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The Business Environment in Southern Africa: Issues in Trade and Market Integration

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Abbreviations and Acronyms

BEC	Broad Economic Categories
BNS	Botswana, Namibia, and Swaziland
COMESA	Common Market of Eastern and Southern Africa
DRC	Democratic Republic of Congo
EU	European Union
EAC	East African Community
FDI	Foreign Direct Investment
FIAS	Foreign Investment Advisory Service
FTA	Free Trade Area
GDP	Gross Domestic Product
ICA	Investment Climate Assessment
LOP	Law of One Price
MFN	Most Favored Nation
OECD	Organization for Economic Co-operation and Development
PPP	Purchasing Power Parity
RISDP	Regional Indicative Strategic Development Plan
SACU	South African Customs Union
SADC	Southern African Development Community
SSA	Sub-Saharan Africa
TFP	Total Factor Productivity
TIFI	Trade Industry Finance and Investment
TMCM	Trade Compliance and Monitoring Mechanism
WTO	World Trade Organization
US	United States

Vice President:	Obiageli Katryn Ezekwesili
Director:	Yusupha B. Crookes
Sector Director:	Marilou J. Uy
Acting Sector Manager:	Michael Fuchs
Task Team Leader:	Taye Mengistae

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This report was written by a team comprising several members with the following responsibilities. Alberto Behar (DECTI) and Lawrence Edwards (University of Cape Town) wrote Chapter 1. Chapters 2 and 3 were written by Taye Mengistae (team leader, AFTFE), Vanya Pasheva, and Payal Pathak (World Bank), and draw on background papers written by Neil Rankin (University of Wits), Volker Schoer (University of Wits), and Colin Xu (DECFP). Chapter 4 was written by Inessa Love (DECFP). James Habiyarimana (University of Georgetown) wrote Chapter 5. Lawrence Edwards wrote Chapter 6. The report was compiled and edited by Taye Mengistae and Payal Pathak (World Bank).

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The report was prepared under the guidance of Yusupha Crookes (Director, AFCRI), Marilou Uy (Director, AFTFP), Michael Fuchs (Acting Sector Manager, AFTFE), and Frode Davanger (Sr. Operations Officer, AFCRI).

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PREFACE

This report assesses some of the key barriers to greater trade and factor market integration in the Southern Africa Development Community (SADC). An extended summary of the report is available as a separate volume. Information on econometric methods and conceptual framework is given in a technical annex to this volume.

When the SADC was established back in 1980, the objective of the regional body was to coordinate the development policies of member countries in order to limit their dependence on apartheid South Africa. Following South Africa's transition to democracy, the SADC was transformed into a development community in 1992, with the key objectives of alleviating poverty and promoting economic growth among member countries through greater trade and factor market integration. Today South Africa's economy is the anchor for the regional economy, accounting for two-thirds of its total annual output and 20 percent of the regional population. The next three largest economies, Angola, Tanzania, and Botswana, account for only one-sixth of regional output. Per capita income in about half of the member countries is US$500 or less. In terms of population, the region also exhibits considerable diversity. The largest country by population, Democratic Republic of Congo (DRC), accounts for nearly a quarter of the region's population (but only 2.2 percent of the regional output). Six member countries each have a regional population share of less than 1 percent. Many are either small islands in the Indian Ocean or small mainland populations of less than 1.5 million.

There are 15 member countries at the moment, namely, Angola, Botswana, Democratic Republic of Congo (DRC), Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. About one-third of these are resource-rich, with the share of exports of natural resources higher than 30 percent. Forty percent of members are landlocked, and rely on other members for access to seaports. In 2005, per capita income in the region ranged from US$120 in the Democratic Republic of Congo to US$9700 in the Seychelles. Including South Africa, five members are classified as upper middle-income and three are lower middle-income as per the World Bank's Development Indicators. The other members are classified as poor.

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EXECUTIVE SUMMARY

The SADC has been a free trade area since 2008, and has an ambitious agenda for further trade integration. This includes the establishment of a customs union by 2012 and the creation of a common market by 2015. The Free Trade Area (FTA) protocol provides for the elimination of import tariffs and nontariff barriers to trade among participants, and the harmonization of customs procedures and technical standards. The SADC also has a Finance and Investment Protocol (FIP), which is designed to facilitate FDI in the region by harmonizing the policies of member countries in investment promotion policies, labor codes, and immigration laws.

This report assesses the roles that cross-country differences in business environments have had in impeding cross-border trade flows and the cross-border integration of credit markets and the labor market based on the analysis of microeconomic data on firms and households. The aim of the assessment is to help inform the policy and business environment harmonization agenda of the Community.

Trends in trade integration

SADC economies are far more integrated today within the region and with the global economy than they were in the mid-1990s. Most Favored Nation (MFN) tariffs have been reduced, intraregional trade flows have increased, and trade has risen as a share of GDP. On average, SADC countries export and import as much as would be expected relative to their income and distance from international and regional markets. Further, intra-SADC trade is relatively high in relation to what intraregional incomes and distance would predict. However, much of the increase in intraregional and extra regional trade occurred in the 1990s, and all indications are that progress has halted in recent years. In addition, substantial imbalances in trade flows persist. The South African Customs Union (SACU) continues to dominate intraregional trade flows, as both a destination for other SADC member exports and a source of their imports. Trade flows among non-SACU countries in the SADC area remain low.

Another feature of the nature of integration to date, posing a major policy challenge, is that, excluding South Africa, SADC exports to the rest of the world and within the SADC are comprised mainly of primary products, although Mauritius, Malawi, Swaziland, and Lesotho also export clothing and textile products. The high concentration in commodity-based exports has limited intra-industry trade flows and the productivity gains associated with the economies of scale and the diffusion of innovation that such flows facilitate. To realize productivity gains from intra-regional trade, many member countries need to diversify into nontraditional exports, including manufactured and service exports. Trade in manufactured goods and services is more sensitive to trade barriers and other cross-border transaction costs than the current trade in resource-based products. Its development in the region would therefore require greater openness

to trade of member countries and significant reforms of the business environment within the region.

Key findings

Trends in trade policy and trade integration There is greater trade integration within the SADC and the region is more integrated to the global economy today than was the case two decades ago. But this is primarily thanks to the trade liberalization measures members undertook in the early 1990s. Progress in intra regional trade integration has stalled since then. Moreover, intra regional trade continues to be dominated by SACU countries, and SADC exports are overwhelmingly concentrated in primary commodities.

Further progress in intra regional and extra regional trade integration requires more tariff reforms designed to reduce effective rates of protection and harmonize MFN rates between member countries. It also requires concerted efforts to reduce other source of trade costs including transport costs and the streamlining and harmonization of customs admin and regulation of cross border transactions more generally.

Business environment and trade integration High trade costs are holding back badly needed diversification of the region's exports into labor intensive manufactures and services, where productivity is too low in many countries for export growth because of other problems of business environment as well, including unreliable power supply, inadequate access to formal external finance, high business start up costs and corruption.

These problems have reduced productivity, first, by generating technical inefficiency (that is, by adding to the average cost of doing business across the board and for all firms) and, secondly, by taxing some firms and sectors more than others (that is, by generating allocative inefficiency).

Business environment reforms and FDI Problems of business environment have also held back domestic investment and inward FDI. Over the past two decades, member countries have attracted more FDI than other developing regions on a per capita basis. This has been in no small part thanks to improvements in political stability and business environment reforms that have reduced corruption and cut business start up costs. However, it is also clear that more reforms are needed in these areas even to sustain current levels of FDI in many countries, and to correct exiting imbalances in the allocation of FDI within the region.

Financial development and financial integration Financial development and financial integration are key ingredients of increasing investment and trade integration and improving the allocation of capital within the region. However, at the moment there is relatively little financial integration as indicated by large cross country disparities in interest rates and the availability and accessibility of financial products.

Key factors in the lack of financial integration in the region are the lack of credit information systems and the weakness of contract enforcement institutions in many member countries.

Regional labor market integration Labor market integration is measured by how quickly wages in one part of the SADC respond to sharp wage rises or declines in another. It is also a powerful gauge of the state of trade integration and the ease of mobility of capital across the region. The reason for this is that labor markets would be integrated within the region even in the complete absence of the cross border mobility of labor as long as there is free cross border flow of goods and capital. Conversely the lack of regional labor market integration is a reflection as much of restrictions on cross border flow goods and capital as of those on the cross border migration of people.

At the moment the degree of labor market integration is low in the region compared to other parts of the word where there is less restriction on trade and cross border capital flows such as the US-Mexican border. Thus the report finds that it would take 3.6 months for a sudden rise in wages in South Africa to be full reflected in wage changes in Botswana, Namibia or Swaziland as compared to one month that wages in Mexican border towns are estimated to require to fully adjust to a major wage change in the U.S.

Adding to the urgency of diversifying members' exports is that most SADC countries are labor-surplus economies, and many face problems of high unemployment and widespread poverty. To successfully grow out of these problems many need to diversify production and exports into labor-intensive industries in manufacturing and services. Future progress in further trade integration within the region will indeed largely depend on how far member countries succeed in this type of diversification.

Monitoring goods market integration

The full report discusses and illustrates the use of price data in monitoring intraregional trade integration. Although integration is normally evaluated by looking at trade flows, a more reliable approach is to assess the extent to which prices are similar or tend to converge across borders. Price dispersion is a preferred metric of market integration because, unlike prices, trade volumes are also affected by many other factors unrelated to market integration. On the other hand, changes in goods market integration will be reflected in prices regardless of whether trade has actually taken place, as it is the potential for arbitrage that determines how far prices can diverge.

The various methods of analysis of price trends used in the report provide additional evidence of increased market integration in SADC countries. Consumer price inflation has converged within the region and the volatility of real exchange rates has fallen. A detailed price-level analysis also reveals a decline in price dispersion within and across SADC and other African countries, although this decline was concentrated in the 1990s with little progress made subsequently.

Business environment and trade integration

The cross-country differences in manufacturing and service productivity and exports that we observe today among SADC members have a great deal to do with differences in business environment. Specifically, more successful exporters of manufactures and services are, on average, more open to trade; have lower trade costs on account of more conducive geography and lower transport and regulatory costs; have lower regulatory barriers to business formation; provide better access to long-term finance; and have more reliable public utilities and better governance in the sense of having less corruption in government agencies. Above all, more successful exporters of manufactures and services suffer far less from allocative inefficiency resulting from disparities in access to long-term finance, public utilities, and to government services among sectors, business size groups, and entry cohorts, as they provide a more level playing field to everyone on those key dimensions of the business environment.

The top exporters of manufactures and services in the region currently are South Africa, Mauritius, Lesotho, Namibia, Swaziland, and Malawi. These are also among the most open to trade. All except Lesotho owe their exporting status to the higher productivity of their manufacturing sectors relative to almost everyone else in the region, including Angola, DRC, and Zambia, which have the least productive and least exporting manufacturing and service sectors in the region. One major source of the productivity gap between the two extremes of successful exporters of manufactures and services (South Africa, Mauritius, Namibia, Swaziland, and Malawi), and nonexporters of the same (DRC, Angola, and Zambia), is differences in technical efficiency. The typical manufacturer in the former group operates closer to the global technological frontier of its respective industry than does its counterpart in the second group, and in that sense, is more technically efficient.

A second source of the manufacturing productivity gap between the two groups of countries is that, within the typical domestic industry, low productivity firms tend to have higher market shares in the non-exporting group than they would have in the other group—a reflection of the

greater allocative inefficiency that characterizes industry in the nonexporting group. The relatively higher allocative inefficiency of industries in the non-export group in turn is partly caused by the fact that there is greater in-country disparity of business environment in those countries than there is within the more successful exporters, where the playing field is more level for all firms regardless of how large they are, how long they have been in business, and where in the country and in which sector they are operating.

Business environment reforms and FDI

Cross-country differences in the business environment have also been a major factor in recent trends in inward foreign direct investment (FDI) in the region and in its allocation among member countries. In recent years the SADC has attracted higher FDI on a per capita basis than most other developing regions. Though most of the inflow has been to mining, resource-poor countries have also attracted more than their share of FDI. In almost every case, FDI inflows have financed large shares of domestic savings and helped improve productivity, without which growth rates would have been significantly lower than they turned out to be.

However, given cross-country patterns in expected rates of return, Tanzania, Malawi, Mozambique, Swaziland, and Namibia should have attracted far more FDI than they actually did, while Angola, DRC, and Zambia are unlikely to sustain current levels of FDI. Sustaining high levels of FDI in the second group and raising levels in the first group will require significant improvements in the countries' business environments. The type of improvements needed differ among countries, however. In at least one country, what is needed is reduction of investment risk through greater political stability. In almost all the others, there is an urgent need for reducing corruption and business start-up costs.

In the recent past, reforms that lowered start-up costs in Madagascar, Mauritius, and Mozambique have drastically positive and visible impacts on FDI flows, while greater political stability in Zambia and Mauritius had a similar effect in those countries. On the other hand, major declines in the control of corruption seem to have led to a sharp fall in FDI in Namibia and Swaziland in the early 2000s. One indication of the scope for positive changes in these business environment factors is that start-up costs have steadily declined in nearly all resource-poor countries to converge with or to less than the South African norm, while start-up costs are very high and have generally remained unchanged in most resource-rich countries.

DRC and Zimbabwe aside, the trend in the SADC as a whole has been one of members' convergence towards greater political stability, with steady improvements in every country's score on the stability index. Botswana, Mauritius, and Namibia are the most politically stable members; the larger countries—South Africa, Mozambique, Malawi, and Zambia—converge around something of a normal (or mean) score for the region.

On the other hand, there is not much evidence of convergence over time among SADC members in terms of control of corruption. Indeed, countries in the region fall into three distinct groups: relatively "corruption free" members, namely, Botswana, Mauritius, Namibia, Madagascar, and Lesotho; those with moderate corruption, namely, Zambia, Malawi, Mozambique, and Swaziland; and those where corruption is a serious problem—Angola, DRC, and Zimbabwe.

Issues in financial market integration

Greater financial integration in the SADC should help improve the allocation of FDI and capital more generally within the region. It should also help promote trade integration. Some of the influence of business environment on investment and trade integration therefore occurs as an effect on financial integration and financial development.

At this point the level of financial integration is quite low, an indicator of which is the large variance in real interest rates among member countries: some have excessively high rates (Mozambique, Tanzania, and Zambia), while others report negative rates (DRC, Botswana, Madagascar, and Angola). Countries also vary hugely in terms availability of financial products and their accessibility to different sectors of the economy.

One major impediment to greater financial integration is that institutions of contract enforcement are weak in many member countries. The SADC scores lowest among all regions on time to enforce contracts, with Angola, Mozambique, Botswana, and Swaziland recording the longest times. Another barrier is that credit information is lacking in several countries, including DRC, Lesotho, Madagascar, Malawi, Tanzania, and Zambia. Capital controls constitute the third impediment. The SADC region has the most restrictions on capital flows, both in de jure measures of capital account restrictions and in de facto measures of actual capital flows during the past few years.

Employment regulation and labor market integration

Compared to other regions, employment contracts are not heavily regulated in the SADC. Seven countries have an overall Doing Business employment rigidity index that is well below the OECD average. The same index is below Sub-Saharan Africa's average for three other members. However, there is enormous variation in the degree of employment regulation within the region itself. Angola, DRC, Zimbabwe, Botswana, and Madagascar regulate the labor market the most heavily. In Lesotho, Malawi, Mauritius, Swaziland, Namibia, and Zambia, employment contracts are the least regulated.

These differences in the intensity of labor regulation have significant implications for cross-country differences in employment and earnings, and for cross-country differences in trade integration. It is not by coincidence that the countries where employment is least regulated have attracted more FDI per capita and have more export-oriented manufacturing and service sectors than other member countries. Intraregional differences in empoyment regulation also generate differences in the price of labor and in labor market integration.

The reason for this linkage is that a country cannot sustain wage rates that exceed a global or regional norm unless it somehow restricts the flow of goods, services, capital, and people across its borders. Even where trade is restricted, labor market integration can be driven by the flow of capital among countries. When FDI is driven by a positive wage shock in the sending country labor market, it creates a link with the recipient country's labor markets. For example, FDI from South Africa to Zambia, motivated by a sudden rise in wages in South Africa, increases the

demand for labor and, ultimately, wages in Zambia. International migration is another mechanism linking wages and labor markets across countries.

The report evaluates the extent of integration of labor markets among members the statistical agencies of which regularly collect the minimum data required for this purpose, which are South Africa, Mauritius, the BNS (Botswana, Namibia, and Swaziland), Tanzania, and Zambia. The evaluation involves measuring the speed with which wages in one country respond to shocks to the labor market in the rest of the region. The rule of interpretation of the measurement is that faster adjustment indicates a more regionally integrated market. The results show that, although there is considerable integration of South Africa's labor market with many others in the region, the degree of integration is rather low. This reflects the fact that both trade and capital flows are far more restricted in the region than in places where there is greater cross-border labor market integration.

One such place is the U.S.–Mexican border, where a study showed that wages in Mexican border towns fully adjusted to wage shocks in the US in around one month. This is 3.6 times shorter than the time it takes for wages in the BNS to fully adjust to wage shocks to the South African labor market. As would be expected, adjustments to the shock would take even longer as we move further away from South Africa's border. For example, it takes 5.5 months for Tanzanian wages and 11 months for wages in Mauritius to adjust to the same shock to South African wages.

Issues of harmonization

Details of the policy recommendations that follow from these findings on measures needed to promote integration are provided in a separate section. The recommended measures include:

(a) increasing harmonization of external import tariffs among SADC members and reducing nontariff barriers to regional and extra regional trade,
(b) reducing trade costs by improving and harmonizing customs administration,
(c) reducing transport costs by improving railway and port services,
(d) improving the power supply situation,
(e) reducing business start-up costs, particularly in resource-rich countries,
(f) combating corruption, and
(g) promoting financial development and regional financial integration by opening up capital accounts, fostering competition in the banking industry, instituting credit information systems, and improving and harmonizing contract enforcement institutions.

POLICY RECOMMENDATIONS

The key harmonization issues emerging from the report's findings concern import tariffs and nontariff barriers, transport and other significant components of trade costs, provision of infrastructure, control of corruption and issues of financial development and regional financial integration. In this note we list the main policy recommendations that emerge from the report's analysis and those that have been made in other studies including the national investment climate assessments that the World Bank carried out in many SADC member countries in the last two to three years.

Member state agencies are the primary drivers and executors of most of the measures or intervention the report recommends. However, in almost every case, the SADC Secretariat is empowered by one or more of the organization's protocols to initiate, facilitate, or coordinate the harmonization of members' actions in the relevant policy areas. .

In many cases recommended measures are long overdue vis-à-vis the time frame specified in the Regional Indicative Strategic Development Plan (RISDP) of the SADC and can be implemented in a short term time line of 3 years or less. However, in some cases, implementation is possible only over the long term.

Eliminate intra regional import tariffs in the short term and harmonize the level and structure of MFN tariffs in the long term.

As a result of the MFN tariff reduction that the SADC countries have undertaken since the mid-1990s, average tariff rates are now quite modest in the region. There has also been a phasing down of tariffs among SADC members in line with the provision of the Trade Protocol according to which all intra regional trade would be duty free by 2012 and, since the coming into effect of the Free Trade Area (FTA) in August 2008, 85 percent of all intra regional trade is assumed to be duty free.

However, there remain two critical issues that need to be addressed in the area of tariff reforms. Over the next two to three years, there is a need to eliminate all intra regional customs duties in line with the stipulations of the Trade Protocol and as part of the move towards the establishment of the envisaged customs union. Over the long term, there is a need to (a) harmonize the level as well as structure of MFN tariffs of member countries in the context of establishing the common external tariff as part of the move towards a customs union by 2012, and (b) reduce effective rates of protection. On the whole, effective rates of protection are quite high in the region, as tariff rates on consumer goods are significantly higher than those on intermediate goods. Tariffs on production inputs are also significant almost everywhere, and some of the anti-export bias of the 1980s tariff structure is still in place.

The role of the SADC Secretariat

While power resides in members states in relation to both sets of measures, the responsibility for advocating the measures on behalf the SADC rests with the Trade Monitoring and Compliance Mechanism (TMCM) of the Trade, Industry, Finance and Investment (TIFI) Directorate of SADC Secretariat and, ultimately, the Committee of Ministers Responsible for Trade (CMT) that the TMCM serves.

Lower nontariff barriers and reduce trade costs

The reduction in MFN tariffs in the early 1990s and the intra-regional tariff phase downs that have occurred since 2000 have brought to the surface the importance of non tariff barriers to regional trade, the removal of which is provided for by the Trade Protocol and is a requirement of the consolidation of the FTA. There are a range of nontariff barriers to intra-regional trade for the removal of which the RISDP and the 2010 USAID audit of the implementation of the Trade Protocol recommend a set of measures to be carried over the short term. These include:

(a) the adoption of the a common customs code of harmonized regulation and procedures for the region;
(b) the establishment of a single common customs declaration document;
(c) simplification of the existing SADC rules of origin; and
(d) the formulation of an SADC plan and time table for the removal other non-tariff barriers to intra regional trade

Regional and National responsibilities

These are all measures that have to be initiated at the level of the SADC secretariat. However, the magnitude of the change that needs to take place on the ground varies a great deal from member state to member state, being greatest in those countries where non-tariff barriers contribute the most to trade costs.

Trade costs are high, particularly in Angola, DRC, Zambia, Botswana, and Zimbabwe. Although high transport costs are often the main part of the problem, non-tariff barriers arising from customs administration and regulatory costs of cross border transactions, and activities in general, are often major contributors to the costs in those countries and though out the region.

In many of these countries there is a need to streamline clearance procedures as an important means of facilitating trade. In Zambia, Tanzania, and Lesotho the measures being advocated include simplifying import procedures and increasing the use of inland clearance facilities in order to shorten processing times.

In Madagascar, the reforms that have reduced customs clearance times down to four days are often cited as examples of the possible scope and method of achievement in the area and the region. The Madagascar reforms involve the use of TradeNet to connect most of the entities involved in the import and export process together in a single online platform that lets customs

authorities share data and transmit their approvals electronically. In addition to cutting clearance time, this has helped reduce corruption by injecting greater transparency into the clearance system.

Reduce transport costs by improving roads, railways and port services

National solutions

Over the long term, the key to bringing down trade costs is to cut transport costs. In many, countries investment in road conditions will help reduce transport costs significantly, as Zambia has recently demonstrated. However, Zambia's experience also shows that opening up the road transport sector to foreign competition (in this case competition by South African operators) would help cut freight tariffs even more. Zambia is also one of the countries where reducing delays involved in border crossing is an obvious potential source of cost savings.

In Mozambique, high transport costs are associated with inefficiency in railway and port services. The government has therefore begun a series of structural reforms to improve operations in those sectors, including some aimed at expanding private participation in their management. Investment in the rehabilitation and expansion of the network also should be promoted, and the coordination between rail and port networks should be improved to reduce turn-around times.

Improving rail services is also considered the key to cutting transport costs in Lesotho, where the rail sector is reportedly dysfunctional at the moment, resulting in exporters relying exclusively on road transport, which costs three times as much as rail. The government is therefore being advised to promote investment in the rail yard and warehousing facilities in Maseru as a way to remove major bottlenecks in the growth of garments and textiles exports.

Regional solutions

At the regional level, the SADC's strategy for reducing transport costs is based on the Protocol for Communication, Transport and Meteorology and is articulated in the RISDP in terms of two strategic objectives increasing the capacity of member states to maintain existing transport infrastructure and enhancing intra-regional connectivity by investing in new infrastructure. The RISDP envisages four measures that the Secretariat should carry out over the short term in the pursuit of the two objectives. Although all four measures are overdue in terms of the time lines originally set for them in the plan document, a start has yet to be made on everyone of them. The measures are:

(a) assisting member states develop sustainable maintenance funding schemes though a regionally harmonized user fee systems
(b) developing regional investment financing mechanisms including a regional framework for public-private partnerships in transport projects
(c) developing a legal framework for a multi-lateral liberalization of regional transport markets

(d) developing a framework for harmonizing border post procedures, operating licenses and third party motor insurance systems

Developing and harmonizing competition policies over the long term

As member countries liberalize intra regional trade and capital flows, care needs to be taken that first arrivals on the domestic scene from other parts of the region do not erect barriers to entry to domestic markets and domestic industries by design or otherwise. Combined with regionally harmonized trade policies, well crafted, effectively enforced, and regionally harmonized competition policies will help safeguard against such an outcome. At the moment South Africa is the only member country that has an internationally well regarded competition policy regime. However, even it needs further competition policy reforms.

Again primarily responsibility for legislation on competition policies and their implementation resides in member states, but there are also clear roles for the Secretariat in providing a framework for regional harmonization of policies and peer review mechanisms.

Improve power supply

National solutions

After freight transport and port facilities, problems of power supply pose the most important infrastructure related obstacle to export diversification in many countries within the SADC. Power shortages are holding back manufacturing productivity and exports, particularly in Madagascar, Malawi, Angola, and Zambia. In each of these countries, start-ups can wait for months to be connected to the public grid while established businesses report significant losses of revenue due to frequent outages. The proximate cause of the shortages in all of these cases is years of underinvestment in the power sector. As a result, governments have sought to promote large investments in maintenance and additional generating and transmission capacity, as the long term solution to the shortages. However, the root causes of the shortages include the deliberate under pricing of electricity, the failure of poorly managed state-owned operators to collect payments, and the absence of a workable legal and regulatory framework for private sector investment, all of which need to be addresses urgently in a 2 to 3 year time line.

In Zambia, the government is being advised to address some of these problems by revising its electricity tariffs, which are currently said to be 45 percent below the cost of services. The government also should reform the state-owned power company to strictly commercial footing, to improve the payment collection and minimize transmission and distribution losses.

Instituting cost recovery tariffs, establishing efficient billing and collection, and limiting transmission and distribution losses are also among the measures recommended to the government of Angola. Unlike Zambia, Angola has yet to legalize private investment and private operators in the power sector. Nor has Angola instituted a truly independent regulator for the industry. The country is being advised to separate power generation and transmission and distribution activities into independent operations of independent enterprises.

Regional solutions

At the regional level, the legal framework for role of the SADC Secretariat in addressing the power supply problem is provided in the Energy Protocol and the Energy Sector Action Plan of 2000, based on which the RISDP recommends two measures that can help ease the region's power shortage problem in the long term. These are:

(a) The establishment of a regional market in electricity as a component of an integrated regional energy market;
(b) Promoting cross border power pooling by extending existing power grid connectivity to cover more, and eventually all, member states.

In order to make these measures feasible over the long term, the Secretariat needs to take the lead in harmonizing the regulatory and legal framework in which power companies operate and public-private partnerships function in the sector over the short term.

Reduce start-up costs, particularly in resource-rich countries

Member states' responsibilities

Reducing business start up costs is an immediate priority in all resource-rich countries of the region. With the exception of Lesotho, all resource-poor countries have reduced business start-up costs steadily and significantly over the past five years through a series of administrative and legislative reforms; costs now have converged with or even fallen below South Africa's start-up cost levels, which are low relative to other emerging market economies. The steepest declines have been achieved in Tanzania, Mauritius, Madagascar, and Mozambique. However, start-up costs and the time it takes to set up the standard Doing-Business company remain excessively high in all resource-rich countries and Lesotho.

Among the resource-rich countries, reform efforts have been significantly more robust in Angola. However, there is still quite some distance to cover to reach what is now emerging as the regional norm. Specifically, the government is being advised to increase the effectiveness of the central government agency that authorizes business start-ups, and to reduce the time required to obtain the Commercial Operations Permit and to register with the Registry of Companies from the current 40 and 30 days, respectively.

Similarly, the government in Lesotho is being advised to consolidate and streamline the processes of business registration and industry licensing procedures as key steps towards reducing business start-up costs.

The Secretariat's role

The role of the Secretariat in reducing business start up costs and simplifying administrative barriers to business formation and liquidation is primarily to provide proactive advisory and peer- monitoring services.

Reduce corruption

Member states' responsibilities

Just like that for bringing down business start up costs, reducing corruption is an immediate priority in member states that have not done as well as others in terms of controlling graft. Among the countries where corruption is a major or significant problem, Tanzania appears to have taken the most extensive initiatives. These include the launch of the National Anti-Corruption Strategy and Action Plan (NASCAP) and the publication of a new code of conduct for civil service. In order to translate initiatives into practical results, the government is advised to roll out anticorruption action plans at local authority levels. Incentives for firms to pay bribes also should be reduced by minimizing the discretion that officials have in interpreting regulations. This can be achieved by streamlining regulations, particularly in customs, employment regulation, tax administration, municipal licensing, and municipal policing.

Like Tanzania, Zambia has also been proactive in combating corruption, and has its own anti-corruption agency, the Anti-Corruption Commission. However, that agency is badly in need of revitalization, as petty corruption clearly remains widespread. Among the measures the agency should consider to reduce demands for bribes are a review of civil service employee salaries and the institution of meritocratic management and promotion procedures. Another potentially effective method of deterring demand for bribes is establishing mechanisms for public feedback in agencies, such as the central tax authority, or the Zambia Revenue Authority.

In Angola, where corruption is likely more pervasive than elsewhere in the region, the most important missing ingredient in anticorruption efforts is a clear and explicit political commitment to such efforts on the government's part. In addition to calling for such a commitment, experts are advising the government to establish an anticorruption agency and to commit adequate resources to support its activities.

In Mozambique, the government needs to undertake a key anticorruption measure—introducing codes of conduct for civil servants similar to those provided in Tanzania. Another badly needed measure is modernization of the current conflict-of-interest regulations.

The role of the Secretariat

Here also the primary role of the Secretariat should be to provide a peer-review and a peer-learning mechanism to enhance the scope and efficacy of member country's anti-corruption programs. In the SADC's Protocol against Corruption, the secretariat has a firmer legal basis for taking the initiative in this area than it has in the area of business regulation or that of competition policy. The protocol is intended to promote the harmonization of policies and laws relating to the prevention and eradication of corruption and requires member states to establish: a) standards of conduct in public office, b) mechanisms of transparency in public sector hiring and procurement, c) a system of whistle blowers' protection; d) a specialized anti-corruption agency, and e) mechanisms for promoting public awareness of anti-corruption laws.

Promote financial development and financial integration

One indication of the relative lack of financial integration in the SADC is that both real and nominal interest rates vary enormously across countries. Cross-country differences in access and usage rates of basic financial services are also substantial. Both types of disparity reflect differences in the scale and structure of the banking industry, the availability and quality of credit information, the degree of capital controls and, ultimately, the quality of contract enforcement institutions. Therefore, the key challenges in promoting financial integration and financial development in the region involve improving the availability of credit information; improving small businesses' access to finance; liberalizing the capital accounts; opening the banking industry to greater competition; and improving the quality of contract enforcement institutions. All of these are potentially important instruments for promoting financial development and financial integration in the region.

Member states' responsibilities

Open up capital accounts

The countries that have relatively open capital accounts are Zambia, Mauritius, Botswana, and Madagascar. If the SADC is to achieve greater financial integration, all of its members need to reduce or eliminate capital controls, as provided for in the RISDP.

Foster competition in the banking industry

Except for South Africa, the banking industry is quite small in SADC countries. The banking sector is generally highly concentrated throughout the region and characterized by extensive government involvement. These are all rationales for the pursuit of regional financial integration as a way to promote market competition for financial services within smaller economies. This also means that member countries need to take measures that could promote new domestic and foreign entry into the industry. Where there is a large government ownership of banking assets, measures should be undertaken to reduce the extent of government's financial stakes, such as in Tanzania, where the government is advised to complete the bank privatization process that started some time ago with the National Microfinance Bank (NMB), Tanzania Investment Bank (TIB), and Tanzania Postal Bank (TPB).

Improve credit information

Yet another obstacle to financial integration and financial development is the lack of credit information available in several member countries, particularly in DRC, Lesotho, Madagascar, Malawi, Tanzania, and Zambia.

Improve and harmonize contract enforcement institutions

Achieving financial integration requires harmonizing the legal and judicial systems for enforcing contracts, and regulation and supervision systems of financial institutions in the short term. Ultimately, harmonization implies common sets of rules for financial transactions and reporting requirements, and common standards of cross-border supervision of institutions.

Additionally, in countries where small business utilization of financial products is particularly low, governments are being advised to undertake measures that would reduce key barriers to access to finance. For example, the government of Angola is advised to create an efficient land registration system to facilitate the use of land titles as collateral in bank financing.

The role of the Secretariat

The Finance and Investment Protocol of the SADC clearly mandate the Secretariat to take the lead to help harmonizing laws and regulations relating to capital controls, the structure of banking industries, the functioning of contract enforcement institutions and the establishment and workings of credit information systems.

CHAPTER 1.
TRENDS IN TRADE POLICY AND TRADE INTEGRATION

1.1. INTRODUCTION

1.1. The Southern Africa Development Community (SADC) is an intergovernmental association promoting economic integration and political cooperation among 15 countries in the region (box 1.1). Established in its present form in 1992, its current members are Angola, Botswana, DRC, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, the Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. The SADC has a combined population of over 250 million and a combined GDP of over US$350 billion at current prices. The volume of trade among members is estimated at about US$25 billion, out of a total annual regional trade of US$142 billion. While intraregional trade has been rather low, the SADC has a clear agenda for rapid economic integration, for which twelve of its member countries have formed a Free Trade Area. There are further plans for the formation of a customs union by the end of 2012, and the creation of a common market by 2015. The World Bank Group is supporting this agenda broadly, consistent with the Bank's Regional Integration Strategy (RIAS) for Sub-Saharan Africa, which provides for, among other things, support for market integration through the promotion of financial integration and foreign direct investment (FDI), and the promotion of regional cooperation in trade liberalization, trade facilitation, and the development of the energy sector.

1.2. This is a diagnostic report aimed at identifying the main business environment constraints to greater economic integration in the SADC, with a view to helping inform the Community's policy and rules harmonization agenda, as set out in its Finance and Investment Protocol and the Trade Protocol. The report complements other studies of the World Bank Group and other agencies on economic integration in the region in that it is primarily focused on micro-economic aspects of business environment issues in the integration of markets, and is based mainly on the analysis of microeconomic data drawn from the World Bank Group's Enterprise Surveys, household surveys, and Doing Business and Governance Indicators databases.

1.3. With the exception of Zimbabwe and the Seychelles, all member countries of the SADC have been the subjects of at least one investment climate assessment (ICA) report within the last three to four years, based on the World Bank Enterprise Surveys. This report and the national ICA reports share the objective of identifying major institutional and policy constraints that firms face in creating jobs and in competing in domestic markets and those abroad. It has the same audience as the national ICAs, is very much concerned with the same business environment reform issues, and in a sense, is an assessment of the investment climate within the SADC region. However, unlike national ICA reports, this report has a decidedly regional perspective; the concern is primarily with performance observed from the standpoint of intraregional and extra regional integration of goods and factor markets.

1.4. Within the context of identifying business environment and policy harmonization issues in cross- border market integration in the region, the report addresses three primary objectives. First, it seeks to provide a quantitative assessment of the scope for increasing intraregional and extra regional trade in the SADC area by assessing the degree of integration of key product markets. Second, it discusses the role that cross-country differences in business environment might have had in impeding cross-border trade flows and cross-border integration of credit and labor markets. Third, it provides some assessment of the scope for improving the allocation of capital across the region through greater financial and goods market integration.

1.5. A secondary objective of the report is to help set the analytic agenda for further work in all of those areas, by identifying major gaps in data availability and conceptualization and recommending how those gaps can be addressed.

1.6. There are six chapters. The rest of this chapter provides a macroeconomic framework for chapters to follow by describing and analyzing trends in intraregional and extra regional trade integration over the past 15 years. Chapter 2 describes the effect on trade integration of cross-country differences in business environments, looking at the association between those differences and manufacturing productivity and export market participation at the firm level.

1.7. In an idealized world of pure competition, we would not need to worry much about the integration of factor markets; integration would occur as long as trade were unimpeded, because it would balance rewards to labor and capital across the region by equalizing prices in the goods markets. The role of cross-border harmonization of policies and institutions in trade flows therefore has a logical precedence over the role of these same policies and institutions in regional integration of financial and labor markets. In practice, there are barriers to the cross-border mobility of both goods and capital, even in the best of circumstances. Chapter 3 of this report provides an assessment of the role of cross-country differences in business environments in the allocation of inward FDI in SADC member countries in recent years, by drawing on the World Bank's Enterprise Surveys, Doing Business Database, and Governance Indicators. This is followed in chapter 4 by an analysis of business environment constraints to financial market integration.

1.8. Subsequently, chapter 5 compares and contrasts key indicators of labor market institutions and rates of return to human capital across member countries. The chapter also proposes a framework for using existing household survey data in formal assessments of labor market integration across the region; this methodology is applied to the cases of South Africa, Mauritius, Tanzania, Botswana, Namibia, and Swaziland.

1.9. The report concludes with chapter 6, another methodological chapter, but this time one concerned with the use of official price data in monitoring the integration of key goods markets across the region.

1.2. TRENDS IN TRADE INTEGRATION

1.10. The rest of this chapter sets the broader context of the remaining five chapters by looking at recent trends in intraregional trade and the region's trade with the rest of the world. Its main objective is to assess the extent to which SADC economies have integrated into the global trading system as well as with one another. It does this through a regional analysis of trade reform and trade flow data. Chapter 6 will complement this analysis with an assessment of product market integration using price data.

1.11. Since the mid-1990s, SADC members have made significant progress in reducing barriers to trade. Trade barriers among members have largely been eliminated under the SADC Free Trade Agreement. MFN tariff rates have also fallen. As a result, the SADC region now faces a trade policy environment that is more conducive to promoting intra- and extraregional trade flows and product market integration.

1.12. Looking at trends in trade flows, the SADC region has continued to experience a decline in shares of world trade over the past decade and a half, but there is evidence of an upward trend associated with the commodity price boom. The decline in world share also reflects relatively poor economic growth, not necessarily major structural impediments to trade. Benchmarked against GDP, the SADC has become more open to trade over the past decade compared to other developing countries.

1.13. Intraregional trade rose as a share of total trade during the 1990s, but progress in this regard has slowed recently. However, trends have not been consistent across countries in this regard. South Africa, since its reintegration into the world economy and the end of sanctions in the early 1990s, has become an important source of imports for SADC countries. Yet imports by South Africa from the SADC region remain small, despite the elimination of SACU tariffs on SADC imports in 2000.

1.14. In terms of the composition of trade, high levels of concentration are found, with the top 10 products at the 6-digit HS level accounting for upwards of 70 percent of intra-SADC trade flows by each country. Most of these products are resource-based, which reflects a regional comparative advantage. Such high levels of concentration are not unique to intra-SADC trade. In fact, exports to non-SADC members appear to be even more concentrated.

1.15. Additional measures that compare the proportion of possible goods traded yield similar outcomes. Most SADC countries actually export more products to the rest of the world. The product composition of exports to the rest of SADC also differs from the product composition of exports to the rest of the world. To the extent that product market integration leads to greater diversification of trade, these trends would be indicative of relatively high levels of market integration within the region.

1.3. TARIFF PROTECTION

1.16. SADC countries lowered MFN tariffs from the mid-1990s, and tariff reform in the region is expected to have enhanced product market integration, as measured by reductions in price dispersion as well as increased trade flows. The process of integration will also have been facilitated by the phase-down of tariffs on trade from SADC members in accordance with the SADC Free Trade Protocol. However, the degree of liberalization varies across members. Tariff levels on consumer goods also remain high relative to tariffs on production inputs, which is indicative of potentially high levels of effective protection on consumer goods. Further, tariffs on production inputs perpetuate an anti-export bias.

1.17. Import tariffs are a barrier to trade flows and price convergence. While they are not the only, or necessarily the most important, obstacle to economic integration tariffs remain a powerful instrument by which governments can directly influence international trade and product market integration.

1.18. Import tariffs confer protection on import-competing domestic industries, inhibiting imports and introducing a wedge between domestic and international prices. Not as well recognized is that tariffs are also a tax on exports. Particularly on intermediate inputs, tariffs raise the cost of production by both exporters and domestic suppliers. Exporters, however, are unable to pass these cost increases on to the international consumer, whereas domestic producers are often compensated for increased costs by an escalating tariff structure. Additionally, by raising the relative profitability of supplying the local market, scarce resources are drawn away from export-competing sectors. Finally, lower imports and exports can cause the currency to appreciate, creating further adverse incentives to produce for the export market.

1.19. A review of tariff reform in the region is therefore necessary for an understanding of product market integration within the SADC area. Reform has taken two forms: measures for regional integration and multi- or unilateral reform. On the regional front, SADC countries have actively participated in regional integration schemes. The most prominent of these has been the SADC Free Trade Agreement. Members began phasing down tariffs on partner countries from 2000, in accordance with the 1996 SADC Trade Protocol. Internal tariff barriers were largely eliminated by the time the Free Trade Agreement was officially launched in August 2008. The formation of the FTA is considered the first step in a grander integration program that includes a Customs Union by 2010, a Common Market (CM) by 2015, a Monetary Union (MU) by 2016, and a Single Currency by 2018 (http://www.sadc.int)

1.20. However, while the SADC Free Trade Agreement has ostensibly reduced barriers among members, trade flows may nevertheless be restricted by complex rules and requirements associated with multiple memberships in regional integration schemes. SADC members have not confined themselves to this agreement alone. Sub-Saharan Africa is characterized by a plethora of overlapping regional integration arrangements, each with its own proposed tariff schedules, rules of origin, and expectations regarding the type of agreement (free trade

agreement, customs union, monetary union, and so on).[1] Of the SADC members, only Mozambique is not a member of another regional integration arrangement. Further, there are inconsistent arrangements in several SADC member countries committing them to other customs unions or other regional integration arrangements expected to lead to a customs union. (COMESA, for example, includes all SADC members except South Africa, Botswana, and Mozambique). This situation applies even within SACU, one of the oldest customs unions in existence. South Africa, for example, negotiated a free trade agreement with the EU, despite being a member of the customs union. This dilemma of multiple memberships also extends to other areas, such as infrastructure, where different harmonization options and strategies are being pursued.

1.21. The second form of tariff reform is multilateral or unilateral liberalization. Table 1.1 presents summary statistics of the 2008 MFN tariff rates applied by each SADC country. The data are sourced from the 2009 WTO World Tariff Report. Simple average tariffs range from 2.9 percent in Mauritius to 25.5 percent in Zimbabwe.[2] For most countries, average MFN rates range from 7 to 14 percent. This situates them in the range for low-income and upper-middle-income countries. As shown in Figure 1.1 also constructed using the 2009 edition of the WTO World Tariff Profiles, the average level of protection in SADC countries at just over 10 percent is very similar to the world average (10.5 percent) and the average for lower-middle-income countries (10.9 percent). Protection in the rest of Sub-Saharan Africa is considerably higher, averaging over 14 percent.

[1] These include the Southern African Customs Union (SACU), the Southern African Development Community (SADC), the Common Market for Eastern and Southern Africa (COMESA), the East African Community Customs Union (EAC), the Indian Ocean Commission (IOC), and the Economic Community of Central African States (ECCAS). The negotiation of the Economic Partnership Agreements with the European Union by different African blocs adds further complexity to the situation.

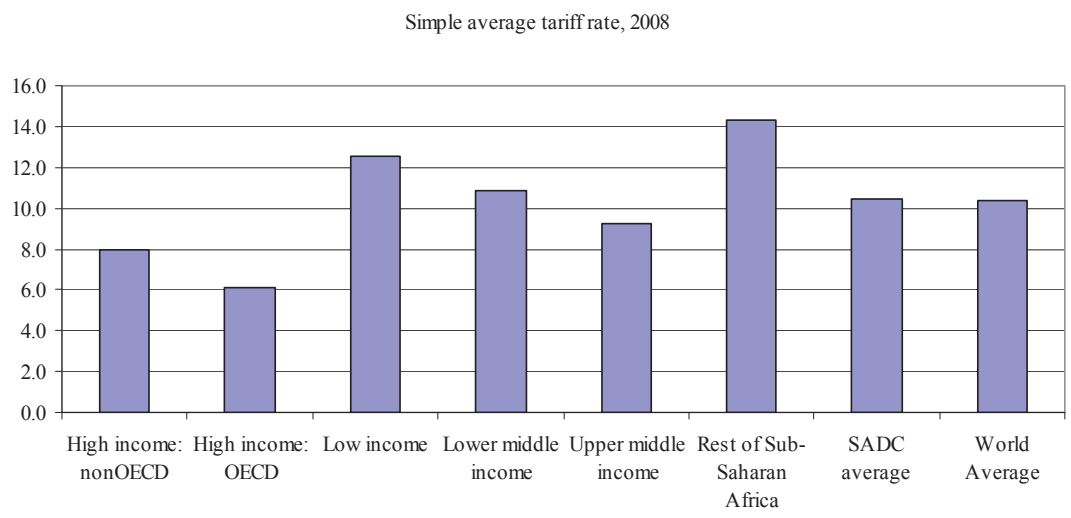
[2] The average rate for Zimbabwe appears to be particularly high even compared to earlier periods. For example, the WTO World Tariff Report for 2007 estimates average protection in Zimbabwe to be 14 percent. The 2006 WTO World Tariff Profiles indicate a simple average of 16 percent for Zimbabwe for 2003. This highlights the difficulty in estimating average protection for countries. Many of the countries, SACU in particular, used non-ad valorem rates, such as specific rates, mixed rates, and compound rates. SACU also used formula duties which we find a reservation price. If import prices fell below this price, additional tariffs were levied. Calculating the ad valorem equivalent of these non-ad valorem rates is sensitive to international prices.

Table 1.1.: Structure of MFN tariffs applied by SADC economies (2008)

		Angola	Botswana	DRC	Lesotho	Madagascar	Malawi	Mauritius	Mozambique	Namibia	Seychelles	South Africa	Swaziland	Tanzania	Zambia	Zimbabwe	SADC average
Complexity	Year	2008	2008	2008	2008	2008	2008	2008	2008	2008	2007	2008	2008	2008	2008	2008	
	Number of tariff lines	5201	6671	5794	13348	6362	5397	12516	5203	6671	5122	6671	6671	5260	5984	5899	6851
	Number of bands	7	157	4	157	5	6	283	6	157	51	169	157	14	31	372	105
	Duty free lines (% total)	0	59.5	0	59.5	1.9	9.8	87.7	2.9	59.5	87.2	59.5	59.5	37.2	19.3	6.2	36.6
	Non-ad valorem (% lines)	0	2.3	0	2.6	0	0	2.8	0	2.3	0.6	2.3	2.3	0.2	2.1	6.8	1.6
	Binding coverage (%)	100	96.6	100	100	29.7	31.2	17.9	13.6	96.6		96.6	96.6	13.4	16.8	21.2	59.3
Average rates	All products	7.3	7.8	12	7.8	12.5	13	2.9	10.1	7.8	8.2	7.8	7.8	12.6	13.8	25.5	10.5
	Nonagriculture	6.9	7.6	11.9	7.5	12.1	12.6	2.7	9.5	7.6	6.4	7.6	7.6	11.5	13	25.5	10
	Agriculture	10	9.4	12.8	9.4	14.7	15.5	4.2	13.8	9.4	19.7	9.3	9.4	19.9	19.3	25.4	13.48
	Maximum rate	30	346	30	141	20	25	286	20	346	786	>1000	346	113	66	>1000	197
Dispersion	Domestic spikes (3*average) (% lines)	2.5	9	0	9	0	0	11.7	0	9	10.8	9	9	0.7	0.1	5.6	5.1
	International (>15%) (% lines)	10	21	35.2	21	38.3	36.9	5.5	33.5	21	10.8	21	21	40.7	33.2	35	25.6
	Coefficient of variation	92	154	51	138	50	73	333	72	154	422	206	154	95	73	215	152

Source: WTO World Tariff Profiles 2009.

Figure 1.1.: Simple average tariff rate of countries according to region (2008)



Source: Team calculations using WTO World Tariff Profiles 2009.

Note: The sample includes 147 countries, including all 15 SADC members.

1.22. Looking beyond average tariff rates, the various indicators of complexity reveal enormous differences across SADC members. Mauritius, Zimbabwe, and SACU members have over 150 tariff bands and are followed by Zambia and the Seychelles with 30 to 50 tariff bands. The remaining members impose less than 10 tariff bands. DRC, Madagascar, Malawi, Mozambique, Tanzania, Zambia, and Zimbabwe impose tariffs in excess of 15 percent on 33 to 41 percent of all tariff lines. Angola and Mauritius have fewer tariff peaks (less than 10 percent of tariff rates) while the proportion for SACU members is 22 percent.

1.3.1 MFN TARIFF REFORM FROM THE MID-1990S

1.23. able 1.2 presents data on the simple average tariff rate for SADC members (excluding DRC) in 1997, 2001, and 2007. The simple average is presented as the import-weighted average results in a downward bias in the average tariff rate, as numerous highly protected products are not imported. Also shown is the extent of liberalization from 1997 to 2007, calculated as the percentage change in the tariff-inclusive border price.

1.24. As with all cross-country comparisons of protection rates, some caution in analyzing the data is required. Many of the countries, particularly in SACU, used non-ad valorem rates such as specific rates, mixed rates, and compound rates. The data presented does not include ad valorem equivalents of these rates unlike the WTO World Tariff Profile measures. This is more likely to lead to an underestimate of protection levels during the 1990s.

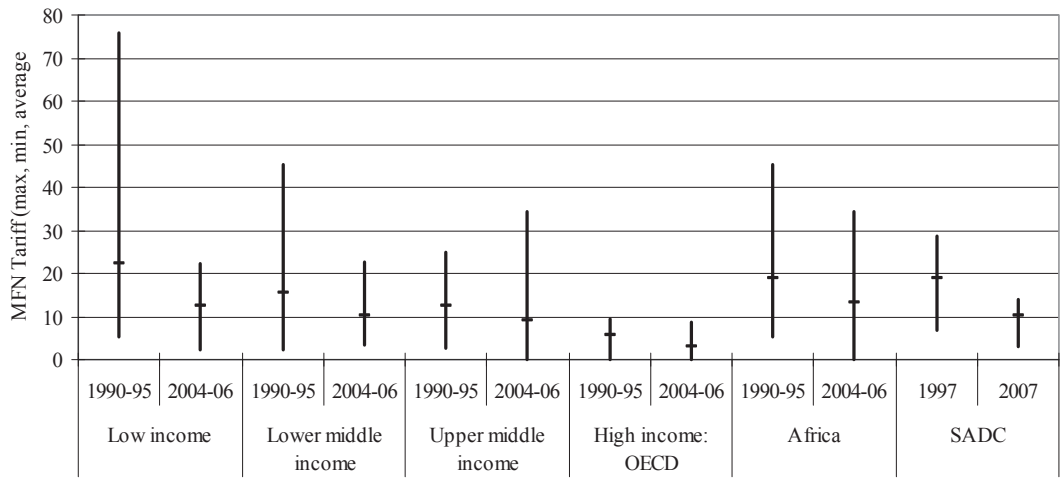
Table 1.2: Simple average applied MFN tariff, percent

	1997	2001	2007	Change 1997–2007 (%)
Angola		8.81	7.2	-1.48[a]
Madagascar	6.94	4.61	12.4	5.11
Malawi	25.3	13.1	13.3	-9.58
Mauritius	28.7	18.4	3.15	-19.85
Mozambique	15.7	13.8	10.3	-4.67
Seychelles		28.3	7.12	-16.51[a]
SACU	11.3	8	7.74	-3.20
Tanzania	24.3	16.3	12.6	-9.41
Zambia	14.1	12.6	13.7	-0.35
Zimbabwe	23.8	19.6	14.1	-7.84
Pooled simple average	18.8	14.4	10.2	-7.24
Pooled import-weighted	8.42	6.95	6.45	-2.00

Source: Team calculations using TRAINS data at HS 6-digit level; SACU tariffs from 1997 obtained from Edwards 2005.

