

»»» What puts low income countries in this category?

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Low-income countries (LICs) in particular are struggling with debt. This topic has been back on the agenda ever since 2018, after many of these countries succeeded in reducing their debt burden through a range of debt relief initiatives, particularly in the 1990s. The LICs were unsuccessful in using the debt they raised to generate investment momentum that would ultimately have led to a convincing rise in prosperity. Unfortunately, this is particularly true of African LICs, which now clearly make up the majority of countries in this group.

That raises the question as to which structural peculiarities of these states are responsible for the failure. This is particularly significant against the backdrop of the current coronavirus crisis. A number of countries are already accepting debt relief and deferment offers or may do so in the near future. This will provide a temporary respite for these countries but the structural problems that cause the debt problem remain nonetheless. In the long term it will be important to stay focused on structural factors that cause or facilitate indebtedness.

This paper will therefore address selected structural aspects, initially focusing on the question of why some former LICs – especially in Asia – were able to rise to become middle income countries (MICs) while others were not. The inflow of foreign direct investment (FDI) and the development of value chains play an important role here. We will also examine the correlation between indebtedness and a specific governance aspect: statistical capacity.

The problem of low income countries is African

The debt levels of low income countries have been at the forefront of debate again for quite some time.¹ Along with the finding that debt levels have increased noticeably in the past years, changes in the composition of debt have also moved into focus. Multilateral donors and concessional loans have lost significance, while market instruments and bilateral non-Paris Club members have gained importance – especially China. Beyond that, a further phenomenon is emerging: LICs' indebtedness, its problems and causes are an issue that is increasingly concentrated in Africa, specifically Sub-Saharan Africa. This is illustrated by the mere fact that three quarters of the countries currently classified by the World Bank as low income countries (31 in total) are in Africa. Twenty years ago, that was a different story (Figure 1a). It is true that if we apply the IMF's slightly more comprehensive LIDC definition (LIDC = low income developing country, 59 in total), the ratio is two

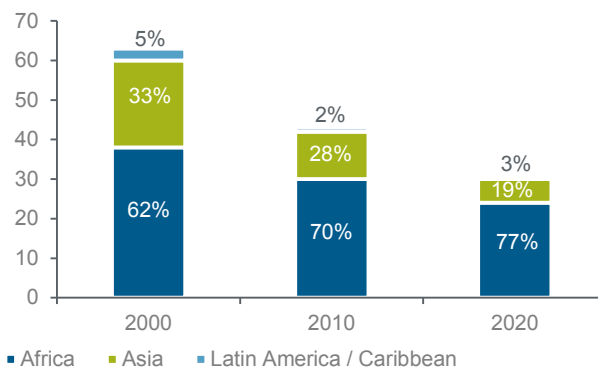
thirds, which is virtually unchanged since this country category was introduced in 2014. However, what is also striking within this group is that the African LIDCs are clustered in the two lowest income quartiles and hardly represented at all in the highest quartile (Figure 1b).²

In the last two decades, Asian LICs obviously developed better on average than African ones. Many of them were able to evolve into middle income countries (MICs) and move to the top end of the per capita income spectrum of LIDCs, according to the IMF definition. These countries benefited from their growing integration into the global economy and therefore exhibited stronger increases in per capita income in the past two decades than those countries that continued to be LICs and for which these developments were too weak to benefit them on a lasting basis.³ Why was that so?

Figure 1: Low income countries by region

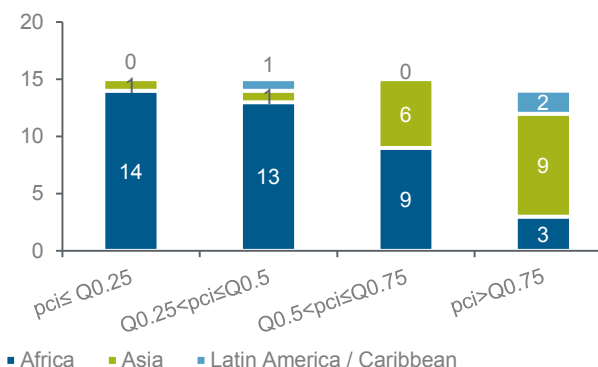
a) According to the World Bank definition (LIC)

