Industrial Development in Tanzania: Reforms, Performance, and Issues

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1. Introduction

Tanzanian development strategy is directed toward the expansion of the economy's productive capabilities through a structural transformation of the economy where industrialisation is envisaged to play a pivotal role. This has always been the aim yet has yet to be achieved. At independence the manufacturing sector was small; in 1965 there were fewer than 600 manufacturing establishments employing at least 10 persons, mostly primary product processing and simple consumer goods. Most of these companies were owned by members of the East African Asian community or resident Europeans, and some of the largest were state-owned or owned by multinationals. Industrial output was low, accounting for only 6.6 percent of GDP in 1966.

The independent, socialist-oriented, development strategy adopted by Tanzania since the Arusha Declaration of 1967 supported some growth in manufacturing, and a relatively good performance in terms of human development indicators. Szirmai and Lapperre (2001) review the early experience of industrialisation and document the large increase in the state-owned share of industry through the 1970s. By the late 1970s, a series of external shocks (in particular oil price shocks and a debt crisis) combined with internal constraints and weaknesses created severe economic imbalances. In the 1980s, Tanzania adopted four successive programmes that could be defined as World Bank Structural Adjustment Programmes (SAPs), although the World Bank was not directly involved in the first of these. Tanzania's mixed experience with adjustment has been reviewed elsewhere (Basu and Morrissey, 1997; Morrissey, 1995) and is only peripheral to the focus of this chapter (although it is, of course, relevant to the momentum for privatisation from the 1990s). Recent analysis of the the performance of the manufacturing sector (Wangwe et al., 2014), concentrates on identifying the emerging manufacturing subsectors, drivers of their success and challenges for sustained competitiveness. These issues will be addressed in the chapter as they are central to prospects for industrial growth and policy.

There has been a debate about de-industrialisation in sub-Saharan Africa (SSA), and whether the effect of liberalisation and adjustment has actually been to undermine the performance of African manufacturing (Jalilian and Weiss, 2000). The issues relating to this debate are surveyed in the chapter by Tregenna in this volume. The World Bank (1994) argued that the performance of manufacturing was better in those SSA countries undertaking adjustment, although Bennell (1998) critically challenges this claim; there is only weak evidence for de–industrialisation, but manufacturing in SSA has tended to perform poorly irrespective of the presence of SAPs. There are a number of ways in which adjustment can help manufacturing. Trade liberalisation can increase the incentives to exporting (but, by exposing domestic firms to increased import competition, can also be the cause of de-industrialisation). The establishment of macroeconomic stability, a result of effective adjustment, can greatly improve business confidence and performance. Grenier et al (1998) show that these effects were not pronounced for Tanzania up to the mid-1990s: macroeconomic instability persisted and manufacturing exports remained negligible. Since the early 2000s macroeconomic performance has improved and there is greater stability, although manufacturing exports remain low.

A third way in which liberalisation can help manufacturing is by removing 'discipline barriers' (Bennell, 1998: 631). Firms, especially state-owned, in regulated and protected environments are not exposed to market discipline and consequently fail to invest in good practice, technology and improving the skills of workers. State enterprises tend to be granted favourable access to credit, are allowed to operate at a loss, and hence impose a burden on the economy. Privatisation, a component of liberalisation, helps to rectify this. More generally, the establishment of market prices, reducing state intervention and establishing stable macroeconomic policy should all increase incentives to private producers.

The public sector state owned enterprises (SOEs) have traditionally been important (Szirmai and Lapperre, 2001). James (1996) demonstrates that the public sector, in terms of its share of manufacturing, tended to increase in importance during the 1970s and 1980s. SOEs accounted for 16 percent of manufacturing employment in 1967, 46 percent in 1971, 50 percent by the late 1970s and 53 percent in 1982. Their share of manufacturing value added increased from 14 percent in 1967 to 57 percent in 1982 (James, 1996: 388). Surprisingly, perhaps, the advent of adjustment after 1986 did not usher in a decline: SOEs accounted for 11 percent of GDP, 25 percent of gross domestic investment and 22 percent of employment on average over 1978-85. The corresponding figures for 1986-91 were 14 percent of GDP, 30 percent of investment and 22 percent of employment (James, 1996: 390). Manufacturing was relatively buoyant over 1985-92. James (1996) attributes this success to the ability of the bureaucrats controlling SOEs to attract aid support for investment so that they could continue to grow. Privatisation has been slow in Tanzania, perhaps because of the influence of SOEs whose role in manufacturing is central to assessing the implications of privatisation; much of what has taken place has related to primary production (especially sisal, tea and coffee, and some mining), brewing and the tourism sector.

In the early 1980s, prior to any adjustment, manufacturing value added declined at an average annual rate of about 2.7 percent; by the late 1980s it was increasing at about 4.6 percent per annum and this was sustained into the early 1990s, when value added increased by about 2.9 percent per annum (Bennell, 1998: 629). However, over the 1990s as a whole performance was poor, as shown in Table 21.1: manufacturing value added (MVA) per capita and MVA as a share of GDP both declined slightly between 1990 and 2000, and MVA performance was clearly worse than GDP performance (expressing both as shares of world totals). In contrast, there was a marked improvement between 2000 and 2010, and Tanzania's rank in terms of MVA per capita for 198 countries improved from 179 to 92. Over 1990 to 2010 MVA improvement kept pace with GDP growth such that MVA and GDP shares of world totals doubled (albeit still miniscule).

