

Pilot Investment Climate Assessment



Mozambique Industrial Performance and Investment Climate 2003

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For Mozambique to achieve its ambitious poverty reduction goals, it must maintain an annual growth rate of 8 percent over the next seven years. While this is within the range of recent performance, sustaining such high growth in the face of declining aid flows is an enormous challenge. It is not enough to rely on capital-intensive mega projects. Alleviating poverty requires a high level of broad-based private sector investments, which has been constrained by the weak investment climate. To this end, the Confederation of Business Associations of Mozambique (CTA) and the World Bank's Regional Program in Economic Development (RPED) updated their 1998 survey of manufacturing firms to assess progress and identify remaining constraints to private sector growth.

Key Constraints to Investment and Productivity

From an analysis of 193 firms surveyed in 2002, issues related to inadequate finance emerged as very severe constraints to doing business in Mozambique.

Lack of access to and the high cost of finance were cited by 78 percent of the sample as large or severe. The second most often cited category was the **uncertain policy environment and regulatory/administrative barriers** overseen by the government. The overall policy environment (including matters such as taxes and corruption) ranked more troublesome than the costs imposed by regulatory and administrative procedures (such as business licenses, labor regulations, access to land). However, difficulties with government policy and regulation were perceived as more significant than **inadequate infrastructure**. Given the underdeveloped state of Mozambique's infrastructure, this amply illustrates the importance of government actions.

Finance. The lack of affordable finance continues to be one of the fundamental business

problems in Mozambique. Over 84 percent of the survey sample reported that the cost of finance was a major problem, and it was the most-often-cited problem overall. Very few firms are using external credit. In the sample enterprises relied on their own funds for 90 percent of working capital requirements and almost two-thirds of their investment needs.

Only 12 percent of respondents had bank overdrafts, while 29 percent reported having bank loans. Almost all respondents declared that collateral was a requirement for their most recent overdraft or bank loan. The amount required as collateral was quite high, averaging almost 140 percent of the credit amount.

Most firms that did not have bank loans had never applied for one. The most important reason given for this was high interest rates. The nominal interest rate for bank credit reported by the sample firms is quite high, averaging just over 28 percent. Given the inflation rates, real interest rates are around 13–18 percent, high by international standards.

Policy Uncertainty & Government Regulation

Corruption. It is widely believed that firms have to make informal payments to public officials “to get things done,” and corruption was perceived as a large or severe problem by 64 percent of the sample. Firms that admitted that payments were needed, claimed that the annual median amount for a typical firm like theirs was 5 percent of annual sales.

Legal System. The courts and legal system in Mozambique are notoriously unreliable, which significantly increases the risk and uncertainty of doing business. In the World Bank's Doing Business data base, Mozambique ranks 79 out of 84 countries on how long it takes to resolve a business dispute; from the time a suit is filed until a judgment is enforced.

Taxes administration and rates. Tax administration and tax rates were heavily criticized. Some 47 percent of the sample said that tax administration is either a major or very severe obstacle to doing business, and 55 percent said the same for tax rates. In addition, managers reported that they believe the average firm only reports 67 percent of its profit. Delays in VAT and other refunds owed to the private sector are also a serious problem. In the sample, over 24 firms reported being owed government refunds and the average amount was more than 13 percent of their annual sales. Those companies that received refunds reported having to pay large bribes and that it took them an average of 99 days to receive their refunds (the median time was 30 days).

Regulatory and Administrative Barriers

Registering Businesses. One widely recognized indicator used to measure the bureaucratic burden of a given investment climate is the time and money required to start a business. Based on interviews with local consulting firms, experienced consultants are able to register a new firm anywhere from three and a half to five months, depending on the nature of the business, how politically connected a firm is, and how much a firm is willing to pay. Results from the survey support this claim. For the few firms that could accurately recall how long it took, the median time to register was 138 days. Consultants charge in the range of US\$1,000–\$1,500 for their services, which is then added to the fees required by the government agencies.

Import/Export Process. For the 2002 sample, the median time it took to clear goods after they arrived at the port of entry was 7 days, but there was a wide variation and the average was almost 12 days. Underscoring how unpredictable the importing process is, the average longest time for clearance reported in the last year was 18.5 days. Exporting firms reported that in the last year, it took them an

average of 17 days to clear a shipment, with the average longest time of 21 days. During the interviews, firm owners and managers put particular emphasis on the process of clearing trucks arriving in Maputo from South Africa. The average reported time to clear a truck was almost 7 days (the median was 5 days). Such long delays negate the advantage of close proximity to South African markets.

Labor Market Regulation. In the most recent survey, almost 37 percent of the firms who responded to the question said that they retained more workers than was optimal. On average these enterprises would prefer to retain only 63 percent of their current work force. The lack of labor flexibility is most important for foreign investors, with almost 45 percent of the foreign-owned firms in the sample claiming they retain excess workers, compared to only 17 percent of Mozambican firms. Privatized companies were nearly two and half times more likely than always-private firms to have a work force larger than their ideal.

Mozambican labor regulations require that a retrenched worker receive up to three months pay for every two years of service. Although workers who are terminated for just cause are not eligible for these benefits, the process of terminating a worker can be drawn out in the courts for such a long time that often companies relent and pay severance to workers caught stealing or otherwise violating terms of their employment. In addition, 26 percent of survey respondents said that hiring expatriates was a significant problem and that on average it took them 90 days and almost US\$400 to obtain a work permit.

Land. Obtaining land in Mozambique can be a major problem. All land is officially owned by the state, and private companies can only seek the right to use it. The cost of gaining access to land is best illustrated by the experience of the few firms in the survey that had recently tried to acquire land-use rights. For this small group of companies the process

took on average almost 12 months and cost over \$18,000.

Infrastructure Constraints

In the past 15 years Mozambique has received vast amounts of aid directed at improving the infrastructure, which is beginning to make an impact. However, poor infrastructure remains a serious drag on competitiveness.

Power. Electricity ranks as the most serious infrastructure problem for the Mozambican manufacturing sector, with nearly 64 percent of respondents ranking it as a major or severe problem. More than twice as many firms ranked power as the number one infrastructure problem as did those that prioritized the next most important problem—the condition and density of roads. About 23 percent of Mozambican firms own generators. The median firm in the sample suffered power interruptions about five times a month in the last year, and the median loss to production from power outages was 2 percent of sales.

Transportation. Transportation remains a significant factor in the high cost of doing business in Mozambique. While considerable progress has been made in strengthening the transportation network, it is still costly to ship goods. Freight forwarders in Beira report that shipping a container to Harare is almost 30 percent more expensive than sending it two-thirds the distance to Maputo.

Investment, Productivity & Growth

The key constraints discussed above—lack of external finance, unsupportive policy environment, administrative barriers and inadequate infrastructure—combine to reduce the productivity of labor and capital as well as the overall productivity of each enterprise.

The average investment to capital ratio (amount invested by firms relative to the replacement value of capital) was not very large, about 7 percent. Most investments are. The investment that does take place is small, being undertaken by firms using internal funds, and directed almost entirely toward increasing production or replacing worn machinery with current technologies. **Very few resources are devoted to improving production processes or introducing new products.** Although the majority of firms are currently financing investments out of internal funds, access to external credit does help firms invest. Some firms with access to bank finance (presumably larger firms) are undertaking much larger investments. This observation underlines the fact that bank finance is insignificant in its coverage but highly significant in its impact.

Industrial growth in all countries is inextricably linked to growth in total factor productivity. The performance of firms in Mozambique is analyzed by examining the productivity of key factors—labor and capital—and then by looking at total factor productivity. The evidence shows that firms in Mozambique, on average, have **very low labor and capital productivity** compared to other countries in Sub-Saharan Africa.

Value added per worker is an approximate measure of labor productivity and is the *lowest* in Mozambique of all the eight countries considered. Given the low skill levels of the work force in Mozambique's manufacturing firms, an important area of policy attention is worker training—a critical input for enhancing worker productivity. However, firms in the 2002 survey showed ambivalence toward worker training. Also, an overwhelming majority of responding firms cited inability to define or prioritize training needs as a constraint. Low capital productivity is related to the high capital intensity in the manufacturing sector. Capital intensity may well reflect burdensome labor regulations. Some firms stated that they chose to increase mechanization in

order to avoid hiring additional labor and the administrative entanglement that comes with it.

How do capital and labor interact to affect overall firm performance? Total factor productivity results show that average firm efficiency is very low—0.38 for the entire sample, (on a scale of 0 to 1). Exporting firms, privatized firms, and foreign-owned firms perform better than others. The high dispersion in efficiency shows that many inefficient enterprises survive alongside some very efficient ones. This situation demonstrates a lack of competitive pressure, as well as market segmentation.

Sales and employment data from this survey provide only an *indication* of how the manufacturing sector is performing. However, taken in its totality, the evidence suggests that growth has decelerated. Sectors consisting of older firms are finding it difficult to compete in the global market, while new entrants, such as printing and plastics, are operating successfully. But overall manufacturing has not shown strong employment creation or rapidly growing sales and investment levels have been low.

Conclusions & Recommendations

While there has been much progress since 1998, the government must continue efforts to create conditions in which a dynamic private sector can thrive and make use of Mozambique's natural advantages. The results of the ICA indicate that there needs to be additional analysis undertaken to determine specific actions to address problems in the following areas.

- *Fostering Entrepreneurship.* The government must move immediately to bring the time and cost of starting a new operation in line with its international competitors. The registration procedure must be simplified, expedited, and made more transparent. CPI and other organizations must help new investors of all sizes negotiate the process.
- *Labor Flexibility.* The government must provide more flexibility for firms to adjust their work forces in response to market forces, while still ensuring protection of workers' rights. The cost of retrenchment is particularly a problem for large, foreign-owned, and privatized firms. Labor regulations should be amended to allow the payment of piece rate, which is a standard way of linking pay to productivity in most labor-intensive industries.
- *Expatriate Work Permits.* Until an adequate local supply of skilled workers develops, the private sector must rely on expatriates for many specialties. The government should move quickly to make the process of employing foreign, skilled workers less cumbersome; possibly adopting the proposal of the private sector to allow a fixed percentage (minimum 10) of foreign workers at the discretion of the employer.
- *Access to Land.* The Ministry of Agriculture has successfully reduced the time it takes to obtain land, *once all documentation is in place*, to 90 days. The process of collecting documents should be streamlined to involve fewer institutions, be less complicated and more predictable. The government must also move to improve land registries.
- *Customs Clearance.* The time it takes to clear both incoming and outgoing shipments must be brought in line with international standards. Particular attention should be paid to speeding clearance of ground shipments from South Africa. The government must set benchmarks for clearance times and monitor progress toward meeting the targets.
- *Foreign Exchange and VAT Refunds.* The time it takes to make VAT reimbursements should be lowered to 30 days, and the government should pay market rates of interest on late reimbursements. Ultimately, to further improve the competitiveness of export-oriented producers, a

system should be implemented to give them access to imported raw materials and intermediate goods at world prices, rather than having to pay VAT and heavy duties and then await refunds.

- *Improving the Financial Sector.* Continued efforts must be made to strengthen the balance sheets of banks. In addition, there is significant crowding out of private borrowing by government borrowing. The government should implement policies designed to encourage the commercial banking system to hold a larger portion of their assets as commercial and industrial loans. Steps to improve accounting standards and create functioning credit bureaus and property registries will help foster a safer lending environment.
- *Dispute Resolution.* A major factor in the high cost of external finance and lack of trade credit is the difficulty of enforcing contracts. Efforts should be directed toward improving the efficiency of the judicial system and to encouraging the widespread use of the private system for Alternative Dispute Resolution established in 1999. The government should expedite public discussion of the proposed new commercial code.
- *Electricity.* Almost 78 percent of the survey sample ranked power as a severe problem, and firms ranked it as the biggest infrastructure problem most often. As capacity utilization increases and firms begin to engage in continuous production, erratic power supply will become an ever-increasing constraint. Steps should be taken to improve the consistency of electricity provision.
- *Transportation.* Improved transportation facilities are needed to reduce the cost of shipping and improve competitiveness on the world market. Road transportation continues to be costly. The government should complete the concessions for Maputo port and the Ressano Garcia rail line, the Nacala port and rail corridor, and extend the concession program to other rail lines and ports. The liberalization of coastal shipping, stalled since 1998, should be completed quickly.
- *Telecommunications.* The telecommunications system has improved considerably over the last five years. However, the government should complete the liberalization of the fixed and mobile sectors and ensure that a strong regulator protects smaller value-added consumers and operators, particularly in Internet-related services.

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In spite of frequent natural disasters and economic shocks, Mozambique has been able to achieve rapid economic growth as well as relative price stability. Since 1996, real growth has been impressive, averaging about 9 percent per year with relatively low inflation of about 6 percent. Going forward, the macroeconomic environment will be governed largely by the implementation of the government's poverty reduction strategy (PARPA), which envisages a reduction in the poverty rate from 70 to 50 percent of the population by 2010—an objective to be achieved within the context of a vibrant economy, low inflation, and sharply reduced aid dependency. To realize these goals, the government will need to overcome a variety of challenges and risks.

Maintaining growth is the primary challenge and is essential for reaching the poverty-reduction targets. Sustaining growth will require a substantially higher level of broad-based investments undertaken by private sector enterprises, rather than relying on large-scale projects that generate relatively few and expensive jobs. Maintaining the growth momentum also calls for expanded trade and investment relations with regional and global markets to take advantage of Mozambique's abundant natural resources, low wages, and advantageous location. Coping with the expected sharp decline in foreign aid over the next few years represents a further challenge. Restructuring of fiscal programs is needed to protect priority poverty-reduction initiatives while reducing aid dependency and maintaining price stability.

Even with unwavering commitment by the government, meeting these challenges is made more difficult by major risk factors, including natural disasters, a slowdown in world trade and investment, the possibility of failure of proposed mega projects to materialize, insolvency of major banks, or an unexpected resurgence of inflation due to imperfect instruments for monetary control.

To overcome the challenges and guard against the risks, the government must address critical areas

of the business environment. Of particular importance is upgrading the regulatory framework and administrative services of front-line public sector agencies. In addition, sustained efforts to improve firms' access to external sources of credit are essential. These actions will have a major impact on enterprise development, while raising investment and expanding trade. The recent investment climate survey discussed in the following chapters identified a variety of bottlenecks that increase the cost of doing business in Mozambique. Dealing successfully with these issues is necessary to promote growth and significantly advance the poverty-reduction goals.

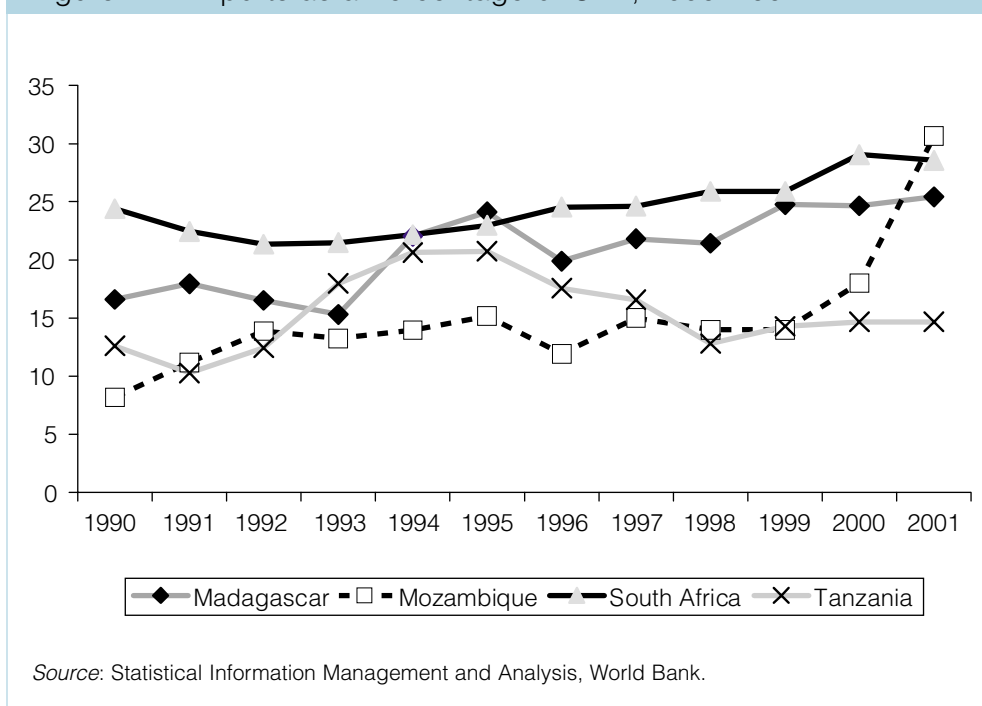
Pursuing Broad-Based Growth

On the basis of existing income distribution and demography, PARPA envisages an average growth rate of 8 percent per year between its inception in 2001 and 2010. This target growth is well within Mozambique's historical record of economic performance. Furthermore, a pipeline of "mega projects"—with expected investments of more than \$7 billion (twice the country's current GDP)—has been approved and is supposed to be implemented during the PARPA horizon. On the surface Mozambique appears well positioned to fulfill its poverty-reduction objectives. A closer review, however, indicates that this might not be the case.

Mega Projects

A key government strategy in recent years has been to attract large-scale foreign direct investment (FDI). Mozambique has generated considerable interest among foreign investors, with more proposed mega projects planned than typical African countries. These large-scale projects will help boost economic activity, raising manufacturing outputs and improving trade balance, as well as increasing government revenue. As figure 1.1 shows, the completion of one of the

Figure 1.1 Exports as a Percentage of GDP, 1990–2001



projects, the Mozambique Aluminum project (MOZAL), has already contributed to a sharp increase in Mozambique's exports and in the share of manufactured goods within total exports. However, the net effect on the balance of payments has been much more modest. The export earnings are offset to a large extent by a sharp increase in imports and by the payments of interest and dividends to investors.

The mega projects are important sources of growth and will lead to increased output and exports. However, they are not sufficient to provide the scale of job creation needed for the massive poverty reduction envisaged by PARPA. According to a recent review, the current and planned mega projects have projected investments of about US\$10 billion, almost two and a half times current GDP. But they would only generate about 20,000 jobs in Mozambique: 5,000 within the companies involved, and another 15,000 among suppliers and service providers.¹

To put these figures into perspective, the 20,000 jobs represent less than 1 percent of the 3.7 million new workers projected to enter the job market

between now and the year 2010. In addition, each of the jobs directly or indirectly created by these mega projects is estimated to cost between US\$1 million and \$2 million in terms of initial investment outlays. By contrast, the recent CTA/RPED survey found that the average capital per worker of existing firms in Mozambique is about \$15,000, based on replacement value of assets. In other words, with a given amount of investment funds, an average firm in Mozambique can create 100 times as many jobs as the mega projects.

Policy Reforms and Privatization

In the early 1990s and before the arrival of the mega projects, the government undertook extensive reforms to stabilize the economy, remove controls, and privatize state-owned enterprises. The privatization was broad and swift, with over 850 companies transferred from government ownership within a few years. These reforms provided an impetus for a strong postwar economic rebound, which resulted mainly from firms bringing idle production facilities back on-

line. In the manufacturing sector, the average rate of capacity utilization rose from about 20 percent in 1989 to about 48 percent in 1998.² But according to the recent survey, this rate has stayed relatively stable since then.

Fundamental reforms of the financial system, however, were not as extensive. Banking practices remained inadequately supervised, resulting in major cases of banking insolvencies and public loss of confidence. Financial depth, which reflects the banking system's ability to extend credit, showed initial signs of improvements in the early 1990s, with the M2/GDP ratio rising to about 30 percent, before collapsing again below 25 percent of GDP in the second half of that decade. Meanwhile, little progress has occurred with respect to funding options outside the banking system. The use of supplier (trade) credit, discounting of bills, and financial or operational leases is rare. Business transactions are primarily cash-based, which increases the costs to local firms and reduces the overall efficiency of the payments system.

New investment has been modest even during the high growth period of the 1990s, when private investment accounted for merely 2 to 3 percent of GDP.³ Going forward, it will be very difficult to achieve similar growth without a substantially higher rate of investment. Idle capacity has been largely drawn down or depreciated through wear and tear, as well as obsolescence.

Structural Change

Overall, the rapid growth observed in recent years, even if it is maintained, may not have the desired impact on poverty reduction. As mentioned above, the mega projects currently driving much of the growth have limited employment effects. Another major source of recent growth has been the construction industry, which since 1996 has seen its share of GDP rising from 6.6 to 11.7 percent. The industry, however, has benefited primarily from the investment phase of Mozal and aid-funded reconstruction projects. Thus, this growth rate may not be sustainable over time.

Furthermore, agriculture, which provides livelihood to about two-thirds of the population, has grown more slowly than other sectors. In the same period its share in GDP fell from 30 percent to less than 20 percent (table 1.1).

Because of low wages and an advantageous location, Mozambique's manufacturing sector has potential for strong growth, but it remains only a small part of the economy. Since the mid-1990s, its share has remained relatively constant at about 10 percent of GDP, and it is highly concentrated. The food and beverages sector alone accounts for over 38 percent of manufacturing production. Aluminum production by Mozal is another 23 percent. Thus, food and beverages along with metallurgy and minerals make up close to 73 percent of manufacturing output. Meanwhile, important manufacturing subsectors such as textile, garments, and footwear, which have served many developing countries as a platform for exports, have actually floundered in the face of increasing international competition.

Trade

Due to the limited size of the domestic market, greater penetration of both regional and international export markets represents the best long-term growth prospect for Mozambique's private sector. As a result of its rich endowment and low wages, Mozambique has considerable potential for expanding a broad range of exports (including tourism) and attracting more FDI. With an increasingly liberal trade regime and prudent exchange rate management, the macroeconomic environment is also conducive to growth. However, this potential has not yet been realized in most sectors, and exports remain primarily resource based and agricultural. Recent gains in Mozambican manufactured exports (and the flows of foreign direct investments) are mostly confined to the mega projects. Outside of aluminum and electricity, the country's exports have remained generally

Table 1.1 Structure of the Mozambican Economy, 1996–2001

	1996	1997	1998	1999	2000	2001
Agriculture	30.5	30.2	27.2	25.4	20.2	18.8
Fishing	4.0	3.9	3.0	2.5	2.0	1.9
Industry	16.0	17.4	21.5	21.8	22.7	24.8
Mining	0.2	0.3	0.3	0.1	0.2	0.3
Manufacturing	8.7	9.6	11.0	11.0	11.3	10.7
Electricity and water	0.5	0.8	1.9	3.0	2.4	2.1
Construction	6.6	6.7	8.3	7.7	8.7	11.7
Services	49.5	48.5	48.3	50.3	55.1	54.4
Commerce	23.2	22.5	21.5	21.1	20.3	17.2
Repair services	0.6	0.6	0.8	0.8	0.9	0.7
Restaurants and hotels	0.8	1.2	1.1	1.2	1.4	1.1
Transport and communication	8.6	8.9	9.2	10.2	12.6	16.0
Financial services	3.7	3.2	2.6	2.1	4.0	4.3
Real estate rentals	2.7	2.6	2.4	2.2	1.9	4.6
Corporate services	1.3	1.1	1.3	0.8	0.8	0.7
Government services	4.4	4.5	5.1	6.8	7.1	7.1
Other services	4.1	3.7	4.3	5.1	6.0	5.6

Source: Mozambique, IMF Country Report No. 02/139, July 2002.

unchanged in the past five years (table 1.2). Significantly advancing the poverty reduction goals will require increasing labor-intensive manufactured exports and developing more linkages between the mega projects and local producers. The country continues to rely heavily on imported consumer goods, as well as imported raw materials and intermediate goods for local manufacturing production.

Mozambique's apparent advantages seem to be outweighed by the impediments that firms face at the operational level. As discussed in the following chapters, local producers operate in an environment of burdensome regulations administered by public sector agencies. These impediments have substantially increased the costs of local production,

discouraging many small- and medium-scale investors from starting businesses. The high cost of doing business is illustrated by the fact that local producers of simple consumer goods, such as garments and many food products (which enjoy a tariff protection of about 30 percent plus natural protection from high transport costs), are nonetheless unable to compete effectively with similar imports.

There are, however, positive signals coming from local producers. In the 2002 survey, more than 10 percent of the manufacturing firms exported a significant share (54 percent on average) of their outputs. Most of these exporters are processing agricultural or forestry resources, with a few garment firms that engage exclusively in export production under quotas. About one-third of the sample firms'

Table 1.2 Key Exports from Mozambique, 1997–2001 (US\$ million)

Product Group	1997	1998	1999	2000	2001
Fish	84.4	66.4	74.8	100.7	102.2
Prawns	74.9	57.4	64.6	91.2	82.2
Agriculture (excl Fishery)	102.9	88.8	87.0	83.4	66.3
Wood	10.1	5.2	9.2	14.6	12.6
Textiles and Clothing	10.0	10.0	5.8	6.7	14.1
Rubber Products	0.7	3.6	1.1	0.3	4.8
Footwear	0.7	0.8	0.9	0.6	0.3
Minerals and Fuel	3.8	1.1	7.8	11.0	6.2
Machinery	5.3	13.0	6.6	4.7	6.5
Transportation Equipment	4.2	3.7	5.9	5.0	5.8
Miscellaneous	7.6	15.1	8.9	10.8	10.7
Subtotal	229.6	207.6	208.0	237.8	229.5
Aluminum	0.0	0.0	0.0	60.2	473.4
Subtotal (with Aluminum)	229.6	229.6	208.0	298.0	702.9
Electricity	0.0	37.0	62.8	67.0	70.0
Total	229.6	244.6	270.9	364.9	772.9

Source: Nathan Associates Inc., *Mozambique—Mainstreaming Trade: A Poverty-Focused Strategy* (Washington, DC: U.S. Agency for International Development, 2002).

exports are shipped to destinations within Africa, while the rest is destined to broader world markets. However, for the survey sample, only 6 percent of total manufacturing sales in 2001 were to export markets. Thus, there is enormous scope for further export expansion.

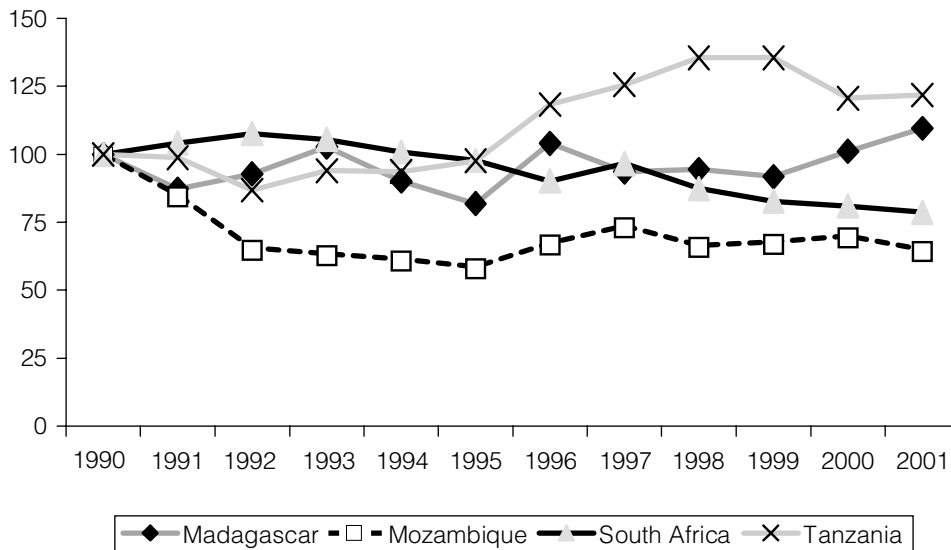
Reducing Aid Dependency

Mozambique has benefited enormously from foreign aid. In the past decade, aid has averaged nearly 12 percent of GDP in Mozambique, compared to about 6

to 8 percent for the rest of Sub-Saharan Africa (excluding South Africa). The high level of external assistance has enabled the government to initiate far-reaching reforms, undertake postwar rehabilitation, and deal with the exigencies of natural disasters. For most of this period, foreign aid covered about half of public expenditures and helped restore budgetary and external payments balances.

