

# **What is the Experience and Impact of South African Trade and Investment on Growth and Development of Host Economies? A View from Mozambique<sup>1</sup>**

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## **1. Introduction**

This paper discusses and analyses the experience and impact of the dynamics of South African investment and trade in Mozambique, as part of a more general analysis of the role of South African system of accumulation in Southern Africa.

The paper, initially presented in a power point and reduced version at the “Conference on Stability, Poverty Reduction and South African Trade and Investment in Southern Africa”, discusses how South African investment and trade patterns associated with the expansion of the minerals-energy complex (MEC) and other oligopolistic industries shape the system of accumulation in Mozambique. The paper also argues for the need for a broader development basis and dynamics to emerge, and argues that this can be done only within a regional and international perspective.

The paper is organised into seven sections. The next one discusses the economic linkages between South Africa and Mozambique in historical perspective. This is followed by a section that looks at the dynamics of growth and trade in Mozambique and the influence

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<sup>1</sup> This paper is an extended and developed version of a presentation made at the “Conference on Stability, Poverty Reduction and South African Trade and Investment in Southern Africa”, organized by SARN/HSRC, which took place in Pretoria on the 29<sup>th</sup> and 30<sup>th</sup> of March, 2004. I would like to thank the Conference organizers for having invited me to the Conference, and the participants and discussants for having helped to develop this paper.

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of the South African system of accumulation. Section four discusses the dynamics and impact of South African FDI in Mozambique. Section five studies two specific examples of the role and implications of the MEC in Mozambique, namely in aluminium and natural gas. Section six discusses the nexus between macroeconomic conditions and policies and the characteristics of productive and trade capacities and investment trends in Mozambique. Finally, section seven makes some conclusions related to the overall debate.

## 2. Historical Context of Economic Linkages between Mozambique and South Africa

### 2.1. *Introduction: dynamics of economic integration between Mozambique and South Africa*

Economic linkages between South Africa and Mozambique were developed from as early as the late XIX and early XX centuries. They have been shaped by four major dynamic factors: the weakness of the Mozambican economy vis-à-vis the forces of capital in Southern Africa, and the nature of economic public policy options in relation to socio-economic pressures and linkages in Mozambique; the regional strength of corporate South Africa developed around the minerals-energy complex (MEC) as a system of accumulation that also integrates the region around South Africa; the international weakness of the South African economy and desire of its capital to expand within the region and beyond; and the hegemony of a small number of large corporations over the South African economy and state, and over the dynamics of capital accumulation in the Southern African region.<sup>3</sup> These dynamics factors were as important at that time to develop economic linkages around labour migration, the “gold profit” and transport services, as they have been, more recently, in developing linkages around South African

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<sup>3</sup> See, for example, Castel-Branco 2002a; Centro de Estudos Africanos (CEA). 1979a; Fine, B. 1997a and 1997b; Fine, B. and Z. Rustomjee. 1996; First, R. 1983; Haarlov, J. 1997; O’Laughlin 1981; Roberts, S. 2000; Wuyts, M. 1980.

foreign direct investment (FDI) in Mozambique and unidirectional trade (Mozambique imports 10 times more from South Africa than it exports to South Africa).<sup>4</sup>

The processes by which particular linkages are developed, strengthened or replaced vary according to specific historical and socio-economic circumstances. They have been influenced by socio-economic pressures and interest groups: fiscal and balance of payment weaknesses, profit maximisation through minimisation of labour costs in mining, market expansion and dominance as well as attempts to minimise the impact of public policy on business interests and room for manoeuvre.

Also, there have been more general political goals at play that created pressures to change or maintain linkages. During the 1970s and 1980s, the South African apartheid regime sought to prevent the emergence of new linkages and development opportunities in Southern Africa, and to maintain control over regional economic integration. The strategy of the apartheid regime combined economic pressure (diverting rail and port traffic, revaluing gold transactions associated with deferred wages of migrant workers, and reducing, drastically, the number of migrant workers from Mozambique) and systematic, extensive and intensive military action. Thus, by unilaterally reducing the intensity of economic linkages (consequently, badly affecting the Mozambican economy as a whole) and preventing new linkages from developing, South African capital and political forces reduced the ability of Mozambique to escape from their sphere of hegemonic influence.

## ***2.2. Old dominant patterns of economic linkages between Mozambique and South Africa***

Economic linkages between Mozambique and South Africa were initially based on migrant labour and transport services and, from the 1960s, were extended to trade and investment.

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<sup>4</sup> Castel-Branco 2003a, 2002a and 2002b.

In order to keep labour abundant, socially and politically disorganized and cheap, South African mining capital developed a regional labour strategy, which resulted in massive recruitment of migrant labour from all over Southern Africa to work in the mines. In Mozambique, the region below the parallel 22 (approximately South of Save river) was defined as a labour reserve for the South African mines, in particular for the gold mines. South African mining capital became the single most important employer of Mozambican wage labour, employing an average of 110,000 migrant workers (25% of industrial employment in Mozambique) per year in the first half of the 1970s.<sup>5</sup> Moreover, in the late 1960s and early 1970s, total income accruing to migrant workers was one and a half times higher than total income from commercial agricultural production in the South of Mozambique. The deferred component of migrant workers wages (one third of total wages) was three times as high as income from family farms.<sup>6</sup> Thus, in addition to being the largest employer of wage labour in Mozambique, South African mines were also, by far, the most important source of income and finance for the agricultural sector in the South of Mozambique.<sup>7</sup> Finally, the “gold business” associated with migrant workers’ deferred wage was a very significant contribution to balancing the current account that would otherwise have been systematically negative.<sup>8</sup>

In the mid 1970s, South Africa reduced the number of Mozambican migrant workers from 118,000 in 1975 to 41,300 in 1977.<sup>9</sup> This move by the South African government and mineral complex not only created a large number of unemployed workers in Mozambique (that resulted from the combination of those who lost their jobs and the new

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<sup>5</sup> CEA. 1979; INE (various statistics yearbooks); Wuyts 1989 and 1980.

<sup>6</sup> See Castel-Branco 1994a; Wuyts 1981.

<sup>7</sup> See, for example, Castel-Branco 1994a; CEA 1979a; O’Laughlin 1981.

<sup>8</sup> CEA. 1979a. The “gold business” resulted from the fact that when labour migration to South Africa started on a systematic and controlled manner, it was agreed between the Portuguese and the South African governments that approximately one third of the miners’ wages would be paid to the Portuguese colonial administration and the workers would only receive this money on return to Mozambique. The agreement also stated that the deferred wages would be paid in gold, and the gold/Rand exchange rate was fixed. Thus, the colonial administration received gold and paid the deferred wages to the workers in Mozambican escudos. On top of this, the world price of gold appreciated significantly over time, which allowed the Portuguese administration to make a profit based on the differential between the world price of gold and the price of gold that had been fixed in the agreement with the South African authorities.

<sup>9</sup> See INE (various statistics yearbooks); and Wuyts 1989.

entrants into the labour market who could not find a job). It also led to a profound crisis of accumulation of the agricultural sector that became starved of finance.<sup>10</sup> The sudden collapse in the number of workers recruited and the unilateral elimination of the “gold business” by the South African government also created severe current account pressures. On the one hand, the value of the workers’ remittances declined by the combined effect of the fall in recruitment of labour and the elimination of the gold business. On the other hand, the crisis of accumulation in the agricultural sector increased imports of food, particularly cereals, and reduced the production of exportable goods. The migrant labour had created a mode of accumulation and production of surplus. The collapse of job opportunities made this mode of accumulation crumble.

The transport system that links South Africa and Mozambique was originally developed around the minerals-energy complex in South Africa. On the one hand, it was built to enable the transportation of thousands of migrant workers recruited to the mines of South Africa. On the other hand, part of the finance to build the system was tied to the minerals-energy complex. Finally, the minerals-energy complex became one of the major beneficiaries of the system of the Port of Maputo for its imports and exports. Railway and ports became the second largest employer of Mozambican workers. The transport system of the Port of Maputo was also the largest source of foreign currency for Mozambique, and may have contributed to as much as 40% of total export revenue of the country. Moreover, net foreign currency income resulting from transport services, together with net workers’ remittances, kept the overall balance of payments in equilibrium.<sup>11</sup>

Finally, economic linkages between South Africa and Mozambique were also developed around trade and investment. Trade involved traditional and highly concentrated exports to South Africa (mostly prawns and oil products); and South African exports of equipment, raw and intermediate materials, accessories and parts, and a variety of consumer goods to meet the fast growing demands of an increasing urban population and booming manufacturing sector. By the early 1970s, South Africa was the second largest

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<sup>10</sup> See Castel-Branco 1994a; CEA 1978, 1979a and 1979b.

<sup>11</sup> CEA 1981, Wuyts 1989 and 1984.

trading partner of Mozambique, just after Portugal. At that time, the current account between Mozambique and South Africa was, on average, balanced.

Prior to the current inflow of foreign direct investment (FDI) in Mozambique, large-scale South African FDI took place in association with two main processes. One was the building of the large, hydroelectric Cahora Bassa dam (HCB) over the Zambezi River in the province of Tete, in the late 1960s – the South African government, through Eskom, is one of the three current shareholders of the dam.

The other one, from the early 1960s, was the inflow of South African FDI into different industries. This process was associated with three main factors: the restructuring of labour and industrial relations in Mozambique as a result of political pressures to eradicate forced labour and the national liberation war; the need for expansion of industrial production as a result of economic opportunities and political pressures; and the insistence by the Portuguese administration on financial austerity and financial autonomy for the colonies, because of the fiscal difficulties faced by the Portuguese state. Whereas the first two factors demanded significant levels of investment in new capacity and modernisation of existing assets, the third prevented such an investment program from being implemented. The answer given by the colonial administration to this dilemma was the adoption of the policy of “open doors” to foreign direct investment. Of the 13 industries already installed in Mozambique up to the early 1960s, when the open door policy was adopted, only two had been developed through foreign (non-Portuguese) participation. Of the 12 developed after the adoption of the open door policy, four involved joint ventures and eight required foreign technical assistance.

South African capital participated in many of these industries, particularly in the larger ones associated with the minerals-energy complex: Maputo’s oil refinery, fertilizers, HCB and metal smelters.<sup>12</sup> Directly (in the South African mines and related industries in Mozambique) and indirectly (transport services), the South African minerals-energy complex employed about 40% of the industrial workforce of Mozambique.

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<sup>12</sup> For a detailed, historical account and economic analysis of these processes, see Castel-Branco 2002; Pereira Leite 1989, Wield 1977a and 1977b, and Wuyts 1980.

So far, it has been argued that the integration of the two economies has depended on identified economic and political pressures, agents and the relationship between them. How have these forms of integration evolved? Have they changed? If so, why and which new processes and dynamics have emerged? These questions are discussed in the remaining sections of this paper, which analyse current trends of economic linkages between Mozambique and South Africa.

### **3. Current Dynamics of Growth and Trade of the Mozambican Economy and the Influence of the South African System of Accumulation**

#### ***3.1. Introduction: General Trends and New Patterns of Integration***

In the 1990s, after the end of the regime of apartheid in South Africa and the war in Mozambique, new links have been developed between the two economies influenced by traditional dynamics and new processes. In South Africa, alternative service infrastructures were developed during the apartheid years to reduce links with the Southern African region and put pressure on the regional economies. These infrastructures made the South African economy more independent from transport services provided by Mozambique. Additionally, restrictions on labour migration were maintained and increased, as the new South African government was also under pressure to address huge domestic unemployment as well as to respond to processes of restructuring and change within the MEC itself.

