

# The political economy of the steel sector in Tanzania: power relations and patterns of decline and growth over time

Hazel Gray<sup>1</sup>

January 2021

<sup>1</sup> Centre of African Studies, University of Edinburgh

# Contents

<b>Acronyms and abbreviations</b>	<b>3</b>
<b>Acknowledgements</b>	<b>3</b>
<b>Executive summary</b>	<b>4</b>
<b>1. Introduction</b>	<b>5</b>
1.1. Steel: a critical commodity	5
1.2. The steel industry in Tanzania	5
1.3. Cartels, collusion and economic development	6
1.4. Theoretical approach: the political settlement framework	7
<b>2. The steel sector from independence to <i>Ujamaa</i> (1960–1979)</b>	<b>9</b>
2.1. Key actors in Tanzania’s early steel sector and the push for nationalisation	9
2.2. Rents in the steel sector and the political settlement under <i>Ujamaa</i>	11
<b>3. Economic decline and institutional reform (1980–2000)</b>	<b>13</b>
3.1. The impact of global and national financial crises on the steel industry	13
3.2. Economic liberalisation and privatisation	14
3.3. Rents in the steel sector and the political settlement under liberalisation	15
<b>4. Rapid accumulation and the rise of the diversified business group (2000–2015)</b>	<b>17</b>
4.1. Economic growth and new entrants to the market in the face of quality concerns	17
4.2. Rising steel prices and low capacity utilisation	18
4.3. Trade flows and regionalisation	19
4.4. Rents in the steel sector and the political settlement of the high-growth era	22
<b>5. The return to planning and Magafuli’s first term (2015–2020)</b>	<b>26</b>
5.1. New market entrants and Chinese investments	26
5.2. Renewed interest in mining iron ore	27
5.3. Rents in the steel sector and the evolving political settlement	27
<b>6. Conclusion</b>	<b>30</b>
<b>7. References</b>	<b>32</b>

## Figures

Figure 1. Imports and exports of steel products (2001–2017)	20
Figure 2. Imports of steel bars and flat rolled steel products (2001–2015)	20
Figure 3. Major supplying markets to Tanzania for steel bars and rods (2000–2015)	21
Figure 4. Major supplying markets to Tanzania for flat steel products (2001–2015)	21
Figure 5. Exports of reinforced bars (2001–2018)	21
Figure 6. Exports of corrugated roofing sheets (2001–2018)	22

## Acronyms and abbreviations

<b>ALAF</b>	Aluminium Africa Ltd
<b>CCM</b>	Chama Cha Mapinduzi (political party)
<b>CET</b>	Common External Tariff
<b>CTI</b>	Confederation of Tanzanian Industries
<b>DRS</b>	Duty Remission Scheme
<b>EAC</b>	East African Community
<b>EPZ</b>	Export Processing Zone
<b>GDP</b>	Gross domestic product
<b>NDC</b>	National Development Corporation
<b>SIDP</b>	Sustainable Industries Development Policy
<b>SMAT</b>	Steel Manufacturers Association of Tanzania
<b>TANU</b>	Tanganyika African National Union
<b>TBS</b>	Tanzania Bureau of Standards
<b>TFCC</b>	Tanzania Fair Competition Commission
<b>TNBC</b>	Tanzanian National Business Council
<b>TPSF</b>	Tanzanian Private Sector Foundation

## Acknowledgements

We wish to thank Therese Bostrup and Barbara Pedersen at DIIS for excellent research assistance.

## Executive summary

The trajectory of Tanzania's steel sector over the past 20 years has been driven by expansion in the construction sector and building projects related to increased investment in mining, urban housing and large and small infrastructure projects. Reinforced steel bars and steel roofing sheets are the most prominent product categories, which are manufactured by a handful of dominant companies. As domestic production has not kept up with demand, imports have increased sharply since the mid-2000s.

While the Government of Tanzania has held long-term ambitions to mine iron ore deposits in the Southern Highlands, there is no primary steel production in the country. Instead, the steel value chain starts with either imported steel billets or scrap steel converted into ingots, which are transformed into a range of long and flat steel products. The sector consists of a few large industrialists involved in steel roofing and reinforced bars, plus many smaller producers that make a range of steel inputs for the construction sector. Traders and wholesalers also play a key role in the value chain along with construction companies who depend on steel.

This paper provides a broad analysis of the political economy of the steel industry in Tanzania, from the country's independence in 1962 to the present day. It draws on secondary data and sources to trace the evolution of firm relations over time, and explains how a pattern of relationships forged between industrialists and the state from independence onwards have underpinned the political settlement. While the sector declined in the 1980s and moved to privatisation, it started to grow again in the context of increasing domestic demand as the rate of accumulation picked up at the end of the 1990s. During the 2000s, the sector expanded but remained highly concentrated and there were emerging signs of collusion between industrialists and the state. From the end of the 2010s Chinese investment in the sector expanded and changes occurred under President Magafuli in the way that rents were managed in the sector. The paper discusses the challenges in designing industrial policy to support domestic steel production in countries with small and peripheral industrial sectors.

# 1. Introduction

## 1.1. Steel: a critical commodity

Steel is a critical commodity in any industrialising economy. Historically, in the 20th century, development of the steel sector in many of the fastest growing East Asian economies involved the emergence of highly concentrated sectors that were underpinned by close relationships between the state and steel firms (Amsden, 1989). In more recent decades, the global steel industry has been re-shaped by the rapid rise of Chinese firms. Forms of direct and indirect rents have played a key role in allowing new steel firms to emerge in the face of competition from well-established firms.

Industrial policy has returned to prominence across the world over the past decade. However, the types of policy rents that were used to support the steel sector now sit outside broad consensus on the need for limited state interventions for sectors that portray latent comparative advantages. The extensive support that has been given to emerging steel sectors can hardly be justified on the basis of short-term calculations of efficiency, latent comparative advantage and rent-seeking costs.

A challenge for industrial policy is that the common structure of the steel sector – with a few large upstream firms and many smaller producers involved in the manufacture of intermediate steel products – leads to conflicting interests between actors. The sector often exhibits oligopolistic industrial structures that are prone to the formation of cartels. In turn, these can undermine industrialisation by raising costs, reducing investment, and limiting entry and competitive rivalry between steel firms (Vilakazi and Roberts, 2017). Yet, in other circumstances, such private-sector arrangements may lead to a form of developmental cartelism by ensuring the viability of steel in the face of intense competition from low-cost producers.

Whether these characteristics lead to dynamic processes of industrialisation and the acquisition of capabilities or to stagnation depends on particular features of the political economies of steel sectors. And, while there is considerable research on the political economy of steel sectors in industrialised countries (Roberts, 2008), much less is understood about the dynamics and impact of industrial policy to support steel in countries with small and peripheral industrial sectors.

## 1.2. The steel industry in Tanzania

As one of the least industrialised countries in the world, it is no surprise that Tanzania has a small steel sector and very low levels of per capita steel consumption. Nevertheless, Tanzania's steel sector has gone through a period of significant growth over the past 20 years, with expansion at all stages of the value chain – from scrap collection to fabrication, distribution and wholesale of local and imported steel products. The trajectory of Tanzania's steel sector has mirrored the wider experiences of industrialisation and de-industrialisation

in the country over time: expansion has been driven by structural changes as well as rapid growth of the construction sector and building projects related to increased investment in mining, urban housing, and large and small infrastructure projects.

While the Government of Tanzania has held long-term ambitions to mine iron ore deposits in the Southern Highlands, there is no primary steel production in the country. Instead, the steel value chain starts with either imported steel billets or scrap steel that is converted into ingots, which are then melted down and transformed into a range of long and flat steel products. Reinforced steel bars and rods and steel roofing sheets are the most important product categories. However, domestic production has not kept up with demand and imports have increased sharply since the mid-2000s.

Today, Tanzania's steel sector consists of a few large industrialists involved in steel roofing and reinforced bars, and many smaller producers that make a range of steel inputs for the construction sector. Traders and wholesalers also play a key role in the value chain along with construction companies who depend on steel. Despite the increase in the number of steel firms, and a significant increase in domestic capacity, the sector remains remarkably concentrated with a few firms that dominate both long and flat steel products (Nguruse, 2017). The largest firms in Tanzania include domestic and foreign firms that are involved in trade and manufacturing activities across the region.

### **1.3. Cartels, collusion and economic development**

Over the 2000s, a number of traits that are often associated with collusive behaviour became apparent in Tanzania's steel sector – in particular, high prices that were not explained by increases in the cost of production, coupled with low-capacity utilisation of the largest firms. These signs of collusive activity led the Tanzania Fair Competition Commission (TFCC) to undertake an in-depth steel study in 2017 (Ngugurse 2017) and there were plans to start investigations into the sector in 2019<sup>1</sup>.

In conventional economic theory, it is assumed that there is a negative relationship between the operation of cartels and the pace and character of economic development. However, the nature and consequences of collusion are not always so simple. Indeed, the rents generated by market restrictions have been shown to be important for determining the pace and character of economic development – they can incentivise new forms of productive investment and the development of capabilities (Khan, 2000). These incentives may be particularly important for newly emerging industrial firms that have limited competitive advantages.

The formal identification of cartels is the remit of competition authorities using price data and expectations of normal pricing depending on assumptions of the underlying industry model. However, the economic implications of collusion and the relations between the state

---

<sup>1</sup> Reported to the author by Dr Thando Vilakazi based on an interview between the Centre of Competition and Economic Development, University of Johannesburg and the Tanzania Fair Competition Commission, 18 February 2019

and firms that permit such arrangements can be usefully understood through an examination of the broader political economy of the sector.

## 1.4. Theoretical approach: the political settlement framework

While there are a range of different approaches to political economy analysis, the political settlement framework, developed originally by Mushtaq Khan (1995, 2010) is particularly insightful for the questions addressed in this paper, for both theoretical and methodological reasons. A political settlement comprises a combination of formal and informal institutions and the broader distribution of power between social groups that is sustainable over time. Vilakazi and Roberts (2019) argue that the viability of collusive strategies depends on the formal regulations and policies governing the industry. However, the effectiveness of these institutions, and more broadly the effectiveness of the state to discipline firms, depends on the power and interests of different groups.

A political settlement is not a system that has been intentionally created by a particular social group or organisation; instead, it is the outcome of a complex set of interactions that achieves stability between institutions and powerful groups in society as a continuous process (Gray 2019). This means that actors who appear powerful in terms of their formal political and economic positions in society may not be able to enforce compliance with particular formal and informal institutions in reality. This leads to a much more complex relationship between institutions and paths of political and economic change.

The pattern of rent distribution is important for generating political stability by placating powerful groups who might otherwise upset the prevailing political settlement. However, rents also have economic implications, as a way of incentivising certain investment patterns (Khan 2000) but also by providing a source of resources for investment (Gray, 2018).

As well as revealing such dynamics, the political settlement approach provides useful methodological tools to analyse collusive behaviour. While competition economics focuses on identifying the operation of market power through prices, the political settlement framework provides a broader conceptualisation of power (Khan 2010). Here, power is conceptualised as 'holding power' and is operationalised as the extent to which groups can 'hold' onto assets, rents or income flows in competition with other groups (Gray 2018, 2019). Thus, power can be observed in the outcomes of contestations over a wide range of resources. Evidence of the establishment or disruption of collusive activities provides insight into the distribution of power between groups. It also allows for a more nuanced approach to understanding the economic implications of industrial policy by identifying factors that drive the developmental use and management of rents emerging out of particular industrial structures.

