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Features and Challenges of Economic Development

François Bourguignon

Tanzania graduated in 2020 from low-income to lower middle-income status in the country classification used by international organisations. This means that its national income per inhabitant is now just above USD 1,025 at the current official exchange rate. This was celebrated as an important achievement, even though such a nominal concept that does not take into account the purchasing power of the population is of dubious significance. After correcting for this factor, it turns out that the average Tanzanian citizen lives on USD 2,700 at the present purchasing power of advanced countries. Although higher in absolute terms, this figure is still less than a sixth of the world average and ranks Tanzania only slightly above the bottom 10 per cent threshold in a world ranking of countries. Despite graduation, Tanzania is still a poor country where economic development is as urgent today as it has been since independence.

As noted in Chapter 1, the country has gone through difficult times with the severe crisis that ended Nyerere's socialist experiment and the painful transition to a modern market economy under the control of donors and international financial organisations. It is only since the end of the 1990s, that is almost forty years after independence, that the country has seen steady growth. Progress since then has been impressive. Yet, with still almost half of its population below the international poverty line of USD 2.15 a day at international prices, there is still a very long way to go before it will have completely eradicated poverty, fast population growth making this even more challenging.

This chapter analyses the economic development obstacles that Tanzania faces today and is likely to face in the future on its way to full poverty eradication. It starts with a review of the evolution of key economic indicators and its main causes with a focus on the most recent period and the factors that may presently be constraining further or faster progress. The spotlight then moves to social issues, where results appear significantly less remarkable than

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could be expected given the economic achievements. The chapter ends with a summary of the main economic and social development challenges faced by Tanzania in the early 2020s. More detailed aspects of the economic as well as institutional context of Tanzanian development are considered in subsequent chapters.

1 THE MAIN FEATURES OF TANZANIA'S ECONOMIC DEVELOPMENT

The short economic history of Tanzania has been chaotic. It is only during the last twenty-five years or so that economic development has proceeded at a steady pace, and this is the period the following review will mostly focus upon. Yet it is also important to sometimes refer to the preceding period, that is the socialist development era and the difficult transition to a full market economy, to put the recent period in perspective.

The following review of economic development in Tanzania is organised around four major sets of issues that, directly or indirectly, have all to do with the determinants of the pace and structure of economic growth. The first set is concerned with the gross domestic product (GDP) growth rate and the way it can be explained by changes in the sectoral structure of the economy and/or productivity gains within sectors. The second set of issues has to do with capital accumulation as an essential factor of growth, and more generally the division of national income into investment and consumption expenditures. The third set involves the role of external trade, a major factor in all contemporaneous development histories. The last set is about the financing of the economy and especially foreign finance flows, including official development assistance (ODA).

A Pace and Sources of Aggregate Growth

Growth has closely followed the changes in political and economic regimes that have characterised Tanzania since the end of the Nyerere era. Growth was fast following independence but slowed down a bit after the implementation of the socialist Ujamaa strategy, and then fully collapsed when the destabilisation caused by the latter combined with adverse external conditions to produce a severe economic crisis in the mid-1980s. A long period of stagnation followed as the transition back to a market economy took place under strict macroeconomic and structural adjustment constraints imposed by the International Monetary Fund (IMF) and the World Bank. It was only in the late 1990s that GDP per capita started to grow vigorously again, after almost twenty years of stagnation. Since then, progress has been dynamic, to such an extent that Tanzania's development has often been called a 'success story' – masking earlier difficulties. GDP per capita has grown on average by 3 per cent and total GDP by around 6 per cent a year over the last twenty years or so. As can be

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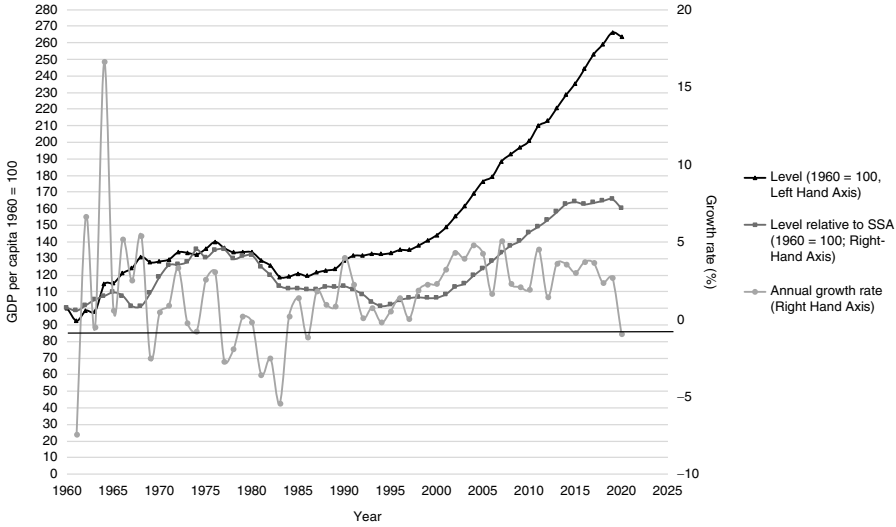

FIGURE 2.1 Tanzania's GDP per capita (absolute and relative to sub-Saharan Africa) and growth rate, 1960–2020
Source: Penn World Tables 9.1 1960–2009; WDI 2019–20

seen in Figure 2.1, GDP per capita has practically doubled over that period, a rather impressive performance in comparison with earlier decades and with the whole of the sub-Saharan region.

That overall evolution of growth since independence in Tanzania is far from unique to the region. Most sub-Saharan countries have gone through the same sequence of booms and busts, although with different intensity: fast growth after independence, recession and severe balance of payment crises in the early or mid-1980s partly because of unfavourable external contexts, structural adjustment programmes (SAPs) forced upon them by the IMF and the World Bank, and exit from this long stagnation in the mid- or late 1990s. Compared with the whole of sub-Saharan Africa – excluding South Africa – Tanzania did better in the post-independence years, then worse in the early 1970s, at the time of Ujamaa. It then performed on a par with the region, recovered earlier from the long stagnation of the 1980s and early 1990s, and then performed significantly better over the last two decades. Over the last sixty years, Tanzania's growth of GDP per capita has outperformed the average sub-Saharan country by 50 per cent.

The comparison is less favourable with other developing countries. In the early 1980s, countries such as Bangladesh, Cambodia, India, Laos, and Vietnam had a GDP per capita lower than Tanzania in international purchasing power parity. Today, it is 30 per cent higher in Bangladesh and Cambodia and more than twice in the other countries.

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1 The Sources of Growth: Structural Change More Than Productivity Gains

Analysis of changes in the structure of the economy and productivity growth since independence is made difficult because of a lack of homogeneous series over the whole period. The Groningen Growth Development Centre (GGDC) provides data on sectoral components of GDP and employment that result from a careful analysis of all existing sources of data – especially on employment – and reasonable inter- or extrapolation when data are missing. The problem is that the GGDC changed definitions and price corrections in its most recent release for the 1990–2018 period, thus making it not directly comparable with the previous release, which covered 1960–2011. Rather than trying to build artificially homogeneous series covering the whole economic history since independence, we use the two sources as follows: the initial series for the 1960–97 period, that is the independence period followed by the long recession that ended in the late 1990s, and the most recent dataset since 1997.

Tables 2.1a and 2.1b describe respectively the evolution of the structure of the economy over these two periods. Figures for 1997, which appear in both tables, thus refer to two different sources that differ on the one hand in the definition of sectors and on the other hand in the base year for constant price GDP series. Differences are noticeable. Reassuringly, however, it turns out that the two data sets are roughly consistent with each other in describing the changes in the structure of employment and GDP over periods common to the two sets, although this convergence is not explored further here.

The story told by Table 2.1a on the earlier period fits the growth account presented earlier. It breaks down into a rather dynamic time from independence to the mid-1970s and then a long regression until the late 1990s. Structural changes are noticeable – from 1977 to 1997 – with the GDP-share of agriculture falling rapidly in favour of manufacturing, utilities, and government services. Changes on the employment side are more limited,[1] the dominant feature being the loss of agriculture mostly to the benefit of trade and hospitality, with a pronounced drop in both sectors in relative productivity, that is the ratio of sectoral productivity to overall (GDP) productivity. On the GDP side, the second subperiod – from 1977 to 1997 – witnesses structural changes that go in the opposite direction, with agriculture regaining weight at the expense of manufacturing and other sectors, whereas labour movement from agriculture to the rest of the economy continues at the same slow pace.

Structural changes shown in Table 2.1b for the last two decades resemble the post-independence period in the preceding table, with fast and accelerating progress of aggregate productivity and a quick decline in the GDP share for agriculture. Sizeable relative gains are observed in construction, whose share

[1] They are also imprecise outside big sectors such as agriculture, manufacturing, and government services. This may be seen from abnormally high relative productivity in the low employment sector in 1960. For instance, the sectoral productivity in the construction sector would be halved if its share of employment were 0.4 instead of 0.2 per cent, although this is a tiny difference.

TABLE 2.1a *Evolution of the sectoral structure of employment and GDP, 1960–97 (GGDC Release 2014, GDP at constant 2005 prices)*

(%)	1960			1977			1997		
Year	GDP	Empl.	R. Prod[a]	GDP	Empl.	R. Prod[a]	GDP	Empl.	R. Prod[a]
Agriculture	45.0	91.7	0.5	33.0	88.5	0.4	39.7	85.3	0.5
Mining	3.8	0.1	27.9	1.2	0.6	2.0	1.6	0.5	3.4
Manufacturing	6.9	1.07	6.4	12.4	1.6	7.7	8.5	1.5	5.7
Utilities	0.8	0.0	29.9	1.5	0.1	18.9	2.6	0.2	14.8
Construction	7.2	0.2	42.2	8.7	0.7	11.9	7.3	0.6	11.2
Trade and hospitality	17.7	1.0	18.3	16.2	3.9	4.2	15.9	6.1	2.6
Transport, storage, and communication	6.3	0.2	26.9	9.0	0.8	11.6	7.0	0.7	9.6
Finance, insurance, real estate, and business services	2.6	0.1	27.9	3.4	0.2	20.1	4.8	0.2	23.8
Government services	9.2	3.5	2.6	13.8	2.2	6.2	11.6	3.1	3.7
Community, social, and personal services	0.5	2.1	0.3	0.8	1.4	0.6	1.0	1.8	0.5
Total	100	100		100	100		100	100	
GDP and GDP/worker (1997 = 100)	27.6		80.1	60.6		108.8	100		100

[a] Sectoral productivity relative to overall productivity at the bottom of the column (1997 = 100), i.e. GDP divided by Empl. column

Source: Author's calculation from Groningen Growth Development Centre database.

