financial and nonfinancial assets. In this approach, public sector Net Worth (=Assets minus Liabilities) is key to debt sustainability and investor confidence. If the public sector Net Worth is positive, the country is solvent, but may have a liquidity problem.[9]

[9] A caveat is that the value of nonfinancial assets may fluctuate and difficult to be liquidated. And hence, financial net worth is more critical in international credit market.

If the public sector Net Worth is negative, then the country is having a serious issue of insolvency. According to World Bank (2019), investment in transport corridor infrastructure is projected to generate certain trade and growth. In other words, if countries borrow to fill the identified infrastructure bottlenecks, they will see an increased in trade and GDP, from which more public revenue can be derived. For example, China invested massively in infrastructure after the global financial crisis in 2008/09, it's export competitiveness became stronger. And its public sector net financial worth remained positive, at eight percent of GDP in 2017 despite of large amount of domestic and foreign debt, as compared to the US public sector net worth at -101 percent of GDP, if excluding nonfinancial assets.

Good estimates of public assets are necessary while currently unavailable for most SADC countries. As for the SADC countries, we only managed to find data for Tanzania and South Africa. **The public sector net worth of Tanzania was 45.8** percent **of GDP in 2014, and it was 151.5** percent of GDP for South Africa in 2016 (Tables 4.1.1 and 4.1.2). Data on public sector net worth is difficult to obtain, especially for nonfinancial assets such as real estate assets and productive assets, the value of which may fluctuate over time.

Table 4.1.1 Tanzania: Public Sector Balance Sheet, 2014, Percent of GDP

	General Government	Nonfinancial Public Corps	Consolidated Public Sector
TOTAL ASSETS	123.7	31.9	101.3
Of which: Nonfinancial Assets	99.7	14.4	73.5
Financial Assets	24.0	17.6	27.8
TOTAL LIABILITIES	77.9	31.9	96.2
Of which: Debt securities	6.6	-	4.7
NET FINANCIAL WORTH	-53.9	-14.2	-68.4
NET WORTH	**45.8**	**-**	**5.2**

Table 4.1.2 South Africa: Public Sector Balance Sheet, 2016, Percent of GDP

	General Government	Nonfinancial Public Corps	Financial Public Corps	Consolidated Public Sector
TOTAL ASSETS	208.3	49.6	72.3	269.0
Of which: Nonfinancial Assets	156.7	44.6	2.5	203.7
Financial Assets	51.6	5.0	69.9	65.3
TOTAL LIABILITIES	56.8	49.6	72.3	117.5
Of which: Debt securities	47.4	7.2	1.8	41.8
NET FINANCIAL WORTH	-5.2	-44.6	-	-52.3
NET WORTH	**151.5**	**-**	**-2.5**	**151.5**

Source: IMF (2018).

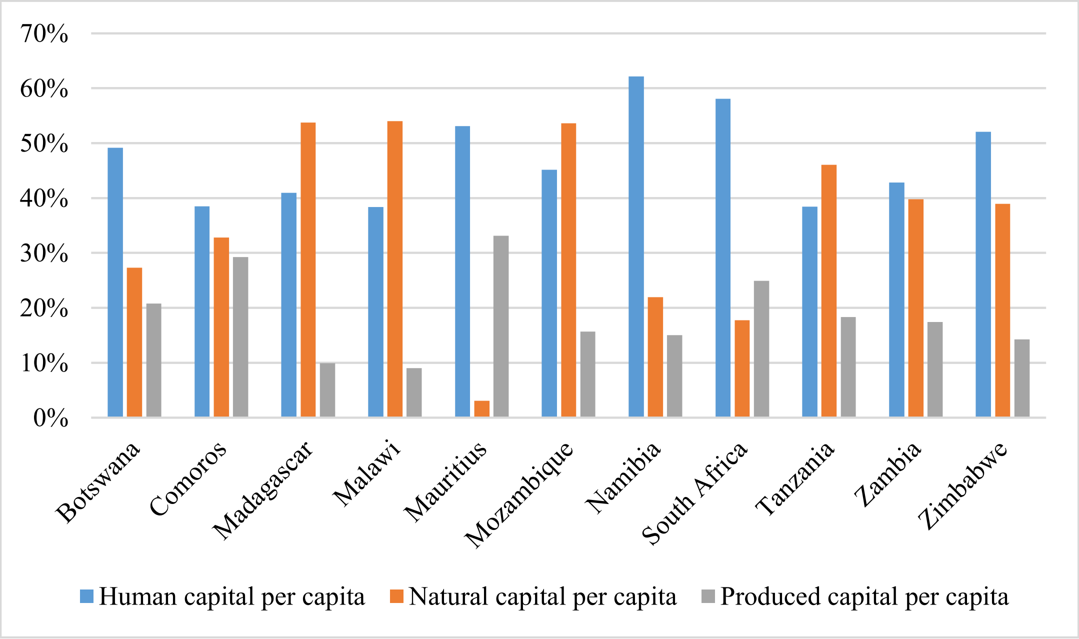
If all SADC countries can provide a good estimate of their public sector assets, it will help them to boost investor confidence to continue investing in these countries, and further borrowing becomes potentially feasible. Meanwhile, if there are existing public sector infrastructure projects that had been completed, e.g. a power generation station or electric grids or a highway or a railway, a good management of these public assets can help create jobs, generate revenues for the government, and reduce the need for debt restructuring.