This paper is one of three country research studies analysing the political economy of industry arrangements in the supply of steel products in Malawi, Zambia and Tanzania. It draws on secondary data and sources to trace the evolution of firm relations over time and

analyses the broader political economy context in which Tanzania's peripheral steel sector has emerged and grown over time.

The next section examines the emergence of the steel sector in the 1960s and explains how relationships forged at that time between industrialists and the state continued to underpin the political settlement even after the end of the socialist period (known as *Ujama*). Section 3 sets out the decline of the steel sector in the 1980s as well as moves towards privatisation and liberalisation, while Section 4 examines the sector in the context of much faster pace of accumulation, reflected in the growth in gross domestic product (GDP) and a rise in diversified business groups. Section 5 examines changes the way that rents to the steel sector under President Magafuli, Section 6 concludes the analysis by reflecting on the implications for designing successful industrial policy.

## 2. The steel sector from independence to *Ujamaa* (1960–1979)

### 2.1. Key actors in Tanzania's early steel sector and the push for nationalisation

On independence in 1962, Tanzania's nascent industrial sector consisted of only one steel company, Aluminium Africa Ltd (ALAF).<sup>2</sup> The plant was established by a Kenyan-Asian family, the Chandarias, who were gaining prominence within the region. The Chandarias had established their first retail shop in Kenya in 1915 and moved into manufacturing aluminium cooking implements in the 1950s. Faced with the expectation of growing competition after independence, the family adopted a strategy of regional expansion, starting businesses in Tanzania, Uganda, Ethiopia, Zambia and Burundi (Mulupi, 2013). In 1960, the family set up ALAF under their Comcraft Group of companies. Production at the plant started in 1963 (UNCTAD, 2005), and the company specialised in steel roofing products. Its sister company in Kenya, Mabati Rolling Mills, was established in 1962 and produced a similar range of products (Mulupi 1962).

The expansion of the Chandaria family's steel business followed a similar pattern to other East-Asian family firms that had expanded into manufacturing from retail and trade activities from the early decades of the 20th century. During the final years of the colonial era, a number of these families moved out of trade into opportunities that were opening up in industry, spurred on by the prospect of growing domestic consumer markets and the removal of policies that had given an advantage to British firms over domestic industry (Silver, 1984). A purposeful strategy of trading and investing across the region by these family business groups was a key feature of the steel sector in East Africa.

In the early 1960s, the economic objective of the newly independent government was to create productive capacity in Tanzania and break from dependency on imports. The first Five Year Plan of 1964 encouraged both domestic and foreign investment by creating rents through import substituting tariffs that made industrial investment more profitable. The need for a regional approach to industrialisation was recognised by certain governments in the early 1960s and the Kampala Agreement on Industrial Allocation was proposed in 1964. The Kampala Agreement was intended to allow regional strategic industrial planning with Kenya and Uganda, however, political tensions between the countries meant that the plans for regional co-ordination of industrial policy remained unrealised. Regional coordination of industrial policy could have been particularly beneficial for the steel sector. The benefits of regional industrial planning for the steel industry had already been demonstrated in the 1950s with the establishment of the European Coal and Steel Community.

---

<sup>2</sup> Pre-industrial steel production had been widespread in Tanzania at the beginning of the 20th century based on small-scale smelting of iron (Lyaya, 2018).

As Tanzania's first decade of independence progressed, political changes unfolded that had significant implications for the steel sector. Tanzania became a one-party state under the Tanganyika African National Union (TANU) (which later became Chama Cha Mapinduzi, CCM) and in 1967 the ruling party adopted the Arusha Declaration (TANU, 1967), which committed the country to building a socialist society where the major means of production and exchange would be under the control of workers and small-scale farmers. Up until that point, industry had continued to grow along the lines established during the late-colonial period. However, the Arusha Declaration ushered in a more activist role for the state in the industrial sector, as well as a significant shift of economic power away from the private sector as a result of nationalisation of domestic and foreign enterprises and the establishment of new industrial parastatals (Gray, 2018).

Tanzania's socialist industrial vision was contained in its Basic Industry Strategy of 1973. The document set out a plan for industrialisation through the creation of an industrial base that would satisfy the country's basic needs (e.g., housing, food, education, health, transport etc.), while achieving a more equitable distribution of income (Rweyemamu, 1973). State-owned import companies were established to ensure the diversification of imports away from luxury goods towards intermediate goods needed for industrialisation (Biersteker, 1980).

A key institution for the promotion of industrial development was the National Development Corporation (NDC). Its role had originally been to promote private domestic and foreign investment through joint ventures, but over the 1960s it shifted towards the promotion of state projects to ensure the survival and growth of certain key industries even when profitability was low (Mukandala, 1988). Tanzania's next two steel companies were established by the NDC – the National Steel Corporation in 1966 and the Steel Rolling Mills in 1971 (Nguruse, 2017).

The push for nationalisation of key sectors within manufacturing and industry gained momentum from the early 1970s. The intention was to centralise economic power within TANU and implement a more radical transformation of the economy. Given the pre-existing pattern of ownership within the manufacturing sector, most of the firms that were nationalised belonged to East-African Asian families. However, after nationalisation, a number of the larger industrial businesses were held in partnership between existing owners and the state. ALAF was nationalised in 1973, at which time the Government of Tanzania took on a 60.4% stake in the business and the Chandarias retained a minority stake. The Chandaria family saw a strategy of cooperation with the government as key to their business plans (Mulupi, 2013): compensation payments for nationalisation took the form of government finance to further expand the steel plant, while the Chandaria family retained authority over day-to-day operation of the company (UNCTAD, 2005).

The investments from ALAF and the NDC drove a doubling of gross fixed capital formation in basic metal and fabricated metal in Tanzania from 1966 until 1971. And the rate of growth of the steel sector exceeded the rate of growth of manufacturing overall during this period (World Bank, 1975). Growing demand for steel was driven by increasing rates of industrialisation and urbanisation in the country, as well as construction and infrastructure

development. However, domestic steel production could not meet the surge in demand and imports of steel were critical.

The state had control over imports through a number of institutions. The state-owned Agricultural and Industrial Supplies Company Ltd had a monopoly over the importation of critical steel items including merchant bars and standard sections, and only a few large infrastructure projects (such as the Tan-Zam Railway and Kidatu hydro-electric project) had the right to import steel directly from overseas (ibid.). As a stockholder, the National Steel Corporation also played a key role in the import of steel.

The Government introduced the first ban on the export of scrap steel in 1971 with the intention of supporting the expansion of domestic steel production (World Bank 1975). Clear demand and limited capacity for steel production led to ambitious plans for expansion of the sector, such as establishing a billet factory in Tanga to take advantage of the growing stock of scrap. Yet, as the decade progressed, economic decline set in. Plans for expansion of the sector stalled and remained unrealised for another two decades.

## 2.2. Rents in the steel sector and the political settlement under *Ujamaa*

The political settlement in the first 20 years of Tanzania's independence involved attempts to consolidate political power within the ruling party. TANU adopted ambitious plans to transform the distribution of economic power through redistribution of ownership and productive transformation that would lead to a growing economic surplus and genuine economic independence. At times, these two ambitions were in tension with each other. The challenges of radical redistribution were held in check by the need to generate growth within the existing social structures and to work in partnership with those who had economic power and technical expertise.

The centrally planned economic system that was established in Tanzania in the 1970s was never as comprehensive as in many of the wealthier, more industrialised socialist economies. The steel sector was damaged by frequent disruptions in the supply of raw materials and acute shortages of inputs, while efforts to enforce hierarchical control over industrial and trade parastatals became increasingly difficult (Mukandala, 1988). The state needed to provide an effective monitoring and regulatory system to drive through productivity increases within the parastatal sector, but managers were able to resist centrally imposed efficiency measures. In this regard, the relatively weak power of the state meant that it could not successfully engage in the type of centralised rent management evident in high-growth East Asian countries, where growth and consolidation of the steel sector was key to their industrialisation experiences (Amsden, 1989).

Another key facet of the political settlement was the close relations that were forged between certain networks of Tanzanian-Asian industrialists in the private sector and certain politicians and bureaucrats in the state. This was typified by the partnership between the Chandaria family and the ruling party in the ownership of ALAF throughout the *Ujamaa*

period<sup>3</sup>. Nevertheless, wider perceptions of the political legitimacy of Tanzanian-Asian industrialists remained contested and policies to transform the distribution of economic power – that were encapsulated in the Arusha Declaration – made it difficult for the state to organise transparent and adequate formal policy rents to support the expansion of a flourishing private steel sector. In turn, the strategies of regionalisation and fluidity between trading and manufacturing activities were a response of East-African Asian industrialists to the dual challenge of domestic political tensions and the huge competitiveness gaps between the nascent industry in East Africa and international steel producers.

These features of the political settlement that were established in the first decades of independence – namely, close but informal relations with particular industrialists, weak enforcement of performance monitoring, and regionalisation and fluidity between trading and manufacturing – persisted within Tanzania’s evolving political settlement, with significant ramifications for the development of the steel sector over time.

---

<sup>3</sup> The Ujamaa period refers to the period between 1964 to 1985 when Tanzania pursued a path of socialist transformation under President Julius Nyerere.

---

## 3. Economic decline and institutional reform (1980–2000)

### 3.1. The impact of global and national financial crises on the steel industry

By the late 1970s, Tanzania's economic problems were mounting, driven by a combination of internal factors and external circumstances. The global financial and industrial crisis of the 1970s led to a severe downturn in steel manufacturing across the world, which was magnified in Tanzania by growing internal economic troubles. These were generated by shortages of foreign exchange due to a fall in demand for cash crop exports, which led to a decline in the supply of inputs. Problems in the industrial sector were exacerbated by a series of poor harvests and a costly war with Iddi Amin of Uganda.

Growth rates started to fall in Tanzania from the mid-1970s and remained weak for the next 20 years. As argued in Gray (2018), the viability of efforts to construct socialism in Tanzania required a productive transformation within the newly established socialist economic institutions – the cooperatives and the parastatals. By the time the global economic crisis of the 1970s hit, however, this process of productive transformation was faltering. Promising investments in the steel sector were abandoned as the economy turned from stagnation to decline, and severe shortages of inputs and supplies led to an expansion of smuggling.

Unmet demand for imports allowed those with formal state positions and access to import licences to work with those with capital and economic power to subvert the official institutional systems of trade and pricing (Maliyamkono and Bagachwa, 1990). Manufacturing output of the parastatal and the private sector plunged, and the consequence was a growing misalignment between the formal economic rules and the actual practices within economic institutions. This further weakened the enforcement capacity of the state.