[Table 21.1 about here]

Section 2 presents a brief overview of policy initiatives and the performance of the Tanzanian economy since independence, while Section 3 reviews specific industrial strategies over the same period. Section 4 presents an overview of manufacturing performance in 2000-2012 and Section 5 considers how Tanzania got to this point by reviewing studies of firm performance since the 1990s. Section 6 reviews current industrial policy and conclusions are in Section 7.

2 POLICY AND ECONOMIC PERFORMANCE IN TANZANIA

The review of economic policies, reforms and performance in Tanzania can broadly be broken into three major episodes: 1961 to 1966, the post-independence period with an open and private sector led economy; 1967 to 1985, the state controlled economy with inward looking policies; and the structural adjustment era with a series of market economy reforms from 1986 onwards. Thus, from her independence in early 1960s to date, Tanzania has experimented with two major economic policy stances: socialist-oriented and open market-oriented development strategies. This section briefly sketches the economic policies adopted during each of the periods, the measures or instruments used to implement them and the economic and human development impact.

During the first six years after independence (1961-66), the economy was fairly open and market oriented with no specific policy instruments to allocate foreign exchange or regulate prices. There were no import duties but exports (mostly traditional agricultural crops) were taxed as a source of government revenue. The predominantly agriculture (and services) based economy performed quite well in the early years, although the manufacturing sector was very small (Table 21.2, panel A).

[Table 21.2 about here]

Tanzania started to initiate a series of development policies guided by African Socialism (*'Ujamaa'*) following the Arusha Declaration of 1967. Massive nationalisation followed and by the early 1970s the government had control of almost all sectors; banking and major industries became state-owned, international trade and private retail trade were controlled by state agencies, administered prices (through the National Price Commission) largely replaced market prices, and monopoly government marketing boards replaced peasant cooperatives. A foreign exchange allocation system was developed in response to the balance of payment crises and exports, imports and foreign exchange were restricted through registration and licensing. In 1974 import substitution industrialisation (ISI) was introduced through the Basic Industries Strategy (BIS) for 1975 to 1995, Tanzania's first comprehensive long term industrialisation strategy (discussed in the next section). The strategy was formulated in the framework of pursuing socialist development principles which included marginalisation of the role of the private sector.

Economic performance was reasonable on most indicators in the early 1970s, but worsened by the late 1970s; growth fell below one percent per annum in 1977 and exports fell to only 11 percent of GDP. The decade witnessed a series of shocks that weakened the economy: the 1973/74 drought, the 1973/74 and 1979/80 oil crises, the breakup of the East Africa Community in 1977, collapses of cash crop prices in the international markets and the costly 1978/79 Kagera war with Uganda. By the beginning of the 1980s there were huge shortages of goods (particularly food), inputs and foreign exchange, a growing black market exchange rate premium, capital flight and an emerging debt crisis. Initially the government responded to these difficulties by proposing its own policy reforms but soon adopted a series of economic recovery measures sponsored by the IMF and World Bank (Morrissey, 1995). Although some reforms were implemented, macroeconomic performance remained weak and investment declined. Throughout the 1980s terms of trade continued to decline, aid dependence remained high, manufacturing output stagnated at around eight percent of GDP and the current account deficit continued to rise, reaching 20 percent of GDP in 1993 (Nyoni, 1997).

Although investment increased in the 1990s, most of this was directed to infrastructure and growth of private sector investment in productive activities was limited. The early 1990s were a period of failed or stalled reforms, and negotiations with the World Bank often broke down. From 1995 onwards, following the first wave of economic reforms, growth and macroeconomic performance improved, as shown in Table 21.2 (panel B).

Growth has been above 5 percent and around 7 percent since 2005. Investment as percentage of GDP has also increased significantly to 35 percent in 2013 compared to 21 percent in 1995. Exports also picked up to around 28 percent of GDP in 2013 from around 20 percent in 1995. Manufacturing, to a less extent has also improved, from around 7 percent of GDP in 1995 to around 10 percent in 2010. While the share of agriculture as a percentage of GDP has fallen significantly from around 50 percent in the mid–1990s to 22 percent in 2013, that of manufacturing has not grown significantly (mining has accounted for an increasing share of industrial activity) so the structural transformation is still awaited.

3 MANUFACTURING IN TANZANIA: REFORMS AND POLICY

Manufacturing and industrial development has been at the core of Tanzanian development strategy for structural transformation since the 1960s. Industrial policy can be characterised and discussed under four periods: from 1961 to 1966 (post-independence); 1967 to 1979 (the Basic Industry Strategy); 1980 to 1995 (crisis and adjustment); and since 1996 (sustainable Industrial Policy 1996-2020). Wangwe et al. (2014) provide a detailed overview on which we draw, and we focus on the period since the late 1980s.