TABLE 2.1b *Evolution of the sectoral structure of employment and GDP, 1997–2018 (GGDC Release 2021, GDP at constant 2015 prices)*

(%)	1997			2007			2018		
Year	GDP	Empl.	R. Prod[a]	GDP	Empl.	R. Prod[a]	GDP	Empl.	R. Prod[a]
Agriculture	39.7	84.4	0.5	32.2	75.3	0.4	27.9	69.7	0.4
Mining	2.8	0.6	4.6	4.7	0.6	8.5	4.4	0.8	5.6
Manufacturing	6.9	1.8	3.9	7.9	2.7	3.0	9.1	3.2	2.8
Utilities	1.9	0.2	11.3	1.6	0.1	15.2	1.3	0.1	10.2
Construction	6.1	0.8	7.5	9.4	1.2	7.9	14.7	1.9	7.9
Trade and hospitality	13.1	6.4	2.0	11.7	10.4	1.1	11.4	14.2	0.8
Transport, storage, and communication	8.2	0.7	11.0	7.9	1.6	5.1	8.3	2.1	4.0
Finance, insurance, real estate, and business services	10.6	0.4	24.6	12.7	0.8	16.7	12.2	1.1	11.1
Government services	8.5	3.3	2.6	10.2	3.2	3.2	9.3	3.7	2.5
Community, social, and personal services	2.3	1.4	1.7	1.7	4.2	0.4	1.4	3.2	0.4
Total	100	100		100	100		100	100	
GDP and GDP/worker (1997 = 100)	100		100	180		132.5	356		198.6

[a] Sectoral productivity relative to overall productivity at the bottom of the column (1997 = 100), i.e. GDP divided by Empl. column

Source: Author's calculation from Groningen Growth Development Centre database.

more than doubled, mining, and, to a lesser extent, manufacturing. It is interesting that these changes look to be continuous throughout the whole timespan, the structure of GDP in 2007 being intermediate between those observed at the beginning and end of the period. For employment, the same migration phenomenon as before is present, although much enhanced, between agriculture and the trade sector. Employment movement towards the latter sector is so strong that its productivity relative to that of the whole economy is more than halved over the whole period – which implies a slight decline in absolute terms.

Focusing on the periods of fast growth, it is tempting to conclude from these tables that Tanzania's engines of economic growth stood in those sectors whose GDP share benefited most from the decreasing importance of agriculture. They comprise manufacturing, transport, and government services in the post-independence years, and essentially construction, mining, and manufacturing in the last twenty years. Such a reading of the preceding tables would be misleading, however. First, engines of growth in a small open economy such as Tanzania are almost necessarily located in sectors that produce tradable goods. Growth in other sectors reflects the dynamism of the demand side of the economy or its consequences rather than being the cause of overall growth. Thus, mining and manufacturing are sectors that might possibly qualify as growth engines, but not construction, which essentially responds to the demand arising from growing public infrastructure investments. Second, true engines of growth are unlikely to be sectors whose labour productivity lags behind that of the whole economy while their employment share rises, as has been the case for the trade and hospitality sector in Tanzania. Either those sectors are sheltering surplus labour or their development concentrates in sub-sectors with lower productivity, an unlikely trend.

The case of the manufacturing sector is of particular interest owing to the emphasis presently put by the Tanzanian government on the need for the economy to industrialise. It can be seen in Table 2.1b that the manufacturing sector has grown somewhat faster than total GDP over the last twenty years, without its share in GDP ever reaching the level achieved by 1977 before the long recession. Assuming that part of that growth was a response to the increase in demand originating in the rest of the economy, the other part can be seen as truly autonomous and directed towards exports – or substituting for imports. It is indeed the case that manufacturing exports grew quite substantially during the 2000s, as emphasised for instance in MacMillan et al. (2017, pp. 155–60),[2] suggesting that this sector has the potential to grow independently of the rest of the economy, a feature that is expected from a genuine growth driver. Yet the contribution of the manufacturing sector to the overall growth of the economy is presently limited by its size. It is easily calculated that the 2 per cent GDP-share increase in Table 2.1b is responsible for only 10 per cent of overall growth over the last two decades.

[2] See also World Bank (2014a, pp. 33–5).

An unexpected feature of the evolution of the manufacturing sector over that period is the drop in its productivity relative to that of the whole economy – see Table 2.1b – which seems to contradict the capacity of this sector to play the role of a growth engine, even as a side influence rather than the main driving factor. The point is that this concept of relative productivity may be misleading, and the comparison with the growth of overall productivity may hide the true contribution to overall growth of the productivity gain arising within a sector.

The reason for this ambiguity lies in the key role of structural change, that is the reallocation of labour across sectors, in overall labour productivity gains. When workers leave agriculture, they move away from a sector where labour productivity is among the lowest – as can be seen in Tables 2.1a and 2.1b – and move to sectors where the productivity is higher. By itself, this restructuring of employment thus raises the overall labour productivity in the economy. This would be the case even if no productivity gain were taking place within sectors. When comparing the change in the productivity within a specific sector to overall productivity, it must thus be taken into account that the latter includes this structural change effect. Productivity may well increase in the sector under consideration, but may be less than the overall productivity gains due to structural change.

The decomposition of the change in overall productivity into its structural change and its within-sector components shown in Table 2.2 for the two pre- and post-1997 periods is quite instructive. The striking feature is the importance of the structural change component. Until 1997, gains in overall labour productivity – and roughly speaking in GDP per capita since employment may be assumed to be approximately proportional to the population – were essentially due to structural change, whereas the within-sector productivity gain was negative. Roughly speaking, this can be interpreted as the result of workers moving from agriculture to sectors with a higher productivity but contributing at the same time to lowering productivity within the latter. This is exactly the way the increasing employment share and decreasing GDP share of the trade sector, the main destination of the net flow of workers out of agriculture, can be interpreted in Tables 2.1a and 2.1b.

Things change drastically after 1997, however. First, the structural change effect tends to weaken, mostly because the productivity gap between agriculture and the trade and hospitality sector shrinks. Second, the average within-sector productivity increases, especially after 2007.[3] Over the most recent sub-period, the within-sector productivity component is even slightly bigger than the structural change effect. It thus looks as if some deep change had taken place in the Tanzanian economy. Coming back to the issue of the contribution of the manufacturing sector to growth, it can be seen in the Appendix that its contribution to the growth of overall productivity is definitely more through its

[3] The same decomposition for Tanzania's productivity growth for the period 2002–12 can be found in McMillan et al. (2017), with results intermediate to those for the periods 1997–2007 and 2007–18 in Table 2.2, that is a strongly positive structural change effect and a much smaller (positive) effect for the within-sector productivity component.

TABLE 2.2 *Decomposition of the change in overall labour productivity into structural change and within-sector productivity effect, 1960–2018*

(Percentage points)	Structural change	Within-sector productivity	Total
(GGDG Release 2014, GDP at 2005 prices)			
1960–77	68.7	−32.8	35.9
1977–97	7.9	−14.7	−6.8
1960–97	85.2	−42.7	42.5
(GGDG Release 2021, GDP at 2015 prices)			
1997–2007	25.7	6.8	32.5
2007–18	22.3	27.5	49.9
1997–2018	53.7	36.2	89.9

Source: Calculation in Appendix

autonomous increase in productivity than its participation in structural change through faster employment creation than in the rest of the economy.

What should be concluded from this review of the changes in the structure of the Tanzanian economy and in sectoral productivities in terms of sources of growth? A first conclusion is the importance of the sectoral reallocation of labour as the main source of growth from independence until today,[4] except, of course, during the long recession of the 1980s and 1990s, a period of more than fifteen years over which both overall growth of labour productivity and its structural change component have been close to zero. A second conclusion is the negative overall contribution of changes in within-sector productivity from independence to the mid-2000s. It is only over the recent past that productivity gains acquired a dynamic role in Tanzanian growth. Interestingly, it will be seen later that this coincides with a sustained high level of capital accumulation, as not experienced in Tanzania since the socialist era. Causality is not granted, though, especially because much of the gross capital formation seems to have taken place in infrastructure, as may be guessed from the surge of the construction sector, which produces a type of capital whose impact on productivity generally takes some time to become visible.

The rather satisfactory rate of growth that Tanzania has enjoyed over the last twenty years or so is good news. That it cannot be attributed to the

[4] This conclusion may seem to contradict the widely publicised view in McMillan et al. (2014) that structural change had a negative impact on sub-Saharan growth. Tanzania may be an outlier. However, note that McMillan et al.'s estimate is for the period 1990–2005, which includes part of the long recession that hit the whole region. In Tanzania, the contribution of structural change to growth was indeed close to zero, if not negative, during that period, but the country got out of stagnation before the rest of the region and then grew faster.

autonomous growth of a specific sector progressing on international markets or competing with imports is more worrying. The reallocation of labour from low-productivity agriculture to a slightly less low-productivity trade sector cannot be considered as a sustainable engine of growth. At some stage, employment in higher productivity sectors, especially in tradable goods and services, will have to expand. It is not clear this is about to happen. Even though more dynamic lately, the manufacturing sector is presently not big enough to be more than a side engine of growth. As noted in Chapter 1, the agricultural sector is home to the natural comparative advantages of the Tanzanian economy. Until now, however, these have not been exploited and agriculture lies largely behind the growth of the rest of the economy. Mining is the last tradable sector that could be an autonomous source of growth, but this would be more through favourable international prices, and therefore its positive impact on the demand side of the economy, than through enhanced production on the supply side, unless of course a flow of new resources were to be discovered in the coming decades.[5]

II INVESTMENT AND THE STRUCTURE OF AGGREGATE SPENDING

Even though the growth performance of the Tanzanian economy has been reasonably high over the last twenty years, and especially the last decade, it is not to be ignored that it was largely demand-driven rather than the produce of a clearly identified autonomous growth engine in tradable sectors. This would be the case, for instance, if a significant improvement in the terms of trade or important foreign resources grants had fed private and public domestic demand, fostering activity and possibly investment. It will be seen later that such an improvement in terms of trade occurred at around the turn of the millennium. In the future, however, a way has to be found to maintain and enhance the progress observed lately in the productivity, and therefore competitiveness, of key tradable sectors, manufacturing in the first place, but possibly also agriculture and the agroindustry. This requires keeping investment at a high level and making it more effective.

The evolution of the domestic expenditure counterpart of GDP is shown in Figure 2.2 from 1985 to 2017. Earlier data are not available or are not comparable, whereas data after 2017 are still provisional and likely to be affected by measurement errors. The dark curve that describes the evolution of the GDP-share of gross capital formation exhibits an interesting shape. It surged in 1990 and reached a level close to 40 per cent for a few years. It then fell sharply until 2000, before progressively getting back to its previous maximum over the last ten years or so. Such an evolution raises two sets of questions. First, what explains such fluctuations and what made, and is making possible today, such

[5] The recent discovery of sizeable offshore fields of natural gas is discussed below together with foreign trade issues.