What additional assets do SADC countries have?

SADC countries have a good level of produced capital, human capital, and natural capital, indicating that the structure of their factor endowment is quite rich and appropriate for balanced growth. Traditional economic growth theory put less emphasis on human and natural capital leading to underinvestment in human capital and over-exploitation of natural capital. The latter, natural capital, includes land, forests, subsoil resources (oil, gas, minerals), water, biodiversity and other natural assets, which can serve as collaterals. If the host country continues to invest in these three assets, the country's credit worthiness will become stronger.

Building on the foundation of all capitals in various forms, these SADC countries can target their comparative advantages in their respective countries, which depends on their endowments (for example, Mauritius, Namibia and South Africa are human capital abundant, while Madagascar, Malawi, Mozambique and Tanzania are natural capital-rich) (see Figure 4.1.1). The human capital rich countries can develop their human capital-intensive export sectors such as garment, footwear, and other light manufacturing sectors, while natural capital rich countries can concentrate on ag-business, forestry and mineral export or nature-friendly tourism. For South Africa, it has emerged as the industrial hub of SADC countries.

Figure 4.1.1 Produced Capital, Human Capital and Natural Capital of 11 SADC Countries, as a Percent of Total Capital, 2014



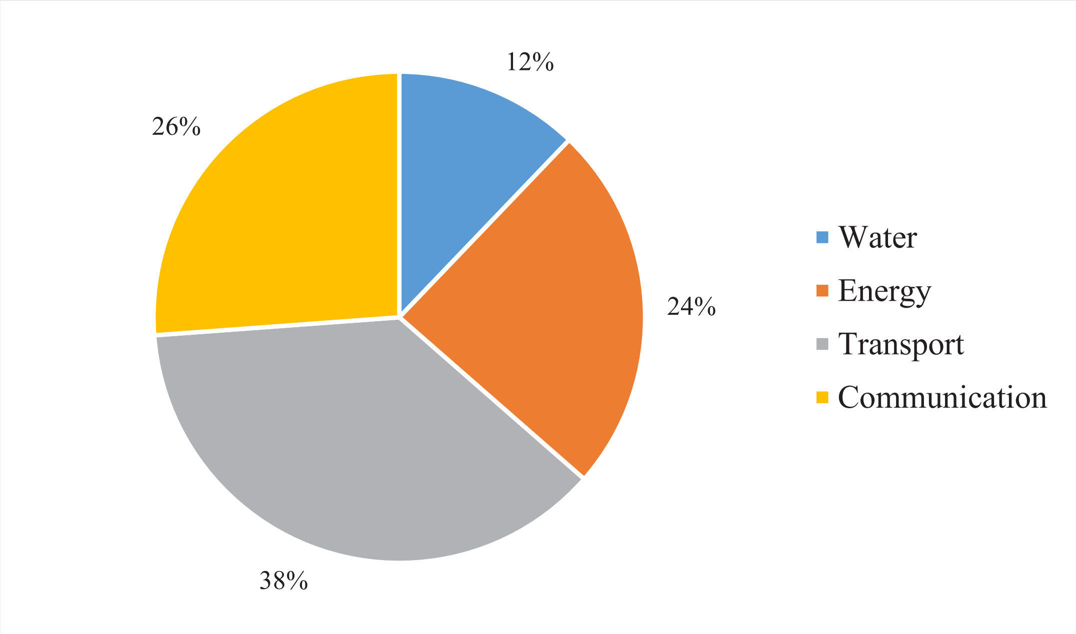
Source: Data based on World Bank, 2018.