Notes: *Change based on the 2001–07 period
*1995 tariff used in Madagascar for 1997 period
*2002 tariff used for 2001 period for Mauritius, Zambia, and Angola
*2006 tariff used for 2007 for Angola and Malawi.
*2008 tariff used for Zambia
*Edwards (2005) calculates a simple average MFN tariff for SACU of 17.9 percent in 1994 and 14.1 percent in 1998. The difference from TRAINS data is that SACU tariffs were characterized by numerous non-ad valorem rates that are not adequately accounted for in the TRAINS tariff estimates. By 2000, many of these had been eliminated.

Figure 1.1.2: Maximum, minimum, and simple average country tariffs, according to region and period, MFN tariffs



Source: Team calculations.

*Sample is made up of 115 countries for which data are available in both periods.

1.25. Despite these data concerns, it is clear that SADC countries engaged in multilateral tariff liberalization during the 1990s and 2000s. This occurred despite limited offers made in the Uruguay round to reduce bound rates. The simple average tariff obtained by pooling all the data fell from 18.8 percent in 1997 to 10.2 percent in 2007, which is equivalent to a 7.24 percent reduction in the border price of imported goods.

1.26. Looking across countries, it is evident that the extent of liberalization varies widely. Declines in protection were particularly high in Mauritius, the Seychelles, Malawi, and Tanzania, but the decline came off a relatively high base. These countries, for example, had average tariff rates in excess of 20 percent in 1997. Madagascar appears to be the exception, with average tariffs rising from 6.9 percent in 1995 to 12.4 percent in 2007. It is not clear from the data whether this reflects the replacement of non-ad valorem tariffs with ad-valorem rates or actual increases in tariff protection.

1.27. The reduction in MFN tariff protection by SADC members is comparable with that in other developing countries. Figure 1.2 describes changes in the simple average MFN tariff for various country groups from 1990–95 to 2004–06 along with the maximum and minimum of tariffs across countries in each group. It can be seen that there has been a considerable reduction in average MFN tariffs as well as the dispersion of average tariff rates across countries for all income groups since the early 1990s. This holds for African countries (29 in the sample) as well, where declines in protection were roughly equivalent to middle-income economies (12.6 to 9.2 percent for lower-middle income and from 9.6 to 6.5 percent for upper-middle-income countries), although they were more moderate declines compared to the average low-income economy (from 22.1 to 12.3 percent). The decline in the average tariff and range of tariffs within SADC countries, from 1997 to 2007, is broadly similar to the full sample of African countries.

1.3.2 MFN REFORM: SECTORAL TARIFFS

1.28. Also of interest are variations in the degree of liberalization across different sectors. To evaluate these, table 1.3 presents the simple average of tariffs on consumer, intermediate, and capital goods for SADC members. The end-use categorization is based on the Broad Economic Categories (BEC) classification available from UN Statistics. Passenger vehicles (BEC 51) are included as a separate item as they are both an intermediate good and a final consumer good.

1.29. This classification has a number of advantages for the evaluation of product market integration across African countries. First, it provides a rough indication of the change in effective protection across the countries. Declines in protection, concentrated in the intermediate and capital goods sector, raise effective protection in sectors producing final consumption goods. Alternatively, reductions in the protection of consumer goods will reduce effective protection in these sectors, but are expected to be passed on to consumers in the form of lower prices.

1.30. Secondly, changes in protection on production inputs is relevant to export performance in African manufacturing firms, which are relatively dependent on imported intermediate goods. Finally, tariffs on production inputs might be a key determinant of the ability of African firms to participate in the fragmentation and global outsourcing of production processes.

1.31. There is clear evidence of tariff escalation across all SADC countries. Average tariffs on consumption goods are substantially higher than average tariffs on capital or intermediate goods. In 2007, for example, the average tariff on consumption goods was 3.5 times that on capital goods, and more than double of that on intermediate goods. Such escalation of the tariff schedule suggests that effective protection rates on consumer goods are substantially higher than the nominal rate.

1.32. Average protection fell nevertheless for all end-use categories of goods (other than passenger vehicles) from 1997 to 2007. Border price reductions associated with liberalization are actually stronger in consumer goods, but this, in part, reflects the very high base-year tariff levels. Nevertheless, these results are consistent with declines in effective protection in SADC countries from the mid-1990s. Further, lower tariffs on intermediate and capital inputs would have reduced the anti-export bias from protection and helped stimulate export growth. Although exporters have access to import duty rebate schemes in some African countries, the utilization of these schemes by firms is low.

1.33. Despite the reductions, tariffs on production inputs remain high in some SADC countries, which may inhibit the integration of African manufacturing firms into global value chains. For example, the average tariff on intermediate goods remains over 10 percent in Madagascar, Malawi, Tanzania, Zambia, and Zimbabwe.

Table 1.3: Simple average protection by end-use classification

	Consumption goods	Capital goods	Intermediate goods	Passenger vehicles
1997				
Angola				
Madagascar	10.6	7.8	5.3	15.6
Malawi	34.1	20.6	22.8	40.0
Mauritius	49.0	22.9	21.9	54.2
Mozambique	32.6	8.4	10.5	30.6
Seychelles				
South Africa	25.3	1.9	7.9	36.3
Tanzania	27.4	15.6	24.9	18.3
Zambia	22.3	10.0	11.8	20.0
Zimbabwe	49.3	11.7	16.4	36.1
Average	**31.3**	**12.4**	**15.2**	**31.4**

	Consumption goods	Capital goods	Intermediate goods	Passenger vehicles
2001				
Angola	14.5	3.4	7.7	9.4
Madagascar	9.8	5.0	2.5	11.7
Malawi	21.4	7.3	11.1	24.0
Mauritius	44.2	7.6	10.5	10.0
Mozambique	27.8	8.0	9.5	26.4
Seychelles	44.0	20.2	23.2	163.0
South Africa	18.1	1.8	5.7	29.3
Tanzania	23.6	11.4	14.6	10.0
Zambia	21.6	5.7	10.6	16.3
Zimbabwe	38.0	10.8	14.2	44.9
Average	**26.3**	**8.1**	**11.0**	**34.5**

	Consumption goods	Capital goods	Intermediate goods	Passenger vehicles
2007				
Angola	13.0	3.1	5.8	9.4
Madagascar	18.8	10.8	10.3	15.6
Malawi	21.4	7.1	11.4	23.4
Mauritius	7.9	1.1	1.8	0.0
Mozambique	18.6	7.0	7.8	15.0
Seychelles	19.3	0.9	3.0	156.0
South Africa	16.9	1.8	5.5	21.6
Tanzania	23.4	4.0	10.3	12.0
Zambia	22.3	9.2	11.2	15.0
Zimbabwe	28.0	8.7	11.1	44.9
Average	**19.0**	**5.4**	**7.8**	**31.3**
1997 sample, average	**19.7**	**6.2**	**8.7**	**18.4**
Change 1997–07, consistent sample	-8.9	-5.5	-5.7	-9.9
Change 2001–07	-5.8	-2.6	-2.8	-2.4

Source: Team calculations using TRAINS data.

1.4. IS SADC BEING MARGINALIZED IN WORLD TRADE?

1.34. In one sense the SADC is being marginalized as its share in world trade has declined. However, in another sense, it is not being marginalized, as its trade with the rest of the world has increased as a share of its GDP. Research in the mid-1990s (Amjadi and Yeats 1995; Amjadi, Reincke, and Yeats 1996; Ng and Yeats 1996) found that Sub-Saharan Africa's share of world

trade declined dramatically from more than 3 percent in the 1950s to less than 1 percent in the early 1990s. The source of this decline was two-pronged: Africa's market shares fell for its major exports, the shares of which also declined in world trade (Ng and Yeats 1996).

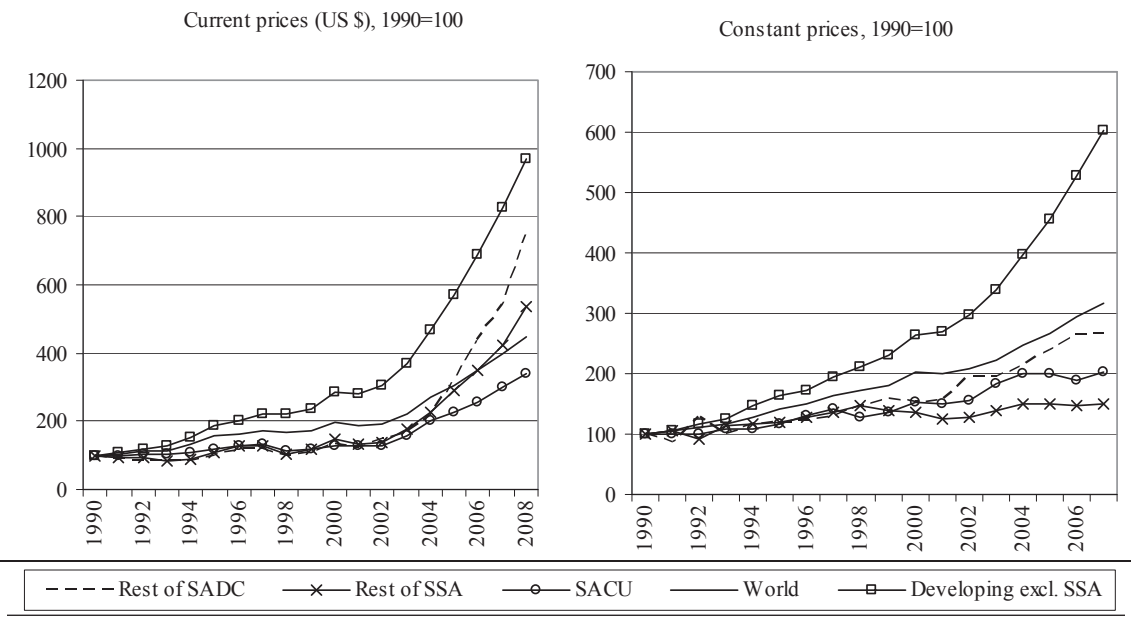
1.35. These trends appear to have continued. Figure 1.4 presents indexes of the value (USD) and volume of merchandise exports for various country groupings from 1990 to 2008. The country groupings cover SACU, SADC, excluding SACU (or the rest of SADC), Sub-Saharan Africa, excluding SADC (or the remainder of Sub-Saharan Africa), and developing countries, excluding those in Sub-Saharan Africa.

1.36. Figure 1.3 shows that the SADC experienced mediocre growth in the dollar value of its exports from 1990 to 2002, after which growth accelerated, particularly in SADC countries outside of SACU. By 2008, the nominal value of exports from the rest of the SADC had grown faster than the average for the world for the entire period, while nominal export growth for the rest of Sub-Saharan Africa had equalled world growth, with only SACU lagging behind. However, in all cases, growth in exports from other developing countries exceeded that of SADC and the rest of Sub-Saharan Africa.

1.37. Much of the growth after 2002 in Sub-Saharan African exports value relative to the world can be attributed to improved terms of trade arising from the commodity price boom. Export performance, evaluated in terms of volumes, is mediocre after 2002, particularly for the rest of Sub-Saharan Africa, where oil-rich Nigeria dominates.

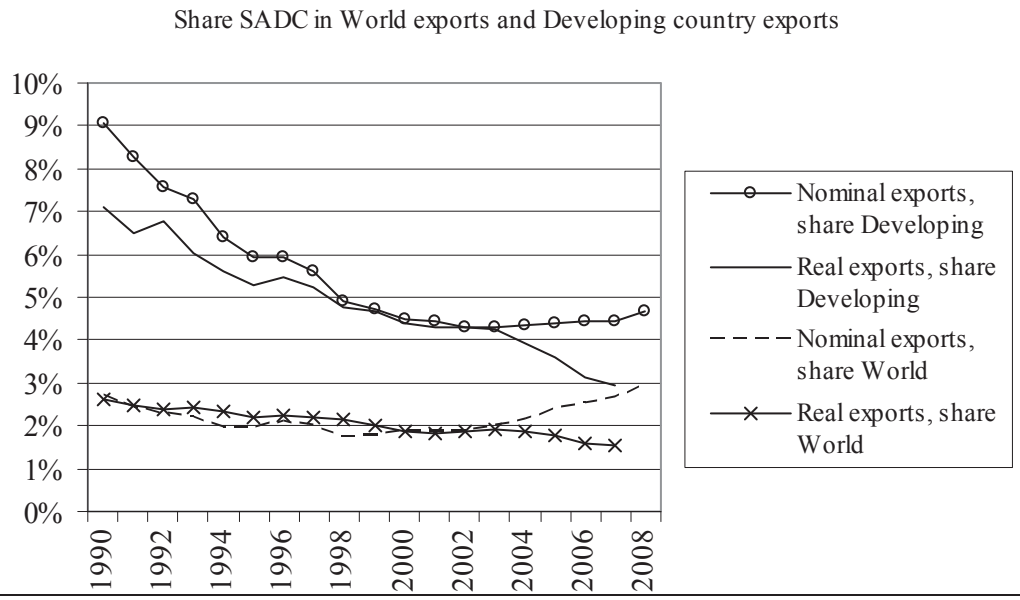
1.38. As a consequence, while the SADC share of world trade in current US dollars in 2008 (1.6 percent) was marginally higher than its share in 1990 (1.5 percent), in terms of volume, its share declined from 1.3 percent to 0.95 percent over this period. The marginalization of the SADC in world exports is more drastic when compared with other developing countries. The SADC's share in developing country exports fell from 8.8 to 4.7 percent, when using current USD values, and 7.1 to 2.9 percent, when using export volume data in 2000 prices.

Figure 1.3: Volume of merchandise exports (1990-2006)



Source: Team calculations using World Development Indicators. *Notes*: Export volumes were converted to values using 2000 prices. The sample consists of 99 countries, 37 of which are from Sub-Saharan Africa (15 from SADC), 41 from other low- and middle-income countries, and 21 from high-income countries. Volume data for Namibia are not available, but the country is included in the figure based on current prices. Only countries for which data are available in each year are included in the sample to avoid changes in trade values arising from changes in the country composition

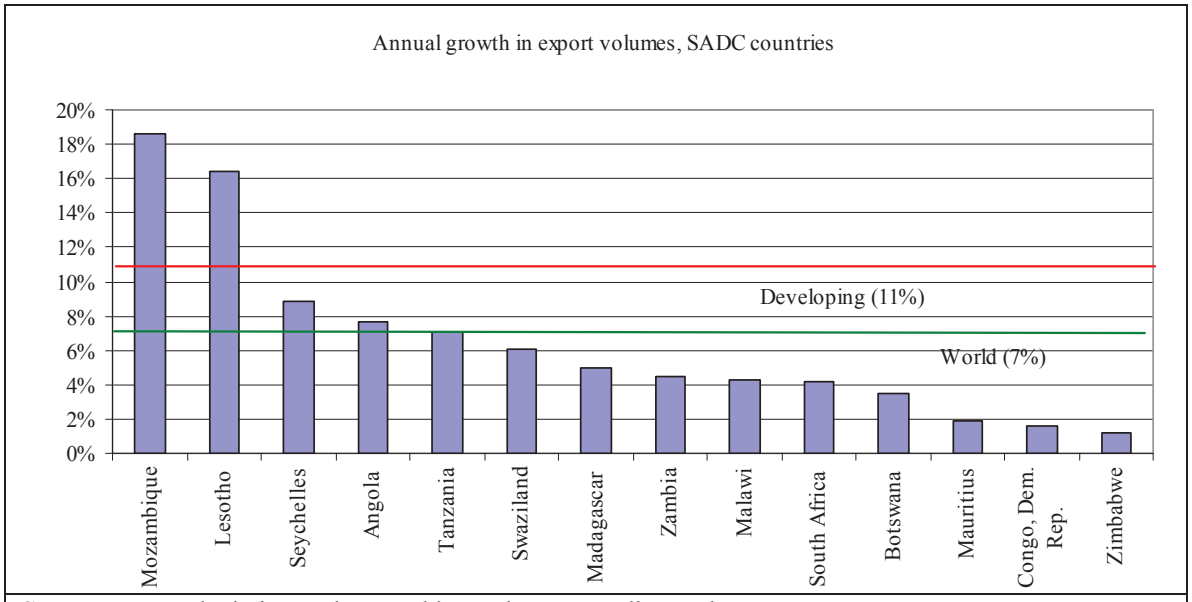
Figure 1.4: SADC merchandise exports as a share of world exports and developing country exports, nominal and real values



Source: Team calculations using data from World Bank World Development Indicators. See earlier figure for further details

1.39. Countries differ in export performance within the SADC area (Table 1.4 and Figure 1.5). In most SADC countries export growth was relatively poor, exceeding the world average of 7 percent per annum in five cases (Mozambique, Lesotho, the Seychelles, Angola, and Tanzania) and the developing country average of 11 percent per annum in only two cases (Mozambique, Lesotho). Export growth in the Democratic Republic of Congo and Zimbabwe was the weakest, at less than 2 percent per annum.

Figure 1.5: Annual growth in export volumes in SADC countries (1990–2007)



Source: Team calculations using World Development Indicator data.

1.40. Overall, the analysis of trade flow data would suggest that the SADC continues to be marginalized in international trade in the sense that its share in world trade has decreased.
However, the data also show that the SADC has grown more open to trade as its imports and exports have increased relative to GDP, and in that sense, it has become more integrated into the global economy.

1.41. This can be observed from, where the GDP 2000-weighted export-to-GDP ratio is compared across the various country categories. There is substantial variation across SADC countries, but the data suggest that the SADC is more open to trade than its international counterparts. A similar result is seen when using exports plus imports to GDP as the measure of openness (figure 1.7).

Table 1.4: Annual growth in export volumes and trade as share of GDP (nominal), SADC countries

	Annual growth 1990–2006	Export/GDP, Nominal			Imports/GDP, nominal			Trade/GDP, nominal		
	Export volumes	1990	2008	Percentage change	1990	2008	Percentage change	1990	2008	Percentage change
Angola	0.08	0.38	0.80	0.41	0.15	0.25	0.10	0.53	1.05	0.51
Botswana	0.03	0.47	0.39	-0.08	0.51	0.40	-0.11	0.98	0.79	-0.20
Congo, Dem. Rep. of	0.02	0.25	0.34	0.09	0.19	0.35	0.17	0.43	0.69	0.26
Lesotho	0.16	0.10	0.55	0.45	1.09	1.25	0.16	1.19	1.81	0.61
Madagascar	0.05	0.10	0.15	0.05	0.21	0.45	0.24	0.31	0.60	0.29
Malawi	0.04	0.22	0.19	-0.04	0.31	0.40	0.09	0.53	0.58	0.06
Mauritius	0.02	0.50	0.27	-0.23	0.68	0.54	-0.14	1.18	0.81	-0.37
Mozambique	0.19	0.05	0.27	0.22	0.36	0.42	0.06	0.41	0.69	0.28
Namibia		0.46	0.35	-0.12	0.49	0.53	0.03	0.96	0.87	-0.08
Seychelles	0.09	0.15	0.46	0.30	0.50	1.18	0.67	0.66	1.63	0.98
South Africa	0.04	0.21	0.29	0.08	0.16	0.36	0.20	0.37	0.65	0.28
Swaziland	0.06	0.63	0.68	0.05	0.75	0.84	0.09	1.38	1.52	0.14
Tanzania	0.07	0.08	0.14	0.06	0.24	0.34	0.10	0.32	0.48	0.16
Zambia	0.04	0.40	0.36	-0.04	0.37	0.35	-0.02	0.77	0.71	-0.06
Zimbabwe	0.01	0.20	0.53	0.34	0.21	0.68	0.47	0.41	1.21	0.81
SADC	0.05									
World	0.07									
Developing world excl. SSA	0.11									

Source: Source: Team calculations using World Bank Development Indicators.
Note: Uses 2005 value of trade/GDP ratio for Zimbabwe.

Figure 1.6: Merchandise exports as a share of gross domestic product (2000 GDP-weighted)

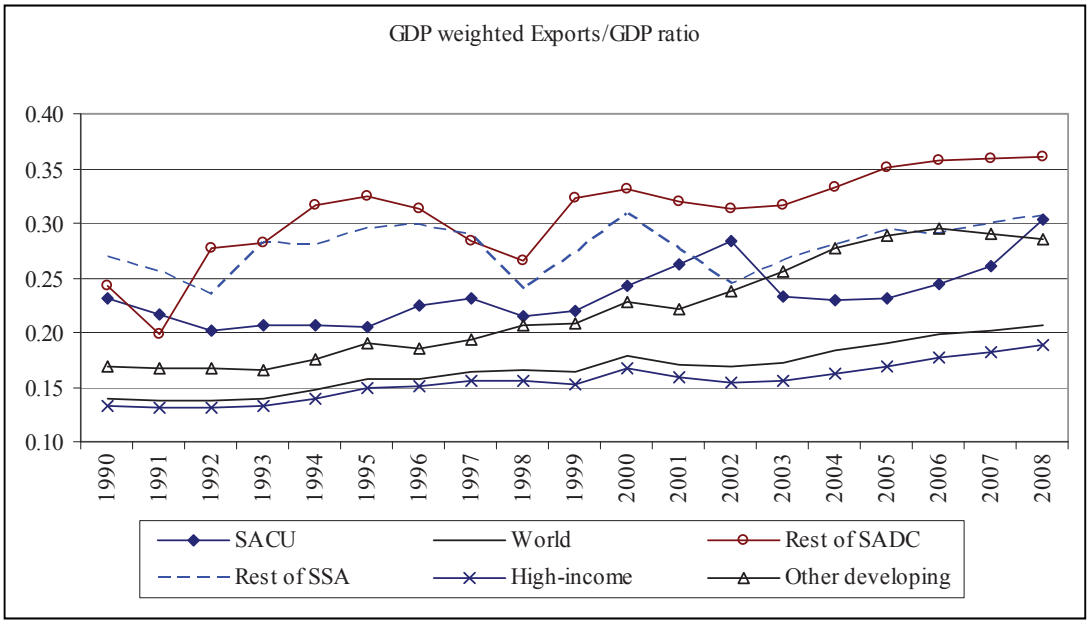
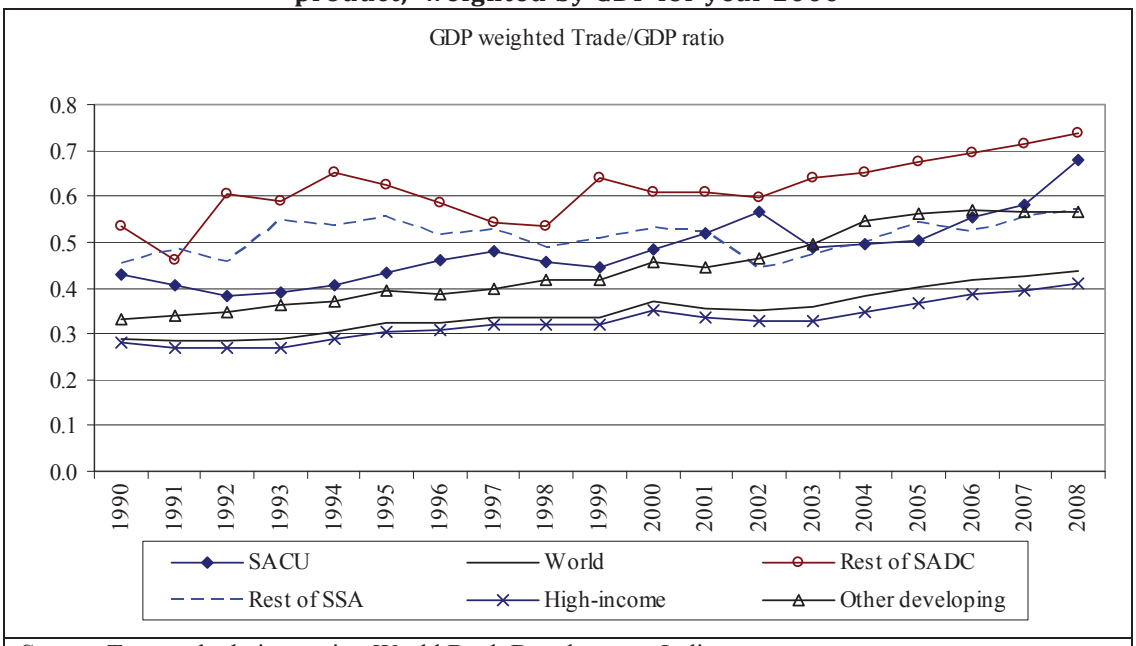


Figure 1.7: Merchandise trade (sum of exports andimports) as share of gross domestic product, weighted by GDP for year 2000



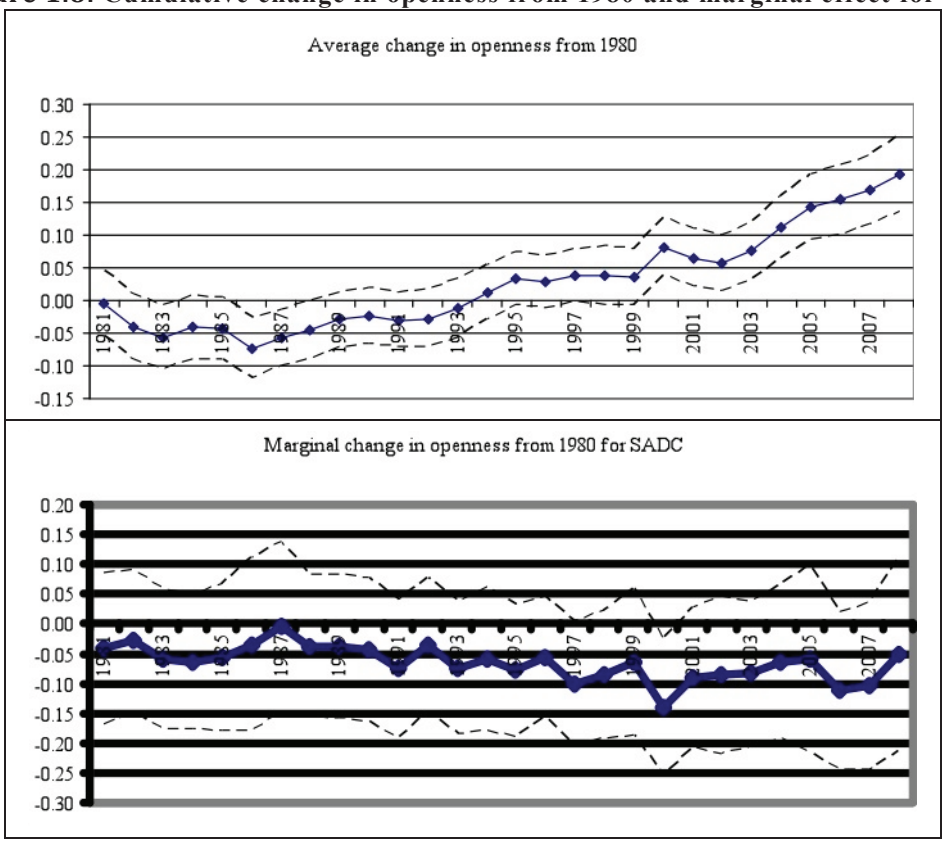
Source: Team calculations using World Bank Development Indicators.
Note: Region aggregates are constructed using 2000 GDP values as weights. Zimbabwe is excluded.

1.42. In order to show better how openness in the SADC has evolved over time, the data are pooled and the various measures of openness (trade/GDP, imports/GDP, exports/GDP) are regressed on the full set of country dummies. Time dummies and estimates are shown, along with confidence interval, in figure 1.8. The first panel of the diagram tracks changes in openness from 1980, and shows that, on average, openness has steadily increased since the early 1990s. By 2008, the average trade to GDP ratio had risen by 20 percent over its 1980 value.

1.43. An econometric analysis of the role that economic and geographic characteristics of the SADC, as a region and of its member countries may have played in producing the outcome portrayed in figure 1.8 is provided in an annex to this report. A key result of that analysis is that SADC countries are exporting and importing as much as countries of comparable wealth and location in other regions. However, it turns out that more trade is taking place among members of the SADC countries than takes place among other countries of similar proximity and income levels.

1.44. Since the 1990s, SADC exports have grown faster than GDP, which is why we see the increasing trend in openness shown in figure 1.8. But as also shown in the second panel of figure 1.8, this is a trend that the SADC shares with the rest of the world.

Figure 1.8: Cumulative change in openness from 1980 and marginal effect for SADC



1.5. INTRAREGIONAL TRADE INTEGRATION

1.45. Trends in intraregional trade flows corroborate the trends in average protection and openness, which suggest that the region is now more integrated than it was in the 1990s. However, much of the integration, as revealed by increases in intra-SADC trade flows, took place during the 1990s. Progress in this regard appears to have halted in recent years. In addition, substantial asymmetries in trade flows persist. SACU continues to dominate intraregional trade flows, both as a destination for other SADC member exports and as a source of their imports. Trade flows between non-SACU countries within the region remain low.[3]

1.46. Tables 1.5 and 1.6 present data on share of SADC trade in the region's exports and imports from 1980 to 2003. The data show, first, that intra-SADC trade has grown significantly over the period, rising from less than 2 percent of exports and imports in 1980 to over 10 percent

[3] African trade data is notoriously problematic, with various different datasets providing very different values of trade flows (Yeats 1990). Concerns about data quality are particularly relevant for intra-African trade flows (data quality issues are discussed further in the regression analysis). This section draws on the HS data at the 6-digit level obtained from UN Comtrade.

in 2008.[4] Similarly, the share of intra-SADC exports as a share of total exports grew from 0.9 percent to 10.6 percent in 2003, but then declined to 6 percent by 2008. Much of the decline can be attributed to the inclusion of mirror data from Angola and the DRC (trade data reported by these countries was not available for 2008). If these countries are excluded, then the share of intra-SADC exports as a share of total exports rises to 12 percent in 2008.

1.47. However, much of the growth in intra-SADC trade occurred during the first part of the 1990s, as noted above. From 1990 to 1995, the share of SADC exports destined for the region more than tripled, from 3.1 percent to 9.9 percent. Almost all SADC countries showed increases in the proportion of their total exports sold to other SADC members. Similarly, the share of SADC imports sourced from other SADC countries also increased dramatically during the 1990s, from 5.1 percent in 1990 to 9.1 percent in 1995.[5]

1.48. A second pattern in tables 1.5 and 1.6 relates to countries' dependence on intraregional trade. SADC countries divide into two groups in this regard. Malawi, Mozambique, Zambia, and Zimbabwe depend heavily upon SADC, particularly for imports. These countries source more than 50 percent of their imports from other SADC countries, and sell more than 20 percent of their exports to the region. The remaining countries in the SADC maintain a stronger relationship with the rest of the world.

1.49. For example, intraregional trade makes up approximately 10 percent of Mauritian exports and imports. SACU sources only 5.6 percent of its imports from the region, although this percentage has increased since 2000, possibly in response to the reduction in tariff barriers against SADC economies in accordance with the SADC Trade Protocol. The SADC accounts for a much higher percentage (10.5) of SACU exports, which indicates large trade imbalances between SACU and the rest of SADC.

1.50. A third pattern in tables 1.5 and 1.6 is that trade to and from SACU, which is predominantly made up of South African trade flows, dominates intraregional trade flows. Between 60 and 70 percent of SADC members' exports to the region are sold to SACU (table 1.5), while 80 to 90 percent of SADC (excluding SACU countries) imports from the region are purchased from SACU. The region is therefore more dependent on South Africa as a source of imports than as a market for exports. This is also shown in the final columns of table 1.7, where SACU makes up 59 percent (74 percent if Angola is excluded) of total intra-SADC exports, but only 27.8 percent of intra-SADC imports.

1.51. The implication is that, although a relatively high proportion of SADC trade is conducted within the region, most of this is bilateral trade flow with South Africa. Trade flow between SADC members outside of SACU is very low (less than 10 percent of total trade).

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[4] SACU is treated as a single region. If SACU members are treated separately, then the share of intra-SADC trade rises in response to the very high proportion of intra-SACU trade.

[5] Yang & Gupta (2007) use IMF data and record increases of similar orders of magnitude but between 1980 and 1990. Tellingly, they report that intra-SADC imports are no higher than they were in 1970 and intra-SADC exports are lower, although this is reflective of the whole continent.

Table 1.5 Share of SADC trade in SADC country imports

	1980	1985	1990	1995	1999	2003	2008	Percentage from SACU 2003 (%)	Percentage from SACU 2008 (%)
Angola	0	0.6	0.8	7.1	10	Na	6.5		99.9
DRC	0.4	1.6	1.1	18.1	31.5	Na	42.8		3.3
Malawi	36.7	53	24.8	49.2	64.4	57.5	58.3	65	46.4
Mauritius	14.5	4.2	9.9	11.3	11.2	13.2	9.9	97	84.8
Mozambique	3.7	5	7.6	55.5	58.6	39.5	38.0	97	94.7
SACU	0.1	1.8	1.8	2.1	1.9	2.7	5.6		0.0
Tanzania	0.7	0.7	1.3	13.9	13.3	15	11.5	66	90.4
Zambia	1.2	10.9	7.9	49.1	65.5	65	59.1	95	74.1
Zimbabwe	8.3	31.7	33.1	51.2	51.2	56.1	76.1	94	91.8
Seychelles							10.7		55.6
Madagascar							9.3		72.1
Intra-SADC	1.6	4.7	5.1	9.9	10.2	10.6	12.3	90	80.3[a]
excl. Angola, DRC, Madagascar, and Seychelles							12.3		78.8

Source: Updated table from Chauvin and Gaulier 2002.

Note:
*Intra-SACU trade is excluded. 2002 values used for Zimbabwe in 2003.
*80.3 percent of SADC (excluding SACU countries) imports from the region are sourced from SACU.

Table 1.6: Share of SADC trade in SADC country exports

	1980	1985	1990	1995	1999	2003	2008	Percentage to SACU 2003 (%)	Percentage to SACU 2008 (%)
Angola	0.03	0	0.01	0.03	0.7	Na	1.8		99.9
DRC	0.05	0.03	0.1	6	0.3	Na	6.7		3.3
Malawi	12.4	15.4	1.6	17.2	16.9	20.1	21.8	74	50.4
Mauritius	1.4	0.1	1.2	1.4	1.4	2.1	11.3	76	32.8
Mozambique	1.1	0.3	0.2	32.1	17.41	24.6	17.2	74	65.4
SACU	0.7	2.8	2.5	10.7	11.5	9.7	10.5		
Tanzania	5.2	0.1	0.5	1.4	7.4	9.4	17.2	45	55.7
Zambia	0.9	3.1	0.8	3.8	7.8	40.6	20.0	50	54.1
Zimbabwe	1.3	25	30.7	31.7	28	30.5	64.4	79	81.2
Seychelles							1.2		
Madagascar							3.1		
Intra-SADC	0.9	3.4	3.1	9.9	10	10.6	6.1	68	72.8[a]
excl. Angola, DRC, Madagascar, and Seychelles							12.1		62.9

Source: Updated table from Chauvin and Gaulier 2002.

Note:
*Intra-SACU trade is excluded. 2002 values used for Zimbabwe in 2003.
*72.8 percent of SADC (excluding SACU countries) exports to the region are sold to SACU.

Table 1.7: Contribution of each country to intra-SADC trade (%)

	Exports							Imports
	1980	1985	1990	1995	1999	2003	2008	2008
Angola	0.2	0	0	0	0.9	Na	16.4	7.9
DRC.	0.4	0.1	0.1	2.7	0.1	Na	3.4	9.4
Malawi	11.1	6.1	0.5	1.9	2.3	1.8	1.2	7.7
Mauritius	2.2	0.1	1.4	0.6	0.6	0.7	1.4	2.8
Mozambique	1.8	0.1	0.1	1.4	0	4.7	2.6	7.6
SACU	64.2	50.5	56	76.5	77.8	71.4	59.7	27.8
Tanzania	9.6	0.1	0.2	0.3	1.3	1.4	2.2	4.0
Zambia	4.4	4.1	1	1.3	2	7	6.2	17.7
Zimbabwe	6	38.9	40.7	15.4	14.9	13	6.6	12.5
Seychelles							0.0	0.6
Madagascar							0.3	2.1
Total	100	100	100	100	100	100	100	100.0

Source: Updated table from Chauvin and Gaulier 2002.
Note: SACU makes up 74% of intra-SADC exports excluding Angola in 2008.

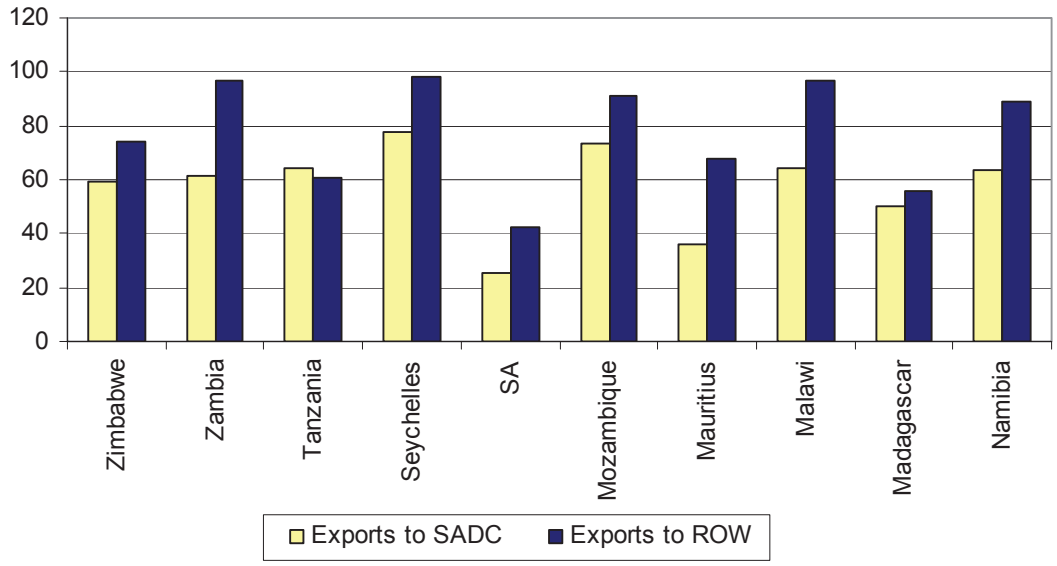
1.6. COMPOSITION OF TRADE

1.52. It is clear that the exports of SADC countries are highly concentrated in a narrow range of products, with a higher concentration of trade with non member countries. Further, the range of products exported to other SADC members is often greater than the range exported to the rest of the world, and the composition of SADC country exports to the region differs substantially from their exports to the rest of the world.

1.53. These patterns are seen in figure 1.9, which presents the 2008 share of total exports to SADC and the Rest of the World (ROW) made up of the top 10 export products (according to HS 6-digit lines) to each region by export value. The data show that the top 10 export products account for over 60 percent of exports for SADC members outside of SACU. In some cases (Malawi, Mozambique, Zimbabwe) the top 10 products account for over 90 percent of export volumes.

1.54. In all countries, the concentration of exports to the rest of the world is higher than exports to SADC members. For SACU, the top 10 export products, by value, to other SADC members account for 25 percent of its total exports to the SADC region. In comparison, SACU's top 10 products, by export value, to the rest of the world make up 42 percent of the value of extraregional exports. In most cases the export concentration ratio is 15 percent or more for exports to the rest of the world than for exports to other SADC members.

Figure 1.9: Share (%) of top 10 export products in total exports to SADC and rest of world, 2008



Source: Team calculations using 2008 data obtained from UN Comtrade.

1.55. Looking at the composition of exports, the top 10 exports to the rest of world and SADC are mainly primary products, although Mauritius and Malawi are also exporters of clothing and textile products. Clothing exports also feature prominently for Swaziland and Lesotho, but South Africa's exports swamp their trade flows, so clothing does not feature for the SACU region. Also evident from the table is the very high share of exports represented by the top two products by value (see Malawi, Zambia, Tanzania, and Mozambique).

1.56. The high concentration in commodity-based exports is associated with very low intra-industry trade flows. The gains from integration are therefore likely to be of the standard interindustry type rather than through relocation of production, exploitation of economies of scale, productivity gains driven by product innovation, and an increase in the variety of products traded. In the long run, however, there may be opportunities for specialization in processes along the production chain (vertical integration). Trade in manufactured intermediated goods associated with this type of specialization is likely to be more sensitive to trade barriers and other cross-border transaction costs than the current trade in resource-based products (Collier 2000).

1.7. INSTITUTIONAL AND POLICY BARRIERS TO TRADE

1.57. Tariff barriers and distance have been important determinants of trade within the region because of their influence on trade costs, but such costs are strongly related to other economic policies governing transport infrastructure, property rights, regulation, and information. Institutional and policy-related variables dealing with border administration, infrastructure, logistics, and the business environment have also been shown to be important determinants of trade costs and trade flows internationally; these play a role in Africa's exceptionally high trade costs. Existing empirical research makes the case that the cost of international trade in Africa is particularly high and this adversely affects Africa's trade performance (Portugal-Perez and Wilson 2009).

1.58. One source of Sub-Saharan Africa's high transport costs is its geography: the region is remote from developed countries and a high proportion of countries in the region are landlocked. However, economic policies also play an important role. These include poor infrastructure policies (Limão and Venables 2001), market regulations that restrict competition in transport (Amadji and Yeats 1995; Teravanithorn and Raballand 2008), reduce port efficiency, poor customs administration, and policies raising the cost of entry.

1.59. The policy implication is that African governments ought to focus their efforts on reducing these costs through tariff liberalization, regulatory reform, infrastructural investment, and policy harmonization. The impact of these reforms on trade flows is predicted to be large (Wilson and others 2005).

1.60. Simple cross-country comparisons of various trade-cost related indicators corroborate the finding that firms in African countries face relatively severe obstacles to their participation in international markets. This holds for SADC countries, as well. For example, it costs more than twice as much to clear a standard 20-foot container for exports or imports in Sub-Saharan Africa and SADC countries as it does in the East Asia and Pacific region (table 1.8). Costs are particularly high in Zimbabwe, Botswana, Zambia, and DRC. The time required to export and import is also high in Sub-Saharan Africa and SADC countries compared to other regions: more than three times that of the OECD and twice that of Latin America and the Caribbean (table 1.8).

Table 1.8: Time delays and trade costs

Region or Economy	Documents to export (number)	Time to export (days)	Cost to export (US$ per container)	Documents to import (number)	Time to import (days)	Cost to import (US$ per container)
East Asia & Pacific	6.7	23.1	909.3	7.1	24.3	952.8
Eastern Europe & Central Asia	6.5	26.8	1581.8	7.8	28.4	1773.5
Latin America & Caribbean	6.8	18.6	1243.6	7.3	20.9	1481
Middle East & North Africa	6.4	22.5	1034.8	7.4	25.9	1221.7
OECD	4.3	10.5	1089.7	4.9	11	1145.9
South Asia	8.5	32.4	1364.1	9	32.2	1509.1
Sub-Saharan Africa	7.8	33.6	1941.8	8.8	39.4	2365.4
SADC	7.4	35.1	1903.7	8.8	42.4	2348.3
Angola	11	65	2250	8	59	3240
Botswana	6	30	2810	9	41	3264
Congo, Dem. Rep. of	8	44	2607	9	63	2483
Lesotho	6	44	1549	8	49	1715
Madagascar	4	21	1279	9	26	1660
Malawi	11	41	1713	10	51	2570
Mauritius	5	14	737	6	14	689
Mozambique	7	23	1100	10	30	1475
Namibia	11	29	1686	9	24	1813
South Africa	8	30	1531	9	35	1807
Swaziland	9	21	2184	11	33	2249
Tanzania	5	24	1262	7	31	1475
Zambia	6	53	2664	9	64	3335
Zimbabwe	7	53	3280	9	73	5101

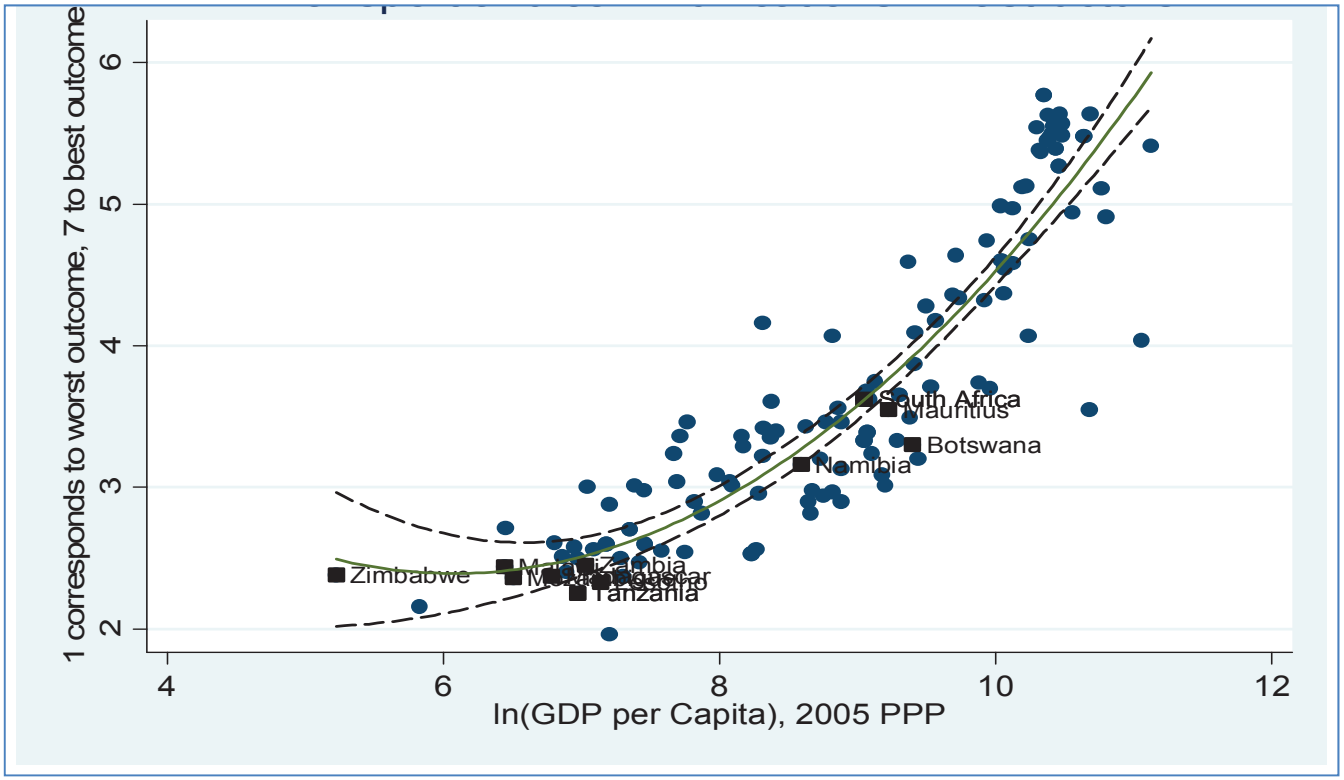
Source: World Bank Doing Business Survey. http://www.doingbusiness.org/ExploreTopics/TradingAcrossBorders (accessed 10 June, 2010).

1.61. The SADC region's relative position is similar in terms of composite indicators of trade facilitation, including the Enabling Trade Index (ETI), the World Economic Forum (WEF), and the World Bank's Logistics Performance Index (LPI), for which country level indicators are provided in an annex to this report. The ETI and LPI are indicators of the various institutional, infrastructural, regulatory, or policy constraints to the free flow of goods over borders. The WEF Enabling Trade Index measures barriers to trade related to market access, border administration, transport and communications infrastructure, and the business environment.[6] The Logistics Performance Index is a summary of various areas of the logistics environment relating to customs clearance, trade and transport-related infrastructure, logistics services, and so on.[7] In all three trade indices, higher values reflect better international trading environments, although the ranges differ: 1 (worst outcome) to 7 (best outcome) for the Trading on Time and Enabling Trade indices, and 1 (worst) to 5 (best) for the Logistics Performance Index. The SADC countries in each database are identified by name.

[6] The ETI is made up of 59 different quantity- and opinion-based variables drawn from various sources. Market access measures the domestic and foreign barriers to trade. Border administration measures the extent to which the administration at the border facilitates the entry and exit of goods. The transport and communications infrastructure component takes into account the extent to which these variables facilitate the movement of goods within the country and across the border. The business environment focuses on the impact of governance, regulation, and the security environment on importers and exporters active in the country.

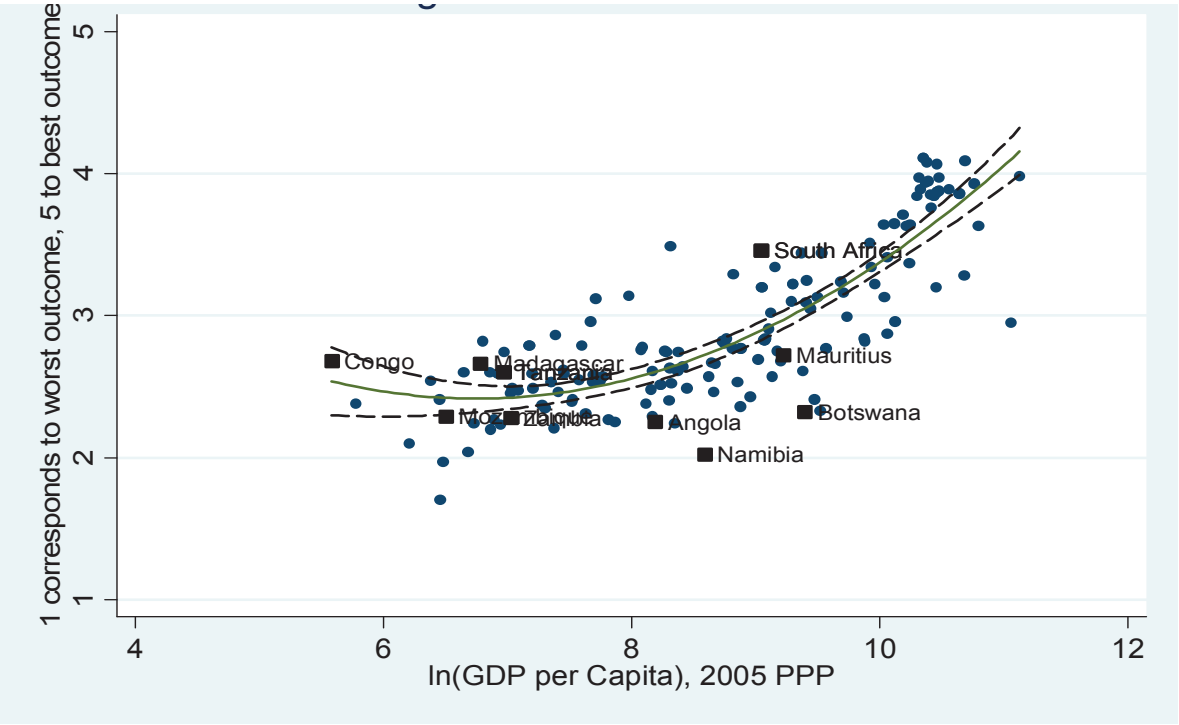
[7] The areas are: (a) efficiency of the customs clearance process, (b) quality of trade and transport-related infrastructure, (c) ease of arranging competitively priced shipments, (d) competence and quality of logistics services, (e) ability to track and trace consignments, and (f) frequency with which shipments reach the consignee within the scheduled or expected time.