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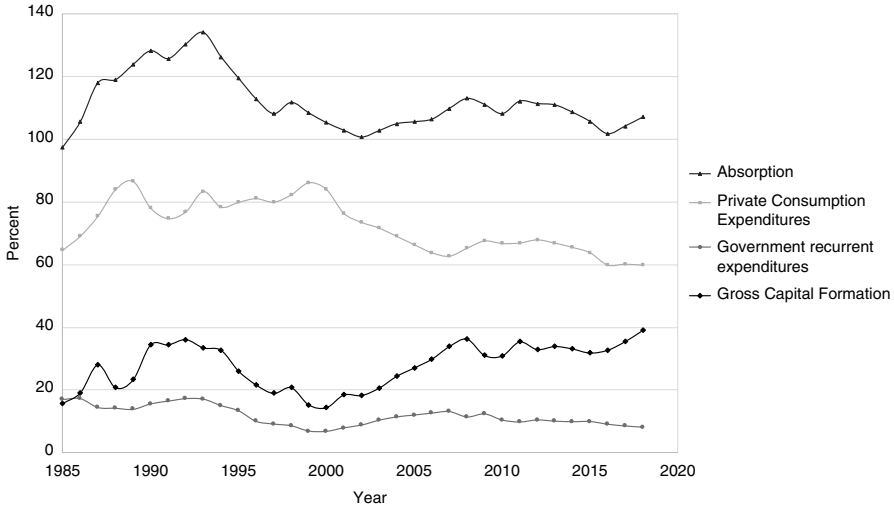

FIGURE 2.2 Absorption and expenditures on GDP, 1985–2018 (percentage of GDP)
Note: Because of a shift in the base of Tanzanian national accounts in 2015, the IMF today reports only data after 2012. Figures for the period before 2012 are taken from previous 2005-based national account series after adjusting them proportionally so that they coincide with the new definition in 2012
Source: IMF, International Financial Statistics

a high rate of investment in a country that has just graduated from low-income status? Second, are the rate of growth of the economy and its productivity gains consistent with its investment efforts?

The evolution of investment in the first half of the period shown in Figure 2.2 closely follows the economic history of Tanzania. After Nyerere's resignation in 1985 and the concomitant shift to a market economic system under the pressure of donors, and in front of the dismal situation of the economy, ODA flows surged while new ambitious development programmes were launched. These included huge investment efforts that were essentially financed externally; hence the high level of absorption – that is, total domestic expenditures including investment – observed in around 1990, a period during which domestic spending overcame GDP in some years by as much as 35 per cent. But donors did not want to keep Tanzania permanently on a drip and started reducing aid. After a short rebound in the early 1990s, growth slowed down, and so did investment. As the share of private consumption in GDP kept constant, it turned out that the brunt of the drop in absorption caused by the decline in aid was borne by investment and government recurrent expenditures.

The recent, more progressive surge of investment is a different story. First, growth accelerated in the 2000s, partly because of foreign financing and partly because of improving terms of trade. This triggered a rebound in investment.

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Second, the share of private consumption in GDP started to decline, thus providing space for additional investment expenditures. The economy then gradually settled into a new rather favourable kind of equilibrium, with an investment rate a little below 35 per cent of GDP and private consumption around 60 per cent, but also with a need for foreign financing to fund a level of absorption still above GDP.

There are several explanations for the decline of the average household propensity to consume that permitted the sharp increase in investment. The first is the change in the share of agriculture in total income. The propensity to consume is known to be higher from agricultural income, if only through subsistence farmers consuming most of their own produce. As seen earlier, the share of agriculture in GDP fell drastically at the turn of the millennium, thus bringing about a drop in the average propensity to consume in the economy.[6] In addition, the propensity to consume has likely decreased owing to various other causes, including an increase in taxation in the early 2000s, a slower inflation of consumption prices relative to the GDP deflator, and rising income inequality, as will be discussed later.

In view of the decomposition of changes in labour productivity in the preceding section, one may ask whether the evolution of the investment share in GDP is consistent with it, and thus check the role of capital accumulation as a key determinant of Tanzanian growth. Interestingly, the profile of the investment ratio over time explains why growth has long been driven essentially by structural change while within-sector productivity was falling, a feature that changed only during the last decade. Indeed, the slow pace of capital accumulation observed before the late 2000s was barely enough to cover more than the capital needs arising from depreciation, demographic growth, and the extra capital required to equip the net flow of agricultural workers moving to higher productivity and therefore more capital-intensive sectors. This explains why no gain was recorded in within-sector productivity in earlier periods. As the investment rate rose, a threshold was then passed such that the investment rate is able not only to cover all these needs but also to increase the capita–labour ratio, and therefore productivity within sectors of production. Apparently, the threshold was passed in the late 2000s, before the investment rate reached a plateau at around 35 per cent of GDP. Growth proved to be the result of both structural change and within-sector productivity gains.[7]

[6] Although data may not be as precise, the opposite evolution seems to have taken place in the 1980s and early 1990s, when the GDP-share of the agricultural sector was increasing and the economy was in a deep recession.

[7] With a capital-output ratio of 2.5, a depreciation rate of 4 per cent, and a population growth rate of 3 per cent, maintaining the overall capital-labour ratio requires an investment rate of 17.5 per cent. However, this figure becomes higher when it is assumed that most capital is used outside agriculture and the non-agricultural sector must absorb a net flow of workers out of agriculture. A net flow equal to 1 per cent of the labour force is equivalent to employment having to grow by 4 per cent a year on top of demographic growth outside agriculture. Then a 27.5

This rather favourable evolution nevertheless leaves open the question of whether these productivity gains are efficient or whether the pace of capital formation would allow for faster gains. Answering this would require a detailed analysis of the conditions of production sector by sector, even though the World Bank enterprise surveys suggest several common factors that limit productivity, such as insufficient and irregular power supply or the lack of skilled manpower. A rough calculation shows that the observed average productivity gain across sectors in the 2007–18 period could probably have been substantially higher in view of existing estimates of the productivity of capital.[8]

Not only the volume but also the composition of investment matters for growth. In this respect, the low level of the stock of infrastructure in Tanzania needs to be emphasised. In most enterprise surveys, managers report the low volume and quality of infrastructure as one of the factors that most constrain production and competitiveness. This is particularly true in the field of electricity, Tanzania being among the countries where the consumption of electricity is the lowest in the world. But this is also true of port facilities and the road network. Efforts are being made, as can be seen from the surge of the construction sector over the last two decades, but needs are huge.

If it proves possible to maintain such a high volume of investment as the present one, the prospects of the Tanzanian economy would seem promising. Two downsides must be mentioned, however. First, this requires that external funding remains available. It can be seen in Figure 2.2 that, even though lower than in the early 1990s, the absorption rate is still above 100, which means that the economy relies on foreign financing to cover part of its expenditure. This need was on average around 8 per cent of GDP over the last ten years. Second, outlets for production from new private investments must be available, which raises again the issue of the nature of the growth engine. This is not granted if growth is mostly demand-driven, as suggested earlier for the last two decades, unless the source of growing income behind demand has some permanence. If this is not the case, the high level of investment and growth can only be maintained through an expansion of tradable sectors and progress being achieved in terms of international competitiveness. This is the issue we now turn to while focusing on external trade.

A External Trade

The evolution of trade between Tanzania and the rest of the world has been extremely variable over time. Data series for foreign trade since independence

per cent overall investment rate would be needed to absorb the net labour flow from agriculture without changes in sectoral capital-labour ratios.

[8] Using the same assumptions as in the preceding footnote, an investment rate of 35 per cent as observed in the recent years would permit a 3 per cent annual increase in within-sector productivity instead of the observed 2.2 per cent. This estimate would be higher if, of course, it was assumed that some capital is used in agriculture, unlike in the preceding footnote.

do not seem very reliable, nor do they always fit national accounts. What seems certain is that the share of exports in GDP was around 30 per cent at the time of independence and had practically collapsed by the time of the dramatic balance of payment crisis that triggered the SAP in the mid-1980s. It was then as low as 5 per cent to a large part because of a dramatic drop in the production of export crops. It had recovered a little by 1990, and then exports surged for a short while before falling sharply again, in both instances mostly for climatic reasons and fluctuations in international prices.[9] They have gradually regained lost ground since the turn of the millennium and seem to have now stabilised at around 20 per cent or so over the last years. Yet their composition was drastically modified, with traditional exports crops losing weight in favour of mining and, to a lesser extent, manufacturing products.

Notwithstanding these fluctuations, and taking the late 1990s as a point of departure, exports have been extremely dynamic over the last twenty years, to such an extent that they may have been a significant contributor to the overall growth of the economy during that period. If their volume has grown on average only slightly faster than GDP, their unit value has significantly increased both with respect to imports – as can be seen from the terms of trade graph in Figure 2.3 – and domestic goods. As exported and domestically consumed goods and services can rarely be substituted for each other, exports have directly contributed to the growth of overall production roughly in the same proportion as their share in GDP, that is around 13 per cent over the last two decades. However, because of very favourable terms of trade – a 40 per cent increase since 2000 according to Figure 2.3 – they raised the purchasing power of the economy and exerted positive pressure on growth through the domestic demand side of the domestic economy. These effects are part of the implicit demand-driven component of recent growth mentioned earlier in this chapter when reviewing growth performances and their determinants.

The overall growth of exports hides a substantial diversification of exported products. Figure 2.4 shows that merchandise exports were essentially agricultural products in the mid-1990s and, as such, subject to fluctuations in climatic conditions as well as price variations in international markets. In a few years in the early 2000s, mineral exports and especially gold and precious stones became dominant, with a share of total exports slightly above half. Agricultural products now represent less than 20 per cent, less than manufacturing products. For both groups of products, it should be noted that present trends may be stronger than it appears in the chart. In 2018, gold exports have been negatively affected by a ban agreed by the government of Tanzania, which was accusing foreign mining companies of cheating on the gold content of exported auriferous sand, whereas agricultural exports suffered from a row between the government and foreign buyers of cashew nuts whose price was found too low. The 2019 figures may not be completely back to normal.

[9] On export fluctuations and their causes during this period, see Kweka (2004).

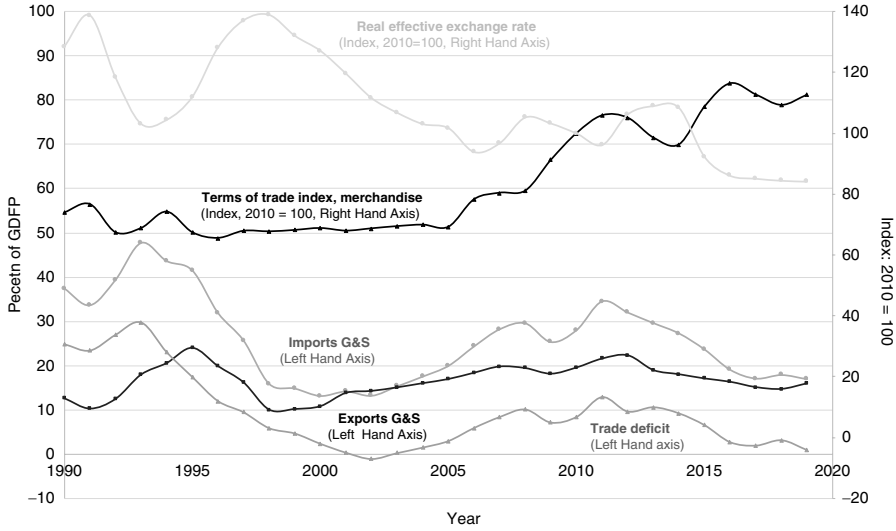

FIGURE 2.3 Foreign trade and terms of trade, 1990–2019 (shares of GDP or 2010 based indices)
Note: The real effective exchange rate is defined as the ratio of the price of domestic over foreign goods. It is obtained by dividing the consumer price index in Tanzania by the product of the exchange rate (in Tanzanian Shillings per dollar) and the mean GDP deflator of partner countries. Trade partners were identified by the mean share of merchandise exports and imports across the two sub-periods 1997–9 and 2013–15. Only partners with shares above 2 per cent were considered. The resulting list of countries is, in order of importance, India, South Africa, China, Kenya, Japan, UK, Saudi Arabia, Germany, UAE, Switzerland, Netherlands, USA, and Belgium
Source: Author's calculation from World Development Indicators (see figure note)

The manufacturing sector has also been a driver of export growth. Its share in merchandise exports doubled in the last fifteen years and now represents a fifth of total exports. It was mentioned that the growth of the manufacturing sector being faster than of GDP could mean that an increasing share of its output was directed towards foreign markets or was substituting imports. Figure 2.4 confirms this view on the export side. It is also quite striking that the surge in manufacturing exports coincided with a steady and strong real depreciation of the currency – see the real exchange rate chart in Figure 2.3.[10] After a big depreciation in the early 1990s followed by an equally rapid re-appreciation, the real effective exchange rate declined continuously between 1998 and 2006, at roughly 4 per cent a year. That simultaneity between manufacturing export growth and the real exchange rate fits the view famously put forward by Rodrik (2008) about the favourable development impact of

[10] Recall that the real exchange rate is defined there as the price of domestic over foreign goods.