China has been actively helping African countries targeting their respective comparative advantages. It's estimated that approximately 25 percent of all infrastructure development in Africa in the past 18 years has been funded by the Chinese government, with the African government contributing an estimated 40 percent (Xinhua, 2019) China financed/co-financed projects in Africa cover various sectors, including agriculture, infrastructure, manufacturing, and services.

China sponsored and completed projects have addressed Africa's bottlenecks in economic transformation, representing public sector assets, not just debt. In recent research, Lin and Yan Wang (forthcoming 2020) identified economic bottlenecks for 54 African countries and found that Chinese financed projects had matched with African countries bottlenecks in 78 percent of the 214 hard infrastructure projects in 2000–2014. The 214 hard infrastructure projects that had been completed covering Water (26), Energy (52), Transport (80) and Communication (56). These projects were largely public goods[10] (74 percent), including electricity, water and sanitation, port, airports, highways, and railways, as well as semi-public goods (26 percent) which is, telecom. (Figure 4.1.2 and 4.1.3) (Lin and Yan Wang, forthcoming 2020)

In sum, we strongly support the approach of using the public-sector balance sheet (and Net Worth=Asset minus liabilities) as a more comprehensive measure of credit worthiness and debt sustainability, which encourages public investment in assets. The completed infrastructure projects represent public assets that can potentially generate jobs, government revenue, meanwhile promoting economic growth. They provide a thick cushion for any debt distress. Echoing Ethiopia's experience, rapid and sustained economic growth will gradually transform the debt dynamics: that is, if the economic growth rate exceeds the interest rate (r-g<0) (equation 1 in Section 2), this development will further reduce the debt burden over time.

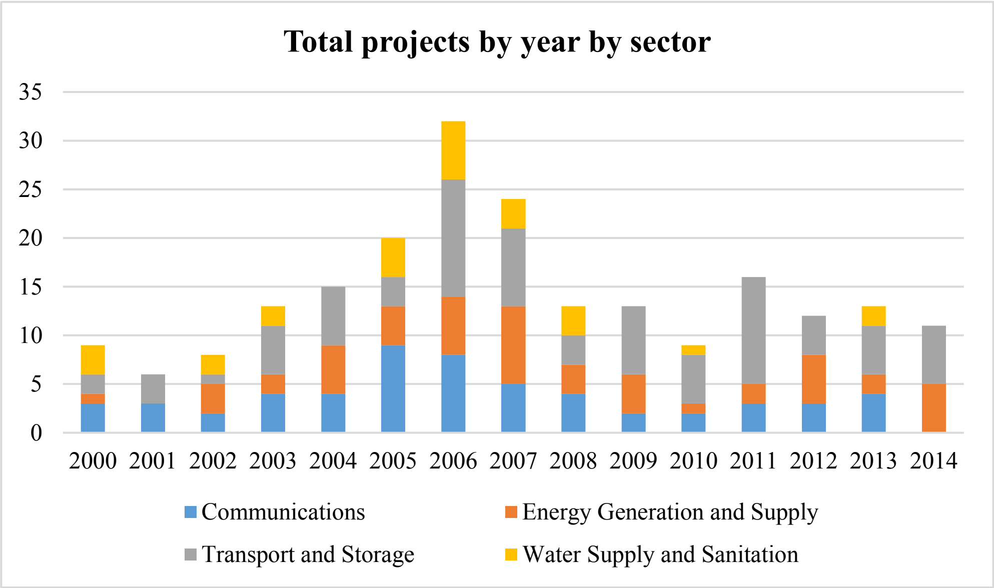
Figure 4.1.2 Decomposition of the 214 Completed Hard Infrastructure Projects Financed or Co-Financed By China



Source: Lin and Wang 2020, based on completed projects in China.aiddata.org.

[10] In economics, a public good is a good that is both non-excludable and non-rivalrous.

Figure 4.1.3 Decomposition of the 214 Completed Hard Infrastructure Projects Financed or Co-Financed by China, by Sector and Year



Source: Lin and Wang 2020, based on completed projects in China.aiddata.org.

In addition, the IMF should not resort to a narrow indicator Debt-to-GDP ratio without considering the country's public sector balance sheet, and announce certain countries as in "debt distress" thus prevent the country from borrowing/refinancing. It should discard the conventional "fiscal austerity" as the prescription for debt crises, as it did for the Greek crisis. During this pandemic-led global recession, encouraging public investment by allowing continued borrowing and refinancing is critical to maintain economic recovery and to "build back better."