Industrial Development 1961-1966: When Tanzania achieved independence in 1961 industrial development was at a very low level, and in the years after independence this situation did not change much. There were only about 220 firms employing 10 or more people (Skarstein and Wangwe, 1986) and most of these were small establishments: the large firms at independence were mostly involved in tobacco manufacture (cigarettes), beer and soft drinks. Many of the largest capital intensive firms were subsidiaries of Multinational Corporations (MNCs) and in 1961 the six largest companies were all foreign-owned: British American Tobacco, East African Breweries, Coca-Cola, Tanganyika Packers, Metal Box and Bata Shoes (Wangwe et al., 2014: 5). The main sectors were processors of primary products (mainly for export) and simple consumer goods in food processing, beverages, rubber products, chemical products, clothing and footwear, and repair of transport equipment.

The newly independent Government set out policies for diversification from primary production and shifting manufacturing towards capital and intermediate goods in the Three Year Development Plan (1961-63) and the First Five Year Plan (1964-67), which assumed that foreign private capital would be attracted by favourable investment conditions. The National Development Corporation (NDC), established in 1962, was mandated to spearhead industrial development in the country. There were attempts to create favourable conditions for foreign capital by offering protective tariffs, guaranteeing security of foreign investments, publishing existing investment opportunities and designing a tax incentive structure. In this early period more than 75 percent of industrial investment was coming from the private sector (Rweyemamu, 1973).

Basic Industry Strategy 1967-1979: The Arusha Declaration heralded the start of a phase which required local control of all major means of production, manufacturing, services and commerce. This included nationalising already established private sector industries and establishing new state owned enterprises (SOEs) such as the State Trading Corporation and the State Mining Corporation. This period coincides with the First (1964-68) and Second (1969-74) Five Year Plans, where steps were taken to consolidate the nationalisation programme and promote the link between industrial development and rural development through the Small Industries Development Organisation (SIDO) which was established in 1973. The aim was to promote the establishment of small industries that employed simple and labour intensive technologies, which utilised locally available human resources and raw materials (Skarstein and Wangwe, 1986). The first three mid-term development plans were not

effective and were followed by the twenty years (1975-1995) Basic Industries Strategy (BIS).

Seven national goals were identified in the BIS: industrial growth; structural change;employment generation; increased equality of income distribution and of regional development, worker participation in industry and increased self-reliance. BIS was different from the previous industrial strategies in terms of emphasis: a) on production of basic consumer needs for the majority of the population (food, clothes and footwear, building materials, medicines, education equipment and facilities); b) on producer (capital) goods (i.e. iron and steel, metal working and engineering, chemical industries etc.) that have potential in creating linkages and facilitating structural transformation; and c) using technologies appropriate to the resource endowment of Tanzania. The target was a high rate of industrial growth of 8.8 percent per annum over 1975-95. Structural transformation was expected, through manufacturing's increased share in the economy from 7 percent in 1970 to 18.8 percent in 1995. The share of the consumer goods sector was expected to decline from 68 percent in 1970 to 39 percent in 1995.

The ambitions of the BIS were never realised as implementation was slowed down by the lack of resources following the economic crises of late 1970s (Lall and Wangwe, 1998). The manufacturing sector had grown as a share of GDP from only 3.6 percent in 1961 to 8.4 percent in 1967, and then to a peak of 10 percent in 1972, but fell back to 8.5 percent in 1979 (see Table 21.2 above). Nevertheless, between 1966 and 1979 the average industry rate of growth was around 5.7 percent. Industrial employment as a proportion of total wage employment increased from 9.9 percent in 1967 to 16 percent in 1979. Industrial investment as a share of total investment was variable, falling from 14.8 percent in 1967 to 11 percent in 1972 and then rising to 24 percent in 1979. Manufactured exports remained below 10 percent of total exports during this period.

Crisis and Adjustment 1980-1995: Government monopolisation of marketing, and high effective protection of the import-substituting industrial sector in the 1970s undercut the rewards to production for export. The coffee bonanza concealed the weaknesses of the system for a few years, but when it ended the inefficiencies of the economy became apparent (Skarstein and Wangwe, 1986). As discussed above, economic performance during this period was limited by internal policy weaknesses and external shocks, and the early 1980s was a period of crisis. The Economic Recovery Programme (ERP) I (1986-89) and ERP II (1989-1992) aimed to promote industrial development by: (i) rehabilitation of existing capacities rather than new investments; (ii) directing resources towards export-oriented activities; (iii) promoting private investment; and (iv) reducing the size of the public sector to give the private sector a greater role in industrial development. A programme for public enterprise reform, including divestiture and liquidation, was launched. Along with these measures, impediments to exports were also removed, such as relaxing licensing and registration requirements, reducing the number of export items subject to permit and allowing private participation in traditional exports.

Manufacturing as a share of GDP declined from about 10 percent in the early 1980s, to about 8 percent from the mid-1980s, with no evidence of sustained growth relative to the rest of the economy (Bennell, 1998; Grenier et al., 1998). The ratio of manufacturing investment to GDP, initially around 7 percent, declined to 5 percent in the mid-1980s, recovering in the late 1980s to stabilise at just over 7 percent. This was relevant because investment is an important indicator of manufacturing prospects, symptomatic of business confidence and indicative of future performance. Many SOEs were restructured but the manufacturing sector was weak and uncompetitive (Due, 1993). The textile industry, a leading industrial sector at the time, almost collapsed with the closure of 22 out of 24 mills by 1993.