In spite of the aluminum exports and large inflows of foreign aid relative to the economy and to the local financial sector, Mozambique has been able to ward off undue currency appreciation (the so-called Dutch Disease). Many aid recipients, particularly in Africa,

Figure 1.2 Real Effective Exchange Rate



Source: Statistical Information Management and Analysis, World Bank.

have seen the competitiveness of their exports eroded by this inadvertent by-product of aid.⁴ But, as figure 1.2 shows, after allowing for differences in local inflation, the Metical has remained competitive or become more so against the currencies of regional trading partners, including South Africa, Tanzania, and Madagascar, that have not received as much foreign aid.

But the biggest challenge lies ahead. Over time, the flow of aid to Mozambique is expected to move toward the regional average. The transition is already underway. After a surge in response to the floods of 2000, external assistance is moderating and projected to decline from more than 10 percent of GDP today to about 7.5 percent in 2005. Can the country cope with a decline of resources at the disposal of the government without sacrificing the priority programs under PARPA, macroeconomic stability, and the private sector's fragile growth prospects?

The answer depends on the government's fiscal effort in the next few years. To protect macroeconomic

balances, public expenditures will need to fall in step with the decline in foreign aid, except to the extent that domestic resources can be mobilized. If actual foreign aid falls short of expectations, a greater fiscal effort would be needed to narrow the deficit. Since 1998, the expenditure trend has risen sharply upward, while revenue mobilization shows only a modest gain. Although much of the recent rise in spending is attributable to flood relief and banking re-capitalization, such events cannot be ruled out in the next few years. The goal of increased revenue collection demands sustained economic growth, and here improving private sector performance is critical.

Notes

1. Anderson (2001).
2. Biggs et al. (1999).
3. Biggs et al. (1999).
4. See, for example, Elbadawi (1999).

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Key Constraints to Investment and Productivity

The key constraints to doing business in Mozambique were identified by means of a survey, which was designed to be a semi-random sample of manufacturing firms in Mozambique stratified by the sector, size, and location of firms. The methods used to build the 2002 sample of 193 firms were as follows:

- The survey team attempted to revisit firms that had previously been interviewed as part of the 1998 RPED/CTA survey, with the assumption that the firms had not ceased operations or changed activity and were willing to be interviewed (87 of 152 firms in the 1998 sample were successfully re-interviewed).
- Replacement firms and additional firms were then selected from the National Statistical Institute (INE) list of all registered establishments, which includes a classification by city and sector, as well as some information about total employment in each establishment.
- In each city visited, a target sample size and composition by firm sector and size was calculated, based upon the INE sample frame. Firms were then chosen from the 1998 RPED list and randomly from the INE replacement list until the target sample size had been reached.
- Five major cities were visited: Maputo City, Matola, Chimoio, Beira, Nampula City, and Nacala. It was not possible to revisit the firms previously visited in Quelimane due to time constraints.
- The sectors covered were based on the CAE (Classificação das Actividades Económicas) classification used by INE, which is similar to the ISIC-rev3: Food and Beverages (class 15), Textiles and Garments (35), Wood (20), Metals (28), Machinery (29), Furniture (36), Other (30).

- A particular effort was made to cover the largest firms in each sector (usually no more than 3 to 5 firms per sector and city), consisting of firms with more than 100 workers. By contrast, relatively few microenterprises were sampled: the minimum establishment size covered by the INE register is theoretically 10 employees. Some smaller unregistered firms were also visited, particularly in the Maputo/Matola region, but the survey was not designed to cover informal manufacturing enterprises.

Analysis of the survey data, described in the following chapters, shows that the Mozambican manufacturing sector has not lived up to its expectations. Despite inexpensive labor, macroeconomic stability, and a location along important transportation corridors, growth outside of the mega projects has remained flat. Firm-level productivity and firm growth are also low. It appears that the primary cause of these problems is the poor business environment. When firms were asked about their perceptions of business problems, responses fell generally into three categories: the high cost and lack of external **finance**, uncertainty imposed by **government policies** and the lack of availability of good **infrastructure**. These inefficiencies have discouraged investment, restricted attempts by the private sector to expand markets, and significantly increased the costs of doing business. Comparisons of firm productivity between Mozambique and other countries reinforce the notion that Mozambique's business environment has created a significant drag on its private sector.

Table 2.1 rank-orders the perceptions by the percentage of the sample that ranked a given problem as a large or severe. We see that on average problems with finance are cited as large or severe by a larger percentage of respondents than any other group. Problems with finance on average were cited by 78 percent of the sample as large or severe. The

Table 2.1 Percentage of Firms Ranking Issues as Problems

Type Problem	No or Minor Problem	Moderate Problem	Large or Severe Problem
Credit (Average)			78
Cost of financing	12	4	84
Access to domestic credit	18	7	75
Access to foreign credit	25	1	74
Government (Average)			49
<i>Policy Uncertainty (Average)</i>			<i>59</i>
Corruption	24	12	64
Macro-instability	22	15	63
Anti-competitive practices	27	13	60
Economic policy uncertainty	33	9	58
Tax rates	28	17	55
Crime theft and disorder	31	15	54
<i>Administrative Barriers (Average)</i>			<i>39</i>
Skills and education of workers	40	10	50
Tax administration	36	17	47
Customs and trade regulations	35	20	45
Labor regulations	45	17	38
Business licenses	61	11	28
Access to land	67	6	27
Infrastructure (Average)			37
Electricity	23	13	64
Transportation	58	15	27
Telecommunications	60	20	20

Source: CTA/RPED Survey 2002.

next most often cited category were problems associated with government. Policy uncertainty was much more of a concern to the private sector than costs imposed by regulatory and administrative procedures. Policy uncertainty was perceived as a significant set of problems by more managers than was infrastructure. Given the underdeveloped state of

Mozambique's infrastructure this amply illustrates the significance of the burden of government.

Access to Finance

In Mozambique, as in several low-income Sub-Saharan countries, the level of credit relative to the GDP is low (18 percent). Among the causes of low

intermediation are high interest rate spreads (which reached 19 percentage points in 2002), high and volatile real interest rates (currently also at around 20 percent in meticaís) as well as a generally poor legal and institutional framework that limits the scope for sound lending. A decomposition of bank spreads reveals that 44 percent of bank spreads are explained by loan-loss provisions and 35 percent by high overhead costs. The analysis also reveals that high loan losses in the largest Mozambican bank drive up spreads in all banks.

Although inflation has declined from the very high levels attained during the mid-1990s, inflation volatility remained substantial during the last three years. As a result, real lending rates in meticaís remained high (with intermediation spreads of about 20 percentage points) and highly volatile. Moreover, the relatively unattractive real deposit rates in meticaís (given the high uncertainty), the increasing loan dollarization, and the very high share of non performing metical loans all suggest that the volatility of the metical has limited the scope for intermediating in local currency and increased the risk associated with such intermediation.

The lack of affordable finance continues to be one of the fundamental business problems in Mozambique. Over 84 percent of the survey sample reported that the cost of finance was a major problem, and it was the most-often-cited problem overall. Because of high costs and procedural delays, very few firms are using external credit, and most are forced to rely on their own funds for both working capital and investment. In addition, the Mozambican private sector faces severe strains on their cash flow. Companies have large amounts of funds tied up in raw materials and finished goods inventories, overdue payments, and even refunds owed by the government. Thus, inadequate external finance, combined with extraordinary demands on internal funds, inhibits investments in profitable opportunities. The recent survey suggests that there has been little

progress in improving access to finance for the private industrial sector (for a comparison of sources of finance with China and India, see table 2.2).

Utilization of Bank Credit. The Mozambican manufacturing sector uses an unusually low level of external finance. In the sample, enterprises relied on their own funds for 90 percent of working capital requirements and almost two-thirds of their investment needs (table 2.2). The main source of external credit, however limited, is locally-owned commercial banks, which provide only 7–8 percent of the sample firms' financing needs. Trade credit and informal loans are negligible, and informal funds from family and friends also appear to be insignificant.⁵ These figures, however, may be misleading. When interviewed, managers often do not make the distinction among retained earnings, funds from other businesses they own, family funds, or other informal or internally generated funds. Still, it is clear that trade credit and formal external finance play only a limited role in financing firms' operations in Mozambique.

In the 2002 survey, only 12 percent of respondents had bank overdrafts, while 29 percent reported having bank loans. In comparison, almost 77 percent of the sample in a 2001 survey in Nigeria had some form of bank credit. The level of bank credit in

Table 2.2 International Comparison of Top Sources of Finance for Investment

	Mozambique	China	India
Internal funds	64.9	51.5	30.4
Bank Loans	10.1	20.6	36.1
Trade Credit	0.0	4.1	—

— Not available.

Sources: Mozambique data from CTA/RPED Survey, 2002; China and India data from World Bank Investment Climate Assessments.

Mozambique is also well below that found in non-African countries whose goods compete with Mozambique's on the world market. For example, 46 percent of Chinese firms report having access to bank loans, and 22 percent have access to overdrafts. The pattern in Mozambique is also unusual because in most countries, banks typically extend overdraft facilities to loan recipients because firms found creditworthy for term loans should be creditworthy for very short-term overdraft facilities.⁶

The 1998 CTA/RPED survey had similar findings, with only around a third of the sample utilizing bank loans and very few firms, mostly foreign-owned, had true overdraft facilities (i.e., lines of credit based upon firm performance and not secured by collateral). More than a third of the overdraft recipients in the present survey were foreign-owned firms. Access to overdraft facilities continues as a problem for manufacturing firms in Mozambique. There are few provisions for credit secured by an analysis of a firm's potential. Rather, credit is secured by high levels of collateral. Therefore, as shown in table 2.3, a company's ability to invest and conduct business is restricted by its

amount of internal funds and assets for collateral—not by opportunities.

The distribution of use of bank finance in Mozambique, whether in terms of loans or overdrafts, depicts patterns found widely elsewhere. It is consistent with theoretical predictions that smaller firms face greater barriers due to high transactions costs related to problems of information, communication, and enforcement. Table 2.4 shows the share of firms receiving bank credit by firm size. The survey results merely confirm the general belief that small firms usually do not have access to external credit, but it is worth reiterating that utilization of bank credit for financing working capital requirements is quite low across all size categories.

A multivariate regression analysis of determinants of firm access to bank credit confirms that large firms are more likely to receive bank credit (see table B.1 in appendix). Size is strongly significant in the probit regression, while other factors such as location, sector, and privatization status do not appear to matter. The age of firms is also insignificant. However, it is interesting to note that firms established prior to

Table 2.3 Relative Importance of Different Sources of Finance
(% of total requirement, averages across all firms)

Source	Working Capital	New Investments
Internal funds/retained earnings	90.0	64.9
Local bank (overdrafts/loans)	6.9	8.2
Foreign-owned bank (overdrafts/loans)	0.4	1.9
Leasing arrangement	0.2	0.0
State	0.0	0.0
Trade credit	0.5	0.0
Credit cards	0.0	0.0
Equity: sale of stock	0.5	1.1
Friends and family	0.6	0.4
Informal sources (e.g., money lender)	0.0	0.0

Source: CTA/RPED Survey, 2002.

Table 2.4 Use of Bank Finance by Firm Size, 2002
(% of firms in each size category)

Size	Overdraft	Loans
Micro	0.0	16.7
Small	5.5	18.2
Medium	10.3	35.9
Large	21.9	40.6
Very large	41.2	58.8

Source: CTA/RPED Survey, 2002.

1992 were much more likely than new firms to have bank credit. This suggests that information and enforcement problems are so large that firms require long-established contacts and strong reputations to be able to obtain bank finance—yet another indication of the difficulty of entering the Mozambican market.

Trade Credit and Internal Funds. Mozambican companies are forced to finance the vast majority of both their investments and working capital needs from internal sources, yet firms face extraordinary demands on their cash flow. A major factor is the lack of trade credit. In most economies, companies finance a large portion of their working capital requirements by balancing accounts receivable with accounts payable and relying on supplier credit to

cover their inventories. But managers in the CTA/RPED survey reported that the majority of their business is conducted on a cash basis. Only 40 percent of firms said that they sell any of their products on credit, with the average share of total sales made on credit is only about 34 percent. This compares to developed countries where 30-day credit is standard practice for all sales. In Nigeria, over 75 percent of the sample either gave or received trade credit.

Firms do not provide trade credit because they themselves are cash constrained and because of the difficulty in collecting payment. Managers reported that when they do sell on credit, the standard term is 30 days. But on average it takes close to 49 days to actually collect, and almost 15 percent of their sales is tied up in overdue payments. Given the expense and unreliability of the judicial system, most firms' only recourse in the face of nonpayment is to convert the debtor to a cash customer or terminate the business relationship altogether. Consequently, companies in Mozambique provide credit only to long-standing customers, when there is recourse to an alternative dispute resolution system, or when they are desperate for sales.⁷

As shown in table 2.5, a smaller proportion of large firms sell on credit than do small firms. Since large firms have better access to external credit, it would make sense for them to pass along this credit

Table 2.5 Percentage of Firms Selling on Credit

Size Category (Number of Employees)	Share of Firms Selling on Credit	Mean/Median Amount Sold on Credit
Less than 25	19	46/30
25 than 49	59	45/50
50–99	49	44/50
100–199	50	49/40
200 and More	22	83/90

Source: CTA/RPED Survey, 2002.

to their smaller partners in the form of supplier credit. However, it appears that large firms often have more market power than smaller firms and can avoid providing trade credit in this high risk environment. In the sample, the few very large firms selling on credit were international exporters who sold almost completely on credit to regular customers or parent companies. Smaller firms often must provide credit or lose sales. The very smallest firms, however, usually operate completely on a cash basis.

Due to the difficulty collecting payment and assessing credit risk, most managers said that they are unwilling to extend credit to distant customers who they cannot closely monitor. Some managers reported that they cannot expand their sales because they will not extend trade credit outside of their immediate vicinity. The lack of credit information and the difficulty of enforcing contracts lead to the low level of trade credit, which constrains interregional trade and keeps firms from growing to optimal size.

In addition to the lack of trade credit, firms' internal funds are also strained by the need to keep large inventories. The median company in our sample kept a 30-day supply of raw materials on hand and almost 21 days of finished goods. Companies keep such large inventories because of the delays in receiving raw materials caused by customs, irregular shipping, and long distances to suppliers. Managers in the sample reported that it would take them almost 27 days to obtain replacement materials if their main supplier failed to deliver. The median was only 10 days, but for some goods the wait could be as long as one year.

Impediments to Accessing Bank Credit. In the 1998 survey, most firms that did not have bank loans had never applied for one. Only 8 percent of firms reported the rejection of a loan application. A few firms did not need bank loans, relying instead on parent companies. Still others did not seek loans due to low levels of operations. But the majority of firms that

had never applied for a loan reported that either they did not want to take on debt or interest rates were too high. Very few companies cited procedural hurdles. In the recent survey the findings are similar. The most important reason remains high interest rates. But there is a distinct strengthening in the perception that application procedures are cumbersome, with almost half the respondents citing it as a reason for not applying for bank loans (table 2.6).

The burden of high collateral is highlighted in table 2.7. Almost all respondents declared that collateral was a requirement for their most recent overdraft or bank loan.⁸ Furthermore, the amount required as collateral was quite high, averaging

Table 2.6 Reasons Why Firms Did Not Apply for Bank Loans

	% of respondents
Interest rates too high	76.1
Collateral requirements too stringent	50.5
Cumbersome application procedures	48.6
No need	33.0
Corruption in bank credit allocation	8.3
Against my religion	3.7

Source: CTA/RPED Survey, 2002.

Table 2.7 Ratio of Collateral Value to Credit Amount, by Firm Size

Size	Mean
Small	141.3
Medium	174.5
Large	126.8
Very Large	107.0
All	130.5

Source: CTA/RPED Survey, 2002.

almost 140 percent of the credit amount. In China the average was only 86.8 percent. The ratio of collateral to the credit facility is higher for the smaller firms and lower for the larger ones. This is consistent with the belief that small firms are riskier because it is more difficult to collect information on them and monitor their activities.

In addition to requiring high collateral ratios, bank credit is also of short duration. The average duration of bank loans for the sample as a whole was just short of three years (35 months) and that includes an outlier reporting a 20-year loan. Table 2.8 reports the percent of responding firms receiving loans of various durations. The distribution of the duration of loans is somewhat bi-modal, with a number of credit contracts clustered at 12 months and 36 months. Thus, loans of up to one year and loans of up three years are the most common, with almost 75 percent of the sample reporting loans not exceeding a maturity of three years.

The nominal interest rate for bank credit reported by the sample firms is also quite high, averaging just over 28 percent. How much of this reflects the high risk of the Mozambican business environment and how much is due to large amounts of government borrowing or lack of competitiveness in the banking system is unclear. But given the inflation rates, real interest rates are around 13–18 percent, high by international standards. Average interest rates do not

show any specific trend vis-à-vis firm size, except for the largest firms. Smaller firms do not appear to be discriminated against in terms of facing higher collateral requirements or interest rates. However, it is probable that large firms are more likely to receive longer-term loans and overdraft facilities.

Government Policy and Uncertainty

The 1998 CTA/RPED survey first identified government policy and bureaucratic burden as a significant constraint. While inadequate access to finance, poor infrastructure, and low consumer demand were all cited as serious problems, in 1998 they were of less concern than issues related to government policies and administrative barriers. Since then, the Government of Mozambique has made noteworthy progress toward creating a competitive environment, yet the recent survey shows that regulatory burdens and uncertainty created by poor policy continue to significantly increase operating costs and limit productivity growth.

The government has undertaken numerous initiatives to create a friendlier operating environment for business. For example, the Public Administration Decree 30/2001 of 15 October requires government agencies to respond to requests for decisions in a fixed time, and there are now provisions for export processing zones—called Industrial Free Zones (IFZ) in Mozambique—and investment and export incentives. The government has introduced new customs procedures and transformed the tax system, including the introduction of a VAT. These new laws are welcome progress but have not had the expected effect. In the recent survey, managers reported that government officials retain so much discretion in implementing new laws and regulations that the laws are often rendered ineffective. Officials often obstruct implementation of new policies by delaying or even ignoring decrees. In some cases local officials have never even heard of legislated changes. Because of the amount of discretion, there are regional

Table 2.8 Duration of Bank Credit
(percent)

Duration	Mozambique	Nigeria
Up to 1 year	46.77	29
Up to 2 years	6.45	4
Up to 3 years	22.58	14
> 3 years	24.19	15
Total	100	62

Source: CTA/RPED Survey, 2002 and RPED Nigeria Data.

differences in the perceived level of government-related uncertainty.

In a recent survey of IFZs in Madagascar, many managers reported that their companies had considered Mozambique before settling in Madagascar.⁹ The low labor costs, advantageous location, and investment promotion laws attracted them. However, upon further investigation, they rejected Mozambique because the difficulty of day-to-day operations and because they were not convinced that promised incentives would materialize. Managers cited the uncertainty of actually being granted IFZ status, obtaining work permits for expatriate managers, quickly clearing goods through customs, receiving VAT refunds, and realizing other promises. As one manager stated, "We came to Madagascar because here the laws actually work." The results of the 2002 CTA/RPED survey verify that their fears were well founded (see table 2.1).

Policy Uncertainty and the Regulatory Burden

Bureaucracy and red tape were the area of most concern in the 1998 survey, and the Government of Mozambique has made strides to improve the situation. In the recent survey, respondents complained less often about inspections and petty harassment by government officials, although Mozambique remains a highly bureaucratic business environment. However, corruption, crime and disorder, macro instability and other areas reflecting a lack of confidence in government are still perceived as large problems. The survey results reveal that the average senior manager devotes around 11 percent of his time to dealing with bureaucracy, which is on par with China at 9 percent, Latin America at 11 percent, and countries in transition in Eastern Europe at 12 percent. It is widely believed that firms have to make informal payments to public officials "to get things done," and corruption was perceived as a large or severe problem by 64 percent of the sample. Yet,

only 27 percent of companies in the survey admitted making such payments. Most firms said that they made no such payments or would not answer. However, those firms that did admit that payments were needed claimed that the median amount for a typical firm like theirs was 5 percent of annual sales.

Courts

The courts and legal system in Mozambique are notoriously unreliable, which significantly increases the risk and uncertainty of doing business. Courts take a long time to render decisions, and then executing judgments is even more problematic. Consequently, businesses avoid using them to settle disputes as much as possible. Firms in the survey were most likely to be in court over labor disputes, because there is little way to avoid it if a worker wants to challenge a company's actions.

In the World Bank's Doing Business data base, Mozambique ranks 79 out of 84 countries on how long it takes to resolve a business dispute, (from the time a suit is filed until a judgment is enforced).¹⁰ At 540 days, Mozambique far longer than its nearest neighbors and global competitors, and it is more than six times longer than in South Africa (see table 2.9).

It was reported that the courts are improving, and some bankers suggested that if they use a skilled lawyer and carefully prepare documents, then they are able to get quick judgments. However, for the vast majority of businessmen, the judicial system is not seen as a viable option to resolve disputes, and they are consequently less willing to enter into new business arrangements. Recently an alternative dispute resolution system of arbitration was established, but no firms in the survey sample reported using it.

Taxes

Tax administration and tax rates were heavily criticized, as the private sector in almost any country is likely to do. Some 47 percent of the sample said that

Table 2.9 Days to Resolve a Business Dispute

Country	Number of Days
Botswana	77
South Africa	84
Malaysia	90
Uganda	99
India	106
Malawi	108
China	180
Zimbabwe	197
Kenya	255
Mozambique	540

Source: World Bank Doing Business Data Base.

tax administration is either a major or very severe obstacle to doing business, and 55 percent said the same for tax rates (table 2.1). Even so, only 10 firms reported having been involved in a tax dispute in the last three years, and in the past year the average firm was inspected only once by national officials and twice by local tax inspectors. In addition, managers reported that they believe the average firm only reports 67 percent of its profit. While firms complain about the discretion of tax authorities and high taxes, most firms are not reporting full profits and are not being heavily inspected. Some firms, however, are receiving numerous inspections (the highest number of inspections cited was 22) and are facing heavy fines, indicating that tax administration can be a problem for some enterprises.

A far more serious matter appears to be delays in VAT and other refunds owed to the private sector. In the sample, over 24 firms reported being owed government refunds and the average amount was more than 13 percent of their annual sales. This seriously affects firms' ability to manage cash flow and in a country with such high real interest rates imposes an enormous cost on some firms. Many

respondents were due VAT refunds or duty drawback on products they exported or on VAT-exempt products they imported, but no firms received refunds in a timely manner. Those companies that received refunds reported having to pay large bribes and waiting an average of 99 days to receive their refunds (the median time was 30 days). Some companies spoke of having to wait years because they were unwilling to pay up to 10 percent in unofficial fees to the officials involved.

One of the most prolific complaints from the survey participants concerned what they viewed as the discriminatory impact of the tax system. Very large firms and project such as Mozal are able to negotiate industrial free zone status and other tax incentives from the government. According to many firms interviewed, informal producers and traders are often able to avoid tariffs and other taxes, such as VAT, due to the weak customs enforcement regime despite recent reforms. By contrast, formal-sector domestic producers who are not big enough to attain special concessions are required to pay a variety of sales and labor-based taxes, putting them at a competitive disadvantage. This is reflected by the large number of firms citing "anti-competitive practices" as a large or severe problem.

The inefficiency of the tax system is also reflected by the fact that only six companies reported having obtained exemptions on imported capital equipment. To obtain these exemptions it took on average 100 days. Many respondents said that though they were eligible for such incentives, it was faster and easier to import capital equipment and pay the duty. No firms reported using the duty drawback incentive, and only one firm was operating as an IFZ, a status it took many months to obtain. Investment incentives are useful only if they are credible and firms believe that they will actually receive what has been promised. Unfortunately, Mozambique has developed a reputation, especially among foreign investors, as a country unable to deliver on its promises, regardless

of whether or not it allows easy access to work permits or duty exemptions.

Regulatory and Administrative Barriers

Registration, Entry, and Exit

Open economies, where firms can easily enter and exit, have higher growth rates than less dynamic ones. The competition fostered by new entrants forces existing firms to raise their productivity and improve their competitiveness or be driven from the market. High barriers to entry allow low-productivity firms to survive and make it costly to reallocate resources to the most efficient uses. High barriers to entry and exit also discourage foreign investment, which has proven to be one of the most effective ways of transferring technology and raising productivity. Complex registration procedures are probably a major factor in the persistence of large variations in firm productivity discussed in detailed in the following section.

Entry into the Mozambican market is made extremely difficult by the time-consuming and expensive procedures for firm licensing and registration.¹¹ As reported in a recent FIAS report, government uses the registration process as a form of control and an inappropriate mechanism for enforcing regulations.¹² Few entrepreneurs are willing to endure the process, and consequently most economic activity remains unregistered. Those firms that do attempt to register formally cannot hope to do it alone and are forced to hire consultants who specialize in registering firms. Based on interviews with local consulting firms, experienced consultants are able to register a new firm in anywhere from three and a half to five months, depending on the nature of the business, how politically connected a firm is and how much a firm is willing to pay. Results from the survey support this claim, and for the few firms that could accurately recall how long it took, the median time to register was 138 days. By contrast, the median time to start a business in India was 90 days and in China 30

days.¹³ In the World Bank's Doing Business data base, Mozambique ranks last among 110 countries in the time it takes to register a company. Consultants charge in the range of US\$1,000–\$1,500 for their services, which is then added to the fees required by the government agencies.¹⁴ One foreign firm recently registered a \$100,000 investment in Beira and paid \$3,700 (including payment to consultant), almost 4 percent of the investment.

Once a firm has a final inspection that does not mean it can begin operations. It must then register with the tax department to obtain a number. A foreign firm must also apply to open a bank account and begin applications for residence, work, and import permits—tasks that can add another four months to the wait. Most firms begin operating before they have work permits for their expatriates and use others' import permits to bring in their initial capital. Even when foreign firms begin operating without all of the necessary permits, it can still take at least three months after they are formally registered to begin work.¹⁵ Because of the bureaucratic burden, many companies just give up and decide not to invest in Mozambique. One consulting firm stated that recently four of the nine foreign firms they have worked with abandoned their investment plans after obtaining a registration certificate but before having a pre-inspection of their proposed premises.

Navigating the registration bureaucracy is a daunting barrier for potential entrants, and it is difficult for new investors, particularly foreign investors, to find the needed expertise to help them do so. It is necessary for firms to register with CENTRO DE PROMOÇÃO INVESTIMENTOS (CPI) if they want to take advantage of any investment incentives, and all foreign firms are encouraged to register. While the CPI can provide some information, the organization provides little help working through the registration process and provides no assistance once a firm is established. However, managers also reported that individuals in CPI will help in a private capacity as

independent consultants. CPI does not deal with foreign investments of less than \$50,000. Since firms must be recognized by CPI to receive investment incentives, this effectively means small foreign investors are ineligible for government help. In addition to the difficulty in registering firms, prospective investors also face a challenge in finding affordable and competent local consultants to help them through the process. Mozambique is replete with stories of investors who hired local lawyers, consultants, or moonlighting civil servants, but after paying substantial sums and waiting months, never received a certificate of registration.

The difficulties in Mozambique seem more daunting when contrasted with the environment in Madagascar, where local consultants report that it takes between 10 and 20 days to begin operations. A good consultant charges around \$800, and total fees due the government for a \$100,000 investment would be around \$650. In addition, Malagasy consultants advise that firms can obtain IFZ status in around three months. In Mozambique, obtaining IFZ status—for the very few firms that have managed to do so—has taken more than a year. In light of this, it is easy to see why Mauritian and other firms looking to set up in low-cost countries have not selected Mozambique.