The end of the economic and political boycott against the regime of apartheid also opened the doors for the expansion of corporate South Africa throughout the Southern African region. Moreover, the dominant South African system of capitalist accumulation, based on a few, very large corporations and oligopolistic industries, needs to expand to maintain its viability, to acquire more competitive strength vis-à-vis the world economy, and to take advantages of globalisation processes and global links. Also, the globalisation of corporate South Africa is expected to minimize the impact of changing and more progressive policies of the new South African state upon business interest. Thus, the

framework is set for economic integration under the hegemony of large South African corporations to be possible finally, ironically not under, but after the defeat, of the apartheid regime.<sup>13</sup>

Under the economic expansion and globalization of South African large corporations, FDI and unidirectional trade have replaced labour migration and services as dominant vectors of economic linkages between Mozambique and South Africa.<sup>14</sup> South Africa has become the main trading partner of Mozambique and the main driving force for FDI. The MEC of South Africa drives FDI in Mozambique, together with expanding and globalising industries of monopolistic or oligopolistic nature, of regional or international dimension (such as in beer, sugar, energy, cereal milling and tourism). Trade is mostly unilateral, such that Mozambique has developed a huge trade deficit vis-à-vis South Africa. In the process, the South African financial sector has become very prominent in the Mozambican economy.<sup>15</sup>

Industrial services and productive capacities related to the MEC and dependent on imports have been developed in Mozambique. While these new productive capacities can easily be used to help develop other sectors of the economy, at the moment they are anchored around a few mega projects, and the lack of dynamics in other sectors prevents any further development of, and linkages from, such capacities from happening.<sup>16</sup>

Spatial development initiatives (SDI) have mainly been used as a political framework for further integration and penetration of South African FDI. When projects that happen because of, or in the are of influence of, SDI have a clear focus supported by large corporations and the international financial system (such as, for example, the large BHP-Billiton aluminium smelter, Mozal, the large Maputo-Witbank motorway, the sugar industry, or a large tourism project associated with large capital in South Africa), they are

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<sup>13</sup> Castel-Branco 2004, 2003, 2002a and 2002b; Daniel, Naidoo and Naidu 2003; Fine and Rustonjee 1996; Games 2003; Harlov 1997; Lutchman and Naidu 2004; Roberts 2000; Rumney 2004; Shoeman 2003.

<sup>14</sup> Labour migration and services are still quite important, but they are no longer the dominant features of integration of the Mozambican economy in the sphere of influence of corporate South Africa.

<sup>15</sup> Castel-Branco 2002a and 2002b.

<sup>16</sup> Castel-Branco and Goldin 2003.

implemented. When the focus is vague (such as multiplier effects and linkages derived from assumptions about trickle-down effects emerging from development corridors), then very little happens and implementation is very slow or non-existent.

On the whole, under the same dominant dynamics of a system of accumulation in expansion, and under processes that are adapted to different circumstances, new economic linkages have been developed that strengthen the deep rooted unequal integration between the two economies in areas of interest for South African large corporations. Thus, dynamics of interests (and, consequently, of investment and business decisions) of South African large capital and of the Mozambican economy become interlinked, in part because of the absence of alternative, diversified and broad-based poles of economic development in Mozambique. The next sections will look in more detail at the current forms of economic integration and relationships that have been developed around FDI and trade between Mozambique and South African corporations.

### ***3.2. General Patterns of Growth, Production and Trade***

The major sources of growth of GDP in Mozambique have been services (mostly trade, finance, transports & telecommunications, tourism and construction) and mega and large projects in industry, energy, minerals and agriculture (aluminium, natural gas, heavy or mineral sands, energy, cement, beverages (particularly beer), sugar and cereal milling).

With the exception of tourism, all the other service sectors are heavily concentrated in Maputo: about 70% of trade and of transport and telecommunication services, and 75% of financial services and construction activity take place in Maputo. Furthermore, almost 80% of investment in transport infrastructure takes place around the big corridors (Maputo, Beira and Nacala), with emphasis on the Maputo Corridor that links Mozambique and South Africa. Construction is concentrated around industrial mega projects, road programs with emphasis on the Maputo-Witbank toll road, and luxury housing around Maputo and Matola. Trade is fundamentally urban and retail, and rural trade networks are very slow to develop. Finance is either speculative or related to large

projects linked with international capital. Thus, services are developing around and helping to create economic dynamics that are narrowly based and that operate against the broadening of the development basis.<sup>17</sup>

Production and exports of goods have similar trends to services, as it would be expected. Although cereals for household consumption are estimated to be the principal component agricultural production, dominant agro-industrial activities are sugar (for the domestic market but also a very important export good), tobacco, wood and cotton (all for export). These four agro-industrial products account for less than 15% of total industrial output, but represent more than 80% of agro-industrial output. Manufacturing output is heavily concentrated around aluminium, beer, cereal milling and soft drinks, which represent more than 70% of total output. Aluminium, alone, represents some 48% of total manufacturing output and 28% of manufacturing valued added.<sup>18</sup>

For most of the last three and a half decades, services usually represented around 55% of export revenue and goods 45%. However, between 1980 and 1983, and again in 2002, exports of goods represented almost 70% of export revenue, more than doubling the revenue from services. In both periods, manufacturing industry became the most import source of export revenue.

In the early 1980s, this change was due to two factors: the oil crisis and the collapse of transport services to and from the hinterland. Mozambique used to export refined oil products, although it was a net importer of oil and oil products. The oil price boom of the early 1980s pushed the share of oil products in total manufacturing exports from 10% to over 30%. At the same time, the implementation of the UN mandatory sanctions against the illegal UDI regime of Ian Smith in Rhodesia, and the war against such a regime, reduced the rail and port traffic to and from the hinterland very significantly. At the time of the application of the sanctions against the illegal UDI regime, port and rail traffic to

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<sup>17</sup> INE (various issues of the statistics yearbook); Banco de Moçambique (various annual reports); KPMG 1999; Castel-Branco 2003 and 2002a.

<sup>18</sup> INE (various issues of the statistics yearbook) and Castel-Branco 2003, 2002a and 2002b.

and from Rhodesia through Mozambique accounted for more than half of all revenue from transport services in Mozambique.<sup>19</sup>

In 2002, the dynamics of change of the export ratio were different, as the single most important factor explaining such a change was the introduction of aluminium exports. Since Mozal started operation, Mozambique's exports of goods more than trebled. Mozal, which is responsible for 48% of total industrial output and 28% of manufacturing value added (MVA), also represents approximately 75% of manufacturing exports, 60% of exports of goods and 42% of total export revenue of Mozambique.<sup>20</sup> Put together, exports of goods from fishing, agriculture and all other industries (except aluminium) add to no more than two thirds of total aluminium exports.

Imports are very closely related to investment. On average, over the last 25 years, investment goods (raw materials, intermediate goods, spares, equipment and machinery) have accounted for more than 60% of total imports in any one year. In periods of strong investments, such as during the early 1980s (associated with massive productive investment under the government's prospective indicative plan, PPI) and the late 1990s and early 2000s (associated with massive inflows of FDI for MEC related mega projects), investment goods have accounted for as much as 80% of total imports. Currently, approximately 50% of Mozambican imports in any one year are directly linked to a couple of mega projects and financed through FDI. For example, if Mozal is excluded from the accounts, Mozambique's imports fall by about one third.<sup>21</sup>

On the whole, Mozambican exports, prior to Mozal and Sasol, were not sensitive to changes in the levels of investment. On the other hand, imports are highly sensitive to the levels of investment. Therefore, the economy tends to build up towards economic crisis and stabilisation-related recession after short-lived periods of fast growth, because of increasing balance of payment pressures that develop as the economy expands. Hence, more than the aggregate level of investment, the patterns of growth and investment in

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<sup>19</sup> INE (various issues of the statistics yearbook); Wuyts 1989 and 1984, Castel-Branco 2003, 2002a and 2002b.

<sup>20</sup> INE (various issues of the statistics yearbook); Castel-Branco 2003; and Castel-Branco and Goldin 2003.

<sup>21</sup> Castel-Branco 2003 and 2002a; Castel-Branco and Goldin 2003; INE (various statistics yearbooks).

Mozambique are crucial determinants of sustainable and fast growth. This conclusion calls, obviously, for specific investment, industrial and trade strategies and policies.

### ***3.3. Trade between Mozambique and South Africa***

South Africa is Mozambique's major trading partner, accounting for 44% of Mozambique's imports, but only 20% of Mozambique's exports and 37% of Mozambique's all foreign trade. In 2002, Mozambique's trade deficit vis-à-vis South Africa reached US\$ 500 million, which was equivalent to two-thirds of Mozambique's global trade deficit, and eight times the value of exports of goods from Mozambique to South Africa. The trade deficit vis-à-vis South Africa has increased three fold over the last decade, in association with the increasing role of South African FDI in Mozambique.

Despite being South Africa's main trading partner in the region, Mozambique only accounts for a very small proportion of South Africa's external trade. On the whole, from the South African point of view, Mozambique is interesting for specific investment projects that strengthen the regional role of MEC and regional expansion of oligopolistic industries, and that at the same time promote exports from South Africa to Mozambique.

So far, the problem of a chronic and high trade deficit has been partly minimised by the fact that a large share of imports is financed by FDI. However, this does not address overall balance of payments problems. FDI projects can be very profitable individually despite running a high external trade deficit. However, if they repatriate profits, import investment services and transfer wages in foreign currency, while simultaneously generating an external trade deficit through their pattern of production, then such projects will be reinforcing unsustainable growth patterns and will be pushing the Mozambican economy closer and closer towards macroeconomic crisis.

The big question, then, is whether South African investment creates enough of a dynamic to promote exports from Mozambique to the rest of the (non-South African) world, such that it compensates for the increasing trade deficit of Mozambique vis-à-vis South Africa.

As it will be seen later, there is evidence that this is not happening on a systematic basis: only MEC mega projects are export-oriented, the high degree of export concentration created by the current investment patterns is dangerous for the sustainability of export dynamics, and Mozambique's share of the resources generated by such projects is very small. However, this problem may be partly compensated for by the industrial services and some linkages that are developing in Mozambique, mostly anchored around MEC projects, which may provide a basis for beginning to strengthen domestic linkages and to reduce the import sensitivity to investment end economic expansion. However, unless the dynamics and patterns of investment and growth are diversified, linkages away from MEC mega-projects, and thus the diversification of development poles and of the productive and export basis, will continue to be weak and unsystematic.

The structure of trade between the two countries reflects the dynamic forces that shape economic linkages between Mozambique and South Africa, namely: the regional dominance of the South African economy; the role of the MEC; and the weakness of the Mozambican economy. The dominant exports from South Africa to Mozambique are mineral products (mostly oil and other fuels), prepared foodstuffs (mostly cereals and beverages),<sup>22</sup> chemical products, base metals (iron and steel), energy, and vehicles, equipment and parts. Together, the core MEC and associated industries represent 60% of South African exports to Mozambique. Mozambique's main exports to South Africa include energy, prawns, cotton, construction equipment and food industry residues.

In this connection, there are two important trading statistics worth mentioning. First, trade in energy between the two countries, particularly Mozambique's imports of energy from South Africa, increased very sharply in the last two years, mostly due to the establishment of Mozal in Beluluane, province of Maputo.<sup>23</sup> Although energy exports are a small proportion of South African exports to Mozambique, the energy trade is crucial

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<sup>22</sup> A significant change in the structure of South African exports of prepared foodstuffs to Mozambique has happened. Beer used to be the single most important component of this group but its share of the group has declined very significantly in the last few years, in line with the penetration of SAB in the Mozambican beer industry by acquiring all of the three major breweries. Thus, trade has been replaced by South African direct investment. Hence, in parallel with falling exports of beer from South Africa, the FDI driven beer industry has become one of the fastest growing industries in Mozambique.

<sup>23</sup> Mozambique's imports of energy from South Africa increased 20 times since Mozal was established.

within the strategy of expansion of South African capitalism. On the one hand, Eskom controls the supply of electricity to Mozal, which consumes more energy than the rest of Mozambique. On the other hand, Mozal has enabled a dynamic and structural link between the electricity grids of South Africa, Mozambique and Swaziland through Motraco, a joint venture company that supplies South African energy to Mozal. Moreover, the 2,500 Gwh of energy that Eskom is exporting to Mozambique are an entry point for further South African involvement in the energy sector in Mozambique by strengthening its “big partner” position in projects linked with two large hydroelectric dams, Cahora Bassa and M’panda Uncua, and in negotiating contracts for supplying electricity to other energy-intensive mega projects in Mozambique, such as heavy sands and iron and steel, in Gaza and Maputo respectively.

