Africa Investor Report
2011

Towards Evidence-Based Investment Promotion Strategies

UNIDO
UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

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This Report is dedicated to

John Dunning.

His encouragement, support, and guidance through the early days of this endeavour inspired this programme.

Preface of the Director General of UNIDO

Kandeh Yumkella
Director-General
United Nations Industrial Development Organization

UNIDO's development strategy is about the creation of prosperity through the expansion of productive capacities. Investment *must* take place for productive capacity to be created, for employment to be generated, for ideas to be spawned, for new, efficient, and sustainable technologies to be introduced, for national economies to become players in the realm of global economic cooperation.

Investment is the key driver of productivity and sustainability that leads to development and growth.

To diversify economies and facilitate the production of competitive goods for both domestic and export markets, the improvement of the institutional and policy environment is a necessary precondition. A country's ability to efficiently craft policies and measure investor responses to those initiatives, as well as its ability to design appropriate strategies and services, depends on the availability of relevant, accurate, timely, and comprehensive information. Countries need a means to monitor investment flows and trends, the performance of investments in their economies, and the impact of different investors on key economic indicators. This is a prerequisite to achieving the right combination of interventions that can make enterprise development, employment creation, and overall prosperity sustainable.

In the private sector, investment decision-making is a multifaceted process. Whether new markets are to be served, cost structures rearranged, new capabilities and resources identified, accurate and timely information for the assessment of market conditions and business opportunities becomes essential. The absence of reliable information increases risk perception and transaction costs, which inhibits investment. Africa does not lack this information at an *individual* level, as each one of the thousands of investors active in the continent know about their experiences, performance, and markets. But there is a lack of *aggregate* information collecting the voices of the many into a valuable knowledge resource. UNIDO is filling this gap with its Africa Investors Survey and triggering a virtuous circle: more information means more investment, which in turn creates more opportunities, more incomes and jobs and thus more demand and even further investment.

This Report is the outcome of a partnership between UNIDO and the European Union Commission to strengthen national capacities. It sheds light on the realm of investment activity in 19 African countries. Together with the Investment Monitoring Platform, where the data is posted on-line and publicly accessible for interactive research, the survey data brings transparency to the dialogue between governments, civil society, and the private sector to create a shared vision of how to foster prosperity in the continent.

European Commissioner Andris Piebalgs and I see this as a good starting point to put in place a toolkit for African countries to analyze, plan, and coordinate investment promotion efforts.

Preface by ACP Secretary General

H.E. Dr. Mohamed Ibn Chambas
Secretary General of the African, Caribbean and Pacific Group of States

This report stimulates the ongoing changes in attitude towards Africa as an investment location for doing business and as a destination for growth oriented investments. The new priorities for private sector driven growth are making a difference in how investment in Africa is being perceived. The slogan "Africa - the next growth frontier" is becoming more and more credible.

There is a new momentum in Africa as a new leadership with a new vision takes hold. Conflict and bad governance is being replaced with discipline, confidence and dialogue. This is evident in the dramatic reductions of capital flight out of Africa and in investment inflows among African countries. UNIDO research, including this report, shows that inter-African investment is a very significant part of FDI in Africa; that in fact some of the highest quality FDI in Africa in terms of skills development and training expenditure is inter-African investment. In the analysis of the Africa Investor Survey data, the conclusion is that African investors, as foreign investors in other African countries, are committed to the host location. They build businesses for the long term.

The data also signals the possibility that there may actually be more foreigners investing in Africa than aggregate data would have us believe. There are categories of investors that are not captured within the balance-of-payments accounting system. One example is individuals who start stand-alone operations in Africa that are not subsidiaries of any foreign entity. This is a category referred to as "Foreign Entrepreneurs" or FEs in the UNIDO-Africa Investor Surveys and they are a major source of foreign investments flowing into African manufacturing and services sectors.

The traditional image of FDI in Africa may be giving way to new, more dynamic forms of investors, including those from other developing countries. The new profile of investors, the changing nature of investments and the investment landscape in Africa needs to be fully understood and innovative approaches should be developed to respond to them.

This report is a major contribution to understanding the dynamics of both foreign and domestic investment in Africa and sheds light on the varying impact of foreign investment on the host economies. This is an important compass for policy makers managing and assessing the effectiveness of their investment promotion activities. The report also measures investors' perceptions of their host country and their service expectations from local institutions, providing guidelines on how to prioritize investor services and optimize resources.

This report also in a way enables us to indirectly gauge the impact of our common efforts towards the enhancement of the Business environment in Africa. At the level of the ACP Secretariat, we have the ACP-EU Business Climate Facility (BizClim), which assists ACP countries in improving their business environment and becoming better places for doing business and investing. Whilst this report provides an optimistic outlook on Africa's Business Environment, our common efforts in this respect need to be sustained in order for us to fully unlock the potential for private sector development in ACP Countries in general and Africa in particular. This is the necessary prerequisite for expanding economic opportunities and enhanced welfare for millions of our people.

Preface by EU Commissioner

Andris Piebalgs
European Commissioner for Development

Fact number one: we cannot hope to achieve the Millennium Development Goals without the private sector on board. Fact number two: when businesses are allowed to develop, they are powerful engines of economic growth, job creation and poverty reduction. These are facts we have all come to acknowledge. And this is all well and good – but it will not bring about a suitable environment in which businesses can develop and thrive. The responsibility therefore falls to us to lend our support in helping develop the tools that will allow policy-makers and organisations representing the private sector to make such an environment a reality.

This survey is one such tool that certainly takes us a huge step further in this direction. It is a mine of first-hand information on business activity in Africa, providing details on some 7 000 domestic and foreign companies active in 19 countries in Sub-Saharan Africa. As befits such a comprehensive survey, the data it contains are also available on UNIDO's Investment Monitoring Platform, where it can be accessed and browsed easily, thanks to an intuitive and user-friendly graphical interface. This tool will benefit Investment Promotion Agencies because they will be able to respond quickly with evidence-based information to inquiries by investors. And it will be a boon to investors themselves, who will get a clear picture of business opportunities for them in the countries surveyed.