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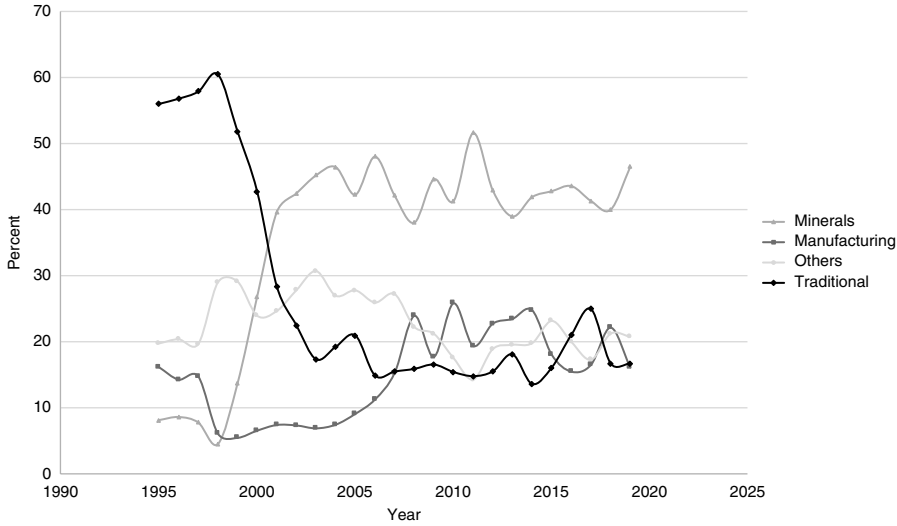

FIGURE 2.4 Composition of merchandise exports, 1995–2019 (shares of total)
Source: Calculation from Bank of Tanzania annual reports (1995–2019)

the undervaluation of the local currency on development.[11] Tanzania could thus be another example of the favourable consequences of currency undervaluation on industrialisation and growth, although it might be better to refer in this case to a move away from overvaluation rather than an undervaluation strategy. Note also that the argument does not apply to mineral exports, whose price is set on international markets rather than by domestic production costs.

The preceding remarks refer to merchandise exports, thus ignoring exports of services. The latter represent between 50 and 60 per cent of merchandise exports, and no noticeable change has taken place in this ratio over the last two decades or so. Service exports primarily include transports of goods between landlocked neighbour countries and domestic seaports, and, most importantly, tourism receipts. If they contributed to the dynamism of exports in the early 2000s, the latter have now stabilised and represent a little more than 4 per cent of GDP.

There is no doubt that the development of exports, particularly during the 2000s, largely contributed to the growth performances of the Tanzanian economy. The issue, however, is whether such a dynamism is sustainable in the long run. Commodity exports, mineral or agricultural, are determined by foreign demand and their price is set on international markets. Their revenue is thus uncertain, even though the relative diversification of Tanzania's commodity exports attenuates that uncertainty. The same can be said of the transport services that depend on the trade activity of neighbouring countries – a business

[11] See also Eichengreen (2008).

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likely to increase within a few years with the completion of the railway link with Rwanda and Burundi. Overall, then, the manufacturing and tourism sectors represent the only truly autonomous factors of growth. They are also labour-intensive, unlike other non-agricultural exports, a key issue for the inclusiveness of growth, especially in view of the fast population increase. As seen earlier, however, they are presently too limited – roughly 6 per cent of GDP altogether – to be a real growth engine of the Tanzanian economy.

One word must be said about the huge offshore resources of natural gas discovered in Tanzania since 2011. The dependency on foreign prices is at its strongest here since projects are currently on hold in view of international liquefied natural gas (LNG) prices being much lower than the estimated cost of extraction.[12] Estimates of potential revenues vary depending on the expected overall cost of extraction. Revenues amounting to 1.2 to 1.5 per cent of GDP seem reasonable estimates.[13] Of course, this would be a real bonus for Tanzania and might be managed without too much negative spill-over of the 'natural resource curse' type. However, it is unlikely to drastically change the long-run economic prospects of the country either.

Another factor that may have contributed to the dynamism of Tanzanian exports that is worth emphasising is the change in the relative weight of destination countries. Exports towards China have surged over the last two decades, reflecting both the expansion of China as a trade partner of sub-Saharan Africa and the fast growth of its economy. But trade has also grown very fast with two African countries that have become major trade partners: Kenya, another member country of the East African Community, and South Africa, the dominant economic power of the region.

On the side of imports, the most noticeable fact over the preceding few decades has been their explosion in the early 1990s, when import licensing was almost completely abolished as a final step of the transition towards a market economy. They then fell against GDP partly because they were reverting to a more normal level and partly because of the real depreciation of the currency. Since the beginning of the century, the GDP share of imports has surged again under the pressure of accelerating growth, increasing investment, and a stable real exchange rate, before declining, possibly because of the real depreciation of the national currency over the last five years or so.

As far as the composition of imports is concerned, the most noticeable change is the sizeable drop that has occurred in the share of consumer goods – from 36 per cent in 2000 to around 25 per cent in 2016. It may result from two circumstances: the drop in the share of private consumption in GDP and

[12] This remains true despite the increase observed since the mid-2020s.

[13] A report by NRGI, a New-York-based non-governmental organisation specialising in advice on natural resource policies, estimates the Tanzanian revenue of the Lindi LNG gas project to be 1.2 per cent of GDP, if the project goes ahead (Olingo, 2017). Henstridge and Rweyemamu (2017) assume lower extraction prices that would make the investment profitable. Yet their detailed calculation leads to actual revenues of around 1.5 per cent of GDP in the twenty years following investment – at least five years or more from now.

the real depreciation of the currency. It is unlikely that the former can explain all the observed drop, so some import substitution has probably taken place,[14] which might have reinforced the impact of exports on the development of the domestic manufacturing sector.

Trade policy in Tanzania is constrained by its simultaneous membership in the East Africa Community (EAC), in the South African Development Community, and the Common Market for the Eastern and Southern Africa. The most developed agreement is with the EAC. It includes free trade among members (Burundi, Kenya, Rwanda Tanzania, and Uganda) as well as a common external tariff; yet some freedom is left to members to depart from common tariffs through 'stays of application' or duty remission on imported intermediate products. It turns out that the number of such exceptions has swelled over recent years in Tanzania. According to a recent report, it increased from 7 in 2011 to 100 in 2018, mostly being aimed at protecting domestic production and encouraging exports – through duty remission.[15] This may be another explanation of the slowing down of imports over the recent years. On the other hand, the rent-seeking aspect of some of these trade measures should not be ignored. For instance, such a suspicion of corruption has arisen with respect to the 100 per cent tariff on sugar imports.[16]

It is fair to say that the value of imports is structurally higher than export revenues in Tanzania, which is another aspect of absorption being higher than GDP or domestic savings not covering investment expenditures. The deficit reached alarmingly high levels at the time of the liberalisation of imports at the turn of the 1990s, and when exports had not yet fully recovered from their collapse during the crisis of the 1980s. It was still high until a few years ago, averaging more than 10 per cent of GDP between 2005 and 2015. It has got close to zero over the last few years, but it is still too early to know whether this is the result of structural changes, temporary policies, or favourable trade circumstances.

B The Financing of the Economy and the Key Role of Foreign Aid

A thorough appraisal of the way Tanzanian development has been financed over time is a difficult task because of the lack of mutual consistency of the data sources to be used – that is, national accounts, balance of payments, and general government accounts – and, sometimes, the lack of time consistency within some of these sources, an example being the recent change of base in

[14] As the GDP share of consumption in 2000 was around 80 per cent and that of imports was 13 per cent, the 36 per cent share of consumption goods in exports corresponds to an average household propensity to consume imported goods of ($0.36 \times 0.13/0.80 = 0.06$). Assuming this propensity remained constant, the 20 per cent drop in the GDP share of household consumption between 2000 and now would have generated a drop of 1.2 per cent in the GDP share of imported consumption goods, or 6 per cent of imports in 2018–19 instead of the observed 11 per cent (i.e. 36–25 per cent).

[15] See WTO (2019, p. 270).

[16] A detailed analysis is provided by Andreoni et al. (2020).

TABLE 2.3 *The financing of the Tanzanian economy, 2010–18*

(% of GDP, period averages) Period	2010–12	2013–15	2016–18
Domestic flows			
Domestic savings	22.3	23.8	30.5
Central government	–0.8	0.2	4.0
Private sector[b]	23.1	23.6	26.5
Gross fixed capital formation	33.1	33.0	35.8
General government	6.3	4.5	6.3
Private sector[b]	26.8	28.5	29.5
Need for funding	**10.8**	**9.2**	**5.3**
Government: deficit excluding current foreign grants	7.1	4.3	2.3
(Deficit including current foreign grants)	4.2	3.0	1.6
Private sector[b]	3.7	4.9	3.0
Foreign financing			
Primary and secondary income in current account[c]	–0.9	–0.6	–0.9
Official development assistance	7.8	6.1	4.6
Foreign direct investment	4.6	3.5	1.7
Foreign inflows accounted for	**11.5**	**9.0**	**5.5**
Outstanding debt	28.7	30.3	33.2
Of which			
Public and publicly guaranteed	18.3	21.0	22.9
Other	10.4	9.3	10.3

[a] Government account indicators are defined over the fiscal year from 01/07 to 30/06; accordingly, GDP, savings and investment figures have been transformed into 2-years averages for consistency

[b] Including non-government public entities

[c] Excluding foreign grants included in Official Development Assistance

Source: Author's calculation from IMF, Government Accounts and Balance of payments data in annual reports of the Bank of Tanzania.

national accounting. It is only recently that it has become possible to make these various sources mutually consistent. Results appear in Table 2.3, which shows the evolution of key indicators since 2010 on a three-year average basis.[17] Inconsistencies are still apparent when comparing the 'total' row in the foreign financing section of the table with overall needs for funds in the domestic section. The former exceeds the latter in 2010–12, which seems odd, even though not impossible. Fortunately, the discrepancy is limited.

The very acute need of the Tanzanian economy for foreign financing was already apparent in the absorption figures shown in Figure 2.2. By definition, the

[17] Averaging partly eliminates year to year variations in the need for external funding that arise from the volatility of changes in inventories.