Industrial Development since 1996: Privatisation during the 1990s had a significant impact and SOEs accounted for less than 10 percent of manufacturing enterprises by the mid-2000s (URT, 2009). A sector based on small and medium enterprises (SMEs) emerged: "enterprises with fewer than ten employees account for 97 percent of all

manufacturing enterprises [in 2007] and … most are family-owned firms with less than five employees" (UNIDO and URT, 2012: 16). During the preparation of Tanzania Development Vision (TDV) 2025 between 1998 and 2000 there was a consensus on the development of a more coordinated institutional framework for the implementation of plans to have a semi-industrialised economy by 2020. A series of policy initiatives have been undertaken since 2000 which are discussed in section 6 below.

4. MANUFACTURING PERFORMANCE IN THE 2000s

Despite improvements since 2000, the Tanzanian economy remains predominantly based on agriculture and extractive sectors with rising informality; the manufacturing sector remains small. Manufacturing Value Added (MVA) as a share of GDP only reached 10 percent after 2010, which is still below the average for the region: in 2010 MVA as a share of GDP was lower than in Mozambique, Kenya and Malawi and of neighbouring countries was only greater than that for Uganda and Rwanda (UNIDO and URT, 2012: 35). Manufacturing in Tanzania is characterised by low value-added, low-tech activities. The food and beverages sector accounts for about 50 percent of total MVA, and non-metallic mineral products contribute about a tenth and textiles another 5 percent. Manufacturing activity is heavily concentrated in Dar es Salaam, with Arusha having the only other significant concentration.

The rate of employment growth in manufacturing has been disappointing, perhaps reflecting the predominance of SMEs. "Manufacturing employment accounts for less than 5 percent of the total labour force, with the largest 40 manufacturing companies employing 36 percent of all manufacturing labour … equivalent to the employment generated by 24,000 micro enterprises" (UNIDO and URT, 2012: 17). Manufacturing firms established in 2005 or later accounted for about a tenth of industrial employment in 2012.

Although manufacturing employment growth has not been strong, some sectors have been doing relatively well. The manufacturing sectors in Tanzania with the highest share of employment in new companies are paper and textiles (both of which have expanded production in the 2000s, see Table 21.3), electrical equipment and manufactures of fabricated metals (which have not grown in the 2000s, Table 21.3). The textiles sector has created the largest number of jobs in new companies, while the food sector accounts for the second highest number of jobs created in new companies, although older companies continue to be the largest employers. The biggest concern is the lack of a critical mass of firms in a variety of sectors.

Industrial production has shown steady growth in the 2000s, with the index of total manufacturing production rising from 56 in 2000 to 188 in 2009 (Table 21.3). Relatively strong growth can be seen in wood products, paper and paper products, food and beverages, textiles, tobacco and minerals. These are likely to be relatively low technology manufacturing with some processing of primary domestic inputs. Food processing and beverages are major sectors accounting for about half of all employment in manufacturing (Sutton and Olomi, 2012: 61) so the performance is encouraging. Furniture manufacturing dominates the wood sector as most is made from local wood (although some is imported) and furniture firms tend to have a long-term relationship with timber suppliers (Sutton and Olomi, 2012: 141-3). The larger firms in Dar-es-Salaam tend to be owned by members of the Indian community and African owners are more common in the rest of the country.

The sectors that are likely to be more capital and technology intensive, and for which imported inputs are more important, have not grown as strongly. Electrical machinery had high production in 2000, this declined dramatically and only partly recovered by 2009; fabricated metals production grew in the mid-2000s but then declined; and the vehicles sector has been declining. Sutton and Olomi (2012; 178) detail the major problems facing firms in these metal and engineering sectors: expensive imports of

scrap metal; poor quality of local steel; expensive and irregular power supply; poor transport infrastructure; and corruption (this appears to be a particular problem in getting land for expansion, and also includes costs of regulation and taxes).

[Table 21.3 about here]

This pattern of sector growth, weaker for sectors with higher value added, is evident in the slow growth of MVA as a share of GDP, which remains below the average for Africa (in the lower panel of Table 21.3 the figures are the same as in UNIDO, 2014b but are lower than in UNIDO and URT, 2012). Tanzanian manufacturing remains stuck in simple technology, low value added sectors. In 2009 Tanzania ranked 110th out of 118 countries on UNIDO's competitiveness index, somewhat worse than Uganda and Kenya, but better than Ethiopia and Malawi (UNIDO and URT, 2012: 23). Although MVA per capita at $44 in 2010 is low, it is similar to Kenya and Mozambique and much higher than Malawi or Uganda and has grown by about 5 percent per annum through the period from 2000 to 2010; Mozambique has grown faster whereas Malawi and Kenya have stagnated over this period (UNIDO and URT, 2012: 25). Recently Tanzania has performed quite well, with MVA per capita increasing by 28 percent between 2007 and 2012 (UNIDO, 2014b: 87).

Similarly, although the value of manufactured exports is low, the annual growth rate of 31 percent over 2000-2010 was the highest in the region; Uganda recorded 30 percent growth but from a much lower base (UNIDO and URT, 2012: 27). From a 20 percent share in 2000, manufactured exports increased to over 50 percent of total exports by 2010, a share comparable to Kenya (UNIDO and URT, 2012: 29). However, most of these manufactures are low technology with little processing value added. Manufacturing in Tanzania has grown, but remains a weak sector by global standards and even compared to middle-income countries in sub-Saharan Africa.