Furthermore, the single most important reason for Mozambique to liberalise the energy sector, ending the monopoly of the Mozambican electricity company (EDM), was to provide the legal framework for Motraco and Eskom to enter the Mozambican market as suppliers. This is a clear example of MEC driven economic and industrial strategy and policy in Mozambique.

Second, construction equipment, accessories and spare parts, associated with the construction of the Maputo-Witbank toll road, formed a very large component of trade between Mozambique and South Africa over the period 1998-2001.<sup>24</sup> Part of the equipment and accessories needed to build the road on the Mozambican side were supplied by Mozambique. Therefore, these items are registered as Mozambique’s exports to South Africa, but in fact Mozambique had to import them.

Mozambique’s gas pipeline linking the gas reserves in Pande (Inhambane, Mozambique) with the gas-to-liquid refinery in Mpumalanga (South Africa) is going to introduce yet another change in the direction and composition of trade between South Africa and Mozambique. Large flows of gas from Mozambique are likely to make a difference in Mozambique’s exports and trade balance vis-à-vis South Africa, *“other things being*

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<sup>24</sup> This road is part of the spatial development initiative (SDI) for the Southern region, and of the expansion of the minerals-energy complex.

*equal*". However, this is not going to change two fundamental characteristics of trade dynamics between the two countries: the narrowness of the Mozambican export basis (which will become even more concentrated and will be dominated by the core MEC); and the fact that economic benefits to society accruing from such trade are significantly lower than financial benefits accruing to the firms involved.

Given the large differences in economic capacity between the two countries, the operation of any mega project in Mozambique is likely to increase Mozambican imports of electricity,<sup>25</sup> equipment, accessories, parts and investment services. For example, in line with the sharp increase in FDI inflows to Mozambique, imports have increased by almost 50%, and the size of Mozambique's trade deficit has been mostly determined by what happens to investment, particularly FDI. If an investment project is completely export-oriented (like Mozal), the size of the trade deficit falls only slightly as the net contribution of any large export-oriented project to exports is reduced by the sheer size of the demand for imports.<sup>26</sup> When projects are not completely export-oriented (like soft drinks, beer, cement), the trade deficit increases because a small export share of output cannot compensate for the import dependence of output.<sup>27</sup> As FDI inflows to Mozambique increase, "investment services" and "other service expenditure" have become the major determinants of the size of the deficit of the balance of services.<sup>28</sup> Therefore, *"other things are not equal"*.

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<sup>25</sup> At the least in the foreseeable future.

<sup>26</sup> Irrespectively of more precise calculations about actual net trade gains retained by the economy, not only by the firm.

<sup>27</sup> See Castel-Branco 2003, 2002a and 2002b for a statistical analysis of the relationship between investment and the trade deficit in Mozambique. Data analysis shows an almost symmetric relationship between investment and the trade deficit; and between the size of the capital account surplus and the trade deficit. Further, data demonstrate that this relationship is caused by the high elasticity of imports with respect to investment (due to weak investment capacities of the economy and poor inter- and intra-industry linkages), and low elasticity of export with respect to investment (because of weak and concentrated productive and export capacity of the economy). Export-oriented mega projects, such as Mozal, Iron and Steel, Heavy Sands and Pande (gas) will increase the export sensitivity to investment. However, actual net balance of payment gains from such projects are very small. Additionally, unless the growth and development basis is diversified, the Mozambican economy will become an extension of the minerals-energy complex of South Africa and growth in other areas will be precluded because of its destabilising effect on the balance of trade.

<sup>28</sup> See INE. various issues. Statistics Yearbook.

Outside the dynamics of mega and large projects, particularly of Mozal, industrial output and exports are stagnant, manufacturing output has actually declined in 2003, and the MVA share of GDP, without Mozal, has fallen to the levels of 1971.<sup>29</sup>

#### **4. Dynamics of South Africa FDI in Mozambique**

##### ***4.1. Weight of South African Foreign Direct Investment in Mozambique***

Private investment accounts for almost 55% of all investment in the Mozambican economy since the end of the war (1992), and public investment accounts for the remaining 45%.<sup>30</sup>

Public investment has been entirely financed by external flows of capital through official multilateral and bilateral grants and loans, and has been mostly allocated to infra-structures (such as roads and water and sanitation systems), social sectors (education, health) and special programmes related to post-war normalisation of life (demobilisation of the armies, rehabilitation of living and working conditions for more than four million external refugees and internally displaced people).<sup>31</sup>

Between 1990 and 2003, private investment in Mozambique was financed by FDI (36%), national direct investment, NDI, (6%) and loans and other sources, mostly in the form of non-market based inflows of foreign capital, (58%).<sup>32</sup>

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<sup>29</sup> Castel-Branco 2003; Castel-Branco and Goldin 2003.

<sup>30</sup> INE (various issues of the statistics yearbook); CPI (investment data bases); Banco de Moçambique (various annual reports). These percentages are only approximations. In reality, there is a large contribution of *off-budget* financing of projects, mainly in social areas and infra-structures, which is incompletely recorded. *Off-budget* financing of projects is the preferred practice of many development agencies and non-governmental organizations (NGOs). The majority of these projects have the same focus as public investment, and are often implemented with some degree of coordination with public policy and strategy. Thus, these projects are, here, considered within the domain of public investment.

<sup>31</sup> INE (various issues of the statistics yearbook); Government of Mozambique (various issues of the annual budget and economic and social program, as well as the respective implementation assessment reports).

<sup>32</sup> Castel-Branco 2003, 2002a and 2002b; CPI (adjusted investment data bases for various years).

When MEC-related mega projects are excluded from the picture, the structure of financing of private investment changes significantly: total private investment falls by more than 55%, the share of FDI on total private investment falls to approximately 16%, the share of NDI increases to 14%, and the share of loans and other sources also increases to 70%. Thus, whereas the share of FDI in total private investment in Mozambique is very high if compared with almost any other country, FDI seems to be highly concentrated around MEC projects. Hence, the share of FDI in non-MEC private investment is not that impressive, and is only slightly higher than NDI.<sup>33</sup>

In any case, approximately three-quarters of private investment in Mozambique are financed by inflows of external capital, which shows how dependent the Mozambican economy is upon foreign savings.

Private investment by South African companies in Mozambique has been made in 18% of 1,800 private investment projects approved in Mozambique between 1990 and 2003. As far as *direct weight* is concerned, South African private investment represents 40% of all FDI, 15% of total private investment and 9% of total gross investment (public and private investment).<sup>34</sup>

However, it would be misleading to assess the weight of South African private investment only by its direct impact. As it will be shown later, South African private investment is highly concentrated in very large projects, such that it would be unlikely that South African capital alone would take the financial burden and risk to go alone in any of those large projects. Thus, it is at least as important to assess the *indirect weight* of South African private investment by looking at the weight represented by the projects in which South African corporations participate.<sup>35</sup>

Between 1990 and 2003, projects in which South African corporations are the driving force (18% of total) have absorbed 85% of total FDI, 35% of NDI, 73% of loans, 75% of total private investment and approximately 45% of total gross investment (private and

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<sup>33</sup> Ibid.

<sup>34</sup> Ibid.

<sup>35</sup> Castel-Branco 2004, 2003, 2002a, 2002b and 2001.

public) accruing to Mozambique.<sup>36</sup> These data are more indicative of the *actual weight* of South African private investment in Mozambique, because the figures show that South African private capital is capable of mobilising its own resources and the resources of other corporations and banks around the world, including a considerable share of Mozambican NDI, to pursue its investment strategies. The data also show that these projects tend to be very significantly larger (approximately 12 times larger, on average) than the average private project size in Mozambique.

If South African FDI represents, approximately, only one fifth of total investment in these projects, why is it claimed that South African corporations are the driving force not only of these projects but also of total private investment in Mozambique? There are three main reasons to make this claim. First, as it will be shown in the following sections, these projects correspond to the dynamics of accumulation and globalization of South African large corporations. This will be demonstrated by analysing the allocation of investment. Second, through strong linkages with South African suppliers, these projects help the integration of the economies and regionalization of South African firms. Input-output data in Mozambique is extremely poor, but data from the largest private investment ever made in Mozambique, Mozal, will give an approximation to the extent of these linkages. Third, logically derived from the previous two points, it is clear that the determinants of the lion's share of private investment in Mozambique are the dynamics of accumulation and globalization of South African large corporations. In other words, private foreign capital inflows to Mozambique are attracted mainly by the regional and global strategies of South African firms, which have been capable of mobilising their resources and resources from elsewhere to implement strategic business and investment decisions. As it will be shown later, oligopolistic competition for market dominance and expansion has been one of the chief components of corporate strategy, which decides not only what, where and how much investment to make, but also when, in alliance with whom, and under which kind of policy and institutional framework.

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<sup>36</sup> Castel-Branco 2003, 2002a and 2002b; CPI (adjusted investment data bases for various years).

At this stage, it could be interesting to recall the speech by the South African Minister of Trade and Industry made in Nacala (North of Mozambique), during the Nacala Development Corridor investor's conference (February 2003).<sup>37</sup> Speaking on behalf of President Thabo Mbeki, the Minister of Trade and Industry delivered a very focused and brief speech in which, amongst other points, he explained why South Africa supports the launching of the Nacala Development Corridor despite the fact that the Corridor is one thousand miles away from South Africa. His explanation was based on four main points. First, the South African manufacturing industry, which is fast becoming competitive all over the world, is growing very fast and, consequently, is facing some shortages of raw materials, mostly wood and natural fibres. Development corridors in the region may link the industrial belts of South Africa with the sources of raw materials of the other countries in Southern Africa. Second, the other countries can share some of the prosperity that the South African economy is enjoying by becoming part of industrial product chains as suppliers of raw materials. Third, linking infra-structure development with large and viable projects or clusters of dynamic economic activity will make infra-structure construction and management profitable and, thus, attract private investment into infra-structure development. Fourth, South African engineer and consultancy firms have been heavily involved in the development of the Nacala Corridor Strategy across three countries (Mozambique, Malawi and Zambia), and South African capital is very likely to become more involved in the development of large investment projects related to the corridor, particularly in tourism, infra-structures and telecommunications, and minerals.<sup>38</sup>

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<sup>37</sup> Recollection from the author's own notes taken during the speech of the Minister.

<sup>38</sup> The most important of such projects, all of which are still at the design or pipeline stage, are: large eco-tourism projects, the toll road linking the large Nacala Port with Malawi, and the large heavy/mineral sand project of Moma.

## 4.2. *Dynamics of Allocation of Investment*

### 4.2.1. *Aggregate Sectoral Allocation of Investment*

Between 1990 and 2003, 97% of total FDI and 89% of total private investment were allocated as follows: manufacturing industry (67% of FDI and 50% of total private investment); mineral resources (22% and 16%); tourism (6% and 15%); and agriculture (2% and 8% respectively).<sup>39</sup>

Six industries (aluminium and energy, natural gas, heavy/mineral sands, sugar, beer and cement), with a total of nine corporations incorporating 15 plants, have absorbed 63% of total FDI, 25% of total NDI, 62% of total loans and other sources and 60% of total private investment. Of these nine corporations, only one, cement (three plants), is not driven by large South African capital.<sup>40</sup>

More than 90% of all investment in mineral resources is divided between natural gas (Sasol) and heavy/mineral sands (various companies, including Australian and Irish, but of which the largest are Southern Mining and IDC, which are South African).<sup>41</sup>

Of total private investment in the manufacturing industry, aluminium and energy, sugar, beer, soft drinks and cereal milling (nine firms or large groups, all South African or associated with South African capital) absorbed 94% of FDI, 50% of NDI, 43% of loans and others sources, and 72% of total private investment.<sup>42</sup>

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<sup>39</sup> Castel-Branco 2004 and 2003; CPI (adjusted data base on investment for various years); Banco de Moçambique (various annual reports). Agro-industry was excluded from agriculture and included in manufacturing industry.