Figure 1.10: Transport and communications infrastructure



1.62. However, simple, unconditional cross-country comparisons such as these do not take into account the interdependent relationship among levels of development, geography, and trade costs. Trade-related institutions and infrastructure do not arise in isolation from influences such as geography, population, and economic growth. For example, a source of improvements in trade-related infrastructure is pressure by exporters for improved trade facilities. While trade obstacles influence the firms' decision to enter the export market, other factors, such as foreign preferences, changing endowments, exogenous technological improvements, international competition, and macro- and micro- policies that affect the cost of operating businesses also influence export volumes. Trade and transport-related institutions, regulations, and infrastructure are therefore an outcome as well as a cause of international trade. Comparing indicators without taking into consideration levels of development might lead to the erroneous conclusion that weak trade-related institutions, regulations, and infrastructure are the binding constraint to enhanced trade flows.

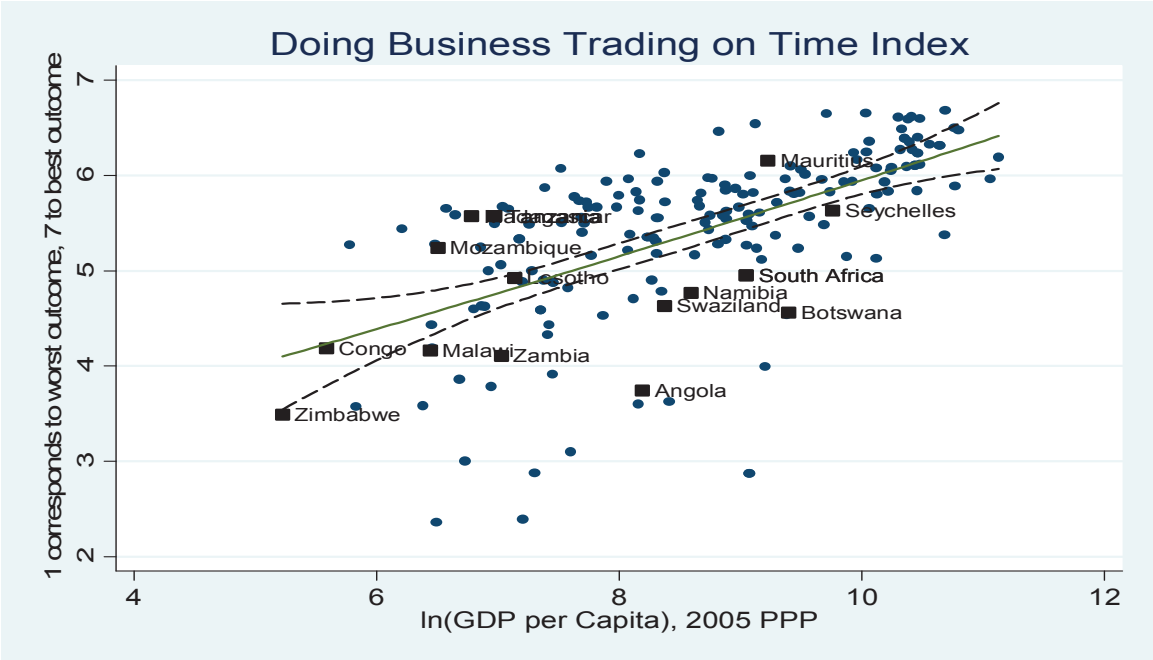
Figure 1.11: Logistics Performance Index



1.63. In figures 1.10 through 1.12, we compare values of selected indicators for SADC countries with what the average (or predicted or normal) values the indices would have been in comparable countries elsewhere (in terms of per capita income, population, and geography). In each diagram normal values of the indices predicted for each country's level of income are traced out by the solid curve in between two dashed lines marking out the 95 percent confidence interval of each predicted value. In figure 1.10, we compare the value of the transport and communications infrastructure component of the ETI index of SADC countries against normal or predicted values for their income level. Almost all countries within the region have values that fall short of the norm, which is consistent with findings in many other studies indicating that high transport costs are more problematic for the region than they are anywhere else.

1.64. Looking at the plot for the Logistics Performance Index in figure 1.11, South Africa, Madagascar, and Tanzania perform well relative to the norm for their income, but Mauritius, Botswana, Angola, Namibia, and Zambia perform relatively poorly. Compared to the trading on time index in figure 1.12, SACU members Angola, Zambia, and Malawi perform poorly relative to their peers in terms of the required documents, time, and cost of exporting and importing, while Madagascar, Mauritius, Mozambique, and Tanzania perform well relative to the norm for their respective groups.

Figure 1.12: Trading on time



1.8. CONCLUSION

1.65. The evidence points to an increase in integration for SADC countries since the early 1990s. MFN tariffs have been reduced, intraregional trade flows have increased, and trade has risen as a share of GDP. Intraregional trade flows are also quite high relative to what would be expected from the economic characteristics of the region and of member countries. However, the data suggest that progress in regional integration has somewhat stalled in recent years, as growth in intraregional trade appears to have slowed despite the implementation of the SADC Free Trade Agreement.

1.66. One reason is that tariff barriers are only one of the constraints that inhibit intraregional trade flows. There are other institutional and policy barriers to trade integration, some of which will be discussed in the chapters to follow. Most notably, recent policy research has shown that delays in getting goods from the factory gate onto the ship are a greater hindrance to exports than foreign tariffs.

1.67. As a major component of trade costs, transport costs are especially high in Africa. It costs twice as much to clear a standard 20-foot container in Sub-Saharan Africa as in the Middle East and North Africa, and the multiple compared to other regions is even higher.

1.68. Policy failure also contributes to higher trade costs. Within the SADC, the variations in trade costs and time delays are not easily explained by geography. Zimbabwe takes twice as long to clear goods for export as Botswana, yet both are landlocked. Angola has no such impediments

and takes the longest of all SADC countries.[8] Regardless of their source, longer delays and higher trade costs mean lower trade volumes. For example, according to one estimate, if Uganda reduced its factory-to-ship time from 58 days to 27, exports would be expected to increase by 31 percent.

1.69. The policy environment and its impact on trade costs are therefore considerable barriers to further trade in the SADC region. Alleviating these constraints, however, requires consideration of the complementarities among the various policy constraints. Port improvements would have limited impact if the problem is getting goods to the coast. Similarly, building multilane highways will not solve this problem if trucks must wait at the border or the dock.

[8] Taken from *doingbusiness.org* 12-country sample.

CHAPTER 2.
BUSINESS ENVIRONMENT AND TRADE INTEGRATION

2.1. INTRODUCTION

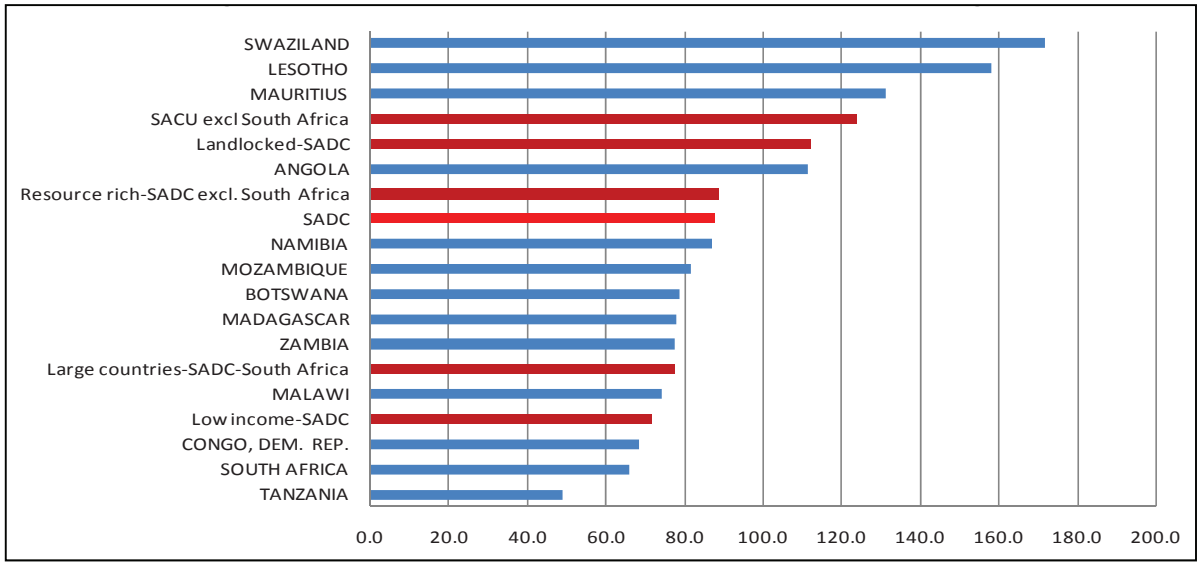
2.1. Although location and distance have constrained the involvement of SADC countries in world trade, the region has become increasingly open to global trade in recent years. There are also indications that the scope for further intraregional and extraregional trade integration is quite large. One such indication is that trade is highly concentrated among a few, mostly primary, products. A second indication is that intraregional trade is extremely limited, and dominated by bilateral trade of SADC members with South Africa. A third indicator of the potential for further integration is the enormous variation among members in openness to trade (figure 2.1). As would be expected, the smaller economies of the community, namely, Lesotho, Mauritius, and Swaziland, rely far more on trade than the larger, resource-rich economies of South Africa, Tanzania, and DRC. It is very significant that low-income countries (Tanzania, Malawi, and Zambia) are less open to trade than middle-income members, and that landlocked members are more open than their coastal neighbors.

2.2. This chapter is concerned with the role that business environments play in cross-country differences in manufacturing, employment, productivity, and exports within the SADC. It begins by describing cross-country differences in factor prices and factor productivity within the community as proximate determinants of differences among members in the degree of trade integration in general, and exports of labor-intensive manufactures, in particular. It then looks at cross-country differences in business environment as underlying causes of differences in factor prices and trade costs. Although regional trade is very much dominated by the primary commodity exports of mostly resource-rich middle-income member countries, these countries and the rest of the region are all essentially labor-surplus economies that need to diversify into nontraditional exports (of manufactures, farm products, and services) to address a growing problem of extremely high unemployment and widespread poverty. The issue of cross-country differences in trade integration among members of the community is therefore largely one of variation among countries in terms of diversifying into nontraditional, more labor-intensive export lines. Such variation should very much depend on cross-county differences in wages and labor productivity, which the chapter analyzes based on data from the World Bank Enterprise Surveys. Some of the data on business environment described in the chapter also comes from those surveys. One of the points of the strength of the Enterprise Survey data is that they are collected using sample designs and survey instruments that are reasonably standardized across countries. However, the data also have significant limitations that should be born in mind in interpreting them. These include, among other, that they do not cover all sectors and that their coverage of time is also limited to one or two years.

2.2. FIRM-LEVEL TRADE PARTICIPATION RATES

2.3. On the aggregate measure of the ratio of trade to GDP, the most open economies in the community are also the smallest—those of Swaziland, Lesotho, and Mauritius, respectively (figure 2.1). On the other hand, the least open economies on that measure are also the largest, including those of South Africa, DRC, and Tanzania. Landlocked economies are also far more open than coastal economies, while low-income economies are much less open than middle-income and resource-rich economies. Among resource-rich economies, South Africa is the least open; conversely, Angola has the most open economy, with DRC, Zambia, Botswana, and Namibia ranking in the middle, respectively, by increasing order of openness. Among low-income countries, Lesotho has the most open economy, while Tanzania's is the least open. DRC, Malawi, Zambia, Madagascar, and Mozambique fall between Lesotho and Tanzania by increasing order of openness. Swaziland's is the most open economy among middle-income members, while South Africa's is the least open. The economies of Botswana, Namibia, and Mauritius rank in the middle, by increasing order of openness. Tanzania is the least open of the group of coastal or island economies, while Mauritius is the most open, with South Africa, Madagascar, Mozambique, Namibia, and Angola rank in the middle, by order of openness.

Figure 2.1: Trade as percentage (%) of GDP, SADC countries, 2002–08 annual average



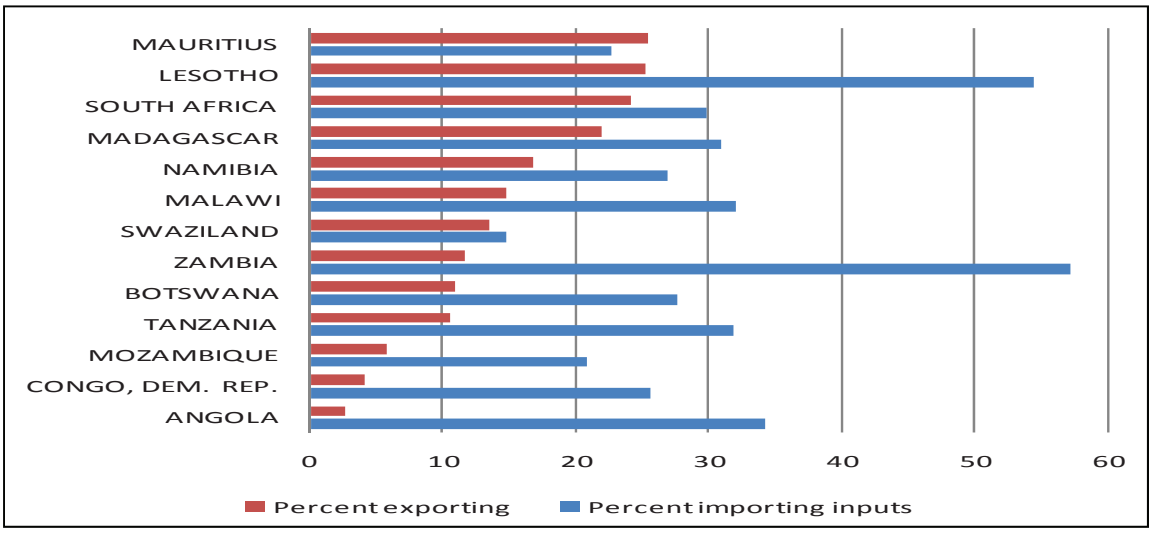
Source: World Bank Enterprise Surveys

2.2.1 TRADE IN MANUFACTURES

2.4. The firm-level trade participation rates of the World Bank Enterprise Survey samples shown in figure 2.2 are broadly consistent with these patterns in cross-country differences in aggregate measures of openness. As previously noted, these samples were largely confined to the manufactures and service sectors and can therefore only provide information on the extent of trade integration of those sectors. However, the diversification of exports into labor-intensive manufacturing and service is a central component of member countries' development strategies and the role that regional integration and trade policies play in those strategies.

2.5. Figure 2.2 shows two firm-level measures of trade integration: the proportion of businesses that sell products in export markets and the proportion of those businesses that import some of their inputs from other countries. The pattern in the first of these measures is consistent with the fact that, at this point, Mauritius, Lesotho, and South Africa, respectively, have the most export- oriented manufacturing and service sectors in the community, while manufacturing and service industries in Angola, DRC, and Mozambique export the smallest share of their output. Between these extremes, sample export-market participation rates range from 11 percent in Tanzania to 21 percent in Madagascar. Additionally, Madagascar, Namibia, Malawi, and Swaziland are significantly higher exporters of manufactures than Botswana and Zambia.

Figure 2.2: Percentage exporting vs. percentage importing inputs (%)Enterprise Survey samples



Source: World Bank Enterprise Surveys

2.6. Figure 2.2 also shows that the countries that rely the most on export markets for manufactures—Mauritius, Lesotho, South Africa, Madagascar, Namibia, Malawi, and Swaziland—are also among those with the highest proportion of manufacturers importing inputs. Although manufacturers in Zambia rely the most on imported inputs, they are the least export-oriented in the community. Part of the reason why greater export orientation of domestic industry and the use of imported inputs go hand-in-hand is that the availability of imported inputs helps make exporting more profitable and feasible by helping reduce costs. Openness to imports can also increase productivity by facilitating the diffusion of know-how from abroad,

increasing the pressure of competition and providing greater incentives for innovation by domestic producers, and reducing allocative inefficiency in the domestic economy.

2.7. With the exception of those from South Africa, manufactured exports from countries within the community are typically labor-intensive goods, with textiles and garments as the major items. Indeed, 65 percent to 80 percent of garment factories in Lesotho, Madagascar, and Swaziland produce to export. Other major exporters of garments and textiles are South Africa, Malawi, and Mauritius, in which the proportion of exporters ranges from 25 percent to 51 percent.

2.8. In almost all of the aforementioned countries, the garment and textile industries are also fairly import-intensive. Over 70 percent of garment producers in Lesotho, Madagascar, and Swaziland import some of their inputs, while 37 to 55 percent of those in South Africa, Mauritius, and Malawi do the same.

2.2.2 INTRAREGIONAL TRADE IN MANUFACTURES

2.9. A sizeable proportion of manufactures exports by SADC members are destined to other member countries. However, just as with intra-SADC trade more generally, intraregional trade in manufacturing and services is dominated by trade between South Africa and other SACU countries, and Mozambique and Zambia within the region (table 2.1). Thus, about 14 percent of businesses exported to other countries within the SADC, according to the latest South Africa Enterprise Survey sample. The other countries in the community to which significant proportions were exported include Swaziland (7 percent), Namibia (6 percent), Botswana (5 percent), Mozambique (3 percent) and DRC (2 percent). None of the samples from the other countries included exporters to the rest of the region.

Table 2.1: Percent of exporting enterprises by destination of exports

		Destination of Exports			
Country	Anywhere	SADC	SACU	South Africa	RoW (Out of sub Saharan Africa)
ANGOLA	2.6%	10.0%	0.0%	0.0%	0.0%
BOTSWANA	11.6%	44.4%	36.1%	22.2%	16.7%
CONGO, DEM. REP.	4.1%	57.1%	0.0%	0.0%	50.0%
LESOTHO	24.3%	0.0%	0.0%	0.0%	48.4%
MADAGASCAR	21.0%	0.0%	0.0%	0.0%	61.2%
MALAWI	14.7%	0.0%	0.0%	0.0%	31.8%
MAURITIUS	26.5%	0.0%	0.0%	0.0%	0.0%
MOZAMBIQUE	5.6%	54.2%	37.5%	29.2%	29.2%
NAMIBIA	16.7%	36.4%	34.5%	23.6%	25.5%
SOUTH AFRICA	24.1%	58.5%	48.7%	0.0%	42.9%
SWAZILAND	12.9%	53.8%	51.3%	46.2%	30.8%
TANZANIA	11.3%	0.0%	0.0%	0.0%	0.0%
ZAMBIA	12.4%	0.0%	0.0%	0.0%	27.5%
Average SADC	*14.7%*	*4.1%*	*3.3%*	*0.9%*	*4.6%*

Source: World Bank Enterprise Surveys

2.10. Although the proportion of exporters of manufactures to countries in the region is rather small, even for countries that did not export within the region, it is important to note that the fraction of exporters that had customers within the SADC is generally high among exporting manufacturers in South Africa, other SACU members, and Mozambique. Thus, 59 percent of exporters in the South Africa sample exported products to somewhere within the SADC, although 49 percent of that proportion are those exporting to SACU destinations (table 2.1). Similarly, in the Namibia sample, of the 17 percent of exporters of manufactures, approximately 36 percent exported to the SADC, of which 35 percentage points was accounted for by exports to other SACU members, and two-thirds of which were exports to South Africa. The exporting patterns of the samples from Botswana and Mozambique were quite similar.

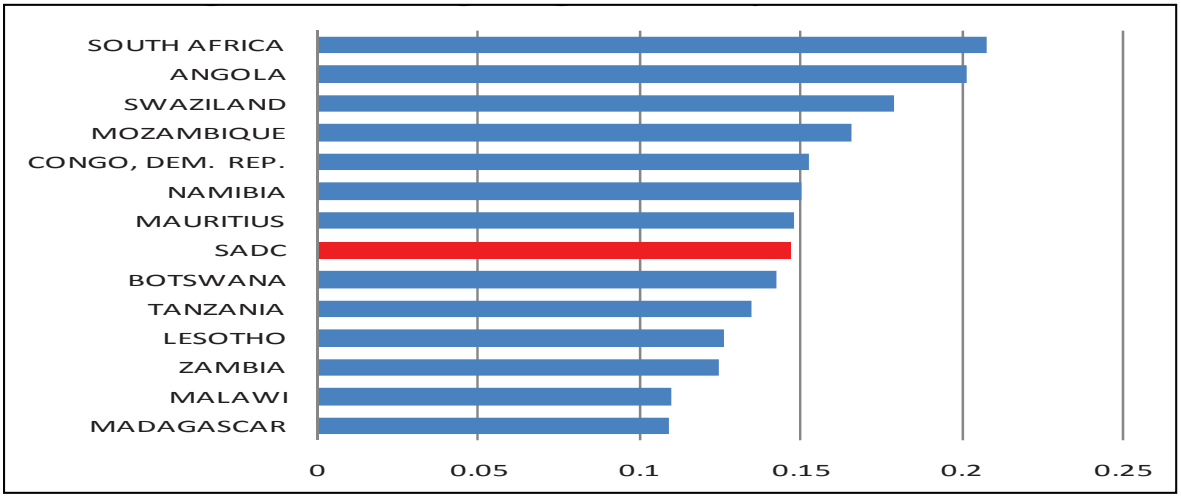
2.3. WAGES, PRODUCTIVITY, AND MANUFACTURED EXPORTS

2.3.1 EXPORTS AND UNIT LABOR COSTS

2.11. One consequence of the SADC's manufactured exports being labor intensive (with the exception of exports from South Africa), is that cross-country differences in export performance and export market participation largely reflect differences in unit labor costs—what employers pay in wages and benefits for every dollar of revenue from sales—so much so that the top exporters of manufactures are, as a rule, countries of low unit labor cost. South Africa happens to have the highest unit labor costs of manufactures, with wages and benefits equaling 22 cents for every dollar of sales (figure 2.3). However, as indicated in figure 2.4, this does not stop South Africa from exporting a higher share of its manufacturing and service output than any other member of the SADC, because those exports are far more capital intensive and differentiated than the manufactured exports of most other member countries. Among the latter, the top exporters of manufactures also have the lowest manufacturing unit labor costs. The group of top exporters includes Mauritius, Lesotho, Namibia, and Malawi, where labor costs per dollar of sales range between US$0.10 and US$0.15. Countries with relatively high unit labor costs include Angola, Swaziland, Mozambique, and DRC. Of those four, only Swaziland has been a significant exporter of manufactures; the other three, along with Botswana and Zambia, are the region's least successful exporters of manufactures (figure 2.4).

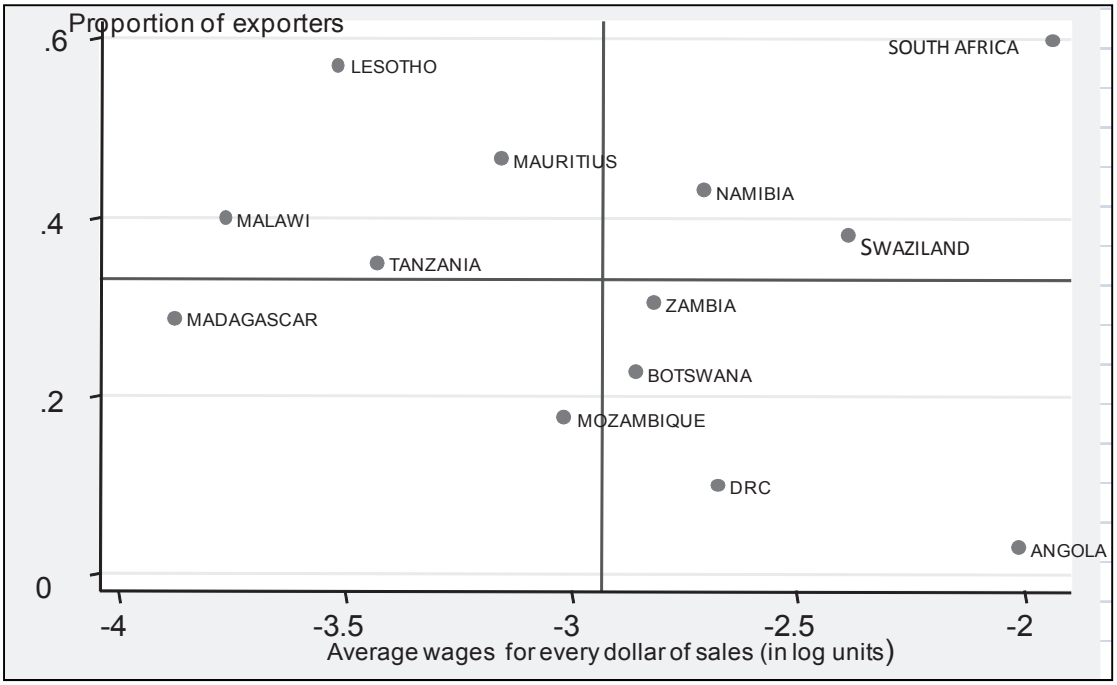
2.12. At the group level, resource-poor countries generally have lower unit labor costs and have consequently been more likely to be exporters of labor-intensive manufactures within the region. The countries in this group are Lesotho, Malawi, and Mauritius. On the other hand, Angola, Botswana, DRC, and Zambia constitute the resource-rich group, which does not export manufactures because of high unit labor costs. The only significant exporters of manufactures among resource-rich countries have been South Africa and Namibia.

Figure 2.3 Average wages for every dollar of sales (US$)



Source: World Bank Enterprise Surveys

Figure 2.4: Export market participation rates and unit labor costs (US$)

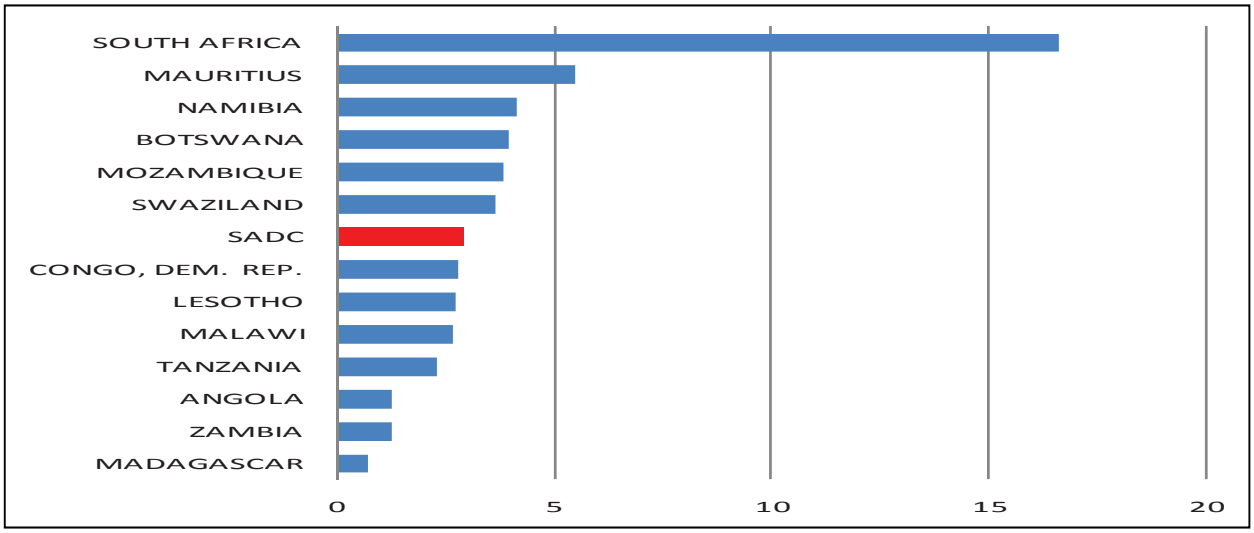


Source: World Bank Enterprise Surveys,

2.3.2 EXPORTS AND WAGES

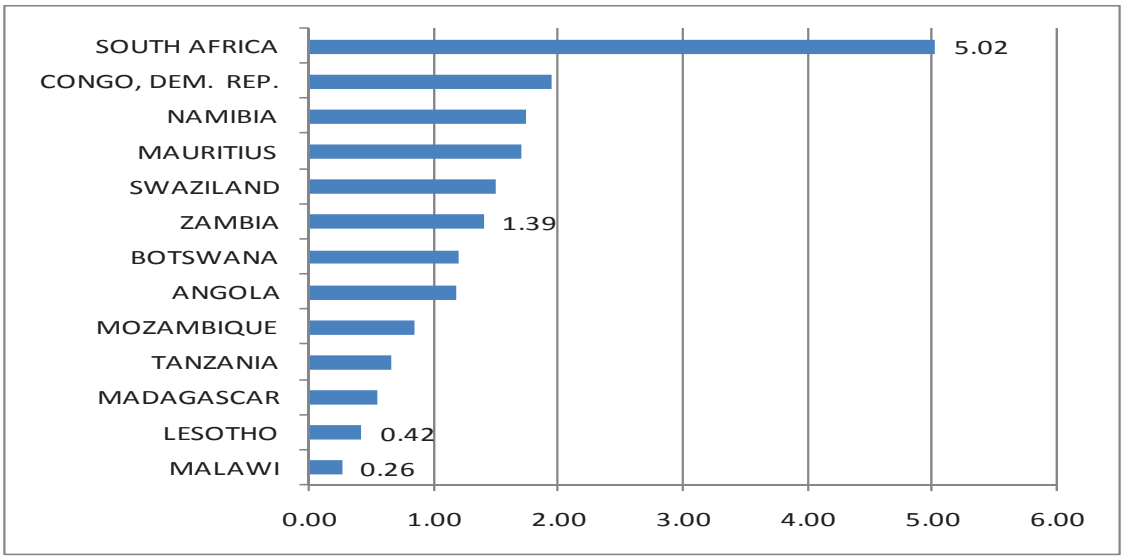
2.13. Underlying the cross-country variation in unit labor costs within the SADC have been even larger differences in wage rates, which range from US$1,209 a year per worker in Zambia, to US$3,923 in Botswana and US$6,660 in South Africa (figure 2.5). Much of the wage gaps documented in figure 2.5 undoubtedly reflect skills differences, particularly between South Africa, as the highest wage economy, and all other countries. However, it is also clear that controlling for skills differences would still leave sizeable differentials in wage, as seen in figure 2.6, in which the comparison is confined to garments, a relatively homogenous industry. In figure 2.6, the cross country disparity in workers' skills is much narrower than it would be across the manufacturing and service sectors as a whole, and yet large wage gaps remain. Annual earnings of the average garment worker range from a low US$420 in Maseru (Lesotho), to US$970 in Kitwe (Zambia), US$2,050 in Kinshasa, and US$5,630 in Johannesburg. Even considering skills differences, South Africa, Namibia, Botswana, Swaziland, Mauritius, and DRC are relatively high-wage economies within the community and, as a result, have higher unit labor costs. Conversely, low wages in Lesotho, Malawi, and Madagascar provide for low enough unit labor costs to partially explain how these low-income economies have achieved relative success as exporters of labor-intensive manufactures.

Figure 2.5: Annual wages per worker in '000 US$ at 2000 prices



Source: World Bank Enterprise Surveys

Figure 2.6: Annual average wages per worker (US$'000) at 2000 prices –garments only



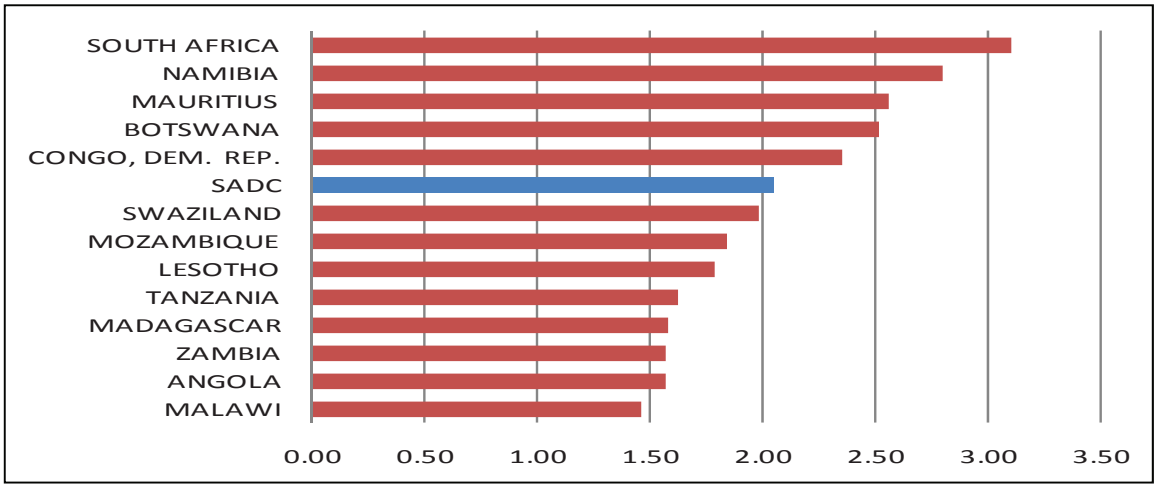
Source: World Bank Enterprise Surveys

2.3.3 EXPORTS AND LABOR PRODUCTIVITY

2.14. Wages are but one of two equally important determinants of unit labor costs. The other is labor productivity. Despite the fact that Angola's wages are among the lowest in the region, it ranks relatively high in unit labor costs in manufacturing and services in the SADC because of its ranking among the lowest in the region in labor productivity (figure 2.6). Similarly, given its comparatively low wages, Zambia could potentially achieve much lower unit labor costs than those in figure 2.3—and subsequently export significantly more manufactures than it currently does—if its labor productivity ranking were not among the lowest in the region. On the other hand, unit labor costs in Mauritius are about average for the SADC, despite the fact that its wages are among the highest in the region. This is attributed to the country's high level of labor productivity in the community. South Africa and Namibia would also have had far higher unit labor costs at their current wage rates, were it not for the countries' high labor productivity relative to the rest of the region.

2.15. In terms of overall ranking by average labor productivity, measured as annual sales per employee, South Africa, Namibia, Mauritius, and Botswana are the top four, respectively, within the SADC, while Madagascar, Zambia, Angola, and Malawi constitute the bottom four, in descending order of productivity. Because they are low-wage economies, Madagascar, Zambia, and Malawi also rank at the bottom of the spectrum in terms of unit labor costs.

Figure 2.7: Average annual sales per worker, log units '000 US $ at 2000 prices



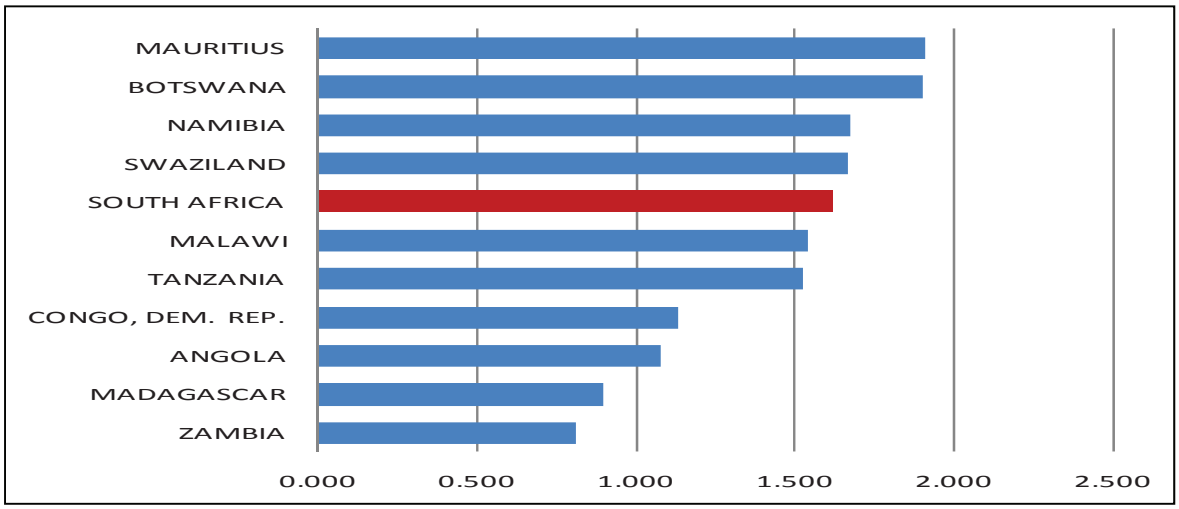
Source; World Bank Enterprise Surveys

2.16. South Africa, Mauritius, Namibia, and Swaziland are above average exporters of manufactures in the SADC, despite also having above average wages in the region, because of their well above average levels of labor productivity. Lesotho and Malawi are also above-average exporters of manufactures for the region, despite their less than average levels of labor productivity, because they have lower wages than the regional average.

2.3.4 EXPORTS, FIXED INVESTMENT, AND TOTAL FACTOR PRODUCTIVITY

2.17. Much of the labor productivity advantage of some of the SADC's relatively high exporters of manufacturing and services include higher fixed investments per employee, which is related to cross-country differences in aspects of the business environment that influence investment rates. Figure 2.9 shows country averages of labor productivity plotted against country averages of aggregate total factor productivity (TFP)—an equally important source of labor productivity differences. Countries in the top two quadrants have above average labor productivity for the SADC. Of these, South Africa and Mauritius owe part of their higher labor productivity to the fact that their levels of fixed assets per employee are among the region's highest. On the other hand, above average aggregate TFP in manufacturing and services is an important source of labor productivity advantage in Botswana, Namibia, and Swaziland, all of which have manufacturing TFP levels comparable to, or higher than, South Africa's (figure 2.8).

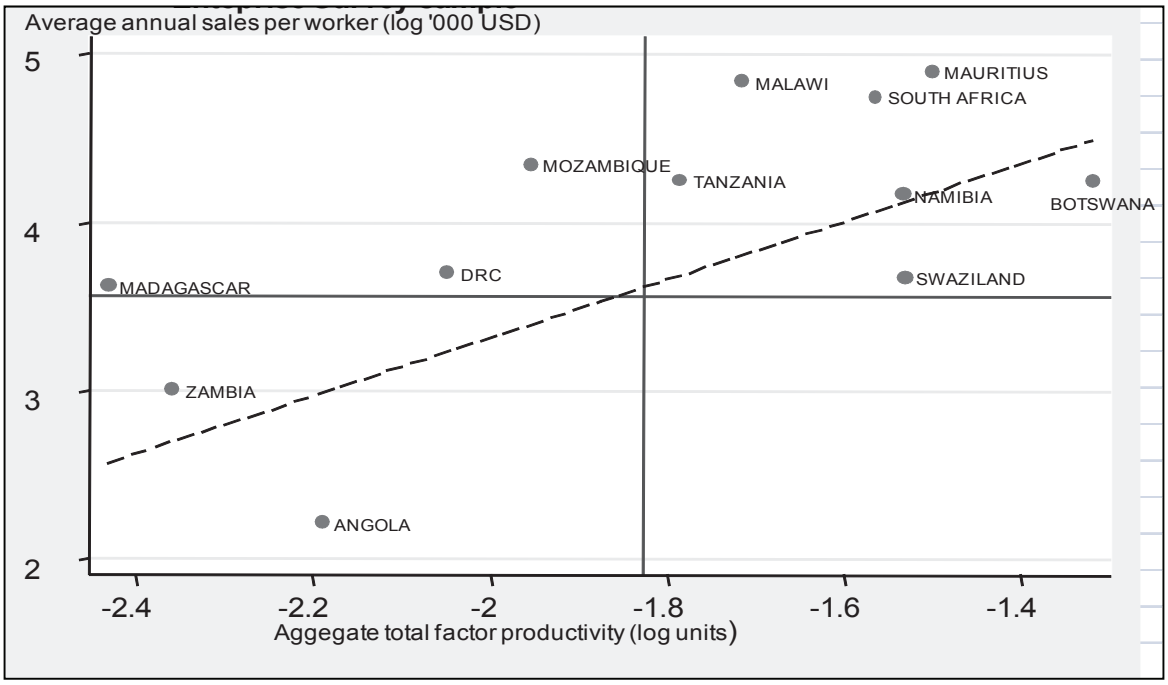
Figure 2.8: Aggregate manufacturing TFP (log units)



Source: World Bank Enterprise Surveys

2.18. In terms of overall rank, Mauritius has the highest aggregate manufacturing TFP, followed by Botswana, Namibia, Swaziland, and South Africa, respectively. The bottom four countries are listed in descending order of TFP: DRC, Angola, Madagascar, and Zambia. Very similar rankings are maintained if we narrow the comparison to the garment industry, in which the only difference in ranking is Namibia's drop from the top five countries into the bottom five.

Figure 2.9: Labor productivity and total factor productivity



Source: World Bank Enterprise Surveys

2.4. SOURCES OF PRODUCTIVITY GROWTH

2.19. The aggregate TFP index shown in figure 2.8 is a weighted average of the TFP of individual enterprises constituting the industry sample, with enterprise market shares serving as weights. It is calculated as the sum of the (unweighted) average of enterprise-level TFP, or within-firm TFP, and the sample covariance between enterprise TFP and enterprise market share. A positive covariance term implies that more productive firms have higher market shares. Considering changes over time, this means that it is not necessary for average within-firm TFP to increase for aggregate industry productivity to grow. The significance of this kind of productivity decomposition is that it highlights the fact that aggregate (or industry-level) TFP often increases or falls even in the absence of significant changes in the average within-firm TFP, as a result of the reallocation of market share between low-productivity and high-productivity firms.

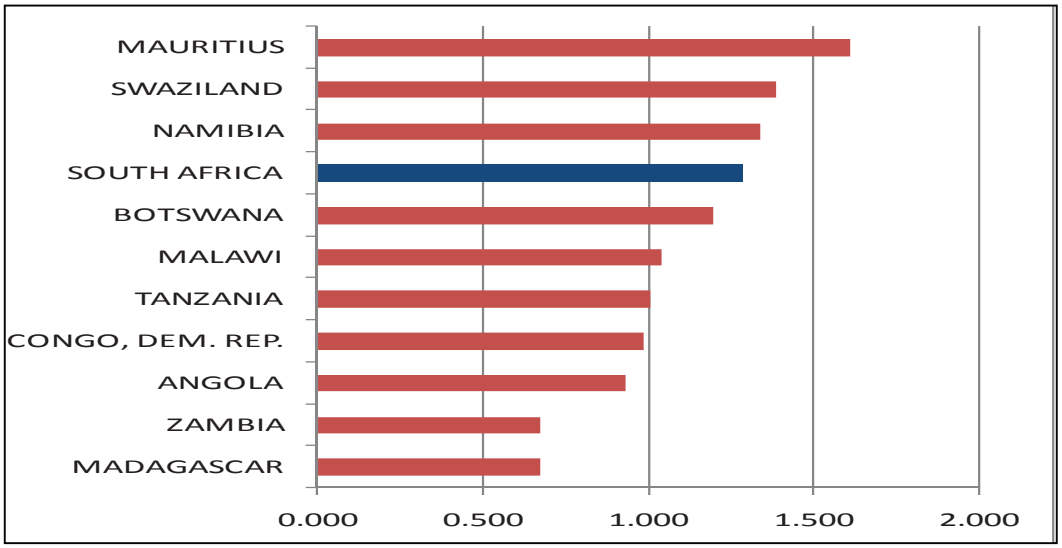
2.20. Average within-firm TFP would rank enterprises in the same way as the distance from a defined global or national production frontier would, and is therefore a measure of average technical or productive efficiency. Changes in the technical efficiency of a firm would come about as a result of shocks or innovation in production methods that eventually move the firm closer to or further from the frontier. Such changes would naturally be reflected in the aggregate TFP index of figure 2.8.

2.21. However, aggregate TFP would increase or fall even if within-firm productivity remained unchanged for everyone in the population of enterprises, and if market share were reallocated from high productivity firms to low productivity firms (and vice-versa). Other things being equal, a higher covariance component of the aggregate TFP index, implies a higher market share for more productive enterprises. While there is no formal theoretical association between this covariance and the structure of an industry or economy, there is strong empirical evidence that the correlation between market share and within-firm productivity is weaker in industries and economies where entry is impeded by various market distortions. These distortions arise from discriminatory taxes or other policy and business environment problems that act as such taxes, preventing the equalization of marginal productivities across sectors and industries. As a result, the covariance component of the Olley-Pakes decomposition of aggregate TFP can be treated as an allocative efficiency index.

2.4.1 RANKING COUNTRIES BY WITHIN-FIRM PRODUCTIVITY OR TECHNICAL EFFICIENCY.

2.22. The ranking of countries by within-firm TFP is shown in figure 2.10. Mauritius tops the list, again followed by Swaziland, Namibia, South Africa, and Botswana, respectively. One of the main reasons that the aforementioned countries have a higher aggregate manufacturing and service productivity level than the bottom six in figure 2.10 is that typical firms in each of the top five countries operate closer to the global or regional technological frontier than their counterparts in Malawi, Tanzania, Zambia, or Madagascar. Again confining the comparison to the garments sector—one of the more common labor-intensive lines of activity— does not alter the rankings by much.

Figure 2.10: Average within-firm TFP (log units)



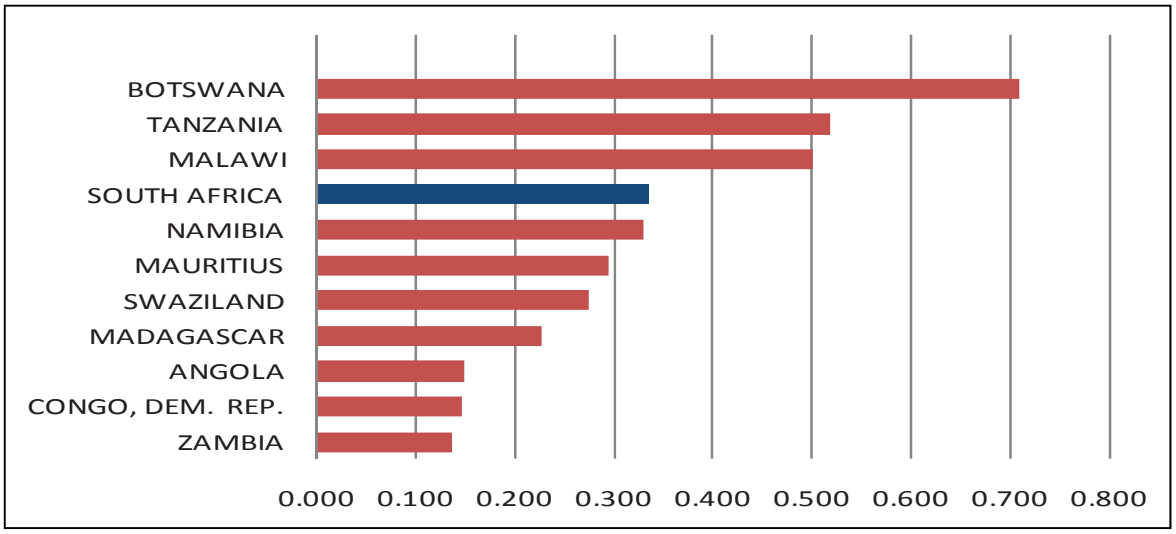
Source: World Bank Enterprise Surveys

2.4.2 RANKING OF COUNTRIES IN TERMS OF THE CORRELATION BETWEEN WITHIN-FIRM PRODUCTIVITY AND MARKET SHARES

2.23. The rankings change significantly when we turn to the allocative efficiency index, that is, the covariance between within-firm productivity and market shares, in figure 2.11. The main change in rank is that Mauritius drops from the top to the middle, while Tanzania and Malawi move to the top, over and above all other countries except Botswana. This means that Mauritius has the highest manufacturing and service productivity within the SADC solely because the typical manufacturer in its respective industry operates closer to the global technological frontier than its regional counterparts, and despite the correlation between market shares and firm level productivity being much weaker in Mauritius than in other countries, namely, South Africa, Malawi, Tanzania, and Botswana. On the other hand, although high-productivity firms tend to have higher market shares in Malawi than they would in most other economies in the region, aggregate manufacturing and service productivity there is well below the average for the SADC overall; the typical manufacturer in Malawi is less productive than its counterparts in Mauritius, South Africa, and all other SACU members except Lesotho.

2.24. Madagascar, Angola, DRC, and Zambia are also the lowest ranked in terms of allocative efficiency, that is, aggregate manufacturing and service productivity in those countries is lower than the SADC region average. This is in part because the typical manufacturer in these countries operates further from the global technological frontier than its counterparts in Mauritius, South Africa, and other SACU members, and in part because the correlation between market share and firm-level productivity is weaker in Madagascar, Angola, DRC, and Zambia than in any other SADC country.

Figure 2.11: Allocative efficiency index: manufacturing and services



Source: World Bank Enterprise Surveys

2.5. BUSINESS ENVIRONMENT AND ALLOCATIVE EFFICIENCY IN EMPLOYMENT AND PRODUCTIVITY

2.25. There are strong indications in the Enterprise Surveys and other data that much of the cross-country disparity in manufacturing and service exports is associated with differences in business environment variables that significantly influence employment and productivity in manufacturing and services. That influence is often on investment risk, on other factors in cross-country differences in investment rates that affect the cost of doing business in other ways.

2.26. A sense of the full range of business environment issues that can be linked in this way to cross-country differences in employment and productivity within the SADC is provided by the responses that business managers gave in the Enterprise Surveys when asked to select from 15 to 18 choices the top 3 obstacles that they face in achieving success in their businesses. While strictly quantitative comparisons of subjective ratings across countries would not necessarily be as informative as it might sound, and could in fact be quite misleading, it might help provide a sense of how the policy priorities of business communities might vary across the region.

2.27. Table 2.2 lists the business environment issues that the largest percentage of survey respondents rated at the top of their "obstacles" list among eight SADC members. Not surprisingly, the issue at the top of every list except one is inadequate access to finance. Power shortages are the second most frequent priority concern in all eight countries. Skills shortages are also one of the most complained about factors by exporters in six of the eight countries—Angola, Botswana, DRC, Namibia, South Africa, and Swaziland. Beyond these, common priorities seem to vary significantly across countries. Thus, political instability has been an area of major concern in Angola and DRC, while macroeconomic instability is one of the most complained about issues among exporters in Botswana and Namibia. Similarly, competition from informal firms is highly rated by firms in Botswana, DRC, Swaziland, Tanzania, and Zambia, while crime is of greater concern in Namibia and South Africa. Other significant issues include corruption in South Africa and Zambia; high taxes in Namibia, Tanzania, and Zambia; problems with telecommunication in Botswana and Namibia; tax administration in Tanzania; and business licensing in DRC.

2.28. While the information provided in table 2.2 is important, its practical use depends on the availability of information on "hard" indicators of the ease of undertaking various categories of business transactions that give practical meaning to what respondents are complaining about under each heading. Hard indicators are those that are objectively measurable and are therefore potentially useful in monitoring changes in the relevant business environment outcome. The Enterprise Surveys provide some such indicators relating to some business environment variables, a few of which we will use below, along with a selection of Doing Business indicators.