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gap between this aggregate indicator and GDP is the overall need of the economy for external funding. It averaged 13 per cent of GDP in the 1990s, but this average hid a strongly declining trend that even reached zero for a short while in the early 2000s. Since then, however, the need for external funding has increased again, and was still around 10 per cent in the mid 2010s. Table 2.3 shows that it then halved thanks to a noticeable increase in the domestic saving rate, but the question arises whether this change is permanent or results from specific circumstances.

A second noticeable feature of the table is the difference between the public and the private sector. In the early years of the 2020s, as practically all the time during the one or two decades before, the main financing difficulty of the Tanzanian economy clearly arose in the government. Its current savings, that is the difference between its current revenue and recurrent expenditures, were negative or close to zero. In other words, government revenues barely covered current spending, so that all public investments, and often more, had to be financed by foreign or domestic private agents. The reason for such a state of affairs was not so much because of abnormally high recurrent expenditures, but rather the relatively low tax revenues. With an average tax/GDP ratio of around 11 per cent, Tanzania lies behind all East African countries and substantially below the average sub-Saharan country.

It is only in the last few years that the government has adopted a more rigorous fiscal policy consisting of a slight increase in revenues, not more than half a percentage point of GDP, though, and a pronounced drop in current expenditures – a little more than 2 per cent of GDP. This has allowed the government to cover a substantial share of public infrastructure investments and to significantly reduce its budget deficit. Yet the social cost of the cut that took place in recurrent spending should not be ignored. If it was not fully compensated by efficiency gains, it must have affected some services delivered to the population.

On the foreign financing side, most of the funding needs of the Tanzanian economy are covered by foreign aid. Although its volume declined substantially with respect to GDP, it remains substantial, and the sign of a high degree of dependency on foreign donors. At a little less than 5 per cent of GDP, today's volume of aid represents a quarter of the government's budget.

Given its importance, the ambiguity of the role of ODA in the development of the Tanzanian economy must be stressed. Tanzania may need foreign aid to provide basic public services and infrastructure, but it may also be the case that it is the availability of foreign aid that has led in the past to low savings and inefficiency in the public sector as well as to price distortions, through 'Dutch disease' effects,[18] as the ongoing debate on aid effectiveness emphasises.[19] It is

[18] The so-called Dutch disease arises in the presence of sizeable foreign currency inflows that do not result from a rise in exports or import substitution. They make non-tradable sectors relatively more attractive to investors, thus undermining the industrialisation potential of the country.

[19] See, for instance, Deaton (2013)'s indictment of foreign aid, and in the specific case of Tanzania Edwards (2014).

difficult to analyse in detail the causality relationship between foreign aid and the need for external funds or the trade deficit because of very special past circumstances. These comprise the whole transitional period towards a market economy when donors provided resources the economy could not produce, or donors' debt relief policies directed towards so-called Highly Indebted Poor Countries from the late 1990s to the mid-2000s. In Tanzania, as in most other poor countries, aid flows observed during this period include debt service moratoria and debt cancelling operations that do not bear much relationship to the actual funding needs of these countries.

If these problems have largely disappeared in the recent period, the issue arises of the meaning of the concomitance between the recent drop in trade deficit – and the need for external funds- and in ODA, as observed in Table 2.3. For some time, there have been talks among donors about progressively reducing aid flows to Tanzania, the present volume being often held up as a possible hindrance to the autonomous development of the country. In several instances, the Tanzanian government has openly concurred with such a view. There may thus have been something like a tacit agreement between donors and the Tanzanian government that aid flows need to be scaled down, with the latter correctly anticipating this trend and making policy decisions to adjust to this situation. It may also be the case that the reduction in foreign aid flows is the consequence of various crises during which donors have effectively put off disbursements or reduced their commitments because of major corruption scandals involving the government. This occurred in 2014 after the USD 180 million escrow scandal, in which an escrow account at the Central Bank was unlawfully emptied, itself the last episode of the Richmond scandal that a few years before had involved an overcharging private power provider and caused the resignation of several members of the government, including the prime minister. More recently, donors have threatened again to hold onto aid disbursements because of what they saw as violations of human rights by the government. Domestic policies behind the observed drop in external funding needs, including reining in public spending and letting the currency devalue in real terms, may be a kind of response to these repeated frictions with donors.

Several episodes of severe tensions between Tanzanian governments and donors have taken place in the past that could have led to a rupture. One took place at the end of the socialist period at the middle of an acute macroeconomic crisis when Nyerere was resisting the IMF's conventional and potentially socially costly adjustment measures. After a few years of tension, other donors finally imposed their view that transformative reforms were needed. Another crisis developed in the mid-1990s. On one side were the donors, exasperated by various corruption affairs, the ineffectiveness of financial management, and the lack of results of the programmes they were financing. On the other side, the Tanzanian government was complaining about the cost of dealing with all the monitoring procedures imposed by donors and its lack of autonomy in deciding the use to be made of aid. A special commission

appointed by the Danish aid agency wrote a report with inventive suggestions about reforming the cooperation between the Tanzanian government and donors. This largely anticipated reforms that would become current practice in the development community a few years later, including part of aid being provided as general budget support, and therefore at the full discretion of the recipient country.[20]

Remembering these episodes is important because it shows how important foreign aid and donors have been in the development of Tanzania, practically since independence. By and large, aid may have been the engine of growth that seems to be missing in the domestic economy. By allowing investment to gain 5 to 10 per cent of GDP, it may have been responsible for two to four additional percentage points of annual growth. However, such a high volume of aid may also have had negative effects on other aspects of the economy, whether on savings, the efficiency of government machinery, the degree of corruption, or the democratic functioning of society – as forcefully argued by authors such as Easterly (2006) and Deaton (2013).[21] The volume of aid soon recovered its pre-crisis level after both the crises just mentioned, so that, even though modalities had changed, the country somehow remained as aid-dependent as before, at least in terms of a large part of capital accumulation that was directly or indirectly financed by aid. Now that a trend has appeared that tends to lessen this dependency, the question arises whether the policies meant to address this new situation, including the drop in recurrent expenditure, is sustainable. In any case, at close to 5 per cent of GDP, foreign aid remains sizeable and a pillar of Tanzanian economic growth.

Foreign direct investment is another source of investment funding. It amounts to roughly a sixth of the overall capital formation. As a percentage of GDP, it has been roughly constant until recently. The drop observed during the last few years may only be the reaction of foreign investors to the dispute alluded to earlier between the Tanzanian government and a gold mining company, and more generally to the suspicious attitude of that government towards foreign companies. The new government seems to have a more friendly attitude towards foreign companies. It should be noted, though, that direct investments in Tanzania are heavily concentrated in mining, a sector less transparent to domestic authorities than manufacturing, which accounts for only 15 per cent of foreign investments.[22]

[20] On the first crisis, see Catterson and Lindahl (1999) and Helleiner (2002a); on the second, see Furukawa (2014) and Helleiner (2002b). Helleiner was the chair of the reconciling commission appointed by Denmark.

[21] A detailed analysis of these issues in the specific case of Tanzania's development is provided by Edwards (2014).

[22] Besides mining (50 per cent), other major sectors of foreign investment include financial services (11 per cent) and power generation (8 per cent). These proportions refer to 2013 (NBS, 2015) and may have changed since then, despite referring to stocks rather than flows of foreign investment.

It would be wrong to consider that Tanzania's increasing indebtedness results from a gap between the needs for external funds on the one hand and foreign aid and direct investment on the other. As illustrated in Table 2.3 indebtedness has increased since the mid-2010s despite funding needs being almost exactly met by aid and direct investments. The point here is that foreign aid comes under the form of grants and concessional loans, with the latter contributing to increasing the level of debt. The Highly Indebted Poor Countries initiative permitted to reduce Tanzania's debt to 22 per cent of GDP by 2006. It had gone up to 33 per cent by 2018, with practically all that increase concentrated in the public and publicly guaranteed debt. It has further increased since then. Concessional loans contribute to reducing the debt burden but their share seem to be falling.

III SUMMARISING THE DETERMINANTS OF AND CONSTRAINTS TO GROWTH

Many other aspects of economic development in Tanzania could be analysed, including monetary policies, taxation, infrastructure capital, and social sectors. The latter will be considered explicitly in the second part of this chapter. The others will be dealt in one way or another in subsequent chapters. At this stage, however, it is useful to summarise what has been learned from the preceding review about the determinants of and constraints to economic development in Tanzania.

The main conclusion is without any doubt the uncertainty that bears upon what could be a sustainable engine of growth in the Tanzanian economy. Growth has taken place, and substantially so, but it seems to have been more demand driven than resulting from the autonomous development of a few sectors oriented towards export or import substitution. It is true that exports have been a driving force for a while in the last two decades, but this has in large part been thanks to mining, especially gold, and thus has been highly dependent on foreign demand and world prices. Manufacturing exports have also played a role, but a minor one, and the whole sector is still too small to be a true driver of development. Instead of an autonomous supply side drive, it thus seems that it is domestic demand, pulled by purchasing power increases arising from gains in terms of trade and foreign aid, that have fed growth throughout the economy, especially in sectors highly dependent on public spending and investment.

This situation raises an issue of autonomy and sustainability in Tanzanian economic development. Dependency on foreign demand for commodities, on prices on international markets, and on foreign aid is the opposite of truly autonomous development that would result mostly from efforts by domestic agents to expand production through enhanced productivity and competitiveness. The present development strategy is in some senses passive. This does not mean that domestic agents lack dynamism, only that they mostly respond to domestic demand stimuli that often originate outside national borders.

This model may not be sustainable if drastic changes take place within the foreign context, such as a lasting contraction of commodity prices or a further reduction of foreign aid. In addition, the mineral natural resources exported by Tanzania will be depleted in the foreseeable future: gold reserves, for instance, represent only thirty years of current exports.

Overall, Tanzania has done well in productively exploiting favourable opportunities that have arisen in its foreign environment. It may now be time to consider a more autonomous strategy, and it is the task of subsequent chapters to reflect on the institutional factors that may influence or constrain this choice. However, the present review of Tanzania's development achievements and challenges would be incomplete without an examination of its social aspects, in particular its inclusiveness.

IV SOME SOCIAL ASPECTS OF TANZANIAN DEVELOPMENT

This review of the main features and evolution of the Tanzanian economy has essentially been conducted at the macro-level. It is now time to see what has happened at the level of individual households and the extent to which the overall progress of the economy has been reflected in individual welfare. Three dimensions of welfare are briefly reviewed in what follows: income poverty and inequality, education, and health.

A Poverty and Inequality

Figure 2.5 presents some summary statistics on poverty, inequality, and household consumption expenditure as estimated in the five national Household Budget Surveys (HBS) taken since 1990 and compares them with relevant national account indicators. Two sets of poverty headcount estimates, both based on the HBS, are shown. The National Bureau of Statistics (NBS) uses a poverty line based on the value of the food basket consumed by the poorest half of the population deflated by the share taken by food in the budget of these households. The poverty line is updated from one survey to the next through specific food price indices – which differ substantially from the consumer price index (CPI) or the deflator of consumption expenditure in national accounts. The methodology to compute the poverty line and even to collect data on the consumption of food products seems to have been changing over time, so there is some imprecision on the estimated evolution of poverty across the five surveys. The other set of estimates is taken from the World Bank Povcalnet database. It is based on the international poverty line, set to USD 1.9 per person – at 2011 purchasing power parity – and per day, and the same household survey sources as the NBS but made comparable over time through the CPI.[23]

[23] Differences in the methodology of the two sources have been discussed in some length in various papers (Hoogeveen and Ruhinduka, 2009; Mkenda et al., 2010; Atkinson and Lugo, 2014).