<sup>40</sup> Ibid. Aluminium and energy go together for three reasons. First, energy is the major component of aluminium and the main reason why Mozal was built around Maputo, in Beloluane. Second, the largest energy investment of the last decade was made in Motraco, the power station built to supply energy to Mozal. Third, Mozal consumes more than twice as much energy as the rest of Mozambique, and imports of energy from South Africa have increased almost 20 times since Mozal came into operation.

<sup>41</sup> Ibid.

<sup>42</sup> Ibid.

#### 4.2.2. *Dynamics of Sectoral Allocation of South African Private Investment*

South African investment is mainly associated with the core MEC: aluminium and energy, natural gas, heavy and mineral sands. Investment around the MEC is heavily supported by the small number of very large South African multinational corporations of worldwide or regional dimension (such as BHP-Billiton, Eskom, Sasol, Southern Mining), large industrial, minerals and energy capital from around the world (Australia, the UK, Ireland, Japan), South African and international investment agencies (IDC, IFC, EIB and others).<sup>43</sup>

In addition, South African investment has expanded quickly into areas of oligopolistic or quasi-monopolistic competition, in a quest to globalize and control markets by using the region as a trampoline for world markets, or simply as an expansion of the domestic market. Mains areas of investment are: sugar (Illovo and Tongat Hullet control three out of four sugar estates and factories, and a Mauritian consortium with South African finance controls the fourth); beer (SAB control all three breweries); soft drinks (Coca-Cola SABCO has control, through a local branch, Coca-Cola, of all bottling plants), cereal milling (Namib Management controls or is involved with the largest cereal milling complexes, except one), mega tourism projects (Limpopo and Libombos), and mega infrastructures (management of major ports, major toll roads, telecommunication systems and industrial parks developed around anchor projects associated with the MEC). Tourism and infrastructures are developed around the concept of spatial development initiatives (SDI).<sup>44</sup>

Associated with the MEC and oligopolistic expansion, South African investment has also moved into dependent industry and industrial services.<sup>45</sup> On the one hand, the core

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<sup>43</sup> Industrial Development Corporation (IDC), a South African parastatal; International Financial Corporation (IFC), a member of the World Bank group; European Investment Bank (EIB). For sources: Lutchman and Naidu 2004; Rumney 2004, Fine and Rustomjee 1996; Shoeman 2003; Daniel, Naidoo and Naidu 2003; Games 2003; Castel-Branco 2004, 2003, 2002a and 2002b.

<sup>44</sup> Lutchman and Naidu 2004; Rumney 2004, Fine and Rustomjee 1996; Shoeman 2003; Daniel, Naidoo and Naidu 2003; Games 2003; Castel-Branco 2004, 2003, 2002a and 2002b, Roberts 2000.

<sup>45</sup> The concept of dependent industrialization is linked to the following characteristics: import dependency; dependency with respect to exogenous dynamics of industrialization (including access to markets, technology and capital, product design, investment decisions, etc.); dependent partnerships (such as in the

MEC and other large projects (such as the sugar industry) represent demand for certain industrial activities and for maintenance and engineering services. South African firms were initially reluctant to move to Mozambique, as they could supply all services and goods from South Africa and did not know enough about industrial capabilities in Mozambique. This led to a quick expansion of linkages between supplier South Africa firms, based in South Africa, and mega and large projects in Mozambique.<sup>46</sup>

In the meantime, Mozal's expansion and the starting or development of other mega and large projects intensified demand for such goods and services. Thus, South African firms were quick to move and take the opportunity to expand into Mozambique. However, they are still reluctant in making serious commitment and investment. Usually, they relocated to Mozambique workshops and warehouses that stock parts and make small repairs, employing a very small number of workers, and involving very little fixed (and sunk) costs. Others have engaged in joint ventures with Mozambican firms, renting and, thus, taking advantage of existing fixed capital, and making little and narrowly focused investment to upgrade some core capacities to provide specialized services for specific mega projects, provided that they anticipate that they can win profitable contracts with Mozal (such as, for example, the removal, repair and current maintenance of the aluminium pots). Almost all these firms are import dependent, and a very large share of their imports comes from intra- and inter-firm trade with South African suppliers.<sup>47</sup>

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case of integration with oligopolistic, international product and value chains); lack of dynamic backward and forward linkages within the economy outside the mega and large projects that have initiated the process. This pattern of industrialization cannot be identified as import substitution (even when firms produce only or mostly for the domestic market), as it does not substitute, but rather creates, import pressures. True import substitution would involve backward and forward linkages that this pattern of industrialization does not usually develop outside economic enclaves.

<sup>46</sup> Castel-Branco and Goldin 2003.

<sup>47</sup> According to Castel-Branco and Goldin (2003), some of the core industrial capacities and services developed around Mozal are as follows: *Engineering/manufacturing industry firms*: Cometal-Mometal (pots, chimneys and pipes); Tubex (tools and spares); Kempe/Metech (maintenance of pot lines); Forjadora (containers); Kanes (spares, metal structures and maintenance); Agro-Alfa (repair of start up equipment); MC Engineering (repair of start up equipment). *Construction firms*: Marcleusa (electricity substation in the plant and acoustic barrier in the port of Matola); Construções Chemane (maintenance, water drains, removal of temporary buildings); SORADIO (electric installations and wiring, and repairs); and Wade Adams (housing construction and maintenance of buildings). *Industrial services*: TDM (phone and phone data base network); EDM (shareholder and represented in Motraco); Strang Rennies Mozambique Consortium, SRMC (export of aluminium); Diesel Eléctrica (suppliers and maintenance of hydraulic

Thus, links with mega and large projects have created dependent industrial capacities for the domestic market, but usually involving little commitment by the South African firms that have made the investment. However, as demonstrated by the capacities and number of firms involved, developing linkages with mega projects could be one of the core pillars of a strategy to support business and productive capacity development in Mozambique. Given the type of capacity that has been developed, concentrated in engineering and other crucial industrial services, such a focus of business and productive capacity development could help not only the firms involved but the business and productive dynamics as a whole, because it could help to provide capacities and services for all and reduce marginal costs of productive investment in Mozambique.

On the other hand, dependent business dynamics have developed around product chains controlled by South Africa or other multinational and large corporations: this is happening in export of fruits (mainly citrus and mangoes) and some other basic agro-industrial products (such as animal food); some areas of metal engineering in which South African firms provide reputation, a technological basis and access to markets; tourism related activities; and others. On the whole, a very large proportion of existing and relatively successful (or at least not unsuccessful) small and medium firms have developed linkages with South African firms, some of which within the “black economic empowerment” scheme. However, the link between black empowerment processes on both sides have, more often than not, developed through linkages with the core MEC and associated dynamics, as well as other traditional, oligopolistic industries.<sup>48</sup>

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equipment); Interwaste (industrial waste removal); and Transaustral (employee transport). *Other services:* Eurest Support Services (catering); Gray Security (manned security, reception, and armed response); Thsala Mozambique (catering and cleaning); Cinderella (laundry and uniform management); and Flor Real (landscaping earthworks).

<sup>48</sup> Lutchman and Naidu 2004; Rumney 2004; Shoeman 2003; Daniel, Naidoo and Naidu 2003; Games 2003; Castel-Branco 2004.

#### 4.2.3. *Influence of the South African Financial System*

South African capital has long been a driving force in the Mozambican financial market. The literature on finance in Mozambique usually emphasizes that the Mozambican commercial financial system is controlled by Portuguese financial interests. This is only partially true when one looks at the domestic financial system and abstracts from its international interactions. Moreover, this argument only holds if one abstracts from the relationship between finance, investment and production.

In other words, Portuguese banks own most of the banks in Mozambique, and the larger banks from the point of view of domestic banking operations. However, the domestic banking system is responsible for less than 20% of financing of investment, production and trade in Mozambique, and a significant share of their activity is limited to being an agency to channel international capital flows. Most of the private capital invested in Mozambique over the last decade or so comes from South African and international financial institutions that also operate through South African banks. This is easily explained: as mentioned earlier, almost three-quarters of private investment in Mozambique depend on inflows of foreign capital, and half of such inflows are in the form of FDI associated with large South African globalizing corporations.<sup>49</sup> Thus, South African banks are far more important than Portuguese ones, but they tend to operate mostly through direct relationships with mega and large projects and firms rather than through maintaining a direct, physical presence in Mozambique.

More recently, the South African commercial banks have started to expand, physically, into the Mozambican economy in line with the dynamics of FDI in Mozambique. Hence, one new commercial bank was created and two commercial banks were bought by South African banks over the last two years. Together, the Nedbank, the Standard Bank and Banco Austral represent approximately one-third of banking operations in Mozambique.

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<sup>49</sup> If one adds to this the fact that all public investment is financed from inflows of foreign capital, the conclusion is that between 78% and 80% of total investment in Mozambique is financed by inflows of foreign capital.

Given their experience in financing productive activities and their superior financial linkages and muscle, South African banks may be in a better position to expand their domination of the Mozambican financial system and, therefore, strengthen the influence of key economic and investment dynamics of South Africa in Mozambique: MEC, oligoplistic competition, SDI and associated investment in infra-structure and tourism, and dependent industrialization.

#### *4.2.4. Implications for Regional Allocation of Investment within Mozambique*

As it should be expected, the regional allocation of investment within Mozambique closely follows the sectoral dynamics of allocation of investment. Between 1990 and 2003, Maputo City and the Province of Maputo absorbed 75% of FDI, 55% of NDI, 52% of loans and other sources and 60% of total private investment. The City and the Province of Maputo (extreme South of Mozambique) incorporate the largest industrial park of the country, but investment concentration is mostly due to the presence of Mozal, Motraco (which supplies Mozal with energy), sugar, beer, soft drinks, cement and cereal milling, which are the most dynamic sectors in term of growth, exports and investment. This explains the fact that 88% of total private investment in the manufacturing industry in Mozambique takes place in the City and Province of Maputo.

In addition, Maputo also absorbs three-quarters of total investment in transports and telecommunications and in retail trade, as well as almost 90% of total investment in construction and in the financial sector, and 30% of investment in agro-industry.

The Provinces of Gaza and Inhambane (in the South, with the main activities being natural gas, heavy sands and tourism) together absorb 15% of total FDI and 17% of total private investment. Sofala (in the Centre, with sugar) absorbs 5% of total FDI and 8% of total investment. Nampula (in the North, with heavy sands and the Nacala Corridor as the principal investments) absorbs 4% of FDI and 5% of total investment. The remaining five Provinces (comprising 60% of the territory and almost 48% of the population) absorb 1% of FDI and 10% of total private investment.

Traditional explanations for strong, asymmetric regional distribution of investment include: the presence of resources, infra-structures and industrial facilities, human capital, privatization and importance of local markets. In the case of Mozambique, the presence of resources is important only for extractive mining industries; local markets are important for beverages and cereal milling; privatization is important in the case of sugar, beer, cereal milling, soft drinks and cement; and infra-structures, industrial facilities and human capital seems to be important across the board.

However, corporate and public strategies (articulated or not through SDI and/or oligopolistic competition) are dynamically more powerful explanations for regional allocation of investment. First, there is a strong link between sectoral and regional allocation of resources. Second, the choice of sectors to invest in, given the other conditions, reflects corporate strategies and public policy in response to them. Third, the distribution of infra-structures, capacities, productive assets to privatise, income and market demand, is not a natural endowment; it has been constructed, over time, as a function of corporate strategy and public policy.

## **5. Case-Studies: Aluminium and Natural Gas**

### ***5.1. Aluminium***

Mozal is a large aluminium smelter built in the late 1990s in Beloluane, outskirts of Maputo City. It has the capacity to produce 512,000 tons of aluminum ingots per year. The total cost of the project was approximately US\$ 2.4 billion. Current shareholders are BHP-Billiton (66%), IDC (20%), Mitsubishi (12%) and the Mozambican government (2%).<sup>50</sup> In addition to FDI, the financing of the project has been guaranteed by South African agencies (IDC and South African financial system), the financial system in the UK and other European agencies (including the shares of the Mozambican government

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<sup>50</sup> BHP-Billiton, included in the FTSE 100 index, has recently become the largest aluminium producer in the world, controlling mining of alumina and smelters. Its business is focused on minerals and non-precious metals, and in June 2003 announced extra profits, over and above their own expectations, of US\$1.2 billion.

which were financed by a loan from the European Investment Bank); by Japanese corporations and financial system, by IFC and even by Mozambique.<sup>51</sup> Production started in 2000, and its main markets are the European Union and the automobile industry in Asia.