Table 2.2: Top three obstacles to business expansion

	Non-exporters	Regional exporters only	International- exporters only	Regional and international exporters
Angola				
1	Power shortage			
2	Inadequate f access to finance			
3	Political instability			
Botswana				
1	Inadequate f access to finance	Skills shortage	Macroeconomic instability	
2	Macroeconomic instability	Macroeconomic instability	Problems of telecom; Power shortage	
3	Competition from informal firms	Power shortage		
DRC				
1	Power shortage	Political instability	Business licenses	Crime Competition from informal firms
2	Inadequate f access to finance	Power shortage Lack of business space; Skills shortage		
3	Competition from informal firms			
Namibia				
1	Crime	Problems of telecom; Lack of business space; Skills shortage;	Macroeconomic instability	Power shortage ; Skills shortage
2	Power shortage		High taxes; Skills shortage	Inadequate f access to finance;
3	Macroeconomic instability			
South Africa				
1	Crime	Power shortage	Crime	Power shortage
2	Power shortage	Crime	Power shortage; Skills shortage	Crime
3	Corruption	Skills shortage		Skills shortage
Swaziland				
1	Competition from informal firms	Competition from informal firms	Problems of telecom; Access to land; Crime	Power shortage
2	Crime	Power shortage; Skills shortage		Problems of telecom; Inadequate f access to finance;
3	Inadequate f access to finance			
Tanzania				
1	Power shortage	Power shortage	Power shortage; Tax administration; Inadequate f access to finance	Power shortage
2	Inadequate f access to finance	High taxes; Inadequate f access to finance;		Skills shortage
3	Crime			
Zambia				
1	Inadequate f access to finance	Power shortage		Inadequate f access to finance
2	High taxes	High taxes		High taxes; Competition from informal firms

Source: World Bank Enterprise Surveys

2.29. For the purpose of the assessment, we group business environment issues into three categories: those relating to the direct regulation of entry and competition, problems posing indirect barriers to entry and factor mobility, and factors directly impeding trade integration. We include in the first category issues relating to competition policy and business regulation via licensing and permit requirements. Issues of access to finance, provision of infrastructure, and taxation comprise the second category. In the third, we include those of trade policy, trade logistics, and trade facilitation.

2.30. When the cost of doing business in a country exceeds those of other SADC members, or of other international comparators, the country would that much fewer jobs, and lower productivity. The situation would be analogous to one in which a higher implicit tax were imposed on all potential activities of all producers in the country at a flat rate—making them less attractive to the alternatives of the activities taking place. A premise of the assessment is therefore that a sense of how much the country could be losing in fixed assets, jobs, and productivity when business environment problems raise the cost of doing business relative to other countries can be obtained by comparing averages of key indicators between the country and the right comparators. Wee will make such comparisons when we discuss the roles of trade and competition policies and trade facilitation.

2.31. But international comparisons of averages of business environment indicators can be highly misleading when there are large disparities with respect to individual indicators within each country. Such disparities are ubiquitous in practice. A business environment problem rarely affects all firms to the same degree. It is more likely to impact some firms more than others, and some activities rather than others, even when the problem relates to trade policy or trade costs. Consequently, the problem is highly unlikely to add the same amount to the cost of doing business for everyone. Its effect, from this point of view, resembles not that of a flat tax applied uniformly to everyone, but that of a system of discriminatory tax rates varying across sectors, locations and, indeed, firms. As would taxes of this kind, differences among firms in the cost of doing business would generate losses in employment and productivity by preventing factor productivity from equalizing at the margin across activities and producers, that is, by generating allocative inefficiency. The size of the loss involved here is determined not only by how grave the business environment problem in question is, on average, in one country, but by the variation in the incidence and intensity of the problem across domestic firms as well, the rule being that the greater the dispersion across firms, the larger the loss in aggregate employment, productivity, and exports.

2.32. The essential point is that even if anyone SADC member had the best set of average indicators of business environment on all dimensions within the community or beyond, it could still, in theory, be less productive, poorer, and more marginalized in world trade than other members or other comparators if there is too much disparity across firms within the country in terms of those indicators relative to the disparity in the other countries. It is therefore important to complement cross-country comparisons of average business environment indicators with comparisons of in-country dispersion of indicators across business size and age groups and sectors. These will provide some sense of the extent of the loss in employment and productivity in manufacturing and services caused by the allocative inefficiency associated with the disparity of business environment within each country.

2.33. The cost or gravity of many business environment problems often varies significantly among business age groups, in part because entry cohorts often differ in terms of technical know-how and capability. Established businesses often respond differently than younger ones to the same problems because they have already incurred some (sunk) costs. There are also scale economies in dealing with some business environment problems, which puts larger businesses at an advantage over smaller ones. On the other hand, larger firms may be more exposed to predatory behavior by corrupt officials. Interindustry technological differences could also translate to differences in how firms are susceptible to or cope with certain business environment problems. Moreover, such key aspects of business environment as physical infrastructure and governance often show significant regional variation. Finally, it is common for some firms to find themselves in a better business environment than others as the outcome of a deliberate government policy, for example, as beneficiaries of export promotion schemes or special investment incentives.

2.34. In our discussion of indirect barriers to entry and to factor mobility in section 2.6, a comparison is made of indicators across countries, not only in terms of national means, but also in terms of the variation of the indicators between recent entries and established businesses, between small businesses and large ones, and between manufacturing industries and the service sector. Unfortunately, our discussion of indicators relating to trade costs and to the direct regulation entry in section 2.7 will be limited to a comparison of national averages, since we do not have data on the in-country dispersions of any of the indicators.

2.6. INDIRECT BARRIERS TO ENTRY AND TO FACTOR MOBILITY

2.35. The business environment factors that we have classified as indirect barriers to entry and factor mobility include Enterprise Survey respondents' reported obstacles to business growth, namely inadequate access to finance and problems with accessing public utilities such as electricity (table 2.2). These access issues will be the focus of this section, along with petty corruption, the incidence of which is highly correlated with the state of business regulation, and tax administration, which also figures prominently among the issues highlighted by the Enterprise Survey in some countries.

2.6.1 PROBLEMS OF ACCESS TO FINANCE

Access to finance and firm-level employment and productivity

2.36. Inadequate access to finance influences employment and productivity because firms that do not have sufficient access to long-term finance suffer from capital shortages that force them to operate at suboptimal scales or operate suboptimal technologies. In the Enterprise Survey data, firms with less access to finance have a higher marginal revenue productivity of capital, which indicates that they are, indeed, operating subject to capital shortages. Additionally, inadequate access to finance often forces a firm to be less capital intensive than it would be otherwise, which

in practice often would entail the use of outdated equipment. Inadequate access to long-term finance can also make a firm operate at a suboptimal scale by reducing both equipment and staffing levels, at a given ratio of fixed assets to employment, below where it would operate if it had better access to funds. This often means that the firm would forego economies of scale that firms with better access to finance would exploit.

2.37. The Enterprise Surveys suggest that both of these firm-level outcomes of inadequate access to finance have been at work in several SADC countries. Many businesses in the region that have better access to trade and bank credit also tend to have higher labor productivity, not necessarily because they are inherently more productive, but often because they were able to obtain financing for better technology on better terms than their competitors. This is indicated by the fact that the marginal revenue productivity of capital and the average rate of return on fixed assets are both consistently lower in enterprises that have better access to finance only because the value of equipment per worker is higher for such enterprises.[9]

Access to finance and allocative efficiency

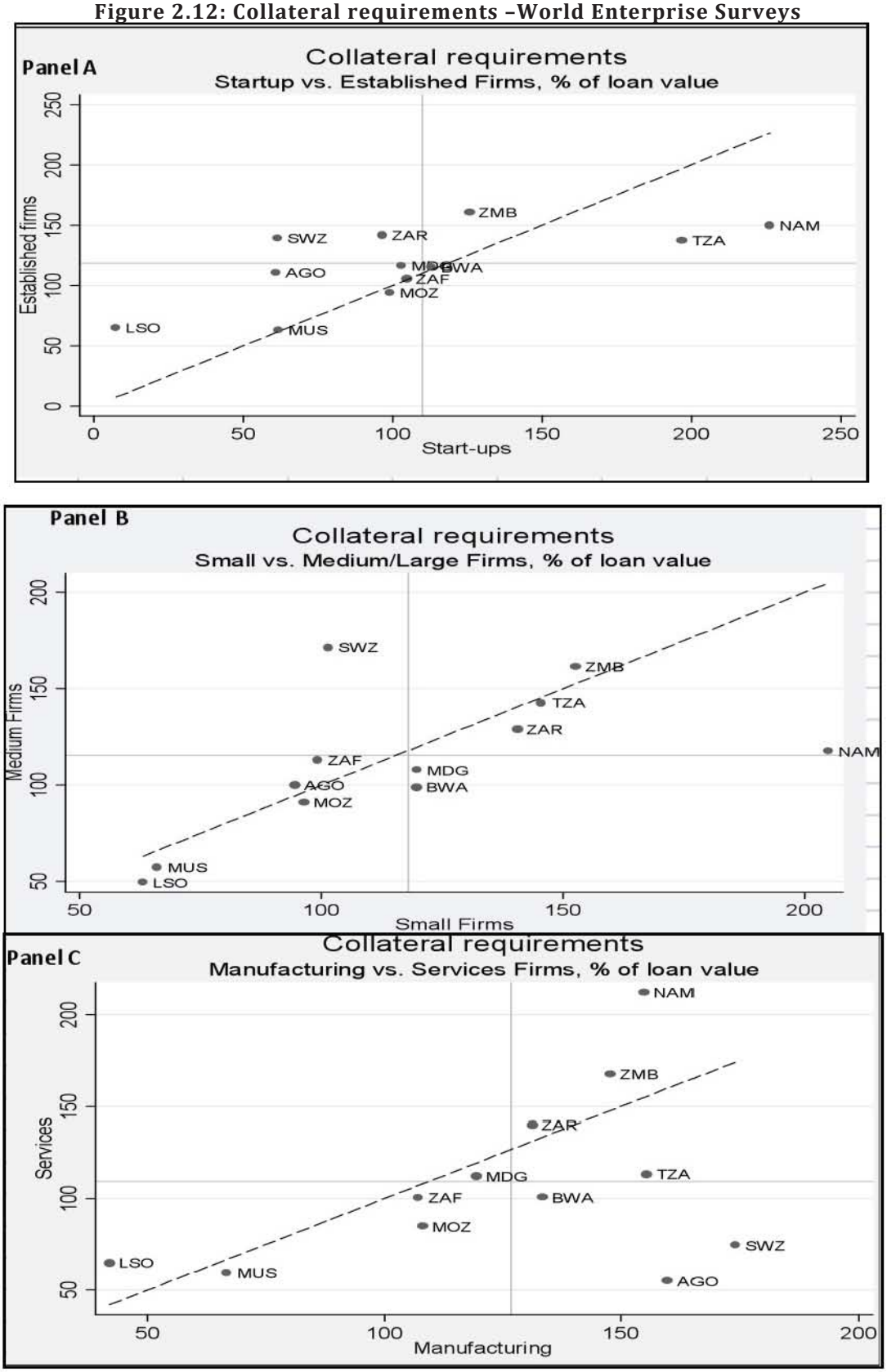
2.38. In figure 2.12, we look at a common indicator of the ease of access to long-term finance—the ratio of the collateral requirement to loan value in bank lending. On this measure, Namibia, Zambia, Tanzania, and DRC are the countries where business access to long-term finance is the most restricted within the SADC, while Lesotho, Mauritius, Mozambique, and Angola have the lowest collateral requirements in the region. These rankings are based on comparisons of the country averages of collateral requirements and therefore do not capture the effects on employment and productivity of the allocative efficiency losses arising from the fact that collateral requirements, and hence the ease of access to finance, vary among firms within each country, notably between SMEs and large firms, between start-ups and established businesses, and also between manufacturing firms and those in services.

2.39. These allocative efficiency losses add to a country's international productivity and employment shortfalls if the variation in collateral requirement within the country is greater than that between firms within international comparators. A higher collateral requirement or higher cost of borrowing for the average firm in country A than for a counterpart in country B would reduce employment and productivity in A relative to B. Country A's employment and productivity shortfalls compared to country B's would be even larger if, additionally, the dispersion in the cost of borrowing also happens to be larger in country A.

2.40. The extent of in-country variation in collateral requirements across business size and age groups and between manufacturing and services can also be seen in figure 2.12, where a 45 degree line delineates observations in which collateral requirements are equal across groups in a given dimension from those in which the requirements are higher for one group, or the other, of a divide. Focusing on the manufacturing–services divide first, the chart suggests that the three SADC countries where collateral requirements are the highest, Zambia, Tanzania, and Namibia, are also countries where lenders seem to discriminate between borrowers along business lines.

[9] Details of the econometric analysis leading to this conclusion are given in a technical annex to the report that is available upon request.

Figure 2.12: Collateral requirements –World Enterprise Surveys

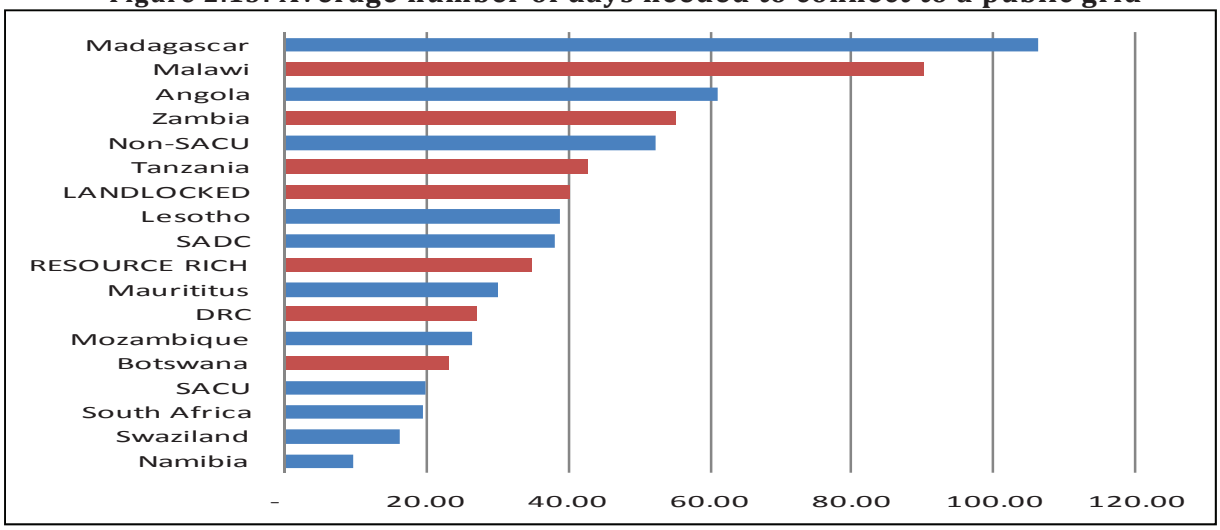


2.41. In Tanzania, manufacturers seem to be put at a significant disadvantage compared to service firms, while the reverse seems to be the case in Namibia, and to a lesser extent, in Zambia. Other countries in which different collateral requirements seem to have been a significant source of distortion in the sectoral allocation of resources are Angola, Swaziland, Mozambique, and Botswana, all of which in fact have lower overall average collateral requirements than the SADC average. On the other hand, in Mauritius, South Africa, Madagascar, and DRC, distortions from this particular source seem to be minimal.

2.42. Discrimination in collateral requirements based on business size groups is less common across SADC countries, and there seems to be relatively little distortion on this dimension in the majority of countries (panel B of figure 2.12). However, there are exceptions, the most obvious being Namibia, where required collateral is twice the amount for small firms (those employing fewer than 30 workers) as for mid-sized firms. Though the size gap is not as high as in Namibia, smaller firms also face significantly higher collateral requirements in Botswana and Madagascar, while they are advantaged in Swaziland.

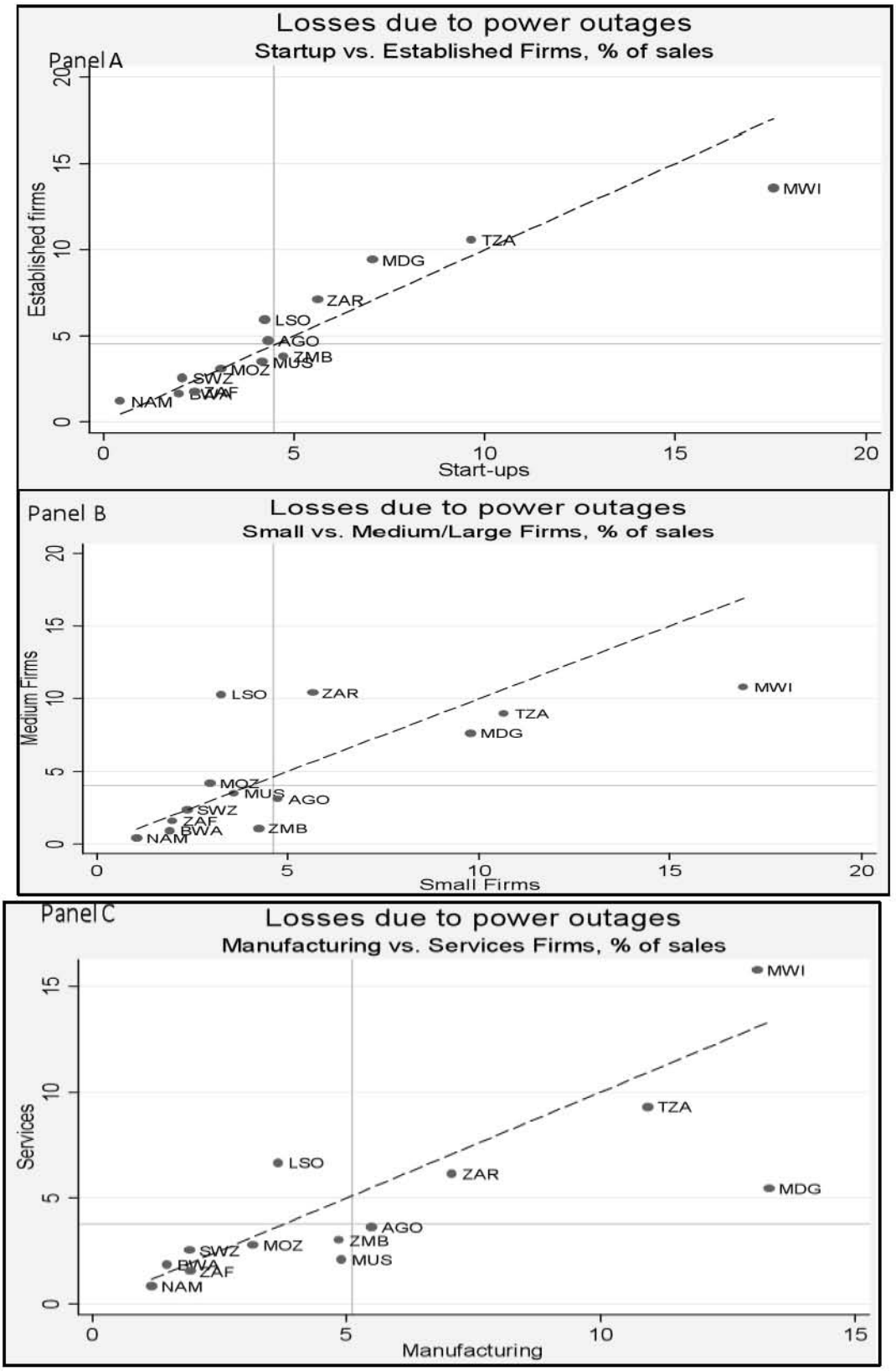
2.43. In panel A of figure 2.12, collateral requirements are compared between established businesses and start-ups, defined as enterprises that have been in business for five years or less. There is relatively little difference in collateral requirement between these two groups in Mauritius, Mozambique, South Africa, Botswana, and Madagascar, which suggests that collateral requirements there have remained relatively unchanged in recent years. Average collateral requirements have been reduced significantly in most other countries , where established firms report higher collateral on existing loans than start-ups. The exceptions to this scenario are in Tanzania and Namibia, where start-ups report significantly higher requirements.

Figure 2.13: Average number of days needed to connect to a public grid



Source: World Bank Enterprise Surveys

Figure 2.14: Cost of unreliable power supply



Source: World Bank Enterprise Surveys

2.6.2 POWER SHORTAGES

2.44. Many businesses operating in SADC countries have suffered from chronic power shortages over the past decade. For start-ups and expanding businesses, the shortages have meant frequent power outages and long wait times to connected to the public grid. The countries most affected by the problem are Madagascar, Malawi, Angola, and Zambia, all of which experience a lack of power for months at a time (figure 2.13). Although all of these countries face significant power shortages, South Africa and all other SACU members (except Lesotho), experience the shortest average waiting period. figure 2.14 shows that countries are ranked closely in terms of the second indicator for power shortages, estimates of revenue lost to outages relative to realized revenue.

2.45. Like many other business environment problems, power shortages add significantly to the cost of doing business in countries where they are more severe relative to countries where they are less so. They have also been a source of significant allocative inefficiency in most countries, albeit probably less so than problems of access to finance. Again, the inefficiency occurs not only because the shortages affect smaller and younger firms more than the larger and more established among businesses already in operation, but also because they are likely to reduce firm formation and entry rates. The second panel of figure 2.14 suggests that power shortages could, in fact, be a major source of allocative inefficiency, not only in Malawi, Tanzania, Madagascar, and Zambia, where reported outage losses to outages are much higher for smaller firms, but also in Lesotho and DRC, where larger firms tend to report higher losses.

2.46. A second channel of allocative efficiency losses resulting from power shortages is the disparity in their impact between the manufacturing and service sectors. In panel C of figure 2.14, we reported that losses are significantly larger for manufacturing firms in Madagascar, Mauritius, Zambia, Angola, DRC, and Tanzania, although service firms report higher losses in Malawi and Lesotho.

2.47. Panel A of figure 2.14, shows that in all countries except Malawi, reported losses to outages show little variation between start-ups and more established businesses. This represents good news, in two senses. First, it means that the problem is not a source of distortion of allocation resources across the age distribution of business firms. Second, it also means that the problem has not worsened over time. However, the latter also means that things have not improved much over time, either. Indeed, the situation seems to have worsened in Malawi, where reported losses to outages are far higher for start-ups than for established businesses.

2.6.3 PETTY CORRUPTION

2.48. Petty corruption is a significant business environment problem in Tanzania, Angola, Malawi, and Mozambique, where a sizeable proportion of Enterprise Survey respondents reported government employees demanding bribes (figure 2.15). While the mechanisms through which petty corruption influence employment and investment outcomes are unclear, firms report that bribes are a significant share of their total earnings. At the very least, this should have similar implications for output and employment as taxes on a business's net income would have. Additionally, as with any idiosyncracy in business tax rates, its variation by business characteristics should be a significant source of allocative inefficiency, as is suggested in figure 2.15.

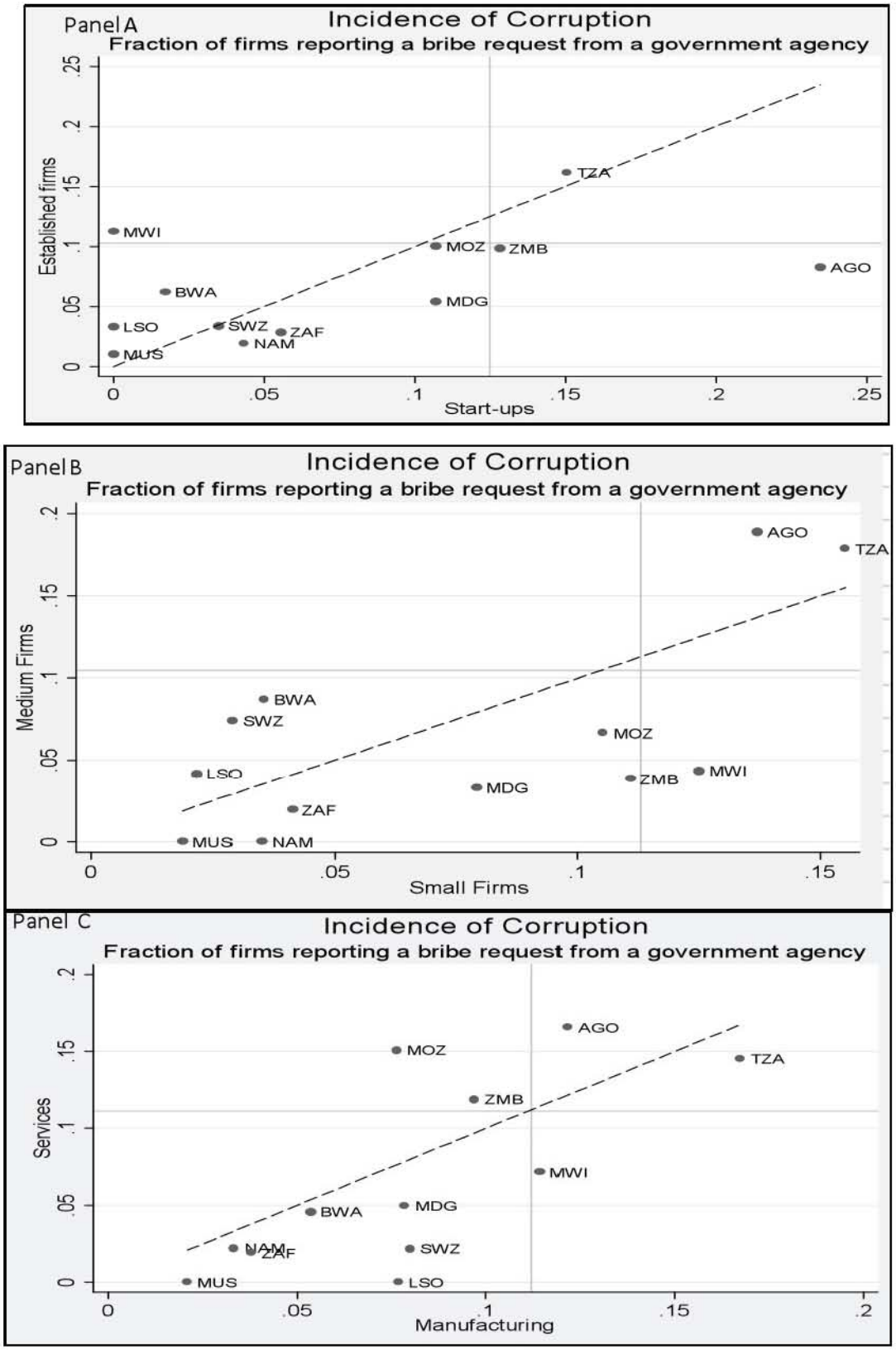
2.49. One such source of inefficiency is that smaller firms are far more likely than larger firms to pay bribes; this, is evident in most SADC countries, but particularly prevalent in Malawi, Zambia, Mozambique, and Madagascar (panel B of figure 2.15). Although larger firms are much more likely to pay bribes in Tanzania and Angola, this would not necessarily mean less distortion than if the situation were reversed. A second source of inefficiency is that the frequency of payment varies significantly between the manufacturing and service sectors in most countries, with the frequency being much higher for manufacturers in Tanzania, Malawi, Madagascar, Swaziland, and Lesotho, and significantly higher for service sector businesses in Angola, Mozambique, and Zambia (panel C of figure 2.15).

2.50. Panel A of figure 2.15 suggests that the incidence of petty corruption might have increased in recent years in Angola, Madagascar, and Zambia, where start-ups are far more likely to report demand for bribes than established firms. Conversely, things seem to have improved in Malawi, where start-ups are far less likely than older firms to report demand for bribes.

2.51. The fact that low-productivity firms tend to have much larger market shares, notably in Zambia, DRC, Angola, Madagascar, and Swaziland than in all other SADC countries (figure 2.11) suggests that there could be some scope for increasing productivity through competition policy reforms in those countries as well as other member countries. This is particularly so as the correlation between within-firm productivity and market shares in those countries is significantly weaker than in South Africa, which shows a high degree of market shares concentration and a weaker correlation between those shares and productivity than comparable economies.

2.52. The establishment of the SADC Free Trade Area adds to the importance of member countries instituting regionally compatible competition policies as part of their broader policy harmonization agenda. The liberalization of trade should help increase aggregate productivity by helping increase the market shares of low cost domestic producers and by increasing domestic firms' incentives for innovation. However, as noted by Hartzenberg (2002), trade policy reforms could be undercut in their role of enhancing productivity if the foreign companies from which the imports originate end up exercising market power in the countries to which they are exporting, and their presence and actions erect barriers to entry by other potential sources of imports or direct investors in domestic production.

Figure 2.15: Businesses reporting demand for bribes –World Bank Enterprise Surveys



2.7. THE ROLES OF COMPETITION, TRADE, AND DIRECT REGULATION OF ENTRY

2.7.1 COMPETITION AND TRADE POLICIES

2.53. A well crafted and effectively enforced competition policy can help prevent such an outcome and is needed also as a necessary component of the policy framework for the increase in intra-regional FDI envisaged in the SADC's Finance and Investment Protocol. It is highly significant in this context that South Africa is the main source of intra-regional FDI in the SADC since this means that some of the competition policy issues that the South African economy faces are likely to arise when South African based companies make investments across the border in other SADC member countries.

2.54. Thanks to its Competition Act of 1998, South Africa itself has a well regarded, transparent and pro-competition mergers and acquisitions review process driven by three complementary institutions, namely, the Competition Commission, the Competition Tribunal, and Competition Appeal Court. The jurisdiction of these institutions has recently expanded to respond to complaints against anti-competitive behavior more generally, and there are clear indications that many South African industries are today less concentrated as a result of the new competition policy regime and have grown more productive as a result. Nonetheless, overall, South African industry remains highly concentrated by the standards of other upper middle income countries, which is believed to have held back productivity and investment and posed an important barrier to SME entry in many industries. There are therefore calls for the institution of a more activist competition policy than has been the case so far as a means of generating further productivity gains and encouraging the development of a more vibrant SME sector in the economy.

2.55. These concerns are likely to be relevant and pose similar competition policy challenges throughout the SADC region. And yet, at this point, there are only four countries in the region that have active competition policies other than South Africa. These are Mauritius, Malawi, Tanzania, Zambia and Zimbabwe. Namibia, Swaziland and Madagascar have just enacted competition laws, but implementation has yet to start or has barely started. Mozambique, Botswana and Lesotho are in the process of drafting competition laws.

2.56. That said, it is also important to recognize that competition policy is only one of several complementary tools for promoting competition in the domestic industry. Competition policy is essentially about influencing the behavior of larger players in specific industries and in the economy as a whole. Such behavior is often a critical determinant of entry and exit rates, and of the distribution of market shares among incumbents, especially in smaller countries with smaller national markets, where industries tend to be concentrated to a greater degree than in South Africa's far more advanced economy. The behavior of potential entrants, and the constraints on which it depends, are also critical. Furthermore, there are important influences other than competition policy on the behavior of potential entrants, just as there are important influences on the market power and behavior of incumbents.

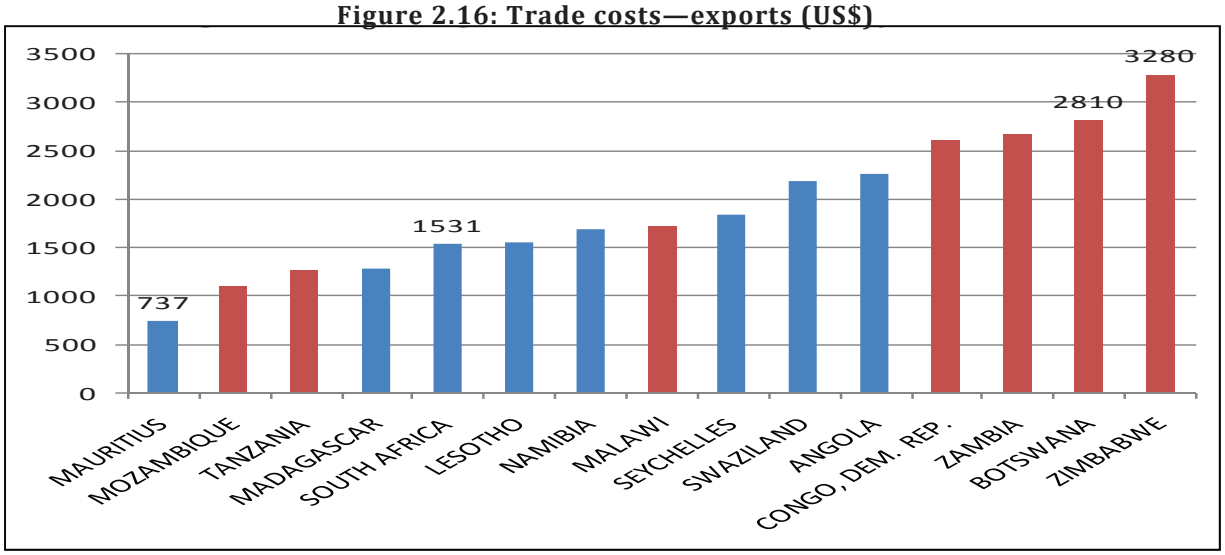
2.57. Of these influences, foreign trade is by far the most important. Indeed, it is the trade liberalizing measures that most SADC members have carried out since the 1990s, as described in chapter 1, that have likely most influenced the competitive pressures under which domestic firms and industries operate. While there are no formal studies of the impact of trade liberalization on the structure of the domestic industry in any SADC country, recent studies of developing and OECD economies show that the kind of trade policy reforms that have occurred in many member countries have helped lower domestic prices and mark-up rates, not least of all by influencing the behavior of large players in the domestic economy.

2.58. There is also solid evidence that increased openness to trade leads to large productivity gains, in two complementary ways. First, it generates allocative efficiency gains by inducing a reallocation of market shares from low-productivity to high-productivity firms. Second, it also raises average within-firm total factor productivity by providing firms with greater incentives for innovation. A third form of trade-induced productivity growth should be added to the list—the economies of scale that export markets often help domestic firms realize.

2.7.2 TRADE LOGISTICS AND TRADE FACILITATION

2.59. It is likely that many SADC members have benefited from one or more of the three types of productivity gain over the last decade. At the same time, there are indications that many countries can realize similar gains in the future by further opening up their economies by improving customs administration in the short-term and reducing transport costs in the long term. This is particularly true of Angola, DRC, Zambia, Botswana, and Zimbabwe, where trade costs are much higher than in other SADC economies, as shown in figure 2.16.

Figure 2.16: Trade costs—exports (US$)

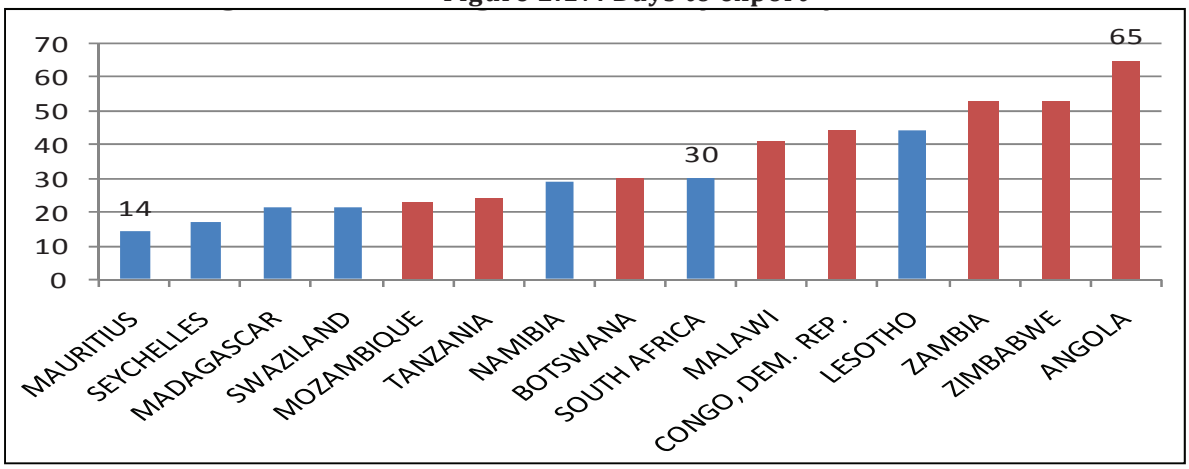


Source: Doing Business 2010

2.7.3 TRADE FACILITATION

2.60. Figure 2.14 compares SADC members in terms of the Doing Business cost of exporting standard cargo to the United States by ocean transport. This cost ranges from US$737 in Mauritius to US$1,531 in South Africa and US$3,280 in Zimbabwe. Other relatively low-trade-cost economies besides Mauritius are Mozambique, Tanzania, Madagascar, Lesotho, and Malawi. Typically, shipments take longer in countries where the cost is higher, but figure 2.17 also shows that countries that rank well in terms of pecuniary trading costs do not necessarily perform as well in the time taken to export the standard cargo to standard destinations. Angola ranks last on time to export, behind DRC, Zambia, Botswana, and Zimbabwe, which is ahead in terms of pecuniary cost. Lesotho, which ranks far better than Swaziland and DRC in the cost of trade, also ranks behind both countries in time to export. Overall, the very countries that do not perform well in manufacturing exports and productivity, as described earlier, are also among those that evidently have relatively high trading costs, or are countries from which it takes relatively longer to export. That Zambia, Angola, and DRC rank among the lowest exporters of manufactures (figure 2.2), is consistent with the fact that they have the least productive manufacturing sectors (figure 2.7) and among the highest trading costs in the region (figure 2.16).

Figure 2.17: Days to export



Source: Doing Business 2010

2.61. Figures 2.14 and 2.15 underscore the association of adverse geography with the relatively high trade costs of many SADC members. But they also show that geography is only one among many determinants of trade costs and that there is scope for drastically reducing trade costs through trade facilitation reforms. A highly instructive case in point is that of Zambia. A recent Foreign Investment Advisory Service (FIAS) study noted that more than two-thirds of the time needed to export from Zambia, and about half of what was needed to import to that country, was taken up by document preparation and document handling (World Bank 2009b). FIAS has therefore recommended that Zambia reduce the number of customs documents and streamline document handling as major trade facilitation measures (World Bank 2009a). Although we do

not have information on the regulation of cross-border trade in other SADC countries, we expect there are similar opportunities and possibilities for administrative reform in other high-trade-cost economies in DRC, Angola, Zimbabwe, and Botswana.

2.7.4 TRANSPORT COSTS

2.62. While trade-related administration reforms are important ways saving on trade costs, transport expenses remain the largest share of trading costs in almost all countries in the region. Zambia's experience is illustrative of both the challenges and the possibilities that can be achieved more broadly in the region—another recent study (Raballand et al. 2008) shows that today, Zambia has among the lowest transport costs of landlocked countries in Sub-Saharan Africa. This is attributed to two factors. First, Zambia's investments over the last decade have been targeted at improving road conditions, which is crucial as more than two-thirds of Zambia's trade volume relies on road transport to neighboring countries. Second, Zambia has succeeded in cutting freight tariffs by making its transport sector highly competitive through deregulation measures, which have opened its economy to foreign competition and foreign direct investment. As a result of these measures, the share of Zambian operators in the domestic market has dropped to no more than 40 percent. Those operators are maintaining that share at competitive tariff rates that match those of much larger foreign competitors—with no direct or indirect government support.

2.63. At the same time, Raballand et al. (2008) note that Zambia can reduce freight transport costs significantly further by lowering fuel costs and by reducing delays involved in "border-post operations." Costs would be even lower had it not been for adverse spillovers from South Africa's ban on importing secondhand trucks to protect its motor industry against foreign competition.

2.7.5 DIRECT REGULATION OF ENTRY

2.64. At least as important a determinant of entry and exit rates as openness to trade and competition policy—and hence, ultimately of the productivity of domestic industry—are several other factors influencing the ability of potential entrants to respond to new investment opportunities. Among these are the direct regulation of entry and indirect barriers to entry, for example, lack of access to finance and to other basic services such as power supply.

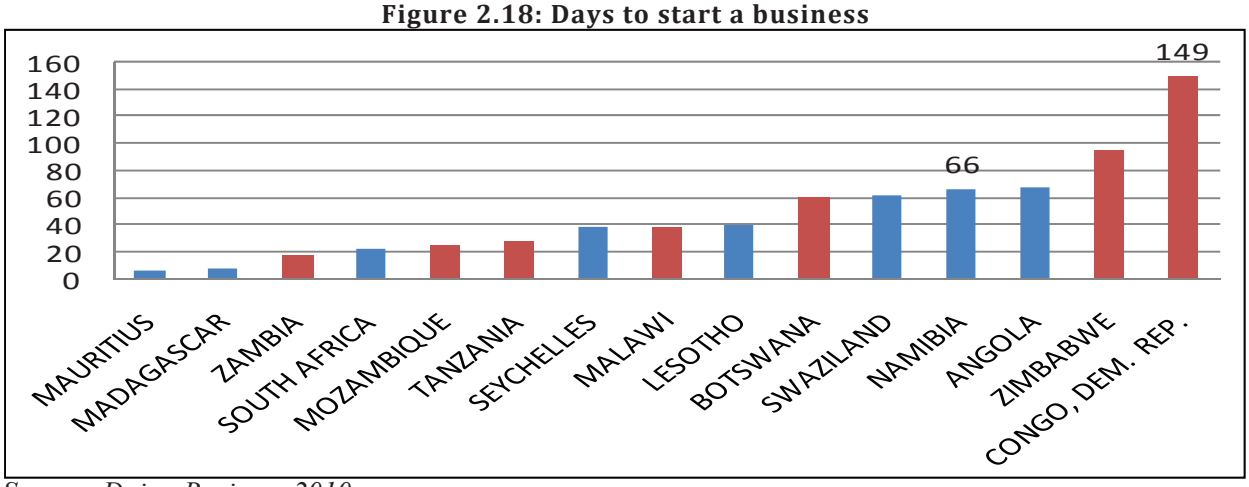
2.65. Business licensing and the requirement for construction permits are probably the most ubiquitous forms of direct regulation of entry by government in most countries. For example, in Zambia, anyone setting up a new business needs to have an investment certificate from the Zambia Investment Center (ZIC). They also need to obtain operating licenses from the local and central government, and have the business registered with the Patent and Company Registration Office (PCRO). The situation is quite similar in many other SADC countries. Because the costs associated with getting licenses and legal status are incurred prior to the start of operations,

established businesses rightly treat them as "sunk" costs. They are therefore unlikely to put those costs high on their lists of "business obstacles" in the Enterprise Surveys.

2.66. Yet there is considerable evidence that the time and pecuniary costs of starting up a business could be a significant influence on firm formation and entry rates. For example, a 2004 World Bank study (World Bank 2004b) of Zambia noted that getting basic business licenses alone took five to six weeks for Zambians and nine to sixteen weeks for foreigners. The World Bank report made a series of recommendations aimed at shortening the time needed for both groups. The primary recommendations include eliminating the discretion that authorities exercise in issuing investment certificates, reducing the number of licenses required and the frequency of renewals, and decentralizing the registration process by opening regional and local registrar offices.

2.67. Thanks largely to the implementation of some of these recommendations Zambia is today one of the easiest countries in the SADC in which to set up a business. The estimated total time needed to set up the standardized Doing Business company was 40 days at around the time the FIAS recommendations were made in 2004. This included the time needed to complete the six procedures that the standardized company was expected to achieve. According to the 2010 Doing Business report, the number of required procedures is still the same as it was six years ago, but the time needed to complete them has dropped to 18 days (figure 2.18).

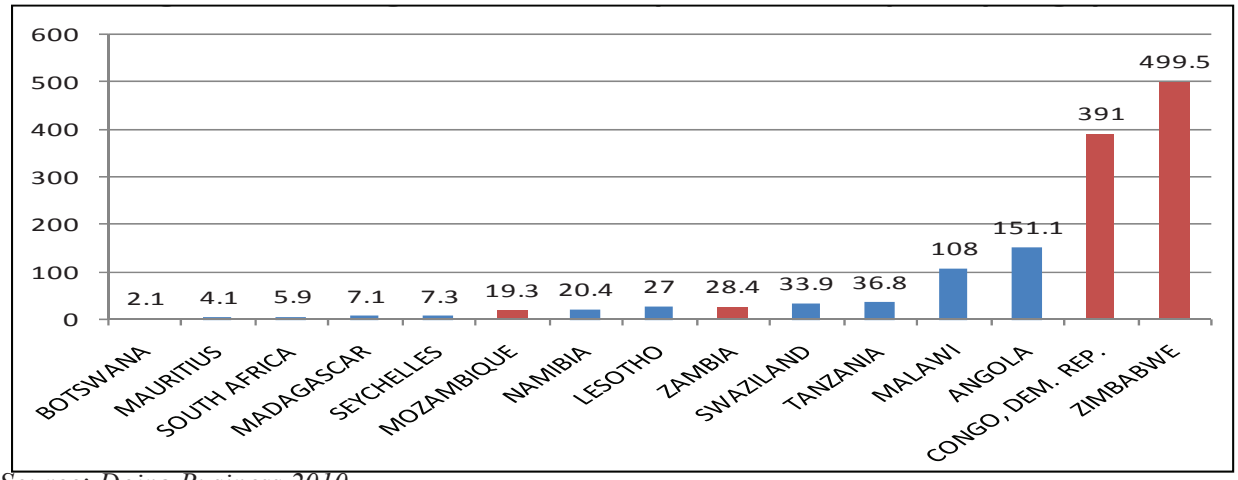
Figure 2.18: Days to start a business



Source: Doing Business 2010.

2.68. This is the third lowest number of days needed to set up the standard Doing-Business company within the SADC, higher only than those in Mauritius and Madagascar. At the other end of the spectrum are Namibia, Angola, Zimbabwe, and DRC, respectively, in increasing order, requiring 66 to 149 days (figure 2.16). Country rankings in the SADC are quite similar in terms of the Doing Business start-up costs, expressed relative to a country's per capita GDP, and are quite similar to those based on time taken (figure 2.19). In particular, the pattern remains consistent, with Angola, DRC, and Zimbabwe countries where setting up a business is the most difficult and most costly, and Mauritius, Madagascar, Zambia, and South Africa the countries where it is the easiest.

Figure 2.19: Start-up costs as percentage of per capita GDP (%)



Source: Doing Business 2010.

2.8. CONCLUSION

2.69. SADC countries are, by and large, labor-surplus economies, facing problems of high unemployment and widespread poverty that can be overcome to the extent that they can diversify production and exports into labor-intensive sectors. The basic message of the chapter is that cross-country differences in manufacturing and service productivity and exports in the SADC are associated with differences in business environments. As a rule, more successful exporters of manufactures are, on average, more open to trade; have lower trade costs, thanks to better geography and lower transport and regulatory costs; have fewer regulatory barriers to business formation; provide firms with better access to long term finance; have more reliable public utilities; and have better governance, in that firms face less corruption in their day-to-day transactions with government agencies.

2.70. Above all, more successful exporters of manufactures and services suffer far less from allocative inefficiency caused by in-country disparities in access to long-term finance; the provision of utilities; and the presence of quality governance among sectors, business size groups, and entry cohorts, as these successful exporters provide a more level playing field to everyone on those key dimensions of business environment.

2.71. The top exporters of manufactures in the region are South Africa, Mauritius, Lesotho, Namibia, Swaziland, and Malawi. With the exception of South Africa, these countries are also among the most open. Again, with the exception of Lesotho, they owe their exporting status to higher productivity of their manufacturing and services sectors than almost all others in the region. One major source of the productivity gap between productive manufactures exporters (South Africa, Mauritius, Namibia, Swaziland, and Malawi) and nonexporters (DRC, Angola, and Zambia) is differences in technical efficiency. The typical manufacturer in the former group operates closer to the global technological frontier of its industry than does its counterpart in the second group. A second source of the manufacturing and services productivity gap between the two groups is that low-productivity firms tend to have higher market shares in the second group

of countries (Angola, Zambia, and DRC) than they would have in the first group. The latter pattern is a reflection of the greater allocative inefficiency that seems to characterize industry in the nonexporting group, which has to do partly with the greater distortions arising from incountry disparities in business environment variables of the kind listed above.

2.72. One of the organizing concepts of the discussion in this chapter is that differences in the business climate between any pair of countries ultimately translate to differences in the cost of doing business between the countries. The differences in the cost of doing business, in turn, have effects on employment and productivity analogous to those of cross-country differences in a flat tax on business net incomes. A country in which the average cost of doing business is higher would have less employment and less output, and typically will be less productive. But the actual magnitude of the loss in employment and productivity in a country where the average cost of doing business is higher depends on the gap between the average costs, as well as on the differences in the variance of cost, across sectors and firms within each country. This chapter has therefore paid attention to cross-country differences in business environment indicators as well as to cross-country differences in the variation of each indicator between sectors and the size distribution of firms. Part of the productivity disadvantage of the nonexporters of manufactures in the region (Angola, DRC, and Zambia) has to do with their higher average trade costs and higher average cost of finance. But part also has to do with the greater disparity in how higher trade costs and higher costs of finance affect firms in those countries than is the case in countries that are more successful exporters.

2.73. A second organizing concept in this chapter has been that business environment problems impact employment and productivity in a given country, ultimately, by impeding the mobility of goods and capital, across or within borders, from locations and activities with high expected rates of return to those where returns are persistently lower. They can do this by either raising the investment risks in higher-return locations or activities or by erecting regulatory and administrative barriers to transactions. However, the focus of the chapter hasbeen on only the latter type of impediment to factor mobility and trade, to the exclusion of business environment factors operating through investment risk. Administrative or regulatory impediments to factor mobility and trade have been discussed under three headings: those relating to the direct regulation of entry and competition; indirect barriers to capital mobility (including those relating to access to finance, provision of infrastructure, and governance); and those relating to the regulation of cross-border trade.

2.74. Business environment factors operating through investments risk were set aside in this chapter to focus entirely on the implications for the employment and productivity levels, rather than on their growth and on investments. In the next chapter, our focus will shift to an analysis of the role that business environment developments have played in recent trends in FDI, and on investment, more generally, in the region.

CHAPTER 3.
BUSINESS ENVIRONMENT REFORMS AND FDI

3.1. INTRODUCTION

3.1. In a world of international inequality, where goods do not cross borders freely and domestic savings and growth rates vary among countries, cross-border capital mobility is a major source of growth and regional economic convergence. In that context, FDI provides a benefit that domestic investment does not necessarily: FDI projects are often vehicles for the international transfer of technology and knowhow. This chapter provides some evidence that, for these reasons, inward FDI has been a major source of productivity growth in Southern Africa.

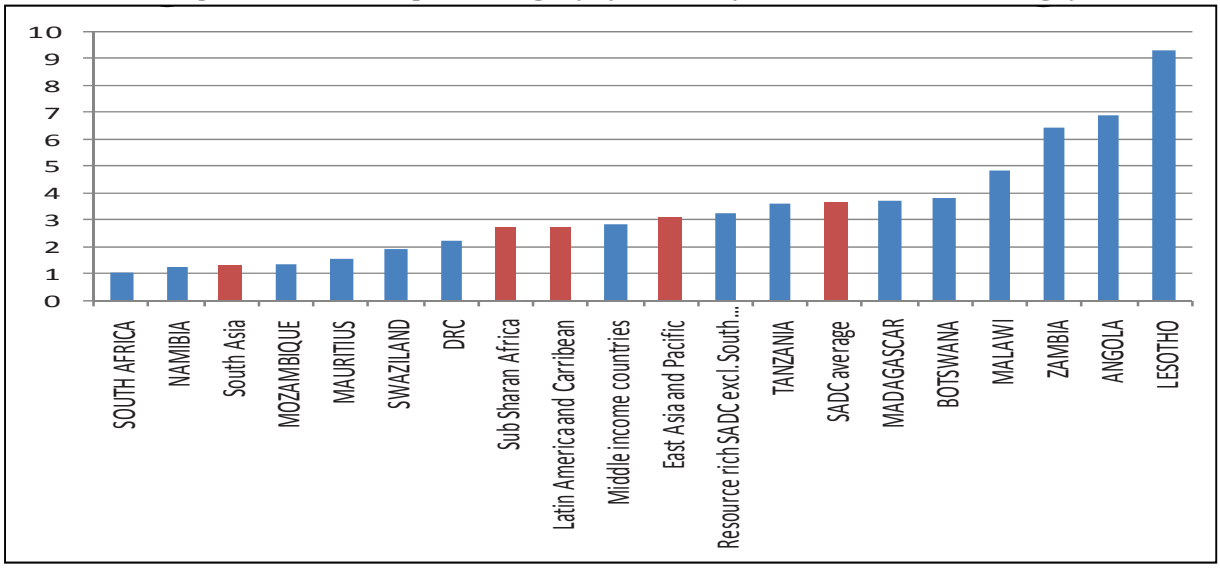
3.2. Fixed business investment decisions depend on risk-adjusted expected rates of return to capital. Indeed, if there are significant and persistent intra-SADC cross-country differences in the expected rate of return to capital, there should be significant differences in investment risk between countries, or barriers to the mobility of capital between SADC countries and the rest of the world. In many cases, differences in investment risk can be traced to specific business environment variables, one of which is the prevailing political climate. FDI and domestic investment could also be held back by legal and regulatory barriers.