Trade Regime

An efficient customs regime is necessary for Mozambique to be internationally competitive and

take advantage of its location astride trade routes. Quick clearance of shipments is vital to avoid disruption in production, reduce the need for large inventories, and improve responsiveness to customers.

There has been progress to some extent in customs procedures since 1998. Namely, the process of obtaining import licenses is easier and inspections are more efficient.¹⁶ However, there are still long delays in clearing goods. For the 2002 sample, the median time it took to clear goods after they arrived at the port of entry was 7 days, but there was a wide variation and the average was almost 12 days. Underscoring how unpredictable the importing process is, the average longest time for clearance reported in the last year was 18.5 days (for a comparison of clearance times with China and India, see table 2.10).

During the interviews, firm owners and managers put particular emphasis on the process of clearing trucks arriving in Maputo from South Africa. The average reported time to clear a truck was almost 7 days (the median was 5 days). Such long delays negate the advantage of close proximity to South African markets. It takes just a few hours to drive from South Africa but 5–7 days to clear customs. Consequently, when firms need time-sensitive imports such as spare parts, they resort to smuggling.

The length of time it takes to clear imports also forces firms to carry higher inventories, increasing the

Table 2.10 Length of Time to Clear Goods in the Last Year

	China	Mozambique	India
Avg. Days to Clear Imports	7.9	12	10.6
Avg. Longest Days to Clear Imports	12.5	18.5	21.2
Avg. Days to Clear Exports	5.4	17	5.0
Avg. Longest Days to Clear Exports	8.0	21	9.2

Source: CTA/RPED 2002 survey and World Bank Investment Climate Surveys.

demand on their working capital. The survey asked how inventories would change if companies could guarantee container clearance in 24 hours as some Asian countries do. For the 60 firms who import directly, such an improvement would have a large impact and would mean that on average they could reduce inventory levels by 21 percent. Such a significant change would free up large amounts of funds for productive investment and reduce operating costs in an environment with nominal interest rates of more than 25 percent.

Exporting from Mozambique is also difficult. Exporting firms reported that in the last year, it took them an average of 17 days to clear a shipment, with the average longest time of 21 days. Firms are required to get export permits and provide transportation and other support to the inspecting officials. They then hope their paperwork is correct and will be quickly processed. Firms shipping goods by sea, but still within the country, have to complete the same process as if they were exporting. For some reason, even firms sending used equipment out for servicing must go through a lengthy process to obtain permission to export and then re-import. Consequently, many companies resort to smuggling equipment out for repair and then back into the country. In a world where turnaround times and guaranteed delivery are critical, no enterprise can hope to be internationally competitive given these delays and uncertainty. Before recent political upheavals in Madagascar, a country with low labor costs similar to Mozambique, clearing exports through the port took on average between 3 to 4 days.¹⁷

Most companies adjust their business plans knowing that the process of importing and exporting is difficult and uncertain. Although they keep large stocks of raw materials and do not enter contracts that require strict deadlines, firms still lose opportunities because of delays. In the sample, nine firms reported losing an average of \$15,000, or almost 6 percent of

their sales last year because of delays in clearing imports. Another three firms said they lost an average of \$18,000, or close to 8 percent of their sales, because of delays clearing outgoing containers. These are significant figures given the small scale of firms in Mozambique, and they illustrate the importance of improving the customs regime.

Labor Laws

To be internationally competitive, firms must retain the flexibility to correctly size their work force, while also respecting the rights and protections of their workers. This is particularly important for labor-intensive manufacturing firms—such as garment manufacturers working under the Africa Growth and Opportunity Act (AGOA) provisions—that depend on orders to keep their workers employed. Enterprises in Mozambique are able to retrench workers when business slows down or when they adopt laborsaving technology, but only at a high cost. Mozambican labor regulations require that a retrenched worker receive up to three months pay for every two years of service. Although workers who are terminated for just cause are not eligible for these benefits, the process of terminating a worker can be drawn out in the courts for such a long time that often companies just pay the severance for workers caught stealing or otherwise violating terms of their employment.

In the most recent survey, almost 37 percent of the firms who responded to the question said that they retained more workers than was optimal. On average these enterprises would prefer to retain only 63 percent of their current work force. A rough calculation based on the average wage of unskilled workers, suggests that on average the cost of unneeded workers is equivalent to 21 percent of firms' annual sales. A few companies retained excess workers so they could respond quickly to increased demand, but most companies cited the high cost of retrenchment and provisions of the privatization program as reasons why they have too many workers. The lack of labor

flexibility is most important for foreign investors, with almost 45 percent of the foreign-owned firms in the sample claiming they retain excess workers, compared to only 17 percent of Mozambican firms.

Privatized companies were nearly two and half times more likely than always-private firms to have a workforce larger than their ideal. Although there may be no formal law preventing privatized firms from downsizing, owners report there is intense political pressure to retain all workers. In addition, it is prohibitively expensive. New owners were required to take on all current workers, even idle workers, when they acquired the firm. If they want to shed workers, they have to pay the normal severance. Since this is based on years of service and most privatized firms are long-established, reducing the work force would be a huge cost for the new management. The high cost of retrenchment in Mozambique increases the risk of expanding production or entering the market. It adds an additional burden to purchasers of former state-owned enterprises and may be one reason that privatized firms in the 1998 sample were less likely to exit than firms that had always been private.

Like many developing countries, Mozambique faces a shortage of skilled labor. But because it is immediately next door to countries with large pools of relatively inexpensive skilled labor, firms should in theory be able to easily access any skills they need at

a reasonable price. However, as shown in table 2.11, almost 33 percent of the managers in the sample cited the skills and education of their workers as a major problem. Firms must pay a premium for skilled workers, and in interviews managers often cited the difficulty and cost of finding skilled technicians and supervisors as the biggest impediment to increasing productivity. The Mozambican workforce lacks sufficient skilled labor, yet the private sector is also unable to easily avail itself of its neighbors' resources in this area.

One of the most difficult regulatory problems facing firms is obtaining permits for expatriate workers, although recently there does appear to have been some improvement. In 1998, 35 percent of the sample said that hiring expatriates was a significant problem compared to 26 percent in 2002 (table 2.12). Nevertheless, it remains a serious burden. In the current sample, enterprises that used expatriates reported that on average it took them 90 days and almost US\$400 to obtain a work permit. The difficulty of getting work permits varies widely, and a few firms reported that it took up to two years and nearly US\$1,250 to finally obtain a permit. Some foreign investors even claimed that they had been unable to obtain permission to work in their own businesses.

Managers have devised a host of methods to deal with the problem of bringing in skilled workers—none

Table 2.11 Firms' Perceptions of Specific Labor Regulatory Requirements
(% of firms)

	No problem	Small problem	Big problem
Hiring procedures cumbersome for foreign workers	26	23	50
Layoff procedures and cost of retrenchment	28	34	37
Limits on temporary hiring	42	42	16
Minimum wage laws	32	52	16
Hiring procedures cumbersome	47	43	10
Inflexible salary scale for skilled workers	41	51	8

Source: CTA/RPED Survey 2002.

Table 2.12 Share of Firms Reporting Labor Regulations as Major or Severe Problem

	1998	2002
Dealing with the Inspectorate of Labor	37	36
Hiring Foreign Workers	35	25

Source: CTA/RPED Survey 2002.

of which are efficient and all of which drive up the costs of doing business. Some firms bring in experts on tourist visas and force them to leave the country every 30–90 days to renew their visas. Others have expatriates begin work prior to obtaining legal authority, and some firms chose not to invest in new technologies because of the difficulty in hiring experts. These restrictions affect all enterprises trying to improve their productivity, but they hit foreign-owned firms the hardest. Interviews suggest that restrictions on employing expatriates are a significant reason why some investors have shied away from Mozambique. Almost 48 percent of the firms with foreign ownership in the sample said that hiring expatriates was a major problem for their business, compared to less than 20 percent of the indigenous firms.

Labor regulations and inspections provide a constant source of irritation for some firms, and there appears to have been little improvement since 1998 (table 2.34). In the first survey, 37 percent of firms said that dealing with the Inspectorate of Labor was a problem. Recent interviews cited a similar share of the overall sample. Foreign and large firms were more likely to identify this as a constraint than local or small firms. Almost 50 percent of firms with more than 200 workers reported that the Inspectorate of Labor was a problem compared to only 32 percent of smaller firms. Labor regulations and inspections impose a cost on all firms, but they are particularly burdensome for foreign-owned firms and large firms, further discouraging them from increasing their size or formally registering.

Access to Land

Obtaining land in Mozambique can be a major problem. All land is officially owned by the state, and private companies can only seek the right to use the land. If a firm buys an existing building, the right to use the land comes with it. Most firms in the sample had been in operation for many years or had moved into existing premises. Thus, 27 percent of the sample identified it as a major problem (see table 2.1 at the beginning of this chapter).

However, the cost of gaining access to land is illustrated best by the experience of the few firms in the survey that had recently tried to acquire land-use rights. For this small group of companies the process took on average almost 12 months and cost over \$18,000. Most of the difficulty appears to come in identifying and addressing all competing claims to particular plot. These difficulties cited by a number of local consultants as a reason that potential investors, especially in the agriculture sector, decides against investing in Mozambique. The process and possible solutions are explored in depth in the 2001 FIAS report *“Mozambique: Continuing to Remove Administrative Barriers to Investment.”*

Infrastructure Constraints

Mozambique's infrastructure, never well-developed, suffered tremendous devastation during the prolonged war. Bridges were demolished, roads mined, power transmission facilities destroyed and railroads heavily damaged. In the past 15 years, Mozambique has received vast amounts of aid directed at improving infrastructure, which is beginning to make an impact. Road transportation between the south and the center of the country has reopened, and now many goods that previously had to go by sea are shipped over land. However, poor infrastructure remains a serious drag on competitiveness. Table 2.13 gives a general indicator of the extent to which Mozambique still lags behind competitors.

Table 2.13 Indicators of Infrastructure Provision for Selected Countries

	Power consumption, 1999 (kwh/ca)	Paved roads as share of total, 1995–2000	Telephone lines per 1,000, 2000	Internet hosts per 10,000, 2000
Ghana	284	30	12	.06
Kenya	130	12.1	10	.32
Mozambique	54	19	4	0.10
Uganda	—	7	3	.07
India	379	45.7	32	—
Indonesia	345	46.3	31	—
Malaysia	2,474	76	199	—

Sources: *World Development Report 2003: Sustainable Development in a Dynamic World*; *World Development Indicators 2002*; and *African Development Indicators 2002*.

Power

Electricity emerges as the most serious infrastructure problem for the Mozambican manufacturing sector, with nearly 64 percent of respondents ranking it as a major or severe problem. More than twice as many firms singled out power as the number one infrastructure problem as did those that prioritized the next most important problem—the condition and density of roads. Moreover, only about 23 percent of Mozambican firms own generators (table 2.14). This is less than in China, where 30 percent of firms surveyed had their own generator, and India, where 69 percent did. On average, firms generate about 22 percent of their own power needs. But the median value is only 8 percent, indicating that most firms are able to rely on

the power grid for electricity the majority of the time. In the 1998 survey, almost 34 percent of the sample owned generators, which may indicate that the situation is improving.

The difficulties faced by the firms sampled are related to the inadequate performance of the state-owned vertically integrated power company *Electricidade de Moçambique (EdM)* and the lack of periodic tariff adjustments. Currently, only about 220,000 (equivalent to only 6 percent) of the total number of households have access to electricity. Moreover, the pace of access expansion for all economic agents has been slow: only 31,000 new customers were added between 1996 and 2000, and less than 50,000 are targeted for the next four years. This compares poorly to the more than 100,000 new households that will be established. Even where households and firms already have access, supply reliability is very low.

Although there have been some improvements in a few areas recently, EdM is also inefficient. Energy losses are more than 20%. Sales per employee are only about 5 MWh per year. The ratio of payroll to operating expenses has increased from 18% to 24%. The level of receivables has deteriorated from 123

Table 2.14 Power Constraints

Percent of sample with own generator	23
Median percent of self-generated power	8
Median times/month of inadequate power	5
Median lost production from power problems (% of sales)	2

Source: *CTA/RPED Survey 2002*.

days to 147 days. While some of these problems may be partly attributable to the floods of 1999 and 2000, much, under the control of EdM, could be done to improve performance, including better financial management (e.g., better recurrent expenditure control and capital expenditure planning), improved operational management, as well as more timely approvals of tariff adjustments

To remedy this situation, the Government of Mozambique intends to implement reform of the energy sector. This reform is designed to ensure immediate efficiency improvements as well as commence implementation of the longer term strategy to ensure that improvements are permanent and especially that there is a significant acceleration in access expansion. At the completion of this reform, there would be an increase access to modern energy, in peri-urban and rural areas, thereby facilitating improved quality of life of the respective communities and generating income. The program will comprise reforms necessary for improved performance of the power sector. More specifically, an independent regulator will be established to regulate and oversee the sector. Additionally, investments will take place to build a short medium voltage and low voltage distribution line to intensify the consumer base where the transmission system is already in place. This will involve grid-based and isolated grid electricity (including renewables). It will also promote the adoption of modern energy in rural areas by removing the barriers identified, and mitigate CO₂ emissions.

Despite some indications of improvement, inadequate power remains a serious problem representing significant costs to firms. Table 2.14 shows that the median firm in the sample suffered power interruptions about five times a month in the last year, and the median loss to production from power outages was 2 percent of sales. Firms in Mozambique are generally operating well below full capacity and can delay production to times when power is available. However, as capacity utilization

increases and manufacturing moves to processes requiring continuous power, unreliable electricity provision will become an even more severe constraint.

Transportation

Transportation remains a significant factor in the high cost of doing business in Mozambique. While considerable progress has been made in strengthening the transportation network, it is still costly to ship goods. For example, in 1998 firms in Beira reported that they generally shipped goods to Maputo by sea because it was too difficult to send them by road. Road transportation has now improved to the extent that it is now less expensive and faster to ship goods from Beira to Maputo by land.¹⁸ Road travel is made even more attractive because sending goods by sea requires companies to go through the same formalities as exporting.

Freight-forwarders in Beira report that shipping a container to Harare is almost 30 percent more expensive than sending it two-thirds the distance to Maputo (table 2.15). This illustrates one of the major impediments to trade. The higher costs reflect the difficulties of crossing borders and dealing with the formalities of exporting. Security is also an issue; the average firm in our sample loses about 1 percent of any shipment along the way to theft and damage.

The lack of ships calling at Mozambican ports, especially outside of Maputo, makes it difficult for firms to export. On the one hand, ships will not come until there is a large enough concentration of firms to warrant their stop. On the other hand, exporters are reluctant to locate where vessels do not call. In the interim, one way to mitigate this problem would be lower the costs of land transportation to Durban. This way, producers (especially those in Sofala province) could send containers cost-effectively by road to be loaded on ships in Durban. Currently, the cost of doing this is prohibitive, and firms state that the main sources of the high costs are the delays and fees required at the border.

Table 2.15 Shipping a 20-Foot Container from Beira

	Average Transport Cost	Average Time
To Maputo by Land	\$770	2 days
To Maputo by Sea	\$815	3–5 days
To Durban by Land	(no return cargo)	5–7 days
	\$5,000	
To Durban by Sea	\$900	4–5 days
To Harare by Land		
0–14 tons road	\$1,185	
0–14 tons rail	\$1,285	
14–22 tons road	\$1,445	
14–22 tons rail	\$1,285	

Notes: By road maximum allowable weight on Mozambican roads is 28 tons including container weight (per truck). A fine of \$210 is applicable for cargo exceeding 28 tons.

Source: CTA/RPED Survey 2002.

On a positive note, several reforms in the transportation sub sectors (port, railways, roads airport, airline) have been or are being implemented and should help reduce the cost and time required to ship goods within the country and outside of Mozambique. Some of them have already started to be implemented. Consequently, significant improvements are likely to take place soon.

A good example is in the port sector. Since mid April 2003, an international consortium, called Maputo Port Development Company (MPDC), made up of Britain's Mersy Docks and Harbour Company's, Sweden's Skanska BOT AB, Portugal Liscont Operadores de Contentores—who jointly hold 51% of the shares of MPDC and state-owned enterprise Mozambique Ports and Railways Company (CFM) took over the operations of the Maputo port through a concession.

This concession of the port is expected to significantly improve the quality of services provided by the Maputo Port and improve the competitiveness of Mozambique by being the port of choice for the

Southern African Region; in particular, for Gauteng Province in South Africa. However, South African companies would only choose to ship or receive their goods if there is a significant increase in the efficiency of port operations at the Maputo port and if the facilities and infrastructure in and around it are improved.

These improvements are very likely to take place given that over the next three years MPDC intends to rehabilitate and develop the port. This will include the introduction of two modern-design tugs, each with a bollard pull of at least 35 tons; the construction of a new port entrance linking the port directly to the N4 highway—allowing quick transport to South Africa; the purchase of new cranes and other material handling equipment; berth repairs; dredging; as well as the upgrading of the roads and rails in the port.

The railway sub sector is also undergoing changes in order to improve railway systems as well as intermodal links with ports, roads. For example, the 88 kilometer Ressano Garcia railway line, which links Mozambique to South Africa and is currently being

upgraded following the award of the concession to operate the line to Spoornet of South Africa will contribute to improving the quality of transportation to and from the Southern provinces of Mozambique and to neighboring countries.

In the management of airports, Mozambique has also made some significant progress by receiving proposals for a 15-year concession of the Maputo airport, the country's largest airport. It is expected that the new manager will not only bring additional management and know-how but also much needed investment. It is estimated that the selected bidder will need to invest at least US\$ 25 million to improve the runway, lighting systems, security, cargo handling as well as access to roads. This would provide the airport with much needed investment since the current terminal building and other facilities were built more than 30 years ago.

However, more needs to be done regarding airport management since the Maputo Airport, while the largest of the country, is only one of nineteen major airports managed by the State-owned enterprise Aeroportos de Moçambique. Other important airports such as those in Nampula and Beira would also benefit from new management and investments. This is important, since the current traffic levels at the main airports, Maputo, Beira and Nampula are much lower than the minimum volumes for efficient air transport operations and infrastructure. For example, it is foreseeable that the Maputo Airport could double the number of passengers that it receives on an annual basis from the less than 500,000 to 1,000,000. If the level of performance in terms of both passengers and aircrafts received does not raise significantly, there is a risk that the international and regional traffic be diverted to other destinations, including to the hub-and-spoke Johannesburg International instead of capitalizing on increased linkages with development corridors and feeding the domestic market with an increased traffic flow, which will lead to increased frequencies and improved prices, due to the better spreading of fixed operating costs.

In the air transportation, Mozambique can no longer rely on *Linhas Aéreas de Moçambique* to either meet the increased air transportation demand or facilitate domestic and regional market integration, while improving trade logistics. This is due to the fact that the provision of air transportation services in Mozambique is costly and limited in frequency as well as in geographical coverage within the country.

The Government has thus decided to divest from LAM and bring a private operator to manage and operate the airline. This privatization is currently under preparation and will help address the above-mentioned inadequate service provision. At this stage, LAM has been transformed into a limited liability company (SARL), a step which is necessary for its divestiture. Following this legal transformation, LAM is now owned by the State of Mozambique (80%) and by the employees and management of the company (20%). It should be noted that a previous offer to sell LAM was not successful. Consequently, the divestiture of the State from LAM will need to be carried out based on a sound strategy and adequate sequencing of the sector's reform, which would include the establishment of a complete set of regulations (technical and economic) that establishes clear regulations for the sector oversight as well as for the establishment of a capable regulatory body that will oversee the sector. Moreover, a transparent and sustainable approach for the provision of public service obligations will need to be established.

Telecommunications

Telecommunications was reported to be the least significant infrastructure problem. In fact, few of the firms surveyed complained about communications. In most industrial areas there is reliable telephone service, due primarily to the introduction of cellular telephone service in 1998–1999. Well over 80 percent of the sample stated that they regularly use cell phones. However, only about a third of the sample uses electronic mail, and close to 18 percent have

Web sites. Telecommunications has significantly improved in recent years and does not seem to be a major limiting factor for doing business in Mozambique, at least for medium to large sized enterprises. Nevertheless, the low degree of uptake of Internet services by businesses and the low availability of any kind of telecommunications service beyond the main urban centers are indications that further reforms in the sector are needed, which the government has begun to implement. To that end, the Government of Mozambique has embarked on a wide-ranging and ambitious telecommunication reform. The objectives of this reform are to improve access and quality of efficient and affordable communication services. This is being achieved by creating the enabling environment for competition, and private sector participation in both the fixed and mobile telephone operations.

Thus far, the reform has led to the establishment of an independent telecommunication and postal services regulator, the Instituto Nacional das Comunicações de Moçambique (INCM). Tenders to invite entry of second cellular mobile services operator has taken place and negotiations to award this bid are underway. Additionally, a pro-competition telecommunications law conducive to a multi operator environment has been drafted and is currently being discussed, while the strategy to divest the state-owned fixed line operator *Telecomunicações de Moçambique* (TDM) is being prepared. Additionally, key regulatory decrees on interconnection, licensing and INCM organization have been enacted, showing that the Government is making progress in this sector.

Investment, Productivity and Growth in Mozambique

The problems in Mozambique's business environment appear to have a significant impact on investment, productivity and growth. The advantage of relatively

low wages is more than offset by various constraints to investment and productivity. In particular, the lack of access to finance has greatly affected firms' ability to invest in productivity-enhancing technology and capital equipment. In addition to this, firm-level productivity remains low because firms are unable to hire skilled labor in a timely and cost effective manner. Uncertainty caused by government policies and regulations has also hindered the use of new technology by firms and has raised the barriers to foreign direct investment. The relatively low cost of unskilled labor does not compensate for these problems. The results described in this section show that Mozambique remains stuck in a low-level productivity trap; without improvements in the business environment, it is difficult to envision a significant increase in productivity and growth in the private sector.

Investment

Let us begin by looking at investment. The survey elicited information about investment undertaken by firms in the previous year in four categories: land and buildings, new machinery, old machinery, and new or old vehicles. A total of 67 investments were reported for the sample: 11 in land and buildings, 35 in purchase of new machinery, 18 in purchase of vehicles, and only 3 in purchase of old machinery. The number of sampled firms that had undertaken at least one investment is 51 (30.4 percent of all responding firms in the sample). About 25 percent of firms had some foreign ownership, which implies almost one of every two firms with foreign ownership invested in 2001.

The average investment to capital ratio (amount invested by firms relative to the replacement value of capital) was not very large, about 7 percent (table 2.16). However, there were some firms that invested a much larger ratio.¹⁹ Table 2.17 summarizes the ratio of investment to replacement value of capital for the investing firms.

Table 2.16 Investment to Capital Ratio and Fraction of Firms Investing

	Mean I/K	% of firms investing
Mozambique	.07	27
Nigeria 2000	.095	56
Kenya 1994	.11	54

Source: CTA/RPED Survey, 2002; and RPED data base

Table 2.17 Average Investment Ratio Relative to Replacement Value of Existing Capital

	Number	Average
Up to 1%	14	0.4
1–10 %	21	5.5
10–50%	7	27.5
More than 50%	8	—

Source: CTA/RPED Survey, 2002.

Table 2.18 provides size distribution of the investing firms. Only 4 percent of investing firms are micro-enterprises, a third are small firms employing less than 50 workers, and a quarter are large firms employing 100 to 250 workers. In the last column, the table also displays the share of firms in specific size

classes that are investing. This ratio increases with firm size, from 8 percent for microenterprises to 41 and 53 percent for the largest firms. Thus, larger firms are investing proportionately more than smaller firms in the sample, and this may help explain the higher productivity of large firms.

The food sector and the category “others” comprise the largest share of investing firms, while firms in the wood and furniture sector account for the smallest proportion (table 2.19). In terms of the share of firms investing by sector, 40 percent of firms in other sectors undertook investment, as did almost a third of the firms in food sector. In contrast, the lowest percentage of investment is seen in wood and furniture companies, followed by textiles and garments firms. The “others” sector comprises plastics, printing, and other recent entrants to the markets, who are likely to be investing because they are new. Garments and wood are under duress but are operating well below maximum capacity utilization.

Table 2.20 summarizes investment behavior of firms that were privatized against firms that were not privatized. Thus, the latter group also includes firms that still have government ownership (although their number is small). The table shows a clear inequality between investment rates for privatized firms. Only about one in four privatized firms invested in 2001, compared to almost a third of other firms investing. In

Table 2.18 Distribution of Firms Investing, by Size, 2001

Size	Number	% of Investing Firms	% of Firms in Size Class
1 Micro	2	3.92	8.3
2 Small	17	33.33	22.1
3 Medium	10	19.61	25.6
4 Large	13	25.49	40.6
5 Very large	9	17.65	52.9
All	51		27.0

Source: CTA/RPED Survey, 2002.

Table 2.19 Distribution of Firms Investing, by Sector, 2001

Size	Number	% of Investing Firms	% of Firms in Sector
Food	15	29.4	31.3
Textiles & Garments	9	17.6	22.5
Wood & Furniture	3	5.9	10.7
Metal	8	15.7	24.2
Others	16	31.4	40.0

Source: CTA/RPED Survey, 2002.

addition, the average investment ratio—or the value of investment relative to the replacement cost of existing capital—was 6.8 percent for the privatized firms versus 7.8 percent for the other firms. Privatized firms as a group are therefore investing less than other firms.

Finally, we can note the relative utilization of bank credit from among the investing firms. Only 15 percent of the firms investing had access to bank overdrafts. A key constraint highlighted by the survey data is that only 22 firms in the sample had access to overdrafts; this indicates that a third of the firms with overdraft access invested in 2001, against 25 percent of firms that invested without overdraft facilities. Similarly, 44 percent of the investing firms had access to bank loans. Thus 40 percent of firms with bank loans invested in 2001 relative to only 20 percent of firms without access to bank loans. On the one hand, a

greater percentage of firms using bank credit undertook investment in 2001 relative to firms without access to external credit. On the other hand, less than half the firms investing had access to bank credit. This implies that although the majority of firms are financing investments out of internal funds, access to external credit does help firms to invest in new equipment.²⁰

Table 2.21 analyzes sources of financing for investments in new machinery, which is the largest category of investments reported by the sampled firms. The first column shows unweighted averages; the second column shows relative share of various sources weighted by the size of the investment.²¹ Taken together, the two columns show that internal funds are the most important source of investment finance in terms of the number of investments being undertaken, with two-thirds of the investments being

Table 2.20 Investment by Privatized Versus Always Private Firms

	Privatized	Always Private
% investing	24.5	33.0
Average investment ratio	6.8	7.8

Source: CTA/RPED Survey, 2002.

Table 2.21 Financing of Investments in New Machinery

	Unweighted	Weighted
Internal	67.2	40.3
Banks	28.5	54.3
Friends and family	0.0	0.0
Other	4.2	5.4

Source: CTA/RPED Survey, 2002.

financed by internal funds, followed by 29 percent of the investments being financed by banks.²² When the figures are adjusted for the size of the investment, bank credit dominates, funding more than half the total investment undertaken, while internal funds account for 40 percent of the investments. Thus, while most investments are small and being undertaken by firms using internal funds, some firms with access to bank finance (presumably larger firms) are undertaking much larger investments financed by bank credit. This underlines the fact noted above—bank finance is insignificant in its coverage but highly significant in its impact.

A multivariate probit model analyzing the likelihood of investing helps pull all these factors together. The results show that size, access to bank loans, and foreign ownership are all positively correlated with investment (see table B.2 in the appendix). Age was also significant, with younger firms being more likely to invest, even though firms established before 1992 were more likely to have bank credit. Once all factors were controlled for, sector and location do not appear to affect the probability of investment. In addition, privatized firms are not less likely to invest than firms that were always private. If the new owners are foreign investors or have access to bank credit, then they are much more likely to invest and improve productivity. It is clear that the level of investment by a firm in Mozambique is linked to its access to finance; firms which are unable to get access to bank loans are also unable to take advantage of investment opportunities.