Mozal has been attributed Free Industrial Zone (FIZ) status. This means that it is exempted from paying duties on imports of material inputs, equipment, parts and any other imports that are required for the activity of the company. It is also exempted from paying value-added tax, and corporate taxes are limited to 1% of sales. The project can import and export capital freely after registering with the central bank.<sup>52</sup>

With initial capital cost per direct job equivalent to 26 direct jobs elsewhere in the manufacturing sector, each worker in Mozal produces as much as 30 workers and exports as much as 200 workers from the average manufacturing firm.<sup>53</sup> In absolute terms, Mozal is far more productive than any other firm in Mozambique. Relative to its initial capital costs Mozal main advantage relies on its huge export capability and demand pressures that may provide a basis for linkages, provided that the Mozambican economy develops the capacity to absorb and respond to such demand pressures.

Aluminium represents 48% of total manufacturing output and 28% of total MVA, and the huge difference between the two is due to Mozal's heavy reliance on acquisition of intermediate materials and services, mostly imported. It is interesting to mention that aluminium production by BHP-Billiton is vertically integrated, as this corporation owns and controls alumina mines and aluminium smelters, and has interests in electricity and final consumption of aluminium. BHP-Billiton aluminium production is vertically integrated at world level, not necessarily in any one country. This also means that no

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<sup>51</sup> Given the close relationships between the South African financial system and the minerals-energy complex of South Africa, the predominant role of South African financing in Mozal is another indicator of the link between Mozal and the minerals-energy complex (see Fine and Rustomjee 1996).

<sup>52</sup> See GOM 1999 for the Mozambican legislation on FIZ.

<sup>53</sup> Castel-Branco 2002a and Castel-Branco and Golding 2003. It is argued that Mozal can generate as many as 2,500-3,000 indirect jobs through linkages. This estimate is not taken into consideration in the above analysis because it depends on linkages that have not yet materialised and also because each one of the predicted, indirect jobs requires more investment for the said linkages to materialize.

single company of the BHP-Billiton aluminium group is necessarily vertically integrated, although all of them may individually benefit from the industrial linkages that BHP-Billiton provides. Hence Mozal is exclusively focused on direct production and export of aluminium with very little vertical integration as it subcontracts the provision of almost all services and goods that are required. However, Mozal benefits from vertical integration provided through the BHP-Billiton group that owns smelter and the alumina mines that supply the raw material.<sup>54</sup>

Mozal's total contribution to GDP fluctuates around 3.3%, which, for a single firm, is a huge value. Its contribution to exports is even more impressive: 75% of manufacturing exports, 60% of exports of goods and 42% of total export revenue of Mozambique.<sup>55</sup> Net trade gains of Mozal, estimated at about US\$ 400 million per year at full capacity and steady state, are very large if compared with the scale of the Mozambican economy. However, when profit repatriation, payments of investment services and transfers of wages of foreign workers are accounted for, Mozal's net balance of payment gains are reduced to US\$ 100 million per year. Of these, only about US\$ 45 million are actually retained by the Mozambican economy in the form of wages of Mozambican workers (US\$ 17 million), purchases in the domestic economy (net contribution of about US\$ 14 million), social programs (approximately US\$ 4 million) and fiscal linkages (expected to be about US\$ 10 million in 2004).<sup>56</sup>

Thus, Mozal is a huge and very efficient project, but its actual net contribution to the Mozambican economy as a whole, although still quite important, is not as impressive as it could be expected from such a mega project. This has led many analysts to consider that the main contribution of Mozal to the Mozambican economy is to be a showroom: to demonstrate that high profile and highly demanding and competitive mega projects can work efficiently and profitably in Mozambique and compete with the best in the world. Of course, the next question that comes to mind is why would someone wish to

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<sup>54</sup> Castel-Branco and Goldin 2003.

<sup>55</sup> Castel-Branco 2003 and Castel-Branco and Goldin 2003.

<sup>56</sup> Castel-Branco and Goldin 2003.

demonstrate that mega projects, from which the economy as a whole does not profit a huge deal, can work in Mozambique?

According to state officials, the Mozambican government became closely involved with the Mozal project after the investors demonstrated the potential developmental benefits from the expected demand-related linkages that Mozal could generate, as well as from employment creation and the opportunity to change the structure of the economy and improve the balance of trade.<sup>57</sup> The success of Mozal is expected to improve business confidence in the Mozambican economy and attract more FDI. The government also sees mega projects like Mozal as desirable because they accelerate the pace of industrialization and the development of the domestic private sector through linkages.

From previous discussions and data, it is obvious that expected linkages are not happening at a significant rate, and that high tech mega projects are not the way to address unemployment. The slow development of domestic business and productive capacities, including the pool of entrepreneurship and qualified workers, is one of the reasons why linkages are difficult to emerge. This suggests that mega projects are not perfect substitutes for strategies and policies that promote the development of domestic capabilities. Instead, these projects may be significantly more efficient if they are part of such strategies and policies with broader development goals in mind.<sup>58</sup> Fiscal linkages have been prevented from happening because of the package of incentives that Mozal enjoys.<sup>59</sup> Mozambican officials claim that for public finances to benefit from Mozal, the government needs to own shares in the project. However, the government, a very minor shareholder, has to pay back the foreign loan that was used to buy its shares, which attaches risks to public financial returns on a project like Mozal.

Amongst Mozambican officials, it is believed that survival pressures will force Mozambican firms to become efficient, and that these pressures are what Mozambican

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<sup>57</sup> Interviews with Luís Siteo, Manuel Mbeve and Sérgio Macamo (Ministry of Industry and Trade, MIC, in Portuguese), and António Macamo (CPI, linkages division).

<sup>58</sup> See, for example, Borensztein, Gregório and Lee 1995, Eayon and Kortum 1995, Hirschman 1981 and 1958, Lall 1997, 1992a and 1992b, Mello 1999 and Nelson and Pack 1999.

<sup>59</sup> See Helleiner 1989, Hirschman 1981 and Weiss 1980, for a more general discussion of this problem.

firms need in order to become efficient. “Intelligent partnerships”, meaning joint ventures with foreign firms with expertise in the area, are seen as the only available way to promote domestic firms because of two reasons: no other forms of investment are available on a systematic basis, and joint ventures are seen as the most adequate way for transfer of technology, skills and experience.

As discussed earlier, although linkages with the domestic economy tend to grow, even if not very fast, no significant investment in upgrading of industrial capabilities has taken place in the vast majority of cases. This is partly due to strong deficiencies related to business strategies, access to capital, understanding of industrial upgrading demands and other problems related to business and productive capacities. Moreover, most firms see Mozal as only a fraction of their market, and not one with long-term ties because of the nature of contracts and cycles of activity. Thus, no firm, domestic or foreign, is willing to commit significant effort, capacities and resources in substantial industrial upgrading only to compete for occasional contracts with Mozal. Most firms seek such contracts but improve only what is strictly necessary to win a contract, mainly for reputation and financial gains.

Thus, little real technology transfer has taken place because the contracts have been almost always short-lived.<sup>60</sup> If other mega projects or other dynamic development poles emerge, which have demands consistent and complementary with those of Mozal, potential supplier firms may become more committed to true industrial upgrading and development.

Mozal does not seem to be changing the structure of the economy. On the contrary, it is reinforcing the economy’s dependence upon a smaller bundle of primary products, only this time it is the transformation of alumina and electricity into aluminium that dominates manufacturing output and exports of goods, rather than sugar, tea, cotton or cashew nuts. Similarly, whereas the project’s net contribution to the balance of trade is significant (abstracting from who retains the real resources, as discussed earlier), the export structure

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<sup>60</sup> Castel-Branco and Goldin 2003.

of the economy is becoming more concentrated and narrow, and therefore more vulnerable to volatile booms and busts of primary commodity markets.<sup>61</sup>

Mozambican officials also argue that Mozal was established in Maputo because of Mozambique's comparative advantage in power supply (associated with the large Cahora Bassa dam on the Zambezi River, in Tete), cheap labour and the package of incentives. However, a closer examination shows that cheap labour (meaning low wage labour) was relevant for Mozal only during the construction phase. The vast majority of Mozambican workers in the plant are either skilled or semi-skilled, and company is reported to be recruiting skilled workers from many other firms because they can pay higher wages.<sup>62</sup> Mozal is capital-intensive and the wage bill is a small proportion of the company's cost structure.

Motraco, a joint venture of three electricity corporations, namely EDM (Mozambique), ESCOM (South Africa) and SEB (Swaziland), which supplies Mozal's energy requirements, is linked with the South African power grid. Therefore, while it is obvious that Mozal has strong links with the energy sector,<sup>63</sup> such links are with the South African energy sector, not the Mozambican. Thus, whether or not Mozambique has comparative advantages with respect to power supply is irrelevant for Mozal.<sup>64</sup>

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<sup>61</sup> See, for example, Edström and Singer 1992 for an analysis of the booms and slumps of primary commodity markets and their de-stabilising impact on the economy and business confidence. According to Castel-Branco and Goldin 2003, between 2000 and 2003 the world aluminium price fell by 15%.

<sup>62</sup> Interview with Manuel Mbeve (MIC), and Ian Reid and Peter Cowie (Mozal). See also "Metical", various issues in January and February 2001. Ian Reid and Peter Cowie also argued that one of the major constraints faced by Mozal and any other future mega project in Mozambique is the acute shortage of skilled and experienced workers. Reid and Cowie also emphasised that the current labour law does not help industrialisation because the domestic supply of skilled workers is very limited and the new law makes recruitment of foreign workers very difficult. They suggest that the government should concentrate on training large numbers of professionals of required quality and improving the quality of the education system. They argue that Mozal is not only recruiting skilled workers but also providing training and scholarships to increase the supply of skills.

<sup>63</sup> Motraco, built primarily to supply energy to Mozal, is proof of this link. The fact that Mozal consumes twice as much energy as the remaining of Mozambique, and that Motraco could be upgraded to supply the entire manufacturing sector in the South, is proof of the strong and increasing role of the South African energy sector in the Mozambican economy.

<sup>64</sup> Costs and unreliability of supply of electricity are the main infrastructure related problems faced by the manufacturing sector in Mozambique, as identified by Biggs, Nasir and Fisman 1999. Thus, even if Cahora Bassa is capable of producing large quantities of energy, the Mozambican economy is not capable of using

Mozal's officials argue that the project was located in Mozambique for three main reasons: energy, incentives and Mozambique's fast economic growth in recent years.<sup>65</sup> Their analysis of energy and incentive issues differs from that of Mozambican officials.

The link with energy is through Eskom's expansion strategy in the region. This corporation controls most of the energy generated in South Africa and also by Cahora Bassa, and is involved in new projects to expand energy production (Mepanda Uncua in Mozambique, and potential projects elsewhere in the Continent). Mozal was also conceived as part of the energy strategy because of its energy intensity, which radically improves the viability and profitability of private investment in the Mozambican energy sector and of integrating the energy grid of Mozambique with Eskom's. Thus, the motivation to establish Mozal in Mozambique, particularly in the South, can only be properly understood within this more general, strategic framework that combines the capabilities, interests and strategies of Eskom, BHP-Billiton, the South African financial system and minerals-energy complex.

In addition to the package of incentives received from the government of Mozambique, Mozal enjoys incentives provided by the South African government, more importantly in the form of cheap energy tariffs as part of export and globalization incentives. Given that energy is the single largest cost in aluminium production, energy subsidies may play a far more important role in Mozal's profitability than some of the other incentives that are provided by the Mozambican investment incentive legislation.

There are other factors that should be taken into consideration in this analysis. First, Mozambican officials said that Mozal was developed not from government initiatives but fundamentally because of the insistence of the investors, even before the revised and

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it. Therefore, arguing that Mozambique has comparative advantages in power supply requires a strong qualification: in relation to whom? Definitely, it is not relative to South Africa.