By the mid-1980s there was agreement that aspects of the centrally planned system needed reform. The most significant change at this time was the introduction of an own-fund import scheme, which allowed companies and individuals to acquire import licences without having to declare the source of funding. This led to the opening up of significant new channels of accumulation and the re-emergence of trading activities in steel. Indeed, several companies that moved from trade in steel to manufacturing steel in the 1990s benefited from this period of opening up during the early 1980s. However, mechanisms of accumulation outside formal institutions did not lead to transformation of the configuration of political power in Tanzania – the ruling party maintained its control over the state, even after the move to multi-party elections from 1995. Furthermore, the informal economic activities that had emerged during the era of economic crisis were incorporated within the practices of the state and were used by the ruling party as a way to generate political order in the context of destabilising and turbulent market liberalisation (Gray, 2018).

## 3.2. Economic liberalisation and privatisation

From 1986, the state started upon a path of economic liberalisation under the auspices of structural adjustment loans from the World Bank and the International Monetary Fund. The first wave of reform involved dismantling controls on prices and taking steps to liberalise domestic and international trade. In 1989, the Government of Tanzania adopted the Economic and Social Action Programme, which widened reform to include deregulation in the banking system, and reforms in agricultural marketing and in the civil service. Privatisation was initiated and was rolled out over the next two decades.

While the privatisation process was very slow initially, the eventual decline in the share of parastatals in total gross fixed capital formation was substantial, falling from 37% in 1990 to 2% by 2010. Privatisation in the steel sector was slow to start, but by the early 2000s all three of the parastatal steel companies had undergone a change in ownership structure. ALAF was partially privatized in the 1990s. The National Steel Corporation was sold as part of a management and employee buy-out in 2001; Tanga's Steel Rolling Mills was sold to a local company (called Unique Group) in 2000 (Nguruse 2017).

Neither the National Steel Corporation nor the Unique Steel Rolling Mills managed to re-establish production following privatisation. Indeed, the latter was identified by the Parliamentary Public Organisations Accounts Committee (POAC) as one of 17 privatised firms that did not start production again following privatisation that was initiated from 1993 onwards (Mugarula, 2012). The company eventually resumed production again in 2015 but with a negligible output of 30 tons a year (compared to an output of 100–150 tons in the 1970s) (*Guardian Reporter*, 2018). The post-privatisation failure of these two steel companies was similar to the experiences of many other privatised manufacturing parastatals in Tanzania: despite the different ownership structure, companies continued to struggle from insufficient investment, poor management and inefficient use of policy rents designed to improve productivity (Gray, 2018).

In contrast, ALAF was partially sold back to the Chandaria family during the 1990s. Clovis Company Ltd, a Bermuda-based company owned by the Comcraft group of companies (whose majority shareholder was Manu Chandaria) bought a 75% stake in ALAF in the late 1990s (UNCTAD, 2005). As mentioned previously, the family had retained a 24% share of the company during the *Ujamaa* period and had essentially managed ALAF until 1988. At this point, relations between the government and the Chandarias soured due to accusations of misappropriation of funds by Comcraft (Africa Intelligence, 1992). However, after privatisation, the government retained a 24% stake in the company, thus reversing the *Ujamaa* ownership structure but enabling ongoing close relations between the state and the company. In 2003, the Chandarias set up the Safal Holding Group to run their steel companies across the continent, which later became the largest steel roofing manufacturing company in Africa.

In the late 1990s and early 2000s there was also a surge in the establishment of private-sector steel companies, many of which had started as steel importers or importers of construction materials. For example, Steel Masters Ltd was established in 1996 and

imported high tensile reinforced bars; the Lodhia Group began trading in 1996 as the Steel Centre, before establishing steel-making operations in 2004 in Arusha. Other steel companies that moved from trading to production also opened up in Dar es Salaam, such as the Metro Steel Mills Ltd, Iron and Steel Ltd and A.M Iron and Steel. Another new firm, MM Integrated Steel Mills (MMI Steel), was established in 1995 and grew to be Tanzania's largest producer of steel reinforced bars by the mid-2000s. The owner, Subhash Patel, was trading vehicle spare parts in the 1970s and saw an opportunity to recycle scrap metal to produce steel (Sutton and Olomi, 2011).

The dual activities of many of the domestic companies established at the end of the 1990s and early 2000s in both importing and producing steel remained a key feature of the political economy of the steel sector in Tanzania in the decades to come.

### **3.3. Rents in the steel sector and the political settlement under liberalisation**

The new market-led approach to industrial development was set out in Tanzania's Sustainable Industries Development Policy (SIDP) 1996–2020 (URT, 1996). This was introduced when the 30-year Basic Industrial Strategy came to an end in 1995. The new policy was designed to reflect 'the government's decision to phase itself out of investing directly in productive activities and let the private sector be the principal vehicle for that role' (URT, 1996: 2).

The main logic of the new policy was to follow a path of industrialisation based on comparative advantage, with a three-stage approach that began with agro-allied industries followed by attention to export-oriented manufacturing activities that were in line with existing comparative advantage. In the second phase, attention would also be given to preparation for exploitation of the country's iron ore deposits. Only in the third phase, from 2010 to 2020, was it envisaged that an iron and steel sector would become viable (ibid: 11, section 3.1.3). Development of the steel sector was therefore seen as a long-term goal, in sharp contrast to the role of basic industries in Tanzania's first industrial strategy of 1973 that placed the development of the steel sector and capital goods as a necessary starting point for other forms of industrial production.

The re-establishment and expansion of Tanzanian-Asian family-owned manufacturing businesses as a result of privatisation and liberalisation and the decline in the role of parastatals and cooperatives led to a shift in power away from the state to the domestic private sector. Over the 1990s and early 2000s, institutions were created to govern the market and give a formal voice to the private sector: the Confederation of Tanzanian Industries (CTI) was established in 1991, the Tanzania Private Sector Foundation (TPSF) was established in 1998, and the Tanzania National Business Council (TNBC) in 2001. A Steel Manufacturers Association of Tanzania (SMAT) was also established in 1998 to coordinate the sector and provide a united voice in discussions with the government. However, despite this increase in formal institutional channels to represent the private sector, significant

challenges remained in forging transparent policy tools to support and regulate the industrial sector.

The political legitimacy of Tanzanian-Asian industrialists also remained contested during the late 1990s and early 2000s, despite the changing official narrative about the private sector. Related to this, a number of high-profile CCM politicians supported radical programmes of economic indigenisation – the Minister of Trade and Industry, Iddi Simba, for example, called for a policy of *Uzawa* (indigenization) that would give direct support to Black Africans while excluding Tanzanian-Asian businesses. This call had a populist appeal and received significant attention in the media (Fazal, 2005) but was strongly rejected by President Mkapa and others within CCM. Despite the conflicting views within the ruling party over the approach, however, the SIDP gave an explicit commitment to protecting ‘indigenous’ entrepreneurs involved in small and medium manufacturing firms (URT, 1996; 36-37).

Such tensions about the position of Tanzanian-Asian industrialists made it difficult for the CCM party to engage in open transfers in the form of adequate industrial policy rents. Consequently, this generated a political settlement into the 2000s that was characterised by informal relations between particular industrialists and the state (Gray, 2013). The underlying distribution of power between the two rendered the enforcement and transfer mechanisms of industrial policy less effective in supporting growth of the steel sector.

To conclude, by the end of the 1990s, Tanzania’s economy was experiencing higher growth rates but with a depleted industrial sector. Informal avenues for accumulation expanded to begin with and later through the formal rules of a market economy for trade in steel. However, the small size of the manufacturing sector and the role of a limited number of actors in the steel sector meant that rivalry between firms was constrained even after privatisation. Privatisation also failed to address the problems of enforcement and regulation that the state faced when it was attempting to enhance productivity in steel parastatals. Further, the underlying political tensions that made it difficult to channel formal resources to a group of industrialists who held limited political legitimacy were left unresolved.

## 4. Rapid accumulation and the rise of the diversified business group (2000–2015)

### 4.1. Economic growth and new entrants to the market in the face of quality concerns

A number of features of Tanzania's economic trajectory led to increasing demand for steel products over the 2000s. From the late 1990s onwards, Tanzania began a period of high economic growth and the country experienced changes in the structure of the economy. Average GDP growth increased from 0.5% per year during 1975–1994, to an average of over 6% per year from 1995 to 2015. Tanzania's investment as a percentage of GDP increased from 18% in 1995–2004, to an average of 28% in 2005–2014 (Gray 2018).

While Tanzania did not follow a labour-intensive path of industrialisation, there were significant changes in the share of the industrial sector in the economy. This share, in total GDP, rose from 14% in 1995 to 25% by 2012, driven primarily by the rapid expansion of the mining sector, with a growth rate that reached 15% per year in the early 2000s (*ibid.*). Mining and infrastructure investments required steel inputs and the booming construction industry generated demand for a range of steel products too. This increased demand was met by an expansion of domestic steel production, as well as growing imports of steel roofing sheets and reinforced bars, the two most important steel products for Tanzania's construction sector.

Over the 2000s, a very clear dual structure became apparent in the market for reinforced bars. This was driven by demand from the construction sector, which was one of the fastest growing sectors in that decade (URT, 2012). The market was split between higher quality steel bars used for large-scale infrastructure and building projects, and poorer quality steel bars that were said to be shorter and weaker (Nguruse, 2017).

During this period, the collapse of a number of high-rise buildings in Dar es Salaam was blamed on the use of sub-standard reinforced bars (Yusuf et al 2013). However, there was disagreement about the source of the poor-quality steel bars. The Steel Association and President Kikwete blamed high levels of corruption in the construction sector and the importation of substandard steel bars from Asia (Makoye, 2013). Others blamed local firms for sub-standard production – many of the locally made reinforced bars were seen by construction companies to be of lower quality, made from poorer quality scrap inputs and shorter in length, leading to dangerous and unsafe construction (Steel Guru, 2015). Consequently, the Tanzania Bureau of Standards (TBS) enforced temporary bans on production by a number of steel companies over the period, including Quaim Steel, AMS Steel and Hong Yu steel (Nasman, 2013).

Alongside these challenges, a significant number of new entrants joined the sector in the 2000s, including foreign investors producing a range of flat and long steel products. Investments from South Asia, included Quaim Steel Mills from Pakistan in the early 2000s and Kamal Steel Ltd from India in 2004. The main products of these two factories were reinforced bars. Most of the new factories were located in and around Dar es Salaam.

Chinese investment also entered Tanzania's steel sector in roofing, steel bars and rods and other steel products. In particular, a Zhejiang entrepreneur established Hong Yu Steel (T) Co Ltd in 2010 making reinforced bars, which had a capacity of 120,000 tons and added significant capacity for the production of reinforced steel bars in Tanzania.

Despite the growth in the number of firms in the steel sector, its structure remained highly concentrated with a Herfindahl-Hirschman Index (HHI) of over 5,000 (Nguruse 2017). This indicates an extreme level of concentration. ALAF remained dominant in steel roofing sheets; however, there were a growing number of firms in this sub-sector, and the range of steel roofing products increased with this.

Over the 2000s, the most important change in the domestic structure of the steel sector was the rise of MMI Steel. This company initially added to its steel rolling mill by expanding its range of steel processing plants, including a tube mill plant, a corrugated galvanized roofing sheet plant, a pickling plant and a cold-rolling mill (Sutton and Olomi, 2012). By the second half of the 2000s, MMI Steel accounted for around 70% of total reinforced bar capacity (ibid.) and the firm pursued a strategy of diversification. It moved beyond its original focus on steel, to transform itself into one of the largest diversified business groups in Tanzania with businesses in engineering, plastics, paints, beverages, hotels and real estate (ibid.). By the mid-2000s, Motisun Holdings took the place as one of the youngest but most successful of the large Tanzanian-Asian family-owned business groups that dominated Tanzania's industrial sector.