Linkages Between the Business Environment and Firm Level Productivity

The linkages between low levels of investment and productivity are worth noting in the case of Mozambique. Most investment that does take place goes to increase production or replace worn machinery with current technologies. Very few resources are devoted to improving production

processes or introducing new products. In the last three years, about a quarter of the firms in our sample have introduced new products.

Our data show that few firms engage in internal technical innovation. Less than 10 percent of the sample had personnel that they considered devoted to research and development. Most of these firms were medium to large with the average number of employees being 145 and the number devoted to R&D less than 4. Less than 7 percent of firms subcontracted R&D work. Most new technology is embodied in new machinery and firms in Mozambique usually work with equipment suppliers to identify appropriate technology.

It is also clear that government policies and regulations have a significant impact on firm-level productivity in Mozambique. A number of regulatory barriers affect private learning mechanisms and prevent Mozambican firms from making investments in raising productivity. The difficulty and expense of bringing in foreign experts makes many companies unwilling to invest in new technology that is unfamiliar to local workers. Several managers said that they refused to buy equipment that could not be up and running in the length of time covered by a tourist visa.

Only 20 companies in the sample have ever used external training or consulting services and most of them were local. Most respondents said that there was a lack of technical services in Mozambique but that they could acquire almost any services they needed from neighboring South Africa. Clearly many more companies had used external services than reported they had. But they had brought the consultants in on tourist visas due to the enormous regulatory burden related to obtaining business visas.

This same burden creates problems in terms of attracting and sustaining outside investment as well. Foreign direct investment bring benefits beyond just more investment. It is also a major source of innovation and technology transfer. But outside of the large projects that are able to negotiate special

arrangements with the government, foreign investors face many obstacles, due to the uncertainties of government regulation. The challenges of licensing and registering a new company are the most visible. But identifying land, obtaining work permits, importing capital equipment and the ability to repatriate profits are also very problematic. While there is no restriction on repatriating profits, many foreign investors in the sample had not yet done so and were wary of trying. Given the difficulties obtaining VAT refunds, investment incentives, and other promised services, investors were not confident that they would be able to easily repatriate profits.

The slow-moving import and export regime is an additional impediment to improving productivity. Uncertainty in clearing customs makes it difficult for companies to commit to delivery times, a key requirement for participating in the world market. The complications of sending out equipment for repair is yet another disincentive to acquiring modern technology. Exports are composed predominantly of a few products based on natural resources. These products, while extremely helpful, are not enough to promote competitiveness throughout the entire economy.

Firm-Level Productivity

Industrial growth in all countries is inextricably linked to growth in total factor productivity. In this section we analyze the performance of firms in Mozambique first by examining the productivity of key factors—labor and capital—and then by looking at total factor productivity. We find that firms in Mozambique, on average, have very low capital and labor productivity compared to other countries in Sub-Saharan Africa. This is offset somewhat by the extremely low wages of Mozambique's workforce. For some firms this leads to low unit labor costs, which allows them to compete with other companies across Africa. But for many firms, productivity is so low that even the inexpensive labor is not enough to make them competitive.

Labor. Mozambique's relatively low cost of labor should in theory offset to some extent, the constraints of finance and policy uncertainty that were discussed earlier. Data from the 1997 population census and labor force survey confirm that Mozambique has abundant supplies of surplus, low-cost labor not currently engaged in formal wage-earning employment. But productivity is so low that despite the low wages, labor costs are high. In addition, the lack of labor market flexibility in terms of hiring skilled labor raises the cost of labor. Skilled labor is relatively scarce in Mozambique. In principle, this is not a problem given the proximity to neighboring countries with abundant skilled workers. However, administrative barriers and regulatory hurdles make accessing skilled labor from outside Mozambique costly. The low wage level of unskilled labor is not enough to offset the regulatory burden imposed by government.

Table 2.22 shows average monthly wages in the sampled firms by skill category.²³ The average unskilled production worker in Mozambique earns almost \$43 a month, and professionals earn up to \$188 a month. The most useful earnings figure for international comparison is that of unskilled labor, which is significantly below that of many other countries. For example, in Madagascar, export processing zone (IFZ) firms in the garment sector reported paying between \$55 and \$65 per month for unskilled labor. In Nigeria in 2001, the average compensation for production workers was over \$87 per month. Clearly, in terms of wages, Mozambique has an advantage in unskilled labor. But given very low levels of labor productivity, many firms are still not competitive.

As in many countries, larger firms appear to pay higher wages. Table 2.23 shows that the average wage increases with size category. This information was obtained by randomly selecting ten workers from each firm across all worker categories and directly interviewing them about their wages. It could be that

Table 2.22 Labor Costs
(wages and compensation in U.S. dollars)

Type	N	Mean	Sd	Outliers	Max w/o Outliers	Mean w/o Outliers
Management	37	105.2	84.1			
Professional	27	188.1	204.1	583, 666, 800	416.6	126.2
Skilled	422	65.3	99.0	949, 1527	566	59.7
Unskilled	405	43.7	29.2	187, 210, 338	166.6	42.2
Non-production	248	67.0	85.0	562, 593, 833	375	59.7

Source: CTA/RPED Survey 2002.

Table 2.23 Average Wages by Firm Size

Size	N	Mean	Sd	Min	Max	Outliers	Max w/o outlier	Mean w/o outliers
1	85	35.0	19.4	2.8	125.0	2.8, 4.2, 104,124	66.7	34.6
2	479	57.7	108.2	2.6	1916.7	<4, >200 (total 15 obs)	187.5	45.7
3	323	59.3	52.6	4.6	583.3	<8, >200 (total 6 obs)	223.4	55.4
4	205	75.8	90.2	18.8	949.4	>300 (total 6 obs)	250	63.1
5	81	107.1	200.6	11	1527.1	<15, >600 (total 5 obs)	327.9	74.4

Source: CTA/RPED Survey 2002.

there were more skilled workers in the sample of larger firms, but even after controlling for skill level, larger firms pay higher wages.

A multivariate regression explaining earnings of workers in the Mozambican manufacturing sector finds that, as expected, highly skilled workers are paid higher wages. Managers and professionals receive the highest pay, and the amount of education a worker

is directly related to earnings. Older and more experienced workers also receive higher pay.

Firm size is highly significant in the regression; even when controlling for other factors, larger firms pay higher wages, as do firms established since 1992. Though statistically insignificant, foreign ownership is positive, suggesting that foreign-owned firms pay higher wages—a finding consistent with the

labor market in many other countries. The regression results also suggest that food processing firms pay higher wages than garments, metal, or wood firms; wages for firms in the “other” category are on par with the food sector. There also appears to be a regional effect with companies in Maputo paying higher wages than companies in the center of the country.

The higher cost of labor for large firms, after controlling for the quality of workers, is consistent with the widely held belief that large firms face a substantially heavier burden (and higher transactions costs) from regulations and institutions. This is reflected in the greater percentage of large companies with excess workers that cite labor laws as a large problem. Large firms also tend to be more unionized, which lowers their flexibility and raises costs. If the higher cost of labor is the result of higher transactions costs associated with the regulatory burden, this may well deter firms from growing and informal enterprises from registering.

Worker Training. Given the low skill levels of the work force in Mozambique's manufacturing firms, an important area of policy attention is worker training—a critical input for enhancing worker productivity. However, firms in the 2002 survey showed ambivalence toward worker training, as evident from responses to two questions asked in the survey: (i) Would government incentives for worker training have an impact on their business? and (ii) How important is worker training to business growth? In both cases, firms' responses fell equally across three categories—a third ranked worker training as having no impact, a third as low impact, and a third as high impact.

Table 2.24 summarizes firms' responses for the reasons why worker training was not undertaken in their firms. As would be expected, considerations of affordability and desire for government incentives ranked quite high. Interestingly, an overwhelming majority of responding firms cited inability to define or prioritize training needs as a constraint. This may be

indicative of lack of awareness of the benefits of investing in worker training, which is also supported by the fact that nearly 44 percent of the respondents claimed that there was no need for training—workers could just learn on the job. These responses may also reflect the fact that most firms in Mozambique are using antiquated production methods that require little formal training to attain a minimum level of efficiency. As discussed earlier, this lack of investment may well be caused by lack of access to finance.

Partial Factor Productivity. Table 2.25 presents the median capital to labor ratio across eight Sub-Saharan African countries.²⁴ We see that firms in Mozambique are very capital intensive compared to most other countries. Their capital intensity is similar to that of firms in Cote d'Ivoire and greater than that of firms in Ghana, Kenya, Tanzania, Zambia, and Zimbabwe. This is clearly driven by historical factors; many firms in Mozambique were highly capital-

Table 2.24 Factors Underlying Lack of Training

	% of firms
Cannot define/prioritize training needs	98.9
Lack of government incentives for training	52.4
Cannot afford formal internal or external training	49.5
No need—staff can train on the job	43.9
Too risky—trained staff may leave	21.7
Staff are uninterested in learning new skills	17.9
Cannot identify competent trainers for internal training	12.3
Lack of training by chambers of industry, business associations	10.2
Lack of training institutions for external training	8.4
No need—can hire staff from other firms	4.8

Source: CTA/RPED Survey 2002.

Table 2.25 Distribution of Capital-Labor Ratio

	Cameroon	Cote d'Ivoire	Ghana	Kenya	Tanzania	Zambia	Zimbabwe	Mozambique 2001
Median								
By Size	11496	5469	946	4511	4065	4417	4382	5302
By Size								
Micro	0.763	0.424	0.295	0.370	0.449	0.522	0.270	0.19
Small	0.808	0.893	0.773	0.899	0.814	0.920	0.696	1.19
Medium	1.148	1.739	1.352	0.853	0.856	0.951	0.851	0.99
Large	2.156	1.639	1.481	1.203	0.903	1.031	0.913	2.11
Very Large	1.388	1.525	2.001	1.060	1.828	1.129	1.196	0.62
By Sector								
Food	1.157	1.749	2.016	1.005	1.031	0.945	1.106	1.80
Metal	1.170	0.935	1.744	0.586	0.746	0.884	1.133	1.05
Textile	0.715	0.409	0.851	0.513	0.649	0.774	0.716	0.38
Wood	0.849	0.837	1.179	0.915	1.085	0.557	0.582	0.98

Notes: The median data are in U.S. dollars. All other values are median value of the group as a percentage of the full sample the median. Data for other countries was collected for three consecutive years between 1992 and 1996. These values presented are averages across the three waves of data.

Source: RPED.

intensive, state-owned enterprises in the past. There are very large differentials across size classes as well—capital intensity in micro firms is only 19 percent that of the median value, while large firms have more than double the capital intensity of the average firm. The result is that capital intensity *declines* in the largest size class, compared to the median, even though the absolute values of capital for large firms are high.

Table 2.26 examines value added per worker which is an approximate measure of labor productivity. We see that productivity in Mozambique is the *lowest* of all the eight countries considered. However, there are major differences across size classes. Labor productivity dramatically increases with firm size—large firms have more than double the labor productivity of the median firm. But productivity falls for the largest size class, which supports the

contention that the very largest firms are saddled with a labor force larger than that required for optimal efficiency. The pattern of changes in labor productivity and capital intensity across firm size suggests that firms are operating under constant returns to scale, and thus differences in productivity are primarily driven by differences in capital intensity. This is confirmed when we estimate a Cobb-Douglas production function.

Examining differences in capital productivity, we see that firms in Mozambique have very low capital productivity compared to other countries (table 2.27). Part of the reason is undoubtedly the higher capital intensity. Except for micro firms, the differentials are not very large across size groups, while in other countries we see sharp declines in capital productivity with firm size. This may be driven by the past government ownership of a large number of firms in

Table 2.26 Distribution of Value Added per Worker

	Cameroon	Cote d'Ivoire	Ghana	Kenya	Tanzania	Zambia	Zimbabwe	Mozambique 2002
Median By Size	9656	1122	1304	3337	1862	2962	3999	977
Micro	0.501	0.242	0.588	0.478	0.784	0.601	0.544	0.45
Small	0.731	0.959	0.919	1.000	0.758	1.050	0.772	1.00
Medium	1.988	1.251	0.868	1.011	1.220	1.017	0.970	1.53
Large	2.011	1.860	1.899	1.395	1.117	1.392	1.000	2.06
Very Large	1.784	1.805	2.656	0.848	2.016	1.576	1.230	0.89
By Sector								
Food	1.459	1.472	2.015	1.603	1.848	1.153	1.796	1.65
Metal	0.924	1.213	1.103	0.578	1.042	1.487	0.954	0.76
Textile	0.659	0.335	0.773	0.549	0.553	0.666	0.780	0.68
Wood	0.798	0.889	0.703	0.802	0.478	0.534	0.640	1.17

Note: The median and standard deviation are in U.S. dollars. All other values are median value of the group as a percentage of the full sample the median.

Source: RPED.

Table 2.27 Distribution of Value Added to Capital Ratio

	Cameroon	Cote d'Ivoire	Ghana	Kenya	Tanzania	Zambia	Zimbabwe	Mozambique 2002
Median By Size	0.89	2.45	1.41	0.81	0.66	0.64	0.88	0.19
Micro	0.65	1.77	2.42	1.07	1.60	1.03	1.49	2.37
Small	1.11	2.36	1.28	0.70	0.31	0.54	0.84	0.79
Medium	0.87	2.32	0.95	0.84	0.40	0.47	0.70	1.42
Large	0.80	2.65	0.65	0.73	0.37	0.59	0.93	0.95
Very Large	0.88	2.97	0.77	0.48	0.19	0.78	0.75	0.84
By Sector								
Food	0.85	2.01	1.47	0.91	0.60	0.66	0.91	0.74
Metal	0.99	3.09	1.11	0.83	0.67	0.68	0.62	1.16
Textile	0.78	1.67	1.99	0.86	0.53	0.47	1.01	2.26
Wood	0.85	2.76	1.01	0.75	0.72	0.70	0.98	0.84

Notes: The capital data for Cote d'Ivoire are less reliable than those for other countries. There was confusion in responses among sale, replacement, or market value of capital. This may explain the much higher VA/K ratio for this country.

Sources: Data for Mozambique from CTA/RPED Survey 2002; data for other countries from RPED 1992–1996.

the sample, even among the smallest ones. Often government-owned firms, with their easy access to finance, are more capital-intensive compared to firms in the private sector.²⁵ The higher capital intensity may also reflect burdensome labor regulations. In the interviews, several large firms stated that they chose to mechanize so that they could avoid the hiring more workers and increasing their administrative burden.

Total Factor Productivity and Firm Efficiency.

How do capital and labor interact to affect overall firm performance? Analysis using the total factor productivity approach shows that average firm efficiency is very low—0.38 for the entire sample, indicating that many firms are inefficient compared to the “best practice” firm in Mozambique (which would have a score of 1). Exporting firms, privatized firms, and foreign-owned firms perform better than others. Mean firm efficiency is lowest for the largest size class of firms (those with more than 250 employees). The high dispersion in efficiency shows that many inefficient enterprises survive alongside some very efficient ones. This situation demonstrates a lack of competitive pressure, as well as market segmentation.

Total factor productivity is estimated using the stochastic frontier approach. A frontier function was estimated including capital, labor, capacity utilization, and sectors as explanatory variables. The residuals of this regression provide us with efficiency indices for each firm, which is a measure of its total factor productivity. The best practice firm receives a score of 1, while the poorest performing firm a score of zero. The average efficiency of firms in Mozambique is 0.38, indicating that there are many inefficient firms surviving along with some very efficient firms.

Examining differences across firm size, we see that efficiency is similar for most size classes, increasing marginally between the micro and the medium size class and then falling again.²⁶ It drops significantly for the largest size class, falling to 0.28, compared to 0.45 for medium firms (table 2.28).

Examining differences across sectors, wood is the poorest performing sector, while upstream, industries such as garments and furniture are the best performing (table 2.29). Since the garments and furniture industries are labor intensive, and in Mozambique furniture has a low domestic resource cost, a move to these industries should reflect a move toward efficiency.

Table 2.28 Efficiency Differentials across Firm Size, 2001

Firm Size	Mean Efficiency (range = 0 to 1)
Micro	0.38 (0.24)
Small	0.36 (0.23)
Medium	0.45 (0.26)
Large	0.41 (0.22)
Very Large	0.28 (0.23)

Source: CTA/RPED Survey 2002.

Table 2.29 Efficiency Differentials By Sector

Sector	Mean Efficiency (range = 0 to 1)
Food	0.34 (0.23)
Wood	0.29 (0.20)
Furniture	0.45 (0.24)
Textile	0.31 (0.33)
Garments	0.45 (0.36)
Metal Working	0.36 (0.25)

Source: CTA/RPED Survey 2002.

A comparison of mean efficiency scores between privatized firms and firms that were never state-owned shows that privatized firms perform marginally better than always-private enterprises. There is no statistical difference between local and foreign-owned firms. Exporters perform significantly better than non-exporters, with mean efficiencies of 0.47 and 0.37, respectively (table 2.30).

Sharp differences emerge when we examine variations in average efficiency between privatized and always-private firms across size classes (table 2.31). We see that the smaller privatized firms are actually performing marginally worse than always-private firms. In medium-size firms, there is no difference between the two groups. However, for the large size class (100–249 employees), privatized firms perform much better than firms that were never state-owned, with a mean efficiency of 0.46 compared to 0.29 for always-private firms. The difference is also significant for the largest size class, where privatized firms have mean efficiency of 0.36 compared to 0.25 for always-private firms. This indicates that surviving privatized firms in the larger size classes are

Table 2.30 Efficiency Differentials across Other Firm Characteristics

Firm Type	Mean Efficiency (range =0 to 1)
Always Private	0.36 (0.25)
Privatized	0.41 (0.21)
Non-exporters	0.37 (0.23)
Exporters	0.47 (0.27)
Foreign-Owned	0.39 (0.23)
Domestic Firm	0.38 (0.24)

Source: CTA/RPED Survey 2002.

Table 2.31 Mean Efficiency Differences by Size Class: Privatized vs. Always Private Firms

Firm Size	Always Private	Privatized
Micro	0.38 (0.24)	n.a.
Small	0.37 (0.24)	0.31 (0.24)
Medium	0.44 (0.33)	0.45 (0.18)
Large	0.29 (0.17)	0.46 (0.23)
Very Large	0.25 (0.26)	0.36 (0.15)

Source: CTA/RPED Survey 2002.

improving in the face of competition. Most of these efficient firms have invested in new technologies, often in conjunction with foreign owners or partners, to increase their productivity.

The third and final element in our discussion of firm performance is firm growth. So far, we see that investment levels and firm productivity have suffered due to the constraints of lack of finance, inability to hire skilled labor and import new technology, and a burdensome regulatory environment. Let us now look at the factors determining firm growth in Mozambique.

Firm Growth

After a severe contraction in the early 1990s, the Mozambican manufacturing sector rebounded sharply in 1995–1996. Firms began to bring back on-line, capacity that had been left idle during the war. Firms grew rapidly, in large part because they were starting from a very low base. Managers were optimistic and confident that rapid growth would continue; a 1998 CTA/RPED survey of Mozambican manufacturing found that almost three-quarters of the sample expected sales to rise in subsequent years. Actual experience, however, has run contrary to this optimism.

Sales and employment data from this survey provide an indication of how the manufacturing sector is performing. Given that many firms did not respond and that there is little overlap between the 1998 and 2002 survey samples, it is not possible to say categorically how sectors are performing from these data. However, the evidence does suggest that growth has decelerated. The manufacturing sector is still going through a process of restructuring, inefficient firms are closing, and more efficient companies are seeing rapid growth. Sectors consisting of older firms are finding it difficult to compete in the global market, while new entrants, such as printing and plastics, are operating successfully. The story regarding firm growth is consistent with the results for productivity and investment; manufacturing has not shown strong employment creation or rapidly growing sales and investment levels have been low. Mozambique's business environment is acting as a drag on all of the key indicators of firm performance and private sector development.

Firm Exit. More than 30 percent of firms from the 1998 survey were no longer operating and could not be re-interviewed in 2002. In addition, a few firms that were still open were essentially moribund with almost no sales. An analysis of the firms that failed showed

distinct patterns. Most important, firms that reported levels of output per worker in the lowest decile had the highest probability of exiting; those in the highest 10 percent were much more likely to survive. This suggests a move toward higher overall efficiency as low-performing firms exited in the face of increasing competition.

Controlling for size, location, privatization status, sector, and productivity, large enterprises were more likely to survive than small ones, which is consistent with the view that the business environment is more difficult for smaller companies. Firms in the north were significantly less likely to exit than those in other regions. A larger percentage of wood and furniture firms closed than any other sector. Remarkably, privatized firms displayed significantly lower probability of closing than firms that had always been private.

Sales and Employment Changes. Consistent with the high rate of exit, the sales and employment data collected in the survey suggest that the manufacturing sector has not been growing rapidly. For the 1998 sample, the average annual real sales growth between 1992 and 1997 was 20.5 percent.²⁷ There is, however, a high degree of variation in sales figures, and the median value was only 1.4 percent (Table 2.32). Some firms were growing at explosive

Table 2.32 Annual Percentage Real Rate of Sales Growth, Various Years

	Mean Average Annual	Median Average Annual	Percentage with Negative Growth
1992–1997 ^a	20.5 (68)	1.4	45.6
1997–2001 ^b	1.1	5.4	38.3
1997–2001 ^c	4.0 (60)	6.0	36.7
1999–2001 ^c	3.8 (60)	0.9	45.0

a. 24 companies overlap between 1992–97 and 1997–2001.

b. 73 companies reporting 1998 and 2001 data.

c. 60 companies reporting 1998, 1999, and 2001 data.

Source: CTA/RPED Survey 2002.

rates as they brought productive capacity back on-line and regained access to markets denied to them during the war. Other companies, which previously operated in protected markets or had guaranteed contracts from the government and clients in Eastern Europe, could not compete, and saw dramatic declines in sales volume. But as mentioned earlier, most managers either had expected high sales growth in the post-1996 period.

The 2002 survey attempted to re-visit all firms seen in the earlier survey and assess changes in performance. Unfortunately, because of the high rate of exit and the lack of recall data, we were left with only a small sample of 73 firms that reported sales data from 1997 and 2000 or 2001, and only 24 of these firms were also in the 1998 survey.²⁸ The average annual rate of real sales growth for the 1997–2000 sample was only 1.1 percent, but the median was a much stronger 5.4 percent.²⁹ This evidence demonstrates that there is still considerable restructuring taking place. Weaker firms are suffering large decreases in sales as competition from imports intensifies, and some new entrants are showing rapid sales growth. But the very high average growth rates have leveled off, as most productive capacity is back on-line and few firms are investing significantly to create new capacity.

Employment data, often a more accurate indicator of firm performance than sales, indicates an average annual growth rate of 0.5 percent for firms providing

data in both 1998 and 2002.³⁰ The median growth rate was 0.8 percent. Turning to the larger sample available for 1999–2002, the growth rate is actually negative, and the median and mean average growth rates are –1.6 and –2.0 percent, respectively (table 2.33). This is similar to the results from the previous survey that found average annual growth rates of employment declining at about the same rate. It appears that firms are still restructuring and shedding workers. This may be due to rigid labor laws that have prevented firms from fully adjusting their workforce, or it may be in anticipation of falling sales growth. It is clear, however, that firms in the manufacturing sector have not been growing significantly and do not anticipate doing so in the near future since most companies in the sample are reducing their employment.

Analysis of performance by sector shows distinct changes during the last four years. Firms in the “other” category have grown sharply (table 2.34). These are mostly companies in plastics, printing, and other recent entries into the market that were not seen in 1998. The food sector has shrunk in terms of both sales and employment after previously being the fastest growing sector. Many food processors have suffered in the face of import competition, and even some of the very large companies in the food industry have experienced hard times. The garments sector firms appear strong, but this must be put into context. Those garment firms that have been able to survive by

Table 2.33 Annual Percentage Rate of Growth in Employment

	Mean Average Annual	Median Average Annual	Percentage Losing Workers
1992–1998	–0.5 (80)	–1.6	60.0
1998–2002	0.5 (70)	0.8	49.3
1999–2002	–2.0 (120)	–1.6	62.5

Note: Thirty-five firms overlap between 1998 and 2001.

Source: CTA/RPED Survey 2002.

Table 2.34 Annual Percentage Real Rate of Sales Growth and Employment, By Sector

	1992-1997		1997-2001	
	Real Sales	Employment	Real Sales	Employment
Food				
Mean	26.0	-1.8	-10.6	-5.4
Median	4.7	-0.9	-4.2	-2.4
Metal				
Mean	9.1	-3.1	4.7	2.5
Median	-5.1	-3.2	6.2	2.6
Garments				
Mean	50.4	1.4	7.9	-2.1
Median	10.4	-1.5	13.4	-4.0
Wood				
Mean	13.2	4.1	-2.4	-0.5
Median	4.5	0.9	4.7	1.7
Other				
Mean	11.9	-4.1	14.1	3.0
Median	8.6	-4.1	21.0	1.2

Source: CTA/RPED Survey 2002.

exporting or contracting with the government have done well, but many others have exited, and all of the textile companies in the earlier sample appear to have closed.

In the recent survey, large firms had the lowest average annual sales growth (table 2.35).³¹ This is in contrast to the 1998 survey that found that large firms were growing the fastest. Firms in the smallest size category have been increasing in sales since 1997 but have also been shedding workers faster than other categories. This is consistent with the fact that labor regulations prevent large firms from reducing workers as quickly as they would like but that small firms are less affected by such constraints.

Privatized firms report laying off workers faster than always private firms, and their sales growth figures are significantly lower. This suggests that privatized firms are finding it hard to compete and that their low exit rate might be due to provisions of the privatization program.

Controlling for sector, size, age, and other factors, our analysis confirms that larger firms grow more slowly than smaller firms, and older firms grow more slowly than newer firms. In the earlier survey all firms were growing from an equally small base as output was re-established. Most excess capacity has now been restored, so smaller and newer firms are growing faster because they are starting from a lower

Table 2.35 Annual Percentage Real Rate of Sales Growth, By Size

Number of Workers	1992-1997		1997-2001	
	Real Sales	Employment	Real Sales	Employment
1-49				
Mean	18.7	-1.3	0.5	-5.5
Median	0.7	-2.9	9.7	-6.5
50-99				
Mean	18.0	-0.2	13.9	0.6
Median	-2.1	-0.9	7.3	0.0
100 +				
Mean	31.2	0.5	-5.3	-1.8
Median	9.0	-1.5	0.3	0.0

Source: CTA/RPED Survey 2002.

base. Interestingly, after controlling for various factors, privatized firms appear to have grown more gradually than companies that were never state-owned. Employment by exporters has increased more than in non-exporting firms, and garments have had lower growth compared to other sectors. The "other" sector has the highest growth rate, and firms in the north showed negative growth compared to companies in the other regions. (For sales growth figures by export status and privatized versus always private, see tables 2.36 and 2.37). Overall we do not see a high rate of growth in the Mozambican private sector. Things have slowed substantially after the initial rebounding of the private sector in the mid 1990s.

It is clear from our analysis of the survey data that firms are severely constrained by lack of finance, policy uncertainty and the regulatory burden, and lack of infrastructure. Even the low cost of labor does not compensate for the burden imposed by the business environment. These constraints have retarded private sector growth in Mozambique, as evidenced by the low levels of productivity, investment and firm growth.