<sup>65</sup> Interviews with Ian Reid and Peter Cowie (Mozal).

more generous version of the FIZ legislation had been approved. Therefore, incentives at the level of FIZ status were not the fundamental issue in the decision to invest.<sup>66</sup>

Second, when Mozal was still developing as an idea, Kaiser, a USA-based multinational, was trying to convince the Mozambican government to build a large aluminium smelter in the outskirts of Maputo. Kaiser failed in large part because Mozal came along. According to Mozal's officials, Kaiser did not have the financial structure or the influence upon the world market to be able to succeed.<sup>67</sup> Mozal's aggressive business strategy seems to have been motivated also by the need to eliminate Kaiser as a competitor as part of a strategy to protect and expand the economic might of the South African MEC.

Third, Mozal's officials also claim that no mega project can succeed in Southern Africa without going through the South African financial system and operating together with some large South African corporation.<sup>68</sup> The argument is that South Africa has the capability and the experience of the region, and also the integration strategy that links the economies of the region. For example, in Mozal (1999) it is argued:

*Since the project will import a substantial proportion of its inputs from South Africa, it will stimulate regional trade between the two countries. This trade will also enhance the viability of the road and rail system that is being implemented as part of the Maputo corridor. (...) The new transmission line will contribute to regional integration and enhance the Southern Africa power pool. (...) (pp. 61-2).*

Fourth, Mozal creates important dynamic linkages with other South African firms that are the main suppliers of parts, equipment, services and assistance. Fifth, Mozal's location in

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<sup>66</sup> Interviews with António Macamo, Luís Siteo and Manuel Mbeve. This information is confirmed by Ian Reid and Peter Cowie (Mozal), who said that it was only after several visits by members and officials of the Mozambican government to Mozal's twin project in Richard's Bay, where they could see the linkage potential of a large aluminium smelter, that the Mozambican government finally decided to go ahead with Mozal.

<sup>67</sup> Interviews with Ian Reid and Peter Cowie.

<sup>68</sup> Ian Reid.

Mozambique also opens the access to the Indian Ocean directly through the Port of Maputo, where investors initially wanted Mozal to be built.<sup>69</sup>

Sixth, large South African corporations, associated or not with the MEC, are globalizing instead of integrating vertically and horizontally within the South African economy. Apart from the market power they acquire by expanding worldwide, globalization helps these corporations to become less sensitive to government policy and to increase the influence of their strategies upon public policy.<sup>70</sup>

Therefore, although the FIZ status helped Mozal to be established in Mozambique, it may have done so only in conjunction with the other factors. In other words, Mozal may have happened in Mozambique even if the incentive package made available by the Mozambican government was far less generous.

This analysis points to four fundamental issues. First, massive investment incentive packages increase the social costs of FDI, reduce its social benefit, and are often superfluous. Second, incentives should not be used without thorough consideration of the corporate strategies and motivations behind investment decisions because it may almost always be possible to minimise the social costs of incentives and increase the social benefits of the project. For example, Mozambique could have used the competition between Mozal and Kaiser, or the strategic locational advantages of Mozambique, to reduce the magnitude of tax exemptions awarded to Mozal.<sup>71</sup> Third, the analysis of investment projects should only incorporate externalities (indirect employment, linkages, etc.) if the costs and possibilities of making such externalities happen are thoroughly estimated and evaluated; otherwise, projects may be approved on the basis of benefits that will not occur. Fourth, no matter how much FDI flows into the Mozambican economy,<sup>72</sup> there is no substitute for strategies and policies that effectively create

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<sup>69</sup> Manuel Mbeve.

<sup>70</sup> See Fine 1997b, Fine and Rustomjee 1996 and Roberts 2000.

<sup>71</sup> See, for example, Chang 1998 for a more general discussion of the bargaining process between LDCs and multinational firms, and Blomström, Kokko and Zejan 2000, and Weiss 1998 for a more general analysis of the relationships between the state and multinational firms.

<sup>72</sup> Large inflows of FDI, such as the case of Mozal, are likely to be highly concentrated in a few areas because of corporate strategies and Mozambique's limited capabilities. This does not offer very good

domestic business and productive capabilities, including entrepreneurial capacities and a qualified and motivated working force. These strategies cannot be general and abstract, and should take into account the various forces that influence the development of the Mozambican economy, including the processes of restructuring and expansion of South African capitalism.

## 5.2. *Natural Gas*<sup>73</sup>

Sasol's Pande-Temane (Inhambane) natural gas project consists of a small refinery that extracts natural gas, purifies it and pumps it through a pipeline that is almost 900 kilometres long, crosses three Provinces in Mozambique (Inhambane, Gaza and Maputo), and takes the gas to Sasol's plants in South Africa, where it will be transformed into liquid fuels. Sasol (70% of the shares) and IDC are the main partners of this project. The project falls within Sasol's strategy of diversification away from coal, of controlling regional energy reserves and of sharing, in a monopolistic manner, the world market for gas-to-liquid fuels. Thus, in the early 2000s, Sasol signed an agreement with Chevron (USA) to form a worldwide gas-to-liquid fuels joint venture, and Mozambique's natural gas reserves are part of such a project.

The cost of the project is estimated at US\$ 1.5 billion. The project will employ less than 200 workers during operation. Gas will start to be pumped to South Africa in 2004. When the operation starts, exports of Mozambique to South Africa are expected to increase very sharply, such that Mozambique's trade deficit vis-à-vis South Africa will be much reduced. However, the real balance of payments impact of the project will depend on the same factors as described for Mozal: net current and capital account effects, as well as the

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prospects for vertical integration and diversification of the Mozambican economy. Furthermore, FDI inflows into the economy are unstable and the current boom seems to be running out of steam (UNCTAD 2000a and 20001). The current capabilities of the Mozambican economy – infrastructures, skills, entrepreneurial, institutional and financial – would easily be exhausted by a couple of projects of the scale of Mozal. Therefore, it should not be taken for granted that Mozambique will continue to receive massive inflows of FDI and that it has the capacity to absorb more mega projects.

<sup>73</sup> Section based on interviews with CPI and the mega project advisory group, and on media articles.

actual retention of resources by the Mozambican economy which, in turn, depends on wages, taxes, domestic purchases, social programmes and so on.

It is too early to attempt any quantitative projections of the economic impact of the natural gas project, but such an impact is expected to have the same profile as Mozal's. GDP and industrial output will jump to a higher level, or platform, of activity from which further growth will depend on the growth dynamics elsewhere in the economy. Exports will also jump to a higher platform, but actual balance of payments gains (including actual resource retention by the host economy) will be significantly less impressive than export growth. An added twist to export dynamics: two primary, energy and mineral based products, aluminium and natural gas, will account to about two thirds of total export revenue of the country, increasing export concentration to dangerous levels of vulnerability to shocks related to commodity market volatility. If industrial domestic linkages are not created and other development poles do not emerge, production and export concentration will tend to constrain productive capacities to a narrow range of basic operations, sectors and technologies.

Downstream linkages from natural gas, associated with the development of energy intensive industries, like the dormant Maputo Iron and Steel Project (MISP), are still only a theoretical hypothesis (similar to the probability of developing downstream industries that may utilise Mozal's aluminium as an input). If such energy-intensive, downstream linkages develop while the remaining industrial sectors do not, then the Mozambican system of accumulation, reflected through the agencies, linkages and productive and export basis, will become fundamentally dominated by the core MEC.

Thus, strategically it is at least as important to diversify the social, sectoral and regional sources of economic growth and dynamics, as it is to maximise the linkage potential generated by the existing dynamics of the MEC in Mozambique.<sup>74</sup>

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<sup>74</sup> Castel-Branco 2004, 2003 and 2002a; Castel-Branco and Goldin 2003.

There is, however, another dimension of the natural gas project that is very important looking at: the implications of fierce oligopolistic competition for strategies, costs and benefits for the economy.

The monopoly of the Pande-Temane natural gas reserves were allocated to Enron (USA) by the Mozambican government in the mid-1990s, as a condition of the continuation of USA government food aid programme to Mozambique. Enron expected to export the gas to South Africa, but negotiations with Sasol and the South African government did not make any progress for years. Then, Enron conceptualised the development of the iron and steel project (MISP) to diversify the market for natural gas by increasing domestic demand, and a consortium with IDC and a Swedish corporation was created for this purpose.

After the general outline of the MISP was approved by the Mozambican government, IDC withdrew from the project and, as far as available information is concerned, no convincing formal explanation was ever given for that move. The closest to an explanation that IDC gave was to argue that it was its corporate strategy to move away from capital-intensive projects. However, this explanation is not consistent with IDC's further investment in the expansion of Mozal, two years later, and with IDC partnership with Sasol in the natural gas project. IDC's position might have been influenced by the desire to block Enron's way and get Sasol's goals through; or it might have been motivated by the monopoly power of another South African large corporation, Iscor (steel), which might have been not interested in the opening of a mega steel and iron project in the region outside its control. Whatever the official reason might be for IDC's decision concerning MISP, the consortium broke up soon after and Enron was left alone to try, and fail, to mobilise finance for a US\$ 1.2 billion project that had been abandoned by two of the three main partners.

Enron's position became unsustainable. They had the monopoly of the gas reserves but no market for it. Then, it was a matter of time for Sasol to launch the final offensive to acquire from Enron the monopoly rights of the gas reserves. Sasol had an agreement signed with Chevron for a worldwide joint venture on gas-to-liquid fuels, and claimed to

have found enough gas reserves in Sofala to build a petrochemical refinery without Enron's involvement. Further, it is claimed by some Mozambican experts that at the time worked for Enron that Mozambican government institutions and public utility enterprises blocked any attempt by Enron to develop the gas and the iron and steel projects. Whether this claim is true or not, Enron had no sustainable negotiation position. At the end they left and Sasol acquired the monopoly over the natural gas project.

Thus, Enron, the original bully, was thrown out by a bigger and more capable player. The alliance between the South African and the Mozambican government in pursuing and helping Sasol's cause was stronger than the USA threat of cutting food aid. Also, at the end of the process, Mozambique was not as dependent on food aid for food security and public revenue as it was in 1994-1995, and the troubles that later led to the bankruptcy of Enron, and to criminal charges against its top managers, had already started to shake this corporation that was once one of the largest energy companies in the world.

The oligopolistic war delayed the starting of the gas project by more than eight years, and prevented the iron and steel project from starting. (One could even ask if MISP could ever be developed without the "approval" and involvement of Iscor, and what the market for MISP's output could be). The final outcome was simply that one monopolist was replaced by another, and the new one forms part of the regional and global dynamics and strategies of expansion of the South African core MEC.

What was the role of the Mozambican government in this process? Did the government formulate a strategy to maximise social and economic benefits for Mozambique by negotiating on the basis of the war between Sasol and Enron, and of the strategic interest that Sasol has on the project? There is no definite evidence for a "yes" or "no" answer to these questions.

However, the case of the natural gas project shows four important points. First, the development of large projects tends to be determined by corporate strategy rather than by the simple availability of resources. As the Sasol chief executive said when the monopoly rights agreement was signed with the Mozambican government, Sasol had waited three decades for the right time to make the (predatory) move, and the agreement was the

accomplishment of right corporate and business strategy. Second, strategy gives competitive advantages to corporations but also reveals their strategic interests that could be used by governments to bargaining for better social and economic deals. Governments need to understand the strategies and moves of the corporations, and need to have a strategy on their own.

Third, the South African government actively pursues regional and globalization strategies and helps the construction of market dominance by large South African corporations: IDC, for example, has been a key player in the natural gas project (and also in Mozal), not only by providing finance but also by participating in oligopolistic wars. And the Mozambican government, what strategies does it exactly pursue? Or does it believe that the market forces at play in the region are correctly described by any orthodox textbook about the economics of perfect competition?