Number (bar graph show respective percentage of all LICs)



b) According to the IMF definition (LIDC)

Number (pci=per capita income, Q=quartile)



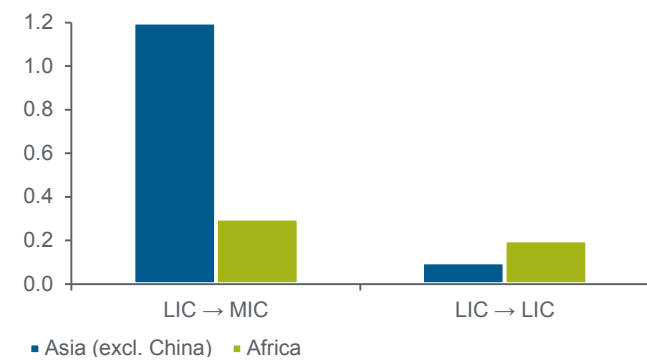
Source: World Bank, IMF, own calculations

Former Asian LICs in particular benefited from FDI inflows in the past years

One reason for this could be the type of capital inflows. In the past 20 years, a large portion of former and current LICs overwhelmingly reported deficits on their financial account (not counting currency reserves), which corresponds to the net-net inflow⁴ of capital. What is striking in this regard is that those countries that evolved into MICs after the year 2000 were able to attract significantly more foreign direct investment (FDI) than those that retained their LIC status (Figure 2). This is particularly true of Asian economies.

Figure 2: Net FDI inflows 2000–2018

In USD billions, average FDI inflow (net incurrence of FDI) per year (median country)



Source: IMF, own calculations

Individual inflows obviously differ greatly across the various countries. Asian inflows, for example, are noticeably dominated by India and Indonesia, two economies that are relevant for FDI investors simply because of their high regional importance. Overall, however, at least in the past, the countries that have achieved MIC status were obviously more convincing on average for foreign investors with regard to location prospects and location quality than those economies that are still LICs.

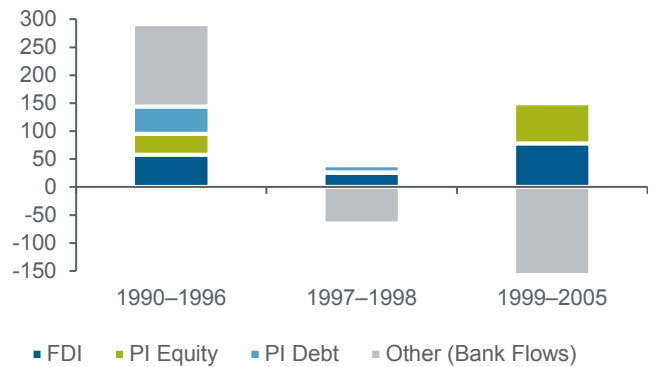
This development may have been caused by several interrelated factors. One factor that addresses the circumstance that Asia benefits in a particular way from FDI inflows is seen in financial sector reforms that were introduced as a consequence of the Asian crisis and that resulted in less borrowing, enhanced crisis resilience and improved investment conditions in the region. The Asian crisis of 1997/1998 indeed led to changes in debt behaviour in the affected countries. The five main crisis countries (Indonesia, Korea, Malaysia, Philippines, Thailand) were characterised by significant capital inflows before the Asian crisis which diminished noticeably and even reversed in the course of the crisis. FDI and other equity inflows subsequently dominated, while these countries on balance were now building up claims on other countries in the typical debt instrument⁵ (Figure 3).

It is questionable, however, whether the experiences and measures of the Asian crisis were of significance in helping Asian LICs in particular to evolve into MICs since the turn of the millennium. At the time of the Asian crisis, the affected states were not low-income countries.⁶ Outside the Asian cri-

sis countries, in other words mainly in the former and current Asian LICs, the behaviour of avoiding traditional debt flows (loans) in particular is not as apparent as in the Asian crisis states. A structural change in these countries' debt behaviour is therefore not identifiable.