[Table 21.4 about here]

There has been considerable growth in recent years in resource sectors, especially natural gas, where output increased by 17 percent between 2008 and 2010 (the output share fell because of high growth in other sectors), and mining/quarrying; these two sectors now account for more than half of value added in mining and utilities (Table 21.4). However, the major utilities, in particular electricity, grew relatively slowly, implying that they are failing to keep pace with industrial demand. Furthermore, growth in value added has been very low, and even negative for utilities (Table 21.4). This is consistent with erratic electricity supply often being reported as a major constraint facing firms (Sutton and Olomi, 2012).

5 MANUFACTURING IN TANZANIA: PERFORMANCE IN CONTEXT

Research on manufacturing enterprises in Africa increased during the 1990s as large-scale surveys of manufacturing in Africa became available, especially those produced by the World Bank and the bilateral donor-sponsored Regional Programme on Enterprise Development (RPED). These were analysed to investigate the determinants of productivity and effects of privatisation and trade liberalisation policies implemented as part of the adjustment programmes from the 1980s. For example, Bigsten et al. (1999a) investigate the determinants of the decision to export and the share of output exported for a total of 502 firms in Cameroon, Ghana, Kenya and Zimbabwe over the period 1991-95. No factors other than size were found to consistently influence the decision to export; Grenier et al. (1998) find similar results for Tanzania. Bigsten et al. (1999b), for the same four countries, find that profit appears to be the only consistent determinant of investment, especially for small firms. Teal (1995) obtains similar results for Ghana, and Grenier et al. (1998) find that company earnings are the major source of investment funds in Tanzania.

The importance of SOEs in Tanzania does not appear to be a reason for poor performance because studies have found that parastatals or SOEs have performed reasonably well among manufacturing firms in Tanzania. In part this may be because SOEs face limited competition (Helsinki School of Economics, 1995). Bagachwa and Mbelle (1995) reviewed case studies of nine firms, three of which were parastatals in the textiles sector, and found that exports tended to require specific technological capacity to meet higher (or different) quality standards as compared with production for the domestic market, while James (1996) argued that parastatals proved adept at attracting technology. The principal constraint on firms, especially exporters, in these studies was identified as investment capability, especially access to financing but more generally to information and capacity to adapt; SOEs had no greater capabilities in general.

Grenier et al. (1998, 1999) analyse a 1995 survey of 83 manufacturing enterprises, covering food, textiles, wood, paper, chemicals, metals, and covering five main cities, including Dar-es-Salaam. The firms selected were largely within the formal sector, with little coverage of very small (or micro) firms: 43 percent employed more than 100 people; the mean firm size was 158, although the median size was 80, reflecting the presence of a few very large firms in the sample. A detailed discussion of the survey results is provided in Grenier et al. (1998), focussed on exporting and investment, whereas Grenier et al. (1999) address how ownership and exporting relate to business confidence.

Parastatals were significantly larger than other firms with an average of 310 employees, compared to 99 employees for other firms, and accounted for 55 percent of employment. Some 27 percent of the firms reported some exporting, a relatively large share by African standards reflecting the sample's bias towards larger, older firms. About 40 percent reported investment in each year from 1990 to 1993 (Grenier et al., 1998). Parastatals were significantly more likely to export, contrary to the findings for other SSA countries (Bigsten et al., 1999a): 55 percent of exporters were SOEs compared to 20 percent of non-exporters, and half of the SOEs exported. Part of this is explained by the effect of size: large firms were more likely to export and more likely to be SOEs. There was no evidence that SOEs had favourable access to investment financing, a major constraint on firms; they were not more likely to invest (controlling for the fact that sustained investment is related to exporting and size). Company earnings were by far the most commonly used source to finance investment (69 percent), followed by personal savings and domestic bank loans (about 20 percent each). These results are consistent with studies of other SSA countries (Teal, 1995; Bigsten et al., 1999b).

Grenier et al. (1999) provide some evidence that firms competing on the domestic market tended to feel more exposed to, and concerned with, economic policy (especially trade taxes and the exchange rate) whereas exporters were more likely to feel insulated from policy changes. This is consistent with trade liberalisation benefiting exporters. As exporters tended to be larger firms they may have been in a better position than other

firms to withstand adverse economic trends. Trade liberalisation was associated with a perceived increase in competition from imports, and firms competing with imports were constrained in their ability to increase prices, whereas exporters appeared somewhat more confident than non-exporters. Thus the trade reforms implemented through the 1990s are most likely to have benefitted relatively larger exporting firms, often SOEs, but did not benefit smaller firms competing domestically or with imports.

The most recent survey available ((Wangwe et al., 2014) interviewed some 50 firms, representative of Tanzanian manufacturing, in 2010-12. The main determinants of good performance were found to be: producing quality products; having good management, customer services and marketing strategies; good access to technology, skilled labour and innovation; experience, reputation and networking. Interestingly, compared to the early 1990s discussed above, access to financing and credit policy and availability of raw materials were less frequently mentioned as being important (Wangwe et al., 2014: 26). However, access to locally produced quality inputs seemed to be an important issue in some sectors, such as food processing (Sutton and Olomi, 2012: 61) and metals (Sutton and Olomi, 2012: 178), and in beverages high and unstable prices of raw materials were noted as a constraint (Sutton and Olomi, 2012: 78). Food processing is, of course, one of the most important sectors for linkages and for adding value to local agricultural production.