Fourth, whether one likes it or not, the fact is that the processes and systems of accumulation, investment and business development in the region are closely related with some key dynamics. Hence, public and corporate strategies alike have to incorporate the regional and international dimension of economic and business development, or be irrelevant. Taking again the example of the MISP, does it really make any sense to develop such a large project with the main purpose of diversifying the market for natural gas? What is the knowledge that the government, investment promotion institutions and businesses in Mozambique have about the dynamics of the iron and steel industry in the region [demand, supply, technology, competitiveness, finance, adjustment strategies (expansion, contraction, upgrading...), incentive mechanisms in place, agents involved and the linkages developed, etc.]? Industrial strategies and policies cannot only be based upon linkages that are technologically possible. They have to be focused on the actual social and economic linkages and agents, and on the way they relate to each other to form capacities, pressures and interests that determine which strategies are adopted and implemented and what their outcome is likely to be.

## 6. Macroeconomic-Production/Investment-Trade Nexus and the Patterns of Investment and Trade with South Africa

Macroeconomic, productive and trade conditions in Mozambique are closely and dynamically related. On the one hand, productive and trade dynamics affect macroeconomic balances: employment, fiscal deficit, balance of trade and balance of payments deficits, savings, investment and growth. On the other hand, macroeconomic limits also constraint growth and investment dynamics. Finally, macroeconomic policy, aimed at providing monetary balances through monetarist approaches, contributes to shaping the patterns of investment and growth, and may not help to address the productive and trade dynamics that may affect the imbalances that monetary policies are trying to address.

Thus, any approach to developing business and productive capacities has to take into account the dynamic relationship between macroeconomic, productive and trade conditions, including macroeconomic policy. To do so, it should start by looking at the impact of current patterns of growth, trade and investment on macroeconomic conditions, and how macroeconomic policies affect macroeconomic, productive and trade dynamics.

The macroeconomic-production/investment-trade *nexus* in Mozambique involves three main characteristics. First, the productive base of the economy is heavily import-dependent, such that imports of investment goods are highly and proportionally sensitive to investment. Second, the export basis is highly concentrated and narrow, established around primary products and up to 2001 was not elastic with respect to investment. Thus, investment and economic expansion have always been associated with chronic and increasing trade balance deficits. This is, every time the economy expands, the trade balance deficit increases to the point of crisis.

Third, investment is highly dependent upon inflows of foreign capital. Thus, when investment and the economy expand, the capital balance becomes highly positive. In the short run, the capital balance surplus may offset some of the trade deficit generated by economic expansion. In the long run, if foreign inflows of capital are not continuous, capital repatriation and interest (and other investment services) payments will contribute

to exacerbate the overall balance of payments deficit. That is, the trade deficit is chronic, while the capital balance surplus is short to medium term. Thus, the lasting effect of fast growth, given the current patterns of investment, production and trade, is balance of payments imbalances.<sup>75</sup>

This general trend has been slightly modified recently because exports have become more elastic with respect to investment. This is only due to the export impact of Mozal (aluminium), and the forthcoming export impact of Sasol (natural gas). As mentioned earlier, the other sectors have had a very small impact on increase of exports.

Mozal's net trade gains in 2004 are expected to be around US\$ 350 million, which will reduce Mozambique's trade deficit by more than one third. Between 1998 (when construction started) and 2003, Mozal's net trade gains were either negative or close to zero due to high import intensity of construction and production and a larger and longer than expected fall in the world price of aluminium. As production and exports approach steady state at full capacity, and world prices recover and stabilize, net trade gains tend to become highly positive.<sup>76</sup>

As mentioned in early sections, the impact on trade is not the only way that Mozal affects the balance of payments: the overall impact has to include the current and the capital accounts. One such factors are considered, Mozal's net contribution of uncommitted resources to the economy may be around US\$ 45 million per year at full capacity.<sup>77</sup>

Additionally, there is the problem of export concentration: a 10% variation of world aluminium price will immediately change export revenue by more than US\$ 80 million, which is more than the overall exports of the manufacturing sector (excluding Mozal). At the same time, the trade deficit will change by about US\$ 40 million. Between 2000 and 2002, the world aluminium price fell by 15%, such that only in 2004 is Mozal expecting

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<sup>75</sup> Castel-Branco 2003, 2002a and 2002b.

<sup>76</sup> Castel-Branco and Goldin 2003.

<sup>77</sup> Ibid.

positive net trade gains. If BHP-Billiton adjusts output to a longer than expected fall in aluminium prices, export revenue loss will be even larger.<sup>78</sup>

Thus, leaving the solution of the macroeconomic-production/investment-trade *nexus* to mega projects seems to be not only unwise but dangerous. First of all, multiplier effects of such MEC projects are limited, unless they continue to expand individually (which is unlikely). Second, the import substitution effect of such projects is also very limited. For example, Mozal could reduce production-related imports by one sixth at best, provided that the Mozambican economy can supply everything that is not electricity and alumina (which is unlikely to happen during the lifetime of Mozal's project). Third, the overall balance of payments, wage and fiscal linkages emerging from such projects are very limited: a cereal milling or beverage firm producing a small fraction of Mozal's output pays far more taxes than Mozal.<sup>79</sup> Fourth, the economy becomes more volatile as exports become more narrowly based. In periods of boom, the economy tends to suffer from "Dutch disease", such that the exchange rate and the non-MEC productive basis become uncompetitive, domestic prices may go up and external trade trends may actually become more chronically imbalanced. In periods of crisis, the economy may lose at least the equivalent to the exports of the entire manufacturing sector (MEC projects excluded). Fifth, policy and institutions will tend to develop around the dominant interests of the MEC and oligoplistic expansion, thus failing to systematically address the issues related to broadening the basis for growth, investment, trade and development.<sup>80</sup> Not

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<sup>78</sup> Ibid.

<sup>79</sup> It can be argued that mega projects usually implement larger social projects than other firms. Together, Mozal and SASOL, for example, spend a total of about US\$ 10 million per year in social programs. However, this is less than half of what a 1% increase in turnover taxes of these projects would contribute to the state budget (these projects benefit from the largest tax holidays available in Mozambique due to their status as free industrial zones). Additionally, these mega projects' social programs tend to be focused on infrastructure building: schools, health centres, roads, housing complexes, and so on. The management and operation of such infrastructures is, however, assumed by the government and translated into pressures upon current expenditure. Thus, capital expenditure in social programs by individual projects may well crowd out the ability of the state to sustain such programs or to develop other social programs. Therefore, social programs would be better served if such projects pay more taxes.

<sup>80</sup> Castel-Branco 2002a and Castel-Branco and Goldin 2003.

surprisingly, one top manager of Mozal argued that it is much easier to invest US\$ one billion than US\$ one million in Mozambique.<sup>81</sup>

In the short run, mega projects can increase the elasticity of exports with respect to investment and have a huge impact on net trade gains, provided that prices are stable and productive and pecuniary linkages are developed with the rest of the economy. However, a strategy that is solely focused on mega projects to promote equilibrium, stability and dynamic economic linkages is bound to fail if the issues related to promoting a broad basis for development are not seriously addressed.

At the same time, since 1987 the government has been trying to address serious macroeconomic imbalances through monetarist policies aimed at controlling aggregate demand and money supply. If external aid is excluded from the picture, progress with respect to macroeconomic stability has been minimal over the last 17 years. Although fast GDP growth has resumed, employment is continuing to fall, skills have been lost and entire industries have disappear, fiscal revenue has not kept pace with economic growth, and trade and balance of payments deficits are, and tend to continue to be, strong, unsustainable and rooted in the patterns of economic, business and productive capacity development.<sup>82</sup>

Monetarist policies have a strong impact on real economic variables (investment, savings, growth, employment): they affect the level, type and allocation of resources available; the behaviour of economic agents, including of the financial institutions, employers and employees; the ability to mobilize and deploy new resources and capacities; the dynamics that are more influential upon economic growth, investment, trade and development. Such policies have not coped well with monetary variables: except for inflation, that has been below 20%, but unstable, for 8 years, no other monetary variable improved significantly. Aid flows are going to start declining and mega projects will not replace the (apparent) “stabilizing effect” of aid flows. Thus, the time may have arrived when the

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<sup>81</sup> Castel-Branco and Goldin 2003.

<sup>82</sup> INE (various issues of the statistics yearbook); Banco de Moçambique (various annual reports); Castel-Branco 2003, 2002a and 2002b, and 1994.

costs and benefits of pursuing monetarist policies to stabilize macroeconomic conditions should be seriously and rigorously reassessed. Most importantly, data clearly shows that there is a clear macroeconomic-production/investment-trade *nexus* that is far more important in determining macroeconomic balances and long term development prospects than pure monetary variables as they are perceived by monetarist policies.

Thus, unless the macroeconomic-production/investment-trade *nexus* is specifically addressed by development strategies (for example, through promotion of economic linkages and exports on a broader social, sectoral and regional basis), stabilization programs will continue to be ineffective and growth dynamics will continue to be unstable and short lived. South African investment and trade dynamics in Mozambique are not helping to address this issue.

## 7. Conclusions

One question that may arise from the earlier discussion is whether South African FDI in Mozambique is “good” or “bad” for development. As a starting point for analysis, this question is too simplistic and inadequate. On the one hand, this question involves normative definitions of development and of what is good and bad for each different development paths. On the other hand, it is a normative question, rather than one that is trying to describe and understand the patterns of development that are actually taking place. Finally, the question abstract from the fact that different circumstances and interest may determine very different qualitative assessments of similar patterns of growth, investment and trade.

One way of developing a better research question is to seek to understand the patterns of development that are taking place, the types of productive capacities and social conditions that are being created, and the real possibilities for change that are available or that can be created at affordable social and economic costs. In attempting to do so, it will be important to understand how agents and economic linkages interact at national and

regional levels to form part of, and influence, the emergence of such patterns of development.

From the analysis made in the earlier sections, it seems that current patterns of development in Mozambique are too narrow and unstable, and are becoming narrower as a result of interests and pressures associated with agents and linkages that form part of a system of accumulation based upon the MEC and oligopolistic strategies, competition, cooperation and globalization. It seems to be obvious that broadening the social, sectoral and regional basis of growth and development is of crucial importance. Furthermore, it is also necessary to increase, diversify and upgrade production, services and export bases, and strengthen domestic and regional backward and forward linkages. Moreover, the analysis shows the relevance of learning how to define and choose priorities and how to articulate capacities, resources and institutions to pursue such priorities. Another core point that emerges from the analysis is the need to take advantage of the dynamics of large corporation expansion to develop linkages that may actually help to diversify the economy. Finally, the other challenge is how to link such developments with poverty reduction and improving of the general working and social conditions for the vast majority of the population.

The big question that has to be asked, however, is where is the energy and capacity for change going to come from? If the dominant strategy is determined by the core MEC, if the MEC is capable of mobilising resources to pursue its strategies and goals, if the strategies pursued do not address all, or any, of the above questions, how can change take place? Thus, the analysis has to very quickly evolve towards a better understanding of the relationship between the state and other social forces, within Mozambique, South Africa and the Southern African region, which may support change with a regional dimension. There is no point in attempting to protect national boundaries against MEC and oligopolistically-based economic integration. Change towards broader, more progressive and socially more equitable development dynamics require a regional and international perspective, whose development demands a better understanding of the political economy of economic accumulation and integration in Southern Africa.