Figure 3: Capital flows (net-net) into the countries of the Asian crisis

In USD billions, cumulative values, not consolidated (positive values=inflows)



FDI: Foreign direct investment, PI equity: Portfolio investment with equity character, PI debt: Portfolio investment with loan character

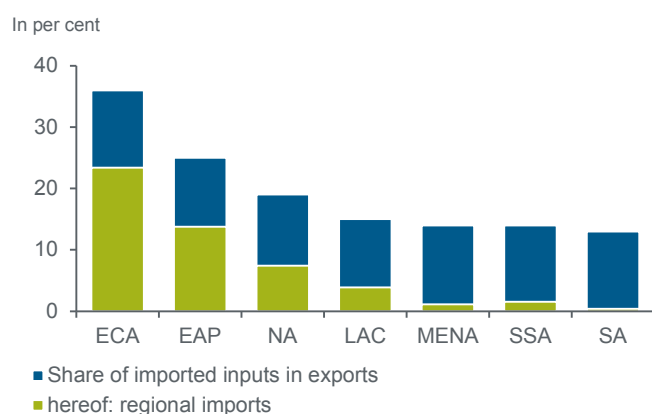
Source: IMF, own calculations

Interplay of value chains and FDI

A different explanation of why certain (former) LICs are characterised by FDI inflows in particular lies in their close integration into global value chains (GVCs). FDI can of course also flow into countries whose large internal markets alone make them attractive for foreign direct investment. One example is the creation of production capacities by German automobile manufacturers in the US or China. But this argument hardly applies to LICs because they are typically too small for this. They are interesting as a destination for FDI if they are closely integrated into the global economy. Global value chains emerge when the value creation of a good or service is spread across countries in the various production stages and supplies from one value stage to the next take place (at least once in the production process) in the form of exports (or imports).

Asia is very closely integrated into global value creation. According to the World Bank (2020)⁷, the value added share of imported inputs in exports averages 25% in Asia, and this percentage is only higher in Europe/Central Asia (Figure 4). At the same time, much of the integration of Asia's economies is regional – with an average 55% of supplied imports which then flow into exports also coming from Asia (see also Figure 4). Asia's economies are thus closely intertwined and producers and suppliers are not separated by long distances. That keeps supply times short and transport costs low on the individual stages of value creation. China plays an important role in Asia's integration. It is a global economic engine that takes in a high volume of goods from Asian neighbours, not just for its own domestic demand but for further processing into export goods. China thus acts as a global hub, including for smaller economies and their value chains. That has also benefited Asian low income countries and those that once were in this group.

Figure 4: Imported intermediate products



ECA=Europe/Central Asia, EAP=East Asia/Pacific, NA=North America, LAC=Latin America/Caribbean, MENA=Middle East/North Africa, SSA=Sub-Saharan Africa, SA=South Asia

Source: World Bank (2020), own calculations

The EU and the euro area play a similar role for Eastern European economies as China does for the eastern Asian region. The role of the US for Latin American economies, on the other hand, has a different emphasis. The country is of great importance for the economic and especially the cyclical development of these countries but not so much as part of value chains, as in the case of China and Europe, because the US itself is not a leading exporting nation. The share of exports in US GDP is around 7.5%, while it is 20 and 17% in the euro area and China (figures from 2019).

Against this backdrop, the disadvantage of the economies in the Sub-Saharan African region, where most low income countries are situated, becomes obvious. Their integration into global value chains is weak, as is regional added value integration. The latter may also have to do with the fact that Sub-Saharan Africa with its many extractive economies has relatively little diversification and transport infrastructure is not developed enough for efficient trade in goods. The African Continental Free Trade Agreement (AfCFTA) of 2019 is also embedded into this context. One of its objectives is to intensify the low level of regional trade, to overcome the persistent structural weakness in international trade and to more effectively integrate the fragmented and little integrated domestic markets. This could also help stimulate the formation of more prominent value chains and help attract more FDI.