## 4.2. Rising steel prices and low capacity utilisation

It would be expected that the expansion of capacity in the steel sector would lead to higher levels of competition and lower prices. However, while capacity increased in the 2000–2015 period, utilisation of capacity remained surprisingly low in the large firms. Indeed, Nguruse (2017: 24) calculated that average capacity utilisation was at 43% in 2014, and the largest producers had the lowest rates. MMI Steel had a capacity utilisation rate of 47%, while Kamal Steel had 28% utilisation and Hong Yu Steel had 11% in 2014. Other local firms had quite high rates of capacity utilisation, exceeding the average capacity utilisation rate of 44% for steel firms in Africa in 2014 (OECD, 2015).<sup>5</sup>

---

<sup>4</sup> An HHI index measures the market concentration of a sector where the market shares of different firms are squared and then summed. A market with a concentration above 2,500 is considered by to highly concentrated.

<sup>5</sup> The issue of capacity utilisation has long preoccupied debates on Tanzania's industrial experiences. In the 1980s, Lipumba et al. (1988) and Wangwe (1983) explored the phenomenon of low-capacity utilisation in industry in the context of a lack of inputs due to shortages of foreign exchange. Mukandala (1988) also examined the political economy of low-capacity utilisation in industrial parastatals over the same time period.

At the plant level, low-capacity utilisation in steel firms is common due to the lumpy nature of investments, unstable demand and unpredictable inputs such as power. Low-capacity utilisation can also be a purposeful strategy of market manipulation, where firms agree to reduce output and push up prices.

A concerning change in the pattern of pricing became evident in the second half of the 2000s. From 2005, the price of reinforced steel bars increased dramatically and simultaneously across a number of key firms in the sector (Nguruse, 2017). The firms themselves explained the price to be a result of the sudden and steep rise in costs of iron ore after 2005 and the lack of scrap metal in local markets. There was also a spike in the world price for reinforced bars over this period; however, world prices declined in 2009 (Mondliwa and Das Nair, 2017) but continued to rise in Tanzania until 2013.

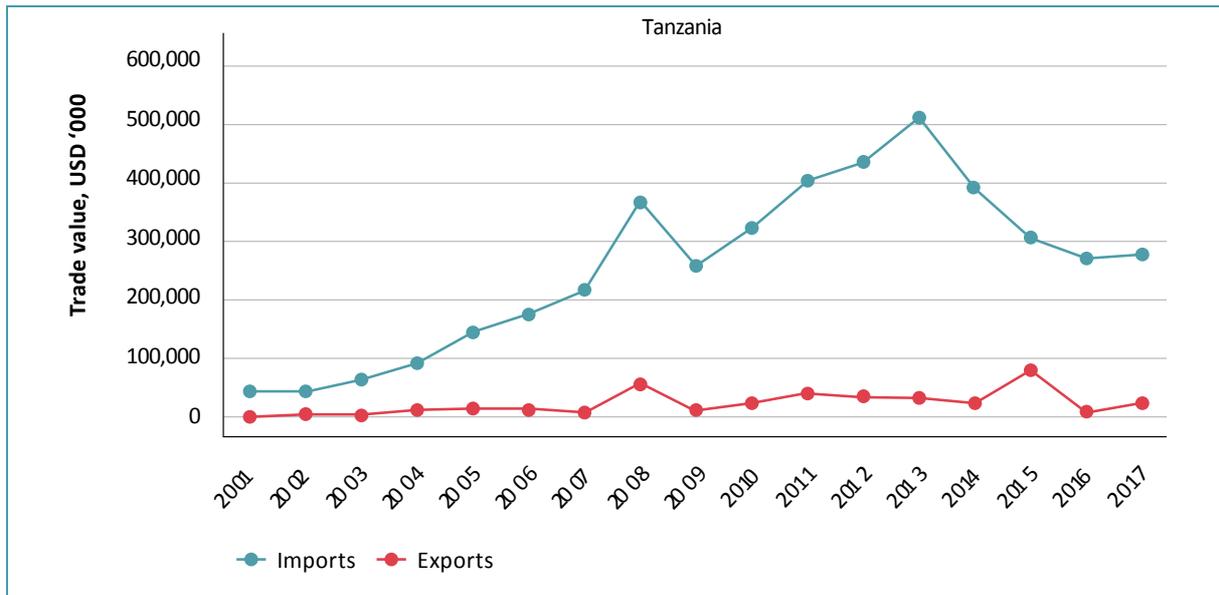
### 4.3. Trade flows and regionalisation

As in earlier decades, regional business strategies were crucial to the largest steel firms. MMI Steel set up new steel factories in Zambia in 2010, Uganda in 2012 and Mozambique in 2015 (Africa Business Communities, 2015). ALAF also consolidated its regional networks of steel sheets, under the umbrella of its parent company Safal. In 2008 it established a rolling mill in Rwanda under the name Safintra Rwanda and, by the end of the 2000s, ALAF was the largest producer of steel roofing on the continent (Nasman, 2013). Other firms, such as Kamal Steel, developed trading networks across the region to Zambia, Burundi, Malawi, Congo and Rwanda (Kamal Steel, 2020).

Globalisation and changes within the international steel sector – particularly the rapid growth of China’s steel industry – had a significant impact on the trajectory of Tanzania’s steel sector in 2000–2015. The rise of the Chinese steel sector had reverberations across the value chain, leading to an intensification in demands for raw iron ore and scrap metal, and steep rises in the price of iron ore. Globally, demand for steel grew in the 2000s and the first half of the decade was characterised by higher prices and higher firm-level profitability. This situation was reversed in the second half of the 2000s, however, with significant levels of overcapacity and declining profitability at a global level. During this period, China became a major actor in Tanzania’s steel sector, as a source of investment and imports.

Figure 1 shows trade flows of steel products between 2001 and 2017. Alongside the expansion of domestic production in Tanzania, imports also expanded significantly up to 2013. While steel exports grew after the Common External Tariff (CET) was agreed by the East African Community (EAC) trading bloc in 2004, exports to the region remained tiny compared to the growth in imports (see Figure 1).

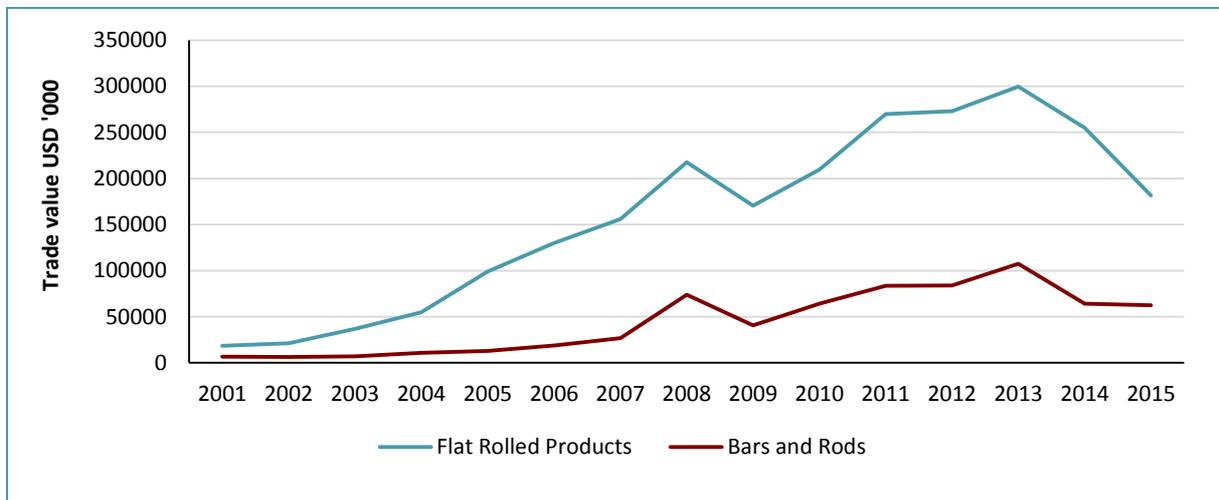
**Figure 1. Imports and exports of steel products (2001–2017)**



Source: Trademap (2020).

Flat steel products for roofing dominated imports, reflecting the strong demand for roofing sheets and more limited domestic production compared to production of reinforced steel bars (Figure 2).

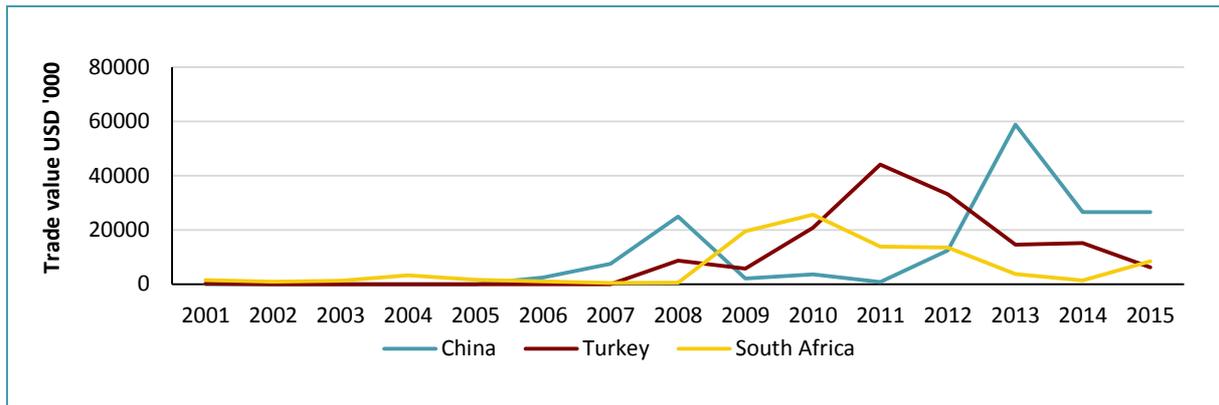
**Figure 2. Imports of steel bars and flat rolled steel products (2001–2015)**



Source: Trademap (2020).