Wangwe et al., (2014: 43)suggest that manufacturing firms in Tanzania face five types of challenges: i) low levels of technology, irregular electricity and lack of skilled labour; ii) a complex legal and institutional environment where laws are not enforced; iii) limited access to financing and high cost of capital, inputs and energy; iv) competition from imports, especially very cheap low-quality goods; v) official regulations, charges and taxes. Of these, the most important challenges seem to be electricity supply (expensive and irregular so that firms often need their own generators, which add to costs), difficulty in gaining access to loans (at high rates of interest) and costs associated with corruption.

Sutton and Olomi (2012) emphasise the importance of capability in the growth of exporting firms, through a series of vignettes of 50 selected large firms in 16 industrial sectors based on data for 2011. They confirm that the various constraints discussed above are reported by many firms, but point out that a neglected major constraint is easy access to land for industrial development. They also confirm the importance of large firms in their sample. Although Tanzania's commodity exports are concentrated in a relatively few large firms (22 firms account for over half of all exports for seven sectors, and one firm accounts for all gold exports, which were over a third of exports in 2011) they are quite diversified across manufacturing sectors by African standards. Medium and small firms make a significant contribution to exports in some industries, notably cashew nuts and curtains. About 40 percent of the large firms in the sample are domestic private-owned (about half of these were 'industrial start-ups' and the others evolved from domestic trading firms), the remainder being either foreign-owned or originating as SOEs. Six industries were the major contributors to export growth in the sample: fish processing; curtains; steel; cut flowers; flour and non-ferrous metal scrap (Sutton and Olomi, 2012: 6). The central feature in these firms emerging as exporters was organisational capability (managerial experience and capacity) and access to information on markets (a particular advantage of those that began as trading firms).

6 CURRENT POLICY PROPOSALS AND ISSUES

"History has repeatedly shown that the single most important thing that distinguishes rich countries from poor ones is basically their higher capabilities in manufacturing, where productivity is generally higher and, most importantly, where productivity tends to (although does not always) grow faster than in agriculture and services" (Chang, 2007: 213). As discussed elsewhere in this volume (e.g. in chapters 2 and 8 by Weiss and Jalilian and by Weiss), a large body of empirical evidence suggests that manufacturing is the key for growth and job creation and this is reflected in Tanzanian policy (URT, 2009). As is evident from the discussion in section 3 above this focus is not new, but has reappeared with renewed emphasis since 2000.

The desire for structural transformation has motivated Tanzanian industrial development strategies as they evolved in the 2000s. Although Tanzania's manufacturing sector showed signs of improvement since the early 1990s, import competition (mainly from Asia) has increased and represented a major challenge to competing domestic producers (as discussed in the previous section). During the second half of the 1990's, the government developed the *Sustainable Industrial Development Policy* (SIDP) 1996-2020 (URT, 1996) to shift the economic base from the public (SOEs) to the private sector and export orientation. Private sector development was supported by the provision of fiscal incentives, simplifying the regulatory framework and macroeconomic stability. The industrial sector started to grow steadily through the 2000's although, as shown above (Table 21.3), performance varied significantly across sectors and the country continues to be dependent on agricultural and resource-based products with limited value addition.

The relevance of the manufacturing sector has been reflected in many key government policy documents and initiatives since 2000. In general, Tanzania has been good at producing strategy documents but poor at identifying and implementing policy interventions which support realisation of the strategies, so that comparatively little has been achieved. UNIDO and URT (2012: 18-19) sketch the main policy initiatives and development strategies.

The *Tanzania Development Vision (TDV) 2025* (URT, 2005a) sets out the new policy framework for the transformation of Tanzania from a least developed country to a middle income country by 2025 through inducing a shift from an agricultural base to a semi-industrialised one. In this framework there is little explicit recognition and understanding of why that basic structural transformation, a feature of industrial strategy since the 1970s, has not previously been achieved. Resources are still viewed primarily in terms of minerals, and the framework contained no specific measures to harness the agriculture resource base and to develop an agro-processing sector. The importance of agro-processing is recognised in the framework but the need for reform and increased production in the agriculture sector is not given much attention. Implementation of the TDV was itself planned. The *Long Term Perspective Plan* (covering the period from 2011/12 to 2025/26) (URT, 2010a) is a roadmap for three phased five-year plans for the realisation of the TDV 2025. The first *Five Year Development Plan* (2011/12-2015/16) (URT, 2010b) emphasised industrial development as the foundation for export-led growth but is more explicit than the TDV in proposing goals and strategic interventions with key targets to be achieved by 2015 (see Table 21.5 and the discussion below).