Notes

5. The previous survey also found the use of trade credit to be miniscule in Mozambique, as well as the use of informal loans. See CTA/RPED (1999).
6. Companies providing leasing arrangements have recently begun operations in Mozambique and appear to hold great promise.
7. Some ethnic communities have their own dispute resolution systems. For example, in Mozambique and other East African countries it is reported that some members of the Muslim community use religious leaders to mediate disputes.
8. One of the four firms citing that collateral was not required was a very large firm with more than 250 workers. The others were in the 100-250 size category.
9. Cadot and Nasir (2001).
10. For the exact methodology please access the Doing Business Web Page at <http://rru.worldbank.org/DoingBusiness>

Table 2.36 Annual Percentage Real Rate of Sales Growth, By Export Status

	1992-1997		1997-2001	
	Real Sales	Employment	Real Sales	Employment
Exporter				
Mean	25.0	2.8	-10.0	-1.5
Median	7.7	-0.9	-8.6	2.2
Non-Exporter				
Mean	19.3	-1.2	3.1	-1.6
Median	-0.3	-2.1	6.0	-2.1

Source: CTA/RPED Survey 2002.

Table 2.37 Annual Percentage Real Rate of Sales Growth, Privatized versus Always-private

	1992-1997		1997-2001	
	Real Sales	Employment	Real Sales	Employment
Privatized				
Mean	22.3	0.8	-3.4	-3.5
Median	3.2	-0.6	0.7	-3.7
Always private				
Mean	19.3	-1.2	4.6	-2.4
Median	1.3	-2.0	9.7	-4.0

Source: CTA/RPED Survey 2002.

11. A description of this torturous process is given in appendix C.
12. The recent report by the World Bank Group's Foreign Investor Advisory Services group (FIAS) details the process along with recommendations to improve it. It recommends automatic registration and licensing for only selected industries.
13. Recent World Bank Investment Climate Assessments.
14. Based on interviews with local consulting agencies.
15. See Annex C for a detailed break down of registration steps.
16. It was recently announced, after the data for this study were collected, that the system of pre-declaration, whereby firms had to pay a deposit of 15 percent of duties owing before importation, has been abolished. This is an important step toward improving the trade regime.
17. Interviews with Malagasy Exporters. Cadot and Nasir (2001).
18. It should be noted that almost the entire sample was drawn from enterprises located in major

urban areas along transport corridors. Roads remain a serious issue in outlying areas.

19. Among the eight firms with investment ratios exceeding 50 percent, three show investment ratios of higher than 6,000 percent, which may be due to underestimation of their capital stock combined with an investment large in absolute value.
20. Of the 29 firms that invested and had access to bank overdraft or loans, 5 had access to both loans and overdrafts, 2 to only overdrafts, and 17 to only bank loans.
21. One firm reported using friends and families as a source, and only two reported "other" sources of financing. However, two of these three investments also happened to be by far the largest investment amounts. These outliers have been dropped from the results reported here.
22. More precisely, if all investments were of equal magnitude, internal funds would be financing 67.2 percent of the investments and banks 28.5 percent.
23. For easier international comparability, the average wages are depicted in U.S. dollars using an exchange rate of US\$1=24,000 Mts.
24. Due to the high variance across firms, the median was found to be the best measure of central tendency.
25. Other RPED countries such as Tanzania and Zambia also had many state-owned enterprises. However, they were not as extensive and did not appear in all size categories as they do in Mozambique. The samples in the other countries had a much lower proportion of firms that were recently privatized.
26. The results here are simple averages across different groups and provide a good indication of efficiency differentials. A more rigorous econometric analysis, examining each of these in a multivariate regression by augmenting the

frontier will be explored in future, along with a cross-country analysis of productivity differentials by estimating a common cross-country frontier.

27. These figures differ from what was reported in the 1998 report because of different ways of calculating growth rates and also because only clearly unexplained outliers were dropped.
28. The sales data from the 1998 survey are for 1997. The 2002 survey was conducted between May and July 2002. Firms do not have to close their books until May for the previous year. Consequently, many firms interviewed early in the process could not report sales data for 2001 and instead substituted 2000 figures.
29. The percentage change in real sales over the period ranged from a few thousand percent for start-up firms to almost negative 100 for moribund firms. The high variation in real sales is also a result of inaccurate reporting data. Very large statistical outliers that could not be explained were dropped. Additionally, firms in which the interview team accountants found the figures to be inconsistent and unreliable were dropped.
30. Sales figures are notoriously unreliable; firms misrepresent them, the choice of deflator radically alters the real value, and it is often difficult to construct recall data. While sales may fluctuate widely from year to year, firms attempt to structure employment levels on expected long-term trends. In economies where there is little investment toward labor-saving productivity, as in Mozambique, increases in employment are a good predictor of expected sales growth. In addition, companies are usually much more willing to provide accurate employment figures than sales figures.
31. We have combined the medium, large, and very large size categories into one to give a larger sample size and to remain consistent with the 1998 survey report.

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Business Environment	54

There are marked differences between the business conditions of the different regions in Mozambique. Because of the long distances, the underdeveloped transportation network, and strong provincial governments, the north, south, and center of the country can be viewed as distinct economic environments. The survey found that in all regions, firms source on average over 90 percent of their domestic resources and make over 90 percent of their sales in the same region. Regional trade patterns reinforce these differences, with the natural trade routes in the south running from Maputo to South Africa; in the center from Beira through Chimoio to Zimbabwe; and in the north from Nacala to Nampula and to Malawi. To understand these regions and how their local investment climates may differ, the sample included firms in all three of the major regions.

Performance

With its better infrastructure and proximity to South Africa, the south has seen the majority of new

investment. Table 3.1 reveals several trends when growth is analyzed by region. Sales appear to be much higher in the Maputo region than in the north or center. However, employment growth seems a bit stronger in the north. The difference between the growing employment and falling sales in the north is probably due to the fact that some firms reported sales and not employment, and others reported employment but not sales. There are more firms reporting sales figures than employment, and it appears that generally growth is a bit weaker in the north. Surprisingly, the unrest in Zimbabwe that was expected to have a severe impact on the center does not clearly appear in this data. However, anecdotally, many local businessmen suggested that some effects may be masked by the aggregate data. Some firms may have been deeply affected, resulting in negative average sales and employment growth, but most firms are growing, so the median figures are positive.

The analysis of investment probabilities did not find a significant regional difference. However, examining total factor productivity differences across location, we find that firms in the north have much

Table 3.1 Annual Percentage Real Rate of Sales Growth, By Region

	1992-1997		1997-2001	
	Real Sales	Employment	Real Sales	Employment
Maputo				
Mean	15.8	-1.2	6.1	0.3
Median	-0.3	-2.1	7.6	-0.3
Center				
Mean	26.3	-1.6	-4.1	-1.9
Median	1.4	-0.9	4.1	1.8
North				
Mean	26.6	-0.6	-14.1	0.2
Median	4.5	-2.9	-18.4	2.6

Source: CTA/RPED Survey 2002.

Table 3.2 Mean Efficiency Differences by Location

Location	Mean Efficiency
North	0.27 (0.26)
Center	0.35 (0.21)
South	0.40 (0.23)

Source: CTA/RPED Survey 2002.

lower efficiency than firms in the center and south, with the south being the most productive (table 3.2). Manufacturing in the area around Maputo has had more growth and higher levels of productivity than the other regions. Much of this stronger performance can be traced to the better business environment. The overall operating conditions, including the regulatory burden and provision of infrastructure appears to be better in the Maputo area than in either the north or the central regions

Business Environment

It has been suggested that the business environment is significantly different among regions and that outside of Maputo, the cost of doing business rises because of high administrative barriers, heavy bureaucratic burden, and poorer infrastructure. The

data from the 2002 survey suggest that there is some truth to this but that the regional differences are not as pronounced as some perceive them to be.

Confidence

One area in which regional differences occur is business confidence, which remains relatively high in all regions and highest in the center. The Beira–Chimoio corridor has suffered because of recent problems in neighboring Zimbabwe. Nonetheless, firms in the center of the country on average reported that they expected sales to increase in the next year by nearly 10 percent more than firms in Maputo and over 15 percent more than those in the north. Expected investment was also correspondingly higher (table 3.3).

Bureaucratic Burden

The central region—and the Sofala province in particular—has a reputation for being a less business-friendly and for suffering from a higher level of bureaucratic burden.³² The survey data appear to justify this contention to a certain extent, although it is not as severe as sometimes suggested. By many measures, the center seems to suffer more from overly bureaucratic business regulation than either the north or the Maputo regions. Central region companies reported that it took an average of 215 days to register, but the median time was only slightly higher than reported in the other regions. In the north and the center, a few companies reported that it took almost two years to register, but in the Maputo area no firm

Table 3.3 Expected Changes in the Next Year

	Mozambique	Maputo	Center	North
Average Expected Increase in Sales	19.5	19.0	26.0	13.5
Average Expected Growth in Investment	14.0	13.7	19.7	6.8

Source: CTA/RPED Survey 2002.

Table 3.4 Days to Register and Required Permits

	Mozambique	Maputo	Center	North
Days to Register a New Company				
Mean	167	172	215	167
Median	137	141	165	103
No. of Permits Required to Open				
Mean	2.4	2	3	1.3
Median	1	1.5	3	1

Source: CTA/RPED Survey 2002.

reported more than a year. The average number of permits required to open a business was also reported to be higher in the center than in the north or Maputo (table 3.4).

The red tape that firms face can also be measured by the number of inspections and the amount of senior management time spent on government bureaucracy. Here again, the Beira–Chimoio area fares worse than other areas. It is interesting to note that the number of inspections by local tax officials is higher in the center than elsewhere, while the average number of inspections by national authorities does not appreciably differ. This lends credence to the argument that local officials are responsible for the higher administrative costs. Overall, the number of inspections was highest in the center with the average firm being subjected to some type of government inspection

(such as health, labor, or others) six times in the last year. By these measures, the lowest bureaucratic burden appears to be in the north, where both the average number of inspections and the average management time spent on government regulations are the lowest of the three regions (table 3.5).

Customs Clearance

A significant regional difference is the amount of time that it takes to clear goods into and out of the country. Firms in the center take nearly 30 percent longer to clear imports than firms in the north or Maputo. But when it comes to exports, managers in the north report that it takes almost twice as long to clear goods as it does in Maputo. The longest times reported to clear shipments in the last year were also much longer in the north and center than in Maputo. It is impossible

Table 3.5 Management Time and Inspections

	Mozambique	Maputo	Center	North
Avg. Percent of Senior Mgmt. Time Spent Dealing with Gov't Regulations	11.3	11.8	14.0	5.5
Avg. Number of Tax Inspections by National Authorities	1.3	1.2	1.5	1.6
Avg. Number of Tax Inspections by Local Authorities	2.2	1.9	3.0	0.8
Avg. Number of all Inspections	4.5	4.3	6.0	3.3

Source: CTA/RPED Survey 2002.

Table 3.6 Average and Longest Clearance Times

	Mozambique	Maputo	Center	North
Average Days to Clear Imports	12	10.5	13.9	10.8
Average Days to Clear Exports	17	10.2	13.5	20.5
Average Longest Days to Import	18.5	17.3	24.2	21.3
Average Longest Days to Export	21	12.3	32.6	36.7

Source: CTA/RPED Survey 2002.

for companies to be competitive with such long delays, especially in an economy so dependent on imported raw materials. Of course, these discrepancies may be due to several factors, including poor infrastructure and bureaucratic delays, but it appears that one of the most overwhelming impediments to operating outside of Maputo is the customs clearance process (table 3.6).

Infrastructure

The most striking difference among the regions is the level of infrastructure development. As the 1998 survey revealed, the quality of the infrastructure declines as one moves north. The Maputo area is better served in almost every facet than either the northern or central regions.

Managers ranked erratic power supply as the single most important infrastructure problem, followed by poor roads; 46 percent of firms rated power as the

biggest overall infrastructure problem with little difference among the regions. But by most measures, power supply appears to be a smaller problem in the Maputo area. As table 3.7 shows, the fraction of companies in the center and the north with their own generators is significantly higher than in the Maputo region. Likewise, the median average number of power outages in the areas outside of Maputo is almost twice that in Maputo. This is generally the same pattern reported in 1998. The average number of power outages has changed little in all regions.

“Roads and transportation” was the second ranked infrastructure obstacle. Although roads are generally considered worse in the center and the north, a larger fraction of managers in Maputo ranked transportation as their number one infrastructure problem than did those in the center. This is undoubtedly because firms in Maputo are more likely to ship goods long distances than those in either the

Table 3.7 Percentage of Firms with Generators and Average Power Outages

	% with Generator	Avg. No. of Power Outages per Month	Median of Avg. No. of Power Outages per Month
Mozambique	22	17.5	5
Maputo	16	11.4	4
Center	41	30.1	10
North	25	29.4	10

Source: CTA/RPED Survey 2002.

center or the north. One should keep in mind, however, that subjective rankings of infrastructure constraints depend on the nature of the business. If the infrastructure is particularly poor in one area of the country, firms located there may structure their operations to mitigate this constraint. For example, if firms consider the roads to be in bad condition, they will search for ways to reduce their use of them. However, as businesses grow, this “latent demand” cannot be ignored, and transportation can become a more serious constraint. Road conditions and density in general are so poor in the north that 30 percent of the sample listed them as their number one infrastructure problem, and almost 40 percent said that they were a major or severe problem (table 3.8).

Security and water are also significant infrastructure concerns. Around 67 percent of the overall sample ranked security as a major problem, with 8 percent ranking it as their number one infrastructure problem. Significantly, security seems less of a concern for firms in the north. Water supply is ranked as the number one problem more often in the north than in the other regions and more often in the Maputo region than in the center. However, these subjective rankings are a bit misleading. More companies in Beira have their own water supply than in any other region, and the average number of days per month without required water is also higher in the center (table 3.9).

Table 3.8 Infrastructure Obstacles in Mozambique

	Mozambique		Maputo		Center		North	
	% ranking Major or Severe	% ranking No. 1 Infr. Prob.	% ranking Major or Severe	% ranking No. 1 Infr. Prob.	% ranking Major or Severe	% ranking No. 1 Infr. Prob.	% ranking Major or Severe	% ranking No. 1 Infr. Prob.
Power	64	46	71	44	55	50	54	50
Security	67	8	72	10	65	7	37	6
Transport	28	25	25	27	26	13	39	30
Telecoms	21	1	23	2	21	0	4	0
Water	NA	7	NA	7	NA	5	NA	10

Source: CTA/RPED Survey 2002.

Table 3.9 Share of Firms with Own Water Source/d Incidence of Inadequate Water Supply

	% with Own Water Source	Average No. of Times Water is Inadequate (per Month)
Mozambique	23	13
Maputo	19	12
Center	41	14
North	16	37

Source: CTA/RPED Survey 2002.

Table 3.10 Share of Firms Regularly Using Telecommunications

	% Using Landlines	% Using Cell Phones	% Using E-mail	% Using Web Sites
Mozambique	91	86	36	19
Maputo	93	92	40	19
Center	97	89	43	29
North	76	62	14	7

Source: CTA/RPED Survey 2002.

Overall, telecommunications facilities were not reported as a significant problem in any region. The north, however, appears to have less access when compared to firms in the Maputo and center regions. As table 3.10 indicates, use of e-mail and Web sites are particularly lacking in the north, which managers generally blame on the costs and reliability of Internet access.

Finally, it is interesting to look at what the growth rate of the private sector would be in Mozambique if it acquired the investment climate that currently prevails in India. In particular, we would like to know the gains to the private sector if the investment climate as measured by four key indicators—frequency of inspections, cost of electricity from the public grid, overmanning, and the use of e-mail—improves to the levels of India. Table 3.11 shows mean values of these four variables in Mozambique and India.

Table 3.11 Key Indicators of Investment Climate

Key Indicators	Mozambique	India
Cost of electricity	7c/kwh	9c/kwh
Optimal share of workers (%)	84.1	82.8
Frequency of inspections/year	3.48	9.14
Share of firms using e-mail to contact supplier (%)	31.1	43.9

Source: RPED/CTA Survey and FACS Survey

Not all aspects of the investment climate are better in India. The cost of electricity is slightly higher, and Indian firms report that they would keep slightly fewer workers if they were allowed to shed excess labor. Indian firms do use e-mail more than their Mozambican counterparts and report a higher rate of inspections.

We estimated a simple growth equation to look at the difference in the growth rate of the private sector, if Mozambique adopted India's investment climate variables. We estimate log (annual growth rate of sales between 1999 and present) as a function of log of initial sales in 1999, log of number of workers, sectoral dummies, and the four investment climate indicators mentioned above. We found that if Mozambique had India's investment climate indicators, the overall annual growth rate of its private sector would be higher by an additional 1.9 percent per year. This is almost 25 percent higher than its current annual growth rate of 7.9 percent. In particular, the large difference in e-mail usage has a substantial effect on growth.

Note

32. See Harding 2000.

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Government policies should focus on creating an enabling environment that encourages investment and supports efforts to raise productivity levels. While there has been much progress since 1998, the government must continue efforts to create conditions in which a dynamic private sector can thrive and make use of Mozambique's natural advantages.

Macroeconomic Stability

Mozambique has been successful in limiting inflation, preventing undue appreciation of its currency, managing public debt, and generally achieving macroeconomic stability. It must sustain this stability, which will be increasingly difficult in the face of declining aid.

Mozambique must manage public debt prudently and maintain a buffer to accommodate increased public debt when needed. After a recent round of debt relief that cut its external public debt by about two-thirds, Mozambique has such a buffer. Today, the present value of Mozambique's external public debt is about 24 percent of GDP or roughly equal to current value of annual exports, with a debt service to exports ratio of about 4 percent. Without the necessary fiscal effort, annual deficits will progressively erode the buffer and leave no room for the government to deal with contingencies, which are a virtual certainty over the medium term. The resulting instability could rapidly choke off growth and make poverty-reduction goals unobtainable.

Encouraging Investment

The government must resolve administrative barriers that discourage investment, increase the cost of doing business, and hamper productivity growth.

Reducing the time and cost for doing business

The Mozambican economy has been slow to adjust and reallocate resources to their most efficient use. The difficulty in entering the market has reduced competitive pressure to improve productivity and allowed inefficient firms to survive. It has also discouraged informal firms from becoming formal and availing themselves of investment incentives and other benefits of formality. The government must move swiftly to bring the time and cost of starting a new operation in line with its international competitors. The registration procedure must be simplified, expedited, and made more transparent. CPI and other organizations should provide better support to investors in going through the firm registration process.

On the basis of the enterprises surveyed for this Industrial Performance and Climate Assessment Survey, it takes on average 138 days to register a company. While any data on the number of days that it takes to register a company as well as the associated cost with this process has inherently a degree of subjectivity and could thus be disputed, there is a general consensus that the registration process of firms is extremely complex, time consuming and costly. Very few entrepreneurs are willing to endure this process leading to the substantial risk that this entrepreneur may give up on the investment or remain unregistered.

The process (see Appendix C: Firm Registration Process) is cumbersome and time consuming. For example, the process of commercial registration, which takes a few hours in many other countries, takes over 30 days. Additionally, the publication of the company bye laws will take well over 30 days. Moreover, the cost related to the registry of a firm will, on average, be of several hundreds of dollars making it difficult for small and medium enterprises to register.

Once a firm has a final inspection that does not mean it can begin operations. It must then register with the tax department to obtain a number. A foreign firm must also apply to open a bank account and begin applications for residence, work, and import permits tasks that can add another four months to the wait. Three key policy steps need to be taken to address this problem—(i) modernize the registration process by computerizing the entries and retrieval of information (ii) streamline the registration process and integrating the operations of all three institutions involved in this process, namely the Notary Office, the Public Commercial Registry (*Conservatória de Registo Comercial*) and the State's Printing Office, (*Imprensa Nacional*), so that the investor does not bear the burden of dealing with each of these offices separately and moving the process along from one office to the other and (iii) outsource the functions that can be more efficiently provide by the private sector.

Labor Flexibility

Wages in Mozambique are extremely low by international standards, but low productivity and lack of flexibility make labor costly. The government must provide more flexibility for firms to adjust their work forces in response to market forces, while still ensuring protection of workers' rights. The cost of retrenchment is particularly a problem for large, foreign-owned, and privatized firms. Labor regulations should be amended to allow the payment of piece rate, which is a standard way of linking pay to productivity in most labor-intensive industries.

Expatriate Work Permits

The difficulty of obtaining expatriate work permits is a major impediment to raising productivity and hinders

the implantation of more technologically advanced industries in Mozambique. Until an adequate local supply of skilled workers develops, the private sector must rely on expatriates for many specialties. Administrative barriers negate the benefits of close proximity to South Africa and other sources of low-priced skilled labor, raising the cost of skilled labor above the cost in competitor countries. The government should move quickly to make the process of employing foreign, skilled workers less cumbersome; possibly adopting the proposal of the private sector to allow a fixed percentage (minimum 10) of foreign workers at the discretion of the employer.

Investment Incentives

There is a wide range of legislated investment incentives, but few firms have been able to take advantage of them. IFZ status has not been widely granted, and many firms in the survey reported difficulty obtaining duty exemptions on imports of capital equipment or other incentives. To attract foreign investors, the government must assure them that they will actually be able to access legislated incentives. CPI currently only deals with foreign investors investing at least US\$50,000. There must be a process to extend incentives to smaller investors, domestic as well as foreign.

It appears that many of the planned mega projects and enterprises in the mineral-processing sector are seeking to follow Mozal's lead and register their projects under the IFZ legislation. This legislation was intended to attract labor-intensive manufacturing exporters, but this has not happened in practice. Extending the favorable tax treatment to capital-intensive mega projects and mineral processors will have a detrimental impact on Mozambique's fiscal position and may not be optimal in light of declining aid flows.

Land

Obtaining clear right to use land is an expensive and difficult process in Mozambique. It is not a major problem for existing enterprises, but for investors seeking a green field expansion, obtaining access to land is problematic. This is a particular constraint for agricultural enterprises. The Ministry of Agriculture has successfully reduced the time it takes to obtain land, *once all documentation is in place*, to 90 days. The process of collecting documents should be streamlined to involve fewer institutions, be less complicated and more predictable. The government must also move to improve land registries. More fundamentally, the inability to own land serves to reduce its value as collateral. The government should consider alternative mechanisms for land distribution that regularize land market dynamics.

Trade

Given the limited domestic market, Mozambique's best chance for industrial growth is penetrating the regional and world export markets. Unilateral domestic actions by the government in overcoming administrative and trade policy barriers can significantly expand trading opportunities for the private sector.³³

Customs Clearance

Delays in clearing imports require firms to tie up large amounts of working capital in inventory. Delays in clearing exports make companies unsure of meeting strict delivery deadlines and prevent them from competing in valuable export markets. The time it takes to clear both incoming and outgoing shipments must be brought in line with international standards.

Particular attention should be paid to speeding clearance of ground shipments from South Africa. The government must set benchmarks for clearance times and monitor progress toward meeting the targets. Procedures to deal quickly with unexpected problems (such as delivery to the wrong port of entry) must be established to add flexibility to the trade system.

Foreign Exchange and VAT Refunds

Of particular importance is ensuring that the trading community has the economic freedom to retain and manage foreign exchange proceeds, which remain considerably restricted. The delays in making VAT refunds and other payments to qualified firms put an enormous strain on companies' cash flows. They also serve as a signal to potential investors that Mozambique is not serious about providing promised incentives. The time it takes to make VAT reimbursements should be lowered to 30 days, and the government should pay market rates of interest on late reimbursements. Ultimately, to further improve the competitiveness of export-oriented producers, a system should be implemented to give them access to imported raw materials and intermediate goods at world prices, rather than having to pay VAT and heavy duties and then await refunds.

Finance

The Mozambican banking system is characterized by a high level of foreign ownership, high concentration and increasing dollarization. As in other low-income Sub-Saharan countries the level of credit relative to GDP is low (18 percent). Among the causes of low intermediation are high interest rate spreads (which reached 19 percentage points in 2002) as well as high, volatile real interest rates (currently also at

around 20 percent in meticals). A decomposition of bank spreads reveals that 44 percent of bank spreads are explained by loan-loss provisions and 35 percent by high overhead costs. The analysis also reveals that high loan losses in the largest Mozambican bank drive up spreads in all banks.

Additionally, it is worth noting that while inflation volatility was in part due to significant (weather-related) supply shocks, it also resulted from large, fiscally-induced, demand shocks and weak monetary management. Although the sharp tightening of monetary policy that took place in mid-2001 appears to have been effective in stabilizing prices and the exchange rate, it contributed to the high level and volatility of interest rates mentioned above. In order to reduce such volatility (of both prices and interest rates) and enhance the scope for local currency intermediation—thereby limiting financial dollarization—the *Banco de Moçambique* needs to adopt a more transparent, pro-active (yet smoother), forward-looking, monetary management. All the factors described above have contributed to a severe lack of affordable finance for enterprises in Mozambique as shown in this report. This remains the single most important constraint to the development of the Mozambican private sector. Real interest rates and collateral requirements appear higher than in other countries. The high cost of external funds and the lack of trade credit make it difficult for companies to undertake needed investments.

In order to remedy this situation and stimulate the commercial banks in making sound new credits in the difficult Mozambican lending environment, immediate and medium terms policy reform will need to be adopted. Based on the recommendations of the Financial Sector Assessment (FSAP) findings the main areas of focus are as follows.

Enhancing the scope of financial intermediation

In order to stimulate the commercial banks in making sound new credits in the difficult Mozambican lending

environment, several short and longer-term actions should be undertaken including:

- The establishment of a commercial court, dealing with the largest cases.
- The adoption of a new Commercial Code, together with a revised Code of Civil Procedure. It may be worth noting that there have been no attempts to revise the 1967 Civil Procedure Code.
- The simplification of judicial procedure in light of the fact that comparisons with neighboring jurisdictions show that procedural complexity is very high in Mozambique. This is particularly problematic given the lack of trained judiciary and widespread corruption.
- The enhancement of the scope and reliability of the credit registry administered by BM.
- The training of judges in commercial dispute resolution, the reform of the land-registry and the establishment of a registry for movable property.

To that end, the Government of Mozambique should seek legal advice on the design and practice of commercial courts; the revision of the commercial code and civil procedures; as well as establish monitoring process to identify progress in achieving designated outcomes.

Monetary and public debt management

Although the sharp tightening of monetary policy that took place in mid-2001 appears to have been effective in stabilizing prices and the exchange rate, it contributed to the high level and volatility of interest rates mentioned above. In order to reduce such volatility (of both prices and interest rates) and enhance the scope for local currency intermediation—thereby limiting financial dollarization—the *Banco de Moçambique* needs to adopt a more transparent, pro-active, forward-looking, monetary management.

To achieve this goal, the current **monetary framework** needs strengthening. In particular, it

lacks transparency; market participants do not appear to fully understand the goals or procedures of monetary policy. This partly reflects insufficient efforts by the Banco de Moçambique to communicate and explain its goals and operating procedures, as well as flaws in the design and operation of its monetary instruments that send conflicting signals on the stance of monetary policy. The apparent contradiction between the very high central bank rates with the key rate being the one-year central bank bill rate and the rapidly declining short-term market rates during 2002 was particularly confusing to market participants.

Acting preemptively to limit deviations from monetary policy objectives will require a strengthening of BM's analytical capacity and greater emphasis on inflation targets and developments. At the same time, it is important to rely more closely on an intermediate monetary target. To enhance transparency and avoid interfering with market signals, it is recommended that BM conduct its monetary operations in the overnight money market.

Capital market

A better functioning capital market could also contribute to improving the terms of lending for enterprises in Mozambique. However, it should be noted that the Mozambican capital market is very small and that there is limited scope for development in the short term. At this stage, the first objective should be to develop the market for public securities, thereby providing a market-driven benchmark for the issuance of private securities. Beyond this, a minimalist approach should allow for the local listing and trading of securities with sufficient disclosure but without overburdening the process and favoring as much as possible regional integration and economies of scale. In this context the current capital controls will need to be reviewed to ensure that they do not unduly restrict regional integration and the movement of capital across the region.