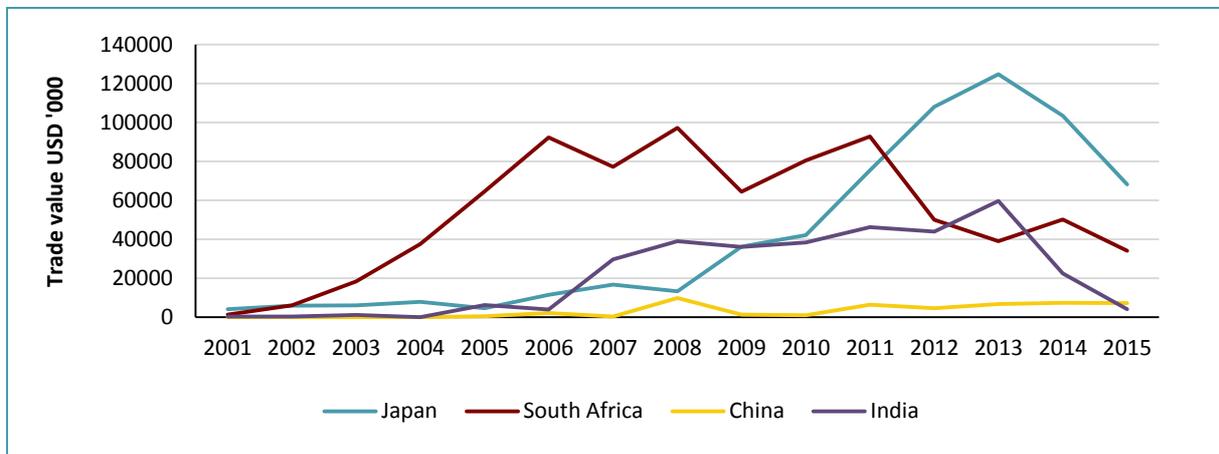
South Africa had been the main importer of steel bars and rods during the first half of the 2000s, while imports from China and Turkey grew in the second half of the decade (Figure 3). South Africa was also the major source for flat steel products but Japan and India became increasingly significant for imports of flat steel products from the middle of the decade (Figure 4). These sheets were imported and then coated with different surfaces to meet the growing demand and diversification of products within Tanzania’s roofing sector.

**Figure 3. Major supplying markets to Tanzania for steel bars and rods (2000–2015)**



Source: Trademap (2020).

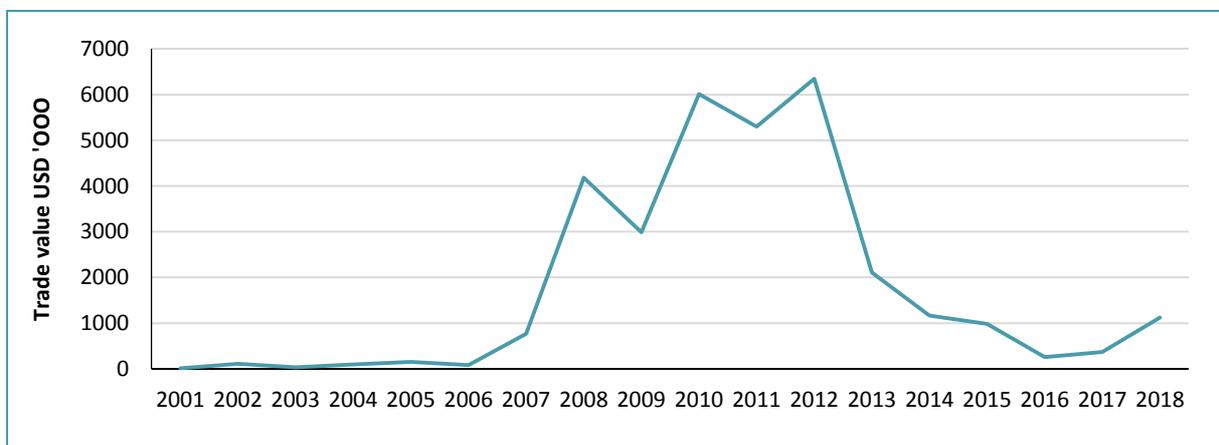
**Figure 4. Major supplying markets to Tanzania for flat steel products (2001–2015)**



Source: Trademap (2020).

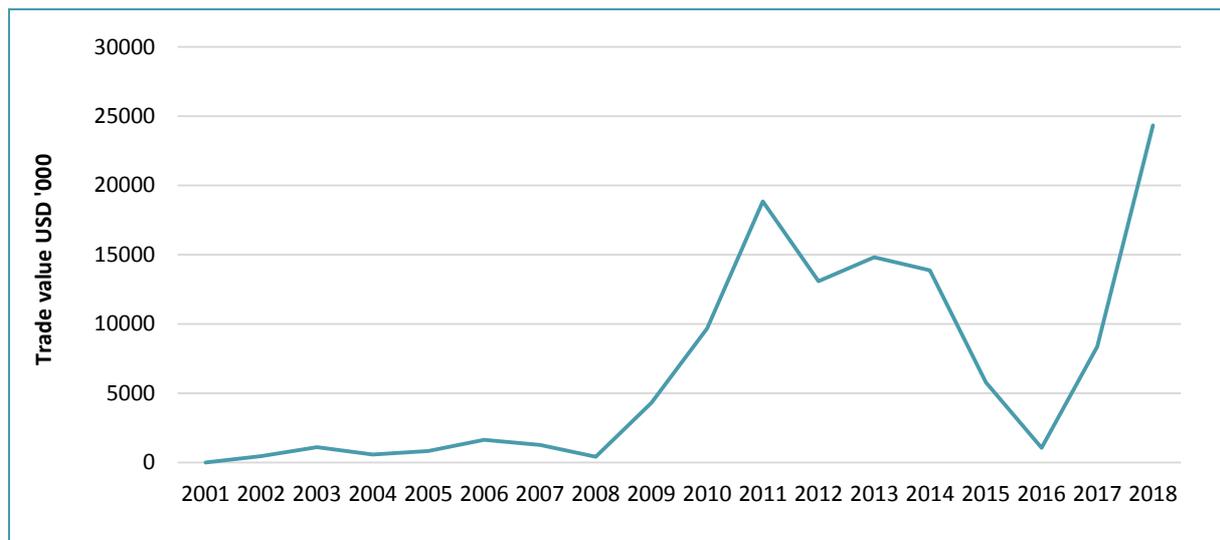
The adoption of the CET in 2004 led to an expansion in regional trade, with marked growth in exports of both reinforced bars and corrugated roofing sheets from Tanzania to other countries in the region (Figures 5 and 6).

**Figure 5. Exports of reinforced bars (2001–2018)**



Source: Trademap (2020)

**Figure 6. Exports of corrugated roofing sheets (2001–2018)**



Source: Trademap (2020).

By the end of the 2000–2015 period, Tanzania’s steel sector had gone through an unprecedented period of growth and diversification, with more firms and a wider range of products. Nevertheless, the sector remained dependent on imports and export growth remained low. A number of concerning trends such as low-capacity utilisation combined with consistent price rises raised concerns about ongoing technical challenges facing the sector and the extent of market manipulation by powerful actors.

#### **4.4. Rents in the steel sector and the political settlement of the high-growth era**

During this period, the political settlement in Tanzania’s steel industry was characterised by formal market institutions that were still under formation and often weakly enforced. This was combined with a fragmented distribution of power that was based on a balance between a number of competing factions at the centre of the ruling party (Gray, 2013; 2015; 2018; 2020).

The main rents that fuelled growth in the steel sector involved formal trade and industrial policies, as well as informal rents that gave a number of large companies privileged access to licences and land. Many of the largest companies also received rents in the form of subsidised finance from international financial institutions (IFIs) to support the firms’ regional investment plans and as part of their broader agenda to promote regional trade and integration. Safal Steel received three rounds of loans from the IFC from 1999 to 2013 to support its regional investments (IFC 2013) and MMI Steel received loans from the International Financial Corporation of the World Bank to set up a new plant in Mozambique in 2014 (IFC 2014).

The state also provided access to new, cheaper energy to a number of the large steel companies. received connections to the more reliable and cheaper gas-powered electricity

supply provided by Songas (Msaky, n.d). Such policies and rents supported the diversification and regionalisation of firms but did not appear to lead to a more competitive steel sector. At the same time, rents to protect domestic steel from cheap imports were thwarted by widespread exemptions and illegal sale of imported steel in domestic markets. The issue of effective enforcement of rents and the provision of support continued to hamper industrial policies to the steel sector.

The most significant changes in trade policy rents related to the introduction of the EAC's CET in 2004. By the mid-2000s, increasing pressure from cheaper Chinese steel was leading to growing demands for domestic protection. Initially, Tanzania and other EAC member countries implemented unilateral tariffs to protect their steel sectors (Bünder, 2018), while eventually member countries agreed to apply a uniform tariff on imported steel across the region. A tariff on the import of steel bars was set at over 23%. Import tariffs (as a share of c.i.f. value)<sup>6</sup> for metal products had been set at around 5% from 1998 to 2001 (Kweka, 200).

The impact of the new tariff on the steel trade appeared to drive replacement of imports by steel bars manufactured in the region. Tanzania benefited from this process, as the rapid growth in Tanzania's exports of reinforced bars and sheets to the region indicates (see Figures 5 and 6 above). The growth in regional trade following the CET was noted across a number of sensitive items; however, the shift towards intra-regional trade that occurred in iron and steel appeared to be particularly acute (Shepherd et al., 2017). Unfortunately this rise was short lived, and while exports increased, Tanzania's steel actually lost competitiveness over the period (ibid.).

It is not clear whether the rise in exports was due to increased exports of steel produced in Tanzania, or of imported steel that was re-exported to the region through existing trade networks. In a number of other products such as sugar and rice a growing phenomenon of regional smuggling was observed, where imported products were resold illegally within the region (Andreoni and Tasciotti, 2019).

While higher tariffs may have had a temporary impact on regional trade, they did not halt the steep rise of imports into Tanzania. Further, the ability of construction firms to avoid the tariffs imposed on imported steel reflected their growing power and influence. By 2015, there were around 189 large building and civil construction companies in Tanzania, half of which were foreign firms and half were a mixture of older and more recent domestic construction companies (Kikwasi and Escalante, 2018). Over a third of foreign contractors were Chinese firms (ibid.).

Importers of steel benefited from a number of policy loopholes that enabled them to avoid the extra tariffs. Under the CET's Duty-Remission Scheme (DRS), Tanzania was allowed to bestow on certain companies the right to import manufacturing inputs duty-free: companies importing steel products were included in the DRS scheme in 2010 and 2012. However, the more significant mechanism to grant a duty reduction was through tax exemptions given to

---

<sup>6</sup> Cost, insurance and freight (c.i.f.) value.

construction companies for specific building projects. Exemptions increased quite markedly over the 2000s (Therkildsen and Bak, 2019).

The impact of these tax exemptions on Tanzania's domestic steel sector was compounded by the illegal sale of steel imported under specific project licences in the open market. The availability of cheap imported steel may also have fuelled regional smuggling where steel imported under licences to Tanzania was then transported and sold within the region to new markets. While the direct impact of illegal competition with imported products would have had a negative impact on the demand for locally produced steel, the reality is that many manufacturing firms were themselves involved in importing steel products and were increasingly involved in the more profitable activities of construction, either directly or in partnership with construction companies. The government itself was also a major importer of steel (Nguruse, 2017).

Close links between construction companies and firms involved in steel import and production appears to be a common feature of the political economy of the steel sector in East Africa in the 2000–2015 period (Nkhonjera and Vilakazi, 2021). In fact, the fluidity of movement of firms between trade and manufacturing activities has long been a feature of the profit-seeking business strategies of Tanzanian manufacturing firms in the face of stark differences in the relative costs of imported compared to domestically produced manufactured goods.