In broader terms, what do the survey data tell us about the business climate in Africa? Well they clearly point to this continent having entered an era of impressive business and growth opportunities which are not going to waste: a broad spectrum of investors from the developed world and from other developing countries alike is tapping into them. And this is no one-way investment street. The survey data also shows that domestic companies are benefiting enormously from this explosion in economic activity and that some of the most dynamic firms in Africa are domestic regional exporters.

This survey is much more than a data compendium and as such yields many more valuable discoveries. For example, its multi-layered analysis of the impact of foreign investment on African economies and business performance gives intriguing insights into how the benefits of foreign direct investments can be maximised. It offers a deeper understanding of regional dynamics within the African context, and highlights how co-operation between foreign and domestic companies can unleash the economic potential of this continent far beyond its impressive natural resource base.

Last but not least, the survey assesses investment promotion services in Africa in depth. By avoiding graphs and charts and instead allowing the recipients to tell their personal stories about doing business in Africa, the messages come through loud and clear. The survey recognises the relevance and importance of these services, but calls for a change in the culture of investment promotion – a change that will move us towards multi-stakeholder activity that is evidence-based, customer-oriented and pro-active, and that looks at investor capabilities, market demand and development goals together.

This survey reveals in no uncertain terms that the business climate in Africa harbours huge promise if we choose to unleash it responsibly and to the benefit of all concerned. The facts to back this up are staring us in the face.

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Foreword by Peter Buckley

Peter J. Buckley
Officer of the Order of the British Empire
Professor of International Business,
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The Africa Investor Report 2011 is a landmark study in evidence-based research on the impact of foreign direct investment (FDI) in Africa, on the need for selectivity in targeting "quality" FDI and the role of Investment Promotion Agencies (IPAs) in achieving optimal FDI inflows. Africa is a new focus of attention for FDI. There is an urgency among existing and potential investors to understanding the changing economic and political realities of the continent and, in some instances, to regain lost ground. The rapid economic growth of many African countries has demonstrated the plethora of investment opportunities and the (somewhat exaggerated) challenge of Chinese investors has refocused attention of the growing possibilities represented by this growth. Despite this, the stock of FDI in Sub-Saharan Africa is no more than 2% of the worldwide stock. Africa is in desperate need of employment, skills, know-how, market access, and management expertise. Its need for "quality" FDI has never been greater.

In keeping with UNIDO's mission, this Report has two key objectives - to identify "quality" FDI and to seek an optimal allocation of scarce public funds in Africa by facilitating (largely through IPAs the attraction of these investments. To this end, close to 7000 firms (with 36% having foreign involvement) were interviewed in 19 Sub-Saharan African host countries. There is a concentration on manufacturing but a substantial number of firms in the growing African services sector are included - the symbiosis between manufacturing and services cannot be ignored. The inclusion of the domestic sector enables the analysts to gauge the impact of FDI on domestic firms and to assess the extent of linkage effects (through outsourcing) and the direction and extent of non-priced spillover effects (externalities) on the domestic economy.

The investigation shows a rich and varied picture. In addition to both TNCs (from "the North" and from "the South" [other developing and emerging economies]) and foreign entrepreneurs (mainly from the South), the Report also considers diaspora entrepreneurs. The effects of each type of foreign investor differ, as do investors by year of establishment, industry and type of entry strategy. It is therefore no mean feat to disentangle these effects. The impact on development, the transmission channels and the spillover effects are carefully traced and the Report allows us to examine the impact of FDI on productivity, training, human capital, competition, employment, wages and trade (exports). The managerial autonomy implied by FDI is carefully analysed in order to see the extent that decision-making is removed from the host country by FDI.

The context of FDI is also crucial in determining its effects. African countries have more of an "open door" than is usual for FDI. This less restrictive atmosphere gives rise to the dangers of abuse. It is vital to balance regulation with encouragement to investors. The Report allows host countries to take a forensic view of actual and potential FDI. It

shows that "Northern" TNCs have a positive impact on productivity and that foreign entrepreneurs have a lower impact but are more likely to reinvest. Older established firms have a more significant positive impact on wages and employment. Longevity of investors benefits the host country. TNC also have a positive effect on export capacity. Manufacturing TNCs tend to have a negative "shock" effect on competitors in their own industry but their inter-sector "vertical" external impact, on growth and productivity are positive. A thorough understanding of these complex, but regular, effects will enable targeting of "quality" FDI. The Report shows that the right type of FDI ("quality") will differ according to the circumstances of particular African host countries. A careful analysis of these results will pay dividends for host country policymakers.

There are many lessons here for IPAs. The *Investment Monitoring Platform* herein introduced will improve the response time of IPAs. The Report encourages IPAs to set priorities for the targeting of investors and the evolution of their services. In an increasingly global competition for investors the Report shows that it is crucial for IPAs to know their market and to present their "offer" in the most professional way possible.

The publication of this Report is an important step forward in understanding FDI in Africa, its impact and its prospects. It is, however, only the start of a process that should see the valuable data that it introduces analysed and reanalysed to tease out all the valuable insights that it contains. I commend this report and extend my thanks to UNIDO for this potentially valuable contribution to African development.

December 2011

Acronyms

AfrIPANet	The African Investment Promotion Agencies Network
AIS	African Investor Survey
AGOA	African Growth and Opportunity Act
BIT	Bilateral Investment Treaties
BOP	Balance Of Payments
COMESA	Common Market for Eastern and Southern Africa
DC	Domestic Company
DE	Domestic Entrepreneur
EAC	East African Community
EBA	Everything But Arms
ECOWAS	Economic Community Of West African States
FDI	Foreign Direct Investment
EU	European Union
FE	Foreign Entrepreneur
GDP	Gross Domestic Product
IPA	Investment Promotion Agency
ICT	Information and Communication Technology
IMP	Investment Monitoring Platform
ISIC	International Standard Industrial Classification
JV	Joint Venture
LAD	Least Absolute Deviations
MENA	Middle East and North Africa
OECD	Organisation for Economic Co-operation and Development
OLS	Ordinary Least Squares
NZ	New Zealand
NGO	Non-Governmental Organisation
REC	Regional Economic Community
R&D	Research and Development
RTA	Regional Trade Agreement
SA	South Africa
SADC	Southern African Development Community
SPX	Subcontracting and Partnership Exchange
SSA	Sub-Saharan Africa
TFP	Total Factor Productivity
TNC	Transnational Corporation
UNIDO	United Nations Industrial Development Organization
UK	United Kingdom
USA	United States of America
WDI	World Development Indicators
WOE	Wholly Owned Enterprise

Overview and Summary of Findings

During the last decade, macro-economic stability, improved private sector development policies and improved governance, have driven Africa's economy growth at a steady rate of nearly seven per cent. The global recession of 2008 curtailed these growth trajectories in most African countries, but the continent is still one of the fastest growing regions of the world. However, the fruits of rapid growth have not been spread evenly. For years, many African governments gave priority to the social sectors in order to develop primary health care and basic education. While much has been achieved, additional efforts are still required. With changing demographics where young people are flocking into the cities and joining the labour market, the need to provide job opportunities has become critical. This demands a more inclusive growth path, with industry having an important role in expanding employment, GDP and trade.