## **References**

- Addison, T. (ed.) (forthcoming) *Underdevelopment, Transition and Reconstruction in Sub-Saharan Africa*. UNU/WIDER: Helsinki.
- Adhikari, R., C. Kirkpatrick and J. Weiss (eds.). 1992. *Industrial and Trade Policy Reform in Developing Countries*. Manchester University Press: Manchester and New York.
- Bairoch, P. and R. Kozul-Wright. 1998. Globalisation myths: some historical reflections on integration, industrialization and growth in the world economy. in Kozul-Wright, R. and R. Rowthorn (eds.) 1998.
- Banco de Moçambique. various. Economic Statistics (página da internet: <http://www.bancomoc.mz>).
- Banco de Moçambique. Relatório Anual (de 1995 a 2003). Banco de Moçambique: Maputo.
- Biggs, T., J. Nasir and R. Fisman. 1999. Structure and Performance of Manufacturing in Mozambique. Regional Program and Enterprise Development (RPED). World Bank: Washington.
- Bird, G. 1999. How important is sound domestic macroeconomics in attracting capital inflows to developing countries? *Journal of International Development* 11, pp. 1-26.
- Brum, J. 1976. *Manufacturing industries in Mozambique, some aspects*. University Eduardo Mondlane/Faculty of Economics (mimeo): Maputo.
- Borensztein, E., J Gregório and J.-W. Lee. 1995. How does foreign direct investment affect economic growth? National Bureau of Economic Research (NBER) Working Paper 5057.
- Blomström, M., A. Kokko and M. Zejan. 2000. *Foreign Direct Investment – Firms and Host Country Strategies*. MacMillan: London and New York.
- Castel-Branco, CN. 2004. Business and productive capacity development in economic growth and industrialization. DANIDA Background Paper. Maputo.
- Castel-Branco, CN. 2003. Indústria e industrialização em Moçambique: análise da situação actual e linhas estratégicas de desenvolvimento. I Quaderni della Cooperazione Italiana 3/2003 (also published in electronic versions, available from <http://www.sarpn.za.org> and <http://www.italcoopmoz.org>).
- Castel-Branco, CN. 2002a. An investigation into the political economy of industrial policy: the Mozambican case. Tese de Doutoramento não publicada. Departamento de Economia do SOAS (Univ. de Londres): Londres.
- Castel-Branco, CN. 2002b. Economic linkages between South Africa and Mozambique. Discussion paper published by the SARPN web site (<http://www.sarpn.za.org>).
- Castel-Branco, C. 2001. South African foreign direct investment and the Mozambican economy. Seminar notes (unpublished). Southern Africa Society of the University of Cambridge: Cambridge.
- Castel-Branco, C.N. 1994a. “Problemas estruturais do desenvolvimento agrário”. in Castel-Branco, C.N. (ed.) 1994.

- Castel-Branco, CN (ed.). 1994. *Moçambique: Perspectivas Económicas*. Univ. Eduardo Mondlane & Fundação Friedrich Ebert: Maputo.
- Castel-Branco, CN and C. Cramer. 2003. Privatisation and economic strategy in Mozambique. in Addison, T. (ed.). 2003. *From Conflict to Recovery in Africa*. Oxford University Press: Oxford.
- Castel-Branco, CN and N. Goldin. 2003. Impacts of the Mozal aluminium smelter on the Mozambican economy. Final Report presented to Mozal.
- Centro de Estudos Africanos (CEA). 1979a. Os mineiros Moçambicanos na África do Sul. CEA (Univ. Eduardo Mondlane): Maputo.
- CEA. 1979b. O desemprego e a sua ligação com o campo. CEA/UEM: Maputo.
- CEA. 1978. Relatório sobre o desemprego em Maputo. CEA/UEM; Maputo;
- Chan, S. (ed.). 1996. *Foreign Direct Investment in a Changing Global Political Economy*. MacMillan: London.
- Chang, H-J. 1999. Industrial policy and East Asia – the miracle, the crisis and the future. Paper presented at the World Bank Conference “Re-thinking the East Asian Miracle”, San Francisco, 16-17 February.
- Chang, H-J. 1998a. Korea: the misunderstood crisis. *World Development* 26(8), pp. 1555-61.
- Chang, H-J. 1998b. Globalisation, transnational corporations and economic development – can developing countries pursue strategic industrial policy in a globalizing world economy? in Kozul-Wright, R. and R. Rowthorn (eds.) 1998.
- Chang, H-J. 1996. *The Political Economy of Industrial Policy*. MacMillan: London and New York.
- Chang, H-J, and R. Rowthorn (eds.). 1995. *The Role of the State in Economic Development*. Clarendon Press: Oxford.
- Chen, J-R. (ed.). 2000. *Foreign Direct Investment*. MacMillan: London and New York.
- CPI (Centro de Promoção de Investimento). Investment data bases (various years). Maputo.
- CPI. 1999. Linkage division – report on 6 months pilot programme. Maputo.
- CPI. 1998. Proposal to develop a linkage programme in Mozambique. Maputo.
- Daniel, J., V. Naidoo and S. Naidu. 2003. The South Africans have arrived: post-apartheid expansion into Africa. In Daniel, J. A. Habib and R. Southall (eds). *State of the Nation: South Africa 2003-2004*. Human Sciences Research Council: Cape Town
- Eaton, J. and S. Kortum. 1995. Engines of growth: domestic and foreign sources of innovation. IED Discussion Paper Series no. 63 (Boston University).
- Edström, J. and W. Singer. 1992. The influence of trends in barter terms of trade and their volatility on GNP growth. IDS Discussion Paper 312 (Institute of Development Studies: Sussex).
- Fine, B. 1997a. Privatization and the restructuring of state assets in South Africa: a strategic view. National Institute for Economic Policy (NIEP) Occasional Paper 7 (March): Johannesburg.
- Fine, B. 1997b. Industrial policy in South Africa: a strategic view. NIEP Occasional Paper 5 (April): Johannesburg;
- Fine, B. and Z. Rustomjee. 1996. *The Political Economy of South Africa: from Minerals-Energy Complex to Industrialization*. Westview Press: London.

- First, R. 1983. *Black Gold*. Harvester Press: London.
- Games, D. 2003. The experience of South African firms doing business in Africa. South African Institute of International Affairs Report no. 37. Pretoria.
- Government of Mozambique (GOM). (various years). *Plano Económico e Social*. Maputo.
- GOM. (various years). *Lei do Orçamento Geral do Estado*. Maputo.
- GOM. (various years). *Balanço do Plano Económico e Social e do Orçamento Geral do Estado*.
- GOM. 2002a. *Legislação sobre investimentos em Moçambique*. CPI (Centro de Promoção de Investimento): Maputo.
- GOM. 2002b. *Plano de acção para a redução da pobreza absoluta (2001-2005)*. MPF (Ministério do Plano e Finanças): Maputo.
- GOM. 1999. *Regulamento das zonas francas industriais*. Decreto 62/99 do Conselho de Ministros (21 de Setembro).
- GOM. 1997a. *Política e estratégia industrial*. Resolução do Conselho de Ministros 23/97, de 19 de Agosto. Maputo.
- GOM. 1997b. *Expenditure management reform strategy*. MPF (Ministry of Planning and Finance): Maputo.
- GOM. 1997c. *Moçambique: Série histórica do investimento público 1986-96*. Ministério do Plano e Finanças (MPF): Maputo.
- Haarlov, J. 1997. *Regional cooperation and Integration within Industry and Trade in Southern Africa*. Ashgate: Aldershot, Brookfield, Singapore and Sydney.
- Harris, L. 1997. *Economic objectives and macroeconomic constraints*. in Michie, J. and V. Padayachee (eds.) 1997.
- Hejazi, W, and A. Safarian. 1999. *Trade, foreign direct investment and R&D spillovers*. *Journal of International Business Studies* 30(3) (third quarter), pp. 491-511.
- Helleiner, G.K. 1989. *Transnational corporations and direct foreign investment*. in Chenery, H. and T.N. Srinivasan (eds.) 1989.
- Hirschman, A. 1981. *Essays in Trespassing: Economics to Politics and Beyond*. Cambridge University Press: Cambridge.
- Hirschman, A. 1958. *The Strategy of Economic Development*. Yale University Press: New Haven and London.
- INE (National Statistics Institute). (various issues) *Statistics Yearbook*. INE (website: <http://www.ine.gov.mz>).
- Kozul-Wright, R. and R. Rowthorn (eds.) 1998. *Transnational Corporations and the Global Economy*. MacMillan (in association with the UNU/WIDER): London and New York.
- KPMG. 2001. *Ranking das 100 Maiores Empresas*. Maputo.
- KPMG. 1999. *Mozambique banking sector survey*. Maputo.
- Lall, S. 1997. *Attracting foreign investment: new trends, sources and policies*. Commonwealth Secretariat Economic Paper 31.
- Lall, S. 1992a. *Technological capabilities and industrialisation*. *World Development* 20(2), pp. 165-86.
- Lall, S. 1992b. *Structural problems of African industrialization*. in Stewart, F., S. Lall and S. Wangwe (eds.). 1992.

- Lall, S. and G. Wignaraja. 1996. Skills and capabilities: Ghana's industrial competitiveness. Centro Studi Luca D'Agliano. Working Paper 92 (QEH, Oxford University).
- Lawrence, P. (ed.) 1986. World Recession and the Food Crisis in Africa. James Currey: London.
- Leahy, D. and C. Momtagna. 2000. Unionisation and foreign direct investment: challenging conventional wisdom? *The Economic Journal* 110 (March), pp. c81-c92.
- Lutchman, J. and S. Naidu. 2004. South Africa's economic presence in Africa. (Paper presented at the Conference on "Stability, poverty reduction and South African trade and investment in Southern Africa". Pretoria 29-30 March 2004).
- Mozal. 1999. Macroeconomic impacts. Chapter 12 of Mozal's Feasibility Study.
- Mayer, J. 1996. Implications of new trade and endogenous growth theories for diversification policies of commodity-dependent countries. UNCTAD Discussion Paper 122 (December).
- Mello Jr, L. 1999. Foreign direct investment led growth: evidence from time series and panel data. *Oxford Economics Papers* 51, pp. 133-51.
- Michie, J., and V. Padayachee (eds.). 1997. *The Political Economy of South Africa's Transition: Policy Perspectives in the Late 1990s*. The Dryden Press: London.
- Neary, J. and D. Leahy. 2000. Strategic trade and industrial policy towards dynamic oligopolies. *The Economic Journal* 110 (April), pp. 484-508.
- Nelson, R. and H. Pack. 1999. The Asian miracle and modern growth theory. *The Economic Journal* 109 (July), pp. 416-36.
- Nixon, F. 1986. The crisis of industrial accumulation in Africa. in Lawrence, P. (ed.) 1986.
- Ocampo, J. and L. Taylor. 1998. Trade liberalization in developing countries: modest benefits but problems with productivity growth, macro prices and income distribution. *The Economic Journal* 108 (September), pp. 1523-46.
- O'Laughlin, B. 1981. A questão agrária em Moçambique. *Estudos Moçambicanos* 3, pp. 9-32 (CEA-UEM): Maputo.
- Pereira Leite, J. 1989. La formation de l'économie coloniale au Mozambique – pacte coloniale et industrialisation: du colonialisme portugais aux réseaux informels du sujétion marchande 1930/1974. Unpublished PhD Thesis – Volumes I and II (École des Hautes Études en Sciences Sociales: Paris).
- Roberts, S. 2000. The Internationalisation of production, government policy and industrial development in South Africa. Unpublished PhD Thesis. Birkbeck College (University of London): London.
- Rumney, R. 2004. South Africa's trade and investment in SADC (Paper presented at the Conference on "Stability, poverty reduction and South African trade and investment in Southern Africa". Pretoria 29-30 March 2004).
- Schoeman, M. 2003. South Africa as an emerging middle power: 1994-2003. In Daniel, J. A. Habib and R. Southall (eds). *State of the Nation: South Africa 2003-2004*. Human Sciences Research Council: Cape Town.
- Wield, D. 1977a. Some characteristics of the Mozambican economy particularly relating to industrialization. Centro de Estudos Africanos, CEA. (Mimeo). Univ. Eduardo Mondlane (UEM): Maputo.

- Wield, D. 1977b. The structure and balance of industrial production and its relationship with other sectors and with the growth of a working class. Centro de Estudos Africanos, CEA. (Mimeo). Univ. Eduardo Mondlane (UEM): Maputo.
- Wuyts, M. 1989. Money and Planning for Socialist Transition: The Mozambican Experience. Gower: Aldershot.
- Wuyts, M. 1984. A statistical note on trends of economic development in Mozambique. (mimeo) Institute of Social Studies: The Hague.
- Wuyts, M. 1981. Camponeses e economia rural em Moçambique. Relatório 81/8 (Centro de Estudos Africanos, CEA). Univ. Eduardo Mondlane (UEM): Maputo.
- Wuyts, M. 1980. Economia política do colonialismo Português em Moçambique. Estudos Moçambicanos 1, pp. 9-22 (CEA-UEM): Maputo.