As well as specific rents for steel, a number of key firms benefited from a range of other rents related to access to land and other forms of licences (such as mining licences). Furthermore, the pattern of rent distribution was linked to the relationships that firms had with particular factions within the CCM. For example, President Kikwete's networks involved key figures within the steel sector. In particular, Subhash Patel, owner of MMI Steel, was a close associate of President Kikwete (Africa Intelligence, 2006). The firm's expansion was supported by a range of rents for land, mining licences and subsidised energy provision provided by the state. In the mid-2000s, MMI Steel was awarded a contract in partnership with the NDC for sponge iron and coal extraction at Mchuchuma, with the intention of generating electricity from coal. The contract had initially been awarded to the South African firm Siemens by President Mkapa (Tomric News Agency 2000); however, this contract was subsequently cancelled by President Kikwete and given to MMI Steel instead. In Parliament, the opposition and members of CCM criticised the process by which the contract was awarded to a close associate of the ruling regime (Africa Intelligence, 2006.).

Another of the large steel firms, Kamal Steel, also had the support of President Kikwete during his period in office. This Indian firm started operations in Tanzania in 2004 with an integrated steel factory in Dar es Salaam. Initially, Kamal Steel manufactured metal products from scrap into billets, and their main products were reinforced bars as well as various other structural steel products. Following this first enterprise, the firm expanded with a number of business ventures in Bagamoyo (the home region of President Kikwete), which involved investments in agriculture, industrial and medical gases and mining. They were awarded an Export Processing Zone (EPZ) licence and planned to establish a gas-based power plant,

offering facilities to manufacturing businesses. The company was also granted a large plot of land in Bagamoyo with the intention of building a new township (Marcopolis 2016).

At this time, the issuing of EPZ licences was a flagship industrial policy initiative, mainly implemented in the form of licences to individual companies that granted tax breaks on the condition that a certain proportion of their products were exported (Gray, 2013). However, the private sector struggled to overcome the high costs of establishing physical EPZs in terms of delivering subsidised infrastructure to firms located within specific zones.

The types of rents that were provided to steel manufacturing companies in Tanzania appeared to encourage expansion of the steel sector over the 2000s. There were significantly more firms and a wider range of products in 2015 compared to 2000s, yet the sector was still highly dependent on imports and costs did not appear to come down as the number of firms grew. The prima facie evidence suggested a very distorted market for steel. High levels of concentration, the dominance of a small number of large firms, low capacity utilisation and unexplained high prices are features that are often associated with the operation of cartels.

In other sectors where cartel-like activities were identified, it appeared that industrialists were often able to direct investment away from production into forms of trading that took advantage of lower international prices and captive markets in Tanzania. This was evident in cement and fertilizer (Mbongwe et al., 2016; Ncube et al., 2016). In some sectors, the way that firms exert dominance in a national market involves wider regional agreements between firms not to compete in certain markets. As argued by Vilakazi and Roberts (2018, 4), 'what may appear as dominance of an industry at the level of a national market, may in fact be the outcome of coordination at a regional level by major industry players to carve up the market'. However, price rises alone do not necessarily indicate collusive behaviour or the presence of cartels. Despite the prima facie characteristics of cartel activity, there are other features of Tanzania's steel sector that would have made cartelization more difficult. In particular, internal coordination of the industry may have been challenged by the presence of new entrants into Tanzania's steel sector from China and India in the 2000s, with different political links and business strategies. Regional investment patterns also need to be understood in the broader context of strategy of firm survival in the face of increased competitive pressure from cheap steel imports. The viability of the steel firms often depended on the fact that they had a regional presence and were able to tap into higher sources of demand necessary for large scale steel manufacturing.

To summarise, for both technical and political reasons enforcement capabilities of the state vis-à-vis steel firms were quite weak. The pressures on these firms to take on more risky forms of investment to expand domestic production were minimised by the nature of the political settlement during the period. The rent structure made trading more profitable than manufacturing, while the fragmented balance of power made it difficult to enforce formal policy rules on the private sector. The outcome of Tanzania's political settlement was that as industrialisation unfolded in the 2000s, opportunities for the creation of employment and the development of backward and forward linkages through the expansion of the domestic steel sector went unrealised.

## 5. The return to planning and Magafuli's first term (2015–2020)

### 5.1. New market entrants and Chinese investments

The global economic crisis in 2008 and the subsequent global downturn had a number of indirect effects on Tanzania's steel sector. The trade deficit for long steel started to reduce from 2013, possibly due to declining demand or the fact that new factories had started production and were meeting local demand. When President Magafuli came to power in 2015, his focus on investing in large-scale infrastructure development led to demand for steel and construction had the highest level of gross fixed capital formation compared to other sectors (Kikwasi and Escalante 2018). As well as large scale infrastructure projects, the Government increasingly took an increasingly direct role in housing construction, for example

While price rises levelled by the middle of the 2010s, there were steep increases by 2018. Local steel firms blamed price rises on inadequate supplies of scrap metal from the lake zone (Lamley 2018).

The largest firms in the sector, MMI Steel, ALAF, Kamal Steel and Hong Yu Steel, have continued to dominate manufacturing but there have also been a number of new entrants. Ally Awadh, a Tanzanian whose family had been involved in trading activities, founded a new industrial business group that grew rapidly into oil distribution activities and construction materials. The group set up Lake Steel and Allied Products making steel products (Lake Oil Group 2020).

Chinese investments in steel and manufacturing activities related to construction have also continued to expand. Key Chinese investments in the steel sector include Fujian Hexingwang Industry Tanzania Co Ltd, which is located at Mkuranga and makes flat steel bars (TBS, 2019). Another enterprise of note is a joint venture by a Chinese firm and a Tanzanian businessman Mohammed Kiluwa. The Kiluwa Steel Group is located in Mlandizi area of Kibaha District in the Coast Region and initially planned capacity of 300,000 tons of iron bars per year in its first phase. Production targets under its second phase were set at 1,200,000 tons of iron bars per year (*China Daily Reporter*, 2017), and at this volume could challenge the dominance of the three largest firms in Tanzania. Interestingly, Xia (2019) found that one of the drivers of a number of investments in steel from China in recent years was the adoption of policies by certain Chinese provincial governments that encouraged relocation and capacity reduction in subsectors such as steel, where there is considerable pollution and excess capacity locally in China.

## 5.2. Renewed interest in mining iron ore

Under President Magafuli, the commitment to national control of resources that had started to emerge before his tenure, became increasingly apparent (Pedersen et al 2020). The combination of a changing policy focus and rising commodity prices drove a renewed interest in mining iron ore in Tanzania in the early 2010s. China's Sichuan Hongda Co. Ltd signed a US\$3 billion deal with the NDC in 2011 to mine coal and iron ore in Liganga (Ng'wanakilala, 2011) – where the extraction of iron ore has been a long-term ambition of the government. The two parties set up a joint company, Tanzania China International Mineral Resources (TCIMRL), with 20% owned by NDC and 80% by the Chinese firm. The industrial policy adopted in Tanzania in 2015 gave renewed attention to the plans to initiate mining activities in Liganga. Expectations that iron ore mining would benefit local steel manufacturers led to new foreign investments, such as those by Kiluwa Steel mentioned previously.

## 5.3. Rents in the steel sector and the evolving political settlement

In the 2010s Tanzania's approach to industrial policy began to shift away from the expectation that liberalised markets would deliver industrialisation. Instead, the approach was based on an emerging consensus around the need for more active industrial policy through trade protection and targeted finance.

The changing perception of the role of the state in driving structural change was reflected in the re-introduction of five-year national plans from 2011 (URT, 2011; URT, 2016). Formal policy changes were only part of the significant developments that occurred within Tanzania's political settlement in this era. Considerable changes began to take shape in the distribution of power after John Pombe Magafuli became president in 2015 and quickly attempted to reorganise power within and outside the CCM. Consequently, there were a number of significant differences in the way that industrial policy rents were managed for firms operating in the steel sector.

President Magafuli came to office needing to reconfigure the distribution of power within the CCM, which had a number of competing factional networks (within which he was not a key player prior to 2015). Once in power, Magafuli tried to clamp down on these existing networks through an anti-corruption agenda that sought to put pressure on political rivals and their allies in the private sector. He then sought to use the consolidation of power within the CCM after the election to suppress the influence of factional networks that had been in the ascendancy over the previous decade.

The new industrial policy, the Integrated Industrial Development Strategy (IIDS), was adopted in 2016 (URT, 2016). In contrast to the SIDP – the IDS identifies the iron and steel industry as a priority sub-sector to 'serve as the nucleus of industrialization' (ibid: 5), rather than assuming that steel manufacturing would become relevant only in the end phase of

industrialisation. Yet, the main policy focus for the sector is to develop the Mchuchuma coal mine and Liganga iron ore mines, instead of supporting mid-stream manufacturing firms.

Other policies – such as the Local Content Policy drafted by the Government of Tanzania in 2014 (URT 2014) – have also given renewed attention to the steel sector. One of the core objectives of this initiative is to promote all metal-related works as a way of enhancing the local manufacturing base. Indeed, the draft Local Content Policy states that ‘sufficient thrust need[s] to be given in promoting all metal related works including in-country manufacturing, fabrication, welding and assembling’ (URT, 2014: 22).

The use of tariffs and exemptions within the framework of the CET have continued to be a key industrial policy tool too, yet differing interests between steel firms in the region have made it difficult to agree a unified approach within the EAC. For example, in 2015, the tariffs on a number of iron and steel tariff lines were increased from 10% to 25%. This protected certain local manufacturers in the region, but smaller downstream manufacturers in Tanzania were put at a disadvantage, as they faced increased costs for critical steel inputs. This problem was later addressed by unilateral exemptions to protect particular firms (Bünder, 2018).

Additionally, in 2018, a decision was made to immediately increase tariffs in Tanzania on almost three-quarters of goods that were covered by the EAC CET policy. This contrasted with other EAC countries that opted for much slower implementation of the increased tariffs (Olingo, 2018). Further, tariffs in Tanzania particularly focus on protecting agro-processing industries – steel products do not receive the same tariff protections as offered in Kenya since 2020, where tariffs have been increased from 25% to 35% for steel rods (East African Community Gazette, 2020). The CTI, representing a number of Tanzania’s largest steel manufacturers, appealed for greater tariff protection in 2018 (Rweyemamu, 2018, Asiimwe 2018), yet smaller steel producers have pointed to the challenges they would face if tariffs were raised on their raw materials, even if allowed to claim back the extra import costs.

Within this context – and in order to achieve centralised control over rents – President Magafuli launched reviews of a number of large contracts with local and foreign partners and has threatened withdrawal of rents if performance is deemed to be lacking. This includes, for example, the renewed scrutiny of previously privatized steel firm (Guardian Reporter 2018). In the mining sector, contracts with a number of large gold mining firms were put under review while questions over the deal with Sichuan Hangda Co. Ltd to start mining coal and iron ore in Liganga were also been raised (Kapama 2016). Questions were asked about the terms of the original contract agreed under President Kikwete and, in 2018, the current government appointed a team to review the contract (Mirondo, 2020).

Despite these recent attempts to centralise power and impose greater discipline on the beneficiaries of industrial policy rents, the path of development within the steel sector has continued to be influenced by factional networks and links between politicians and the private sector. An important example in the steel sector involved Kiluwa steel mentioned above. The location of the new factory gave the investors the opportunity to link to a railway line, thus offering scope for an eventual link with raw resources from the south of Tanzania

(*China Daily Reporter*, 2017). The company also planned to establish a Free Processing Zone (FPZ) on the land (Kapama, 2018).