Industrial Activity and Development in Africa

The vulnerability of many African economies is their extreme dependence on export of natural resources and primary commodities. Without adding value, Africa is unable to derive maximum benefits from its abundant raw materials. Achieving strong economic performance requires much greater economic diversification throughout the continent. Industrial diversification and growth, however, faces a number of hurdles, which create a major policy challenge for Africa and other low-income countries. In particular, market protection and import substitution - the basis for the success of Brazil, China, India and other emerging economies as well as the industrialized nations - has lost currency as globalization has advanced. Expanding prosperity requires attracting investments to maintain growth while stimulating industrial diversification. Policies that foster industrial diversification, in particular, through strong growth of manufactured exports, can be effective in raising living standards and integrating large segments of the population into the formal sector.

Many African governments are attuned to the role of foreign direct investments (FDI) in attaining their development objectives of poverty reduction, skills enhancement, technological upgrading and market access. However, if foreign investment fails to create jobs, enhance competitiveness of local economies and bring business opportunities to local firms and entrepreneurs, it will contribute little to development.

Policy must be informed by evidence and be contextual. In this regard, two aspects of developments are important and provide a backdrop to assessing the changing nature and impact of FDI in most of Africa. The first is the changing geography of growth and FDI and the growing presence of China and other emerging economies in Africa. From 1969 to 2008, the combined share of China and India in global output rose from less than seven to 24 per cent, with projections to 34 per cent by 2030. At the same time, many of the leading Northern economies, which have hitherto dominated output, growth and FDI, are experiencing two severe structural deficits: debt and balance of payments.

The large emerging economies are becoming major global investors. In 2000, the combined gross domestic savings of France, Germany, Japan, the United Kingdom and the United States represented 53.2 per cent of that of the world, while China's was 6.2 per cent. By 2009, those figures were 31.3 and 19.9 per cent, respectively.[1] It is expected that the share of consumption will drop in the North, while that of emerging countries will continue to grow rapidly. In part, this is reflected in the growing share of China and other emerging economies in global FDI flows and trade.

The second aspect is the commodities boom. As countries including Brazil, China and India become major global economies, they will affect the demand patterns that are currently dictated by consumers in high-income countries. The nature of the products demanded will be driven by a different composition of consumer preferences. Evidence indicates that growth in such countries tends to be quite commodity intensive, further fuelling the commodities

1 Compiled from World Development Indicators. Online: http://data.worldbank.org/indicator

boom. The rising prices for commodities seen since 2002 are likely to be sustained for some years to come. A major implication of this is the scramble for resources, particularly in Africa, which holds much of the world's untapped reserves.

To tackle these challenges, national institutional frameworks and, in some cases, institutional governance systems need to be strengthened. Market-support institutions that provide accurate public information, set standards and enable market agents to assign resources efficiently are only just emerging. As a result, failures in the market are not adequately addressed, appropriate forms of FDI go unrecognized and mechanisms are lacking to link growth of domestic investments and initiatives to opportunities afforded by FDI.

The Role of Investment Promotion

African Investment Promotion Agencies (IPAs) and other private sector intermediary organizations are striving to bridge this information and capability gap. The response is to transcend traditional mandates and functions of investment promotion, which involve promoting countries as competitive and attractive locations for FDI in general. A proactive role as agents of development is required to attract quality investment in productive sectors and mobilize supportive business services to provide linkages between economic sectors. To succeed, IPAs need the tools and skills to effectively identify and attract global investors, assess their performance once having invested and measure the impact their activities have on the development objectives of their countries. IPAs need to understand the interactions between foreign and domestic firms, how the entry of FDI affects domestic firms and how domestic firm performance can influence FDI.

IPAs require the means to foster dialogue between policymakers and the private sector, influence government policy, become effective advocates of reform and promote a common shared vision with private sector associations to advocate policy. They need timely and accurate feedback to assess how foreign investors are responding to their initiatives and how they evaluate the effectiveness of their services. They also require a yardstick to identify investor groups most in need of their services.

With detailed, comprehensive empirical analysis, IPAs and other intermediary organizations can be better able to promote investment, influence government policies, maximize the impact of resources at their disposal and achieve consensus among national stakeholders for a common investment promotion strategy with flexibility to adjust to emerging trends and challenges.

This report is part of a regional programme to respond to the challenge. It is implemented by UNIDO together with its national counterparts in Africa and funded primarily by the Commission of the European Union. Other contributors to the programme are the governments of Austria, Finland, Italy, Republic of Korea, South Africa and Turkey.

UNIDO's Regional Investment Programme

The Programme currently includes 20 African countries[2]. Overseen by the Programme Steering Committee, co-chaired by the Commissions of the European Union and the African Union, it consists of representatives of the private sector and African IPAs. Developed as an outgrowth of UNIDO´s support programmes for African IPAs, the Programme is a response to their requests and is designed in the context of the Network of African Investment Promotion Agencies (AfrIPANet). The Network is a platform of 43 members established by UNIDO in 2001 for the development and implementation of investment-related activities in Africa.[3]

The Programme provides an empirical basis and tools to support participating countries in changing

2 Burkina Faso, Burundi, Cameroon, Cape Verde, Côte d'Ivoire, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Senegal, Tanzania, Uganda, and Zambia

3 See www.unido.org/afripanet or www.afripanet.org

the culture of investment promotion in Africa with the objective:

- To Shift the emphasis of investment promotion from quantity of promoted FDI flows towards a more holistic measurement of the impact that foreign investments have on local economies, particularly domestic firms;
- To mainstream investment promotion into private sector development and small and medium enterprise support programmes to foster poverty reduction and wealth creation on a broadened basis;
- To emphasize the role of domestic investment promotion;
- To enhance the quality and speed of delivery of business support services and information that IPAs provides to existing and potential investors.