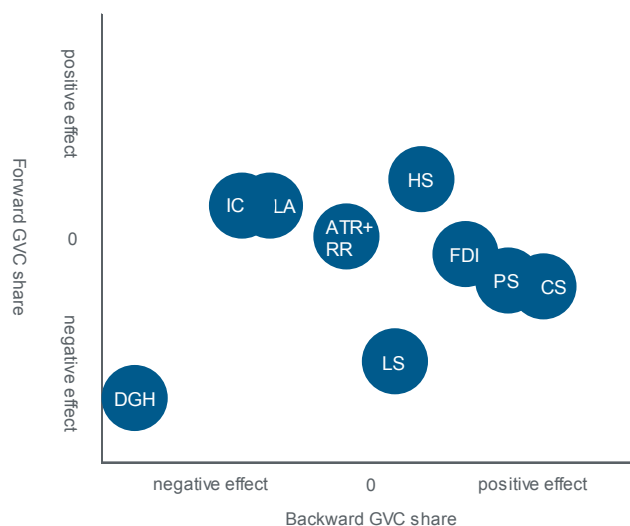
The link between FDI and global value chain integration is not unilateral but reciprocal. We initially argued here that FDI inflows into a particular country or region are also motivated by the fact that value chains run through these countries and regions. At the same time, value chains can only form where there is investment. In this regard, FDI is a driver for the development of value chains.

A study by Fernandes et al. (2020) confirms this finding.⁸ It established that attracting FDI is (obviously) only one of multiple influencing factors that favour the formation of value chains but it is indeed among the most important ones. The authors have arrived at the result that a country's (backward)

GVC integration is stronger the higher its FDI inflows are, the higher its political stability is, the higher its capital stock is (as a percentage of GDP) and the closer it is to economies that act as global hubs (China, Germany, US) (Figure 5).⁹

Figure 5: GVC drivers

Effect of GVC drivers on the GVC share of exports



IC=industrial capacity, LA=land/GDP, ATR=average tariff rate, RR=resource rents/GDP, DGH=distance to global hubs, CS=capital stock/GDP, HS/LS=high- or low-skilled labour/GDP, PS=index of political stability, FDI=foreign direct investment

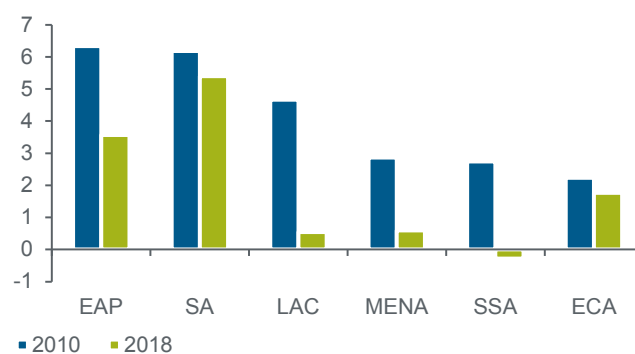
GVC drivers, which are grouped together in a blue circle, are not related in content but have a similarly strong influence and are therefore listed together for clarity.

Source: Fernandes et al (2020), own illustration

This once again emphasises the key role of investment, both foreign and domestic. LICs that have evolved into MICs not only have higher FDI inflows (Figure 2) but also higher investment quotas averaging 25% in the last two decades (median country). This applies in particular to the Asian representatives of this group, where the gross investment ratio averaged just under 30%. In the current LICs this ratio is a much lower 20%.

Figure 6: Per capita income

Year-on-year, in per cent



EAP=East Asia/Pacific, SA=South Asia, LAC=Latin America/Caribbean, MENA=Middle East/North Africa, SSA=Sub-Saharan Africa, ECA=Europe/Central Asia

Source: World Bank

Integration into international production and supply chains is an opportunity for countries to participate in global economic development and realise prosperity gains. Low participation in global value creation is therefore also a reason that the affected countries' per capita growth continues on a low level (Figure 6), their fight against poverty is stalling and debt levels remain high. This applies in particular to the countries of Africa and Latin America, many of which are still in the group of low income countries.

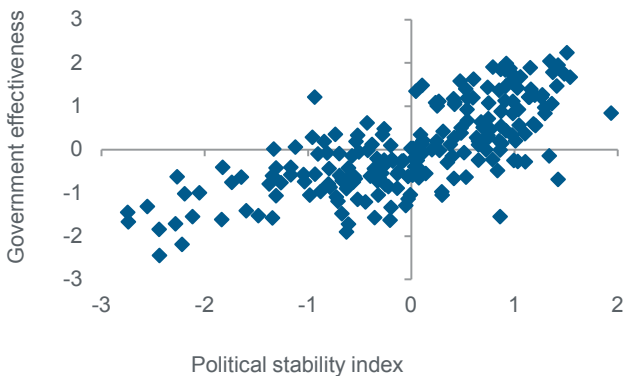
Statistical capacity as a factor that directly influences debt