While the original investment was supported by the government and the President himself presided over the opening of the factory, tensions appeared over the new factory between large firms in the steel sector, supported by different factions within the ruling party. It has been suggested that these tensions stemmed from the fact that the Kiluwa Group could benefit from the production of iron ore at the mines in which Subhash Patel owns a share, and that the scale of planned production by Kiluwa Group could undermine the dominance of MMI Steel (Africa Intelligence, 2018). In 2018, Mohamed Kiluwa was charged with bribing William Lukuvi – the Minister for Lands, Housing and Human Settlements Development at the time and described as a close associate of Patel (Africa Intelligence, 2019, Kapama et al 2018) – in order to secure the plot for his factory (Kapama, 2018). While Subhash Patel held a powerful position as the Chair of the CTI, the Minister for Mining, Doto Biteko, accused Patel of hindering the development of the Kiluwa Steel Group (Africa Intelligence, 2019). The Prime Minister showed support for Kiluwa Steel by ordering electricity provision to the firm when it was facing delays (UACCIAP 2018). Despite high level commitment to expand industrial capacity, the difficulties that were faced in getting production started in this new steel investment appeared to be similar to some of the longer term struggles that Tanzania has faced in successfully managing rents to the industrial sector.

## 6. Conclusion

Tanzania's small steel sector has gone through a period of expansion as the country has industrialised. Yet fostering a steel industry in the face of huge gaps in levels of global competitiveness raises a number of difficult questions about the appropriate role of rents and the challenges of anti-corruption and competitions policy.

Faced with significant price differentials, some level of protection and market distortion is necessary to allow for the ongoing existence of a domestic steel sector in Tanzania. So, the question then becomes: *what kind of industrial policies will work to foster a domestic steel industry within the evolving political settlement?*

Industrial policy for iron and steel has emphasised the upstream development of iron ore mining; however, there is scope for **policy to support the mid-stream manufacturing activities necessary to serve domestic demand for construction materials**. This section of the value chain has significant potential for job creation, and expanding output would help to meet basic needs in the Tanzanian economy. Many of the smaller domestic steel firms are located in this section of the value chain. They benefitted from growing domestic demand rather than targeted industrial policy. This highlights the importance of the broader demand context in shaping paths of industrialization.

**Policies are also needed to enforce greater capacity utilisation in the largest firms.** This could be done by linking commitments to expand production with further tariff protection. However, such a policy would face challenges in terms of the technical capacities of the relevant ministries to monitor capacity utilisation. Moreover, such a policy would raise political challenges in enforcing targets on powerful industrialists, and on ensuring fair treatment of different firms in the sector. It is difficult to generate competitive rivalry between firms when there are so few within the sector and where rent-allocation decisions occur in a context of personalistic relations between politicians and private-sector actors. The problem of rent management in the industrial sector will not be resolved simply by shifting investment from the private sector firms to new state-owned industrial firms. However, genuine competitive rivalry between firms could be improved by encouraging a diversity of firms with different ownership structures that challenge the underpinning dynamics of political relationships.

Additionally, given the need for large-scale investments and large markets, the **regional business strategies have been key to the survival of steel firms across the region**. The firms themselves have adopted regionalisation strategies and subsequently have flexibility to move between trading and manufacturing, as well as diversifying into new areas of business activities to deal with the challenges of the East African market. Regional industrial policy to support the development of the sector is necessary. However, designing regional support mechanisms for the steel sector is also fraught with difficulties, given the location of firms across the region and the conflicting interests of upstream and downstream firms.

It is clear that domestic steel production in Tanzania would have struggled to survive without rents in the form of tariff protection and access to subsidised land and energy. The small number of large firms in the sector generate conditions where collusion over prices becomes more likely. While market interventions to support steel in the face of intense competition are necessary, high prices of domestic steel do not benefit the process of industrialisation in Tanzania. The survival of a domestic steel industry may have come at the cost of higher prices for steel consumers in domestic markets. Whether such trade-offs are justifiable or not depends on the longer-term outcome of such policies and whether the path of industrialisation that Tanzania is pursuing can deliver good jobs and improvements in livelihoods over time.

## 7. References

- Africa Business Communities (2015) 'IFC finances MMI Steel Mozambique to promote local industry, cross-border investment', *Africabusinesscommunities.com*, 19 March (<https://africabusinesscommunities.com/news/ifc-finances-mmi-steel-mozambique-to-promote-local-industry,-cross-border-investment.html>).
- Africa Intelligence (1992) 'Recurring nightmare for ALAF', *Indian Ocean Newsletter*, 26 December 1992. (<https://www.africaintelligence.com/eastern-and-southern-africa/1992/12/26/recurring-nightmare-for-alaf,17958-art>).
- Africa Intelligence (2006) 'Mchuchuma project creates rifts' *Indian Ocean Newsletter*, 22<sup>nd</sup> July 2006. (<https://www.africaintelligence.com/eastern-and-southern-africa/2006/07/22/mchuchuma-project-creates-rifts,21048228-art>)
- Africa Intelligence (2018) 'Subhash Patel steels himself for a setback', *Africa Intelligence, Indian Ocean newsletter* 21 December ([https://www.africaintelligence.com/eastern-and-southern-africa\\_business/2018/12/21/subhash-patel-steels-himself-for-a-setback,108337482-art](https://www.africaintelligence.com/eastern-and-southern-africa_business/2018/12/21/subhash-patel-steels-himself-for-a-setback,108337482-art)).
- Africa Intelligence (2019) 'Minister of mines denounces track record of Subhash Patel', *Africa Intelligence, Indian Ocean Newsletter* 5 April ([https://www.africaintelligence.com/eastern-and-southern-africa\\_business/2019/04/05/minister-of-mines-denounces-track-record-of-subhash-patel,108352261-bre](https://www.africaintelligence.com/eastern-and-southern-africa_business/2019/04/05/minister-of-mines-denounces-track-record-of-subhash-patel,108352261-bre)).
- Amsden, A. (1989) *Asia's next giant: South Korea and late industrialization*. Oxford: Oxford University Press.
- Asiimwe, Dicta (2018) 'East Africa: Firms Decry Increase in Trade Barriers Across East Africa
- Bofin, Peter Rasmus Hundsbæk Pedersen and Thabit Jacob (2020) 'The politics of power and natural gas in Tanzania: How political settlement dynamics shapes deals in a 'new oil' country' ESID Working Paper No. 149, July 2020
- Biersteker, T. (1980) 'Self Reliance in theory and practice in Tanzanian trade relations' *International Organization*, 34, 2 (Spring 1980) 229 – 264
- Bünder T. (2018) How Common Is the East African Community's Common External Tariff Really? The Influence of Interest Groups on the EAC's Tariff Negotiations. SAGE Open. January 2018. *China Daily Reporter* (2017) 'Chinese-invested steel factory launched in eastern Tanzania', *China Daily On-line*, 11 June ([http://africa.chinadaily.com.cn/world/2017-06/22/content\\_29845450.htm](http://africa.chinadaily.com.cn/world/2017-06/22/content_29845450.htm)).
- East African, The* (2018) 2 October 2018 accessed from <https://allafrica.com.ezproxy.is.ed.ac.uk/stories/201810030308.html> (accessed 1/9/20)
- East African Community Gazette (2020) Vol AT 1. No 10, Arusha 30th June 2020
- Fazal, N. (2005) 'Uzawa: Ruffling Feathers in Tanzania.' *The Guardian*, 25 August 2005. Available online at: <[www.ippmedia.com/ipp/guardian/2005/08/25/47875.html](http://www.ippmedia.com/ipp/guardian/2005/08/25/47875.html)> (last accessed 1 February 2009).
- Gray, H. (2015) 'The political economy of grand corruption in Tanzania', *African Affairs* 114 (456): 382–403.
- Gray, H (2013) 'Industrial Policy in Tanzania Since Independence: Aspects of Continuity and Change', *Review of African Political Economy*, 40.136 (2013), 185-201.
- Gray, H. (2018) *Turbulence and Order in Economic Development: Institutions and Economic Transformation in Tanzania and Vietnam*. Oxford University Press, Oxford.
- Gray, H. (2019) 'Understanding and Deploying the Political Settlements Framework' in *The Encyclopedia of African Politics*, Oxford University Press, 2019 Accessed on line from: <https://doi.org/10.1093/acrefore/9780190228637.013.888> (accessed 1/9/19)
- Gray, H. (2020) 'The Political Economy of Banking Regulation in Tanzania' in *Navigating Global Banking Standards: The Politics of Basel Implementation in Low Income Countries* Edited by Emily Jones. Oxford: Oxford University Press

- Guardian Reporter (2018) 'Former steel rolling mills in Tanga yet to start production' The Guardian <https://www.ippmedia.com/en/news/former-steel-rolling-mills-tanga-yet-start-production> (accessed 10/1/19)
- IFC (International Finance Corporation) (2013) 'Safal Steel' Private Sector Development Solutions: Jobs. 2013, 7/1
- IFC (International Finance Corporation) (2014) 'IFC Finances MMI Steel Mozambique to Promote Local Industry, Cross-Border Investment' (<https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=16489>)
- Kamal Steel (2020) 'Kamal industrial estate (SEZ/EPZ)'. Dar es Salaam: Kamal Steel (<https://kamal-group.co.tz/kamal-industrial-estate/>).
- Kapama, Faustine, (2016) 'Tanzania: CAG for Ownership of Share Review At Coal, Iron Projects' Tanzania Daily News (Dar es Salaam) 9<sup>th</sup> May 2016 <https://allafrica.com.ezproxy.is.ed.ac.uk/stories/201605090130.html>
- Kapama, F. (2018) 'Tanzania: businessman lands in court for bribing Minister Lukuvi', *Tanzania Daily News*, 3 August 2018 (<https://allafrica.com/stories/201808030520.html>).
- Khan, M. (2000) 'Rent-seeking as process', in M.H. Khan and K.S. Jomo (eds) *Rents, rent-seeking and economic development: theory and evidence in Asia*. Cambridge: Cambridge University Press.
- Khan, M. (1995) Class, Clientelism and Communal Politics in Contemporary Bangladesh. In: Panikkar, Byres, T. & Patnaik (eds.) *The Making of History: Essays Presented to Irfan Habib*. London: Anthem Press.
- Khan, M. (2010) Political Settlements and the Governance of Growth Enhancing Institutions. Unpublished manuscript. London: SOAS.
- Kikwasi, G.J. and Escalante, C. (2018) *Role of the construction sector and key bottlenecks to supply response in Tanzania*. WIDER Working Paper 2018/131. Helsinki: WIDER.
- Kweka, J (2004) Transport cost and trade policy in Tanzania. Friedrich Ebert Stiftung (FES) and Economic and Social Research Foundation. June 2004
- Lake Oil Group (2020) Lake Group. <http://www.lakeoilgroup.com/lakegroup/about.html>
- Lamley, G. (2018) 'Tanzania: builders face tough time as steel prices skyrocket', *The Citizen*, 23 April (<https://allafrica.com/stories/201804230552.html>).
- Lipumba, N., Ndulu, B., Horton, S. and Plourde, A. (1988) 'A supply constrained macroeconomic model of Tanzania', *Economic Modelling* 5 (4): 354–376.
- Lyaya, E.C. (2019) 'Pathways to African steel production: secondary steel production in miniature (vintengwe) furnaces in southwestern Tanzania, AD 1680–1950', *Azania: Archaeological Research in Africa* 54 (3): 322–349.
- Makoye, K. (2013) 'Corruption engulfs construction sector in Tanzania', Thomson Reuters Foundation, 23 May (<https://news.trust.org/item/20130523074657-ep7jl/>).
- Maliyamkono, T.L, and Bagachwa, M. (1990) *The second economy in Tanzania*. London: J Currey Publishers.
- Marcopolis (2016) 'Leading steel manufacturer in Tanzania talks about business and economy' 11.14.2016 (<https://marcopolis.net/leading-steel-manufacturer-in-tanzania-talks-about-business-and-economy.htm>) (accessed on 10/1/19)
- Mbongwe, T., Nyagol, B.O., Amunkete, T., Gabriel, G., Humavindu, M., Khumalo, J., Nguruse, G. and Chokwe, E. (2016) 'Regional cartels and competition in the cement industry across six countries: Botswana, Kenya, Namibia, South Africa, Tanzania and Zambia', in S. Roberts (ed.) *Competition in Africa: insights from key industries*. Pretoria: HSRC Press.
- Mirondo, R. (2020) 'Tanzania: Liganga, Mchuchuma iron ore, coal deals for review', *The Citizen*, 13 January (<https://allafrica.com/stories/202001130691.html>).
- Mondliwa, P. and das Nair, R. (2017) *Overcharge estimates in the South African reinforcing bar cartel*. Working Paper 6/2017. Johannesburg: Centre for Competition Regulation and Economic Development, University of Johannesburg.
- Msaky, E. (n.d) 'Oil and Gas Exploration – General Overview: A presentation to the delegation from the Tanzania Private Sector Foundaiton' Accessed from: www. <http://tpdc.co.tz/wp-content/uploads/2015/04/OIL-and-GAS-EXPLORATION.pdf>