3.3. Over the past decade SADC countries have attracted high FDI for their levels of income. Although almost every country has had a significant share of this growth, some have attracted far more FDI than would be predicted by their economic size or resource endowment; others have had less than their share. Some differences in inward FDI rates can be attributed to differences in key business environment factors that have made some countries a more risky location for investment than others, or have otherwise impeded the intraregional and extraregional mobility of capital. World Bank Enterprise Survey data suggest that there are large cross-country gaps in the marginal productivity of capital. As the data are cross-sectional, we cannot tell how persistent over time these gaps have been. However, the magnitude of the gaps suggests that the differences likely signal patterns of a long-term nature. This view is corroborated by persistent cross-country differences in business environment variables that are likely to impact the capital mobility within and across borders. On this view, patterns in expected rates of return and investment suggest that Tanzania, Mozambique, Malawi, and Swaziland, should have attracted far more inward FDI than they are currently realizing, while Angola and Zambia are not likely to sustain the FDI levels they have had in recent years.

3.2. TRENDS IN INWARD FDI

3.4. The SADC region has attracted higher FDI per capita in recent years than most other developing regions (figure 3.1). Though most of this has been in mining, resource-poor countries have also attracted more than their share of FDI. In almost every case, FDI inflows have financed large shares of domestic savings, without which growth rates would have been significantly lower than they are currently.

Figure 3.1: FDI as percentage (%) of GDP (2002–08 annual average)



Source: World Development Indicators

3.5. The countries that have attracted the highest level of FDI relative to GDP in recent years are Malawi (4.8 percent), Zambia (6.4 percent), Angola (6.7 percent) and Lesotho (9.4 percent). Two of these, namely, Malawi and Lesotho, are low-income and resource-poor, but have done better in attracting more FDI per capita than far wealthier, resource-rich countries including South Africa, Namibia, and Botswana. The countries that have attracted the least FDI on a per capita basis are South Africa (1.1 percent), Namibia (1.2 percent), Mozambique (1.3 percent) and Mauritius (1.6 percent).

3.6. Out of the four countries that attracted the highest volume of FDI per capita, Malawi and Angola grew at rates well over the SADC average, while Zambia grew at a rate close to the SADC average. Lesotho grew at a pace well below the regional average (table 3.1). The growth rates of the four countries that attracted the least FDI on a per capita basis—South Africa, Namibia, Mozambique, and Mauritius—were all well below the SADC average, although three of these were relatively more prosperous countries that would be expected to grow more slowly in any case. However, with the exception of Botswana and Namibia, almost all of the countries in both groups have a domestic savings shortfall, so growth would have been less than what was actually observed with less FDI than they managed to attract (table 3.1). In fact, from 2000 to 2008, FDI financed shortfalls in domestic savings in more than half of the SADC member

countries, namely, Mauritius, South Africa, DRC, Malawi, Mozambique, Madagascar, and Zambia (figure 3.2).

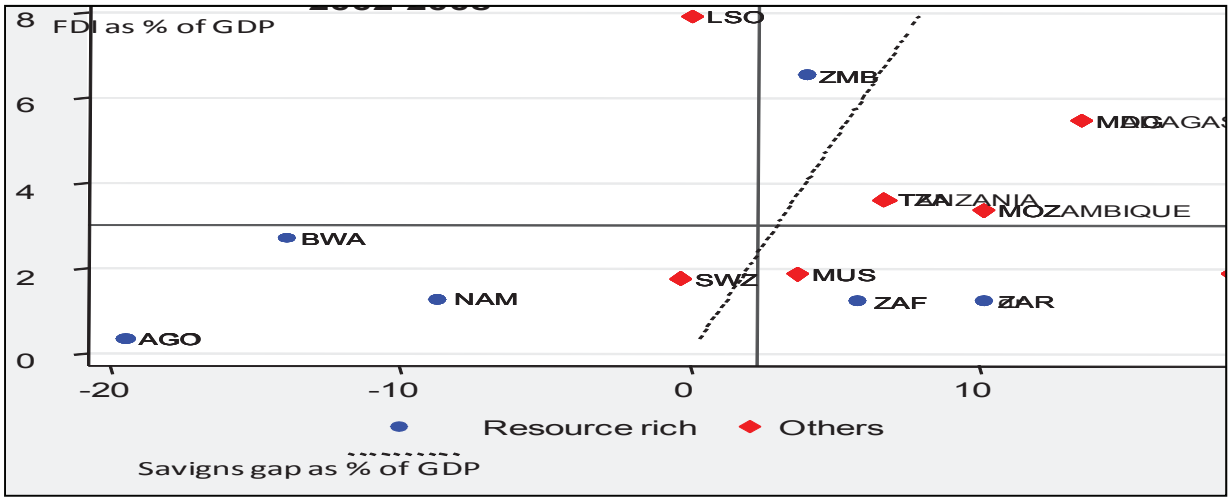
Table 3.1: Key economic indicators (2002–08 average)

Country	GDP Growth	FDI as % of GDP	Savings as % GDP
ANGOLA	14.75	6.87	24.59
BOTSWANA	3.86	3.78	50.03
LESOTHO	3.99	9.29	26.31
MADAGASCAR	3.59	3.69	12.51
MALAWI	7.61	4.82	9.87
MAURITIUS	4.11	1.56	22.58
MOZAMBIQUE	5.23	1.31	5.20
NAMIBIA	5.39	1.23	28.31
SWAZILAND	2.76	1.87	13.26
TANZANIA	6.91	3.56	10.75
SOUTH AFRICA	4.30	1.02	14.73
DRC	5.97	2.20	6.19
ZAMBIA	5.35	6.41	16.27
SADC average	*5.68*	*3.66*	*18.51*

Source: World Development Indicators.

3.7. In table 3.2 and figure 3.3, we compare SADC countries in terms of the absolute volume of inward FDI for 2007, immediately before the global recession in 2008. Not surprisingly, the chart shows that South Africa and other resource-rich countries are by far the dominant destinations of FDI to the region; South Africa accounts for approximately 25 percent of the regional total, followed (in descending order) by Angola, Zambia, Madagascar, Namibia, DRC, Mozambique, and Mauritius. Although FDI is still low on a per capita basis in several of these other destinations (figure 3.1), the increase in FDI inflows to these countries has been significant over the past decade. Aside from South Africa, the higher levels of inflows to these countries are most responsible for recent rapid growth in inward FDI SADC-wide. In more recent years, the growth in inward FDI has been steepest in resource-poor economies, namely, Mauritius, Malawi, Lesotho, and Madagascar (figure 3.4), which have also attracted the most FDI per capita (figure 3.1). Among resource-rich countries, rapid growth in inward FDI in recent years has occurred in Angola and Zambia (figure 3.5), where FDI averages are among the highest on a per capita basis.

Figure 3.2: FDI and the savings gap in SADC countries (2002–08)

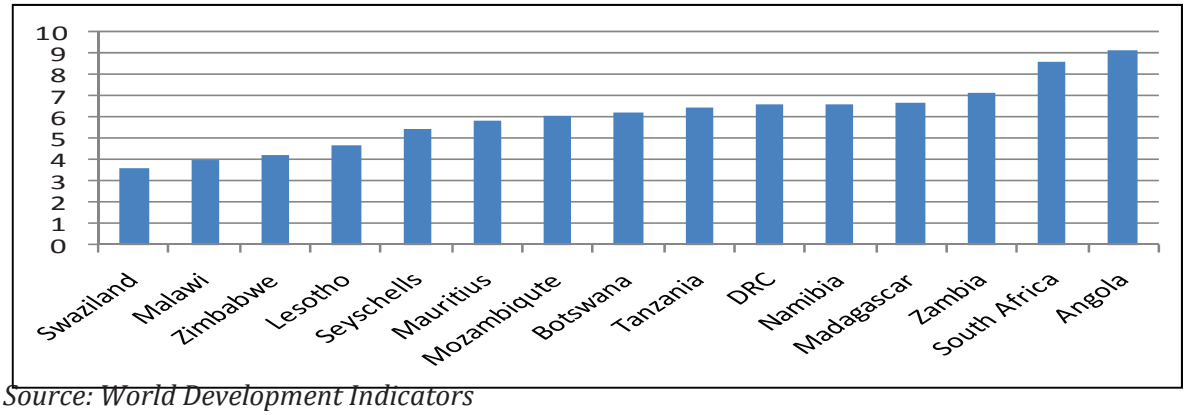


Source: World Development Indicators

3.8. Asian inflows, particularly from China, are an important component of this growth (Wordl Investment Report 2008). The 2008 World Investment Report identifies three important instances of Asian FDI: the Industrial and Commercial Bank of China acquired a 20 percent stake in Standard Bank (South Africa) for approximately US$6 billion; inflows into Mozambique escalated significantly as a result of increased investment in the aluminum industry, which was driven by higher demand from China; and higher FDI flows into the Zambian copper industry, particularly the Lumwana Mine and the Konkola Deep Mining Project.

3.9. Despite the decline in South Africa's relative importance of as a destination for FDI from the rest of the world, the country still dominates FDI stock in the SADC. For example, in 2007. South Africa accounted for two-thirds of the SADC stock (table 3.2). South Africa is also a major source of FDI to other countries within the SADC, with outward FDI to the rest of the world having increased steadily since the mid-1990s. Within the SADC, the most important destinations for South African outward FDI have been Mauritius, Mozambique, Zimbabwe, Namibia, Tanzania, Malawi, Swaziland, and Botswana (respectively) (figure 3.6). Although other SADC members are also sources of inward FDI in South Africa, these are small relative to flows in the reverse direction (figure 3.7).

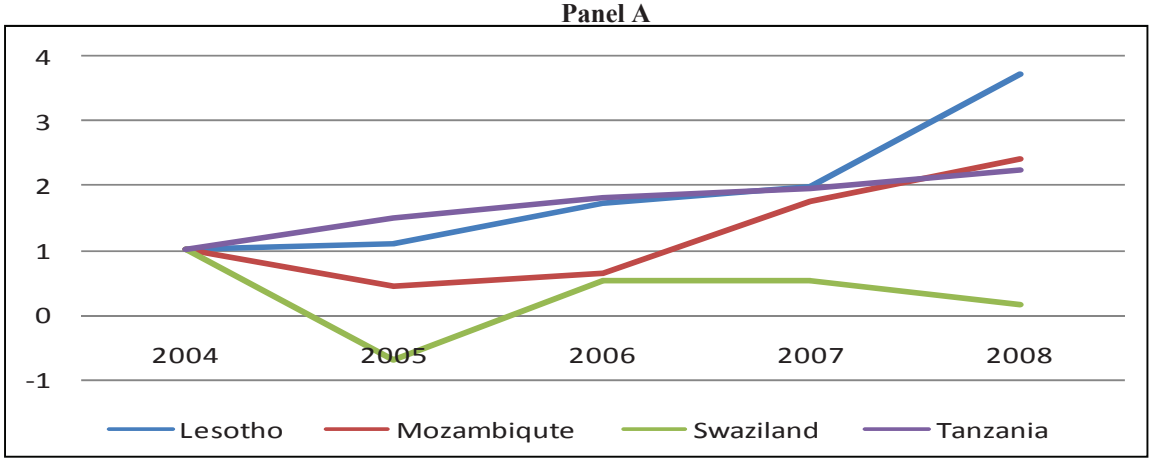
Figure 3.3: Inward FDI in log units of US$ million at current prices (2007)]



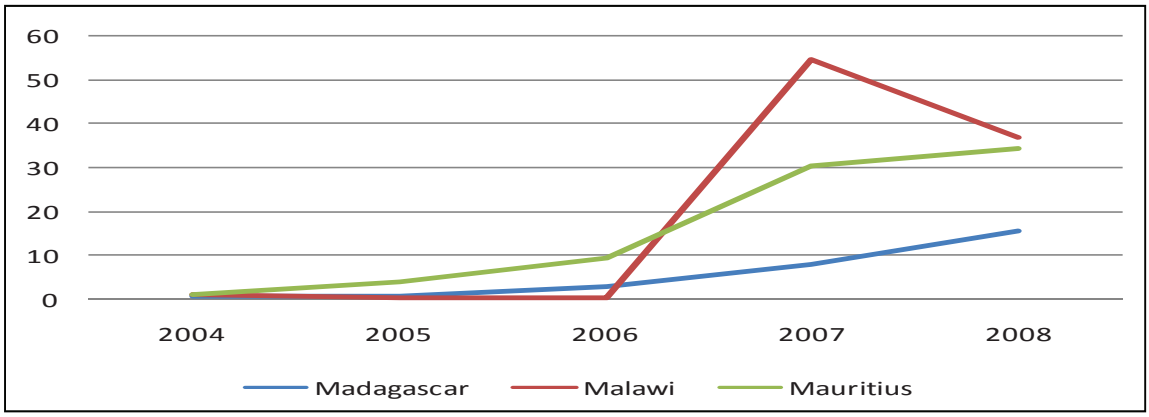
Source: World Development Indicators

Figure 3.4: Inward FDI in selected resource-poor SADC countries (2004–08), 2004=1

Panel A



Panel B



Source: World Development Indicators

3.10. Thus far, we have compared countries primarily in terms of FDI inflows. Among other factors, inflows largely depend on the existing stock of FDI and capital (in general), therefore comparisons in terms of FDI stocks are also important in understanding why some countries might attract more inflows than others over a particular time interval. With a per capita FDI stock of US$2,000, or more, South Africa and Namibia top the list in Figure 3.8, followed by Mauritius at some distance. At the other extreme of that list are DRC, Malawi, Madagascar, Zimbabwe, Mozambique and Tanzania, for which per capita FDI stocks range from US$22 to US$161. In between these extremes are Lesotho, Zambia, Angola, Botswana and Swaziland for which the per capita stock ranges from US$310 (Lesotho) to US$810 (Swaziland).

3.11. The basic pattern suggests that low-income countries, resource-poor countries, and landlocked countries have accumulated far less FDI stock over the years, mainly by virtue of having attracted very little resource-seeking FDI that ultimately went into the mining sectors of their resource-rich counterparts.

Table 3.2: Gross savings rates and inward FDI stock and flows (2007)

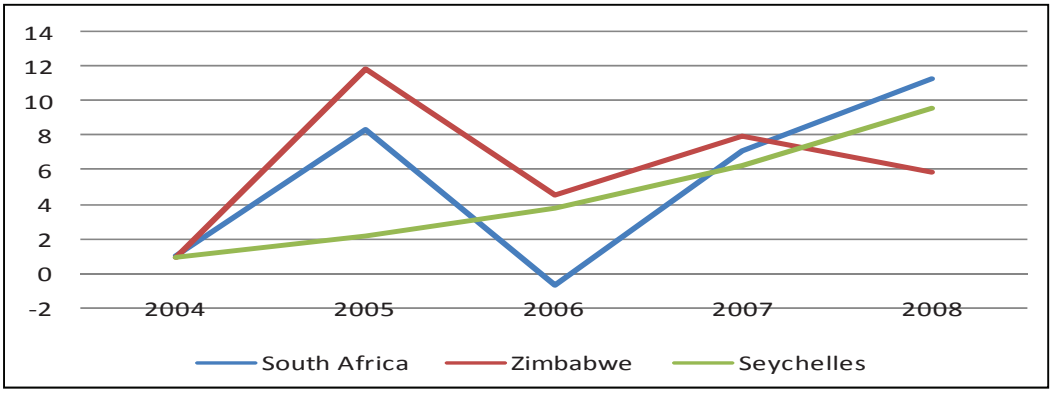
US $ million at current price, where units are not indicated

Country	Gross saving (% of GDP)	FDI inward flow	FDI inward stock
Seychelles	-3.35	247.80	864.38
Zimbabwe	-0.40	68.90	1,491.95
DRC	8.26	720.00	1,512.27
Mozambique	9.29	427.36	3,216.13
Malawi	9.44	54.64	590.26
Tanzania	10.45	599.50	5,942.00
Madagascar	13.96	996.88	1,829.53
South Africa	14.03	5,692.06	93,474.17
Swaziland	18.15	37.50	888.55
Mauritius	19.84	338.91	1,248.96
Zambia	22.95	983.90	5,375.14
Namibia	29.32	697.48	3,822.47
Angola	32.81	-1,499.87	12,206.51
Lesotho	39.07	105.70	734.88
Botswana	55.61	494.90	1,300.00

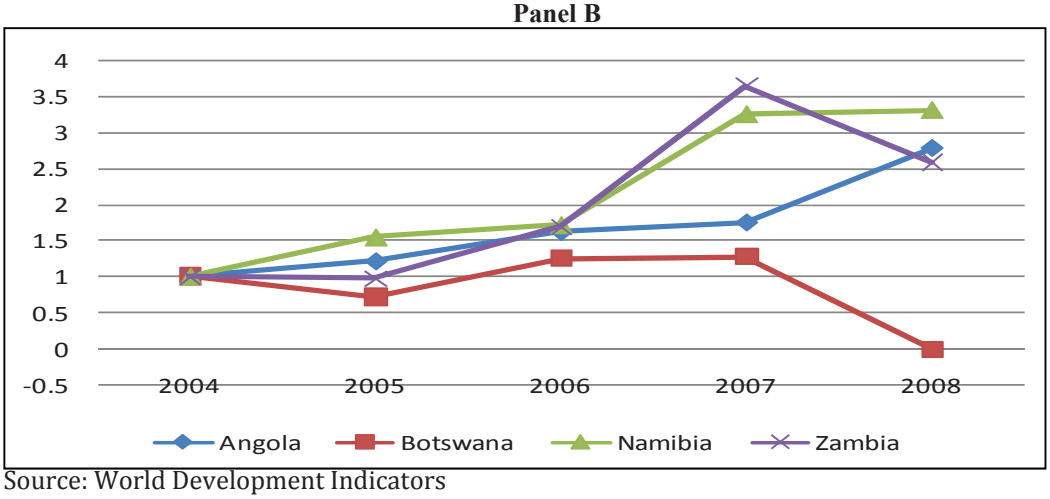
Source: World Development Indicators

Figure 3.5: FDI in selected SADC countries (2004–08), 2004=1

Panel A

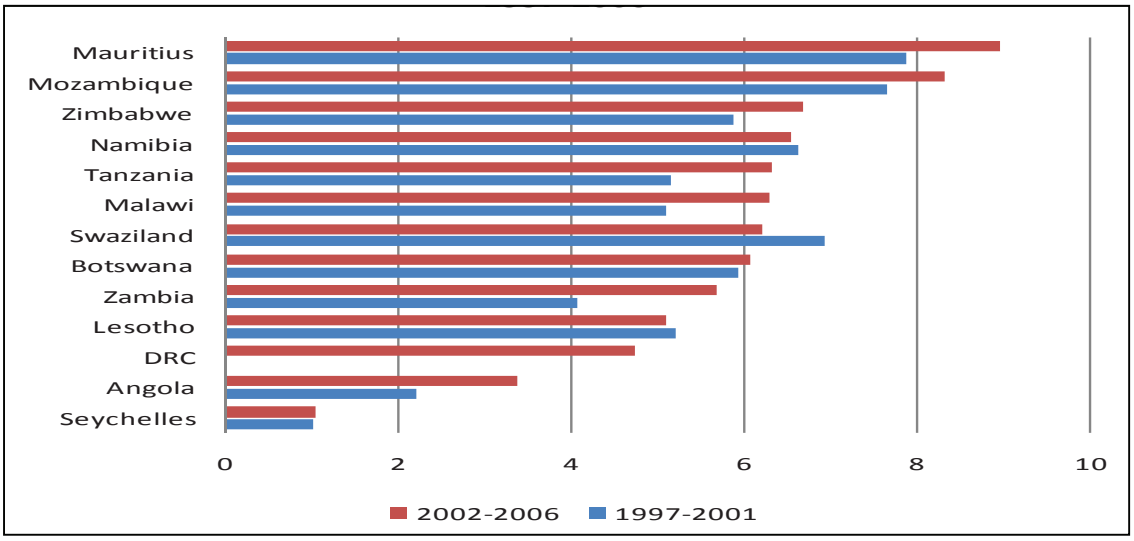


Panel B



Source: World Development Indicators

Figure 3.6: Direct South African Investment in SADC countries (log units of R million), annual averages (1996–2006) –Reserve Bank of South Africa

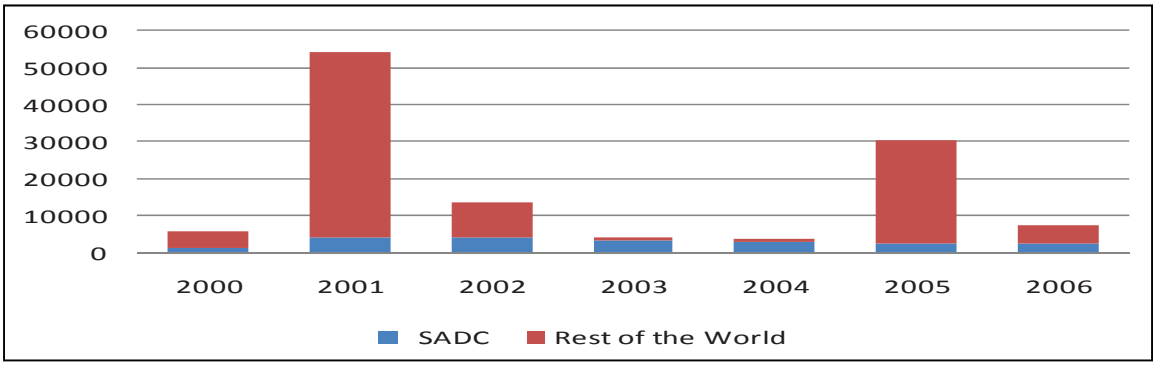


Source: South African Reserve Bank

3.3. FDI IN MANUFACTURING AND SERVICES

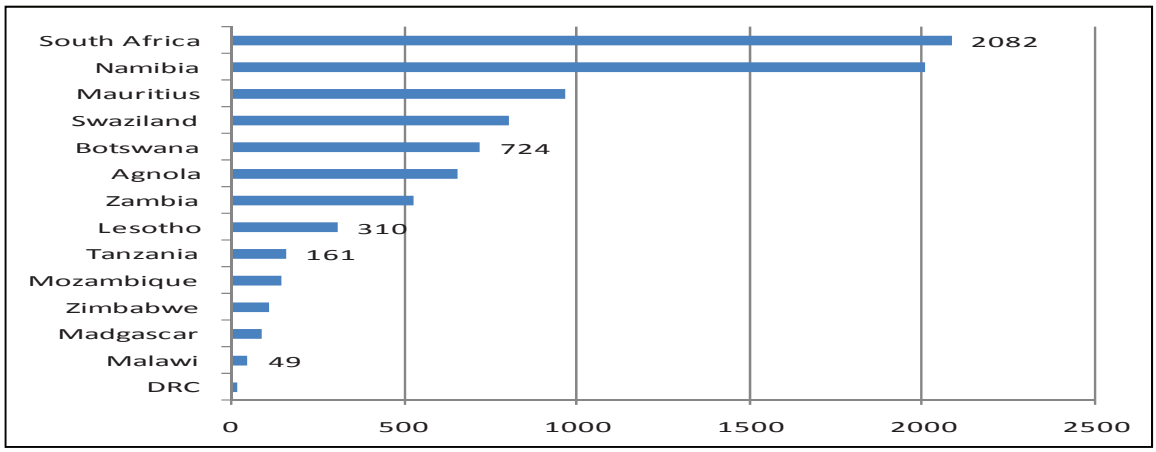
3.12. Although a large proportion of recent inward FDI outside of South Africa is concentrated in mining, much of it has also gone into services, agro-business, and manufacturing. In this second group of sectors, FDI projects have often been platforms for export in resource-poor countries, although they are largely confined to the domestic market in resource-rich countries. This latter pattern is reflected in Enterprise Survey data, where foreign-invested enterprises are far more likely to be in export businesses in countries that have been more successful exporters of manufactures, namely, Lesotho, Malawi, and Swaziland (figure 3.9). By contrast, foreign-invested manufacturers have tended to be more import-substituting ventures in Botswana and DRC.

Figure 3.7: FDI in South Africa by Source, R million at current prices (2002–06)



Source: South African Reserve Bank

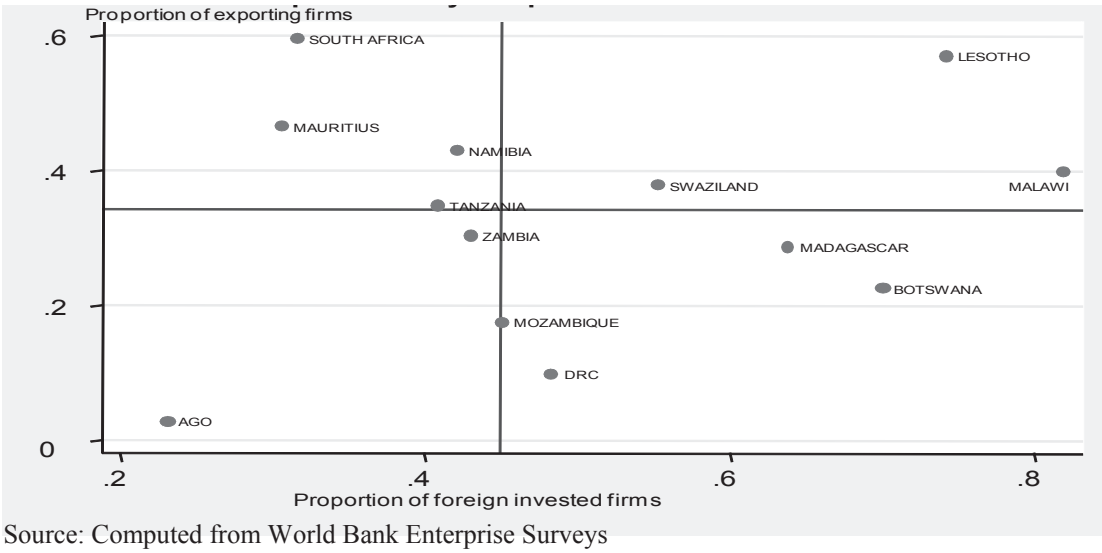
Figure 3.8: Stock of inward FDI per capita at current prices (US$) (2007)



Source: World Development Indicators

3.13. The Enterprise Survey data also suggests that FDI has been a significant source of labor productivity growth in the region. This is largely because it has led to the establishment of larger and better equipped businesses in manufacturing and services, a process through which it has facilitated the transfer of know-how and technology from abroad. Across the region, labor productivity is about 60 percent higher in foreign-invested enterprises than in businesses that are entirely owned by domestic entities. Figure 3.10 shows that this masks significant cross-country variation, with labor productivity of foreign-invested firms being as much as 90 percent higher than other businesses in Mauritius and Tanzania, while being comparatively low in Angola, and negligible in Swaziland. However, the labor productivity advantage of foreign invested companies ranges between 40 percent and 60 percent in all other countries of the SADC—significantly higher, on average, in low-income than middle-income countries, in resource-poor than resource-rich countries, in large countries than in smaller ones, and in coastal or island nations (figure 3.11).

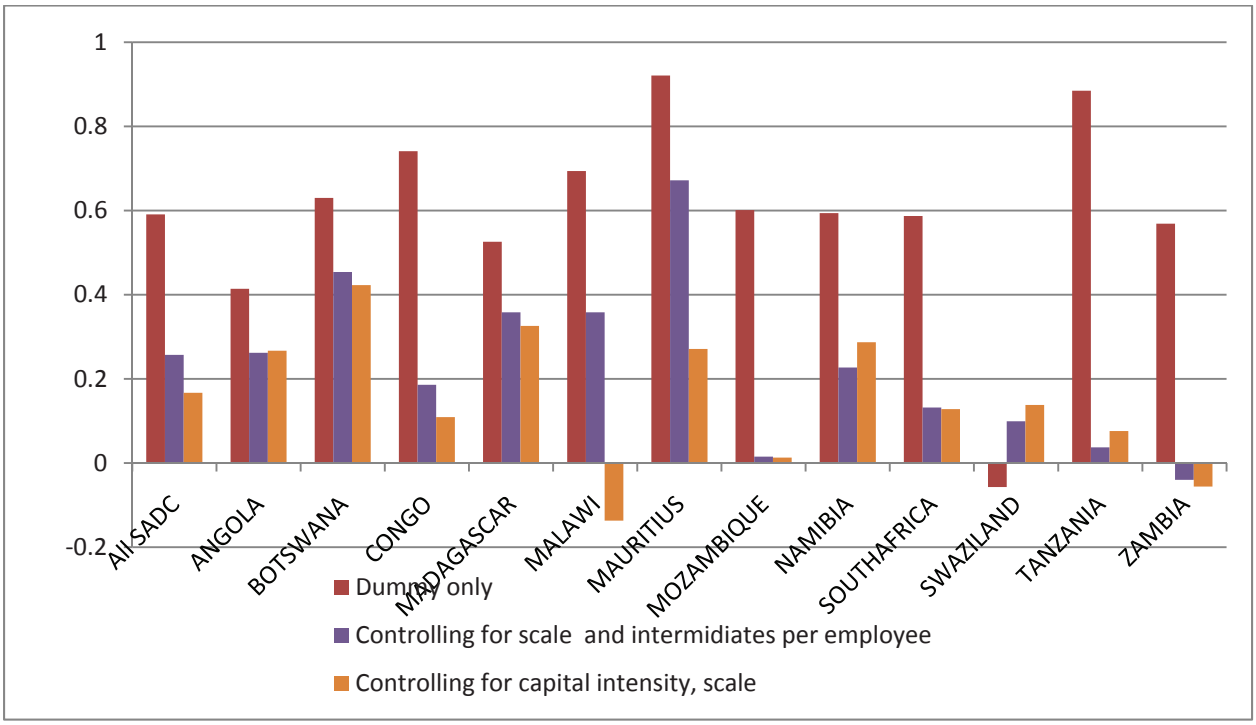
Figure 3.9: Export market participation and foreign investment



Source: Computed from World Bank Enterprise Surveys

3.14. Much of the labor productivity advantage in foreign-invested enterprises arises from the fact that these establishments are generally larger than entirely local enterprises and therefore have the advantages of scale. Indeed, economies of scale drive the labor productivity advantages of foreign invested businesses almost entirely in all large members of the SADC, that is, in DRC, Mozambique, South Africa, Tanzania, and Zambia (figures 3.9 and 3.10). However, foreign-invested companies are also far more capital-intensive in other SADC countries, where the labor productivity advantage of those companies is also a result of a workforce equipped with more and better fixed assets. This is particularly the case in Angola, Botswana, Madagascar, Malawi, Mauritius, and Namibia (figure 3.9), and is, as a rule, more true of middle-income than low-income economies, and more true of small countries than larger ones.

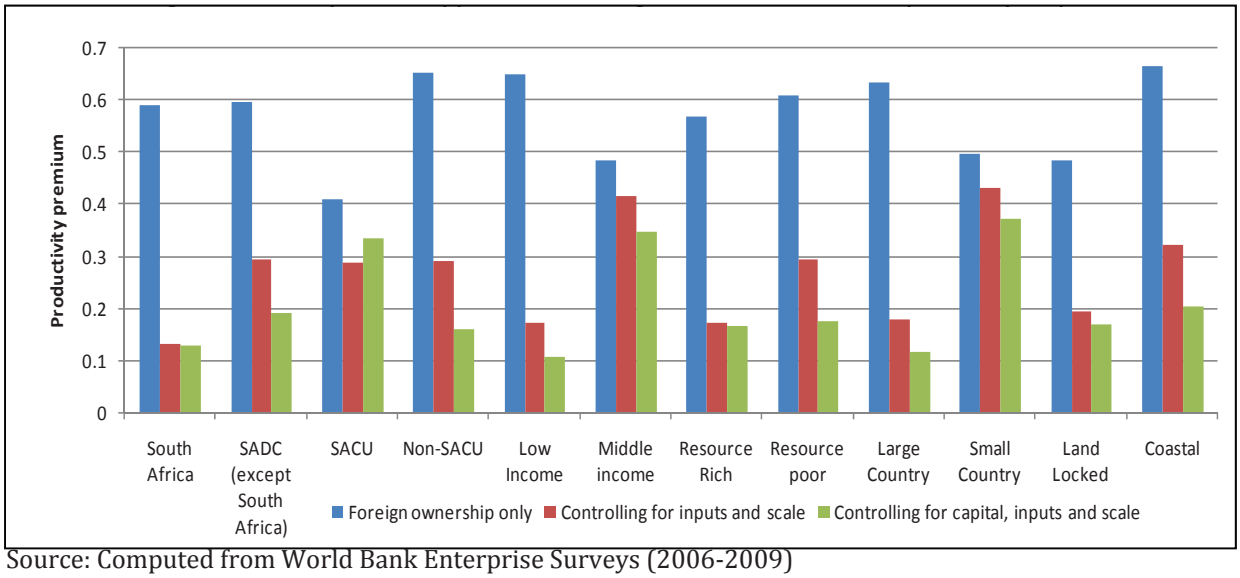
Figure 3.10: Labor productivity premium of foreign invested enterprise



Source: Computed based on World Bank Enterprise Surveys 2006-2009

3.15. The Enterprise Survey data also suggest that, in countries where labor productivity gains are associated with higher investment in equipment, FDI might have led to significant total factor productivity (TFP) gains as well, presumably through the transfer of know-how and organizational innovation associated with the utilization of the new equipment. As described by the orange colored bars of figure 3.10, the TFP premiums of foreign-invested enterprises are particularly high in Botswana, Madagascar, Mauritius, Namibia, and Angola—from 22 percent to 40 percent. As a rule, the premiums are higher in small countries than in larger ones, in resource-poor countries than in resource-rich ones, and in middle-income countries than in low-income ones.

Figure 3.11: Labor productivity premium in foreign-invested firms

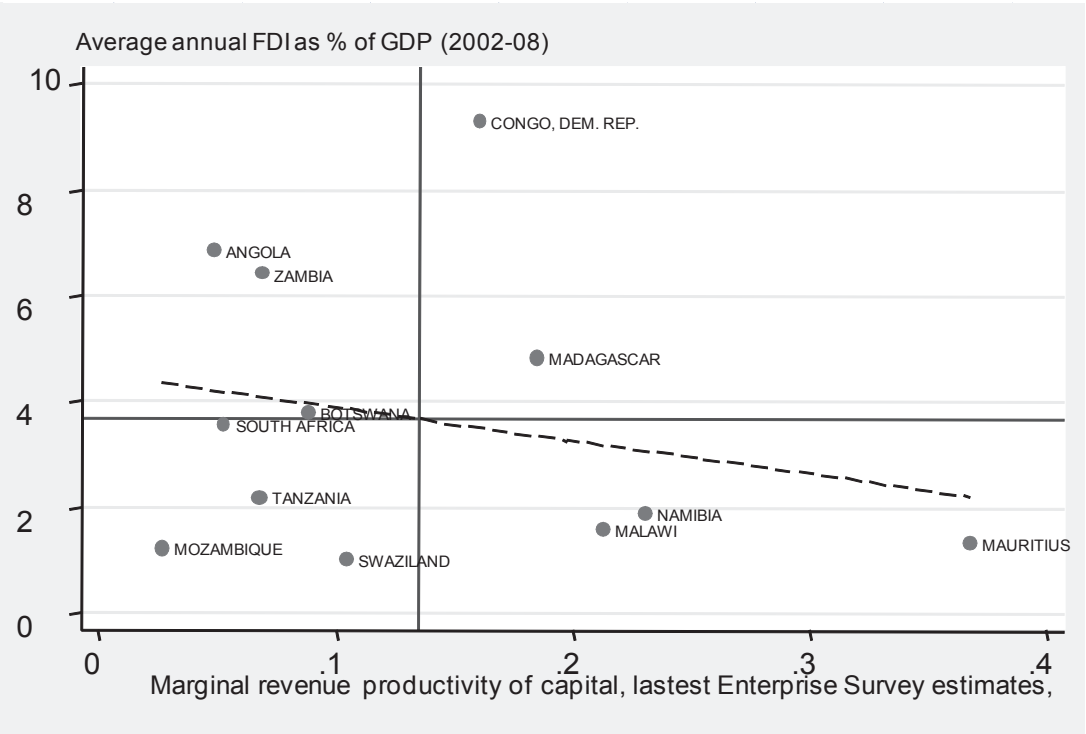


Source: Computed from World Bank Enterprise Surveys (2006-2009)

3.4. CROSS-COUNTRY DIFFERENCES IN THE MARGINAL PRODUCTIVITY OF CAPITAL: WHO IS ATTRACTING TOO LITTLE FDI?

3.16. Figure 3.12 suggests that there is huge cross-country variation in the marginal revenue productivity of capital. It also suggests that there is underinvestment in Mauritius, Malawi, and Namibia, as FDI inflows are well below what would be predicted by the marginal revenue productivity of capital in those countries. Though lower than in Mauritius, Malawi, and Namibia, levels of the marginal revenue productivity of capital seem to warrant more inward FDI than observed in recent years into the manufacturing and service sectors of South Africa, Tanzania, Mozambique, and Swaziland. On the other hand, the evidence is one of overinvestment, if anything, in DRC, Madagascar, and Zambia.

Figure 3.12: FDI inflows and marginal productivity of capital



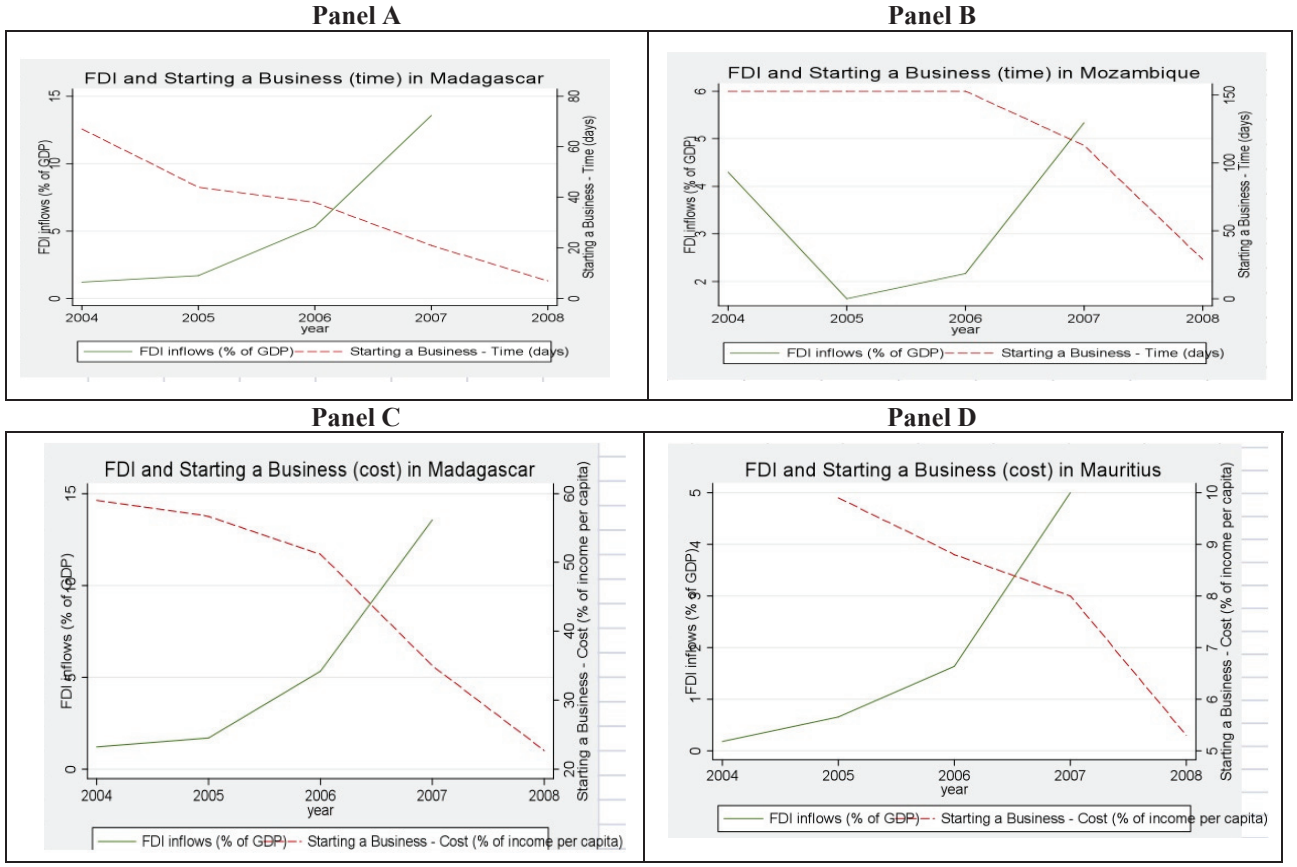
Source: Computed from World Bank Enterprise Surveys and World Development Indicators
Note: Productivity of capital cannot be computed for Lesotho because of lack of information on capital stock

3.5. THE ROLE OF BUSINESS ENVIRONMENT REFORMS

3.17. To sum up: As a group, SADC countries have attracted significantly more FDI over the past decade than over the previous one, and far more than would be predicted by the region's share of global incomes. However, at the same time, it is clear that some countries account for disproportionately high shares of both recent growth in, and current levels of, FDI in the region. The discrepancy is evident both in terms of patterns of needs and cross-country differences in investment opportunities. At the level of needs, resource-poor countries that typically need higher inflows to finance domestic savings shortfalls for faster growth have attracted far less FDI per capita than resource-rich countries, which often have unusually high saving rates. At the level of opportunities, there are very large cross-country differences in the expected rate of return to capital in the region; these seem to warrant far higher levels of inward FDI to some SADC members than they have realized in recent years. In particular, South Africa, Tanzania, Mozambique, Malawi, Swaziland, Namibia, and Mauritius need to attract far more inward FDI than they currently realize. On the other hand, it seems unlikely that Angola, DRC, Zambia, and Madagascar would be able to continue to absorb the level of FDI inflows they have seen in recent years, given the low expected rates of return on their existing capital stock relative to other member countries.

3.18. What explains this apparent misallocation of capital between member countries? Why is more FDI not flowing to the countries with relatively high rates of return? One possible answer is that our data is capturing only the moment before flows adjust to the discrepancy. It is also possible that the cross-country discrepancies in the rate of return seen in current data will be there for some time, as a result of persistent differences in investment risk among countries, or of other institutional and regulatory impediments to new investment projects in the high-rate-of-return countries. In other words, it is possible that disparities in business environment are at least part of the reason why some countries are attracting lower levels of investment.

Figure 3.13: In at least three countries, decline in start-up costs has followed or coincided with spikes in FDI flow



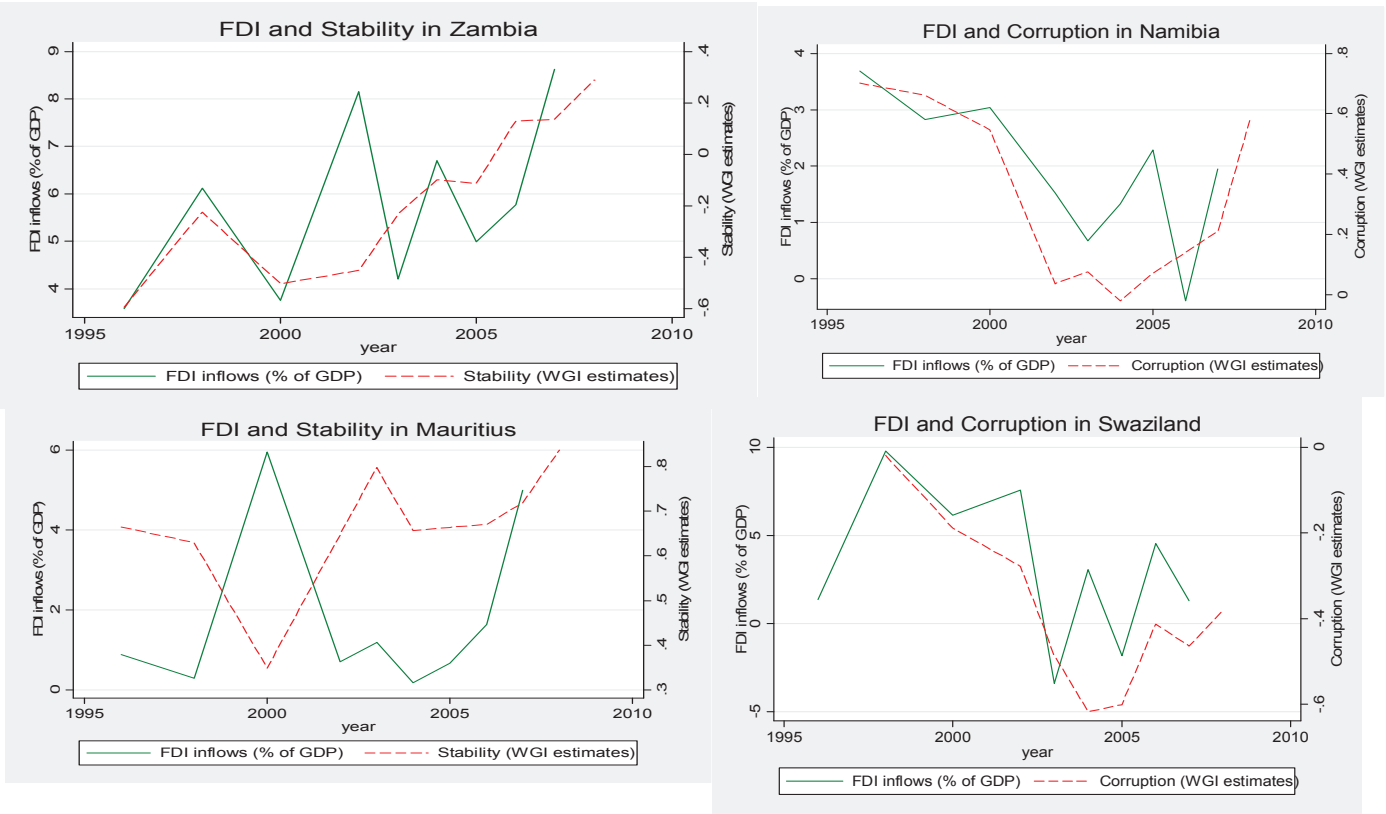
Source: World Bank Governance Indicators and World Development Indicators

3.19. That is indeed our working hypothesis throughout this report and is backed up by anecdotal evidence shown in figure 3.13. Panel A of figure 3.13 shows the association between the 2004 reforms in Madagascar that sharply reduced the number of days needed to set up the standard Doing Business company and the sharp increase in inward FDI per capita between 2005 and 2008. The 2004 reforms also drastically reduced start-up costs; the association with FDI inflows is shown in panel C of figure 3.13. Panel D shows a similar association between reforms that reduced start-up costs in Mauritius from 2005 and the sharp increase in inward FDI in that country from 2006. Panel B also shows a similar association in Mozambique since 2006: reforms that reduced the number of days needed to set up a business positively affect inward FDI.

3.20. Figure 3.14 illustrates the association between political governance and stability and inward FDI flows. Panels A and B show that from 1995, FDI flows in Namibia and Swaziland mimicked the movement of the control of corruption index for the respective countries reasonably well. Panels C and D show that movements in inward FDI more or less tracked those of the political stability indexes of Zambia and Mauritius.

3.21. We have used two of the most widely used Doing Business indicators in figure 3.13, and in figure 3.14, two of the most widely used World Bank Governance indicators. In the remainder of this chapter, we discuss trends in the two pairs of indicators across all SADC member countries, and their association with recent trends in FDI. Before doing so, however, we need to explain why we have chosen the particular pairs available in each database.

Figure 3.14: FDI and the quality of governance in Mauritius, Namibia, Swaziland and Zambia



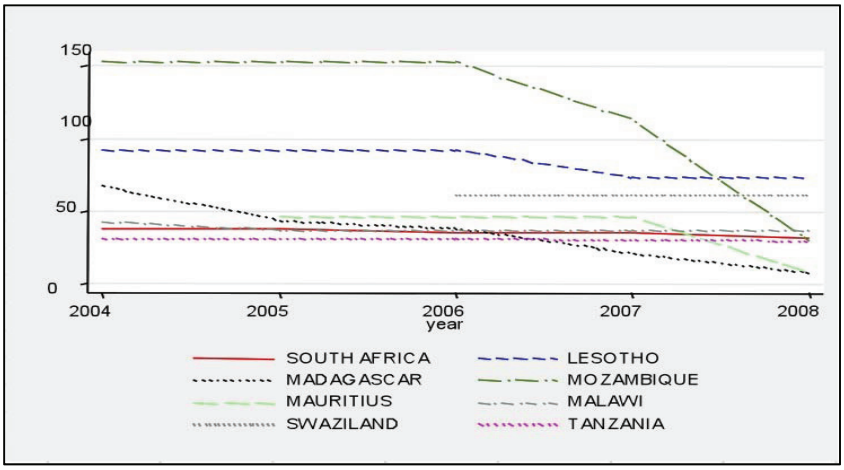
Source: World Bank Governance Indicators and World Development Indicators

3.22. The Doing Business indicators that are most directly related to the cost, ease, and implementation of investment projects are the time it takes to set up a business and start-up costs, with the assumption that other things being equal, a country where it would take longer to set up

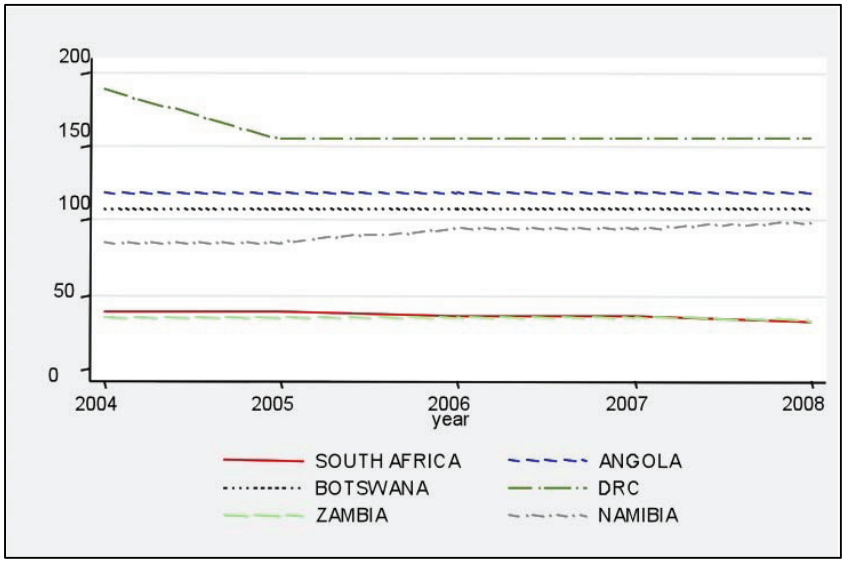
a business or would cost more to do so would have a lower domestic investment rate and attract less FDI. One would therefore expect recent increases in inward FDI and its allocation among SADC members to have been influenced by reforms that have resulted in lower start-up costs or reduced set-up time in many countries in the region (as in Madagascar, Mozambique, and Mauritius, as figure 3.13 suggests). The variables relating to other Doing Business indicators, including those of employment regulation and contract enforcement, should also be important influences on the mobility of capital. But these influences are less direct than those of start-up costs and set-up time, and will be discussed in the chapters dealing with the labor market and financial market integration.