The components of the Programme are:

a) Data collection through surveys of investors, both domestic and foreign, in Africa;

b) Analysis of the data to assess perceptions, performance and plans of different types of investors and investigate the impact of their operations on the socio-economic development objectives of host countries;

c) Establishment of an on-line Investment Monitoring Platform (IMP) to make the data available in the form of easily searchable public information for IPAs to conduct analyses and as a platform to engage investors;

d) Building capacities of IPAs to utilize the IMP effectively for policy advocacy, strategy design, investor targeting and tracking, investor servicing and aftercare, as well as for self-assessment of its own effectiveness and as a basis for continuous improvement of internal processes;

e) Establishment of Subcontracting and Partnership Exchange (SPX) units within IPAs and private sector organizations to strengthen supplier-buyer linkages, notably those between local firms and foreign investors;

f) Foster regional integration through provision of empirical evidence of investment activities at the regional level.

In the context of AfrIPANet, three surveys prior to this one had been conducted to collect data and support IPAs in devising strategies and designing investor support activities based on empirical evidence. The current Programme is a result of consultations with AfrIPANet members through extensive continental and country-level meetings with public and private sector stakeholders, who contributed to its design. In 2008, the Programme was endorsed in the declaration of the Conference of African Ministers of Industry (CAMI) as a central element for the "Accelerated Industrial Development for Africa (AIDA)". The African Union organized a conference, in July 2009, to launch the Programme and its late Commissioner of Industry and Trade, Elizabeth Tankeu, co-chaired the Programme Steering Committee.

Africa Investor Survey – Design, Data and Metadata

This report presents the results of the fourth survey of investors, carried out in 19 of the 20 Programme countries, with data collection in Côte d'Ivoire postponed to the next survey round. The questionnaire comprised more than 700 variables to be collected for each firm. In designing the survey, two key concerns were the quality of data and use of local capacity-building to ensure sustainability of data collection and updating.

To ensure *quality*, the strategy involved sampling on three dimensions: sector, size and ownership. Considerable efforts were made to acquire comprehensive business directories in each country as a basis for the development of sampling frames that, with varying degrees of success, reflected the universe of firms in each country. The data was collected through face-to-face interviews with the manager of the

firm or an alternative representative of the firm´s management. In order to assure that data collected by the enumerators was reliable, several levels of quality checks were instituted. These involved human checking in the field by enumerators and supervisors and at UNIDO headquarters. A number of algorithms were employed at the data collection point, as well as in subsequent stages for consistency checking. The reviews of questionnaires involved frequent re-visits and re-call of interviewees to ensure replies were accurately recorded.

To ensure the *sustainability* of data collection and updating, national stakeholder institutions were involved in the process from the outset. In each country, implementation committees (ICs) were established, composed of investment promotion agencies (IPAs), national statistical offices (NSOs) and main private sector organizations. The ICs spearheaded the sensitization campaigns and were involved at all stages of data collection. The training of enumerators and monitoring of the survey was conducted with IC members, so that the process can be maintained with reduced support from UNIDO. This aimed at improving the capacities and developing the ownership of local institutions as well as to increase the use of the data through the Investment Monitoring Platform (IMP).

The survey questionnaire was designed to collect information on a wide array of financial data, investment performance indicators, investor characteristics and perceptions. This included also the sourcing of investments, how investment decisions were taken, the history of the investment, the volume of recent investments made, plans for disinvestments or new investments in the near future including cross-border investments, details of local suppliers and extent of locally procured inputs, expenditures on developing local suppliers, on training of staff, on R&D and technology adaptation, statistics for exports with destinations and imports with origins, perceptions of investors about the quality of IPA services, their importance for investment decisions and operations, as well as the importance of RECs, in particular how improved regional trade regimes influence investors' business models. Four slightly different versions of the questionnaire were used – one each for foreign and domestic manufacturers and one each for foreign and domestic services firms – in order to obtain specific information for each group. For example, domestic firms were asked how entry of foreign investors affected their businesses and how they adjusted their strategies to this new situation. Foreign firms were asked to assess the business environment and its evolution over time.

The survey was conducted from 2010 to 2011 covering close to 7000 firms, of which 64 per cent were domestic and 36 per cent partly or wholly foreign-owned. Research has suggested that there are specific foreign investor characteristics associated with positive and negative spillovers (Meyer and Sinani 2009).[4] If such a relationship could be established, it would provide IPAs with a means to target investor types that correspond to the desired impact ("quality investors"). This would allow IPAs to play an enhanced advocacy role by lobbying legislators for policies that improve the investment climate to attract such investors. Moreover, empirical evidence showing better-than-average performance of investors with certain characteristics would empower IPAs to target and attract them by offering convincing information as to what types of investors and projects have been successful. If IPAs can use the survey data to assess the performance of certain types of investors, it can influence their ability to attract new investors with similar characteristics.

The report investigates the interactions between foreign and domestic firms to study the influence of foreign investment on the domestic sector. It also merges investors' perceptions about IPA services with analysis of investor performance, accompanied by an econometric study of the effect different types of foreign investment have on growth and productivity of domestic firms. The analysis considers performance of firms in terms of indicators such as growth rates, profitability and productivity, as well as impact of foreign-owned firms on the overall economy and on performance of domestic firms. The indicators are then associated with foreign investor characteristics defined by motivation, origin, sector, organizational structure, size, age and mode of market entry. The aim is to provide African policymakers and IPAs with a means to predict good performance and high

4 Meyer, K. E. and E. Sinani (2009). "When and where does foreign direct investment generate positive spillovers: A meta-analysis." *Journal of International Business Studies* **40**(7): 1075-1094.

impact in terms of identifiable characteristics. The survey sample is analysed along six characteristics of investors, with investment performance and impact assessed in terms of combinations of these characteristics. These six investor characteristics are:

Organizational structure of foreign investors: subsidiaries of Transnational Corporations (TNCs) with sizeable global group sales, as opposed to independent and stand-alone Foreign Entrepreneurs (FEs) whose governance structures do not follow the classical headquarters-subsidiary relationship. The survey sample consisted of 28 per cent TNCs, and 72 per cent FEs among manufacturing firms and 44 per cent and 56 per cent, respectively, among services firms.