Another factor repeatedly being debated in regard to a country's indebtedness is the quality of its institutions. Functioning administrations and agencies that work effectively and with little corruption while providing an enabling environment are crucial for high location quality and efficient allocation of resources, both in the public and in the private domain. The study by Fernandes et al (2020) referred to above ultimately confirms this as well by emphasising the importance of high political stability for the emergence of value chains. This is directly evident because stable political conditions in a country reduce uncertainty for investment there and increase investor appetite. Greater political stability usually goes hand-in-hand with higher legal certainty, greater quality of institutions and hence more effective government action (Figure 7).

The connection between quality of institutions and efficient governance on the one hand and indebtedness on the other hand, however, is also very directly established through the statistical capacity of a country's administration. After all, debt can hardly be managed effectively without an appropriate database and competent statistical expertise.¹⁰ The World Bank's Statistical Capacity Index attempts to measure the statistical capacity of a country's agencies.¹¹ With a few exceptions, the index only measures countries classified by the World Bank as low income and middle income countries. Besides economic and fiscal statistics, it also captures health data. It measures the method and the frequency with which the respective data are captured.

Figure 7: Political stability and government action

Index points (209 countries)

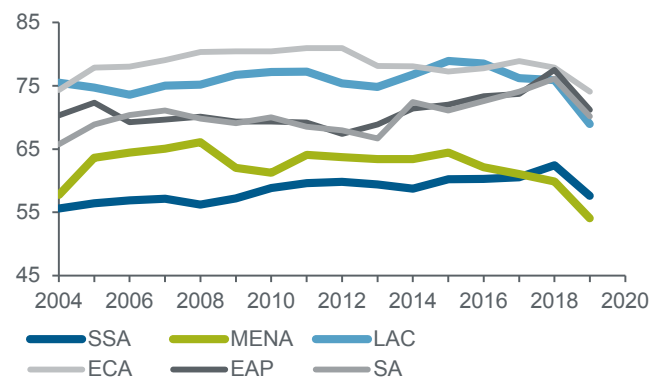


Source: World Bank

The correlation between statistical capacity as measured by the World Bank and public debt ratio proves to be statistically significant. Regression models can be used to show that a higher quality of national statistics usually goes hand-in-hand with lower public debt. This is also true when we remove time-specific and country-specific aspects (see box).

African countries fall behind their comparison groups in the rest of the world in this field of statistical capacity as well. A comparison of the relevant average values of the various regions of the world on the World Bank index shows that African countries have the lowest scores, both north and south of the Sahara (Figure 8).

Figure 8: Average statistical capacity



SSA=Sub-Saharan Africa, MENA=Middle East/North Africa, LAC Latin America/Caribbean, ECA=Europe/Central Asia, EAP=East Asia/Pacific, SA=South Asia

Source: World Bank, own illustration.

A regression using the above model with exclusive consideration of African states supports this observation. The correlation between statistical capacity and public debt is highly significant on the 1% level (see box).

Fixed effects model

A fixed effects model enables us to estimate the influence of different variables, particularly the statistical capacity score, on a country's general government debt to GDP ratio. The model measured only the 143 countries for which the World Bank recorded index values. This resulted in the following variants:

Model variants	N	Statistical Capacity Score		
		Coefficient	P > t	R ²
1a) country- and time specific effects	1,286	-0.62	0.023	0.3
1b) Ltime lag	1,319	-0.71	0.067	0.19 (w/i)
2a) Africa only	533	-1.31	0.005	0.39 (w/i)
2b) Ltime lag	535	-1.37	0.055	0.29 (w/i)

Variant 1a controlled for country-specific and time-specific effects, variant 1b additionally tested the effects of a t-1 time lag in the effect of the independent variable on the dependent variable. The variants under 2 illustrate the same models exclusively for African countries. All four are significant, although model 2a, which was calculated exclusively for Africa, achieved the highest significance level of 1%. Applied to all countries (1a), it resulted in a 5% significance level. The two remaining variants still achieved 10% significance. As expected, the coefficient in all cases was negative, i.e. more statistical capacity is typically associated with a lower debt level.