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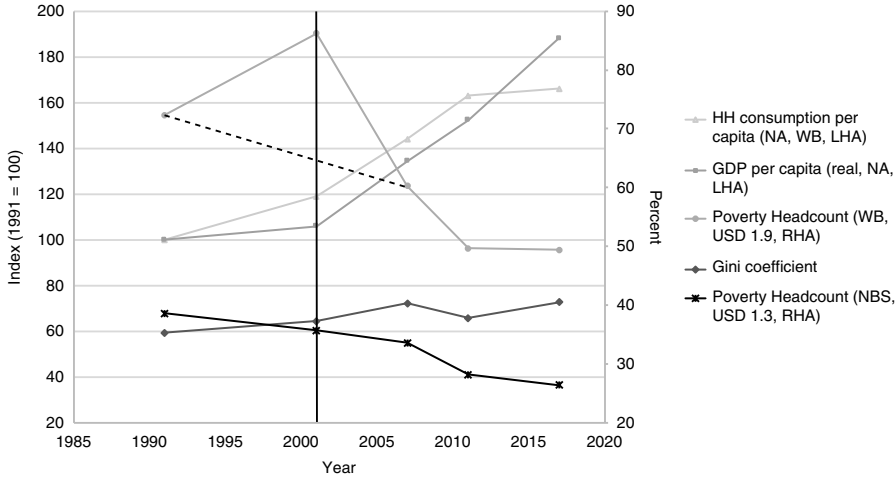

FIGURE 2.5 Consumption per capita, poverty and inequality, 1991–2017
Source: HBS (since 1990), NBS data (1991–2017), World Bank Povcalnet database (1991–2017)

According to the NBS estimates, the proportion of poor people in Tanzania has regularly declined over the last thirty years or so, even though the estimated drop is anything but impressive in view of the change that took place in GDP per capita or even household consumption per capita. Indeed, the poverty headcount fell from 39 per cent in 1991 to 26 per cent in 2017, whereas GDP per capita nearly doubled, an elasticity much lower than commonly observed. The picture painted by the World Bank estimates is quite different. First, the poverty headcount is approximately double, reflecting a discrepancy between the two sources in the definition of the poverty line. Second, poverty would have surged, rather than slowly declined, between 1991 and 2001. Accordingly, the acceleration of growth in the 2000s would have caused a sizeable drop in poverty from 2001 to 2007. The drop is still sizeable between 2007 and 2011, but no significant change has occurred since then.

Clearly, the 2001 estimate by the World Bank is wrong and inconsistent with other data sources such as consumption per capita as recorded in the national accounts. It is thus better to ignore it – as is done with the dashed line in Figure 2.5. After 2001, the two sets of estimates show a roughly consistent evolution of poverty given their implicit difference in the poverty line and the resulting value of the headcount.[24] Both show an elasticity of poverty with

[24] Another data source on poverty is the National Panel Survey (NPS) designed to track people and analyse individual poverty dynamics. In contradiction with data from the HBS used both by the NBS and the World Bank, it shows an increase of poverty between 2008 and 2013. Belghith et al. (2018) show that the discrepancy is due to the NPS and NBS estimates using different price indices to compare real expenditure over time.

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respect to GDP per capita around unity for the 2001–11 period, an order of magnitude commonly found in sub-Saharan countries.[25] However, things seem to have changed over the recent period, since both sources show some stickiness of the poverty headcount between 2011 and 2017 despite sizeable growth of GDP per capita. It is also reported that poverty might even have slightly increased in urban areas (World Bank, 2019a, p. 7).

The main conclusion to be drawn from this discussion of poverty estimates, besides the need for more clarity in the way the poverty line is set, is that there seems to be a real challenge in Tanzania in transforming GDP growth into poverty reduction. In other words, growth has not been inclusive enough over the last twenty-five years, this being especially the case in the recent past.[26]

This conclusion is reinforced by the observed change in the degree of inequality of distribution of per capita household expenditure. Figure 2.5 shows an increasing trend in the Gini coefficient, the most usual measure of inequality, since the early 1990s, although a short-lived reversal seems to have taken place between 2007 and 2011 – which, coincides with the acceleration of poverty reduction noted in Figure 2.5. Over recent years, however, inequality has reverted to its previous rising trend. Even though Tanzania's level of inequality would probably stand below average by sub-Saharan African standards, the change that has taken place since the early 1990s is far from negligible. Economic development in Tanzania has favoured relatively more the upper part of per capita consumption scale, especially the top decile. Decile shares available in the Povcalnet database suggest that as much as two-thirds of the increase in consumption expenditures of the whole population went to the top 10 per cent. This is twice its share of total consumption. Such a situation would quickly become worrying if it were to last.

As an important footnote to the preceding discussion of inequality, it must be stressed that the inequality of consumption expenditures as recorded in household surveys is most likely underestimated. People at the very top of the distribution of living standards are unlikely to be covered in HBS, and if they were, they would most likely under-report their expenditures. Moreover, inequality of consumption expenditures is known to be substantially lower than income inequality. In the case of Tanzania, the huge discrepancy between the growth of GDP and that of consumption expenditures in the national accounts – see Figure 2.2 – suggests that the difference may be quite significant. In addition, incomes from illegal activities or corruption, judged to be substantial, escape measurement. This is where the most important source of

[25] See Arndt et al. (2017a). A unit elasticity was also implicit in the evolution of poverty projected by the National Strategy of Growth and Reduction of Poverty, locally known as MKUKUTA – see United Republic of Tanzania (2005, pp. 35–9).

[26] Arndt et al. (2017b)'s estimate of change in poverty through five deprivations (water, sanitation, housing, education, and TV/radio) recorded in various editions of the Demographic and Health Survey is also worth mentioning. Over 1992–2010, they find that poverty has unambiguously diminished.

inequality may lie, and it may have a sizeable impact on the economy overall depending on the use made of it by those to whom it accrues. Unfortunately, not much is known about it and about its evolution over time.[27]

B Education

The educational level of the population has enormously progressed in Tanzania, as in the rest of the sub-Saharan African region over the last two or three decades. According to the Barro-Lee database, the mean number of years of schooling in the adult population has increased from less than four years in 1990 to six and a half today. Likewise, the proportion of the population without education and who were therefore illiterate was around 15 per cent by 2015,[28] down from 27 per cent in 2000. The mean number of years of schooling has followed the sub-Saharan average, whereas the proportion of adults without education is lower in Tanzania.

If human capital in a country were measured by the number of years of education of its whole population, then it would have grown at roughly 4.5 per cent since the beginning of the millennium, less than GDP and less than the physical capital stock, but enough to contribute to productivity gains. However, looking at the performances of the education system today leads to a more nuanced view about the efforts made in the country to improve its stock of human capital.

On this account, Tanzania does not seem to be doing that well. With respect to education, the recently developed Human Capital Index by the World Bank ranks it in the bottom 10 per cent of countries ordered by increasing 'expected years of schooling' and 'learning-adjusted years of schooling'.[29] However, this does not mean that no effort is being made in the country to improve the coverage of its schooling system; quite the contrary. The difficulty would rather seem to lie in the quality of the schooling system.

As in the whole sub-Saharan region, primary school enrolment has made huge progress in Tanzania, although with pronounced fluctuations and a somewhat surprising reversal over the last few years. As can be seen in Figure 2.6, enrolment increased very rapidly after independence before receding at the time of the macroeconomic crisis and adjustments in the 1980s, and then stagnating for the next ten years. It then surged again with the launch of the 'Education

[27] Yet see Atkinson (2011) for a historical estimation of top incomes in Tanzania. According to his estimates, based on income tax date, the top 0.1 per cent was earning 5 per cent of total personal income in 1970 – declining since colonial times. This figure is comparable to the concentration of income at the top in the United States today. The publication of income tax tabulations in Tanzania was disrupted in 1970.

[28] This is the last year recorded in the Barro-Lee database.

[29] The expected number of years of schooling is the number of years a child is expected to stay in school, and it is approximated by the sum of age-specific enrolment rates. The learning adjusted years of schooling is obtained by multiplying the preceding number by a harmonised test score.

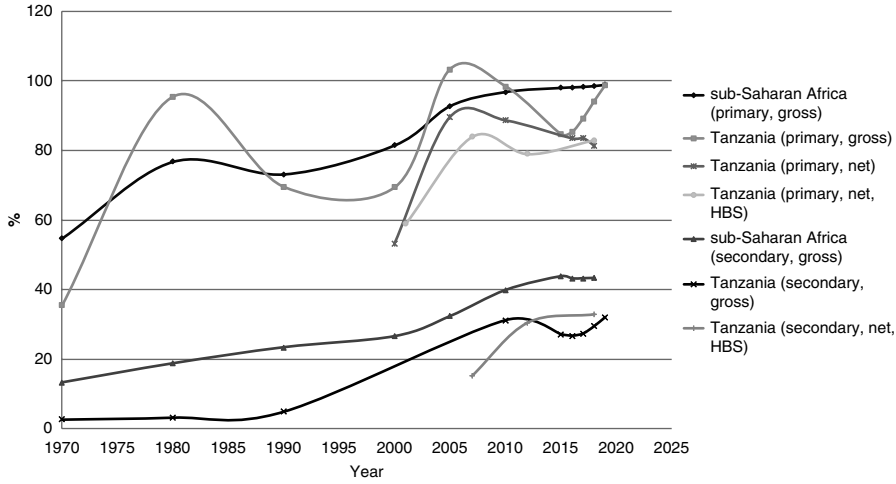

FIGURE 2.6 Primary and secondary school enrolment (gross and net) in Tanzania and the sub-Saharan region, 1970–2015 (per cent)
Source: UNESCO, WDI and NBS

for All' programme under the aegis of UNESCO and the UN's Millennium Development Goals initiative in the early 2000s. This major increase in enrolment, which resulted from the international initiatives just mentioned, and also from Tanzania's economic recovery as well as policies such as the abolishment of tuition fees, could not be sustained. After having practically become universal in the mid-2000s, enrolment had fallen back by twenty percentage points by 2015, a drop possibly underestimated according to Joshi and Gaddis (2015, p. 2). Since then, the situation has somewhat improved, but the gross enrolment rate is just below 100 per cent, whereas universal enrolment would imply a rate above that threshold: net enrolment has not recovered.[30] This trend is confirmed by the direct observation of school attendance in the national household surveys taken by the NBS.

The progress in secondary education has been steadier, although Tanzania is lagging behind regional averages. Enrolment increased from 5 per cent in 1990 to 31 per cent in 2010. Since then, it has stagnated, after sliding a bit in 2015, as for primary. Furthermore, the gap with respect to the sub-Saharan region has become larger, although a kind of plateau seems to have been reached there too.

[30] The net enrolment rate is defined as the ratio of children of official school age who are enrolled in school to the population of the corresponding official school age, whereas the gross enrolment rate would include all children in school. The gross enrolment rate is the ratio between all students enrolled in primary education, regardless of age, and the population of official primary education age.