Origin of foreign investors: those whose home countries are highly industrialized ("North"), with 40 per cent of the manufacturing and 49 per cent of the services sample and those from developing countries ("South"), with 60 per cent and 51 per cent respectively; in manufacturing, the top three countries of origin being India with 17 per cent, the United Kingdom, with 11 per cent and China, with nine per cent and, in services, France with 13 per cent, India with 12 per cent and Kenya and South Africa, with eight per cent each.

Market orientation of all investors: local market seekers, who do not export or do so only marginally, representing 89 per cent of domestic and 74 per cent of the foreign firms; regional market seekers with a substantial proportion of their sales exported to sub-Saharan Africa excluding South Africa, representing five per cent of domestic and 11.5 per cent of foreign firms; and global market seekers, with substantial exports to global markets, represent six per cent of domestic and 14.5 per cent of foreign firms.

Main sectors: Primary sector, with 4.7 per cent of the sample, high technology manufacturing, with 7.7 per cent of the sample, medium technology manufacturing, with 13.4 per cent, low technology manufacturing, with 27.5 per cent and services, with 47.3 per cent. At individual subsector level, the largest groups were trading firms, with 16 per cent of the sample, food and beverage manufacturers, with 11 per cent, consultancy firms with 7.4 per cent and basic metals and metal fabrication, with 6.2 per cent.

Ownership structure: operations defined in terms of the percentage of foreign equity ownership; if more than 90 per cent, foreign firms are categorized as Wholly Owned Enterprises (WOEs) and those between ten and 90 per cent, foreign-owned as Joint Ventures (JVs), while those with less than ten per cent foreign capital are classified as portfolio investments. In terms of entry strategy, 70 per cent of foreign investors constituted a new wholly-owned enterprise and 14 to 17 per cent, for services and manufacturing respectively, a new joint venture with a local partner, while the remainder entered through purchase of pre-existing assets.

Firm age: enterprises grouped according to whether foreign investors started operations in the host country within the last five years (14 per cent of the sample), between five and ten years old (19.5 per cent), between ten and 20 years old (36.5 per cent) and more than 20 years old (30 per cent).

Survey Findings

Key findings of the survey permit the mapping of the complex interactions between foreign and domestic firms, and how these interactions influence potential economic and social benefits for host countries. The report provides guidance to government departments and Investment Promotion Agencies (IPAs) for more effective allocation of scarce resources available for investment promotion and better alignment of investment promotion with national development strategies. An important contribution made here is to combine analysis of firm performance with demand for investment promotion services. The analysis examines the kinds of investment promotion services deemed useful by different kinds of firms, as well as identification of services needed but not provided. This presents IPAs with a well-defined strategy for determining priority services tailored to investors' requirements and positive economic impact.

The 2010 survey confirmed several findings revealed by its predecessors, conducted in 2001 in four countries, 2003 in ten, and 2005 in fifteen African countries. The two most important findings in this regard were:

First, most foreign investors – between 60 and 70 per cent – state that their decisions for investment in a

particular location is primarily based on information obtained from existing investors in those locations. This has changed little in the last ten years and generally reinforces the importance of IPA's investment aftercare services for generating new investment as well as re-investment. Moreover, the surveyed data shows that in the course of the next three years, foreign investors in the sample planned to make further investments of around US$11 billion and domestic investors around US$9 billion. This is very significant when assessed against the 2009 FDI inflows into the 19 survey countries. These amounted to US$1 billion for Southern Africa, US$1 billion for Eastern Africa and US$3.5 billion for Western Africa. This is indicative of confidence and good business performance of existing investors and further underscores the need for IPAs to make aftercare a key element in their services. In this context, the survey database can help in designing more effective aftercare services, since it provides direction from where new investment is likely, as well as potential hindrances faced by firms planning new investments.

Second, there are important differences in how investors from North and South interact with and influence the performance of local economies. Significant differences were observed between TNCs that set up new subsidiaries in target countries and foreign investors not associated with existing enterprises but make investments as independent entrepreneurs who moved to new locations to establish a new enterprise. The differences between these classes of investors were noted in earlier surveys but the larger sample and concurrent coverage of both foreign and domestic investors in the current survey allowed more in-depth analysis.

As in previous surveys, foreign investors were asked to rank the importance of several location factors and to assess how they might have changed, improved and worsened, in the last years. Consistent with previous results, economic and political stability were ranked as the most important. The factors judged to have improved the most were political stability, local market conditions and availability of skilled labour. The two factors deemed to have deteriorated were incentive packages and cost of raw materials. Three of the four location factors most important for investment decisions – political stability, economic stability, and local market conditions – were three of the top improvers in the last years. The results highlighted the differences in how investors from different origins value the importance of location factors and assessed their change over time.

A comparison of the results of the four surveys reveals that foreign investors' own assessment of how well their investments were performing was steadily increasing. While in the previous surveys, around 15 to 16 per cent of the responding firms stated that their performance was *above* or *well above* their expectations, in the 2010 survey over 22 per cent confirmed that this was the case, which is a particularly noteworthy result against the backdrop of the global financial crisis. In 2001, still close to 47 per cent of the respondents indicated that their performance was *below* or *well below* expectations, yet for the latest survey this value dropped to 32 per cent.

Foreign Investment and Productivity

The report also investigates firm performance - in particular productivity - given the imperative role it plays in long-term economic and social impact such as structural transformation, earnings and poverty reduction. Improved productivity, at all levels of aggregation, is a necessary – even if not sufficient – condition of economic development and plays a significant role in improving social welfare. Since productivity is not directly observable but has to be derived from surveyed variables, the report focuses on identifying productivity indicators. It is important to note that even if foreign investment improves sector and country performance there can be negative employment effects in the short term. It is therefore crucial to distinguish first-layer from second-layer effects of investment activity. The report provides also an in-depth analysis of the latter type of effects, spillovers and externalities, and the indirect impact of FDI on domestic firms.