- Mugarula, F. (2012) 'Tanzania: how 17 industries were privatised only to die', *The Citizen*, 16 January.
- Mukandala, R.S. (1988) *The political economy of parastatal enterprise in Tanzania and Botswana*. Berkeley, CA: University of California Press.
- Mulupi, D. (2013) 'Keeping it in the family: Manu Chandaria on the value of family ties in business' 15<sup>th</sup> October 2013 How We Made Africa. Accessed from: <https://www.howwemadeitinafrica.com/keeping-it-in-the-family-manu-chandaria-on-the-value-of-family-ties-in-business/31402/> (accessed on 10/1/19)
- Nasman, N. (2013) 'East Africa special report: meet the market movers', *The Metal Bulletin*, November (<https://www.metalbulletin.com/Article/3273397/EAST-AFRICA-SPECIAL-REPORT-Meet-the-market-movers.html>).
- Ncube, P., Roberts, S. and Vilakazi, T. (2016) 'Regulation and rivalry in transport and supply in the fertilizer industry in Malawi, Tanzania and Zambia', in S. Roberts (ed.) *Competition in Africa: insights from key industries*. Pretoria: HSRC Press.
- Nguruse, G. (2017) 'Competition concerns in the steel market in Tanzania'. Paper prepared for the 3rd Annual Competition and Economic Regulation (ACER) 2017 conference, Dar es Salaam, Tanzania.
- Ng'wanakilala, F. (2011) 'China co-signs \$3 bln Tanzania coal, iron deal', *Reuters Online*, 22 September (<https://uk.reuters.com/article/ozabs-tanzania-china-mining-20110922-idAFJQE78L0BO20110922>).
- Nkhonjera M and Vilakazi T (2021) Standards and rents: A study of market distortions and corruption in Malawi's steel industry Anti-Corruption Evidence Working Paper SOAS
- Olingo, A. (2018) 'Tanzania slaps duty on most goods to shield industries', *The East African*, 16 June (<https://www.theeastafrican.co.ke/tea/business/tanzania-slaps-duty-on-most-goods-to-shield-industries-1396246>).
- Roberts, S. (2008) 'Assessing excessive pricing: the case of flat steel in South Africa', *Journal of Competition Law and Economics* 4 (3): 871–891.
- Rugonzibwa, P (2013) 'Tanzania Orders Steel Manufacturers to Meet Standards' Tanzania Daily News, Dar es Salaam. (<https://allafrica.com/stories/201309190866.html>)
- Rweyemamu, J. (1973) *Underdevelopment and Industrialisation in Tanzania: A Study of Perverse Capitalist Industrial Development*. Oxford: Oxford University Press
- Rweyemamu, A. (2018) 'CTI commends cutting imports of construction material', *Guardian on Sunday*, 26 August (<https://www.ippmedia.com/en/business/cti-commendscutting-imports-construction-materials>).
- Shepherd, B., de Melo, J. and Sen, R. (2017) *Reform of the EAC Common External Tariff: evidence from trade costs*. International Growth Centre Policy Paper. London: International Growth Centre.
- Silver, M.S. (1984) *The growth of manufacturing industry in Tanzania: an economic history*. Boulder, CO: Westview Press.
- Sutton, J. and Olomi, D. (2012) *An enterprise map of Tanzania*. London: International Growth Centre, London School of Economics.
- TBS (Tanzania Bureau of Statistics) (2019) Certified Manufacturers Under TBS Mark Certification Scheme by March 2019. Tanzania Bureau of Statistics, Tanzania
- TANU (1967). The Arusha Declaration and TANU'S policy on socialism and self-reliance. Dar es Salaam, Publicity Section, TANU
- Therkildsen, O. and Bak, A.K. (2019) *Democratisation in Tanzania: no elections without tax exemptions*. ICTD Working Paper 98. Brighton: Institute of Development Studies.
- TOMRIC News Agency (2000) 'Tanzania: South Africa firm to invest in power supply in Tanzania', *allafrica.com*, 7 April (<https://allafrica.com/stories/200004070031.html>).
- Trademap. (2020) Trade Statistics. International Trade Centre (ITC) <https://www.trademap.org/Index.aspx> (access date: 1/2/19)

- UACCIAP (Union of African Chambers of Commerce, Industry, Agriculture and Professions) (2018) 'Tanzania: Coast Plant Promised Electricity' <https://uacciap.org/tanzania-coast-steel-plant-promised-electricity/>
- UNCTAD (United Nations Conference on Trade and Development) (2005) *An investment guide to Tanzania: opportunities and conditions*. UNCTAD/ITE/IIA/2005/3, June 2005. GENEVA: UNCTAD.
- URT (United Republic of Tanzania). (1964) First Five Year Development Plan, Government Printers, Dar es Salaam.
- URT (United Republic of Tanzania). (2011) 'The Tanzania Five Year Development Plan 2011/12–2015/16: Unleashing Tanzania's Latent Growth Potential.' President's Office, Planning Commission. Dar es Salaam: Government Printers.
- URT (United Republic of Tanzania) (2014) *Local content policy of Tanzania for oil and gas industry – 2014*. Dar es Salaam: URT ([https://www.agcc.co.uk/uploaded\\_files/07.05.2014local-content-policy-of-tanzania-for-oil-gas-industry.pdf](https://www.agcc.co.uk/uploaded_files/07.05.2014local-content-policy-of-tanzania-for-oil-gas-industry.pdf)).
- URT (United Republic of Tanzania) (1996) Sustainable Industrial Development Policy 1996 – 2020. Dar es Salaam: Ministry of Industries and Trade
- URT (United Republic of Tanzania) (2016) The Second Tanzania Five Year Development Plan 2016/17 – Nurturing Industrialization for Economic Transformation and Human Development. Ministry of Finance and Planning. Dar es Salaam: Government Printers.
- URT (United Republic of Tanzania). 2011b. Integrated Industrial Development Strategy 2025. Ministry of Industry and Trade. Dar es Salaam: Government Printers.
- URT (United Republic of Tanzania). 2012. 'National Accounts of Tanzania mainland 2001–2011.' National Bureau of Statistics, Dar es Salaam.
- Vilakazi, T. and Roberts, R. (2019) 'Cartels as "fraud"? Insights from collusion in southern and East Africa in the fertilizer and cement industries', *Review of African Political Economy* 46 (161): 369-386.
- Vilakazi, T. and Roberts, R (2018) Cartels as private corruption in SADC countries: a study of the steel sector and the enforcement of competition law' Draft Working Paper, Anti-Corruption Evidence, SOAS
- Wangwe, S.M. (1983) 'Industrialisation and resource allocation in a developing country: the case of recent experiences in Tanzania', *World Development* 11 (6): 483–492.
- World Bank (1975) Tanzania: Industrial and mining sector survey Report No. 647-TA March 31, 1975, Washington: World Bank
- Xia, Y. (2019) 'Assessing Chinese manufacturing investments in East Africa: drivers, challenges, and opportunities'. China Africa Research Initiative Briefing Paper No. 2 2019. Baltimore, MA: CARI, Johns Hopkins University.
- Yusuf, S. G, E Sangey, Y Dubal, J Mfinga, S Runyon (2013) Descriptive analysis and lessons learned from the disaster medical response to an urban building collapse. *African Journal of Emergency Medicine*. 3, 4, Supplement December 2013, S25.

### About the Anti-Corruption Evidence (ACE) Research Consortium:

ACE takes an innovative approach to anti-corruption policy and practice. Funded by UK aid, ACE is responding to the serious challenges facing people and economies affected by corruption by generating evidence that makes anti-corruption real, and using those findings to help policymakers, business and civil society adopt new, feasible, high-impact strategies to tackle corruption.

ACE is a partnership of highly experienced research and policy institutes based in Bangladesh, Nigeria, Tanzania, the United Kingdom and the USA. The lead institution is SOAS University of London. Other consortium partners are:

- BRAC Institute of Governance and Development (BIGD)
- BRAC James P. Grant School of Public Health (JPGSPH)
- Centre for Democracy and Development (CDD)
- Danish Institute for International Studies (DIIS)
- Economic and Social Research Foundation (ESRF)
- Health Policy Research Group (HPRG), University of Nigeria Nsukka (UNN)
- Ifakara Health Institute (IHI)
- London School of Hygiene and Tropical Medicine (LSHTM)
- Palladium
- REPOA
- Transparency International Bangladesh (TIB)
- University of Birmingham

ACE also has a well established network of leading research collaborators and policy/uptake experts.

Disclaimer: This publication is an output of a research programme funded by UK aid from the UK Government. The views presented in this paper are those of the author(s) and do not necessarily represent the views of UK Government's official policies.

Readers are encouraged to quote or reproduce material from ACE research for their own publications. As copyright holder ACE, requests due acknowledgement and a copy of the publication.

#### Anti-Corruption Evidence (ACE) Research Consortium

SOAS University of London, Thornhaugh Street, Russell Square, London WC1H 0XG

T +44 (0)20 7898 4447 • E [ace@soas.ac.uk](mailto:ace@soas.ac.uk) • W [www.ace.soas.ac.uk](http://www.ace.soas.ac.uk)