Various strategy documents supplemented the TDV. The Export Processing Zones (EPZ) programme was initiated by the *Export Processing Zones Act (2002)*, and was institutionalised through the Export Processing Zones Authority (EPZA) in 2006. The EPZs were expected to attract investment for export-led industrialisation in order to increase foreign exchange earnings and employment and to promote domestic processing through adding value to local raw materials. By 2012, six industrial parks were operational and 17 regions had been identified for future EPZs. Insufficient funds for the development of infrastructure remained as the main constraint. The *Tanzania Mini-Tiger Plan 2020* (URT, 2005b) was introduced in 2005 to support the implementation of TDV 2025 by replicating in Tanzania the successful development of the manufacturing sector achieved by the Asian Tigers. It complemented the EPZA by

proposing Special Economic Zones (SEZs) for export-led manufacturing. The Mini-Tiger Plan failed to attract adequate financial support to realise the aims.

A number of specific policy documents supported aspects of the TDV. The *Small and Medium Enterprise Development Policy 2003* (URT, 2003a) acknowledged the special role of SMEs in the context of Tanzanian industrialisation and focussed on improving infrastructure, strengthening financial and business services and establishing institutions to support SME development. However, there were no specific measures to address the major constraints on firms discussed above. The *National Trade Policy 2003* (URT, 2003b) drafted by the Ministry of Industry and Trade strictly followed the principles stated in the TDV by focusing on private sector led export growth through an emphasis on 'stimulation and encouragement of value addition' as one of its chief objectives. This was an appropriate focus but few specific mechanisms to support this were proposed (and it was not clear how domestic trade policy would be a good instrument for private sector development).

The *Integrated Industrial Development Strategy (IIDS) 2025* (URT, 2013) is the latest initiative to promote the achievement of the TDV 2025. One merit of this strategy is a focus on specific sectors. Some of these sectors are relatively labour-intensive, such as textiles, agro-processing (edible oil, processed cashew nuts and fruits, milk products, leather products), light engineering and tourism. Others support domestic production of intermediate inputs using local resources, such as fertilizer, chemicals, iron and steel. UNIDO and URT (2012: 87-99) provides recommendations for policy measures to achieve the IIDS objectives but these tend to be general and aspirational rather than specific. For example, trade investment and sector policies to support industry (p. 87), strategic and aligned industrial policy interventions (p. 88) or "a serious evidence-based dialogue with the private sector" (p. 93).

UNIDO and URT (2012) do include some specific interventions, such as highlighting the potential of building a local plant to utilise natural gas to substitute for imports of urea-based fertilizer and even export to Rwanda (p. 58) or of the cement sector to export regionally (p. 59). Particular emphasis is given to the poor education and skills of workers, especially in terms of computing and engineering (p. 72), and to the lack of adequate funding for vocational education and training (p. 76). It is, however, a positive step that the skills gap experienced by firms has been investigated and highlighted.

[Table 21.5 about here]

As shown in Table 21.5, the first five-year plan included some specific interventions to utilise the mineral and agricultural resource base. Natural gas offers a prospect of a domestic fertilizer industry (the major challenge will be financing investment in such a relatively capital and technology intensive industry). Adding value by processing precious minerals may be a more viable domestic industry as it can be successful on a relatively small scale, but therefore may be of limited help in meeting ambitious employment creation targets. Agro-industry may offer the greatest potential for manufacturing growth with employment generation, but as noted by Sutton and Olomi (2012) ensuring a reliable supply of quality agricultural inputs is the major challenge.

7 CONCLUSION

The simple conclusion from this review is that Tanzania has had no shortage of industrial development plans and strategies, but that these have failed to achieve the structural transformation from an agriculture-based economy to an industrial production-based economy, generating significant employment. In the first few decades after independence there were 'home grown' policies, to a greater or lesser extent inward-looking, based on various forms of state intervention. Although state-owned enterprises performed relatively well this may have been because private manufacturing performed badly given the absence of an enabling environment. More important, perhaps, was the neglect of agriculture and its complementarities with manufacturing; strategic perspectives did not include promotion of the agricultural contribution to structural transformation, so that Tanzania adopted a focus on industrialisation alone in order to create the transformation.

The economy hit the doldrums in the 1970s, buffeted by external shocks that further undermined weak manufacturing and agricultural sectors. The government had little choice but to turn to the World Bank and IMF and to begin a slow process of policy reform that is still continuing. Some of the successes in industrial performance can be attributed to government policy interventions, in particular trade liberalisation and privatisation (UNIDO and URT, 2012: 19). The broad success of reforms in creating a more stable macroeconomic environment has been important in creating a platform for private sector growth; although manufacturing growth remains slow, there has been progress and some sectors are performing reasonably well. The most recent strategies are more outward looking, not only trade and investment liberalisation but also seeking to learn from the experience of East Asian economies that have succeeded in structural transformation and increasing manufacturing value added as a share of the economy. It is not, however, evident that Tanzanian policy makers have appreciated the role that earlier reforms in the agriculture sector had in driving the transformation in East Asia. It should be noted, for example, that the major food processing sector remains constrained by low quality inputs.

The relative importance of the major challenges facing manufacturing firms may have changed over the past few decades but the same issues still appear as the major constraints (Sutton and Olomi, 2102; Wangwe et al., 2014). First is the poor quality of infrastructure, especially electricity supply and transport facilities and services – a combination of public investment and better regulation of privatised services is required to address these problems. Second is the perennial difficulty of access to loans for investment (one reason for low technology) and working capital (constraining the ability of business to expand), and there does not appear to be a clear strategy to address this. Many firms have been established and expanded by relying on family or business capital (often profits from one business are used to establish another) but the government needs to address the performance of the banking sector. Finally, the price and quality of inputs are important, including raw material and skilled labour. The latter is partly addressed as education provision and attainment improves, with vocational training emerging as important for delivering skilled workers. The former is less amenable to public policy relating to the primary sectors, to managing timber resources sensibly and to promoting agriculture in order to provide the quantity and quality inputs for value-added agri-business. Tanzanian industrial policy has made recent gains but much more needs to be done.