Microfinance industry

Improving access to finance for micro enterprises would also contribute to lessening the constraint imposed by the high cost of capital in Mozambique. Overall, the microfinance industry has grown rapidly recently but still has a very small outreach, with high concentration in Maputo. There are good prospects for its development in Mozambique and several best performing MFIs are already in partnership with well renowned international microfinance service providers. However, important bottlenecks need to be eliminated, including restrictions on deposit taking (that limit the size and usefulness of the micro-finance institutions) and lack of human resources (that increases the cost of intermediating). The current legislation under preparation should allow micro finance institutions to take deposits and would be well served if it benefited from expert advice in finalizing the micro finance law.

Moreover, it would be useful that Mozambican MFIs strengthen their cooperation with well-known international NGOs or international financial cooperative networks that have been effective in developing good-practice MFIs "from scratch" by drawing upon existing informal practices, traditions and small community-based organizations.

Competition in the Banking System

The banking system has suffered from near collapses and high levels of bad debts. Continued efforts must be made to strengthen the balance sheets of banks. In addition, there is significant crowding out of private borrowing by government borrowing. The government should implement policies designed to encourage the commercial banking system to hold a larger portion of their assets as commercial and industrial loans.

Dispute Resolution

A major factor in the high cost of external finance and lack of trade credit is the difficulty of enforcing contracts. Efforts should be directed toward improving the efficiency of the judicial system and to encouraging the widespread use of the private system for Alternative Dispute Resolution established in 1999. The government should expedite public discussion of the proposed new commercial code.

Information

It is difficult for lenders to assess the credit risk of potential borrowers. Steps to improve accounting standards and create functioning credit bureaus and property registries will help foster a safer lending environment.

Infrastructure

The government has made significant progress in both reconstructing extending Mozambique's infrastructure, and this work must continue.

Energy

Almost 78 percent of the survey sample ranked power as a severe problem, and firms ranked it as the biggest infrastructure problem most often. As capacity utilization increases and firms begin to engage in continuous production, erratic power supply will become an ever-increasing constraint. Steps should be taken to improve the consistency of electricity.

In order to improve the access and the quality of energy supplied to users and given that most

issues in the provision of electricity mainly concern distribution and supply, it would be important for the reform underway to keep focusing on this part of the business in the first phase. This will help EdM improve its efficiency by: (i) intensifying connections where the backbone supply lines are already in place and (ii) preparing for a private/public partnership, which should be in place by the end of this phase. The latter will enable the government to leverage additional funding for further intensifying connections and rehabilitating and reinforcing the network, while (ii) taking advantage of the OBA scheme for otherwise non-commercial rural electrification (thus reducing the negative impact of rural energy on EdM's financial performance and help address the issue of affordability and accessibility of services for low income people and areas where there is a low population density. In addition to these changes at the distribution level, the unbundling of EdM and the creation of a separate corporate transmission entity to provide transmission assets and perform system operation could also take place to help improve the system overall efficiency.

These changes at the operational level will need to be coupled with an institutional and legal reform that will aim at establishing the enabling environment. In particular, it is important that an adequate regulatory capacity be established, within a transparent environment that allow the establishment and the periodic review and adjustment of tariffs. This enabling environment will also help in protecting of the rights of consumers; as well as the promotion of renewable energy sources, which could contribute to productivity gains.

Transportation

Transportation remains a significant factor in the high cost of doing business in Mozambique. While

considerable progress has been made in strengthening the transportation systems, it is still costly and sometimes difficult to ship goods within Mozambique or even outside of it. However, inefficiencies, low quality of services and high cost transportation services are still a significant constraint to the development of a competitive private sector. This is so, since improved transportation facilities are needed to reduce the cost of shipping and improve competitiveness on the world market. Road transportation continues to be costly and ports are not yet efficient enough compared to other ports in the region.

The government has made some important progress in all the transportation sub sectors (port, roads, railways, airline and airports). More changes need to take place in order to reduce the time that it takes to transport goods as well as to reduce its cost. To that end, the Government will need to pursue its policy of increasing private sector participation in the delivery of infrastructure services. This would entail further divestiture from the remaining ports, airports, railways as well as from Linhas Aéreas de Moçambique (LAM), the State-owned airline operator. In addition to making the above-mentioned changes in the operations and management of all the transportation sub sectors, the implementation of key institutional reforms should not lose momentum.

In particular, it would be important that proper attention be given the award of the concession contract for the operation of the Maputo International Airport so that this transaction can be brought to closure successfully. However, it should be noted that this airport, although the largest of the country, is only one of nineteen major airports managed by the state-owned enterprise Aeroportos de Moçambique. Other important airports, such as those in Nampula and Beira would also benefit from new management and investments.

Moreover, *Aeroportos de Moçambique* (ADM) will need to revise the aeronautical fees that it charges to

passengers since they are significantly higher than other regional airports. While ADM charges US\$72 per passenger, Johannesburg and Harare charge US\$ 29.95 and US\$ 49.57 respectively.

Additionally, the quick improvements of the Nacala port and rail corridor will also be important to improve the competitiveness of the provinces in the Northern part of the country. The liberalization of coastal shipping, stalled since 1998, should be completed. In all of these cases, the focus should be on lowering the cost of transportation facilities to private sector producers.

In particular, it would be important to strengthen the institutional capacity of the Ministry of Transportation and Communications so as to improve its ability to conceive, implement and monitor policies. Moreover, the establishment of the legal and regulatory framework that is conducive to private sector participation in all the transports sub sectors would be important.

Another important transport issue that needs to be addressed is to find a cost-effective option to improve the conditions of the Zambezi River crossing at Caia. The existing ferry that provides the services at Caia is in poor condition and does not provide adequate transportation services in terms of frequency, safety and reliability.

Moreover, in order to integrate some isolated regions of the country, the rehabilitation of secondary roads as well as tertiary seaports should be undertaken and completed. This would be effective if coupled with the establishment of transparent financing mechanisms for the provision of public obligation services for transport services, where the services are not commercially viable.

Telecommunications

While the telecommunications system has improved considerably over the last five years, the level of

penetration of these services is still low, especially with regards to Internet services, mostly due to the existence of a monopoly in the core segment of fixed line service and long distance. Hence, the Government would help improved telecommunications services by continuing the implementation of its comprehensive reform program and through steady progress towards further liberalization of the fixed and mobile segments. Moreover the establishment of a strong and capable regulator coupled with a transparent and non-discriminatory regulatory environment will help establish the regulatory and institutional environment that is conducive to private sector participation in the provisions of fixed and mobile services. This enabling environment will also contribute to the protection of the rights of consumers; as well as the promotion of Internet-related services, which could help foster improvements in the productivity.

The Government is encouraged to implement its a wide-ranging and ambitious telecommunication reform. The objectives of this reform are to improve access and quality of efficient and affordable communication services. This is being achieved by creating the enabling environment for competition, and private sector participation in both the fixed and mobile telephone operations.

Thus far, the reform has led to the establishment of an independent telecommunication and postal services regulator, the Instituto Nacional das Comunicações de Moçambique (INCM). Tenders to invite entry of second cellular mobile services operator has taken place and negotiations to award this bid are underway. Additionally, a pro-competition telecommunications law conducive to a multi operator environment has been drafted and is currently being discussed, while the strategy to divest the State-Owned fixed line operator Telecomunicações de Moçambique (TDM) is being prepared. Additionally, key regulatory decrees on interconnection, licensing and INCM organization have been enacted, showing

that the Government is making progress in this sector. The successful implementation of this reform currently underway will contribute to a notable improvement in the telecommunication sector, facilitate national, regional and international market integrations by improving the enabling environment for private sector development.

The Government's Private Sector Development Strategy

The PRSP establishes the private sector as the main engine for economic development and emphasizes whose development impinges upon the access and quality of infrastructure services.

The Government is committed to establishing the enabling environment for an increased private sector participation in the country's economic growth. To that end, some concrete actions have taken place. Among these, the most recent that may be worth mentioning are the market liberalization of several sectors, including telecommunication, through the opening up of both the fixed and mobile telecommunications segments to competition, and also air transportation, water, to name a few. Other business friendly measures include the adoption of the Decree 30/21 of October 15, 2001, which requires that public institutions respond to requests from the private sector within a determined number of days.

Also, the demonstration effect of the success of the "mega projects" in Mozambique has shown the commitment of the government to create and maintain a conducive environment for attracting foreign direct investment. This is in contrast with the conditions that prevail for the average domestic or international investor in Mozambique.

However, the Government intends to pursue its removal of administrative barriers, particularly in the following areas: (i) reducing the time and cost for business start up; (ii) adopting a new Commercial Code that fosters private sector development; (iii) reducing labor market rigidities; (iv) clarifying

property and land use rights; (v) improving trade regime; and (vi) implementing a legal and judicial sector reform. It is worth noting that improving the business environment through pro-private sector development is just one element of a broader program of reforms, which also includes the focus of some sectors that are believed to be competitive.

Infrastructure reforms

The government intends to deepen its infrastructure reform to increase private sector participation in the delivery of infrastructure services and to contribute to the improvement of the quality of infrastructure related services. These reforms aim at increasing access to and quality of infrastructure services across infrastructure sectors. Private participation in the delivery of public service will require revision and upgrading of the existing regulatory framework to create a level playing field in several sectors (telecommunication, airline transportation, railways, ports, energy, and water) to make them more attractive to private investors. The current regulatory and institutional framework lacks clarity on a wide range of matters, such as competitive market structures, enforcement of regulatory arrangements, “public service” obligations and financing. Moreover, issues such as the delineation of responsibilities for regulation, supervision and operations, all functions that, up until recently, have been performed *de facto* by the public utilities and enterprises themselves (eg. *Telecomunicações de Moçambique* in telecommunication, *Electricidade de Moçambique* in energy) will need to be unbundled. Progress has been made in the water and telecommunication sectors in establishing regulatory agencies, but some sectors still require comprehensive analysis and definition of necessary regulations to address these issues so as to attract private operators. Moreover, appropriate attention will need to be exercised in creating regulatory institutions for each sector, resulting in separate arrangements for water,

electricity, communication, and civil aviation, respectively, without economies of scales and consistency across sectors. These institutional settings will need to be harmonized, refocused and coordinated in order to improve their efficiency and ensure their long-term sustainability.

Support to SMEs

The Ministry of Trade and Industry will help foster the development of SMEs by helping address the underlying constraints facing SMEs. These include the lack of access to: (i) capital; (ii) skilled labor—including in management; (iii) modern technologies; as well as (iv) modern management methods and techniques.

The government's strategy to mitigate these constraints uses a three-pronged approach. The Government of Mozambique will help improve access to finance by addressing the long-term causes of the lack of affordable credit. In the short term, it would seek a combination of sustainable solutions to provide access to finance for SMEs. Moreover, firms and financial and non-financial intermediaries located in Mozambique will be provided with assistance in order to build their technical capacities. Additionally, the Ministry of Trade and Industry will help coordinate the Government's effort in removing the numerous administrative barriers that constrain enterprises' development. In particular, reduction of the time and cost of doing business will take center stage on the agenda.

The World Bank Group's Private Sector Development Strategy

In order to support the Government's strategy to broaden growth, the World Bank Group's assistance strategy will be multi-faceted and will emphasize the following critical areas: (i) improving the business environment for private sector development (ii) reforming the financial sector (iii) supporting an improved delivery of infrastructure services through

an increased private-sector participation and (iv) providing integrated support to develop strategic entry points. This will encompass critical diagnostics, dissemination of knowledge, financing, improved donor coordination and selected support in implementation in coordination with the IFC and MIGA. The main areas of support are described below. This assistance is predicated upon the understanding that growth will come from several entry points: (a) natural resources—mega-projects (from “within” as well as enterprises that establish linkages with the mega projects); (b) tourism; (c) agriculture and agribusiness (d) export oriented manufacturing in labor-intensive activities in the sectors of textiles, garments and footwear and (e) SMEs.

The World Bank will support the development of domestic firms so as to improve productivity and broaden the base for growth. This will take a two-track approach. On one hand, this would take the form of the provision of “matching grants” for the development of technical and managerial skills of domestic enterprises and intermediaries in a manner that would build the capacity of domestic business development services (BDS) providers and stimulate markets for BDS. On the other, the partnership and linkages to foreign direct investments would be strengthened. This support, which will also form an integral part of IFC’s strategy for Mozambique, would target the development of firms/products/sectors that have demonstrated or shown potential for export and competitiveness. This includes—but is not limited to—firms in manufacturing and services supporting manufacturing and exports, tourism, agro-industry and fisheries.

MIGA will work also with the World Bank and IFC in support of SME development in Mozambique, under the Enterprise Development Project (PODE) and through other initiatives that are implemented under this CAS. Promotion of investments related to SMEs is one of MIGA’s priority areas and the agency

will facilitate access to its investment guarantees by SMEs with an interest in Mozambique. Moreover, the use of MIGA’s email-based investor outreach service, the FDI Xchange, a tool to bring together entrepreneurs and project developers in developing countries with potential partners, technology, and capital worldwide will be promoted. Firms and individuals that sign up for the free service will receive periodic e-mail updates containing new investment information, customized according to their region, sector or topic of interest. The FDI Xchange will also allow SMEs in Mozambique to spread the word to potential partners worldwide regarding their particular product or market opportunity, using the CPI as a conduit.

The World Bank Group’s strategy in Mozambique with regard to the private sector can be summarized as follows:

(a) Improving the business environment.

Despite progress made in removing administrative barriers to the establishment and operations of enterprises in Mozambique, there are still a number of constraints to the development of the private sector. To sustain the current economic rate of growth and broaden the base of private sector participation, Mozambique is committed to further improving the overall business environment. Although most of the barriers negatively impacting on private sector development were identified a few years ago, progress in removing these constraints has been slower than expected, despite the commitment of relevant stakeholders. The lack of progress seems to result from a lack of appropriate structure to follow up on agreed agenda between the relevant parties as well as a lack of adequate prioritization in removing administrative barriers. To achieve significant results during the implementation of this CAS, the World Bank, in collaboration with IFC, MIGA and other donors, will complete the Mozambique Performance and Investment Climate Assessment to provide

relevant stakeholders with an updated analysis of the main administrative barriers and recommendations on how to effectively remove them.

(b) Institutional Capacity for Private Sector Development and the Public-Private Dialogue. This support is meant to contribute to the enhancement of the capabilities of public and private institutions to deliver business support services as well as supporting public agencies in their transformation process, which is being changed from maintaining control functions to providing business facilitation and promotion services, including improving the capacity of these institutions to identify and ease constraints to private sector development. This assistance has been provided by IDA under PoDE and will continue during the period of this CAS.

Planned assistance from the World Bank will help structure the dialogue between the public and private sectors, to enable it to focus on and contribute to the speedy removal of constraints to private sector development. Important among these are the various constraints contributing to raising the cost and time for establishing and starting to operate a business. Other constraints that the dialogue will help address relate to the labor law rigidities, adoption of a new commercial code, property rights, and land use rights. In all of this, there is a need to establish consultative mechanisms that will bring about a greater focus in the dialogue between the public and private sectors. The World Bank will also provide assistance to the Confederation of Business Associations of Mozambique (CTA) to improve the business environment. This support will take form of consultancy services, studies, and training program aimed at building the institution's capacity. The public institutions, which will directly benefit from this support, are the *Ministério da Indústria e do Comércio (MIC)* and *Ministério do Turismo (MITUR)*. This support will help both Ministries in addressing continuing weaknesses in the business environment and will enhance their role as a channel for dialogue

with the private sector, in the development and the delivery of business facilitation.

(c) Export Promotion and Export Processing Zones. This institutional capacity building will be coupled with analysis to improve the understanding of the products/sectors in which Mozambique is competitive or could be competitive. Since competitiveness is critical to maintain the country's high economic growth rate, it will need to be strengthened. To that end, adequate support will be provided to develop firms' ability to export and generate linkages within the Mozambican economy. Additional assistance will be offered to help facilitate greater trade and investment.

Moreover, support for the *Centro de Promoção de Investimentos (CPI)* will also be continued to develop, implement and monitor a three-year strategic plan, which will build upon the last one that brought about a transformation of CPI from a regulator to a facilitator and promoter of foreign direct investment.

The two elements mentioned above will help CPI broaden its appeal to foreign investors engaged in labor-intensive employment creating activities to complement the successful attraction of the capital-intensive mega projects, which have thus far been the primary achievements. It will also contribute toward focusing CPI's efforts on the sectors and products in which Mozambique has a competitive advantage and is likely to attract foreign direct investment.

While the enabling environment for private sector participation is being improved, the Bank will also support a strategy to attract labor-intensive manufacturing investments to be based in the export processing zones, which build upon the transport development corridors—established or being developed. Additionally, limited investments in the development of the infrastructure of export processing zones to “jump start” the process of establishing them outside of the Maputo province will also be considered in order to help foster the development of manufacturing and processing industries.

(d) Furthering reform of the financial

sector. Reform of the financial sector will need to be completed to address the issue of improving the lending environment, decreasing banking system vulnerabilities, increasing competition in the sector, dealing with the high cost of capital, and improving the oversight capacity of Banco de Moçambique. Advice on these and other activities is being provided to the Mozambican authorities within the framework of a Financial Sector Assessment Program (FSAP) currently being undertaken by the World Bank and the IMF. Specific assistance arising out of this diagnosis, to be provided by the World Bank and other donors, would consist of conceiving and implementing a wide ranging reform program, including the crucial issue of resolving the burden of non-performing loans, which is concentrated in the portfolio of the market leader and is severely affecting interest rate spreads and thereby raising lending rates of the banking sector as a whole.

Given the importance of the banking system as by far the largest component of the Mozambican financial sector and—more generally—as the stepping stone for development of more sophisticated financial markets, the authorities are advised to place major emphasis in the coming period on improving the institutional and regulatory framework for the banking industry.

(e) Enhancing the scope of financial intermediation.

In order to stimulate the commercial banks in making sound new credit-decisions in the difficult Mozambican lending environment, several short and longer-term actions will need to be undertaken to improve the legal/judicial environment, including the strengthening of banking supervision.

Strengthening banking supervision

This will be crucial to improving the soundness of Mozambique's banking sector. Some progress has taken place in this area over the past two years, since

the last assessment of the Basel Core Principles was conducted; however, significant work remains to be carried out in four key areas: First, the current loan classification and loan loss provisioning systems need to be brought into line with international practices. Second, trigger points need to be established that will prompt one or more legal actions once a bank's capital falls below the minimum requirements. Third, as most Mozambican banks are foreign-owned, the Banking Supervision Department needs to establish regular communication with the head offices of the foreign banks, and the banking supervisors in their countries of domicile. Fourth, clear steps need to be taken to build the core knowledge of supervision staff, especially to ensure their capacity to independently validate information received from financial institutions. Parallel with above suggested improvements, it will be crucial to improve the foundation for market oversight through the adoption of IAS for all banks. The authorities have embarked on the process of defining a well-structured convergence plan, although—once the program is defined—the authorities will need to devote considerable resources to ensure staged and effective implementation. This will include:

- The adoption of a new Commercial Code, together with a revised Code of Civil Procedure. It may be worth noting that there have been no attempts to revise the 1967 Civil Procedure Code.
- The simplification of judicial procedure in light of the fact that comparisons with neighboring jurisdictions show that procedural complexity is very high in Mozambique. This is particularly problematic given the lack of trained judiciary.
- The enhancement of the scope and reliability of the credit registry.
- The training of judges in commercial dispute resolution, the reform of the land-registry and

the establishment of a registry for movable property.

- Eventually—once improvements in the functioning of the judiciary are in place—establishing a commercial court, dealing with the largest cases.

Towards that end, the Government of Mozambique could seek advice on the revision of the commercial code and civil procedures; on development/improvement of property registries and on establishing monitoring process to identify progress in achieving designated outcomes.

Provision of infrastructure services.

Assistance under the CAS will aim at increasing private-sector participation and competition across several infrastructure services, including telecommunications, transport, water and sewerage, and energy. In order for private sector participation to be augmented, there are a number of regulatory issues that have to be addressed.

Unbundling of policy, regulation and operation

Traditionally, the close relationship between government departments and State Owned Enterprises has meant that policy-making, regulation and operations have generally been embodied in a single institutional process. However, these functions need to be unbundled and clarified, so as to: (i) design and implement regulations and competition policies in utilities and economic sectors (including transport, communication, water and energy); (ii) establish, strengthen and harmonize the regulatory and supervisory bodies in these sectors; and (iii) train regulatory staff and provide outside experts to advise in regulation during the stage devoted to local capacity building. Implementation of private participation in the delivery of infrastructure services will need to be done with adequate policy sequencing

so that the legal regulatory framework conducive to privatization is in place and a level playing field has been established.

Increased Private Sector Participation in Infrastructure (PPI)

The Bank Group's assistance in infrastructure services will be delivered through several IDA projects including the Communication Sector Project, the Energy Reform and Access Project, the Water sector Project, and the Railways and Ports Restructuring Project, and through IFC investments and MIGA guarantees. In so doing, the emphasis will be on the new business model for infrastructure service delivery aimed at contributing to the Millennium Development Goals (MDGs). This model is characterized by an emphasis on public-private partnerships, with enhanced integration of IDA, IFC and MIGA products, not only to help establish the enabling environment for PPIs, but also to bring about the necessary comfort to potential investors so as to crowd in and facilitate private sector investments. This would include the structuring and financing of innovative mechanisms for the private delivery of publicly funded infrastructure services, especially to the poorer segments of society.

Coordination within the World Bank Group

The design and implementation of these strategies for private participation in infrastructure will be a well-coordinated and joint effort of the World Bank Group. While IDA will focus on supporting the upstream work in terms of sector policy, strategy and design of the transactions, IFC will be mobilizing sponsors and providing access to the necessary financing for investors to ensure successful implementation of the projects. At the same time, MIGA will not only bring its investment promotion knowledge and skills to bear on the successful completion of every transaction, but will also seek opportunities to provide political risk

coverage, where appropriate. In this way, the WBG will be able to offer its full array of complementary skills and products to provide fully integrated assistance to Mozambique.

Transparent funding mechanisms

Adopting market-based solutions to the delivery of infrastructure services raises the issue of affordability of those services for low-income segments of the population, especially in areas where there is a low population density. To mitigate this risk, transparent funding mechanisms will need to be designed to improve the affordability and accessibility of infrastructure services to the poor and population in rural areas. Among other approaches, output based aid (OBA) could be used to enable private participation while improving the access and affordability of services for the poor: the funding of these public subsidies being provided by either the Government's own resources or from participation from the international community. OBA differs from the traditional public subsidies, which are typically directed at inputs for delivery of a given service. Under the OBA approach the subsidy element would be linked to achieving a specific output (e.g. the number of consumers connected per year).

This coordination within the World Bank Group will bring about fully integrated support to Mozambique for private sector development. The coordinated support will build upon past and ongoing PSD-related activities. Such an approach has already been put in place to unlock the significant development potential that exists in the Zambezi Valley. Working jointly with IDA, IFC is advising the Government of Mozambique on how to plan and process the awarding of concessions to develop the Zambezi Valley, with particular attention to the steam and coking coal deposits at Moatize, the rehabilitation of the Sena railways, and the Modernization of the Beira port. In parallel, IDA's assistance is also being planned for the development of the Sena railway line, which links the

Moatize coal mines to the Port of Beira, making this integrated development feasible.

Irrespective of the financing mechanism adopted, innovative cost recovery schemes will need to be in place to develop replicable and sustainable infrastructure services to the poor. In light of Mozambique's fiscal constraints, direct cost recovery mechanisms are critical to complement or replace subsidization schemes. The subsidies would be targeted and could be used for both connections and user charges, where appropriate.

Strategic Entry Points for the World Bank Group

These entry points will be focused on natural resources, tourism, agriculture and agribusiness, and the development of SMEs in general. These are the sectors with the greatest growth potential, where the Bank Group will address constraints to development with a comprehensive approach.

Natural Resources—Mega-projects

The Bank Group has supported the development of mega-projects within Mozambique, with the objective of maximizing their economic contribution and development impact. On the Pande/Temane gas fields and pipeline, IDA provided support to the government to do preparatory work and evaluate the most promising alternative uses of the gas, and in structuring the resulting concession. IDA is providing a partial risk guarantee to project lenders, and IFC is participating in the equity. Similarly, with the Moatize Coal and Zambezi Valley transport corridor, the Bank Group is taking an integrated approach, with IDA and IFC involved in helping the government evaluate and structure this complex project. The objective of this early involvement by the Bank Group as a whole is to ensure that maximum economic and social benefits are incorporated into the projects that the private sector will deliver. IFC is also in early stage discussions on the Corridor Sands project.

Tourism

The World Bank Group would aim to support PROTUSC—Programa para Turismo Sustentável e Conservação (Program for Sustainable and Conservation Tourism), involving implementation of the overall program along with other development partners. Some elements include support for policy and regulatory reform, institutional strengthening at the National and Provincial level; the work of the provincial tourism facilitation commissions; and spatial planning at the provincial and district level. The program would also include strengthening of the capacity in environmental and social assessment, and support for regional or district planning authorities, such as the Elephant Coast Development Agency for Matatuine District, and ones that may be created for other PATIs. Support would continue for the TFCA—Transfrontier Conservation Areas in the context of the PROTUSC to assist Mozambique in improving the management of its natural assets, with a principal focus on the TFCAs, where opportunities exist for the additional “capture” of these assets. Strong emphasis will continue to be placed on protecting the rights of communities inside and outside of core-protected areas, and developing community/private sector joint venture options. This program will also include renewed emphasis on identifying biodiversity hot spots as a basis for more consistent planning and management. The program would also provide institutional, technical and other support for sustainable management of core conservation areas.

In terms of regional integration of tourism, IFC—in collaboration with IDA—will undertake sector analysis of the development of regional tourism opportunities between Mozambique, South Africa, Swaziland and Zimbabwe. This review will assist in the identification of key constraints, as well as fundamental investment opportunities. IDA and IFC will work jointly to develop plans for addressing the constraints identified, so as to ensure future investment opportunities.

A critical element in this process will be to actively seek private sector involvement on the scale necessary to provide a critical mass of investment. The World Bank Group will support the South East Africa Tourism Investment Program (SEATIP) aimed at attracting the private sector investment on the necessary scale to have a measurable impact on poverty alleviation. Under this program community participation and private sector joint ventures will focus on providing communities with the tools and assets to participate as full partners in the TFCA process while providing an enabling framework for the private sector to invest in tourism ventures in rural Mozambique. This assistance will aim to solidify community rights through the creation of trusts, concessions or other equity structures, and would help create incentives and frameworks for private sector and communities to develop joint ventures based on management plans including access to concessionary loans or small grants. Funding will be needed for land demarcation, community funds and institutional support at the Provincial and National level.

An additional element of assistance will consist of the provision of basic infrastructure (e.g. roads, park facilities) for the core terrestrial and marine protected areas in the TFCAs, PATIs and basic infrastructure requirements linking community and private sector initiatives to TFCA cross-border infrastructure investments. Support will be provided for tourism infrastructure planning. Designing infrastructure requirements will be done in the context of multi-sectoral spatial planning, which will also help focus infrastructure investment to priority areas. An integral part of the process would be to develop Strategic Environmental Assessments and environmental assessments would be required for individual investments within the SEA framework. Strict environmental and social criteria would be applied to any project financed through this mechanism; and, environmental management programs would be

designed to monitor and implement environmental mitigation processes.

Agriculture and agribusiness

In light of the Government's objectives of making agriculture one of the sectors that would provide the base for economic and social development, and to focus its development towards the export market, the IDA assistance will help remove the constraints to reach these objectives.