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Pre-primary schooling has also made rapid progress, and Tanzania is ahead of other African countries. Yet high enrolment rates may hide low quality. The pupil to qualified teacher ratio at pre-primary level is reported to be as high as 169:1 in public schools (UNICEF, 2017). The consequence is that most children enter primary school in unfavourable conditions, owing either to a lack of, or poor, pre-primary facilities.

Quality is also found to be low, and deteriorating, in both primary and secondary schooling. Joshi and Gaddis (2015) report that the pass rate of the primary school leaving examination went down from close to 70 per cent in 2006 to 30 per cent in 2012. The deterioration is even worse for secondary schooling, as the pass rate for the Secondary Education Examination fell from 90 to 30 per cent over the same period (Joshi and Gaddis, 2015, Figure 1.1). The deterioration is already noticeable in the first grades. Only 10 per cent of grade three students can read a grade two story in Kiswahili, and only 30 per cent have mastered grade two numeracy. In addition, this low average performance hides a high level of disparity across geographic regions and social backgrounds.

Even though Tanzania does better than most other east and southern African countries in the educational achievement tests conducted under the Southern and Eastern Africa Consortium for Monitoring Educational Quality, the drop in performance is worrying. At primary level, a possible cause may be the overcrowding of schools, partly due to the surge in enrolment in the early 2000s. The average number of pupils per teacher in primary schools closely followed the enrolment rate. It went from 45:1 in 2004 to 58:1 in 2007. The number of students per classroom increased accordingly. It is thus no surprise that the quality of schooling worsened during that period and that parents were disincentivised to send their children to schools that they knew were overcrowded (Ponera et al., 2011). However, another cause of low and falling performances in both primary and secondary schools is teacher absenteeism. Surprise inspections suggest that one out of four teachers is not in school when supposed to be there, and more than half of teachers are not in the classroom when they should be teaching. It has been estimated that students in primary school are taught for 2.4 hours a day on average, instead of the scheduled five hours. As can be expected, all these ratios are much worse in rural than in urban areas (Wane and Gaddis, 2015). Teacher absenteeism has apparently gone down since 2010, but it remains extremely high.[31]

As diagnostics for the educational sector date back to 2015, things may have changed for the better. Yet changes are known to be slow in this area. On the other hand, some indicators may have worsened. For instance, the number of primary education teachers is reported to have reduced by 5 per cent since 2016, whereas the population of children has increased by around 10 per cent.

[31] See Han and Peirolo (2021).

On average, the number of pupils per teacher might have increased by 15 per cent over recent years.[32]

There is most likely a direct relationship between the observed drop in primary enrolment and the deterioration in the quality of schooling, with the relationship self-reinforcing over time. Primary school overcrowding and the subsequent lowering of school quality may have disincentivised parents, as mentioned earlier, but overcrowding itself and the lack of resources in general may have disincentivised teachers, causing a further drop in quality.

A possible cause of that evolution may be the recent drop in the share of public expenditures from GDP. It was already the case that education's share in the budget had fallen by the mid-2010s, even though it was still increasing in real terms. It is too early to say, but this might not be the case in recent years, thanks to the recent tightening of expenditure, thus aggravating existing constraints on progress in the public delivery of educational services.

C Health Care

The diagnostic of the healthcare sector in Tanzania is mixed. On the one hand, some input and outcome indicators show satisfactory results, while others have evolved less favourably. On the other hand, a recent evaluation suggests important quality issues in health care delivery. In addition, the funding of the sector strongly relies on foreign assistance, and this shows no sign of decline.

Figure 2.7 shows various indicators that illustrate the contrasting performances of the health sector. Under-five mortality has undoubtedly made considerable progress since the turn of the millennium, most likely in connection with the launch of the Millennium Development Goals. This indicator went down from 148 for 1990–5 to 67 in 2010–15.[33] Thus, Tanzania was very close to achieving Millennium Development Goal number four, which was to reduce infant mortality by two-thirds between 1990 and 2015. Present trends also seem promising in view of the third Sustainable Development Goal, which requires reducing under-five mortality below twenty-five per thousand.

It is not coincidental that the fast drop in infant mortality after 1995 took place at the same time as health care expenditure per capita was growing at an accelerated pace. What is more surprising, however, is the sudden pause in that progression and the stagnation of both public and total health care spending

[32] The first figure is derived from information collected by UNESCO, whereas the second one is based on demographic growth estimates. To this estimate should be added the effect of the recent rebound in gross enrolment. UNESCO reports an increase in the pupil–teacher ratio in primary schools from 42:1 in 2016 to 56:1 in 2019.

[33] These figures are drawn from the various Tanzania Demographic and Health Survey reports. Note that they refer to a period extending to up to five years before the survey.

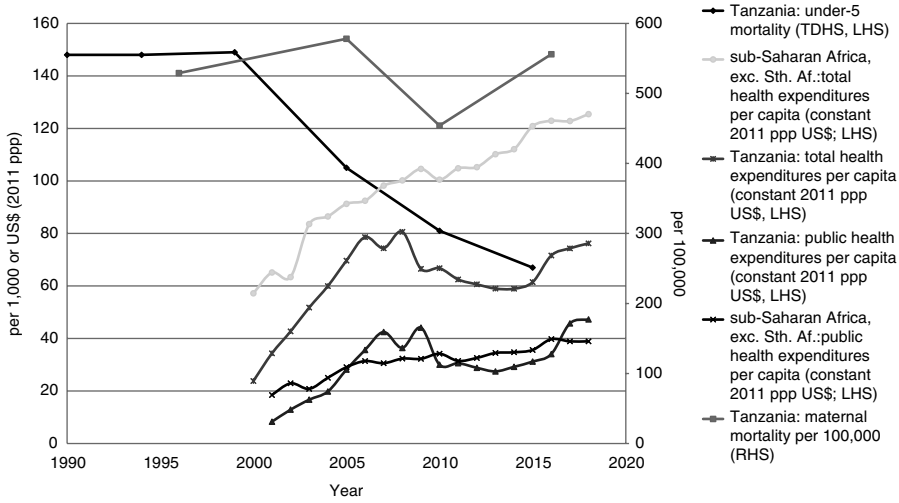

FIGURE 2.7 Some health care indicators in Tanzania and sub-Saharan Africa, 1990–2018
Source: WDI and Tanzania Demographic and Health Survey (DHS)

after a small drop in 2010,[34] a stagnation that might be related to the slowing down of progress on the child mortality front. Over the last ten years or so, the share of health expenditures in GDP has fallen, a trend that can also be observed more recently at the regional level. The gap between Tanzania and the average sub-Saharan country in real health care expenditure is striking. The fact that it essentially comes from private spending may suggest a deficit in health care infrastructure, including professionals, needed for the private provision of health care.

With essentially a flat long-run trend, the evolution of maternal mortality is less satisfactory than child mortality.[35] This seems to contradict the substantial increase documented in the Tanzanian Demographic and Health Survey in skilled delivery assistance as part of the Strategic Plan to Accelerate Reduction in Maternal, Neonatal and Child Deaths launched by the Ministry of Health and Social Security in 2008 (United Republic of Tanzania, 2016b, p. 172).

This last observation suggests that there may be some skill deficit in the provision of health care. It is not clear whether this may apply to maternal mortality, but the 2014 Health Service Delivery report by the World Bank points to such weaknesses when concluding that the 'major challenge for Tanzania's health sector is the shortage of skilled human resources for health'

[34] The surge in expenditures in 2006 and the following two years may be explained by the severe drought that hit the country at that time and had serious consequences for the nutrition and the health of the population.

[35] It is not certain that the fluctuation shown for 2010 is statistically significant.

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(World Bank, 2014a, p. 9). The report also insists on possible gains in efficiency through increasing the caseloads of health personnel, currently low by international standards, and reducing absenteeism, although, at 14 per cent, it is much less pronounced than in the education sector.

On the financing side, a major cause of concern is the importance of foreign assistance. The share of expenditure financed by external sources has averaged 45 per cent since 2006, which suggests a serious problem of sustainability in the long run. If progress in health outcomes is to continue at the same pace as in previous years, funding will have to keep increasing faster than GDP, unlike what is being observed today. More funding will thus be needed domestically. This might come from the higher formalisation of the economy, leading to more people being covered by health insurance programmes paid for by employers through the National Social Security Fund, or, in the informal sector, from expanding the coverage of the Community Health Fund, a voluntary insurance programme. However, it is unlikely that with a premium of less than USD 10 per household and per year, the latter could become a significant source of funds for the health care system, especially given its complex decentralised governance. Further progress in health care will have to come from more resources being made available at central government level or through the cross-subsidising of health care in the informal sector by the health insurance system in the formal sector.

This expansion of health care funding and service provision is still more necessary given that large disparities are observed in most health indicators between geographical areas and, within areas, between households with different socio-economic characteristics. From that point of view, the cheapest progress in health care in Tanzania may come from extensive rather than intensive strategies – in other words, more people being covered rather than more risks being covered.

V CONCLUSION: THE MAIN ECONOMIC CHALLENGES OF TANZANIAN DEVELOPMENT

Tanzania started its independent existence with considerable economic dynamism, until it was hit on the one hand by the consequence of an ill-prepared transition towards socialism, which made the economy increasingly inefficient, and, on the other hand, by the global development crisis of the early 1980s. There followed a long and painful period of slow growth, caused by a grim international economic environment and a difficult adjustment back to a market economy. The growth acceleration observed over the last twenty years is all the more spectacular. At the current rate of growth, GDP per capita will double in twenty years, and the country has just graduated from the low-income tier of World Bank classification to become a middle-income country.

This does not mean there is no cause for concern about the long-run sustainability of the present pace and structure of economic growth. The main

challenges identified throughout this chapter are listed next, before they are compared to former diagnostics about Tanzanian development, and finally a few remarks on the likely consequences of the COVID-19 crisis that recently affected Tanzania, as the rest of the world.

A Main Causes for Concern about Tanzanian Development

The first cause for concern is the uncertainty about what could be Tanzania's long-run engine of growth. To a large extent, growth during the last two decades has been pushed by the demand side of the economy, itself relying on increasing export revenues and foreign financing. Such a model is quite different from the industrialisation model that has been experienced over the last few decades in Asia, or in Latin America in the 1960s and 1970s. To be sure, the Tanzanian manufacturing sector has not underperformed; it has even been able to significantly expand exports and substitute some imports. The problem is that it is presently too small to pull the economy forward thanks to its sole area of development. Although manufacturing exports have done well, they remain a minor fraction of total exports, and it is the other fraction that has driven recent growth. The problem is that this component is essentially exogenous, depending on international prices and the foreign level of activity, and is therefore unable to feed a pace of growth faster than that of the global economy. More is needed for Tanzania to continue reducing its income gap with the rest of the world. On the other hand, circumstances may become less favourable than they have been since the turn of the millennium. A priori, there are fewer external constraints in manufacturing, agroindustry, or tradable services such as tourism. How to enhance their development?