Consonant with the empirical literature, the report confirms that foreign manufacturing firms are, inter alia, more productive, have more physical capital and pay

higher salaries than domestic firms. However, foreign investors are not necessarily larger, do not have more human capital and do not grow faster. These differences depend on such firm characteristics as whether they are TNCs or FEs, their origin, their objectives for investing, form of entry, age and other factors.

The firm characteristics and performance of foreign and domestic investors are compared, in order to identify the exact nature and magnitude of the differences. In terms of productivity, foreign manufacturing firms had 11 per cent higher labour productivity and 38 per cent higher total factor productivity[5] (TFP) than their domestic counterparts controlling for all other main differences in firm characteristics. In terms of ownership structure, foreign joint ventures in manufacturing were, on average, two-thirds more productive than wholly-owned foreign firms. They had some 50 per cent more TFP, were larger and had higher growth rates. The findings indicate that promotion of joint ventures should be of higher priority for many IPAs and would entail greater involvement with domestic firms to be promoted as potential partners for joint ventures.

Among foreign investors, those from the North were more productive than those from the South. The implication is that the entry of foreign firms increased overall manufacturing productivity in host countries making them more competitive. However, how the entry of foreign firms affected domestic firms was also measured to see whether such statistical enhancement of competitiveness hid structural changes that were to the detriment of domestic firms as well as the ability of economies to achieve self-sustaining growth.

The report also analyses the impact of foreign firms on performance of domestic firms in productivity, profitability, and growth. It examines social impact by employment and earnings as well as interaction with local firms through backward and forward linkages. In some sectors, increased foreign presence led to improved performance of domestic firms, while, in others, the consequences were opposite. The survey reveals that while the largest recent investments were made by TNCs, FEs had a higher propensity to re-invest and, therefore, grow faster. The largest investments occurred in high technology sectors, by the most productive firms, mainly joint ventures between domestic firms and TNCs.

The data confirms that labour productivity increased with intensity of physical capital, human capital, intermediate inputs and firm size. Firms operating in the medium technology manufacturing sectors were 8.3 per cent less labour productive, on average, than those firms in high technology ones.

In low technology manufacturing, firms that specialized in a smaller number of products were more productive than more diversified ones. This might reflect the tendency of firms in developing countries to engage in task-based specialization of production at particular stages of value chains, rather than in final production.

Two further findings are of particular relevance. *First*, there is an inverse relation between capital per worker and productivity, which indicates that labour productivity benefits more from additional capital rather than from improvements in organization or production process. Lack of access to finance seems to hamper the process of acquiring additional capital assets and thus prevents productivity gains. *Second*, older firms and those with large fixed capital outlays invest significantly larger amounts into employee training in manufacturing. The positive relation between capital intensity and training underscores the importance of investing in the human capital of firms in order to reap the benefits of capital investment.

Furthermore, the positive relation between expenditures on training and orientation towards regional markets could indicate that investment in human capital is one of the strategies regional exporters use to compete in their markets. It is also an indication that as regional markets become easier to access through integration, there will be growth of firms that

5 Total Factor Productivity (TFP) is the portion of output not explained by the amount of inputs used in production. Its level is determined by how efficiently and intensely the inputs are utilized in production. TFP is viewed to play a critical role in economic fluctuations, economic growth and cross-country per capita income differences. At business cycle frequencies, TFP is strongly correlated with output and hours worked. Any attempt to split overall growth into the contribution of technical progress and factor accumulation requires an aggregate production function that relates aggregate output to aggregate inputs. Not all schools of economic analysis concur that such aggregation is conceptually feasible.

invest in human capital. This is especially significant since data reveals that domestic firms are more successful regional exporters than foreign ones, and domestic regional-market seeking firms are growing faster both in terms of employment and investment.

The analysis shows that subsidiaries of TNCs, in particular joint ventures between domestic firms and TNCs, are the largest exporters, while domestic firms only export a modest proportion of output by value. TNC exporters tend to be active in low technology sectors, mostly garment production and food for export to Europe and the United States. Firms in the survey countries have yet to penetrate higher value-added export markets. In terms of composition of firms, once they engage in exporting activities, they usually enjoy higher productivity, which implies that exporter status may be an identifier of good performance. On average however, global exporters have less human capital than non-exporters. Although this might seem surprising, it results from foreign subsidiaries in low technology exporting sectors concentrating their higher skilled workers at headquarters.

Most firms reported that a lack of infrastructure was the most formidable obstacle to exporting to other African countries, followed by excessive bureaucracy and regulation, and high tariffs as the second and third most critical barriers. While removal of the first obstacle would require considerable capital investment by governments within the same Regional Economic Community (REC), the second and third could be removed at much lower cost. The report has shown that regional trade agreements lower trade barriers, thereby increasing exports and intraregional FDI. Analysis of regional trade and propensity to expand through cross-border investment shows that there is growth potential that can be tapped with improved regional trade regimes.

The most significant obstacles to exporting outside of Africa are the high costs arising from serving these markets and difficulties in attaining the required product standards. For these reasons, African firms have yet to penetrate high value-added markets. The report shows that firms viewed regional trade agreements, such as the East African Community (EAC), as more useful than international trade agreements, such as the African Growth and Opportunities Act (AGOA), because the former are more effective in overcoming trade barriers.

Spillover Effects: Impact of FDI on Domestic Firms

Spillover effects from FDI on domestic firm performance are observed and measured through regression analysis. Some of these were shown to occur in the same sector of economic activity in which foreign firms established themselves – horizontal or intra-sectoral spillovers – while others took place in related sectors - vertical or inter-sectoral spillovers. Through its analysis of spillovers, the report demonstrates the importance of linkages to upstream and downstream industries.

The overall picture that emerges is that better performing foreign firms generally had a negative impact on productivity and profits of domestic firms. While raising overall productivity, highly productive foreign investments in sectors had a negative impact on domestic firms in the same sectors. This, however, seems to apply mostly to TNCs from the North, while the entry of FEs, especially from the South, resulted in less negative spillover on domestic firms.