5. China's recent behavior shows Chinese state actors are patient capital holders

Chinese state actors are holders of patient capital[11] as shown by their long history of providing debt relief for African countries. Acker et al (2020) provide insightful analysis on the history of debt relief with "Chinese characteristics" for developing countries including those in Africa. The authors pointed out that the western media has provided misinformation on China and debt distress. Most importantly, "no asset seizure" is found and no evidence is found to support the so called "debt-trap diplomacy" accusation.

China has shown considerable forbearance and flexibility in debt negotiations in the 1980s and 1990s. It's noticed that the cost of violating the contract with Chinese lenders was actually "quite low" for borrowers. The cases of the Republic of the Congo and Mozambique suggest that "Agreements have been easier to reach with Chinese lenders than with private creditors." China's approach was even more flexible than the members of the Paris Club, during the HIPC initiative. During recent bilateral negotiations, China has used Paris club terms /conditions for debt relief — showing that China is behaving within the international "rule of the game", despite the fact that China is not a member of the Paris Club, and that does not agree with all the conditions.

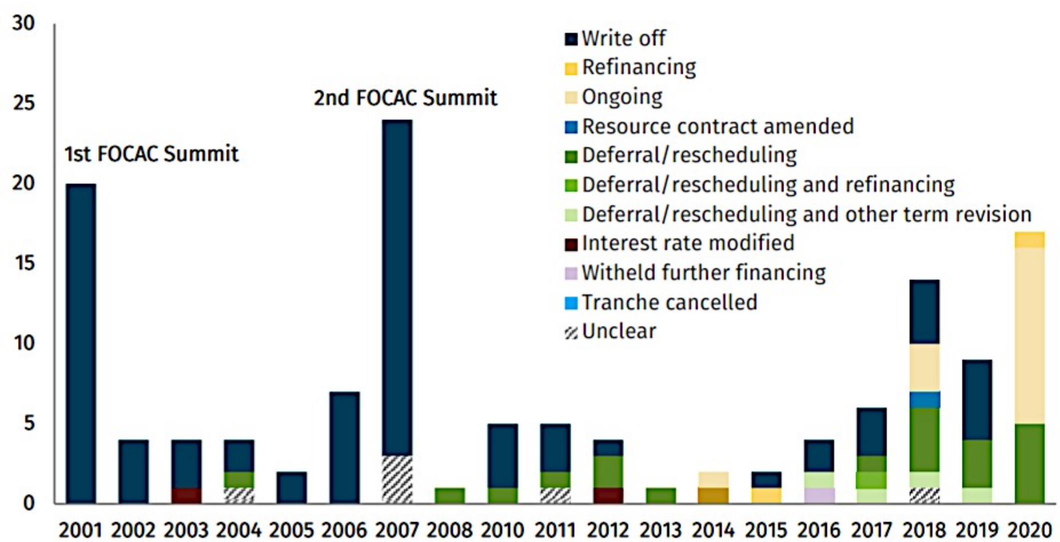
[11] Patient capital are defined as those ultra-long-term capital invested in a relationship, much like venture capitalists investing in innovative ideas, and equity-like investors holding a stake in the development of a country. Its maturity could be longer than ten years, and their capacity for taking risk is stronger (Lin and Wang 2017b, Mazzucato 2018, Karplan 2018).

Nevertheless, China is unlikely to write off or forgive a large portion of outstanding debt despite the pandemic, as the tradition is that China maintains the policy that only its zero-interest loans are eligible for forgiveness. Alternatively, rescheduling and refinancing are more common in recent years' restructuring of debt. (Figure 5.1, based on Kratz et al., 2020)

When considering requests from debt distressed countries, China's flexibility is based on the fact that China and African countries are partners in climbing the same mountain of structural transformation. Some lessons-learned by China from several rounds of "nonperforming loans" and "triangular debt" problems among the banks and state-owned enterprises can be shared with the African countries to avoid a potential financial or debt crisis. Chinese institutions offer patient capital, and they have a stronger capacity to take risks and better suited to finance infrastructure. Essentially, the Chinese are taking a stake in the development of the host countries in Africa, as reflected in the recent case of Angola. This reflects the "Chinese characteristics" of debt restructuring and resolution.