A second cause for concern is how to sustain and, more importantly, to enhance the within-sector productivity gains observed in the last decade or so. Maintaining the investment rate at a 35 per cent level is a challenge in itself. At the same time, there are indications that such a high rate of capital formation may not be fully exploited. Moreover, there may be untapped efficiency gains that could improve productivity and competitiveness. Agriculture, for instance, has often been mentioned as under-performing in comparison with other countries in the region and the continent,[36] possibly because the difficulty in establishing firm land rights disincentivises innovation and investment.

The third source of concern may be the most serious one. It is the strong dependency of the Tanzanian economy upon foreign financing. It is true that, for several reasons, the gap between absorption and national revenue has been scaled down in recent years. However, it is not clear whether this is due to domestic structural factors and policymaking or to decisions made by foreign

[36] See for instance Benin (2016, Chapter 2).

donors. In any case, even during recent years, dependency has remained high. Excluding foreign grants, the deficit of the current account was still above 4 per cent of GDP on average between 2015 and 2020. ODA itself still represented more than 5 per cent of GDP over the same period, a little more than a quarter of the government budget and practically all of the public investment in infrastructure. What would happen if, for some geopolitical reason or unexpected development, this flow was to dry up? It is most unlikely that the current growth trend could be maintained.

An important unknown for the economic development of Tanzania is what will happen with its offshore natural gas reserves. These are sizeable and could provide Tanzania with substantial additional revenues for the twenty to thirty years after a five-year investment period. This would require that the international price of gas stays at a much higher level than observed throughout the 2010s. It has been seen that extraction costs are high. At this stage, it is therefore not clear whether the discovery of these reserves truly modifies the prospects of the Tanzanian economy in the reasonably near future.

A final source of concern is on the social side. Poverty is receding slowly, certainly more slowly than if the real income or consumption expenditure of all households was growing at the same rate as GDP per capita. That growth has not trickled down more systematically to all segments of the population since its acceleration at the turn of the millennium is a problem, and a challenge for the future. The reason why growth has not been inclusive lately is unclear, but action should be taken so this situation does not persist. Increasing inequality may indeed have adverse effects on future development through the demand side of the economy, by reducing the aggregate propensity to consume, and more fundamentally by undermining the social and political climate. The same applies to the stagnation of school enrolment below universal enrolment in primary school and the low quality of the educational system in general, which may put future growth, poverty reduction, and the social equilibrium at risk. More is to be done to ensure more inclusive growth and more dynamic investment in human capital.

The preceding review of the economic development challenges faced by Tanzania was essentially factual. Little was said of policy choices or the behaviour of major economic actors. Only the consequences of their actions, rather than their decisions and their behaviour, were analysed. The way in which the economic decision makers, public or private, interact and generate specific economic outcomes, including obstacles to development, depends on the complex set of rules that govern these interactions. These rules constitute the institutional framework in which development takes place. Beyond the pure economic facts reviewed in this chapter, a deeper analysis of development challenges thus requires identification of the institutional challenges causing them. This will be the task of the rest of this volume.

B Convergence with Former Diagnostics of Tanzania's Development

Several former attempts have been made in the last ten years to diagnose the main obstacles to faster economic growth in Tanzania, so it is worth checking whether they agree with the analysis in this chapter, even though the latter relies on more recent data.

A first diagnostic was undertaken in 2010 under the auspices of both the Government of Tanzania and the US government, the latter as part of the Partnership for Growth initiative (Partnership for Growth, 2011), following the methodology proposed by Hausman et al. (2005). It subsequently influenced the reflection about national development strategies, including the 'Vision 2025' report.

A similar, although more focused, exercise was undertaken two years later by the Organisation for Economic Co-operation and Development (OECD) as part of its 'Investment Policies Reviews' aimed at recommending measures to improve the investment climate and attract more foreign investors (OECD, 2013).

Finally, a more recent study is the World Bank 'Systematic Country Diagnostic', entitled 'To the next level of development', completed in February 2017. This document comprises a review of Tanzania's development since the mid-2000s similar to the one undertaken in this chapter. However, because it relies on data that do not go beyond 2015 and in some cases stop before then, it misses some important recent changes, especially with respect to the evolution of productivity, poverty, and income distribution.

Overall, the diagnostics brought forward by these various studies are convergent and very much overlap with the analysis in the present chapter. Yet their main objective is to identify possible economic and, in some cases, institutional bottlenecks for development rather than more structural factors that slow down or threaten future development as attempted earlier in this chapter. Institutional issues and some of the bottlenecks pinpointed in these growth diagnostic studies will be considered in more detail later in this volume. For further reference, however, the priority policy areas they single out are the following – with the agency supporting them noted in brackets:

- infrastructure, especially power supply and spatial integration (United States–Government of Tanzania, OECD, World Bank);
- lack of vocational, technical, and professional skills (United States–Government of Tanzania, OECD, World Bank);
- appropriability of returns: insecurity of land rights (United States–Government of Tanzania, OECD), high and volatile tax rates (OECD);
- lack of access to finance for small and medium-sized enterprises (SMEs) and agriculture (United States–Government of Tanzania, OECD, World Bank);
- disorganised regulation of business (OECD);
- low quality of civil service and delivery of public goods (World Bank);
- weak institutional capacity to manage natural resources (World Bank);
- mobilisation of government revenues (World Bank).

C The COVID-19 Crisis in Tanzania

Clearly, the recent past has been very much influenced by the COVID-19 crisis, and this is why the review in this chapter stopped before 2020. Because it may influence future development, a word must be said about its impact on the economy and the population.

It is difficult to get a clear idea about the health impact of COVID-19 in Tanzania because of the denial of the existence of such a pandemic by the then president, John Magufuli. As soon as May 2020, President Magufuli lifted the few restrictions initially set on public gatherings, schools, and universities, and declared the nation free of COVID-19. He eschewed lockdowns, discouraged the use of face masks, and banned the release of infection data. Information about the spread of the pandemic was tightly controlled. Talking publicly about signs of the pandemic, as for instance the rising frequency of burials, was strictly prohibited.

It is unclear why President Magufuli adopted such a posture and went as far as advising sick people to go to church to be cured. He always wanted to appear as a man who was inflexible about work and did not take sickness as an excuse. A few days before getting sick himself, he inaugurated a new road in Dar es Salaam, and congratulated the contractor and the workers for completing the work in time and for 'no-one [having] used corona as an excuse to delay it'. His government had become more and more authoritarian over time, and he handled what he saw as essentially a distraction from work for the whole population in the same imperious way he handled other affairs that he thought could threaten the country's development. Of course, such an attitude denotes a worrying denial of reality and a complete lack of a sense of responsibility, which indeed characterised some aspects of management throughout his mandate.

Meanwhile, hospitals were crowded and were rejecting patients, oxygen was becoming scarce, and funeral announcements were multiplied by three to four times. Several high-ranked politicians or policymakers are known to have died from COVID-19, including the author of one of the chapters in this volume. President Magufuli himself died in March 2021 officially from a heart attack, but many suspect this was COVID-19. He was replaced by the vice president, Samia Suluhu Hassan, who immediately reverted to an open and effective treatment of the pandemic.

Estimates of the impact of COVID-19 in Tanzania are still imprecise. According to (still provisional) national accounts, GDP growth receded to 2 per cent in 2019 from roughly 6 per cent in the preceding years. The order of magnitude of the economic cost of the pandemic would thus have been around 4 per cent of GDP. Such a recession meant that GDP per capita went down for the first time since the 1990s. At less than 1 per cent, the drop is limited, though. It is lower than in other sub-Saharan countries that imposed severe lockdown on their population. In Rwanda, for instance, GDP is estimated to have fallen by as much as 3.5 per cent. At the same time, the health casualties may have been lower there than in Tanzania, precisely because of the measures taken to prevent the spreading of the virus. Without reasonable estimates for Tanzania, it is difficult to say.

The 2020 slowdown in GDP was caused by a drop in traditional exports and tourism owing to the COVID-19 crisis in the rest of the world, and also because of precautionary behaviour by the population in light of the diffusion of the virus – and possibly some proportion of the population being infected and becoming temporarily sick. During June and July 2020, the World Bank ran a survey covering 1,000 SMEs to measure the impact of the pandemic. It was found that as much as 140,000 formal jobs, or roughly 5 per cent of total formal employment, were lost, whereas 2.2 non-farm informal workers, roughly one-third, suffered income losses. However, it is difficult to go from such observations at one point in time to estimates of the overall impact of the crisis upon poverty. Estimates have been circulated according to which the poverty headcount went from 26.1 per cent in 2019 to 27.2 per cent at the end of 2020.[37]

As far as the future is concerned, GDP growth is forecast to be around 4 per cent in 2021, below the trend over the last ten years or so. Huge vaccination efforts are presently being made and improvements in health services are being implemented to increase the capacity of the system to deal with possible new waves of infection. Tanzania was also provided with emergency loans by the IMF and is expecting more aid from other donors to address the consequences of the COVID-19 crisis. This makes the prospects for 2022 look a bit more favourable.

APPENDIX

A.1 SECTORAL DECOMPOSITION OF CHANGES IN OVERALL LABOUR PRODUCTIVITY

This decomposition is based on the following identity behind that decomposition as follows:

$$\Delta\frac{Q}{L}=\sum_i\left(\frac{\overline{Q_i}}{L_i}\right)\Delta L_i+\sum_i\overline{L_i}\,\Delta\left(\frac{Q_i}{L_i}\right)$$

where Q_i and L_i stand for GDP and employment in sector i, and Q and L for the same at the aggregate level. The upper bar notation stands for averaging across the initial and final period.

The first term corresponds to structural change, the reallocation of labour, whereas the second stands for the within-sector productivity effect. The figures in Table 2.A.1 correspond to the terms in the preceding equation after dividing both sides by the initial labour productivity, Q/L.

The same decomposition for Tanzania's productivity growth for the period 2002–12 can be found in McMillan et al. (2017).

[37] All the preceding figures are from World Bank (2021). Nothing is said there about the way the poverty estimate was obtained.

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TABLE 2.A.1 *Full decomposition of overall labour productivity growth into structural change and within-sector productivity components, 1960–2018*

	1960–1997 (GGDC release 2014, GDP at 2005 prices)		1997–2007 (GGDC release 2021, GDP at 2015 prices)		2007–2018 (GGDC release 2021, GDP at 2015 prices)	
(%)	Structural change	Within-sector productivity	Structural change	Within-sector productivity	Structural change	Within-sector productivity
Agriculture	−3.5	8.0	−4.7	7.6	−2.9	12.5
Mining	5.6	−7.4	−0.4	3.8	2.0	−0.1
Manufacturing	2.8	0.9	3.6	0.1	2.0	3.7
Utilities	3.5	−1.1	−1.0	1.2	0.4	0.0
Construction	13.5	−11.5	3.3	3.0	6.8	5.9
Trade and hospitality	54.9	−52.8	7.0	−4.6	4.4	0.9
Transport, storage, and communication	9.7	−7.2	7.3	−5.0	2.8	1.7
Finance, insurance, real estate, and business services	3.2	0.3	7.6	−1.5	5.7	−0.1
Government services	−1.3	6.6	−0.2	5.2	1.7	2.1
Community, social, and personal services	−0.1	0.8	3.2	−3.2	−0.6	0.9
Whole economy	88.3	−63.4	25.7	6.8	22.3	27.5
Overall change	24.8		32.5		49.9	

Source: Author's calculation from Groningen Growth Development Centre database.