In particular, the assistance is meant to improve the impact of public expenditures in developing a positive enabling environment for sustainable and equitable growth in the rural sector, consistent with the reduction of poverty and improvement of food security, while ensuring the protection of the physical and social environment. On one level, the objective of the first five-year phase of PROAGRI would be to establish an institutional structure designed to provide cost-effective delivery of a core set of agriculture and natural resources related services. On another and more basic level, the objective would be to enable sustainable and equitable growth in the agricultural sector. In order to build the technical and managerial capacities of export orient agro-businesses, this assistance will be coupled with the support provide to private sector development through the Enterprise Development Project. In addition, IFC, in support of agro-businesses in particular, will focus on developing a strategy to support specific crops in terms of their export potential, with the involvement of regional and global private sector partners.

The progress made under the agricultural sector would also be assessed by the extent to which competition and volume are increased in agricultural input and output markets, as evidenced by the number of traders; the narrowing of the gap between prices received by farmers and those prevailing in local markets; increases in agricultural production and productivity; increases in the contribution of marketed agricultural produce to household income for small-holder subsistence level families of irrigation schemes;

and hectares under sustainable irrigation systems. Progress will also be measured in terms of agro processing opportunities created in terms of local as well as regional/international investment.

Micro, Small and Medium Enterprises

Support to local enterprises, a large proportion of which are SMEs, will be provided through the Enterprise Development Project (PoDE), which has been restructured to help focus government and private sector resources in activities that will improve the competitiveness of Mozambican firms. Technical assistance will be provided to the Ministries of Industry and Commerce, Tourism, the Investment Promotion Agency (CPI) and the Chamber of Commerce. It is worth noting that the assistance provided to the CPI is done jointly by MIGA and IDA. Mozambique has also been included in a list of 8 African countries that have been selected as pilot countries for a new joint IDA-IFC initiative for micro, small and medium enterprise development. The proposed MSME program aims to address constraints to growth and competitiveness by (i) increasing access to finance (ii) opening access to new markets by building the technical capabilities of businesses and intermediaries located in Mozambique (iii) enhancing sustainable linkages between SMEs and larger private sector investments and (iv) improving the enabling environment for private sector participation through reduction of red tape. This new IDA-IFC collaborative approach is intended to achieve greater impact through an integrated, coordinated strategy and is an opportunity to define a systematic work program for MSME development.

Note

33. For detailed recommendations, see Nathan Associates Inc. 2002, under the aegis of the U.S. Agency for International Development.

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Overview of Sample

This section will give an overview of the distribution of firms in the 2002 sample, focusing on their size, sector, and location. We will also compare the sample with available evidence about the population of manufacturing firms in order to assess its degree of representation. Along with the evidence about the number of firms in the population, we also consider evidence on the contribution of the various industrial subsectors covered by the survey to total manufacturing output, value added, and employment.

Sampling Procedures

The survey is designed to be a semi-random sample of manufacturing firms in Mozambique stratified by the sector, size, and location of firms. In the absence of a recent Industrial Census, the best source of information about the population of manufacturing firms is probably the National Statistics Institute (INE) register of business establishments, which was originally compiled in 1998 and has been updated regularly since then.³⁴

The methods used to build the 2002 sample of 193 firms were as follows:

- We first attempted to revisit firms that had previously been interviewed as part of the 1998 RPED/CTA survey, with the assumption that the firms had not ceased operations or changed activity and were willing to be interviewed (87 of 152 firms in the 1998 sample were successfully re-interviewed).
- Replacement firms and additional firms were then selected from the INE list of all registered establishments, which includes a classification by city and sector, as well as some information about total employment in each establishment.
- In each city visited, a target sample size and composition by firm sector and size was calculated, based upon the INE sample frame.

Firms were then chosen from the 1998 RPED list and randomly from the INE replacement list until the target sample size had been reached.

- Five major cities were visited: Maputo City, Matola, Chimoio, Beira, Nampula City, and Nacala. It was not possible to revisit the firms previously visited in Quelimane due to time constraints.
- The sectors covered were based on the CAE (Classificação das Actividades Económicas) classification used by INE, which is similar to the ISIC-rev3: Food and Beverages (class 15), Textiles and Garments (35), Wood (20), Metals (28), Machinery (29), Furniture (36), Other (30).
- A particular effort was made to cover the largest firms in each sector (usually no more than 3 to 5 firms per sector and city), consisting of firms with more than 100 workers. By contrast, relatively few microenterprises were sampled: the minimum establishment size covered by the INE register is theoretically 10 employees. Some smaller unregistered firms were also visited, particularly in the Maputo/Matola region, but the survey was not designed to cover informal manufacturing enterprises.

Sample Distribution

Tables A.1 and A.2 show the distribution of the 2002 sample by firm size and sector and also by location and sector. The size categories have been structured to ensure a relatively even distribution of firms across these categories. The boundaries take into account that there are relatively few firms with less than 5 employees in the sample.³⁵ Hence, microenterprises are classified as those with 10 employees or less. On this basis, 15 percent of firms are in the micro category (1–10 employees), 21.2 percent are small (11–30), 31.6 percent are medium (31–75), 24.4 percent are large (76–250), and 7.8 percent are very large (more than 250 employees).

Out of a total sample of 193 firms in the 2002 survey, 87 firms were previously interviewed in 1998,

Table A.1 Mozambique: Wave 2 Sample by Firm Size and Sector

		Food & Beverages	Wood & Furniture	Textiles & Garment	Metal & Machinery	Other Sectors	All Sectors
Micro	No. Firms	4	6	14	4	1	29
[1–10 emp.]	% all sectors	13.8%	20.7%	48.3%	13.8%	3.4%	100.0%
	% all sizes	7.8%	14.3%	45.2%	11.8%	2.9%	15.0%
	RPED firms	2	0	2	1	0	5
Small	No. Firms	15	12	3	5	6	41
[11–30 emp.]	% all sectors	36.6%	29.3%	7.3%	12.2%	14.6%	100.0%
	% all sizes	29.4%	28.6%	9.7%	14.7%	17.1%	21.2%
	RPED firms	7	3	2	2	0	14
Medium	No. Firms	13	15	4	15	14	61
[31–75 emp.]	% all sectors	21.3%	24.6%	6.6%	24.6%	23.0%	100.0%
	% all sizes	25.5%	35.7%	12.9%	44.1%	40.0%	31.6%
	RPED firms	7	6	4	9	5	31
Large	No. Firms	14	7	5	10	11	47
[76–250 emp.]	% all sectors	29.8%	14.9%	10.6%	21.3%	23.4%	100.0%
	% all sizes	27.5%	16.7%	16.1%	29.4%	31.4%	24.4%
	RPED firms	12	5	3	7	1	28
Very Large	No. Firms	5	2	5	0	3	15
[>250 emp.]	% all sectors	33.3%	13.3%	33.3%	0.0%	20.0%	100.0%
	% all sizes	9.8%	4.8%	16.1%	0.0%	8.6%	7.8%
	RPED firms	4	1	4	0	0	9
All Sizes	No. Firms	51	42	31	34	35	193
	% all sectors	26.4%	21.8%	16.1%	17.6%	18.1%	100.0%
	% all sizes	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	RPED firms	32	15	15	19	6	87

Notes: RPED firms are those which were included in the 1998 RPED Survey in Mozambique; other sectors include construction materials, plastics and packaging; firm size categories are based upon total full-time employees in 2002.

giving a substantial subsample for which we now have up to five years of continuous output, production cost, and employment data covering the period 1997–2001. The remainder of the 153 firms surveyed

in 1998 could not be re-interviewed because they exited the sector (43 firms), they were not willing to participate (13), or they were in provinces not visited by the survey teams (10 firms in Quelimane).

Table A.2 Mozambique: Wave 2 Sample by Firm Location and Sector

		Food & Beverages	Wood & Furniture	Textiles & Garment	Metal & Machinery	Other Sectors	All Sectors
Maputo/ Matola	No. Firms	29	21	18	21	30	119
(South)	% all sectors	24.4%	17.6%	15.1%	17.6%	25.2%	100.0%
	% all locs.	56.9%	50.0%	58.1%	61.8%	85.7%	61.7%
	RPED firms	22	10	11	15	6	64
Beira/Chimoio	No. Firms	10	11	9	8	4	42
(Centre)	% all sectors	23.8%	26.2%	21.4%	19.0%	9.5%	100.0%
	% all locs.	19.6%	26.2%	29.0%	23.5%	11.4%	21.8%
	RPED firms	5	3	2	2	0	12
Nampula/ Nacala	No. Firms	12	10	4	5	1	32
(North)	% all sectors	37.5%	31.3%	12.5%	15.6%	3.1%	100.0%
	% all locs.	23.5%	23.8%	12.9%	14.7%	2.9%	16.6%
	RPED firms	5	2	2	2	0	11
All Locations	No. Firms	51	42	31	34	35	193
	% all sectors	26.4%	21.8%	16.1%	17.6%	18.1%	100.0%
	% all locs.	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	RPED firms	32	15	15	19	6	87

Notes: RPED firms are those included in the 1998 RPED Survey in Mozambique; other sectors include construction materials, plastics, and packaging.

In terms of their distribution by region, 62 percent of the sample is in the south of Mozambique, 21.8 percent are in the central region, and 16.6 percent are in the north. This corresponds quite well to available evidence about the geographical distribution of industrial activities (see table A.2), although with some bias toward the south where a greater proportion of large- and medium-scale manufacturing establishments are located.

Firm Distribution in Population

How does the distribution of firms in the survey sample compare to available information on the

population of manufacturing firms in Mozambique? There are a total of approximately 1,500 industrial enterprises, mainly manufacturers, in the INE establishment register (Section D of Mozambican Classification of Economic Activities, INE 1998). This register was used as the sample frame for the 2002 survey.

The distribution of firms in the INE database by firm size and location by province is shown in table A.3. We can observe that our survey sample is essentially a census of the currently operational large-scale enterprises in the sectors of interest and locations visited. It also covers approximately 37

percent of the medium-sized firms and 12 percent of the small-scale firms registered on a national basis. As already noted, the survey deliberately under-samples firms in the microenterprise category, including many informal sector enterprises, which are prominent in some areas of manufacturing activity, including bakeries, garments, furniture production, and metal fabrication. Moreover, we designed the survey questionnaire to be implemented mainly with formal sector manufacturing enterprises with organized accounts, and so it was difficult for the survey teams to implement with informal and microenterprises without significant amendment or loss of data quality.

The distribution of firms by province is also shown in table A.3. From this, we estimate that the four provinces covered by the 2002 survey likely contain around 75 percent of all manufacturing establishments in Mozambique and an even higher proportion of the large- and medium-sized manufacturing firms, which tend to be concentrated near to the major ports and transport corridors.

Characteristics of Locations Covered

Survey teams visited firms in four provinces and five major cities, which were selected on the basis that they have by far the highest concentration of manufacturing activities in Mozambique (see map of Mozambique provided in this appendix). The locations selected were Maputo City and Matola in the south, Beira and Chimoio in the central region, and Nampula City and Nacala in the north. It will be immediately noticed that the cities covered in the survey include the locations of Mozambique's three main international ports, which are all linked with their hinterlands and regional neighboring countries via operational road and railway corridors.

In terms of density of economic as well as industrial activity, Maputo City and the industrial area of Matola/Machava are the dominant locations. The World Bank (2001b) reports UN Development Program figures showing that the regional breakdown

Table A.3 Distribution of Industrial Enterprises in the INE Database

	No. firms	% total
Size Category		
Very Large (500+) ^a	2	0.1
Large (101–500)	82	5.4
Medium (31–100)	165	11.0
Small (11–30)	330	22.0
Micro (10 or less)	870	58.0
Provincial Location		
Maputo (including Maputo City)	510	34.0
Sofala (mainly Beira)	387	25.8
Manica (mainly Chimoio)	67	4.5
Zambezia	57	3.8
Nampula	146	9.7
Tete	82	5.5
Other Provinces (Gaza, Inhambane, Cabo Delgado, & Niassa) ^b	251	16.7
Total	1500	100%

a. The very large enterprises are two agro-industrial conglomerates based in Nampula, both of which were surveyed.

b. Detailed lists for the other provinces were not obtained.

Source: National Statistics Institute (INE), Register of Establishments 2002.

of Mozambique's GDP in 1997 was approximately 40 percent in Maputo Province and Maputo City, followed by 14 percent in Nampula Province and 12 percent in Sofala Province. Zambezia is the only other province contributing greater than 10 percent of Mozambique's GDP. They also estimate that 60 percent of all industrial activity is concentrated in the Maputo conurbation. Maputo has also seen by far the highest share of approved FDI since the mid-1990s as seen in table A.4.³⁶ Excluding the Mozal project, Maputo still

Table A.4 Foreign Direct Investment Approved by Province and Sector 1996–2000

	FDI		Total Investment	
	US\$ 000's	% of total	US\$ 000's	% of total
Cabo Delgado	15,338	1.3%	71,268	1.4%
Niassa	628	0.1%	36,603	0.7%
Nampula	124,670	10.3%	364,365	7.3%
Zambezia	33,329	2.8%	223,232	4.5%
Tete	2,471	0.2%	98,829	2.0%
Manica	23,230	1.9%	100,868	2.0%
Sofala	60,647	5.0%	259,284	5.2%
Inhambane	16,550	1.4%	67,343	1.3%
Gaza	18,192	1.5%	55,830	1.1%
Maputo (non-Mozal)	393,390	32.5%	2,299,004	46.0%
Mozal Aluminum Smelter	500,000	41.4%	1,340,000	26.8%
Multi-province	20,250	1.7%	75,875	1.5%
Agriculture & agro-industry	130,681	10.8%	826,314	16.6%
Fisheries & Aquaculture	15,780	1.3%	111,892	2.2%
Construction	21,302	1.8%	358,107	7.2%
Industry (non-Mozal)	242,395	20.1%	916,584	18.4%
Mozal Aluminum Smelter	500,000	41.4%	1,340,000	26.8%
Transport & Communications	23,914	2.0%	268,816	5.4%
Banks & Insurance	153,200	12.7%	398,256	8.0%
Mineral Resources	26,279	2.2%	131,743	2.6%
Hotels & Tourism	50,849	4.2%	326,691	6.5%
Other Sectors	44,296	3.7%	314,098	6.3%
Total	1,208,695	100.0%	4,992,501	100.0%

Notes: Total investment includes FDI plus national direct investment plus domestic commercial bank loans.

Source: Adapted from data provided by Mozambican Investment Promotion Centre (CPI).

aluminum plant, which by itself produced 22.7 percent of total industrial output in this year, we present the shares of total manufacturing output both including and excluding the primary metals sectors. The main sectors covered by the survey represent approximately 53 percent of total manufacturing

output if this subsector is included, or 69 percent if it is not.

There is currently little reliable evidence on the distribution of formal employment within manufacturing in Mozambique, either by firm size or sector.³⁷ The 1997 population census showed that

Table A.5 Mozambique: Structure of Manufacturing Output in 2000

	Mt billions (current prices)	US Dollar equivalent (thousands of US Dollars)	Share of total manufacturing	Share of total manufacturing (excluding primary metals)
Total Manufacturing	7,575.7	500,344	100.0%	
Total excluding primary metals	5,842.2	385,856		100.0%
Food & Beverages	3,029.8	200,104	40.0%	51.9%
Food Processing	1,187.6	78,435	15.7%	20.3%
Beverages	1,699.9	112,272	22.4%	29.1%
Tobacco	142.3	9,397	1.9%	2.4%
Textiles & Garments	523.6	34,581	6.9%	9.0%
Textiles	330.0	21,797	4.4%	5.6%
Clothing	193.6	12,784	2.6%	3.3%
Footwear	—	—	—	—
Wood Products & Furniture	352.2	23,263	4.6%	6.0%
Wood Products	344.3	22,742	4.5%	5.9%
Furniture	7.9	521	0.1%	0.1%
Paper	448.2	29,599	5.9%	7.7%
Chemicals & Plastics	533.7	35,248	7.0%	9.1%
Chemical Products	38.8	2,565	0.5%	0.7%
Other Chemicals	246.7	16,292	3.3%	4.2%
Oil Refineries	31.6	2,088	0.4%	0.5%
Rubber	79.7	5,262	1.1%	1.4%
Plastics	136.9	9,042	1.8%	2.3%
Non-metallic Minerals	820.2	54,173	10.8%	14.0%
Glass	19.4	1,281	0.3%	0.3%
Other Non-metallic Minerals	800.8	52,891	10.6%	13.7%
Primary Metals	1,733.5	114,488	22.9%	
Aluminium Ingots	1,721.5	113,698	22.7%	
Iron & Steel	8.2	539	0.1%	
Other primary metals	3.8	252	0.1%	

continued . . .

Table A.5 Mozambique: Structure of Manufacturing Output in 2000 (*continued*)

	Mt billions (current prices)	US Dollar equivalent (thousands of US Dollars)	Share of total manufacturing	Share of total manufacturing (excluding primary metals)
Fabricated Metal & Machinery	130.4	8,610	1.7%	2.2%
Fabricated Metals	85.7	5,660	1.1%	1.5%
Non-electrical Machinery	5.2	342	0.1%	0.1%
Appliances and Elec. Machines	31.5	2,078	0.4%	0.5%
Transport Machinery	8.0	529	0.1%	0.1%
Other Manufacturing	4.1	271	0.1%	0.1%

Source: Adapted from IMF Statistical Annex, July 2002, Table 8 (based on data provided by Mozambican authorities).

Notes: There was a marked change in Mozambique's industrial structure in 2000 due to commencement of production of aluminum ingots by the Mozal smelter representing 23 percent of all industrial production in this year; official period average exchange rate for 2000 of 15,141 used to convert Meticals to U.S. dollars.

only 3.2 percent of the economically active population over 15 years of age was employed in manufacturing industries (in comparison to over 80 percent employed in agriculture, fishing, and forestry).³⁸ This corresponds to a total manufacturing labor force of about 420,000 (although this figure probably does not take account of the significant proportion of the population engaged in informal, artisanal production activities). We are also completely lacking information on the relative employment contributions of the informal and formal manufacturing sectors. It is widely perceived in Mozambique that regulatory burdens and costs of formalization discourage firms from entering the formal manufacturing sector, but there is little hard evidence to support this hypothesis.

Firm- and Owner-Level Characteristics

Selected Firm Characteristics

We first present a number of basic firm characteristics, including legal status of enterprise,

ownership structure, firm age, and degree of export orientation, as well as whether surveyed firms benefit from the provisions of the 1993 Investment Law or the IFZ regulations. Table A.6 gives the breakdown by five firm size categories, while Table A.7 presents a similar analysis by firm sector of activity.

Relatively large firms, in an African context, dominate our sample with a sample mean of 95 employees and a median employment level of 45. Large-scale firms particularly dominate in the food and beverage sector, wood products, and textiles and garments. The smallest enterprises on average are those in the furniture sector.

The vast majority of firms are either sole traders or partnerships (31 percent) or alternatively limited liability enterprises (41 percent). There are very few examples of remaining wholly state-owned enterprises or firms, which are subsidiaries of larger groups (either Mozambican or multinational corporations).

One immediate factor, which deserves comment, is that nearly a third of firms in the sample (48 percent)

Table A.6 Selected Firm Characteristics by Firm Size

Table shows proportion of firms in each category (unless otherwise specified)

	Micro N=29	Small N=41	Medium N=61	Large N=47	Very Large N=15	All N=193
Average Firm Size (no. employees)	6.5	19.4	49.5	132.5	533.4	95.1
Legal Status of Firm						
Solo or Partnership	0.90	0.44	0.15	0.13	0.07	0.31
Association (Cooperative)	0.03	0.12	0.16	0.21	0.20	0.15
Limited Liability Enterprise	0.03	0.34	0.51	0.53	0.53	0.41
State Enterprise (100% owned)	0	0	0	0.02	0	0.01
Subsidiary of Mozambican enterprise	0.03	0.05	0.08	0.04	0	0.05
Subsidiary of Foreign enterprise	0	0	0	0.02	0.07	0.01
Firm Ownership Characteristics						
Privatised enterprise	0.21	0.44	0.52	0.53	0.80	0.48
Any foreign ownership	0.07	0.12	0.18	0.28	0.33	0.19
% foreign ownership, if any	80.0%	71.0%	73.0%	68.5%	48.2%	68.1%
Any state ownership	0	0.02	0.03	0.15	0.27	0.07
% state ownership. If any	—	20.0%	25.0%	35.3%	24.8%	29.7%
Firm Age						
New (1–5 years)	0.07	0.20	0.15	0.11	0.13	0.13
Young (6–10 years)	0.17	0.17	0.26	0.28	0.13	0.22
Mature (11–25 years)	0.55	0.32	0.20	0.19	0.20	0.27
Old (>25 years)	0.21	0.29	0.38	0.43	0.47	0.35
Export Orientation						
% total sales to local market	100.0%	100.0%	93.6%	88.3%	72.0%	92.9%
% sales exported directly by firm	0%	0%	4.7%	9.5%	28.0%	6.0%
% sales exported indirectly (via agent)	0%	0%	3.3%	2.2%	0.0%	1.6%
Proportion of Firms Exporting	0	0	0.10	0.21	0.33	0.11
% exported (if any)	—	—	46.8%	43.7%	84.0%	54.2%
Firm Benefits from Investment Code/IFZ Regulations?						
	0	0.07	0.10	0.26	0.33	0.14

Notes: sample sizes vary for some characteristics due to missing data for some firm; a total of 4 firms are 100% oriented to the export market all in the textile and garments sector.

Table A.7 Selected Firm Characteristics by Firm Sector

Table shows proportion of firms in each category (unless otherwise specified)

	Food & Beverages N=51	Wood Products N=18	Furni- ture N=24	Textiles & Garments N=31	Metal & Machinery N=34	Other Sectors N=35	All N=193
Average Firm Size (no. employees)	133.9	87.8	39.8	100.1	61.4	109.8	95.1
Legal Status of Firm							
Solo or Partnership	0.25	0.39	0.50	0.52	0.21	0.14	0.31
Association (Cooperative)	0.14	0.11	0.04	0.13	0.18	0.26	0.15
Limited Liability Enterprise	0.43	0.44	0.42	0.29	0.41	0.46	0.41
State Enterprise (100% owned)	0	0	0	0	0.03	0.00	0.01
Subsidiary of Mozambican enterprise	0.04	0.06	0	0	0.12	0.09	0.05
Subsidiary of Foreign enterprise	0	0	0	0.03	0	0	0.01
Firm Ownership Characteristics							
Privatized enterprise	0.53	0.44	0.33	0.35	0.50	0.63	0.48
Any foreign ownership	0.14	0.06	0.04	0.13	0.38	0.29	0.19
% foreign ownership, if any	65.0%	49.0%	42.0%	70.0%	69.6%	72.0%	68.1%
Any state ownership	0.10	0	0	0.06	0.15	0.06	0.07
% state ownership. If any	23.4%	—	—	34.5%	36.0%	25.0%	29.7%
Firm Age							
New (1–5 years)	0.18	0.22	0.13	0	0.12	0.17	0.13
Young (6–10 years)	0.20	0.33	0.21	0.10	0.32	0.23	0.22
Mature (11–25 years)	0.20	0.28	0.42	0.45	0.21	0.20	0.27
Old (>25 years)	0.41	0.17	0.25	0.39	0.35	0.40	0.35
Export Orientation							
% total sales to local market	90.8%	83.9%	99.1%	86.7%	97.8%	97.2%	92.9%
% sales exported directly by firm	5.2%	16.1%	0.9%	13.3%	2.2%	2.8%	6.0%
% sales exported indirectly (via agent)	4.0%	0%	0%	0%	0%	2.9%	1.6%
Proportion of Firms Exporting	0.14	0.28	0.04	0.13	0.03	0.09	0.11
% exported (if any)	37.0%	58.0%	21.0%	99.8%	75.0%	31.3%	54.2%
Benefits from Investment							
Code/IFZ Regulations	0.12	0.11	0.08	0.13	0.12	0.23	0.14

Notes: sample sizes vary for some characteristics due to missing data for some firm; a total of 4 firms are 100% oriented to the export market all the textile and garments sector, there are only 3 firms in the sample producing textiles, the remaining firms are all manufacturers of apparel footwear.

are recently privatized enterprises. This particularly characterizes the modern manufacturing sector in Mozambique and can be attributed to the earlier comprehensive nationalization of all areas of economic production from 1975 onwards, in line with the socialist principles of the post-independence Frelimo government. Following an extremely rapid and extensive privatization program in the mid-1990s, various forms of private domestic and foreign ownership now predominate for firms in our sample. However, there is a clear legacy of continuing minority state ownership in almost all sub-sectors and particularly among medium- and large-scale enterprises: 15 percent of large enterprises (75–250 employees) and 27 percent of very large enterprises (more than 250 employees) have some degree of residual government involvement in their shareholding structure. The government is apparently committed to the gradual reduction of its remaining portfolio. Another factor, which may explain the durability of state involvement, is that private entrepreneurs view having the government as a minority partner in their enterprises as a useful insurance mechanism against arbitrary bureaucratic intervention by other state agencies in the running of their companies.

A total of 19 percent of sampled firms have some degree of foreign ownership, although relatively few firms are exclusively foreign owned. This can partly be explained by government policy during much of the 1990s that encouraged all foreign investors to form joint ventures with local partners, without actually making this a legal obligation under the 1993 investment legislation. As expected, foreign ownership is concentrated among relatively large firms and also firms in the metalworking and construction sectors, which are among the most capital-intensive. The lowest levels of foreign ownership are in the domestic resource-intensive sectors of wood processing and furniture manufacture. This may indicate some difficulties for foreign companies in entering these sectors, where

they would be competing for access to timber resources with incumbent Mozambican-owned enterprises. Given that the wood processing sector is also the most export-oriented of the sectors covered, with 28 percent of sampled firms exporting some proportion of their outputs, we would expect this export potential to attract both regional and international investors to a greater degree than is apparent from our sample.

In terms of the age distribution of firms, 13 percent are new entrants (formed in the last 5 years), 22 percent of firms are young (6–10 years of age), 27 percent are mature (11–25 years of age), and 35 percent are older enterprises (formed at least 25 years ago). This indicates that almost one-third of the sample was formed before independence. This statistic provides an indication of the relative lack of dynamism within some parts of the industrial sector—at least until the mid-1990s when market-oriented reforms opened a number of previously highly protected sectors to international competition. Two related areas of emerging policy concern are competition policy and bankruptcy law, both of which are comparatively underdeveloped in Mozambique. To encourage the reallocation of both capital and labor into new higher productivity enterprises and sectors, additional measures should be taken to facilitate the entrance of new enterprises (by relaxing licensing and registration requirements) and to ensure that moribund incumbent firms are effectively wound up.

Firms in all size categories and sectors are predominantly oriented to the domestic market. The only examples of 100 percent export-oriented firms are in the garments sector, which produce garments in Mozambique for the European, South African, and American markets under AGOA and other quota access arrangements. Manufacture of export-oriented garments is an example of an infant industry in Mozambique that requires particular attention from the government to facilitate its growth and success.

Internationally, two of the key competitiveness factors for this footloose industry are easy access to low-cost, semi-skilled labor and the ability to employ skilled expatriate labor to compensate (at least in the short term) for lack of managerial and technical expertise in Mozambique.

A total of 11 percent of firms in the sample export some proportion of their manufactured products directly. These exports are predominantly to international rather than regional markets, with approximately two-thirds of Mozambique's exports destined for markets outside Africa. This contrasts strongly with the experience of many other African countries (for example, Tanzania and Kenya), where interregional exports tend to dominate. There is a large potential market in South Africa and other SADC states for consumer goods manufactured in Mozambique. However, at the moment, Mozambique is at a relative disadvantage to Botswana, Lesotho, and other members of the South African Customs Union (SACU). We find that only medium- and large-scale firms export, which is consistent with the findings from other studies. Most firms export directly themselves, rather than using agencies or other marketing firms, which indicates a lack of specialization in this field. The wood products sector is the most export-oriented, followed by garments. However, only 6 percent of total manufacturing sales in 2001 were to export markets, which demonstrates the enormous scope for further export expansion. Greater penetration of both regional and international export markets represents the best opportunity for medium- and long-term growth for Mozambican manufacturers, due to the limited size of the domestic market, particularly outside Maputo.