Recent case of Angola: China's patient capital can be observed from the debt renegotiations with Angola, which has been hit both by oil price fall and Covid-19. According to the IMF report released in late September, Angola will receive $6.2 billion in debt relief over the next three years thanks to agreements lined up with three of its major creditors, among which China is the largest official bilateral creditor according to DSSI. Meanwhile, the country is also busy negotiating with some Chinese banks and government agencies on debt re-profiling deals (IMF, October 2020).[12]

Figure 5.1 Restructurings of Chinese Debt by Outcome and Year



Source: Kratz et al., 2020. Rhodium Group.

Note: This does not include recent Chinese claims to have given ten countries debt deferrals through DSSI within the G20 framework.

[12] "The authorities signed an agreement with a large creditor in June 2020 on debt reprofiling. The agreement includes (i) a three-year deferral of principal payments; (ii) repayment of deferred principal falling due in 2020H2–2023H1 for the largest facility to be repaid over seven years after the grace period, with some additional modest relief of principal in 2024–25; (iii) for two smaller facilities, the original schedule of principal payment is moved three years into the future; (iv) interest payments falling due during the deferral period is to be serviced by drawing down the associated escrow account, which will be replenished gradually after the initial three year deferral period; and (v) no penalty for the reprofiling. An agreement with a second large creditor is being worked out with a similar reprofiling of principal payments. Interest payments on these loans are expected to be paid normally in the absence of associated escrow accounts. The authorities have secured concrete and credible financing assurances from these creditors." (page 45. IMF Sept 2020). The first two creditors are believed to be China Development Bank and China EXIM Bank.

The Belt and Road Initiative (BRI), with annual funding of around $50 to $100 billion in the past seven years, has been under much scrutiny. A World Bank study said it has the potential to bring large benefits to the recipient countries, and reduced transport costs through improved infrastructure (World Bank 2019). A recent study by the Chatham House of UK studied the cases of Malaysia and the Hambantota Port in Sri Lanka. It is found that China used a host-country-driven approach for the BRI projects, and the new approaches were requested by the Sri Lankan government. A broader acceptance of the BRI approach –investing in connectivity in five aspects to promote global integration and green growth is found, and there is a wave of expression of interest in BRI projects. (Devonshire-Ellis, 2020)

On debt accumulation, China is not the only creditor, among which the other official creditors and the private sector are collectively even more important. Meanwhile, China is not necessarily the largest bilateral creditor for all the African countries, as we have presented in the previous section. Additionally, "there are reasons why [developing] countries prefer to borrow from China, given that the private lenders usually provide short-term financing and the traditional Western donors completely forget about the hard infrastructures." (Dollar 2020). Thus, China's patient capital is shown to have been preferred by developing countries, which is in great need for real sectoral development.

6. What more can be done? Policy options

1) **Support multilateralism and pushing for the IMF to issue more SDRs**, as issuing SDRs is countercyclical and unconditional. The IMF should take the responsibility of "global lender of last resort", and we support the proposal that SDRs could be a key tool for attacking a COVID-19 financial fallout in developing countries. An equivalent of at least $500 billion is needed to be allocated as part of the global response to the crisis generated by the coronavirus pandemic to provide valuable additional liquidity support, as recognized by the G-24 and some think-tanks. In particular, Gallagher et al. (2020) suggest **putting the funds of the SDRs that are not used by countries, particularly by high-income countries, into trusts of different kinds, which could partly serve the needs of Africa and other developing regions.** Despite the complexities of the political economy of SDR allocation and distribution, there're several options to be considered, adding on the precedent for the distribution under the Poverty Relief and Growth Trust (PRGT) at the IMF. And given that China is a large bilateral creditor, it's necessary for it to join the discussion of relevant international mechanisms and key policy tools, including the proposed allocation of the SDRs, or redistribution of SDRs, for the current crises in developing countries.

2) Support the IMF, the World Bank Group and Regional Financial Arrangements (RFAs) to issue more emergency liquidity loans and expedite their disbursement. Currently, only about 12 percent of the IMF and RFAs' resources have been used and only half of which disbursed (Kring, et al. 2020)

3) **Innovative financing and refinancing may be designed, based on already completed projects which are part of the public assets.** Concretely, assume an internationally financed infrastructure project in country A has been completed and in operation with cash flows, and the host country A has repaid a part of the loans, say, 30 percent, but now having difficulties in repaying, then if the host country agrees, multilateral or bilateral financial agencies can use the 30 percent equity share that the government owns as the collateral to issue new finance at a lower interest rate, which can be called **"asset-based refinance"**. Again, if the host government agrees, SWFs and green funds can participate in the auction of these shares and bid for these unlisted equity shares. In this way, new liquidity will flow into country A without hurting its credit rating.