Figure 3.15: Days needed to start a business

Panel A: Resource-poor countries



Panel B: Resource-rich countries



Source: World Bank Doing Business Report, various annual issues

3.23. The two indicators of governance depicted in figure 3.14—the index of political stability and the index of control of corruption—are intended here to complement the Doing Business

indicators of set-up time and start-up costs as influences on domestic investment or international mobility of capital. The Doing Business indicators of start-up costs and set-up time do not measure investment risk but would have a predictable effect on FDI and domestic investment rates, controlling only for risk. The index of political stability and the index of control of corruption indicate important sources of noninsurable risk of loss or expropriation, which might explain their tendency to track movements in FDI well, as illustrated by the cases in figure 3.14. As such, they are probably more enduring influences on investment and growth than set-up costs, and seem to be fairly reliable indicators of what Acemoglu and Johnson (2005) call "property rights institutions." These are institutions that provide private agents with protection from predation by the state or powerful elites, and therefore exert stronger and more lasting influence on investment than what Acemoglu and Johnson call "contracting institutions," that is, those governing contracts between private agents in trade and in financial and labor markets. While private agents usually circumvent the problem of poor contracting institutions by developing informal substitutes, the argument is that there is little they can do to counter the predatory exercise of political power, and therefore withdraw entirely from activities or transactions that they would have undertaken under a stable, predictable, and transparent political system.

3.5.1 BUSINESS ENVIRONMENT REFORMS AND START-UP COSTS

3.24. A striking aspect of developments in business environment development in Southern Africa in the second half of the last decade is the rapid convergence of resource-poor countries to South Africa's score in terms of the time needed to set up a business—while there was no sign of change in that indicator in any resource-rich country (figure 3.15). It takes about 20 days to set up the standard Doing-Business company in South Africa today, which has been the norm in that country for well over a decade and certainly since the start of the Doing Business program in 2004. With the exception of Tanzania, which has always scored better than South Africa on the same indicator, and Malawi, which always has had a score comparable to South Africa's, the number of days needed in 2004 was higher than the South African norm in all other countries, and was particularly so in resource-rich countries.

3.25. In 2004, it took 190 days to set up the standard business in DRC, which was the highest for any SADC country. Angola and Botswana were not far off, setting up a standard business in 110 days and 105 days, respectively. Namibia required around 80 days, and only Zambia's number of required days was comparable to South Africa's at the time. Although DRC's number dropped to around 150 days by 2005, it has remained unchanged since then, as have the days in Angola, Botswana, and Namibia.

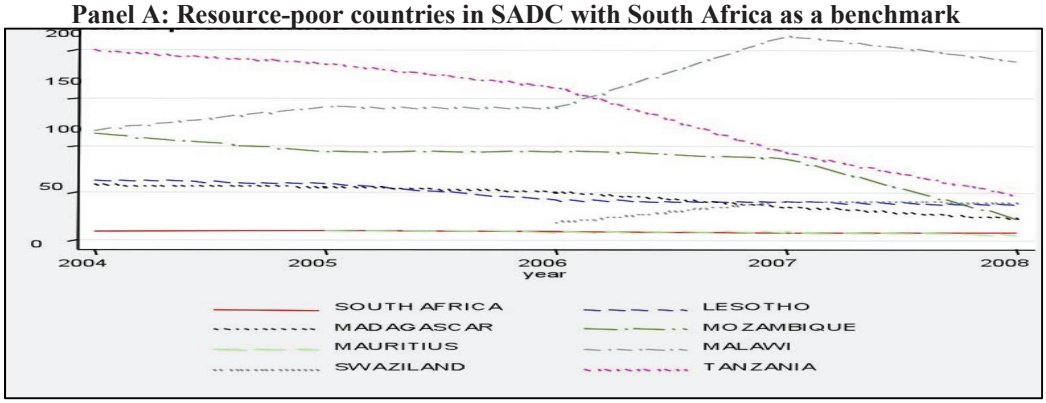
3.26. By contrast, with the exception of Lesotho and Tanzania, all resource-poor countries had carried out regulatory reforms by 2008 that reduced the number of days needed to South Africa's level, or even lower. In fact, Tanzania's required number of days had always been lower than South Africa's, leaving Lesotho the only true exception in this case, having reduced its number of days from 90 to 60. However, Lesotho continues to have one the highest numbers in the region. The steepest cut was Mozambique's, from 150 to currently around 20. Mauritius and Madagascar also made changes that reduced their number of days to fewer than in South Africa, although they both had numbers lower than 50 days in 2005.

3.27. In terms of changes in start-up costs (adjusted for cross-country differences in per capita wealth), there is not a sharp contrast between resource-rich resource-poor countries in recent years—as there has been in change in days needed to set up a business. The cost of setting up a business has more than doubled since 2006 in Malawi, which is among the resource-poor group, and the only country in the region where costs have gone up since 2004. The steepest improvements since 2004 have been in Angola and DRC, as evidenced in figures 3.15A and 3.15B. However, these two countries continue to have far higher start-up costs than any other country in the region, except for Zimbabwe. As well, start-up costs have declined sharply in the larger resource-poor economies of Tanzania, Mozambique, and Madagascar, from 80 up to 200 percent of per capita income in 2004, to under 40 percent of per capita income by 2008.

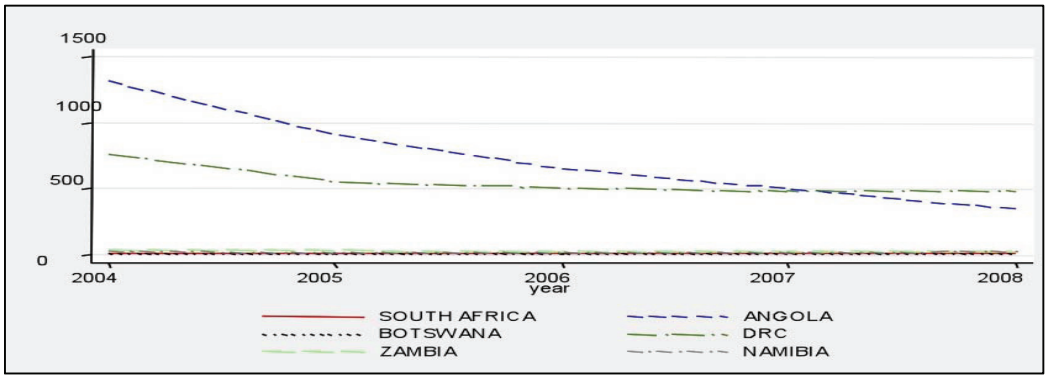
3.28. In short, it is reasonable to conclude that as a result of administrative reforms carried out in resource-poor SADC countries since 2004, both start-up costs and set-up time have declined steadily and rapidly with respect to the South African norm. While we do not know at this point whether, and how significantly, such changes have helped generate the rapid increase in FDI that has been observed in all resource-poor economies in the region over the same period (figure 3.4), it is difficult not to make the association between the two as a working hypothesis, in light of what we see in figure 3.13.

Figure 3.16: **Cost of starting a business as % of GDP per capita**

Panel A: Resource-poor countries in SADC with South Africa as a benchmark



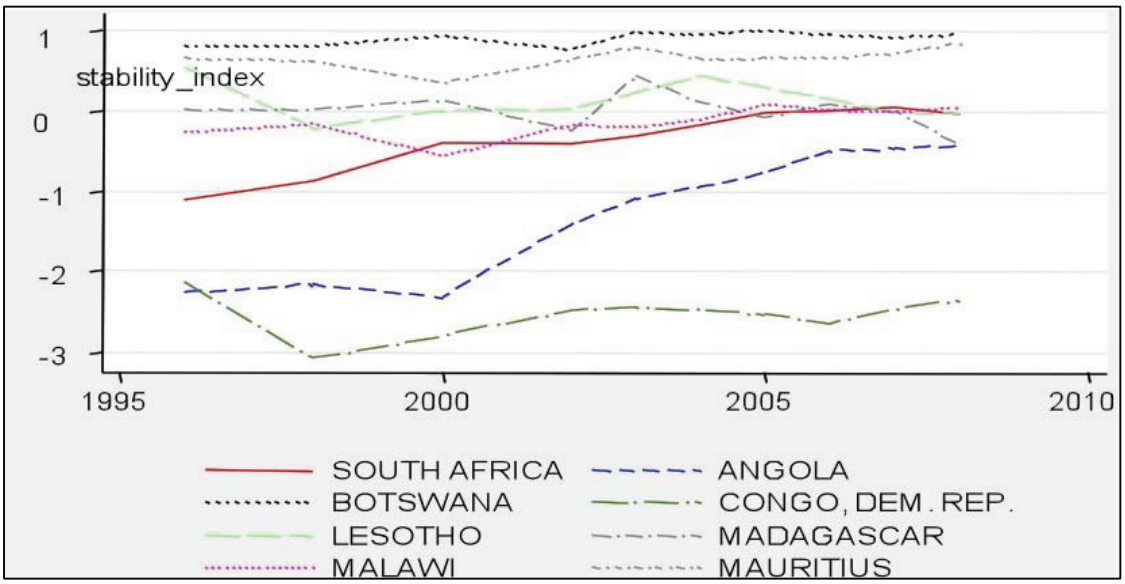
Panel B: Resource-rich countries in SADC with South Africa as a benchmark



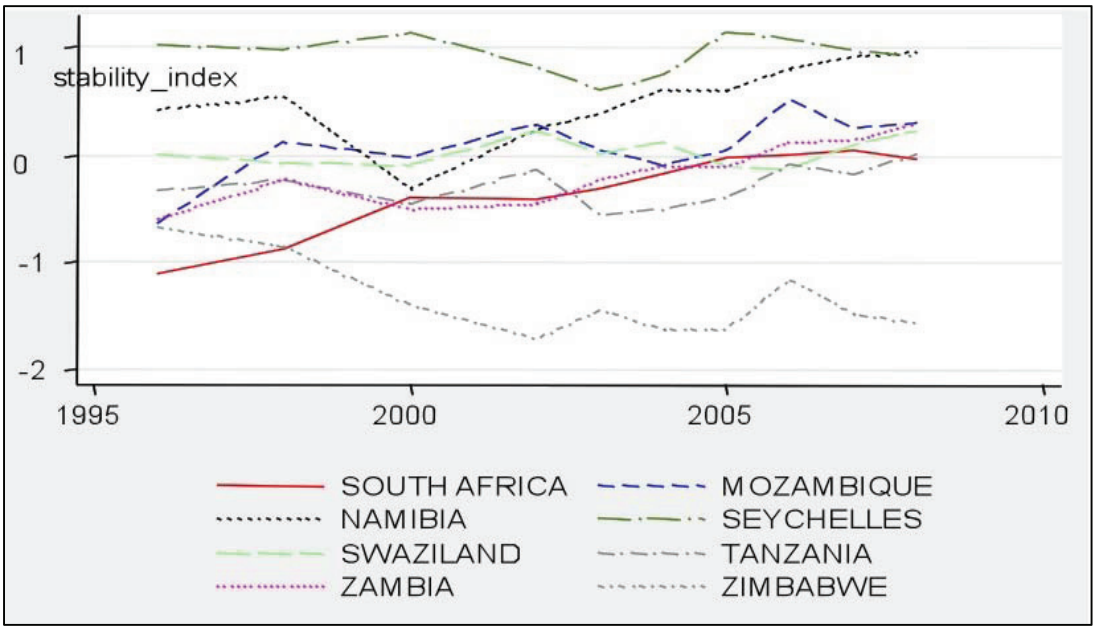
Source: World Bank Doing Business Database

Figure 3.17: Index of political stability

Panel A



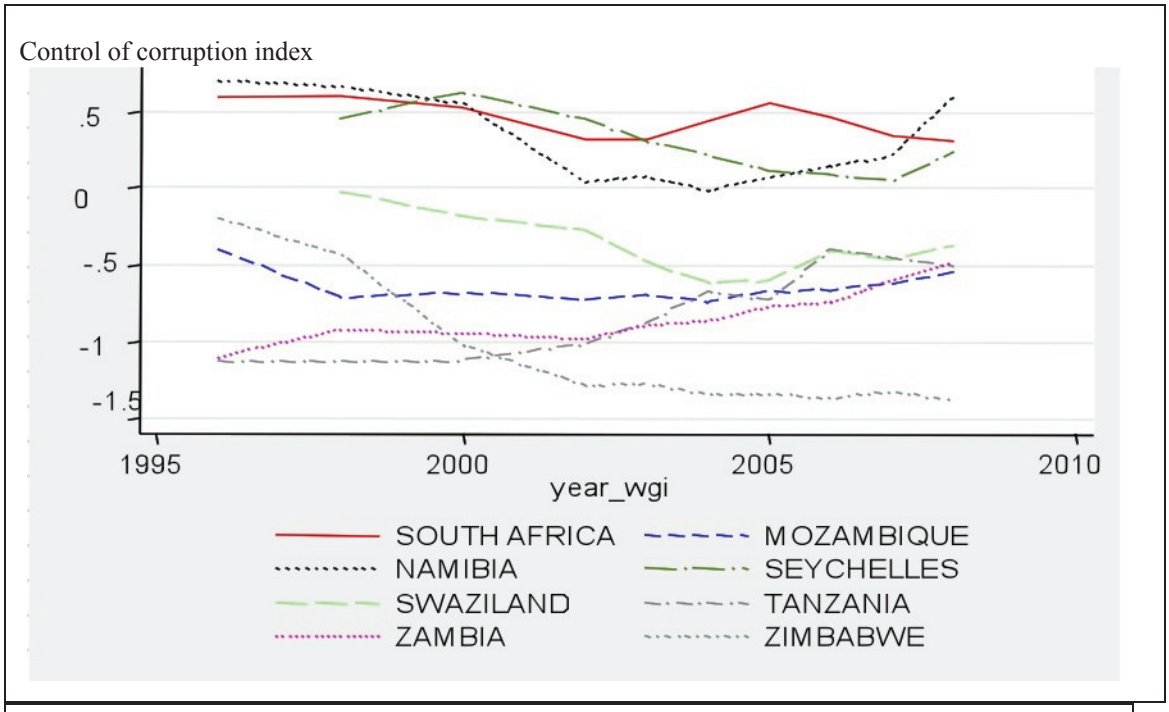
Panel B

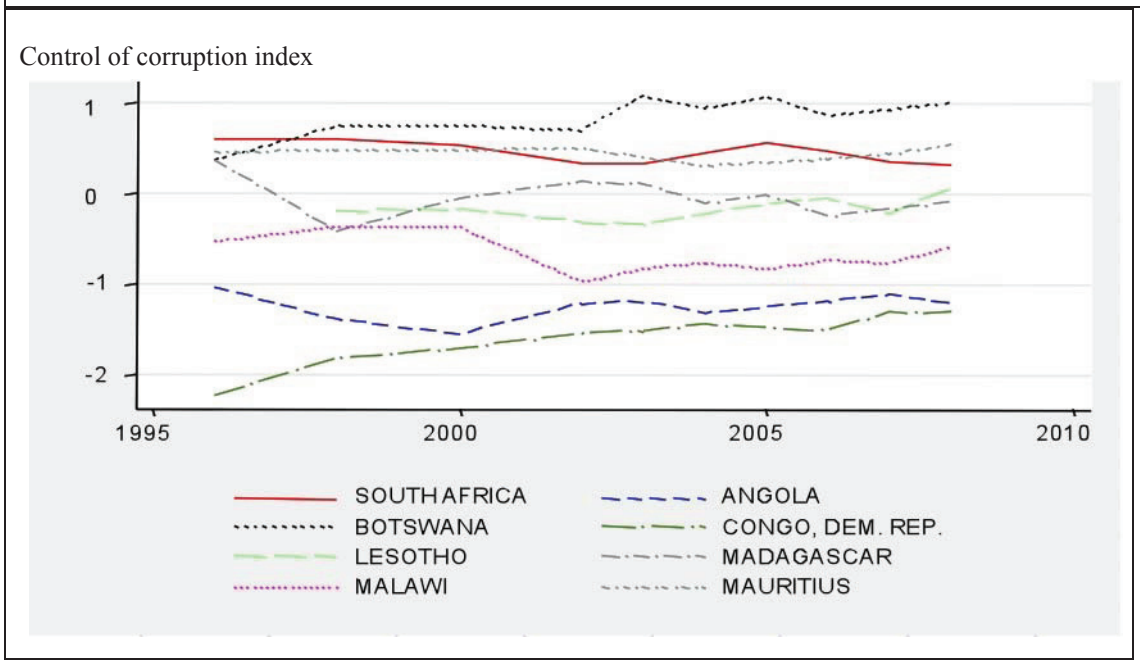


Source: World Bank Governance Indicators

Figure 3.18: Control of corruption index

Panel A





Source: World Bank Governance Indicators

3.29. An equally compelling hypothesis is that increasing political stability and reduced corruption have helped the growth of inward FDI in the region over the past decade. The strongest illustration of this is the case of Angola, which owes the recent upsurge in FDI to its achievement of political stability after years of civil war. Angola was indeed the country where the political stability index of the World Bank Governance Indicators improved the most within the SADC the over the past decade (figure 3.17). Similarly, the fact that DRC, another resource-rich country, has not attracted as much FDI as its endowment of natural resources would normally suggest has to do with its scores on the political stability index—consistently among the worst in Africa. That FDI inflows to Zimbabwe have dried up in recent years also has to do with the decline in its political stability index score.

3.30. Except for DRC and Zimbabwe, the trend in the SADC as a whole has been of members' convergence toward greater political stability, with steady improvements in every country's stability index score. Botswana, Mauritius, and Namibia are the most politically stable members, with the larger countries—South Africa, Mozambique, Malawi, and Zambia—converging into something close to a normal (or mean) score for the region (figure 3.17).

3.31. There is less evidence of convergence over time among SADC members in the index of control of corruption. In fact, the only countries where there has been a distinct trend in the index are Zimbabwe, where the index has steadily fallen to what is now the lowest score in the region, and Zambia, where there has also been a steady movement in the opposite direction, albeit more slowly. Zambia is now at a point where it shares a corruption index score that defines a group with moderate corruption—Malawi, Mozambique, and Swaziland. This group's score is significantly higher than that of Angola, DRC, and Zimbabwe, where corruption is a serious problem, but is also much lower than relatively corruption-freegroup members Botswana, Mauritius, Namibia, Madagascar, and Lesotho.

3.32. With the exception of Angola, the countries where corruption is a serious problem have not attracted any significant amount of inward FDI in recent years, while the group of relatively corruption-free countries have seen the most FDI inflows to the region. Thus, like political stability, control of corruption has been a significant influence in the allocation of FDI among SADC members.

3.6. CONCLUSION

3.33. On a per capita basis, the SADC region has attracted more FDI than most other developing regions over the past decade. Though most of the inflow was to mining, resource-poor countries have also attracted more than their share of FDI. In almost every case, FDI inflows have financed large shares of the domestic savings, without which growth rates would have been significantly lower than what was ultimately realized.

3.34. However, given cross-country patterns in expected rates of return, countries Tanzania, Malawi, Mozambique, Swaziland, and Namibia should have attracted far more FDI than they did, while Angola, DRC, and Zambia are unlikely to sustain current levels of FDI. It has also

offered evidence that suggests that improving the prospects of sustaining high levels of FDI in the second group and raising levels in the second group will require significant improvements in each country's business environment. The nature of these improvements differs between countries, however. At least in Zimbabwe, what seems to be needed is a reduction in investment risk through greater political stability. In almost all the other cases, there is a need to reduce corruption as well as business start-up costs.

CHAPTER 4.
FINANCIAL DEVELOPMETN AND FINANCIAL INTEGRATION

4.1. INTRODUCTION

4.1. There is a huge disparity among SADC member countries in terms of the cost and availability of credit, the bridging of which will require greater cross-border harmonization of institutions in contract enforcement and financial regulation, the development of credit information systems in many member countries, and removal of capital controls in others.

4.2. The disparity in the cost and availability of external financing is so large that it suggests that financial integration in Southern Africa is potentially an important source of regional growth, as it will facilitate trade and improve capital allocation across the region. For most African states, the small scale of national markets constrains financial sector growth and allocative efficiency, contributing to higher costs, a narrow range of financial products, and limited access to financial services. Regional financial integration, when set within the broader context of financial sector reform, can help reduce this constraint by increasing the number of financial institutions operating in a market and enhancing competition, which in turn helps reduce the cost of financial services.

4.3. Achieving financial integration requires a degree of harmonization of financial infrastructure, that is, the legal and judicial systems for enforcing contracts and systems of regulation and supervision of financial institutions. Ultimately, harmonization implies common sets of rules of financial transactions and reporting requirements, and common standards of cross-border supervision of institutions. With a uniform and streamlined financial infrastructure, capital is likely to be allocated more efficiently within the region. Financial integration may also increase the availability of capital through growth in net FDI flows.[10]

4.4. Important as these benefits are, financial integration clearly is no substitute for sound national policies aimed at deepening financial markets. A national upgrading of legal and financial infrastructures, availability of information, regulation and supervision, payment systems, developed capital markets, and increased competition are indeed prerequisites for successful regional financial integration. Deeper, more stable financial markets with the aforementioned fundamentals will reduce the risks associated with integration, such as contagion and financial crises.

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[10] These potential benefits have to be weighed against some costs and risks involved with the process of financial integration. Reduced national control over financial markets may slow down the integration process. Financial integration may also mean higher transmission of shocks within the region, raising the risk of financial crises. Given the current global economic crisis, there might be even less political will and nervousness associated with integration, although delaying or averting the integration of a country's financial system could prevent its potential economic growth.

4.5. This chapter is aimed at providing a quantitative assessment of how far the SADC region is from a reasonable degree of financial integration in the SADC, with a view to highlighting areas of policy reform and harmonization that could help promote financial development and financial integration in the region. Using a set of indicators obtained from the World Bank Enterprise Surveys, the Doing Business Database and other sources, the chapter first compares interest rates and the availability and accessibility of financial services and products, among SADC members and between the SADC and other regions. This will provide a sense of the state of financial integration in the region against international benchmarks. A financial market is (perfectly) integrated only if it provides equal access to the same financial services and products at the same prices across borders. As expected, this part of the analysis shows that the SADC area is far from this ideal. The second part of the chapter then looks at some of the key differences among member countries' legal and financial systems that are likely to impede integration.

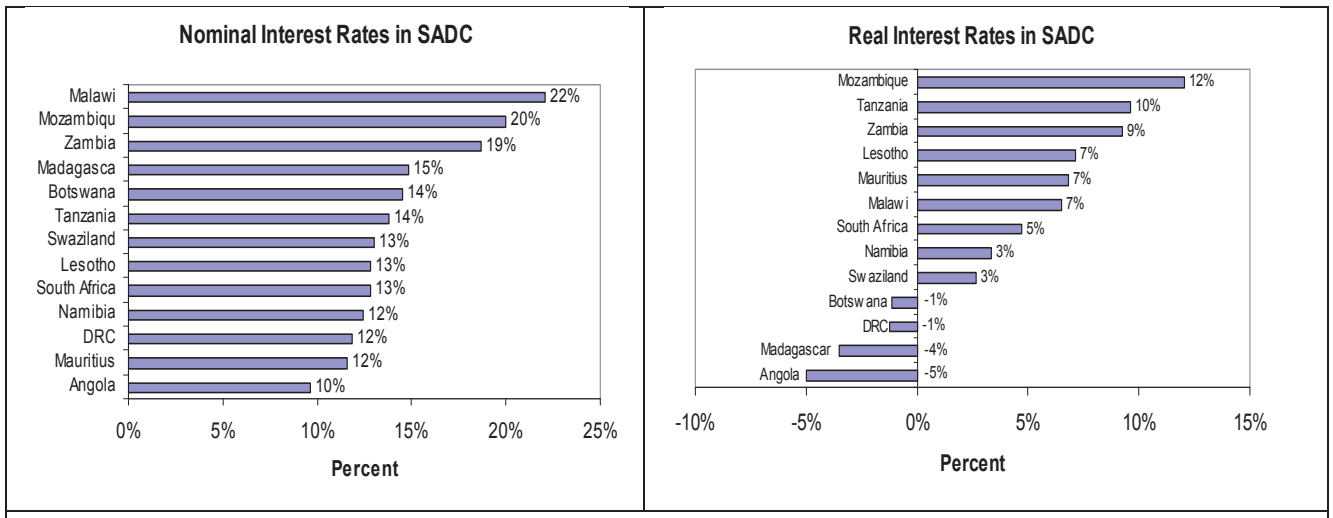
4.2. INTEREST RATE DISPARITIES

4.6. Divergence in interest rates is one of the price-based measures of financial integration. With full integration, the real interest rates should be equal for the same financial instruments for borrowers of the same risk class.

4.7. Nominal interest rates are relatively high in the SADC. There are also large cross-country differences in real interest rates. Negative real rates in several countries are a source of concern for policymakers. Moreover, in the region, countries with better credit information, stronger law and order traditions, larger banking sectors, and larger capital flows have lower interest rates. Harmonization in the rules and institutional characteristics is likely to increase the degree of integration in interest rates in the SADC.

4.8. Figure 4.1 presents the distribution of nominal and real rates in SADC countries. These rates are based on firm responses to Enterprise Surveys. They were reported by firms as the actual prices charged for financial products such as loans and lines of credit paid by firms, and are more relevant for this analysis than aggregate rates. There are wide cross-country differences in both nominal and real rates. Malawi and Mozambique are on the high end of the distribution, with nominal rates over 20 percent, while Angola, Mauritius, Namibia, and DRC are on the low end.

Figure 4.1: Nominal and real interest rates in SADC



Source: World Bank Enterprise Surveys

4.9. Real rates are likely to have more impact on economic activity than nominal rates. The real rates distribution is different from nominal rates because of wide differences in inflation. The right panel of figure 4.1 shows that several countries have negative real rates, suggesting that average nominal rates on loans are below inflation. This is an unhealthy situation that should concern policy makers and bank regulators. On the other hand, high real interest rates of 12 percent in Mozambique and 10 percent in Tanzania could also problematic.

4.10. Figure 4.2 presents a comparison of nominal and real interest rates by region.[11] The SADC region has relatively high nominal rates (average 14 percent); this is comparable to other African countries and Latin America and the Caribbean, and higher than in other regions.

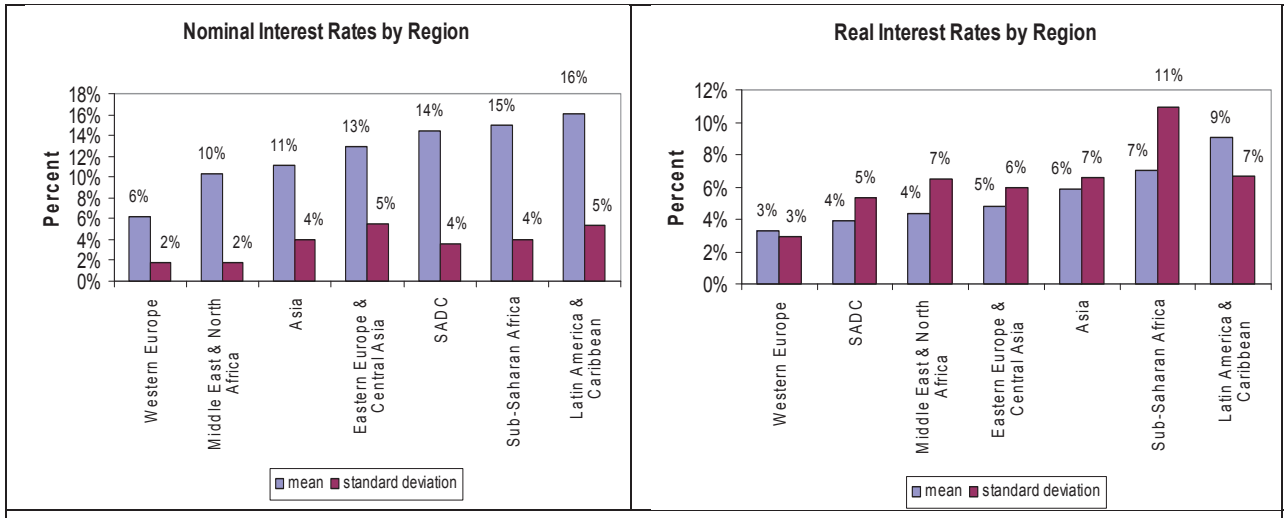
4.11. Despite the differences in interest rates across countries, the dispersion in the SADC, which is a measure of harmonization, is about average relative to other regions. Consistently, Western Europe shows lower dispersion in nominal and real interest rates, demonstrating the highest level of harmonization in that region, relative to all others.

4.12. In interpreting these differences, it is important to note that figures 4.1 and 4.2 report only the average interest rates in a country. This is important because the averages might differ among countries simply because the composition of borrowers varies from country to country. In such a situation, interest rates tend to be equal in an integrated financial market only for borrowers of the same risk. Indeed, a closer look at the Enterprise Survey data shows that typically, smaller businesses pay higher interest rates in the region, as they often do in other parts of the world. Foreign-invested firms and exporters, on average, are also charged lower rates. Finally, rates

[11] To equalize the number of observations by country, these graphs are constructed using country-average means. That is, first, the average mean interest rate by country is calculated using firm-level observations. Then the region average and standard deviation are calculated using country-level averages.

vary by loan type, as defined by length of maturity, whether collateral is required, and how high the value of the collateral is relative to the value of the loan.

Figure 4.2: Nominal and Real Interest Rates by Region



Source: World Bank Enterprise Surveys

4.13. In comparing average interest rates across countries, as we do in figures 4.1 and 4.2, it is important that we control for cross-country variation in the composition of borrowers and types of credit. However, it turns out that the rankings of SADC countries by average interest rates remains more or less the same as those shown in figure 4.1, even when we control for those factors in the framework of a regression analysis (not reported here). The full analysis is reported in the annex to this report and suggests that cross-country average interest rate gaps reflect differences in the availability and quality of credit information, the structure of the banking industry, the quality of contract enforcement institutions, and the extent of capital controls in the financial system.

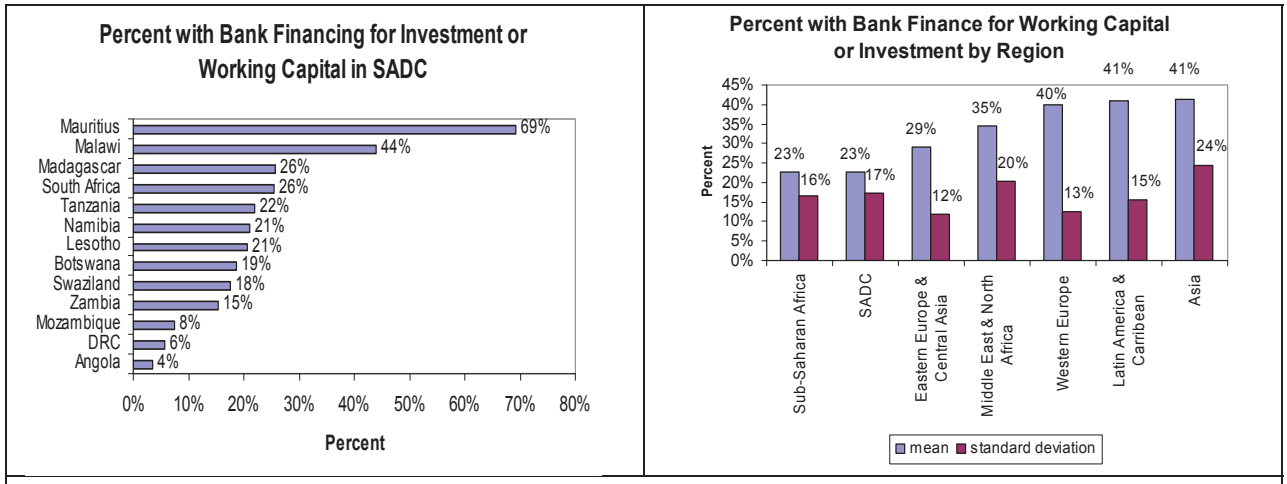
4.14. Specifically, the analysis shows that SADC members where more credit information is available have lower interest rates. This is not surprising—better credit information allows lenders to do more accurate assessments of risk. Members that score better on contact enforcement also have lower average interest rates, which is not surprising given that contract enforcement indicators relate to lenders' capacity to collect debt. Countries with higher capital flows also tend to have lower interest rates, possibly because higher capital indicates the availability of financing alternatives (through equity or portfolio investment) to bank loans. Finally, the data suggest that countries with more banks, or where the banking sector is large relative to GDP, tend to have average interest rates.

4.3. DISPARITIES IN ACCESS TO FINANCE AND USAGE OF FINANCIAL PRODUCTS

4.15. Financial integration also implies that similar agents have parallel access to financial instruments and services. For example, borrowers with similar characteristics and risk profiles should be able to obtain access to financial products such as loans, overdrafts, and lines of credit. However, in practice, access to financial products varies significantly across countries.

4.16. Relative to other regions, the SADC is characterized by low and enormously varied usage rates among firms of common financial products. This is particularly true of bank loans and credit lines, with the lowest rates reported for DRC, Angola, Mozambique, and Tanzania. In figure 4.3, we report usage rates in World Bank Enterprise Survey samples of bank loans as sources of funds for working capital or for investment. The rates range from 4 percent in Angola to 69 percent in Mauritius (left panel). The right panel of the chart shows that the SADC, and Sub-Saharan Africa, more generally, have far lower average usage rates than other regions. Western Europe, for example, has an average usage rate of about 40 percent. The SADC shows comparatively high dispersion in access within the region, but not more than in Asia and the Pacific and the Middle East and North Africa.

Figure 4.3: **Bank financing for working capital or investment**



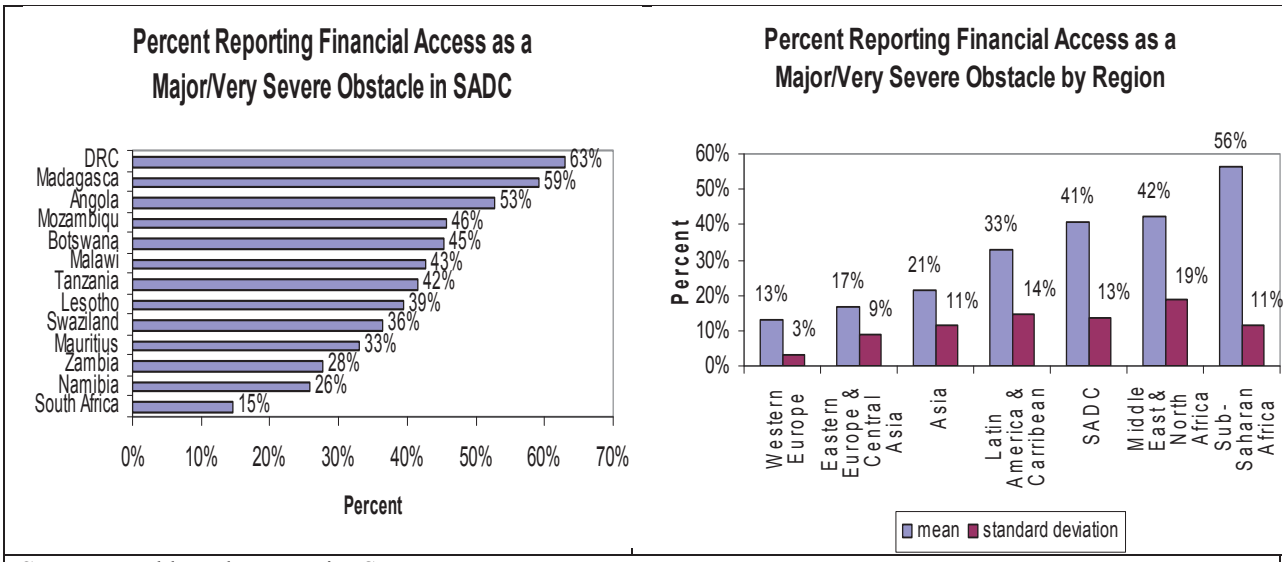
Source: World Bank Enterprise Surveys

4.17. As we make comparisons of this kind, we make a distinction between the usage of financial products and access to them. Taken on their own, usage rates do not necessarily indicate access rates, as they present the equilibrium outcome of the supply and demand for funds. Usage rates would be the same as access rates only if we assume that people fail to use a financial product only because they are barred from buying it, even though they want to at market rate. However, there might be firms that do not use financial products simply because they have no need or demand for them. Only firms that would like to pay for a financial product, but are unable to obtain it at going prices, should be considered as lacking access to that product.

4.18. The Enterprise Surveys collect information on what could be used as a useful proxy for access to financial services—in the form of managers rating "access to finance" as a "major" or "severe" obstacle to business growth. Subjective ratings of this kind clearly have their own drawbacks as indicators of "access." Even if survey respondents are well versed in the financial status of the firm, there could be bias in their reporting, based on incentives and personal outlook. For example, pessimistic respondents might report higher obstacles than others would. Nevertheless, such ratings could be useful gauges of "the access to finance" problem when used in conjunction with data on usage rates and prices of financial products.

4.19. Indeed, the rankings of SADC countries of the proportion of businesses naming access to finance a major or severe obstacle (figure 4.4) is broadly consistent with their rankings based on usage rates of bank loans (figure 4.3). Broadly speaking, the countries where usage rates are lowest are also those where the highest proportion of business managers rate access to finance as a major obstacle. Figure 4.4 also indicates that complaint rates about lack of access to finance are quite high in the SADC region, compared to Europe, Asia, or Latin America.

Figure 4.4: Firms reporting financial access as a major or very severe obstacle (%)



Source: World Bank Enterprise Surveys

4.20. As with average interest rates, cross-country differences in access to finance and in usage rates of financial services partly reflect differences in the composition of potential borrowers. The scale, ownership pattern, and sectors of potential borrowers are important correlates of usage and access rates, just as they are of interest rates. Large firms, foreign-invested businesses, and exporters have higher bank loan usage rates and consider lack of access to finance a lesser growth obstacle than other groups of firms. Much of the cross-country diferences in usage rates and complaint rates about lack of access to finance, therefore, reflect differences in the size distribution of firms, the existing stock of FDI, and the export orientation of the economy. However, here also, a regression analysis that controls for those differences in comparing usage

rates and complaint rates more or less reproduces the ranking of countries that we see in figures 4.3 and 4.4. Even if all SADC countries had the same size distribution of firms, had the same stock of FDI, and were equally open to trade, the countries with the lowest bank loan usage rate would be the same as those in figure 4.3.

4.21. This means that other factors account for some of the cross-country gaps in usage and access rates: cross-country differences in the availability and quality of credit information, the extent of rule of law, capital account openness, and the size of the banking sector, for example. An analysis of Enterprise Survey data described in the annex to this report shows that bank finance usage rates are higher, and firms are less likely to rate access to finance as a major problem, in SADC countries where there is a credit information system, the banking sector is larger, there are fewer capital controls, and the rule of law is stronger.

4.4. DIFFERENCES IN THE SIZE AND STRUCTURE OF THE BANKING INDUSTRY

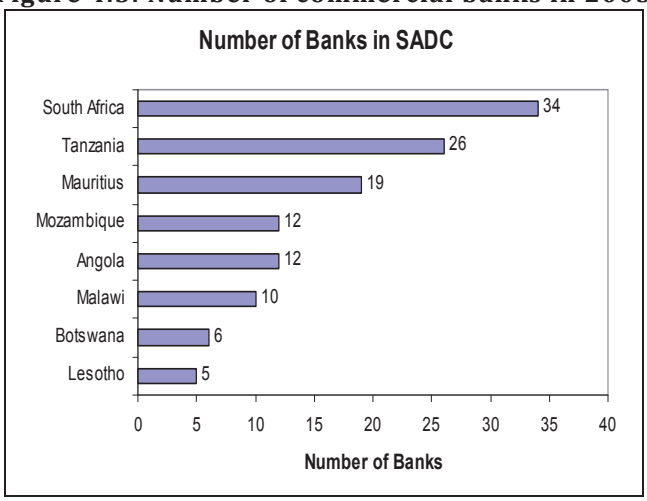
4.22. Enterprise Survey data and other sources highlight a strong association between interest rates and usage rates of financial products and the banking industry's scale and structure. Within the SADC, as in other groupings, interest rates tend to be higher and show greater dispersions in countries where the banking industry is smaller or highly concentrated.

4.23. The financial sector in Africa typically is small and characterized by relatively few financial institutions, of often inadequate market capitalization, that provide a small range of products and services. With the exception of South Africa, this characterization applies for countries within the SADC, as well. In this section, we evaluate the size and composition of the banking sector in the SADC and across other regions.

4.4.1 SIZE OF THE BANKING INDUSTRY

4.24. The number of banks in eight member countries is shown in figure 4.5. South Africa has the most, with 34 banks, followed by Tanzania with 26 banks and Mauritius with 19. South Africa is even more of an outlier when it comes to the size of the average bank in terms of assets, with an average bank size of about US$15 billion in assets (figure 4.6). The assets per bank average less than US$1 billion for other SADC members, with the lowest amount at US$0.06 billion in DRC.

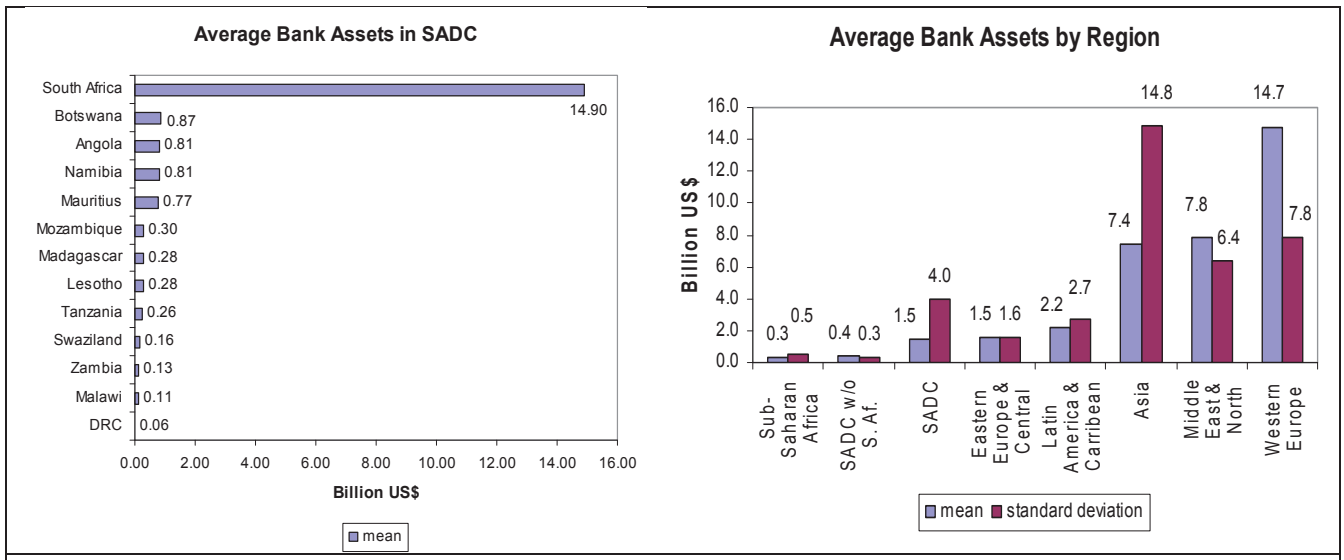
Figure 4.5: Number of commercial banks in 2005



Source: Bankscope

4.25. As a result, with South Africa included, the SADC regional average is comparable to that of Eastern Europe and significantly above the average for Sub-Saharan Africa. However, the SADC average without South Africa would be comparable to that of Sub-Saharan Africa.

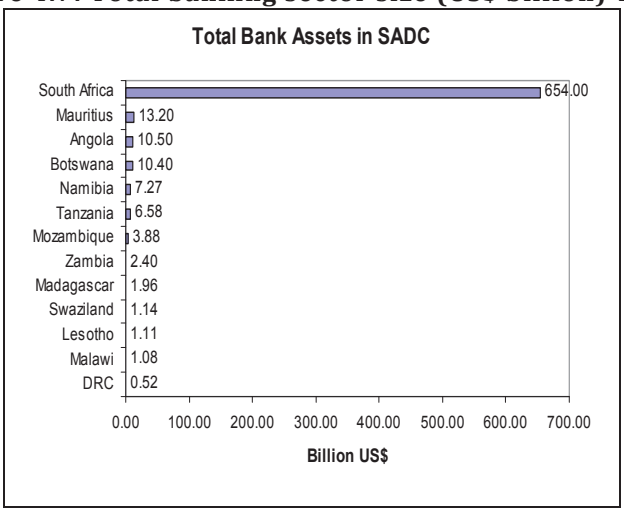
Figure 4.6: Average Bank Size



Source: Bankscope

4.26. Combined with the relatively small number of banks in the region, this means that the scale of the banking industry in the SADC is quite small compared to other regions (figure 4.7). The SADC's low number of banks per country and average bank size suggest that the total banking sector in this region is small. Figure 4.7 presents the total assets of the banking sector in 13 countries. Again, South Africa clearly dwarfs all other SADC countries in terms of the total banking sector size.

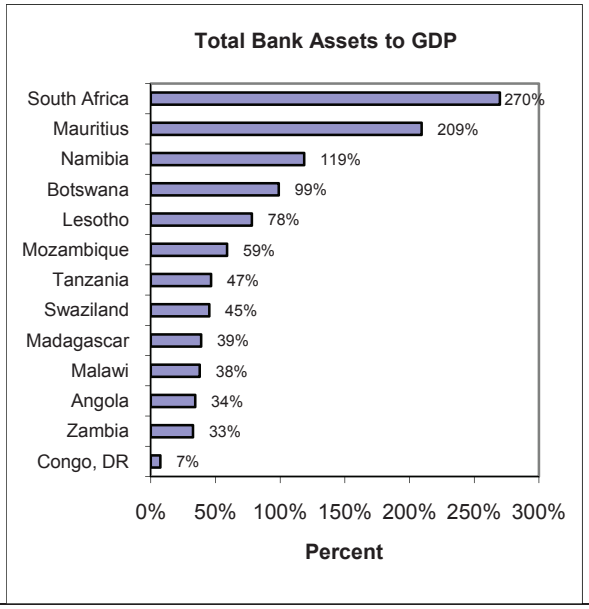
Figure 4.7: Total banking sector size (US$ billion)-2005

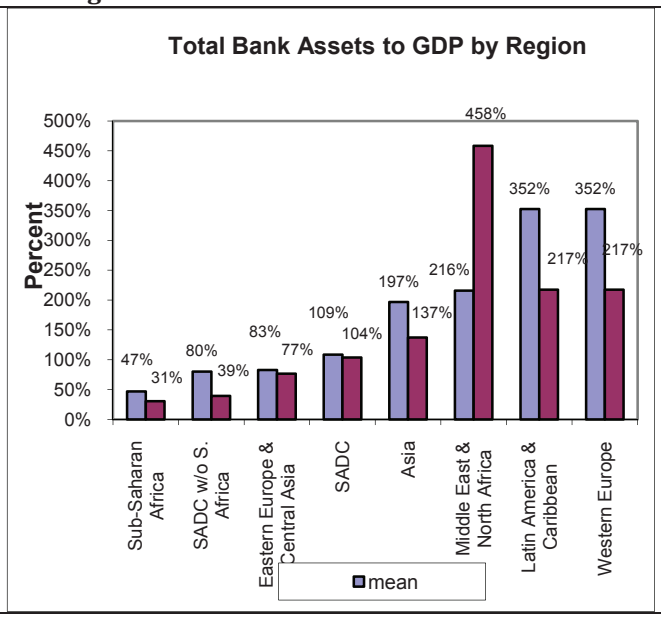


Source: Bankscope

4.27. To a very large extent, the huge disparity we see (figure 4.6) among SADC members in the size of the banking industry reflects differences in the size of national economies. However, adjusting for economy size, as in figure 4.8, still shows huge differences between South Africa and most other middle-income members, on one hand, and all other countries, on the other. The region as a whole scores higher than Eastern Europe on this measure as well, essentially because of South Africa's high ratio.

Figure 4.8: Ratio of total banking assets to GDP -2005



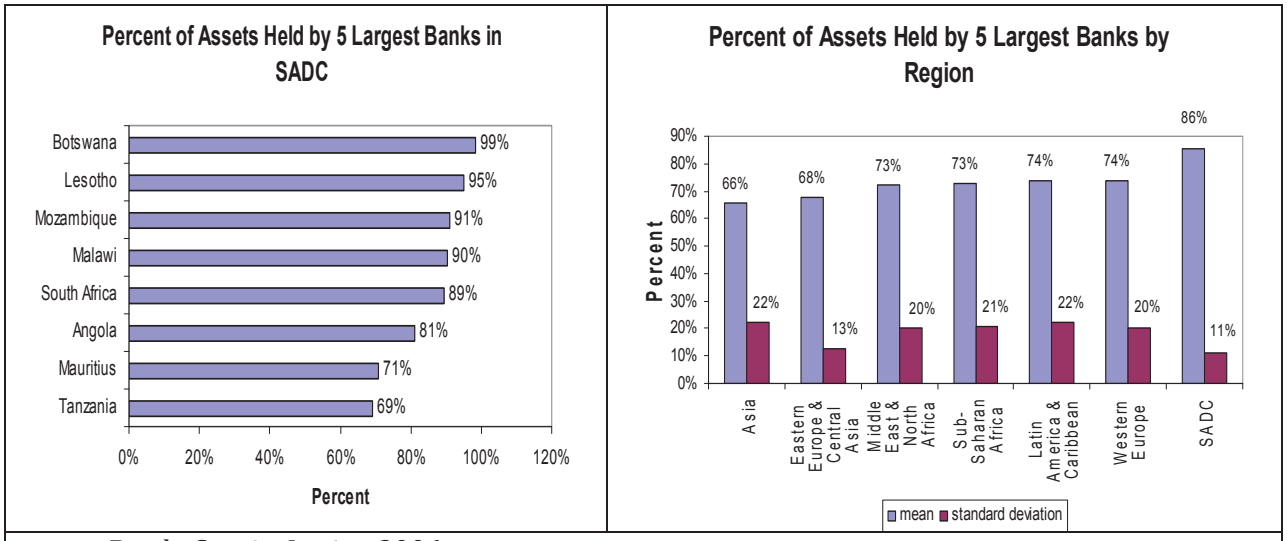


Source: Bank data from Bankscope, GDP data from WDI

4.4.2 INDUSTRY CONCENTRATION

The banking industry is also highly concentrated in the SADC area compared to other regions, which may reduce competition and lead to higher interest rates and greater dispersion in financial market prices. A common measure of market concentration is the percentage of assets held by the five largest banks. We show this in figure 4.9 for member countries and for the region as a whole and other parts of the world. A higher percentage of assets in the five largest banks indicates higher market concentration and lower competition. Within the SADC, bank concentration rates are particularly high in Botswana, Lesotho, Mozambique, Malawi, and in South Africa, where 90 percent of assets or more are held by the largest five largest banks. However, even the lowest concentration rates for the region, those of Tanzania and Mauritius, stand at around 70 percent market concentration, still very high compared to rates in other regions.

Figure 4.9Percent of assets held by the five largest banks in 2005



Source: Barth, Caprio, Levine 2006.