Characteristics of Firm Owners and Managers

This section looks at some of the human capital characteristics of firm owners and managers in the Mozambican manufacturing sector. Note that the

number of firms covered in the analysis of owners and managers varies. First, we present the characteristics of the firm's senior executive (usually the managing director or director general). In some cases these individuals are owner managers (for entrepreneurial firms) or, more commonly, they are professional managers employed by the firm's owners. Second, we focus on firms that have individual ownership (i.e., owners who are private individuals), where the owner is not also the managing director of the firm. There are a total of 88 firms that fall into this category. Variation in the human capital characteristics of senior managers and individual owners may have important implications for firm performance, some aspects of which will be examined in later sections of this report.

In tables A.8 and A.9 show the breakdown of selected characteristics by firm size and sector of operation. Very few firms have either female managers or owners, which is true across all sectors and size categories, with the possible exception of large firms, where 11 percent report having female managing directors. The years of tenure of the senior manager tend to decrease with firm size, from 14 years for micro firms to 7.4 years for very large firms, indicating possibly that larger firms tend to rotate their senior management more frequently, which in turn may have important implications for firm learning, as new management is brought in with more varied experience. On average, managers have 15 years of experience in their specific industrial sectors before reaching the position of managing director.

In terms of educational qualifications, all firms have both managers and owners with some formal education (perhaps to be expected since relatively few informal microenterprises were interviewed). The proportion of managers with university education increases monotonically with size of firm, which is consistent with the theories of Lucas who hypothesizes that the distribution of firm size is associated with the distribution of managerial capability, with more capable managers running

Table A.8 Selected Characteristics of Firm Owners and Managers by Firm Size

Table shows proportion of firms in each category (unless otherwise specified)

	Micro	Small	Medium	Large	Very Large	All
Managing Director Characteristics	N=28	N=41	N=60	N=46	N=15	N=190
Proportion female	0	0.07	0.03	0.11	0	0.05
Years of tenure with firm	14.0	11.6	10.8	8.6	7.4	10.7
Years of previous experience (in same industry)	11.7	18.5	13.4	15.4	18.3	15.0
University education	0	0.15	0.27	0.33	0.57	0.24
Secondary education	0.43	0.58	0.57	0.56	0.29	0.52
Primary Education	0.57	0.28	0.17	0.11	0.14	0.24
No formal Education	0	0	0	0	0	0
African	0.70	0.53	0.45	0.29	0.07	0.43
European	0.11	0.20	0.29	0.42	0.50	0.29
Asian	0.11	0.10	0.14	0.09	0.36	0.13
Indian	0.07	0.15	0.10	0.20	0.07	0.13
Other Ethnicity	0	0.03	0.02	0	0	0.01
How Firm Acquired (All Firms with Data)	N=24	N=39	N=50	N=39	N=12	N=164
Owner founded firm	0.75	0.64	0.64	0.56	0.58	0.63
Current owner bought firm (non-privatization)	0.08	0.15	0.08	0.15	0	0.11
Current owner acquired firm in privatization program	0.08	0.13	0.20	0.18	0.17	0.16
Owner inherited firm	0.04	0.05	0.02	0.05	0	0.04
Other form of acquisition	0.04	0.03	0.06	0.05	0.25	0.06

continued . . .

Table A.8 Selected Characteristics of Firm Owners and Managers by Firm Size (*continued*)
 Table shows proportion of firms in each category (unless otherwise specified)

	Micro	Small	Medium	Large	Very Large	All
Owner Characteristics (if individual and not MD)	N=10	N=21	N=27	N=20	N=10	N=88
Proportion female	0	0.05	0.04	0.05	0	0.03
University education	0	0	0.16	0.25	0.10	0.12
Secondary education	0.40	0.72	0.64	0.35	0.50	0.54
Primary Education	0.30	0.33	0.32	0.20	0.10	0.27
No formal Education	0	0	0	0	0	0
African	0.30	0.45	0.54	0.25	0.20	0.38
European	0.50	0.30	0.31	0.45	0.40	0.37
Asian	0.10	0.15	0.08	0.05	0.10	0.09
Indian	0.10	0.10	0	0.20	0.30	0.12
Other Ethnicity	0	0	0.08	0.05	0	0.03
Related to managing director?	1.00	0.67	0.41	0.53	0.75	0.59

Notes: Top section shows characteristics of Managing Director of company (who may also be the owner/manager); the bottom section shows the characteristics of individual owners, where these individuals are not involved in the firm's day to day management.

larger enterprises.³⁹ Over 75 percent of managers in the sample have secondary education or higher.

For the subsample of firms with individual owners who are not also the managers, 59 percent report that the managers they have appointed are family members. These are most likely to be family-owned firms, where the older family members place greater trust in younger family members to run their businesses. Family-run businesses predominate in some sectors, particularly among smaller-scale operations in Mozambique.

There is a wide variation in the ethnicity of both firm owners and managers in the sample. Only 38 percent of owners and 43 percent of managers are Africans. Twenty-nine percent of firms in the sample

are managed by Europeans, who could be expatriate managers from Europe or South Africa or in some cases Mozambicans of Portuguese origin. Twenty-six percent of managers are either of Indian or other Asian ethnicity. This diversity of ethnic background can be seen as an advantage due to the range of social capital networks that managers of Mozambican manufacturing firms might be expected to maintain, which should give them beneficial access to technology and external markets through contacts outside of Mozambique.

We also have some information about how firms were acquired by their current owners: 63 percent of firms in the sample were founded by their current owners, and another 27 percent were purchased,

Table A.9 Selected Characteristics of Firm Owners and Managers By Firm Sector

Table shows proportion of firms in each category (unless otherwise specified)

	Food & Beverages	Wood Products	Textiles & Garments	Metal & Machinery	Other Sectors	All
Managing Director Characteristics	N=48	N=42	N=31	N=34	N=35	N=190
Proportion female	0.04	0.07	0.03	0.06	0.06	0.05
Years of tenure with firm	10.6	11.4	13.6	10.7	7.4	10.7
Years of previous experience (in same industry)	13.1	17.7	15.0	13.8	14.5	15.0
University education	0.30	0.05	0.19	0.29	0.38	0.24
Secondary education	0.54	0.50	0.45	0.59	0.53	0.52
Primary Education	0.15	0.45	0.35	0.12	0.09	0.24
No formal Education	0	0	0	0	0	0
African	0.27	0.51	0.47	0.53	0.44	0.43
European	0.36	0.32	0.13	0.35	0.26	0.29
Asian	0.18	0.10	0.23	0.09	0.06	0.13
Indian	0.16	0.07	0.17	0.03	0.24	0.13
Other Ethnicity	0.04	0	0	0	0	0.01
How Firm Acquired (All Firms with Data)	N=44	N=40	N=26	N=29	N=25	N=164
Owner founded firm	0.50	0.75	0.65	0.55	0.76	0.63
Current owner bought firm (non-privatization)	0.18	0.05	0.15	0.03	0.12	0.11
Current owner acquired firm in privatization program	0.16	0.18	0.08	0.28	0.08	0.16
Owner inherited firm	0.07	0	0.04	0.07	0	0.04
Other form of acquisition	0.09	0.03	0.08	0.07	0.04	0.06
Owner Characteristics (if individual & not MD)	N=25	N=21	N=12	N=14	N=16	N=88
Proportion female	0.04	0.05	0	0.07	0	0.03
University education	0.08	0.33	0.08	0	0.06	0.12
Secondary education	0.58	0.56	0.50	0.54	0.50	0.54
Primary Education	0.29	0.22	0.25	0.38	0.19	0.27
No formal Education	0	0	0	0	0	0

continued . . .

Table A.9 Selected Characteristics of Firm Owners and Managers By Firm Sector (*continued*)

Table shows proportion of firms in each category (unless otherwise specified)

	Food & Beverages	Wood Products	Textiles & Garments	Metal & Machinery	Other Sectors	All
African	0.32	0.55	0.33	0.54	0.19	0.38
European	0.36	0.20	0.33	0.38	0.63	0.37
Asian	0.16	0.05	0.25	0.00	0.00	0.09
Indian	0.16	0.05	0.08	0.08	0.19	0.12
Other Ethnicity	0	0.15	0	0	0	0.03

Notes: top section shows characteristics of Managing Director of company (who may also be the owner/manager); the bottom section shows the characteristics of individual owners, where these individuals are not involved in the firm's day to day management.

either from the government through the privatization program (16 percent) or from other private companies (11 percent). The relatively high proportion of firms founded by their current owners and, in many cases, owned and managed by members of the same family is typical of the industrial sectors of many African countries. These are characteristics of a relatively immature business sector, with underdeveloped stock markets and other legal mechanisms for the effective transfer of ownership of capital resources. These characteristics will certainly change over time, with the rapid opening up of the Mozambican commercial sector to foreign investment since 1992, the privatization and development of the commercial banking sector, and the establishment of the Maputo stock exchange in 2000.

35. There are a total of 9 firms with 5 employees or less. The largest firm visited had 970 employees. Total employment figures include the owner/entrepreneur if this individual is actively involved in the firm's activities.
36. CPI estimates that around 70 percent of approved investments actually take place. Other sources suggest that may be an overestimate.
37. However, this should be one of the main outputs from the INE Industrial Census once completed.
38. Based upon a total population estimate in 1998 of 16,452,000 (with 80.4 percent economically active), this gives an estimate of 421,000 adults formally employed in manufacturing industries in Mozambique. This seems quite high compared to estimates from other sources.
39. Lucas (1976).

Notes

34. The last industrial census in Mozambique was the 1988 UN Industrial Development Organization (UNIDO) Industrial Survey. INE is currently undertaking a new Firm Census (Censo de Empresas, CEMPRE) with results due by April 2003.

Table B.1 shows estimated results of a multivariate probit model analyzing determinants of investment. The dependent variable is the likelihood of investing, while explanatory variables include firm size, location,

sector of activity, age of firm, ownership status, whether or not the firm has private, foreign, or government ownership, and whether or not the firm was privatized in the past. Two other variables included are the education level of the general manager (owner in case of proprietorships) and whether or not the firm is part of a group of companies that may share financial resources. The only significant variables are firm size and age, both of which are significant at 5 percent level of significance, and access to bank loans and foreign ownership, significant at 10 percent significance level.

The second column shows a more parsimonious version of the same model, excluding some of the insignificant explanatory variables, with similar results except that access to bank loans becomes significant at the 5 percent level. The multivariate probit model thus shows that, adjusting for all other variables, larger firms, newer firms, and those with access to bank loans and with positive share of foreign ownership were more likely to invest were larger firms.⁴⁰

A similar multivariate analysis of determinants of firms' access to bank credit, either in terms of loans or overdrafts, shows firm size as the main explanatory variable (table B.2). There are a number of reasons why banks would prefer to lend to larger firms, all stemming from problems of incomplete information and resulting barriers to financial transactions already referred to earlier.

The only other variable with some explanatory power is the educational attainment of the general manager/proprietor, which is barely significant at 10 percent level of significance.⁴¹ None of the other variables are statistically significant in explaining access to bank credit.⁴² In particular, sector and location effects on access to bank credit are statistically insignificant. In both of the full and the parsimonious models estimated above, the estimated coefficients for sector and location are negative and mildly significant, at between 15–20 percent level of

Table B.1 Determinants of Likelihood of Investing

Constant	0.80 <i>1.43</i>	-0.86 <i>0.73</i>
Size	0.29* <i>0.12</i>	0.26* <i>0.11</i>
Location	-0.07 <i>0.18</i>	-0.05 <i>0.16</i>
Sector	-0.02 <i>0.08</i>	-0.02 <i>0.08</i>
Privatized	-0.91 <i>0.65</i>	-0.10 <i>0.27</i>
Age	-0.02* <i>0.01</i>	-0.02* <i>0.01</i>
Private	-0.82 <i>0.63</i>	— —
Foreign	0.54** <i>0.31</i>	0.49** <i>0.30</i>
Government	-0.73 <i>0.65</i>	— —
Bank loan	0.48** <i>0.26</i>	0.48* <i>0.25</i>
Overdraft	-0.12 <i>0.39</i>	-0.24 <i>0.37</i>
Education	-0.04 <i>0.11</i>	— —
Group membership	0.46 <i>0.73</i>	— —
Ownership status	0.02 <i>0.09</i>	—
Log-likelihood	-81.2	-83.3
Pseudo R2	0.15	0.14
N	173	175

* : significant at 5 percent

** : significant at 10 percent

Note: Figures in italics are standard errors of estimated coefficient.

Table B.2 Determinants of Access to Bank Credit

Constant	-0.69 <i>1.15</i>	-0.20 <i>0.69</i>
Size	0.37* <i>0.10</i>	0.36* <i>0.10</i>
Location	-0.20 <i>0.16</i>	-0.19 <i>0.15</i>
Sector	-0.11 <i>0.07</i>	-0.13 <i>0.07</i>
Privatized	0.21 <i>0.49</i>	-0.06 <i>0.25</i>
Age	-0.01 <i>0.01</i>	-0.01 <i>0.01</i>
Private	0.27 <i>0.47</i>	— —
Foreign	0.19 <i>0.29</i>	0.16 <i>0.29</i>
Government	-0.14 <i>0.49</i>	— —
Education	-0.15** <i>0.10</i>	-0.14 <i>0.10</i>
Group membership	0.33 <i>0.64</i>	— —
Ownership status	-0.04 <i>0.09</i>	—
Log-likelihood	-101.1	-99.7
Pseudo R2	0.15	0.13
N	187	181

* : significant at 5 percent

** : significant at 10 percent

Note: Figures in italics are standard errors of estimated coefficient.

Notes

40. Estimating the probit model above with firms classified as “new” (i.e., having come into existence in or after 1992) compared to older firms shows similar results with an equally significant coefficient for the variable “new.” Thus, firms established after 1992 were more likely to invest than older firms.
41. The coefficient for education of manager is negative because the highest levels of education are coded as 1, while values from 2 to 5 represent lower levels of educational attainment.
42. Firm age is statistically insignificant when defined as a continuous variable. However, if defined as a dichotomous variable, in terms of firms established post- versus pre-1992, the likelihood of new firms accessing bank credit is higher and the effect is statistically significant. Results with respect to all other variables are qualitatively unaffected compared to the reported regressions in table B.2.

significance. This indicates at best a weak support for the hypothesis that bank credit is likely to be higher for firms in Maputo, than in central and northern regions. Similarly, a negative coefficient for sector would indicate higher likelihood of access to bank credit for firms in food processing, followed by those in wood and furniture, textile and garments, and metal sectors, but the effect is statistically insignificant.

Table C.1 was prepared by an experienced consultant outside Maputo. The times are based upon the average experience of registering firms in the last year. It clearly illustrates the complexity of firm registration and why potential investors might never begin or give up along the way. Indeed, in this case nearly half the potential investors who engaged this

consultant stopped the process after CPI approval. Once the steps below are completed, the firm is registered but cannot legally begin operations until it obtains a tax number. Foreign investors can add up to another three months until they obtain residence and work permits and import licenses.

Table C.1 Registration of Group A Company Time and Cost Analysis

Step	Average Time to Complete	Average Cost	Comments & Problems
Section I			
1) Register name (Certidão Negativa)	17 days	112,000 Mts.	Signature on request letter must be "recognized" by notary. Documents are held for the statutory 15-day period even if issued earlier.
2) Register Company Statutes (Escritura)	21 days	A%	Preparation of a typed copy of handwritten statutes for submission in Maputo takes the most time.
FOR FOREIGN INVESTORS	30 days from date of receipt of complete set of documents	Percentage of investment capital	
At this stage statutes, proof of ID of shareholders plus complete project proposal should be submitted to CPI.			
3) Publication of Statutes in Maputo (BR)	30 days	B%	Time dependent on how many other items are ready to go into BR. Date of publication of release can be up to 15 days.
4) Registration Certificate (Certidão Definitiva)	20 days	C%	As with name registration, this also requires the purchase of large numbers of stamps to stick on each page of process. Requires submission of complete text of certificate, which is then re-typed by the Conservatoria.
Sub-steps to the above		Approx cost of document preparation per stage 75,000 Mts.	
<ul style="list-style-type: none"> • Preparation of notarized copies of all documents plus letter with authenticated signature. • Submission and request for quotation. 	<ul style="list-style-type: none"> • 1 day • 3 days 		<ul style="list-style-type: none"> • Copies of all documents must be submitted at each stage (except BR which only requires statutes). • Calculation of payment is complex and varies widely from process to process.

continued . . .

Table C.1 Registration of Group A Company Time and Cost Analysis (*continued*)

Step	Average Time to Complete	Average Cost	Comments & Problems
• Payment	• 1 day		• Payment can only be made to specific individuals. If they are absent the process is automatically delayed.
Total (Section I)	88 days (118 for foreign investors)	Total cost including document preparation (copies, notarisation, etc.): \$66 plus Capital Investment Value 0–\$2,500 \$2,500–8,400 \$8,400–20,000 \$20,000–32,000 \$32,000+	Calculation of % paid at each stage is unverifiable. Figures vary and are based on a complex system of tariffs and fees that are not available to the public. This does not include fees and percentages charged by CPI to foreign investors. A+B+C=% of stated investment capital paid (approx) 20% 15% 10% 5% 2%
Section II			
5) Pre-Inspection of proposed premises	15 days from date of request to inspection. A further 15 days to receive report on result of inspection.	500,000 Mts.	Date and time must be agreed with 3 inspectors from 3 departments. They must all be collected and transported. Obtaining information regarding alterations required to premises within the stipulated time period is very difficult. Each pre-inspection makes different stipulations, often requiring the completion of processes that cannot be done until after the trade license is issued.
Sub steps to the above:			
Depending on the inspector, as a result of the inspection, a company is required to obtain:			
• Work Schedule	• 30 days	• 5,000 Mts.	• It is not legally possible to obtain a work schedule without a trade license.

continued . . .

Table C.1 Registration of Group A Company Time and Cost Analysis (*continued*)

Step	Average Time to Complete	Average Cost	Comments & Problems
• Sanitary Control book	• 5 days	• 50,000 Mts.	• The requirement for this book is solely at the discretion of the inspector and is a concept peculiar to the province.
• Registered list of employees	• 2 days	• 10,000 Mts.	• It is illegal to employ anyone without having a trade license and also without being registered with the finance and labor department, which cannot be done until after the issuing of a trade license.
Governor's Dispatch	Submission and receipt controlled by Commerce Dept., so it is impossible to give accurate data but at least 8 days from date of dispatch by governor's office to date of notification by Commerce.		
Final Inspection	11 days from date of payment	1,000,000 Mts.—license fee 1,500,000 Mts.—Inspection fee 500,000 Mts.—Health Inspection	As with pre-inspection, you must collect documents from each department and deliver them to the other departments yourself and then collect and transport the inspectors. You are obliged to pay for the issuing of the license prior to the inspection, and the money is not refunded if the license application is rejected.
Total (section II)	41 days	Total cost including document preparation (copies, notarisation, etc.) at each stage \$160	

Notes: Total time taken is approximately 4 months (5 months for foreign investors). This estimate assumes that there are no problems with documents at any stage and that the company is fully conversant with what is necessary. Experience shows that the process takes at least 5 months without a CPI investment. Following the above steps, an investor may register with the finance department to obtain his tax number and begin trading. Foreign investors may now apply to open a bank account and after obtaining finance registration may begin applications for work permits and residence permits. Importers may apply for an import permit to begin importing goods.

Table D.1 was prepared by a timber exporter who supplies rough-sawn parquet to the European market, and it illustrates the steps required to export agricultural products. The total time, if all goes well, is 10 days. The steps are little different for other products. The certificates listed below are required by the Department of Agriculture and European customers do not want them. Other agriculture

products, such as flour must also receive certificates that destination countries do not need. All shipments, even of non-agricultural goods, must be packed and loaded under the supervision of customs officers, who must be transported and provided allowances. If the officials are not available export can not take place. Also all exporters must receive export licenses for no discernable reason.

Table D.1 Timber Export Procedures for Mozambique

Step	Description	Average Time	Average Cost	Comments and Problems
1	Raise the invoice and get the "boldoro" (payment guarantee) from the bank.	1 hour	Zero	none
2	Obtain a Certificate of Origin from the Department of Commerce.	Usually the same day	Mts. 900,000	Payment in cash only. Customers in Europe do not require this certificate.
3	Request in writing, an inspection from the Forestry Division of the Department of Agriculture for the issuing of a Certificate of Quality (CoQ).	The authority for the inspection usually takes 24 hours.	Payment made on issuing the certificate.	
4	Request in writing, an inspection from the Plant Protection Service of the Department of Agriculture for the issuing of a Phytosanitary Certificate (PC).	Usually same day	Mts. 500,000 (this fee is about to be increased, but the new tariffs are not yet available).	
5	Collect official for PC inspection from city center.			Company must supply transport. Will not come with CoQ inspectors forcing the company to make two trips.
6	Collect PC after inspection.	24 hours		
7	Collect between 2 and 4 CoQ inspectors.			Company must supply transport.
8	Pay CoQ inspectors daily allowance.		Mts. 300,000 per person.	Cash payments only, no checks accepted.
9	Return to get authority to pay for CoQ and make payment.	24 hours	Depends on the quantity, usually Mts. 500,000 per 20-foot container.	The department cannot receive payment directly; the funds have to be deposited into the bank.
10	Collect CoQ.	Anywhere between 1 and 3 days after inspection.		
11	Supply documents to agency to submit to customs. Loading is "supervised" by a customs officer who has to be supplied transport.	Between 1 and 3 days.	\$100 (payment made to agency not customs).	Many companies contract and pay extra for an agency to solve all customs documentation and inspections problems.

The Mozambican VAT refund policy “*IVA Código*” was established to provide tax relief to specific private sector activities that fall under the value added tax refund structure (see “*IVA Código*”). However, while the law was designed to provide some tax relief to Mozambican firms, it has been problematic for a select group of large formal sector firms. These businesses complain that the current refund system is fraught with delays on repayment of VAT refunds, which negatively affects firm cash flow and makes firm level budgeting and project planning extremely difficult. The government’s Office of Taxes and Audits (*Direcção Nacional de Impostos e Auditoria*), which handles VAT refunds, states that businesses do not properly comply with documentation, thereby causing refund delays. In order to meet the goals of “*IVA Código*,” VAT refund problems must be resolved or the VAT system only further reduces the competitiveness of formal Mozambican firms.

VAT Refund Delays:

Issue: According to the Office of Taxes and Audits, the VAT law stipulates that VAT refunds are to be made within 45 days of documentation approval for qualifying exporting firms and 60 days for qualifying non-exporting firms. However, the survey sample showed that firms must wait an average of 99 days for VAT refunds, with a large disparity of responses. When VAT documents are submitted, the documents need to be approved for a VAT refund to be disbursed within the designated time period. Firms state that documentation for approval is not as problematic as the refunds following the approval. Furthermore, private sector organizations point out that the majority of VAT refund problems are focused within a core group of approximately 20 firms that make substantial refund requests based significant raw material imports. According to one large firm, most companies with significant VAT activity have accountants familiar with the documentation requirements making approval easier, but refunds are made well past the document approval timeline because of cash shortages in the VAT system to meet the refund requests. As a result of these shortages, sometimes

both the refund approval process and the actual refunds are delayed by the VAT offices to offset the VAT refund obligations per month. These delays cause major cash flow problems for firms that have large VAT refund requests. In the cases of the provinces, firm applications must be approved at both the provincial and national level, which further delays approval and refunds.

According to the Office of Taxes and Audits, the refund delays are caused by businesses not complying with the necessary documentation, thereby delaying document approval. The Office states the most common issue is that businesses are resistant to submit proper documentation showing their suppliers, who they state must be up to date on VAT payments for the applying firm to request the VAT refund on purchases from those suppliers. The Office further states that when the proper documents are delivered and approved, they meet the timelines defined by the law and that the survey time of 99 days includes firms that submitted improper documentation that had not yet been approved. The Office did state, however, that additional staff could allow them to better attend to business applications. Firms, however, state that these allegations are incorrect. They state that in many cases the local VAT offices find non-relevant issues in the documents that delay the approval process and that refund delays still persist even when the proper paper work is submitted and approved.

Currently, several large firms have substantial VAT refund credits overdue with the government (reaching \$1 million) through VAT payments on imports. In the case of VAT refunds on imports, documentation is simplified to one document, *Documento Unico*, making approval easier. However, firms state that the large refund requests by importers, which can exceed US \$1 million, cannot be met by the VAT refund office within the 60 day time period due to insufficient government funds. In order to reduce cash flow problems for firms with large VAT outlays, the law does allow firms to offset their VAT refund credits against upcoming VAT payments, but only for VAT payments on sales within the country. As a result, this flexibility does allow large firms that import raw materials to

discount VAT payments on imports, where significant VAT refunds remain delayed.

Solution: Delays in making VAT refunds payments to qualified firms puts an enormous strain on companies' cash flows. The delays also create a perception to potential outside investors that Mozambique is not serious about providing promised incentives and further puts formal private sector firms at a competitive disadvantage for VAT compliance. It appears that VAT funding issues are the core problem, which is causing delays in both approvals and refunds. In order to reach the desired goals of the VAT system, the government must show its commitment to making the system functional. Firms paying the VAT should not be punished and put at a competitive disadvantage as a result of government shortfalls and limited compliance. If the government of Mozambique is serious about managing an effective VAT system it must prosecute businesses that are non-compliant in order to increase revenues to pay compliant firms. Firms also carry part of the burden by ensuring that they work with suppliers that are VAT compliant as the government cannot be expected to pay VAT refunds to firms in instances where the government didn't receive the initial VAT payment from the firm's supplier. In this manner, both the private sector and the government should be working with the same goal of improving the system's net cash flows. Hiring of additional VAT staff at the Office of Taxes and Audits could also be considered to improve collections. In the short term, it is advisable for the government to allow firms to offset VAT refund credits against future VAT payments on imports, where the firm has paid the VAT to the government directly. This would solve the problems of several large firms with cash flow problems due to substantial VAT refund credits on past imports.

Bank Guarantees:

Issue: According to the Office of Taxes and Audits, those firms that request a VAT refund are required to put up a bank guarantee for up to one year for 100% of the value of the requested refund. After documents

are submitted and approved, the Office states that payment is made within the time period defined by law (45–60 days). Following payment the Office carries out an audit to verify the details of the documentation. Upon completion of the audit, the guarantee is no longer needed. The guarantee is required so that the government has some recourse if the firm has entered a false refund request which the audit identifies, or if the firm does not pay other VAT obligations. Government states that with the guarantee and the proper documentation, refunds are disbursed on time. However, businesses contest that with VAT repayment delays the guarantee requirement in effect doubles the firms cash outlay thereby further reducing its cash flow for activities. Businesses also state that audits are delayed and can take more than one year, therefore increasing the cost of the guarantee.

Solution: The government should reduce the guarantee period from the current 1 year timeframe to 6 months to improve firm cash flow. Bottlenecks that allow the VAT offices to carry out the necessary verification/audit need to be addressed in tandem with the reduced timeframe. The Office of Taxes and Audits stated that additional auditors could facilitate and improve the process and reduce perceived delays.

Final observations: An effective VAT system requires sufficient institutional infrastructure and resources to properly manage the system and make it functional. The current VAT system in Mozambique is currently punishing some firms that are compliant through delays on payment refunds. If the problem is financial, as pointed out by the private sector, the government must find a way to improve collection and expediently channel that money back to those firms that are in compliance with the VAT system. Compliant private sector firms also need to be more vigilant to work with VAT compliant suppliers. If the government does not have the resources to make the system function properly, then a new system of tax relief should be considered.

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