With vertical spillover effects, the overall picture was generally positive. The effect of the entry of foreign firms had a positive impact on domestic firms in other, related sectors. In this instance, it is primarily entry of firms from industrialized countries and subsidiaries of TNCs that augments productivity of domestic firms the most, particularly if the TNC is active in low and medium technology sectors. This underscores the important effects of linkages, in that, when foreign firms established themselves in the survey countries, the result was mainly an increase in demand for domestic manufactured inputs in low and medium technology sectors. Moreover, in these sectors, there were indications of technology transfer, some of which may have resulted through close cooperation between foreign and domestic firms as well as demonstration effects and imitation. This phenomenon was also reported by domestic firms that were asked how they responded to entry of foreign firms in the same or other sectors.

The majority of domestic firms indicated that foreign investment in the host economies increased their business opportunities. Domestic firms also reported that it had increased demand for their products.

The report offers in-depth regression analysis at sector and sub-sector levels, to investigate the impact of FDI entry in various sectors on productivity, output, profits, employment, wage levels and growth of domestic firms.

The productivity of domestic firms in chemicals, rubber and plastics, fabricated metals and garments benefitted from entry of FDI. These are sectors of economic activity showing a high propensity to establishing forward linkages with TNCs and FEs for the production of intermediate products. In terms of output and profits, the presence of foreign firms in low technology sectors produced positive effects for domestic firms in related sub-sectors. Entry of TNCs in high technology sectors led to significant positive growth of domestic firms operating in related sub-sectors.

Occurrence of positive vertical spillovers is illustrated by an analysis of the extent to which foreign firms linked up with domestic suppliers. Some 25 per cent of foreign firms reported that they contracted out manufacturing operations or business services to other firms. Analysis shows that foreign firms that had many domestic linkages were more productive, compared to those that lacked them. The former also grow faster in employment and labour productivity. This suggests that firms that overcame the disadvantages of being foreign in local or regional markets by linking up to domestic firms enjoyed an edge of productivity. This conclusion could be used to foster increased cooperation through aftercare services that assist firms to improve their performance through use of local inputs. It could also persuade newly arrived foreign investors to localize production and expand local content to become more competitive.

Social implications of FDI

While the report's analysis demonstrates that foreign investment is able to enhance the economic performance of countries, directly and indirectly, it may entail significant social implications for earnings and employment.

The report reveals that northern TNCs, especially those in joint ventures with domestic firms, employed more workers. Wages were higher in older firms, those involved in technologically more advanced activities and those with higher labour productivity. The highest wages were paid by joint venture TNCs. Another significant finding in the context of spillovers is that entry of foreign firms from industrialized countries exerted upward pressure on wages of domestic firms in linked sectors, generally associated with entry of TNCs. This wage increase of domestic firms is a reflection of productivity gains that emanate from forward linkages with foreign firms, in particular TNCs.

Nonetheless, entry of TNCs seemed to lead to substantial reductions in employment and wages of domestic firms when they operated in the same sectors. These effects were observed in almost all sectors in the case of TNCs, independently of their geographic origin. Contrary to that, FEs did not have this negative effect. A measurement at the level of groups of economic activities showed that employment growth increased with the entry of southern TNCs in the wood and chemicals sector and, more generally, in the high technology segment. In most low and medium technology sectors, except garments, FDI from the North had a negative impact on employment in domestic firms both horizontally and vertically.

Investor perceptions of IPAs and other service providers

Investors were asked to comment on the utility of local service providers in facilitating their establishment and operation. In particular, they were asked to assess the value of IPAs. The report shows that investment promotion institutions were perceived to have made a significant contribution to foreign direct investment in sub-Saharan African countries. Overall, the quality rating of all business support services provided was high, in all investment stages. In a few instances,

services appeared to be over-provided, since their importance was rated low while their quality scores high. However, there were areas where there was a huge demand for services that are currently not provided, or for improved services.

As indicated before, the survey confirmed that in general, investors mainly became aware of investment opportunities through existing investors. However, there were significant exceptions to this phenomenon. For example, relative newcomers to the region, such as Chinese investors, had fewer established compatriots with long track records to consult and are affiliated with state-owned enterprises in China. As a result, they tended to rely much more on official channels, such as embassies, for information about investment opportunities.

The data revealed that there were substantial improvements in the time required to register new businesses. Firms reported significant shortening of business registration processes in the last decade, due to IPAs' efforts to enhance the business environment.

A function of investment promotion policy is design and awarding of incentives to make investment locations more competitive. These incentives are designed to overcome market failures, which might send wrong signals to investors. Within the array of investment incentives provided by investment promotion institutions, the fiscal ones were reported to be the most important to surveyed investors and crucial to their investment decisions. This finding must be taken with a grain of salt, as investors who have benefitted from fiscal incentives tend to be reluctant in admitting if such incentive was not really crucial for their investment decision but rather just a welcome treat. Several foreign investors indicated that they did not receive *any* incentives from IPAs in the course of their investment process. Therefore, it would be interesting to conduct further analyses of investments who did and did not receive incentives, in order to understand if these incentives make a critical difference in investment decisions.

Enterprises in the services and low-technology manufacturing sectors seem to be the main beneficiaries of investment incentives in the form of tax exemptions. In general, the survey data can be used by host governments and investment promotion agencies to measure the relative performance of firms in different sectors to assess the need for incentives. Furthermore, incentives can be more closely linked to and reward efforts of investors to foster linkages with domestic firms, rather than creating negative distortions that disadvantage domestic firms. In selecting the right incentives to attract high quality foreign investors, IPAs need to ensure that they enhance, rather than hinder, development of an enabling environment for positive foreign investment spillover opportunities for domestic investors.

Development Policy Implications of the Survey Findings

The presence of foreign firms, in particular TNCs, enhances sectoral and country productivity and trade performance. If TNCs invest in a host country through joint ventures with domestic firms, the investment has an even greater impact on performance, in particular if domestic firms have an established supplier and client system, so that backward and forward linkages can be exploited to a greater extent in addition to mutual knowledge transfer that will take place between the joint venture partners. Thus, FDI, combined with functional regional trade agreements, plays an important role for development in sub-Saharan Africa.