4.4.3 FOREIGN OWNERSHIP IN BANKING

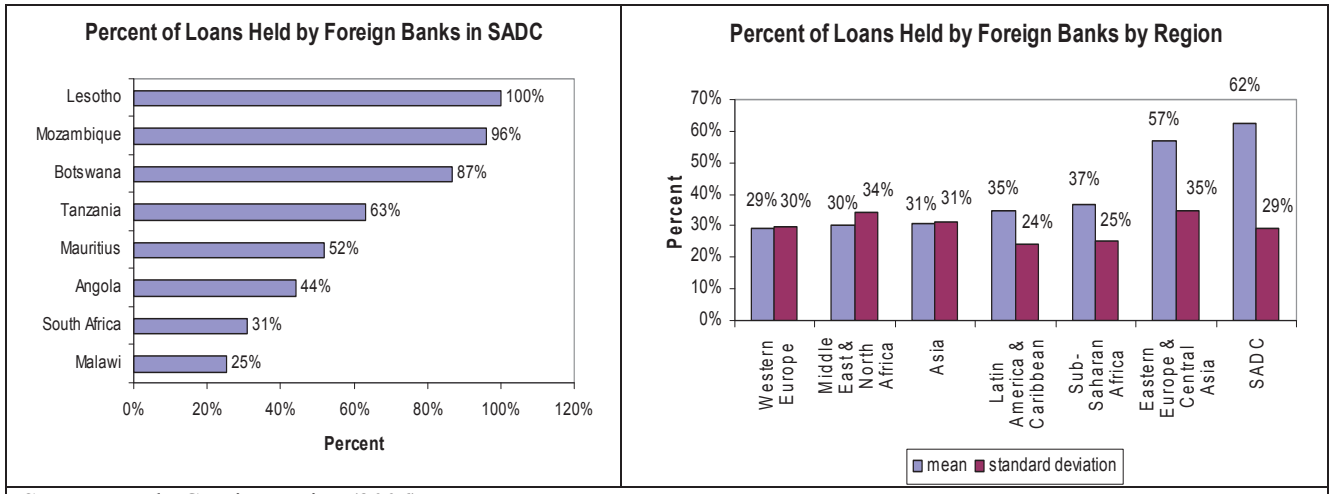
4.28. In addition to scale and competition, foreign ownership in the banking sector could be an important factor in financial development and integration. Foreign financial institutions in the sector can increase its efficiency by increasing competition and reducing the market power of domestic institutions. This can lead, in turn, to positive spillover effects. For example, the presence of foreign banks could help domestic banks improve their corporate governance and accountability by transferring knowledge through technology or human capital (staff turnover) to domestic entities. Foreign financial institutions also increase the amount of funds available in the

market through the inflow of cross-border capital, and allow diversification of investment portfolios, which reduce risks.

4.29. By this reasoning, the SADC region has done better than most in terms of attracting foreign banking (figure 4.10). About 62 percent of loans in the SADC are provided by foreign-owned banks, as compared to 29 percent in Western Europe. Within the SADC, Lesotho has the largest percentage of loans held by foreigners—approximately 100 percent—followed by Botswana and Mozambique, each with over 80 percent. Malawi has the lowest percentage of foreign-owned loans with 25 percent, followed closely by South Africa with 31 percent.

4.30. However, there are some risks in allowing the entry of foreign entities: sophisticated technologies and techniques provided by foreign entities can challenge capacity-constrained regulators; additionally, certain countries' legal codes lack clarity on how to regulate entities that operate in other countries. Perhaps more importantly, the risk of foreign banks exiting during an internal crisis can also be a source of instability. In short, it is possible to have too much foreign banking or too little indigenous banking. In countries heavily dominated by foreign banks, there is a reason to support development of domestic banks, which is likely to increase stability in the system and reduce potentially destabilizing impacts of global crises.

Figure 4.10: Percent of loans held by foreign banks in 2005



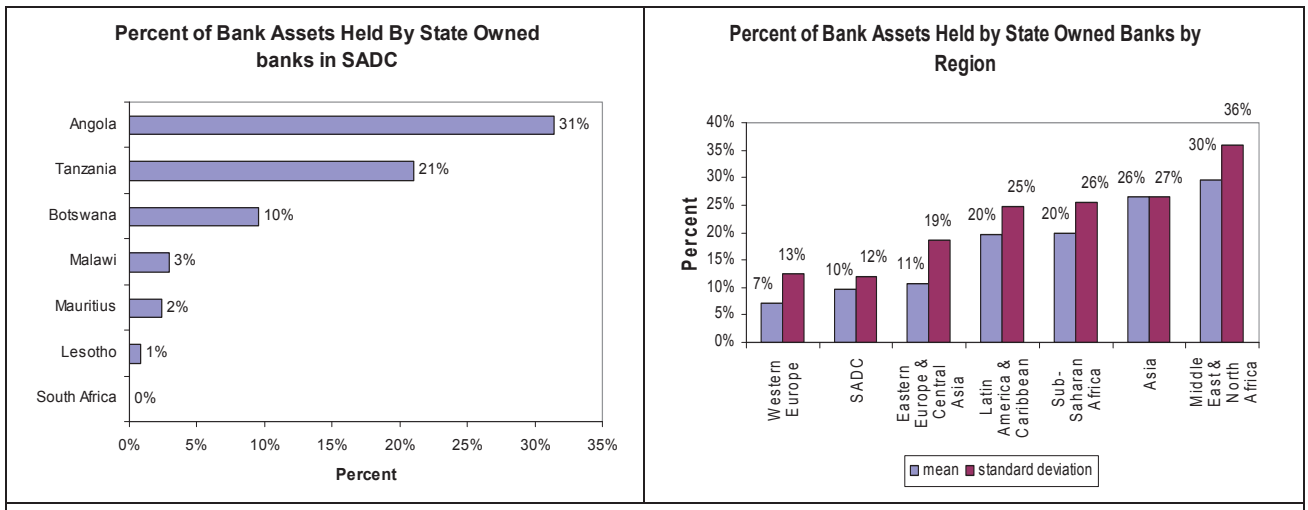
Source: Barth, Caprio, Levine (2006)

4.4.4 GOVERNMENT INVOLVEMENT IN BANKING

4.31. The involvement of government in the financial sector is another aspect that may preclude effective intermediation and slow down financial integration. It has been largely accepted that government ownership of banks leads to inefficient resource allocation, thus leaving much to be gained from encouraging private sector ownership of banks. However, this is an area where the SADC also seems to do well compared to other regions (figure 4.11), including Western Europe, although there are countries that are significant exceptions within the

SADC. These exceptions are Angola, which has the highest state bank ownership, with 31 percent of all assets in government hands, Tanzania (21 percent) and Botswana (10 percent). The remaining countries have relatively low state bank ownership.

Figure 4.11: Government ownership of banks



Source: Barth, Caprio, Levine (2006)

4.5. CAPITAL CONTROLS AND FINANCIAL INTEGRATION

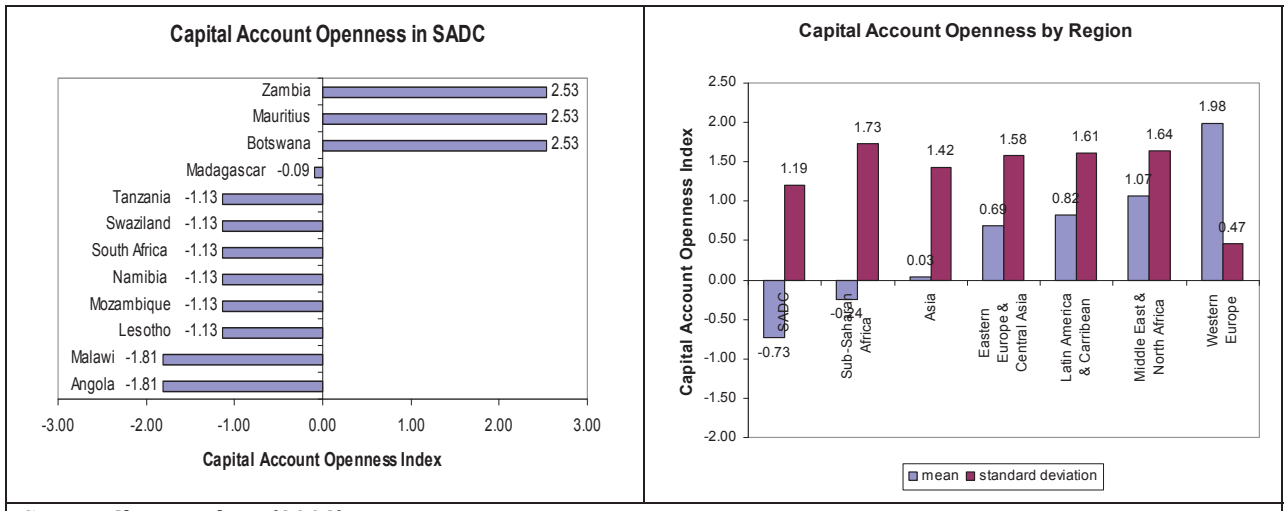
4.32. Capital account openness is inversely correlated with interest rates and with perceptions that lack of access to finance is a growth constraint in World Bank Enterprise Surveys. This is not surprising, as financial integration is impeded by controls on capital movements. Yet this is an area where the SADC is not doing well compared to other regions and where its member countries differ widely. If the SADC region is to become more integrated, capital controls need to be eliminated or reduced. One common source of data on capital account openness is the Annual Report on Exchange Arrangements and Exchange Restrictions produced by the IMF. A particular measure of capital account openness that is widely used in the literature is the Chinn-Ito index , which is constructed using the IMF data. One of the merits of this index is that it attempts to measure the intensity of capital controls, rather than the simple presence or absence of controls. The index is a continuous measure that ranges from -1.87 (least open) to 2.53 (most open), with an average of about zero.[12]

4.33. Figure 4.12 presents the Chinn-Ito measure of capital account openness. Within the SADC, the countries that are most open to capital flows are Zambia, Mauritius, and Botswana, followed by Madagascar, while the rest, including South Africa, have fairly closed capital

[12] The index contains data on four categories of financial openness: (1) the presence of multiple exchange rates, (2) restrictions on current account transactions, (3) restrictions on capital account transactions, and (4) the requirement to surrender export proceeds.

accounts. The regional comparison reveals that on average, the SADC region has the world's most closed financial systems, with the world's lowest average index value, -0.73.

Figure 4.12: Capital account openness (Chinn-Ito index)

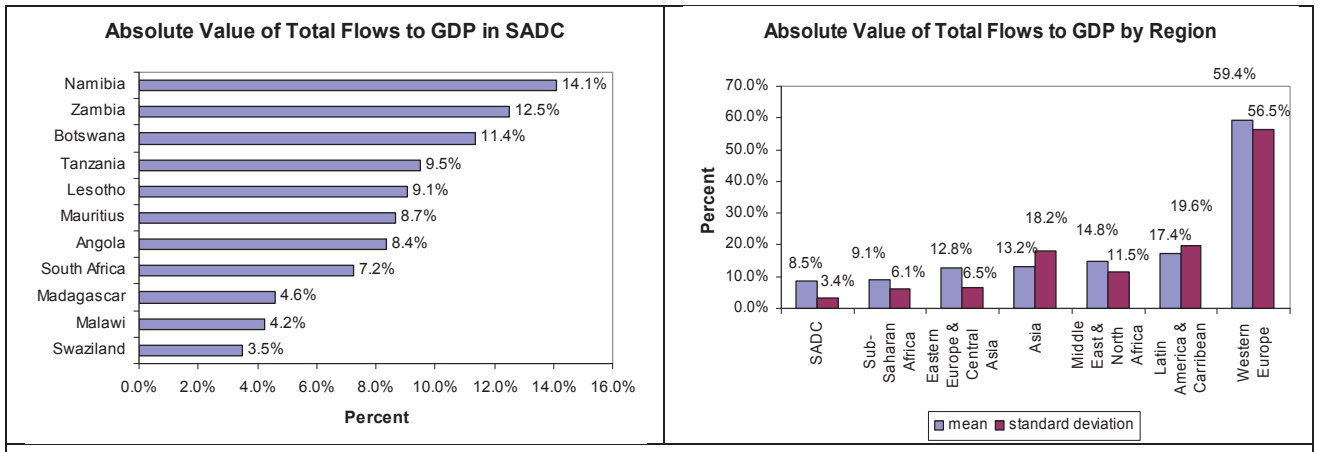


Source: Chinn and Ito (2008)

4.34. Openness to capital flows is a de jure measure of how open a country is to capital flows. A de facto–measure is the absolute value of total flows into or out of a country, which are totaled to produce nondirectional flows scaled by the country's GDP level. The measure of total flows includes Foreign Direct Investment (FDI) and portfolio flows, among others. Through this measurement, we can also see how interested foreign investors are in bringing money into the country, and how interested domestic residents are in taking money out.

4.35. Here also, the SADC shows the lowest value of total capital flows relative to other regions, just slightly below Sub-Saharan Africa. Not surprisingly, Western Europe is significantly above other regions, demonstrating that most capital flows occur among countries in the developed world. Figure 4.13 also shows wide variation in the extent of cross-border capital flows within the SADC. Namibia, Zambia, and Botswana are on the high end of capital flows, while Malawi and Swaziland are on the low end. South Africa is situated in the middle of the spectrum, partially because of its higher denominator—total GDP—by which the flows are scaled.

Figure 4.13: Absolute value of total capital flows in SADC and other regions



Source: Balance of Payments Statistics from the IMF

4.6. CREDIT INFORMATION

4.36. In the World Bank Enterprise Survey data, interest rates tend to be lower, and bank loan usage rates higher, in countries where a credit information system is available. This, too, is not surprising; credit information is an important factor in the development of financial markets. Reliable information allows creditors to evaluate potential borrowers, to prevent adverse selection (noncredit-worthy borrowers applying for credit) and moral hazard (misusing funds after credit is extended). These information asymmetries hold back credit extension and impede financial development. Increased availability and harmonization of credit information is important for stimulating development of integrated financial markets in the region.

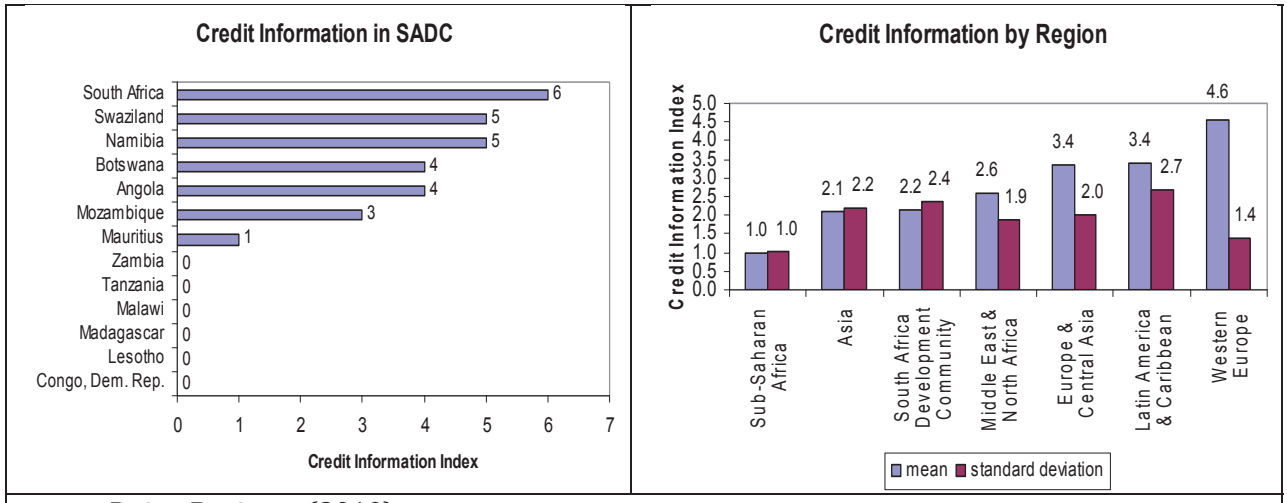
4.37. Yet this is not an area in which SADC is doing well as a region. Countries also differ enormously in terms of the availability and the quality of credit information systems. This can be seen in figure 4.14, where we compare the Credit Information index and the Doing Business database across countries and between regions. The value of the index ranges from 0 to 6 and is based on the answers to six yes/no questions pertaining to the extent that public registries or private bureaus distribute credit information. It also measures the scope, accessibility, and quality of information available. Higher scores reflect greater availability of credit information.

4.38. Among the regions (right panel), the SADC, with an average of 2.2, is on the low side, although ahead of Sub-Saharan Africa and just above Asia and the Pacific (it would score below Asia if South Africa is excluded). The SADC also has a higher standard deviation than most regions, reflecting the larger differences among its members.

4.39. Within the region, South Africa has the highest quality of credit information, with a value of 6, while Zambia, Tanzania, Malawi, Madagascar, Lesotho, and DRC all score zero on this

index, meaning that they have no available credit information, while Mauritius scores 1, which is also extremely low.

Figure 4.14: Credit information



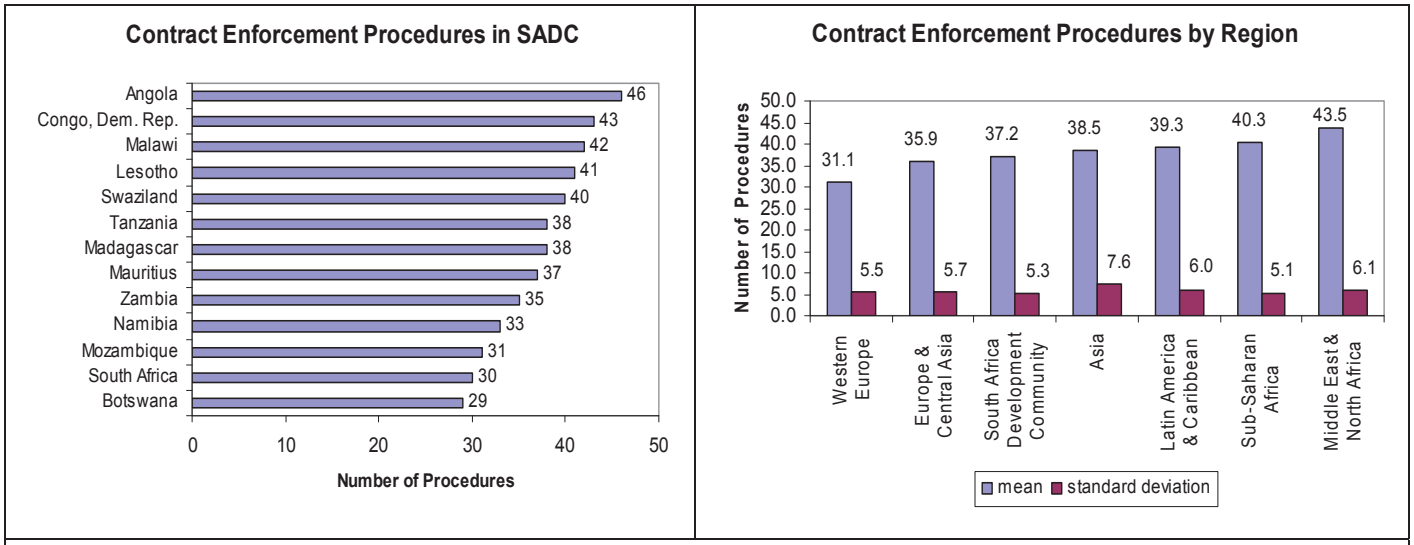
Source: Doing Business (2010)

4.7. RULE OF LAW AND CONTRACT ENFORCEMENT

4.40. The rule of law is one of the stronger correlates of interest rates and indicators of access to finance in the Enterprise Survey data described earlier, along with the quality of credit information, and the size and structure of the banking industry. This, too, is not surprising, as the range and value of financial transactions that take place, and hence the scale of financial activities as a whole, depend heavily on the quality of contract enforcement institutions.

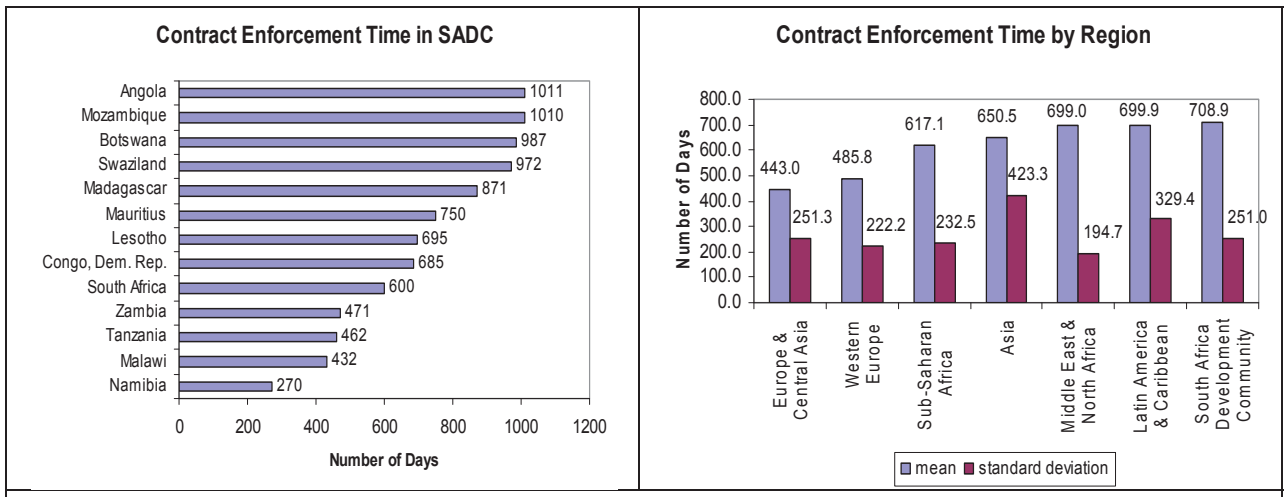
4.41. This is another area where the SADC is not scoring well compared to other regions, and where member countries differ significantly. The average number of Doing Business contract enforcement procedures for the region is 37.2 (figure 4.15). This is well below the average for the rest of Sub-Saharan Africa and the Middle East and North Africa, and compares reasonably well with those of Asia and Eastern Europe; however, it is significantly higher than the average for Western Europe. Perhaps more importantly, the number of procedures varies hugely within the SADC, ranging from a low of 29 in Botswana to a high of 46 in Angola. The region also does more poorly on the companion of the Doing Business contract enforcement indicator, the time it takes to enforce the standard contract. The SADC average here is more than 700 days, which is much higher than the average of the regions in figure 4.16. This indicator also varies enormously among SADC countries, ranging from 270 days in Namibia to well over a 1,000 days in Angola and Mozambique.

Figure 4.15: Contract Enforcement Procedures



Source: Doing Business 2010.

Figure 4.16: Contract enforcement time (days)

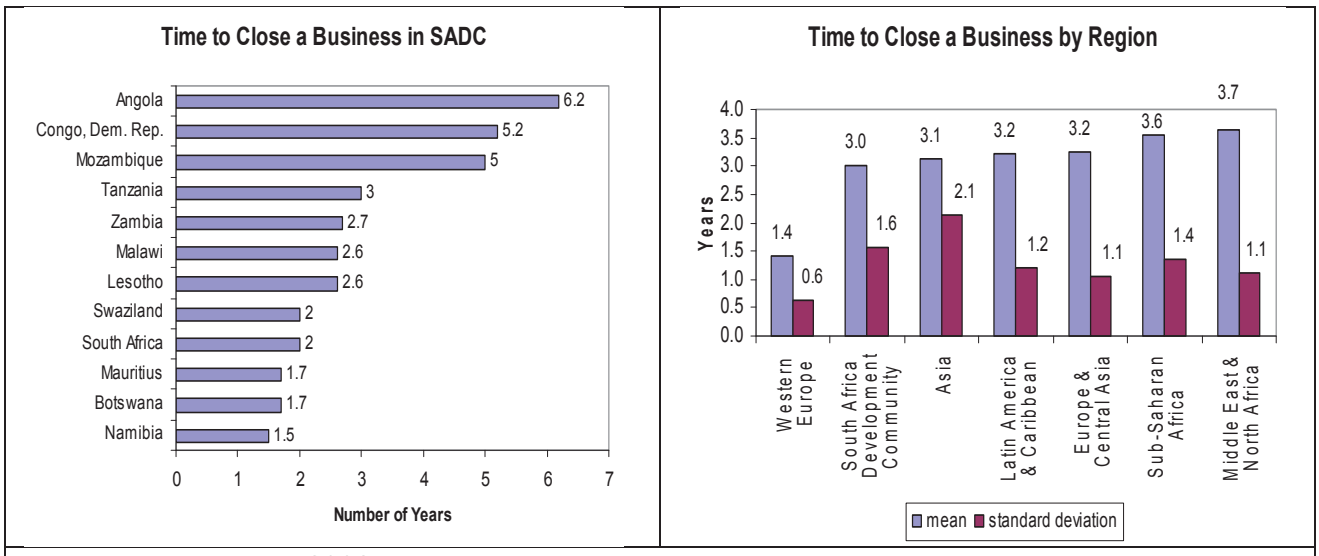


Source: Doing Business 2010.

4.42. Another aspect of a well-functioning financial and legal system is its bankruptcy process. A more efficient and timely bankruptcy process supports the development of credit markets, which requires the appropriate closure of failed businesses and the separation of viable from nonviable businesses. Thus, a measure of the effectiveness of the bankruptcy process is the length of time it takes to close a business. With a longer time period that elapses before a business is closed, there is a less likelihood that the assets of the enterprise will be preserved and that creditors will receive their money.

4.43. As a region, the SADC does reasonably well compared to all other regions except Western Europe, but here also member countries differ by large margins (figure 4.17). At one extreme are DRC, Mozambique, and Angola, where the standard bankruptcy process takes from 5 to 6.2 years. On the other end of the distribution are Namibia, Botswana, Mauritius, South Africa, and Swaziland, where the same process takes about 2 years.

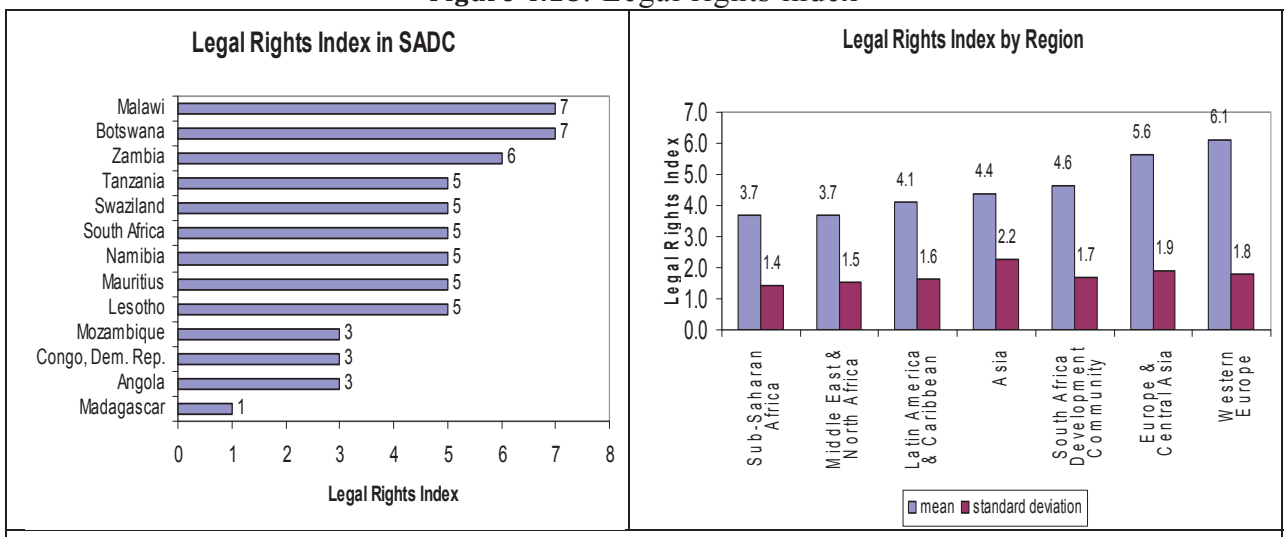
Figure 4.17: Time to close a business



Source: Doing Business 2008.

4.44. A composite measure bringing together the contract enforcement indicators just considered is the Doing Business Legal Rights Index, which measures the extent to which specific laws on bankruptcy and collateral protect the rights of borrowers and lenders, thus facilitating lending. The index includes seven aspects related to legal rights in collateral law and three aspects in bankruptcy law. Scores range from 0 to 10, with higher scores reflecting laws that improve access to credit. As a region, the SADC does better than Asia, Latin America, and the rest of Sub-Saharan Africa, but not nearly as well as Europe. Cross-country differences within the region are also quite large (figure 4.18).

Figure 4.18: Legal rights index



Source: Doing Business (2008)

4.8. CONCLUSION

4.45. While full financial integration is a lengthy process, requiring significant political will and effort, the benefits of even partial financial integration could be significant. These include greater facilitation of trade and improved allocation of capital within the region, and between the region and the rest of the world. The harmonization of laws and regulations, improved information sharing, and the opening of markets to increased capital flows are some of the steps that would move the SADC region toward financial integration.

4.46. It is a measure of the lack of financial integration within the SADC that both real and nominal interest rates vary enormously across countries within the region, some having excessively high real interest rates (Mozambique, Tanzania, and Zambia), and others reporting negative real interest rates (DRC, Botswana, Madagascar, and Angola). Bank loan usage rates also vary enormously among member countries. The disparities in interest rates and bank loan usage rates remain quite large, even when taking into account the discrepancy between countries in the size and age distribution of businesses. More importantly, the disparities reflect differences in the size and the structure of the banking industry, the availability and quality of credit information, and the degree of capital controls. The disparities are also highly correlated with cross-country differences in contract enforcement.

4.47. With the exception of South Africa, SADC countries have relatively small banking industries. The number of banks is typically also small, and the industry highly concentrated, factors that tend to undermine competition. Financial integration might help address this problem by enabling member countries to expand the size of their financial systems and obtain economies of scale, while also fostering competition in financial markets.

4.48. At the moment, regional financial integration is impeded by capital controls that are more stringent than in many other parts of the world and should be an obvious area of priority in harmonization efforts. Another barrier both to financial integration and financial development is the lack of credit information in several member countries, namely, DRC, Lesotho, Madagascar, Malawi, Tanzania, and Zambia. A third set of barriers are the huge disparities in the quality of contract enforcement institutions among member countries, and the fact that the SADC as a region compares poorly with other regions in terms of the quality of contracting enforcement institutions. . Improving availability of credit information, opening capital accounts, opening the banking industry to greater competition, and improving the quality of contract enforcement institutions are thus potentially important instruments for promoting financial development and financial integration in the region.

CHAPTER 5.
REGIONAL LABOR MARKET INTEGRATION

5.1. INTRODUCTION

5.1. The labor market is a key channel linking the cross-border flow of goods and capital with household welfare through the effects such flows normally have on jobs and earnings. The more internationally integrated the labor market in an economy, the stronger is this linkage. The labor markets of two (or more) countries are integrated when wage rates in one country respond readily to wage changes in the other country. Conversely, the non responsiveness of wage rates in one country to major wage changes in the other signifies lack of integration between their labor markets. In this chapter, we provide a brief assessment of the extent of labor market integration in the SADC and discuss the influence that cross-country differences in labor market institutions may have had on it.

5.2. Unfortunately, the assessment is limited to the relatively few SADC members who have labor market data that are sufficient for this purpose. One of our messages is therefore that there is a compelling case for collecting and maintaining regionally comparable labor market datasets of the kind analyzed here in all SADC countries. The absence of labor market integration in any region impliesthe fragmentation of goods markets and the insufficient mobility of capital across the region. Over the long term, a country would be able to sustain high domestic wage rates in the face of low wages in neighboring countries only as long as it can limit the migration people as well as the cross-border flow of goods and of capital. On the other hand, labor markets would be integrated in a region of free trade as long as either capital or labor is fully mobile across the region. Indicators used to monitor labor market integration therefore provide insights into the states of trade integration and regional mobility of capital.

5.3. We start with a brief review of pay gaps across member countries, based on wage and employee data collected in several countries as part of the World Bank Enterprise Surveys. The surveys suggest that pay rates vary enormously across countries for identical workers. International wage gaps of this kind are quite common, even in regions where trade and capital flows are relatively unrestricted, and therefore do not necessarily indicate the absence of labor market integration. However, we would infer that there is little integration if there is evidence of a country's wages failing to respond significantly and quickly enough to major wage changes elsewhere in the region. The third section of this chapter examines the state of integration with South Africa’s labor market in Botswana, Namibia, Swaziland, Tanzania, and Mauritius, the only countries in the region with the data such an assessment requires. There is good reason to believe that these countries' cases give us a sense of the state of integration of the labor markets in the region as a whole.

5.2. CROSS-COUNTRY GAPS IN EARNINGS AND RETURNS TO HUMAN CAPITAL

5.4. There are wide pay gaps among SADC member countries. This is to be expected in any group of countries that differ so much in terms of wealth and level of economic development. Table 5.1 gives a sense of how wide the gaps are among the ten countries in the community for which comparable wage data are available. The data come from the World Bank's Enterprise Surveys of earnings and human capital data on samples of workers from the enteprises they covered. The table reports median monthly earnings (in 2008 rand) for skilled and unskilled workers separately, and by occuptional categories.

5.5. Across each of these groups, South African businesses pay the highest median wages. For example, the monthly median South African pay for production workers is R 4,340 and R 2,830, respectively. The next highest paid skilled/unskilled production workers are in the other middle-income countries—Botswana, Swaziland, Mauritius, Angola and Namibia—who earn just over 50 percent and 75 percent of South African earnings. Production workers in DRC and Tanzania earn less than 20 percent of what a similar worker (in terms of pre-work attributes) in South Africa makes.

Table 5.1: Median monthly earnings, R (2008)

Country	Managers	Professionals	Skilled	Unskilled	Non-production	Total
Angola	2433	3475	2363	2224	1877	2224
Botswana	1241	7302	1825	1168	1599	1460
DRC	1384	1097	652	713	715	713
Mauritius	3666	1561	2178	1452	1742	1573
Namibi	12802	4711	2356	1471	2478	2051
South Africa	21960	10980	4344	2833	3305	3843
Swaziland	1041	1614	2235	1180	1912	1490
Tanzania	1712	1956	734	571	571	652
Zambia	3720	3224	1116	1004	1116	1116

Source: Calculations from World Bank Enterprise Surveys

Note: Earnings are not at purchasing power parity prices.

5.6. These are very large gaps, but a significant portion of them probably reflects cross-country differences in skills within occupational and skills categories in the table. The gaps may also partly reflect cross-country differences in the age and gender composition of each occupational group, which are also important sources of pay gaps in most countries. Strictly speaking, we should compare the prices of comparable grades of labor in the present context, meaning we should make the wage comparisons while controlling for a wide range of employee characteristics, including gender, education, and experience. Indeed, comparisons should be made in terms of rate of return on investment in human capital. Table 5.2 makes those comparisons: Monthly earnings are estimated country-by-country based on the gender of the worker, the number of years of education they have had, and the amount of time they have been in the labor market.

Table 5.2: **Earnings regressions: selected SADC members**

	Overall			Large Countries		Landlocked		Upper Middle		Lower Middle	
	8 SADC countries including SA			Tanzania	DR	Botswan	Zambia	Mauritiu	Namibia	Angola	Swazilan
Years of schooling	0.055	0.052	0.036	0.070	0.085	0.095	0.092	0.052	0.101	0.048	0.029
	(0.010)*	(0.008)*	(0.010)*	(0.011)*	(0.012)*	(0.015)*	(0.010)*	(0.027)+	(0.014)*	(0.021)*	(0.010)*
Experience, years	0.038	0.027	0.027	0.030	0.009	0.034	0.048	0.009	0.068	0.026	0.049
	(0.004)*	(0.004)*	(0.004)*	(0.017)+	(0.013)	(0.021)+	(0.014)*	(0.011)	(0.017)*	(0.018)	(0.019)*
Experience	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.001	-0.000	-0.000	-0.001	-0.001
	(0.000)*	(0.000)	(0.000)	(0.001)	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
Gender (Female	0.019	-0.092	-0.095	0.030	0.066	-0.309	0.003	-0.263	0.096	-0.111	-0.420
	(0.036)	(0.033)*	(0.034)*	(0.081)	(0.085)	(0.090)*	(0.092)	(0.136)+	(0.102)	(0.101)	(0.089)*
Angola		-0.492	-0.678								
		(0.054)*	(0.190)*								
Botswana		-0.631	-1.302								
		(0.053)*	(0.190)*								
D. R. Congo		-1.664	-2.235								
		(0.038)*	(0.175)*								
Mauritius		-1.177	-1.381								
		(0.073)*	(0.283)*								
Namibia		-0.580	-1.043								
		(0.054)*	(0.159)*								
Swaziland		-0.758	-0.707								
		(0.054)*	(0.155)*								
Tanzania		-1.750	-2.113								
		(0.047)*	(0.172)*								
Zambia		-1.284	-1.945								
		(0.045)*	(0.156)*								
Angola*schooling			0.017								
			(0.022)								
Botswana*schooli			0.062								
			(0.018)*								
DRC *schooling			0.051								
			(0.015)*								
Mauritius*schoolin			0.019								
			(0.029)								
Namibia*schooling			0.042								
			(0.015)*								
Swaziland*schooli			-0.007								
			(0.014)								
Tanzania*schoolin			0.034								
			(0.014)*								
Zambia*schooling			0.059								
			(0.014)*								
Constant	6.552	7.551	7.735	5.578	5.590	6.521	5.699	6.621	6.054	7.172	7.143
	(0.110)*	(0.109)*	(0.122)*	(0.174)*	(0.163)*	(0.203)*	(0.119)*	(0.315)*	(0.186)*	(0.177)*	(0.130)*
Observations	5231	5231	5231	555	390	313	987	714	325	487	237
R-squared	0.06	0.29	0.30	0.10	0.20	0.20	0.08	0.03	0.20	0.04	0.17

Robust standard errors in
+ significant at 10%; * significant at 5%; **

5.7. One can observe in the table that in the SADC as a whole, a woman earns about 9 percent less than a male worker of comparable education and experience. Also for the region as a whole, a male worker with a given amount of experience would earn 5–6 percent more for every year he had been of schooling. However, the table also shows that the rate of return to education varies widely among member countries. Notably, the rate of return is much lower in South Africa, at 3.5 percent, than in the region as a whole, but much higher in the poorer economies of Tanzania and DRC, at 7 percent and 8.5 percent, respectively. The rate of return to schooling is even higher in other resource-rich economies: 9.5 percent in Zambia and 10 percent in both Botswana and Namibia. The rate in Mauritius is comparable to South Africa's. Overall, returns to schooling are higher in the poorer and larger members of the SADC and in labor-scarce but resource-rich economies.

5.8. Table 5.3 summarizes the information in table 5.2 on skills gaps and the rate of return to schooling. In table 5.2, the intercept term in each country-specific column is a residual skills index for that country. The first column of table 5.3 expresses the index for each country relative to South Africa's. [13]

Table 5.3: **Skill price and returns to schooling relative to South Africa**

Country	Skill Price %	Rate of Return Differential, %
Angola	-49.2	1.7
Botswana	-72.8	6.4
Congo, Dem. Rep. of	-89.3	5.2
Mauritius	-74.9	1.9
Namibia	-64.8	4.3
Swaziland	-50.7	-0.7
Tanzania	-87.9	3.5
Zambia	-85.7	6.1

Source: Team Calculations from table 5.2.

5.9. To illustrate the importance of the results of this analysis, one can compare across the region the potential earnings of a typical male worker with no schooling and some work experience. Such a worker earns about 90 percent less in DRC, Zambia, and Tanzania than he would in South Africa. Relative to working in South Africa, the same worker would earn about 50 percent less in Swaziland and Angola. He would earn 65 to 75 percent of the South African rate in other middle income countries of the region.

5.3. ASSESSING LABOR MARKET INTEGRATION

5.10. The gaps in wage rates that exist for comparable workers among SADC member countries, as just described, are high, but do not necessarily tell us how far labor markets in the region are integrated or fragmented. Even in the best of circumstance, where there is free trade and unrestricted mobility of capital, any snapshot of labor markets across a region can reveal large international differences in wage rates of comparable workers for a variety of reasons, including cost of living differences across locations and the fact that labor is an extremely heterogeneous factor of production in the sense that there are often significant skills differences among workers in fairly narrow occupational and demographic groups that may not be observed from labor market data. Most importantly, the wage gaps between any two countries or two regions of a country that we might observe at any point in time could be temporary, and could eventually disappear once the employers and workers in both countries have had enough time to react to them. When we try to assess whether the labor markets in the region are integrated, it is not sufficient that we look at whether there are cross-country differences in pay rates or in returns to human capital—there are bound to be permanent pay gaps, even among regions and

[13] South Africa is the omitted country and serves as the benchmark against which skill prices and returns to schooling are measured. See Rosenzweig 2010 for a more comprehensive measure of skill prices in which controls for school quality and per capita income are included. Given the absence of comprehensive school quality data in the SADC region, it is not possible to impute skill prices using his estimates.

provinces within a country. The key question in evaluating the state of labor market integration in the region is whether or not large and sudden jumps in cross-country pay gaps due to labor market shocks in one part of the region are corrected quickly enough as the rest of the region reacts to them.

5.11. International trade, capital flows, and migration all play a role in the mechanism that corrects cross-country wage gaps to their normal state. However, they do not react instantaneously to excessive wage differences among countries—other factors affect reaction time. These, in turn, affect the timing and degree of correction. For example, potential immigrants need to arrange for transportation to and accommodation in the host country. Similarly, goods need to be transported across borders, and plant and equipment need to be acquired and established in the host country. The reaction time will be shorter and the adjustment of wages across borders faster where the transport of people and goods is easier, and where there are fewer and less stringent restrictions on the employment and cross-border flow of goods, people, and capital.

5.12. In the annex to this report, we describe a method to estimate the speed with which wages in a selection of SADC countries adjust to wage developments in South Africa to provide an indicator of the degree to which the labor markets in those countries are integrated with South Africa's. The selected countries are the BNS (Botswana, Namibia, and Swaziland), Tanzania, and Mauritius, the only countries where labor market data are adequate to estimate reaction time to international wage developments.

5.13. Our estimates suggest that there is some integration between the labor markets of all of these countries and South Africa's. However, the degree of integration is rather low compared to what is observed in other regions of greater trade integration, such as the U.S.–Mexican border. This probably reflects the fact that both trade and capital flows are far more restricted within the SADC than in those other regions.

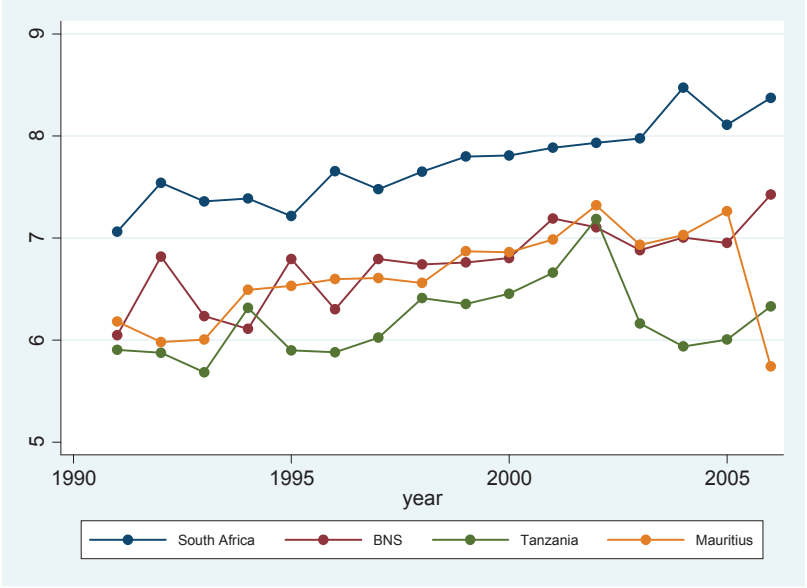
5.14. The estimates are based on data on earnings and characteristics of workers sampled from firms covered by the World Bank's Enterprise Surveys. Table 5.4 provides basic information about the sample workers from each country, while figure 5.1 compares the time profiles of average earnings across country samples.

Table 5.4: Means of selected variables for firms

Country-survey year	Number of workers in sample	% male	Age, years	Schooling, years	Tenure, years	Monthly earnings, Rand	Coeff. of earnings variation
Botswana-2006	351	55%	32.4	10.7	4.5	3192	0.119
Mauritius-2005	1335	56%	36.8	10.1	8.9	2221	0.096
Mauritius-2008	563	55%	37.1	8.6	6.4	2615	0.211
Namibia-2006	321	65%	33.2	10.8	5.5	7042	0.126
South Africa-2004	4770	60%	38.3	11.1	7.0	9201	0.113
South-Africa-2008	1233	65%	34.9	11.4	6.2	7495	0.104
Swaziland-2006	232	39%	32.0	9.4	4.5	2280	0.108
Tanzania-2002	223	80%	40.7	9.8	9.2	3363	0.149
Tanzania-2006	552	74%	33.4	10.5	6.1	841	0.148

Source: World Bank Enterprise Surveys,

Figure 5.1: Time profile of average earnings (log)



Source: Computed from World Bank Enterprise Surveys

5.15. The basis for our estimates of the speed of international adjustment of wages is the analysis reported in table 5.5, which predicts the response of wages, w_j^m, in Mauritius, Tanzania or in one any of the BNS group, to the growth or decline of South African wages, w_j^{sa}, leading to a larger or smaller wage gap, $(\boldsymbol{w_{jt-1}^m} - \boldsymbol{w_{jt-1}^{sa}})$. Details of the estimation results are reported in the annex to this report.

5.16. The key finding, though, is that an increase in South African wages would result in increases in wage rates in other countries as well, and there is a tendency for wage gaps among countries to settle back to their starting points following sudden spikes or falls. This is the basis

of our conclusion that there is some integration between the South African labor market and those of the other countries.

5.17. However, estimates based on the time taken for wage adjustment suggest that the degree of integration is rather small. For example, it takes about 3.6 months for the wage gap between BNS and South Africa to return to its equilibrium or normal level following an initial spike or drop in South African wages. The adjustment period is even longer for Mauritius, at just under 11 months. The results for Tanzania lie in between: 5.5 months for the wage gap between Tanzania and South Africa to return to its equilibrium level. These results are consistent with the geography of trade, migration, and investment within the SADC. Botswana, Namibia, and Swaziland share a border with South Africa and have historically been closely integrated in terms of both the flow of factors of production and goods. In particular, the labor market in South Africa has been a powerful source of employment opportunities for citizens of these three countries, much more so than for Tanzania and Mauritius. In addition to distance increasing the cost of migration, differences in language are likely to raise the costs of migrating to South Africa for workers in Mauritius. Similarly, language differences among countries have been shown to reduce the intensity of trade (Tenreyo 2007). All of these facts are consistent with the speed of convergence observed across these three SADC regions. The results from the U.S.–Mexican border allow us to put the results above in context. In the two border cities examined by Robertson (2000), which are well integrated with the US labor market, it takes approximately one month for wages to return to their equilibrium differential.

5.18. Results based on household data suggest that the adjustment time in Mauritius is probably much longer than that suggested in table 5.5. Estimates based on household data are reported in table 5.6. The South Africa data comes from the March and October labor force surveys fielded every year from 2001 to 2007.[14] The Mauritius data comes from the Continuous Multi-purpose Household surveys (CMPHS) that were fielded first in 1999 and then annually since 2001. Table 5.7 provides a summary of those data.

5.19. As in table 5.5, this shows that positive shocks to wages in South Africa are associated with positive changes in the earnings of Mauritian workers. In addition, the coefficient on the wage gap is negative and significant. The results on responses to shocks suggest some variation in the response across the three regions. Wages outside of the capital, Port Louis, respond less to shocks to South African wages, but this differential is not significantly different from zero. Secondly, the degree of integration suggested by the coefficients on the wage gap variable also varies by region in Mauritius. Wages in Port Louis return to their equilibrium differential in about 16 months. However, the rest of the country (excluding Rose Hill) is considerably less integrated with both Port Louis and South Africa. The estimates suggest that it takes about three times as long for the wage differential to return to its equilibrium in the parts of Mauritius outside Rose Hill and Port Louis. The point estimate measuring the integration differential between Rose Hill and Port Louis is positive, suggesting lower labor market integration, but is not statistically significant.

[14] Data from 2000 are available, but there is no corresponding survey for Mauritius.

Table 5.5: Evidence of labor market integration in SADC

	Dependent variable: change in earnings (Δw_{jt}^{m})					
					CPI-adjusted wages	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Wage Shock						
Change in SA Earnings (Δw_{jt}^{sa})	-0.021	0.379	0.424	0.353	0.359	0.360
	(0.081)	(0.101)**	(0.120)**	(0.104)**	(0.105)**	(0.110)**
Mauritius* * (Δw_{jt}^{sa})			-0.059	0.018	0.015	0.027
			(0.182)	(0.139)	(0.140)	(0.144)
Tanzania* (Δw_{jt}^{sa})			-0.125	-0.058	-0.094	-0.080
			(0.232)	(0.232)	(0.152)	(0.151)
Panel B. Convergence						
Wage Gap $\left(w_{jt-1}^{m} - w_{jt-1}^{sa}\right)$		-0.721	-0.912	-0.769	-0.783	-0.780
		(0.055)**	(0.115)**	(0.098)**	(0.106)**	(0.108)**
Mauritius*$\left(w_{jt-1}^{m} - w_{jt-1}^{sa}\right)$			0.327	0.246	0.201	0.182
			(0.138)*	(0.111)*	(0.120)+	(0.120)
Tanzania*$\left(w_{jt-1}^{m} - w_{jt-1}^{sa}\right)$			0.041	0.084	-0.091	-0.092
			(0.151)	(0.176)	(0.153)	(0.152)
Mauritius			0.117	0.037	0.941	0.954
			(0.139)	(0.133)	(0.140)**	(0.146)**
Tanzania			-0.344	-0.399	3.636	3.626
			(0.196)+	(0.239)+	(0.406)**	(0.394)**
Δ Exchange Rate						-0.444
						(0.165)**
Constant	0.097	-0.626	-0.599	-0.453	-0.564	-0.555
	(0.054)+	(0.065)**	(0.111)**	(0.116)**	(0.135)**	(0.138)**
Weight using cell size				X	X	X
Observations	473	473	473	473	473	473
R-squared	0.00	0.39	0.42	0.41	0.49	0.49

Robust standard errors in parentheses + significant at 10%; * significant at 5%; ** significant at 1%

Table 5.6: **Labor market integration results: household survey data**

	Dependent variable: change in earnings (Δw_{jt}^{m})					
					CPI-adjusted wages	
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A. Wage Shock						
Change in SA Earnings (Δw_{jt}^{sa})	0.085	0.328	0.313	0.304	0.194	0.203
	(0.081)	(0.065)**	(0.129)*	(0.121)*	(0.090)*	(0.085)*
Rest of Country* (Δw_{jt}^{sa})			-0.085	-0.035	-0.150	-0.124
			(0.148)	(0.145)	(0.103)	(0.094)
Rose Hill* (Δw_{jt}^{sa})			0.080	0.094	-0.053	-0.051
			(0.176)	(0.167)	(0.125)	(0.117)
Panel B. Convergence						
Wage Gap $\left(w_{jt-1}^{m} - w_{jt-1}^{sa}\right)$		-0.552	-0.679	-0.326	-0.262	-0.275
		(0.061)**	(0.105)**	(0.050)**	(0.055)**	(0.053)**
Rest of Country*$\left(w_{jt-1}^{m} - w_{jt-1}^{sa}\right)$			0.313	0.075	0.222	0.193
			(0.116)**	(0.065)	(0.070)**	(0.065)**
Rose Hill$\left(w_{jt-1}^{m} - w_{jt-1}^{sa}\right)$**			0.155	0.003	0.066	0.068
			(0.132)	(0.078)	(0.084)	(0.080)
Rest of Country			-0.037	0.001	-0.327	-0.282
			(0.031)	(0.019)	(0.104)**	(0.097)**
Rose Hill			0.005	0.018	-0.075	-0.080
			(0.036)	(0.022)	(0.127)	(0.121)
Δ Exchange Rate						0.246
						(0.035)**
Constant	-0.005	0.093	0.134	0.059	0.180	0.194
	(0.012)	(0.017)**	(0.037)**	(0.022)**	(0.094)+	(0.093)*
Weight using cell size				X	X	X
Observations	606	606	606	606	606	606
R-squared	0.00	0.29	0.31	0.20	0.06	0.15

Table 5.7: **Selected means— 2001 and 2007**

	Percent male	Mean age (years)	Mean education level (years)	Mean monthly earnings (R)	Coefficient of variation of log (earnings)
2001					
South Africa	**56.8**	**38.2**	**7.6**	**2346**	13.5
Mauritius	**70.0**	**37.7**	**8.5**	**2114**	9.1
Port Louis	71.7	37.4	8.5	1952	**8.8**
Rose Hill	67.2	37.3	9.2	2615	**9.8**
Rest	71.0	38.6	8.2	1888	**8.5**
2007					
South Africa	**56.4**	**38.2**	**9.1**	**3583**	11.8
Mauritius	**69.6**	**38.7**	**8.9**	**2294**	9.0
Port Louis	69.4	39.4	8.7	2139	**8.4**
Rose Hill	66.0	39.7	9.7	2949	**9.6**
Rest	70.6	38.4	8.7	2141	**8.8**

Source: Household surveys (2001, 2007).