Source: World Bank, own calculation.

there is investment, not least in the form of FDI. A lack of integration into value chains also means that these countries can participate less in global wealth growth. Therefore, in many cases their economic position and, thus, possibilities for reducing debt remain weak or low. Sub-Saharan African countries in particular, a substantial portion of which belong to the group of LICs, have a lot of catching up to do in this regard.

Furthermore, LICs often suffer from low quality of institutions and a lack of governance structures. For one thing, this exacerbates the debt problem indirectly because these factors lower their quality as a business location and thereby hamper LICs' economic development. This also facilitates the build-up of debt. For another, there is a very direct link to indebtedness. Effective debt management is not possible with weak institutions that lack statistical expertise.

The conclusions from the observations in this paper reaffirm that in order to solve their indebtedness problem, poor countries need an economic perspective, one that would be offered by more investment and closer integration into the global economy. Not least, however, they also need to solve problems they created themselves in the field of efficient administrative action. A great need for catching up exists in both areas. Tackling this need, also from an international angle, will help more than any debt relief initiative.

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Summary and conclusion

The future outlook of low income countries and the development of their debt levels will continue to be a topic of debate, even as some or most of these countries are benefiting from debt relief arrangements in the course of the coronavirus crisis, allowing them to partially reduce their debt burden temporarily. The structural causes for their status as LICs and their debt problem remain.

We see a significant portion of these reasons in the area of investment. LICs attract too little foreign direct investment and their investment ratios are too low. This, in turn, correlates with value chains. They can adequately evolve only if

¹ The literature on this is diverse but mostly dominated by the IMF and the World Bank. Cf. for example IMF (2018), Rising Debt Vulnerabilities, in: Macroeconomic Developments and Prospects in Low-Income Developing Countries, IMF Policy Paper, p. 33–55 or World Bank (2019), Debt in Low-Income Countries: Evolution, Implications, and Remedies, in: Global Economic Prospects, January 2019, p. 199–208.

² According to the World Bank's definition, a country is a low income country (LIC) when its per capita annual income is equal to or below USD 1,025. The income threshold in the IMF's definition (LIDC) is currently USD 2,700 per capita per year.

³ Cf. also World Bank (2019), Growth in Low-Income Countries: Evolution, Prospects, and Policies, in Global Economic Prospects, June 2019, p. 133–148.

⁴ The net-net inflow of capital is calculated in two steps: first from the inflow of external capital into a country (for example in the form of share purchases) less the sale of assets (e.g. through the sale of shares) and then from offsetting this position against capital outflows leaving the country in question and assets dissolved by nationals abroad.

⁵ In the balance of payments, capital flows are reported in the financial account. While FDI and portfolio investment are reported in separate balance sheets in accordance with the IMF standards for balance of payments statistics (BOPM 6), bank loans and the formation/withdrawal of sight deposits abroad, for example, are contained in the category 'Other investment'.

⁶ Indonesia could be the only exception here, although it was downgraded by the World Bank from an MIC to an LIC only in 2000, so after the Asian crisis (on the basis of 1998 data) and reclassified as an MIC again in 2005. In this upgrade, the experiences of the Asian crisis and the responses subsequently adopted were sure to have played a role, so that Indonesia can indeed serve as an example of an LIC that was able to evolve into an MIC through financial sector reforms and changes in its debt behaviour.

⁷ World Bank (2020), World Development Report: Trading For Development – In The Age Of Global Value Chains, Washington D.C.

⁸ Fernandes, A. M., Kee, H. L. and Winkler, D. (2020), Determinants of Global Value Chain Participation. Cross-Country Evidence, Policy Research Working Paper No. 9197, World Bank, Washington, DC.

⁹ Backward integration into global value chains (GVCs) takes place when a country's exports contain imported value added (i.e. a value added stage using inputs previously produced abroad). Forward integration into GVCs takes place when a country delivers exports as inputs into other countries' value added and the goods produced with these inputs are then exported.

¹⁰ IMF (2018) G20 notes on strengthening debt transparency (<https://www.imf.org/external/np/g20/pdf/2018/072718.pdf>).

¹¹ Lokshin, M. et al. (2019), Measuring the statistical capacity of nations, World Bank Blogs, 5 Feb. 2019 (<https://blogs.worldbank.org/opendata/measuring-statistical-capacity-nations>).