4) **Utilizing "tailored solutions" in the "debt distressed" countries.** We have suggested, in various occasions, Chinese government to enhance transparency and accountability in its approaches in

South-South Development Cooperation and expedite the process of enacting a foreign aid law, while continue to coordinate with G20, the IMF, the Paris Club, and follow international rules of the game. It's possible for the Chinese institutions to "find innovative solutions" for debt restructuring, because they are holders of "patient capital", and they are essentially on the same boat with these African countries where the projects are located.

- **China has been acting, and is likely to continue working, within the common framework agreed by G20 countries.**[13] China is so far the biggest contributor to the DSSI, suspending at least $1.9 billion in repayment due this year, according to the G20.[14] In addition, Xi Jinping announced additional debt exemption within the framework of the FOCAC.[15] Recently, former Central Bank Governor Zhou Xiaochuan also stressed the preference to a "tailored approach" (Zhou 2020).

- **China's development financing and debt restructuring are driven by requests of host countries.** Examples include the TAZARA railways and its maintenance; Sugar refineries in Sukala Mali, the Agriculture Technologic Demonstration Stations (which are now commercialized), and the approach used in Hambantota Port Sri Lanka. The latter is a case where at the request of the Sri Lanka government, China financed and constructed the port, and later, per the government's request, found a company participating in the operation of the port, in a sort of "build-operate and then transfer", which is a Public-Private Partnership (PPP) approach in infrastructure. (Jones and Hameiri, 2020)

- **"Demonstrated willingness to repay" is important for Chinese creditors, as in the cases of Pakistan.**[16] However, due to capital flow volatilities of EMDEs and their open capital accounts, large liquidity injection is not feasible, at least from Chinese creditors, unless capital flight can be stopped through **temporary capital controls** in these countries. After all, "liberalizing capital account" is not a part of China's experience. Washington based IFIs need to make good for their own policy conditionalities on liberalizing capital accounts and serve as the international lender of last resort.

5) Debt-for-Climate Swaps: There is now over thirty years' experience with debt-for-nature swaps whereby countries in debt distress agree to invest a certain percentage of debt relief into natural assets. The most recent case in the SADC region is Seychelles, which had defaulted on its debts in 2008 and had struggled with debt distress thereafter. Seychelles partnered with third parties to buy back $21.6 million of its sovereign debt at a discount from its creditors. Seychelles now repays those loans into a trust fund called the Seychelles Conservation and Climate Adaptation Trust (SeyCCAT). Then, the trust repays $15.2 million in loan capital over a ten-year period. Over 20 years, the trust will finance upwards of $5.6 million of marine conservation and climate adaptation activities, and transfer $3 million into a long-term endowment that will finance similar activities long into the future. (Economists Group, 2020)

For SADC countries, and for developing countries in general, it is important to know what the government owns (asset) and owes (liability), to distinguish "patient capital" from "footloose" investors,

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[13] A debt reduction framework will be discussed and agreed in the G20 meeting in November 2020 according to the declaration by G20 finance ministers on October 14, 2020.

[14] Wheatley J 'African debt to China' *Financial Times*, October 26 Available at: https://www.ft.com/content/bd73a115-1988-43aa-8b2b-40a449da1235.

[15] On 17 June, 2020, Chinese president Xi Jinping announce that China will exempt the zero interest loans to 15 African countries under the framework of Forum of China and Africa Cooperation (FOCAC).

[16] It is reported that Pakistan received a new loan of $1.3 billion after the country "made a significantly large foreign debt repayment, resulting in depletion of reserves by $1.71 billion in the week ended on May 26, 2020." https://tribune.com.pk/story/2252732/pakistan-receives-1.3-billion-loan-from-china

and to separate long term (structural) and short term (liquidity) issues. First, to address the immediate health and liquidity crises, African countries need liquidity support from the multilateral financial organizations such as the IMF, World Bank Group. Debt cancellation will not achieve the goal of liquidity support. The lending of unused SDR and various currency Swaps can be used for short term liquidity purposes. Second, to address the long-term structural issues, African countries need to work with patient capital holders such as MDBs, regional and national development banks. Innovative re-financial arrangements can be explored and designed carefully and worked out, including but not limited to "Asset-based refinance", as well as the debt-for-climate swaps. The advantage of these approaches is that they provide liquidity without hurting a country's credit rating. In the long term, patient capital is needed to address the country's structural issues, such as capacity development for export competitiveness.

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