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Table 21.1 – Manufacturing Value Added 1990-2010

	1990	2000	2010	%change 1990-210
MVApc$	22.7	22.4	37.9	67
MVApc rank	180	179	92	
MVAshare%	7.8	7.6	8.6	10
MVA%world	0.01	0.01	0.02	100
GDP%world	0.02	0.03	0.04	100

Notes: Manufacturing Value Added (MVA) per capita (pc) in $US; rank out of 198 countries; MVAshare is as % GDP; MVA and GDP as shares of world totals. Note that UNIDO and URT (2012, p35) reports MVA as 9.4% in 2000 and 9.6% in 2010, so obviously the data are contested.

Sources: UNIDO (2014b): p55 for 1990; p64 for 200; p72 for 2010.

Table 21.2 – Tanzania Economic Performance 1961 to 2013

Panel A (period averages)	**1961-66**	**1967-79**	**1980-85**	**1986-95**
GDP growth rate (%)	6.0	4.0	1.4	3.2
Agriculture VA (% GDP)	53.0	41.0	50.0	49.0
Mining VA (% GDP)	2.5	1.1	1.1	1.1
Manufacturing VA (% GDP)	5.3	10	7.0	8.7
Exports (% GDP)	19.3	11.4	4.0	16.2
Gross investment (% GDP)	18.5	24.3	19.9	24.1

Panel B (year values)	**1995**	**2000**	**2005**	**2010**	**2013**
GDP growth rate (%)	3.6	5.0	7.4	7.0	6.9
Agriculture VA (% GDP)	47.1	29.5	26.1	22.7	21.6
Mining VA (% GDP)	1.3	1.5	2.4	2.4	2.3
Manufacturing VA (% GDP)	7.2	8.8	8.9	9.6	9.9
Exports (% GDP)	20.5	13.4	20.8	27.8	28.2
Gross investment (% GDP)	21.5	17	25.2	32	34.6

Notes: VA refers to value added.

Sources: Bank of Tanzania (1983, 2012); World Development Indicators, (2013).

Table 21.3 – Tanzania: Index of Industrial Production (2005 = 100)

Sector	2000	2003	2007	2009
Food & Beverages	60	88	108	214
Tobacco	60	72	163	156
Textiles	61	161	159	169
Wood products	75	60	103	464
Paper & products	12	105	157	265
Mineral (non-metal)	63	86	129	188
Fabricated metal	53	113	38	64
Electrical machinery	367	115	118	179
Vehicles	143	121	94	92
Total Manufacturing	56	91	124	188

MVA/GDP (2005 prices)	2000	2005	2008	2010
Tanzania	7.6	7.9	8.4	8.6
Africa	11.6	10.8	10.5	10

Sources: UNIDO (2013), p828 for Index values; p58 for MVA/GDP (Manufacturing Value Added as a percentage of GDP).

Table 21.4 – Tanzania: Mining and Utilities, Output and Value Added

	Output (%)			Value Added (%)		
	2008	2010	Δ%	2008	2010	Δ%
Coal	0.56	..		0.55	..	
Natural Gas	9.99	1.12	16.69	14.69	21.65	0.67
Metal ores	1.53	1.55	-0.85	1.88	1.78	0.07
Mining	19.08	43.86	11.44	30.88	36.89	0.35
Electricity	65.90	50.52	2.45	47.10	36.76	-0.12
Water supply	2.93	2.95	-0.96	4.91	2.92	-0.33
Total			33.17			0.13

Notes: Output and Value Added % expressed as shares of total (all mining and utilities); Δ% is change in output and value added values for sectors and total over the period 2008-10.
Source: Derived from figures in UNIDO (2014a), p167

Table 21.5 – Five Year Development Plan (2011-16) Targets

Goal	Strategic Interventions	Key Targets for 2015
Transformation of the country's production and export structure commensurate with existing demand patterns in domestic, regional and global markets	Developing activities for self-sustaining industrialisation of basic industries: metal and engineering, tyres, chemical & fertilizers, cement, construction and building materials Promoting development of SEZ and EPZ to encourage investment in Bagamoyo, Kigoma, Mtwara, KMTC Kilimanjaro, Tanga Investment and technology to enable large scale fertiliser production using domestic natural gas and phosphate deposits Promoting value added agro-industries: essential and edible oils, starch, sugar, cereal flours, sisal fibres, instant coffee, tea bags (includes textiles and garments) Promote industries to utilise mineral resources: precious metals & gemstones grading, cutting, polishing, lapidary and jewellery Improve the business environment and market access Promote local participation in industry	Average annual sector growth of 11 percent Manufacturing sector share of GDP increased to 12.9 percent Manufacturing share of total export to rise to 19.1 percent Total manufacturing employment growth from 120,000 to over 221,000

Source: Derived from *Five Year Development Plan* (URT, 2010b)