5.3.1 THE CASE FOR INVESTING IN LABOR MARKET DATA IN OTHER SADC COUNTRIES

5.20. It is hoped that the results reported here on labor market integration between South Africa and BNS, Mauritius, and Tanzania will help make one more case for investing in the labor market data necessary to produce similar estimates for other SADC members. Additionally, we trust that the results demonstrate the feasibility of measuring labor market integration throughout the SADC region. With richer data, estimates are more reliable. Producing the minimum requirement should not be an expensive project.

5.21. The most common way to generate the ideal data required is to conduct repeated household surveys, designed to provide reliable estimates of the population at the regional level, that include an employment and income module to elicit earnings and worker attributes. Living standards measurement surveys (LSMS), which typically include a wide range of other modules, are one form of the surveys required. However, given the length of these surveys and the accompanying cost, it may be more sensible to rely on a more specialized survey instrument, such as a labor force survey (LFS). However, while some SADC members have conducted one or more labor force surveys, only South Africa performs surveys frequently enough to be useful. LSMS-type surveys are conducted in each of these countries, but few of them countries do so with sufficient frequency. In addition, given the concerns about the accuracy of income modules in eliciting measures of expenditure, it is not clear whether these modules are routinely included. Among the SADC countries that frequently collect household budget surveys, only Mauritius has annual data stretching back over the last ten years. Table 5.8 sums up the availability of household-level data in the SADC.

Table 5.8: Household data availability across selected SADC members

Country	Years available (2000–07)	Type of survey
South Africa	2000–07: biannual	LFS
Mauritius	2001–07	LSMS
Tanzania	2001(2), 2007	LSMS; LFS (2001)
Botswana	2003, 2006	LSMS; LFS (2006)
Namibia	2004	LSMS
Zambia	2002, 2004, 2005	LSMS; LFS (2005)

Source: Government Statistical Agencies

5.22. The other way to generate this data is to use the Enterprise Surveys collected as part of the investment climate assessments. Since firms are the primary sampling units, the sampling of workers from selected firms to provide reliable estimates of demographic group equilibrium wages needs to be done carefully. There are some limitations to this approach: first, the frequency of these surveys is generally very low—once every three to four years. While this is a limitation at present, a considerable 'panel" of data will be usable after a few more rounds of collection. Second, investment climate surveys tend to generate worker samples for the manufacturing sector only. This may be a constraint if wage-setting mechanisms in this sector differ from other sectors, as monitoring costs more in this sector.

5.4. LABOR MARKET INSTITUTIONS AND LABOR MARKET INTEGRATION

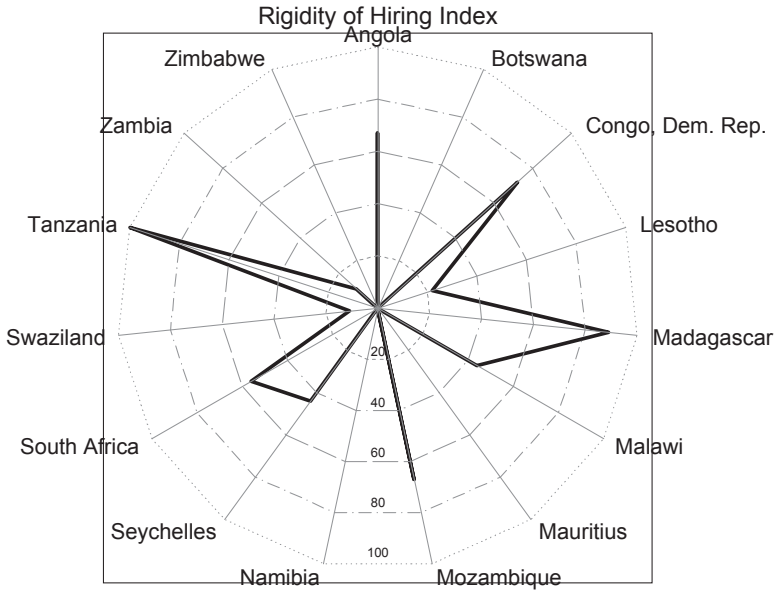
5.23. The speed with which doemstic wages react to labor market shocks in trading partners and neighbouring countries depends on the extent to which employment contracts and pay are regulated. We will therefore conclude the chatper with a short overview of key indicators of labor maket flexibility and regulation in the SADC.

5.24. Labor market regulation across SADC countries has been shaped by a variety of factors, including legal traditions inherited from different colonial powers (Botero et.al 2004), economic geography, and the varying role of labor in the independence movements of these countries. In the absence of comparable and objective data, we rely on the World Bank's Doing Business Indicators, which capture de jure measures of regulation of formal labor contracts. We consider three indices that measure various aspects of the degree of government regulation of work that may have a direct bearing on the adjustment of wages and employment to international labor market shocks, and hence, on the degree of labor market integration. These are rigidity of hiring, rigidity of hours worked, and the difficulty of laying off workers.

5.25. The rigidity of hiring index captures the extent and duration of fixed-term contracts and the extent to which minimum wage laws govern the remuneration of entry-level workers. The index ranges from 0 to 100, with higher numbers representing a more heavily regulated

economy. Figure 5.2 below shows a radar plot of the difficulty of hiring index across member countries from the 2010 Doing Business Report.

Figure 5.2: Labor regulations—rigidity of hiring

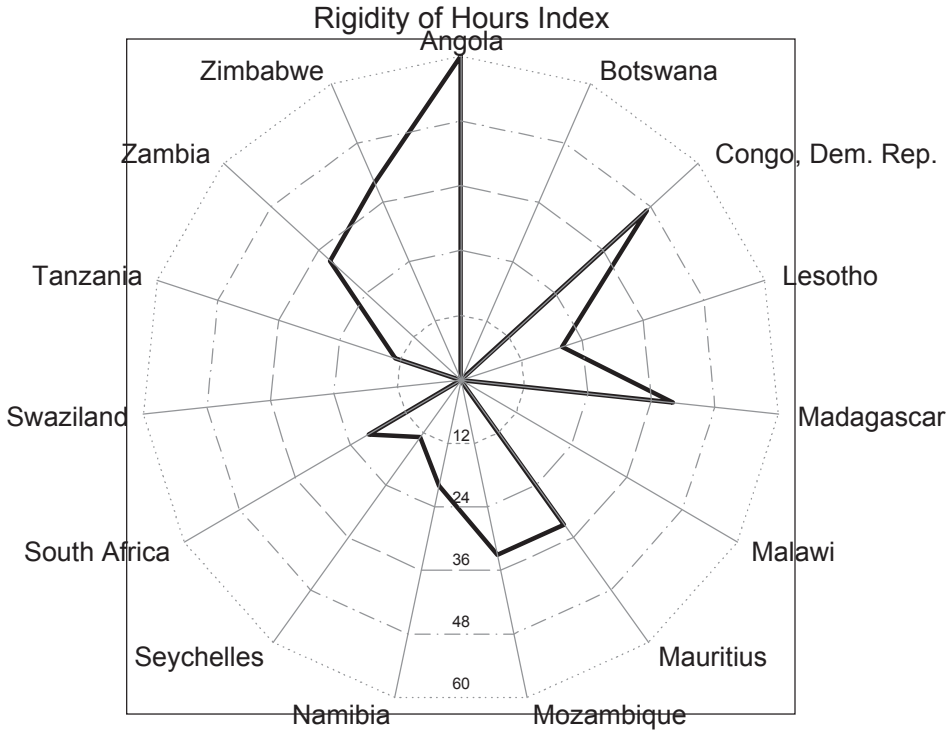


Source: Doing Business Report 2010.

5.26. As figure 5.2 above shows, there is great diversity within the SADC in the extent to which the hiring of new workers is formally regulated. The shape of the radar plot above is far from close to a circle, which would indicate a harmonization of regulation of first time employees in the region. Four countries, Zimbabwe, Botswana, Namibia, and Mauritius, do not have restrictions on the use of fixed-term contracts or minimum wages. At the other extreme, Tanzania, Madagascar, Angola, and DRC have considerable regulations on entry-level labor contracts.

5.27. A similar picture emerges when we consider regulation of extending worker hours beyond the legally stipulated levels. The rigidity of hours index captures the stipulated costs associated with increasing worker hours, as well as the formal rules governing the duration of annual leave.

Figure 5.3: Labor regulations—rigidity of hours

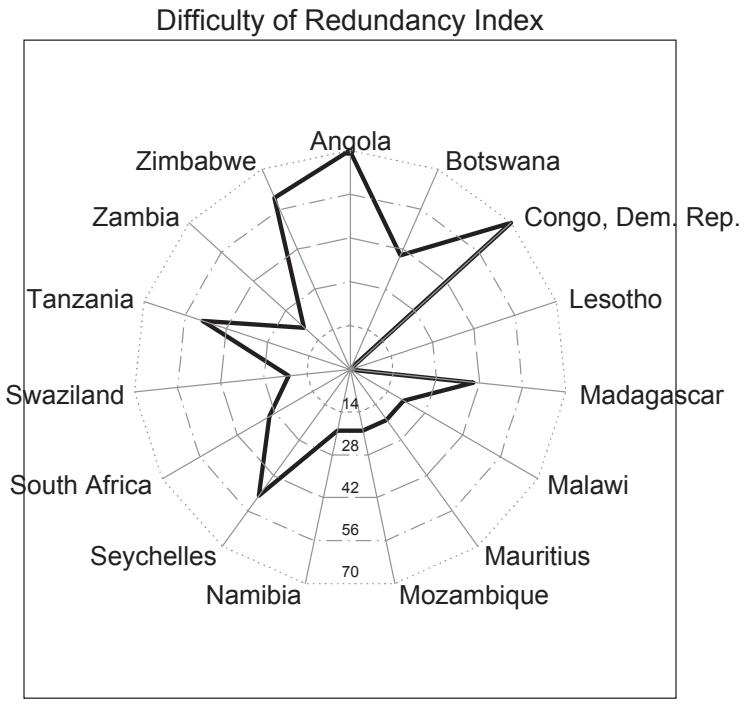


Source: Doing Business Report 2010.

5.28. The degree of rigidity in extending the hours of existing employees ranges from 0 (no rigidity) in Swaziland, Botswana, and Malawi, to over 45 in DRC and Angola. More than half of SADC members have an index value lower than the Sub-Saharan average of 29.3 and the OECD average of 30.1.

5.29. Finally, we examine the regulation of employment termination in each of the SADC member countries. This index incorporates information on the notification and approval requirements to lay off a redundant worker, reassignment or retraining requirements, and priority rules. Figure 5.4 below shows the index values of SADC member countries. Once again, there is considerable variation in the value of this index with a low of 0 (no rigidity) in Lesotho to a high of 70 in Angola and DRC. Seven members have an index value that is less than the OECD average of 22.6, with an additional three member countries at or below the Sub-Saharan Africa average of about 40.

Figure 5.4: **Labor regulation—difficulty of firing**



Source: Doing Business Report 2010.

5.30. Combining the value of these indices into an employment rigidity index suggests that while the SADC region does not have excessive regulation of employment contracts by international standards, there is considerable variation in the extent of regulation across member countries. Seven countries have an overall index value that is less than the OECD average of 26.4, and three have an average at or below the Sub-Saharan Africa average of 35.5.

5.5. CONCLUSION

5.31. This chapter has explored labor market integration in the SADC region using existing, albeit limited, household and firm-level data. Despite considerable differences in levels of earnings and returns to different worker attributes in the SADC region, there is strong evidence of labor market linkages across the region. In general, SACU countries that neighbor South Africa are more closely integrated than other members. Our estimates suggest that it takes about 3.6 months for wages to return to their equilibrium differential in the SACU countries, but about 11 months for Mauritius.

5.32. The degree of labor market integration has important implications for whether regional integration efforts can translate into earnings opportunities for citizens of member countries, wherever they may be located. Countries or regions that are less integrated to the anchor

economies benefit less from regional integration efforts than more integrated areas. Measuring the extent of labor market integration is also an indirect way of assessing the degree of integration of the goods market and other factor markets. This is because it is the integration of those markets would guarantee labor market integration even in if there were not effort to bring about equality of pay and working conditions across countries and locations. On the other hand, persistent and uncompensated regional and international wage gaps between identical workers would require cannot be sustained without some form impediment in mobility of goods and factors of production between the regions and countries in question.

5.33. Measuring the degree of integration requires relatively frequent firm, labor force, or living standards surveys: repeated cross-sections from each of these units are sufficient to estimate the specifications examined above. However, there is a dearth of this type of data in the SADC region. Only South Africa and Mauritius have relatively frequent labor force survey data. In order to more reliably investigate issues of labor market integration in the region, regular regionwide efforts to collect such data will be required.

CHAPTER 6.
ASSESSING GOODS MARKET INTEGRATION: TRENDS IN PRICES

6.1. INTRODUCTION

6.1. This chapter presents various price-based measures of product market integration in the SADC area. Most frequently, the integration of the goods market in a region is evaluated according to the degree to which countries trade with each other which is also the approach in the opening chapter. An alternative method is to evaluate the degree to which price levels in various countries are similar, the extent to which they co-move or converge, or both. To some extent this is a preferred metric of market integration. Trade volumes reflect price differences, but are also affected by numerous other factors unrelated to those influencing market integration. Changes in product market integration will also be reflected in prices, whether or not trade occurs, as the potential for arbitrage determines how far prices can diverge.

6.2. High levels of regional integration in output markets should lead to a convergence of price levels for similar products across member countries. In a well-integrated and well-functioning market, price differences after accounting for transport costs should be arbitraged away through intraregional trade. However, trade barriers, transport costs, and imperfect markets could potentially prevent this, resulting in large price dispersion. The welfare costs of these barriers might be high.

6.3. Differences in macroeconomic performance across regions can also contribute to goods market segmentation and inhibit negotiation of common policies for greater integration. This issue is explicitly recognized in the SADC Regional Indicative Strategic Development Plan (RISDP), which calls for macroeconomic convergence on a number of price related indicators: inflation, ratio of budget deficit to GDP, and nominal value of public and publicly guaranteed debt to GDP.[15]

6.4. In the first section of the chapter, we present a macro perspective on price integration, focusing on aggregate consumer price indices. Convergence of inflation rates is a key tenet of the SADC Regional Indicative Strategic Development Plan (RISDP), which outlines the desired economic conditions toward which SADC countries should converge in preparation for the formation of the customs union. While aggregate inflation rates provide insight, their use in evaluating integration is limited, as they provide no information about price level. Declining dispersion in price levels can therefore be consistent with rising dispersion in inflation rates, if, for example, low-priced countries converge to the mean price.

6.5. The next section then presents a disaggregated analysis of product markets integration during the 1990s and post-2000 period, using price data for over 200 products and 14 cities (4

[15] The aim is that inflation be less than 10 percent in 2008, 5 percent in 2012 and 3 percent in 2018 (Rossouw 2006).

from the SADC) obtained from the Economist Intelligence Unit. In each case, product-market integration is measured in two different ways (see Knetter and Slaughter 2001 and Crucini and others 2005a). The first method measures absolute price dispersion where increased integration is revealed by a decline in the deviation of prices from the Law of One Price (LOP).

6.6. The second method measures relative price dispersion. In this approach, the focus is on whether the relative price structure for goods within each country differs from other countries. If markets were integrated, we would expect to find convergence toward a common set of internal relative prices (Knetter and Slaughter 2001). One might, for example, find that absolute price levels have on average diverged, possibly due to exchange rate changes, but that the relative price structure for goods in each country has converged.

6.7. There are clear limitations to each analysis, but together they provide supporting evidence of increased market integration in SADC countries. Consumer price inflation has converged within the region and the volatility of real exchange rates has fallen. The detailed price level analysis also reveals a decline in price dispersion within and across SADC and other African countries, although this took place mainly in the 1990s, with little progress made subsequently.

6.8. Unfortunately, product level price data are currently available for only a few SADC countries. This inhibits a rigorous analysis of the determinants of price integration in the region. Nevertheless, the product level analysis of tariffs suggest that barriers to trade and transport costs are an important determinant of price integration in the region. While the structure and complexity of tariff schedules continue to differ across SADC countries, liberalization has created the conditions for convergence in the relative structure of border prices within each country. Further, product price dispersion among African cities is positively correlated with MFN tariff barriers and trade costs.

6.2. ASSESSING INTEGRATION USING AGGREGATE PRICE DATA: REAL EXCHANGE RATE MOVEMENTS

6.9. The basic conceptual framework for the analysis of price integration in this chapter is the Law of One Price (LOP). The LOP states, in essence, that the prices of equivalent goods converted into the same currency would be the same in different countries. In practice, a variety of influences on prices, such as trade barriers and market power, force deviations from the law. Tracing observed deviations from the law to specific institutional sources can therefore be highly informative to policy makers.

6.10. Quite often, this approach is used in cross-country comparisons of national price levels, on the assumption that goods market arbitrage should enforce parity in prices across a wide enough range of products to produce sufficient correlation in aggregate price levels. Since aggregate price level data are not available in most cases, the comparisons are made using national price indices and, consequently, can relate only relative price levels. In this setting, the LOP implies that, in each country, the rate of growth in domestic prices can be equal to the rate of growth of foreign prices converted into the home currency. In other words, if markets are

integrated so that the LOP holds, there will be relative Purchasing Power Parity (PPP) across countries in the long run.

6.11. In this approach, price integration is evidenced by a decline in the volatility of the real exchange rate. The volatility of the real exchange rate between country *i* and *j* ($qvol_{ij}$), in turn, is measured as the standard deviation of the first difference of the log of the real exchange rate over a particular period (that is, it is a measure of the time-series variance for a particular country pair *ij*): $qvol_{ij} = sd_t\left(\Delta \ln(CPI_i / e_{ij} CPI_j)\right)$.

6.12. Table 6.1 presents the average consumer price inflation in SADC economies from the mid-1980s. There has been considerable progress in reducing inflation across the region. Inflation in recent years has declined relative to the early 1990s for all SADC economies except Zimbabwe and the Seychelles, although inflation rates still vary enormously across countries. For example, inflation in six of the economies (Angola, DRC, Madagascar, Malawi, Zambia, and Zimbabwe) still exceeds the single digit goal for 2008, as set out in the Regional Indicative Strategic Development Plan (RSIDP).[16] Nevertheless, the general decline in inflation across SADC countries suggests a convergence in macroeconomic policy (or at least monetary policy) among SADC countries.

6.13. What matters for product market integration, however, is the convergence in prices measured in a common currency. Table 6.2 reports the average real exchange rate volatility for various groupings of African countries in two periods: 1985–96 and 1997–2008. Both the average within-region volatility (among members) and between-region real exchange rate volatility (between members and nonmembers) is presented. Looking at the SADC region as a whole, the real exchange rate volatility is marginally higher among members (0.25 to 0.26) than between SADC members and nonmembers (0.22 to 0.19). In addition, the average volatility of the bilateral real exchange rates among SADC members remained constant over the two periods, compared to a decline from 0.22 to 0.19 in the average volatility with nonmembers. The trend in exchange rate volatility among SADC members also contrasts with that for Sub-Saharan Africa as a whole. The data therefore suggest that there has not been a substantial increase in price integration within the region, although there is evidence of greater price integration within Sub-Saharan Africa as a whole.

[16] The RISDP, approved by the SADC secretariat in March 2001, sets out targets and timeframes for goals relating to trade, economic liberalization and development, infrastructure support for regional integration, sustainable food security, and human and social development (http://www.sadc.int). Its purpose is to deepen regional integration in SADC.

Table 6.1: Consumer price inflation in SADC economies

	1985–89	1990–94	1995-99	2000–04	2005–08
Angola	3.8	142.7	204.2	83.1	14.1
Botswana	9.5	12.1	8.4	7.6	9.5
Congo, Dem. Rep. of	54.9	319.4	126.7	75.5	15.7
Lesotho	13.1	12.7	8.2	7.3	6.8
Madagascar	15.0	15.1	15.6	8.9	11.5
Malawi	19.1	18.9	32.9	16.0	10.9
Mauritius	5.7	8.2	6.4	4.8	7.8
Mozambique	51.0	37.7	18.9	12.1	9.3
Namibia	13.2	9.7	8.1	11.1	5.9
Seychelles	1.5	2.4	1.6	3.8	9.3
South Africa	14.5	11.7	7.1	4.8	5.1
Swaziland	12.8	10.5	7.7	7.8	7.9
Tanzania	26.1	25.5	15.6	4.3	7.1
Zambia	51.1	77.3	26.6	19.7	11.8
Zimbabwe	11.1	23.3	26.1	98.0	312.5

Source: Calculations based on World Bank World Development Indicators.

6.14. The aggregate results for SADC as a whole hide differences in price integration within the region. Looking within SADC countries, there is a strong co-movement in the bilateral real exchange rate among South African Customs Union (SACU) members—the average real exchange rate volatility is only 0.05 to 0.06, which is low compared to the level of price volatility among other SADC members (0.32 to 0.30). SACU therefore appears to have been effective in reducing real exchange rate volatility among its members.

6.15. The greater integration of prices among SACU members can largely be attributed to the monetary union among South Africa, Namibia, Swaziland, and Lesotho, and is consistent with the findings by Rose and Engel (2002) for currency unions more generally. Real exchange rate volatility is similarly low for members of the CFA Franc Zone, which declined from 0.08 to 0.04 in the two periods analyzed.

6.16. There is no clear-cut evidence that the various trade agreements, other than SACU and CFA (for example, SADC, COMESA, EAC, ECOWAS), have been successful in increasing price integration among their members. The average volatility of the real exchange rate among members of these trade agreements is not consistently lower than among nonmembers.

Table 6.2: **Average real exchange rate volatility**

	1985–96	1997–2008	country pair obs.
ssa-row	0.22	0.15	3,635
ssa-ssa	0.25	0.17	734
sadc-row	0.22	0.19	1,762
sadc-sadc	0.26	0.25	105
rsadc-row	0.26	0.21	1,222
rsadc-rsadc	0.32	0.30	45
sacu-row	0.15	0.16	640
sacu-sacu	0.05	0.06	10
rssa-row	0.23	0.13	2,585
rssa-rssa	0.23	0.11	273
ecowas-row	0.22	0.14	1,311
ecowas-ecowas	0.19	0.13	53
cfa-row	0.22	0.11	1,529
cfa-cfa	0.08	0.04	78
comesa-row	0.24	0.18	1,866
comesa-comesa	0.29	0.24	120
eac-row	0.23	0.11	390
eac-eac	0.25	0.07	3

Source: Team calculations based on World Development Indicators data.

Note: Entries give mean value of standard deviation of log change in relative prices. rsadc denotes SADC excluding SACU, rssa denotes Sub-Saharan Africa excluding SADC. The sample includes only country pairs as there are at least 20 real exchange rate data observations from 1985–2008. All SADC countries are included.

Table 6.3: **Regressions explaining real exchange rate volatility**

				Trading across barriers		
	Basic	SADC split	Interact distance	Documents	Time	Cost
log Distance	**0.79**	**0.80**	**0.81**	**0.78**	**0.73**	**0.79**
	(13.4)	(13.7)	(13.7)	(13.1)	(12.3)	(12.9)
SADC x (log Distance)			-0.49			
			(0.9)			
log Product Real GDP	**0.39**	**0.39**	**0.39**	0.40	**0.02**	**0.07**
	(12.0)	(12.0)	(11.9)	(11.6)	(0.9)	(2.3)
log Product Real GDP per capita	**-0.95**	**-0.95**	**-0.95**	-0.78	0.09	-0.11
	(17.1)	(17.1)	(17.1)	(5.8)	(1.1)	(1.0)
log Sum of area	**0.36**	**0.36**	**0.36**	**0.31**	**0.30**	**0.31**
	(8.1)	(8.3)	(8.2)	(6.6)	(6.4)	(6.6)
Common language	**-0.23**	**-0.22**	**-0.22**	**-0.28**	**-0.32**	**-0.27**
	(2.4)	(2.4)	(2.3)	(2.9)	(3.2)	(2.7)
Colonial relationship	-0.15	-0.09	-0.09	-0.12	-0.09	-0.11
	(0.6)	(0.4)	(0.4)	(0.5)	(0.3)	(0.4)
Common colonizer	**-0.44**	**-0.47**	**-0.48**	**-0.59**	**-0.59**	**-0.61**
	(3.0)	(3.2)	(3.3)	(4.0)	(4.0)	(4.1)
Same nation	-0.41	-0.01	-0.01	0.03	-0.04	0.07
	(0.9)	(0.0)	(0.0)	(0.1)	(0.1)	(0.2)
Common land border	-0.22	0.01	-0.03	-0.04	-0.02	-0.04
	(0.7)	(0.0)	(0.1)	(0.1)	(0.1)	(0.1)
Currency union, excl SSA	**-4.88**	**-4.90**	**-4.89**	**-4.71**	**-4.68**	**-4.90**
	(17.4)	(17.4)	(17.3)	(16.5)	(16.8)	(17.3)
CFA Franc zone	**-9.13**	**-9.23**	**-9.22**	**-9.03**	**-8.89**	**-8.97**
	(17.2)	(17.5)	(17.5)	(17.4)	(17.1)	(17.1)
SADC	0.67					
	(1.5)					
SACU		**-6.27**	-2.88	4.00	-1.30	-0.14
		(11.0)	(0.7)	(0.7)	(0.3)	(0.0)
Rest of SADC		-0.74	2.97	8.99	4.38	5.31
		(1.1)	(0.7)	(1.8)	(1.0)	(0.5)
SACU-RSADC		**3.19**	6.94	**13.19**	**8.26**	9.29
		(8.7)	(1.6)	(2.5)	(2.0)	(1.0)
EAC	0.34	0.23	0.08	0.15	0.16	0.25
	(0.4)	(0.3)	(0.1)	(0.2)	(0.2)	(0.3)
COMESA	-0.03	0.00	0.01	0.16	0.28	0.20
	(0.1)	(0.0)	(0.0)	(0.4)	(0.8)	(0.5)
ECOWAS	1.17	1.08	1.09	1.05	1.00	1.05
	(1.8)	(1.7)	(1.7)	(1.7)	(1.6)	(1.7)
log Documents to trade				**5.01**		
				(4.3)		
SADC x (log Documents to trade)				-4.74		
				(1.9)		
log Time to trade					**3.27**	
					(8.3)	
SADC x (log Time to trade)					-1.38	
					(1.2)	
log Cost of trading						**1.47**
						(2.8)
SADC x (log Cost of trading)						-0.80
						(0.6)
Constant	14.89	14.71	14.69	3.53	-8.10	-8.86
	(10.3)	(10.2)	(10.2)	(0.9)	(3.8)	(1.4)
N	6418	6418	6418	6085	6085	6085
	477.2	484.8	482.6	476.1	501.5	469.4
Adj R2	0.97	0.97	0.97	0.97	0.97	0.97

Note: All coefficients are multiplied by 100. Absolute values of robust t-statistics are presented in parentheses. Bold values are significant at the 5 percent level.

6.17. Table 6.3 presents various gravity-style regressions of real exchange rate volatility showing that these patterns hold when we control for transport costs and other relevant country

and group characteristics. In the regressions, real exchange rate volatility is modeled as a function of pair-wise distance, GDP and productivity of potential trading partners with controls for various other country characteristics, such as colonial history, and common language.[17] There is no evidence in this table that membership in the SADC has had any effect on real exchange volatility: once we control for the factors listed in the table, including distance and GDP, relative price integration within the SADC is not stronger than relative integration with any one member and the rest of the world. However, exchange rate volatility is significantly lower among SACU members than is predicted by the characteristics of those members, while price integration between SACU and the rest of the SADC region appears to be weak.

Table 6.3 also provides strong evidence that part of the real exchange rate volatility within the SADC is explained by barriers to trade, as measured in the table by the time-to-trade and the cost-of-trade variables.

6.3. ASSESSING INTEGRATION USING PRODUCT LEVEL PRICE DATA

6.18. There are well-known limitations to using aggregate price index data of the kind used in section 6.2 to evaluate product market integration.[18] Perhaps the most important of these is that price indices help compare countries with respect to only the rate of change in prices over time, and not with respect to the level of prices at a given point in time. Unless purchasing power parity (PPP) holds in the base year for all countries, real exchange rate movements over time do not necessarily signify price convergence or divergence. This is because, if PPP does not hold everywhere in the base period, relatively rapid prices growth in one country is consistent with price convergence if prices were initially low relative to other countries. Alternatively, such growth is consistent with price divergence if prices were initially equal to or greater than the comparator countries.

6.19. To assess the gravity of this potential problem of working with aggregate price data, this section analyzes price dispersion across 14 African cities (13 countries), using detailed product-level price data obtained from the Economist Intelligence Unit (EIU). The EIU survey records local prices obtained from supermarkets and other retail stores, from 1990 to 2008, for over 160 individual goods and services. Unfortunately, only four of the cities (three countries) are part of the SADC, and of these, price data are available only for Harare and Johannesburg over the whole period (the remainder are available from 2000). Nevertheless, some insights into the SADC can be garnered from the data on how reliable the real exchange rate movements described in section 6.2 might be as gauges of products market integration. We also hope that the section will demonstrate the kind of results that might be obtained from the analysis of product-level price integration if more data become available.

[17] Details of how these factors interact in influencing real exchange rate movements are provided in the annex.

[18] See annex 6.1 for an account of these limitations.

6.20. The countries covered in the data are shown in table 6.4.[19] The data are used to assess integration, first in terms of (absolute) mean deviation from the LOP, and then in terms of cross-country variation relative to price dispersion across goods. In interpreting these measures of integration, we consider the price of a good to be a weighted mean of two cost components—the cost of traded inputs and the cost of nontraded inputs. An important implication of this interpretation is that while trade costs and trade barriers may not necessarily influence mean deviation from the LOP, reduction in trade costs and a fall in trade barriers would lead to greater convergence between countries in terms of the variance of prices across goods.[20]

Table 6.4: African country data availability

City	Country	Region	Data availability
ABIDJAN	Cote d'Ivoire	SSA	1990–2008
ALGIERS	Algeria	North Africa	2001–08
CAIRO	Egypt	North Africa	1990–2008
CASABLANCA	Morrocco	North Africa	1990–2008
DAKAR	Senegal	SSA	1990–2008
DOUALA	Cameroon	SSA	1991–2008
HARARE	Zimbabwe	SSA (SADC)	1990–2008
JOHANNESBURG	South Africa	SSA (SADC)	1990–2008
LAGOS	Nigeria	SSA	1990–2008
LUSAKA	Zambia	SSA (SADC)	2000–08
NAIROBI	Kenya	SSA	1990–2008
PRETORIA	South Africa	SSA (SADC)	2000–08
TRIPOLI	Libya	North Africa	1990–2008
TUNIS	Tunisia	North Africa	1990–2008
Source : World Cost of Living Survey, Economist Intelligence Unit			

6.3.1 MEAN DEVIATION FROM LOP

6.21. The picture that emerges from the analysis of mean deviation from the LOP, across products, is one of substantial price convergence across Sub-Saharan Africa. In almost all the cities listed in table 6.4, the mean deviation from LOP declined from the early 1990s to recent years (table 6.5). An exception to this trend is Lagos, where the mean LOP deviation rose from 9.2 percent in 1991–94 to 26.7 percent in 2005–08. Nevertheless, apart from a few exceptions, the price convergence within Sub-Saharan Africa that was found using aggregate real exchange rates earlier is replicated in the disaggregated price data.

6.22. This pattern can also be seen in figure 6.1, which presents the average product price in each city relative to Johannesburg over the periods 1990–99 and 2000–09. In most cases, the product prices in each country converged to the Johannesburg price between the two periods. For example, the average product price relative to Johannesburg, using pooled data, declined from 1.72 to 1.32 in the two periods. Unfortunately, the lack of data from SADC countries precludes

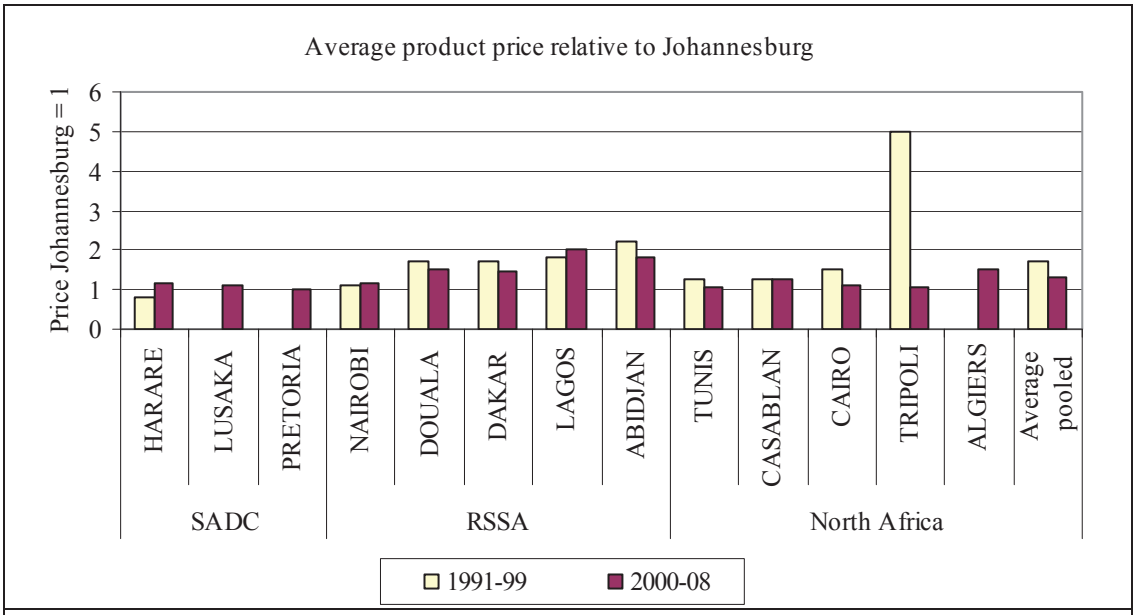
[19] A more detailed description, in terms of the number of products covered in each city and the overall geographic scope of the survey, is given in the annex.

[20] Other implications of this interpretation are discussed in the annex.

an analysis of price dispersion and convergence for this region over the entire period. Nevertheless, some insights into the level and trend of deviations from the LOP between Johannesburg, Lusaka, Harare, and Pretoria can be garnered from the data after 2000.

6.23. At the same time, figure 6.1 reveals considerable differences in product prices across countries. Product prices in Abdijan, Cairo, Dakar, Douala, Tripoli, and Lagos were on average over 1.5 times the price in Johannesburg during the 1990s. The relative product price in Tripoli is extreme, reflecting large changes in exchange rate and product prices, measured in local currency units, between 1993 and 1995. Product prices in Casablanca, Nairobi, and Tunis are closer to those in Johannesburg, while those in Pretoria (2000–08) are almost identical to those in Johannesburg.

Figure 6.1: Average product prices relative to sample average product price



Source: Team calculation using EIU City product price data. *Note:* Excludes nontraded services, but includes all retail outlets. The value for each country is the mean of the annual product price relative to Johannesburg over the periods 1990-99 and 2000-09. The relative product price is calculated as the city product price divided by the equivalent product's price in Johannesburg.

Table 6.5: **Mean (across goods) deviation from LOP**

	1991–94	1995–99	2001–04	2005–08
Relative to average SADC price				
HARARE			-0.076	-0.150
JOHANNESBURG			0.100	0.031
LUSAKA			-0.016	0.082
PRETORIA			0.088	0.037
Relative to average SSA price				
ABIDJAN	0.418	0.410	0.352	0.272
DAKAR	0.320	0.124	0.073	0.036
DOUALA	0.316	0.132	0.086	0.111
HARARE	-0.575	-0.498	-0.348	-0.342
JOHANNES	-0.178	-0.200	-0.164	-0.129
LAGOS	0.092	0.185	0.384	0.267
LUSAKA			-0.293	-0.084
NAIROBI	-0.377	-0.144	-0.122	-0.191
PRETORIA			-0.178	-0.124

Note: Pretoria prices are excluded when calculating the average log price for the SADC and SSA region.

6.24. The same pattern is repeated in table 6.5, which presents the mean deviation from the LOP for each period (prices relative to SADC average and relative to Sub-Saharan Africa average). Also presented in table 6.6 are the mean (across goods) LOP deviations based on relative prices across city pairs. The means for the SADC sample are reasonably close and fall within the interval ± 15 percent. The mean (across goods) deviation from LOP among the available SADC cities is therefore comparable to the mean LOP deviations within the EU. However, as shown in table 6.6, the mean LOP deviation across city pairs shifts dramatically across years.

6.25. This is not the case for the Sub-Saharan Africa sample. For most countries, the mean deviation from the average Sub-Saharan Africa price in cities differs substantially from zero. For example, in recent years, product prices in Abidjan have on average been 27 percent higher than the average product price in Sub-Saharan Africa cities. Product prices in Harare and Lagos also vastly differ from the average for those cities.

Table 6.6: **Mean (across goods) deviation from LOP, by city-pair**

	2000	2001	2002	2003	2004	2005	2006	2007	2008	Number of products
Harare-Johannesburg	-0.11	0.79	-0.48	-0.49	-0.05	0.32	0.19	-0.70	-0.19	86
Harare-Lusaka	0.08	0.86	-0.46	-0.09	0.31	0.55	0.20	-0.70	-0.43	38
Harare-Pretoria	-0.06	0.82	-0.46	-0.46	-0.01	0.34	0.21	-0.68	-0.19	85
Johannesburg-Lusaka	0.12	-0.08	-0.02	0.36	0.39	0.25	-0.06	-0.03	-0.16	101
Johannesburg-Pretoria	0.04	0.01	0.01	0.02	0.01	0.01	-0.01	-0.01	-0.02	192
Pretoria-Lusaka	0.10	-0.09	-0.02	0.34	0.40	0.23	-0.06	-0.04	-0.15	99

Source: Team calculation from the World Cost of Living Survey data
Note: Only products for which relative prices could be calculated over the entire period are used to calculate the mean.

6.3.2. RELATIVE PRICE CONVERGENCE

6.26. The second approach to evaluating product market integration using product level price data is to assess whether the variation of price differences across products i for various country pairs jk ($\text{Var}_i(q_{ijk} \mid jk)$) has declined over time. This approach is useful because declines in the mean (across product) deviation from LOP is not a necessary condition for improved product market integration. Regions may experience increases in product market integration through a convergence in relative prices, even if the mean deviation from LOP rises. One reason for this is that transport costs (and other barriers to trade) introduce a price wedge between importers and exporters of traded inputs, which in turn leads to retail price differences across countries. The impact of these price wedges on retail prices will differ across products according to the share of traded inputs in total costs. The price effect will also differ across countries according to whether the country is a net importer and exporter of the product, and because of differences in trade costs across countries.[21]

6.27. Reductions in trade barriers are therefore expected to reduce the price wedge, leading to a convergence in prices and a decline in the variance (across goods) of LOP deviations. The decline in trade barriers, however, will not necessarily alter the mean (across goods) deviation from LOP. Increases in retail prices of products using traded inputs priced at the export parity price might offset declines in prices of products using imported traded inputs. Moreover, unlike mean deviations from LOP, relative price dispersion is also unaffected by misalignments of exchange rates, which may generate substantial short-run deviations from LOP (Knetter and Slaughter 2001).

[21] Measuring goods market integration through changes in the across-product variation in LOP deviations has been pursued by Parsley and Wei (2002) and Crucini and others (2005b). The approach has theoretical foundations that are derived from the retail price relationship presented in annex 6.1.

6.28. In figures 6.2 and 6.3, relative price dispersion (or cross-product price dispersion) at time t for the city pair (j,k) is defined as the standard deviation of the log price difference ($q_{i,jk,t}$) across all products i: $sd_{jk,t} = sd_i\left(q_{i,jk,t}\right)$ .This calculation yields 36 city-pair observations for each year using the sample of nine African cities available in all periods. In the post-2001 period, where price data for 12 cities are available, 66 city-pair standard deviation observations can be constructed per year. At most, six observations are available for within SADC city-pairs.

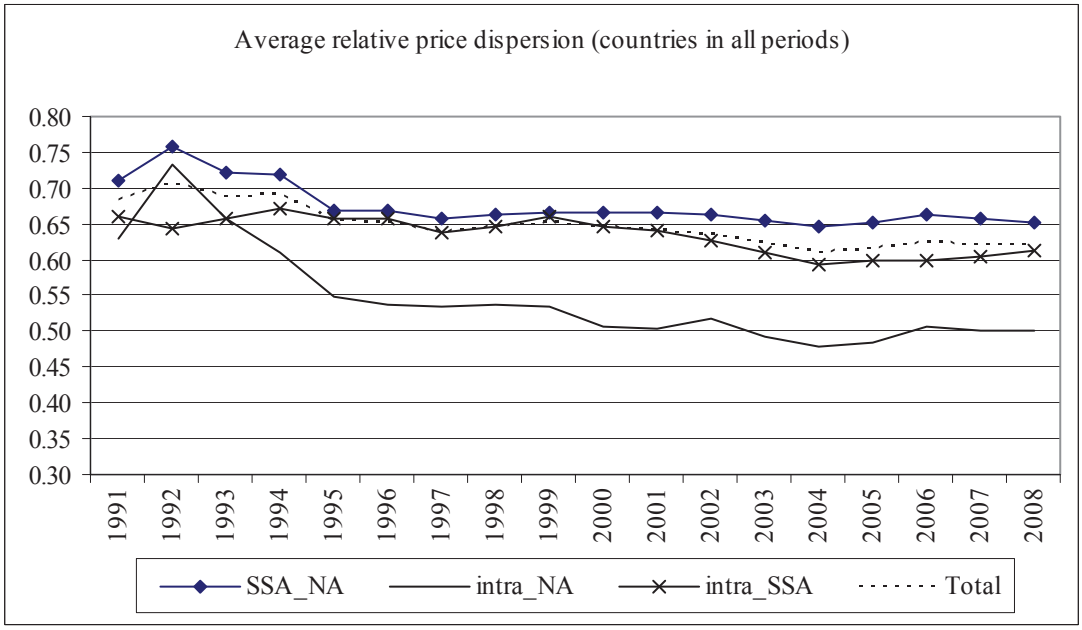
6.29. Figure 6.4 presents the trends in relative price dispersion across city-pairs in various regions. Each value reflects the simple average (across city-pairs in the specified region) in year t of the standard deviations $sd_{jk,t}$. The average, using all city-pair observations, is presented, as is the mean across city pairs within Sub-Saharan Africa (intra_SSA), within North Africa (intra_NA) and between Sub-Saharan Africa and North Africa (SSA_NA). Only the nine cities available over the full period are used to construct the figure.

6.30. Figure 6.3 presents the equivalent trends, using the sample of 12 cities available after 2001. Because the post-2001 sample covers four cities in SADC, trends in the average relative product price dispersion are now included for this group.

6.31. Overall, the data point to a convergence toward a common set of internal relative prices across African cities over the full period 1991–2008. The strongest convergence of relative prices occurs among the North African cities in the sample, where the average (across city-pairs) standard deviation declined from over 0.7 in the early 1990s to 0.5 by 2008. There is also a decline in relative price dispersion between cities in Sub-Saharan Africa and North Africa, but no significant change for cities within Sub-Saharan Africa. Therefore, while mean (across products) deviations from LOP have declined across Sub-Saharan Africa cities, the dispersion of these relative prices has not changed.

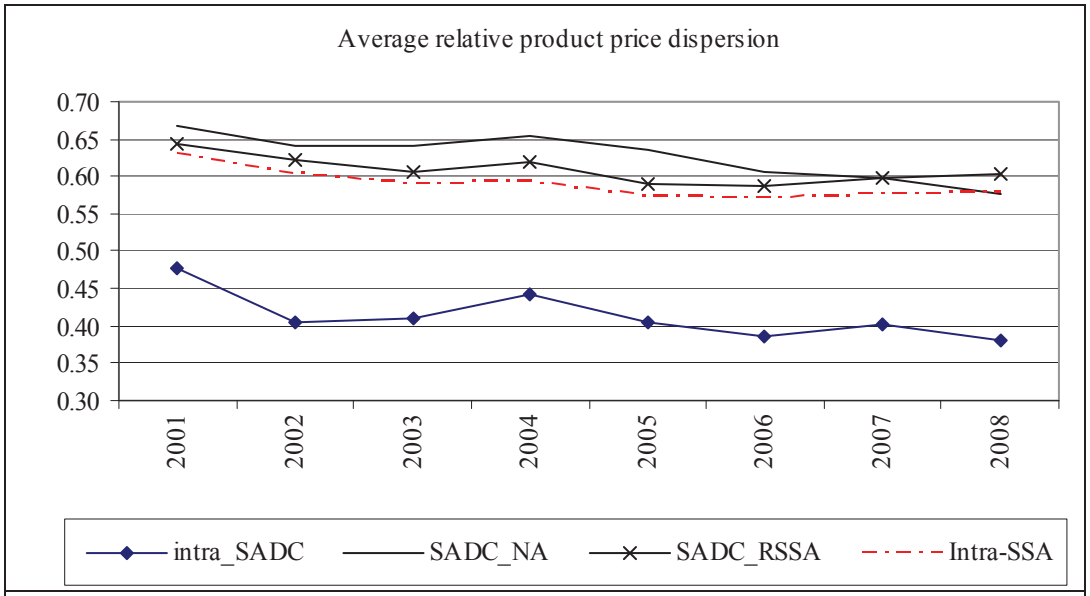
6.32. Looking at the post-2001 period, relative price dispersion is found to be lower among SADC cities, but this is largely due to the very similar structure of relative prices in Johannesburg and Pretoria. Nevertheless, there appears to be a downward trend for SADC cities. Relative price integration also appears to have occurred within and between the other regions.

Figure 6.2: **Relative product price dispersion across city-pairs**



Note: Excludes Tripoli and Harare. Average price dispersion in year *t* for the full sample of cities is calculated as $\sum_{j}^{M}\sum_{k\neq j}^{M} sd_i\left(q_{i,jk,t}\right)/M(M-1)$

Figure 6.3: **Relative product price dispersion across city-pairs: post-2001 period.**



Note: Excludes Tripoli and Harare.

Source: Team calculation from the World Cost of Living Survey data

6.33. The trends in relative price convergence shown in figure 6.2 and figure 6.3 are not unique to African cities. Engel and Rogers (2004) use the same EIU database and find similar trends in price dispersion within the EU. Bergin and Glick (2006) found similar declines in relative price dispersion during the 1990s, as they draw on a larger sample of countries] from the EIU database. Subsequently, they also find evidence of relative price divergence, and argue that these trends correlate with changes in transport costs and oil prices. In particular, increases in the oil price from the mid-1990s offset increases in product market integration experienced during the early 1990s.

6.34. The trends in price dispersion across African cities shown in figure 6.2 and 6.3 might therefore reflect global effects rather than the impact of local policies. However, among other potential sources of the relative price convergence the charts show are the tariff reforms of the 1990s. Chapter 1 has already outlined changes in the average MFN tariff rate across SADC countries. These are expected to have facilitated declines in the mean LOP deviation across SADC countries. This is, in fact, what seems to have happened. The decline in average MFN tariffs in SADC countries since the 1990s, described in chapter 1, also contributed to a decline in the dispersion of relative tariffs across countries. MFN tariff reforms, therefore, should have facilitated a convergence in internal relative border prices to a common benchmark.

6.35. This can be seen in table 6.7, which presents the standard deviation across the HS 6-digit product lines of the log difference in tariffs from the SADC average for each country. The data suggest that tariff reform in SADC countries has been associated with a decline in the average level of tariffs, as well as a convergence toward a common set of internal relative border prices. Looking at the 1997 sample of countries, the average standard deviation fell from 0.086 in 1997 to 0.073 in 2001 and then to 0.059 in 2007. This is a 31 percent reduction in the standard deviation over the full period that was not isolated to a few countries. Internal relative border prices converged to the SADC mean for all countries. Similarly, tariff dispersion fell for Angola and the Seychelles between 2001 and 2007.

6.36. Declines in relative tariff dispersion were greatest in paper products, textiles and clothing, footwear, machinery, and specialized equipment. These were also the sectors where initial tariffs were relatively high and tariff reductions were relatively large.

Table 6.7: **Standard deviation of tariff induced border price differences**

	1997	2001	2007
Angola		0.070	0.051
Madagascar	0.072	0.061	0.043
Malawi	0.067	0.060	0.060
Mauritius	0.138	0.144	0.068
Mozambique	0.075	0.062	0.043
Seychelles		0.146	0.138
SACU	0.070	0.068	0.072
Tanzania	0.107	0.062	0.061
Zambia	0.055	0.053	0.052
Zimbabwe	0.104	0.078	0.072
Country average, 1997 sample	0.086	0.073	0.059
Country average, post 2001 sample		0.080	0.066

Source: Team calculations using TRAINS data at HS 6-digit level.

Notes:
*1995 tariff used in Madagascar for 1997 period.
*2002 tariff used for 2001 period for Mauritius, Zambia and Angola.
*2006 tariff used for 2007 for Angola and Malawi.
*2008 tariff used for Zambia.

6.4. CONCLUSION

6.37. This chapter looked at product market integration in the SADC using aggregate level data, disaggregated tariff data, and product price data for various African cities. The analysis finds evidence of increased product market integration in the SADC and other African countries. First, consumer price inflation has converged within the region. Second, detailed price-level analysis reveals a decline in price dispersion within and across SADC and North African countries, although this decline was primarily in the 1990s, with little progress made subsequently.

6.38. Trade costs are an important determinant of price dispersion among African cities. The implication is that lower tariff barriers and transport costs are effective in increasing product market integration within Africa. It is likely that this holds for SADC countries as well, but the results for this region are not conclusive. The SADC cities for which detailed product data are available is too small to rigorously test for significant associations. The lack of product-level data over time for SADC countries (and other African countries) inhibits critical evaluation of product market integration. Much policy effort has been placed on negotiating and agreeing on mechanisms to enhance integration within the SADC region. To evaluate these, appropriate price data are required. Ultimately, new or improved mechanisms for collecting detailed product price data will be required if product market integration is going to be evaluated in the SADC. It is possible to evaluate product market integration using trade values, but price data provide a much more direct insight into the scope for arbitrage that incentivizes cross-border trade flows. The price data are useful for a number of other reasons, as well.

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