The report highlights that it is not sufficient to consider only first-layer, or composition, effects of foreign direct investment. The presence of foreign firms can have positive or negative secondary effects on domestic firms in host economies that may outweigh or re-enforce the first-layer effects. While FDI enhances overall productivity of economies, the pressure increases on domestic firms to raise performance and forces them to reduce their workforces in order to become more competitive. The implication for policymakers and IPAs is the trade-off between raising overall productivity or accelerating employment growth, at least, in the short term.

Therefore, investment promotion efforts should be combined with encouraging joint ventures between existing local and new entrant foreign firms in the same sectors, as well as facilitating cross-sectoral upstream/downstream linkages with domestic firms to enhance the indirect impact of foreign investment. This creates the environment in which potential negative impacts of FDI are mitigated and positive ones are maximized, to the benefit of domestic firms.

In the short term, policymakers need to be aware of potentially negative employment effects of productivity improvements. In the long term, however, FDI is likely to have an overall positive effect on average employment as well as wages. Moreover, the negative effect on domestic employment in the same sectors is mitigated, or even offset, by higher rates of employment growth in other sectors through backward or forward linkages. This is in line with the theory of structural transformation and productivity-driven economic development.

By providing a detailed analysis of the differing effects of North-South FDI and TNCs and FEs, the report allows IPAs to assess the first- and second-tier effects of each type of investment enabling them to target investment promotion according to the desired impact for each situation.

The report has shown that a focused approach to FDI of different types is an integral part of development strategy and attaining objectives embodied in the Millennium Development Goals. Targeted investment promotion plays a key role in this endeavour. Moreover, it implies that the traditional separation between domestic enterprise development and attraction of inward foreign investment needs to be replaced by an integrated policy and institutional framework in which the two processes reinforce one another.

Outlook and Further Research

This report presents a first reflection of the data collected by the survey. Much of the data, especially that pertaining to the interactions between domestic and foreign firms, financial structures, staff structures and the like has yet to be analysed. The report aims at informing researchers – especially those from the countries in the survey – of the availability of the dataset and invites them to contribute additional research that can be published as supplements to this report.

While the report and subsequent subject papers offer robust analyses and conclusions, the data is made available in aggregated form to the public through an interactive platform, the Investment Monitoring Platform (IMP), through which partner institutions and firms participating in the survey can obtain full access to the data. The IMP provides authorized users with their own user dashboard to generate custom charts that allow visualization of comparative analyses using the surveyed variables. These users can filter the data to focus on particular subject areas or aspects, compile saved charts into reports that they can publish on the public knowledge base of the IMP for wider use and comments. The IMP also serves as a promotion platform for surveyed firms that opted to be visible, facilitating contacts to potential business partners internationally. The IMP is publicly accessible at http://investment.unido.org .

IPAs, private sector organizations, national statistics offices and other institutions that are the prime users of IMP will be drawing on it in the course of 2012-13. The aim is to demonstrate the utility of the data to a broader base of investors and add more firms that wish to participate in the survey and thus become part of the IMP database. Data for those who already participated in the 2010-11 Survey will be updated.

Ongoing UNIDO technical cooperation will have established Sub-contracting and Partnership Exchanges (SPX) that are fully operational in 12 of the 20 countries by 2013. They will profile and benchmark domestic firms as potential suppliers and sub-contractors. The profiled domestic firms will then – as potential suppliers and sub-contractors – also be accessible through the IMP.

CHAPTER 1:

Introduction

Investment for development

In spite of a general global downturn caused by the financial crisis, many African countries are experiencing rapid economic growth and offer a wide array of new investment opportunities, going far beyond simple resource exploitation. As a result, African economies are gearing up for attracting higher levels of foreign direct investments (FDI) into their economies. They see the potential of international investment, in particular FDI, in supplementing domestic savings and, more importantly, in bringing in skills, know-how, technology and, market access. Many laudable reform steps have been undertaken with regard to the improvement of the business climate for foreign investors, in particular those related to political and economic stability, the importance of which has been corroborated through numerous studies on FDI in Africa (UNIDO, 2007). As a result of the changes in the macro-economic and business regulatory frameworks, most African countries have consistently recorded increasing FDI flows from the early 2000's until the financial crisis, measured in terms of volume of investments. Even during the financial crisis, the contraction in global demand and the resulting financial constraints of large multinationals have much less impacted the volume of FDI inflows into sub-Saharan Africa than in other parts of the world (UNCTAD, 2011).

Nonetheless, the situation of widespread income disparities, where the majority of sub-Saharan African[1] countries belong to the low-income group of countries, while industrialized countries populate the high-income group, has not yet been closed. This dichotomy persists, with only a handful of developing countries, notably Asian, having made the transition from low to high income in the last five decades. More recently, a second generation of developing countries, notably China and India, has started to move up the income ladder. The tilting balance of economic power is causing ripples in the global political and economic context, suggesting that, while persistent low income and poverty give cause for concern, they are by no means an inevitable predicament. In this sense, the understanding of causes and solutions to global income gaps and differential growth rates represents a key development issue, not the least for international organizations such as UNIDO.

It has been amply documented (for example, by Hulten and Isaksson, 2007; UNIDO, 2005) that global income differences are rooted in technological differences. In the long term, the welfare of countries depends on the level of productivity performance. If improved productivity performance is associated with reducing poverty and narrowing income gaps, low-income countries need to search for ways to acquire technology. However, the existence of technological differences implies that technology and knowledge are not easily transferable between countries. Increased international exchange through foreign direct investment (FDI) is widely regarded to provide part of the solution to this challenge, although it is far from a *sine qua non* for development.

Economic theory suggests that capital, such as FDI, should flow into the location with the highest rate of return, in this case, Africa due to its scarcity of capital. Conversely, FDI theory would suggest a more complex set of motivations for FDI. For this reason, Africa presently attracts a distinct type of FDI, which accounts for only a marginal share in recorded global FDI flows. As discussed by Lucas (1988), capital appears to be ending up more often in other locations than in Africa and, surely, risk and uncertainty are part of the explanation. While some of these shortcomings can be addressed by way of corrective measures in the case of, for example, economic instability and weak institutional quality, international capital flows are also influenced by a range of investment promotion services provided by potential host countries to foreign investors. Institutions involved in investment-promotion activities provide services that accommodate market failures and constitute a crucial determining factor in Africa's efforts to attract more FDI to its economies. FDI is desired because it is expected to bring knowledge, technology and capital required to build industrial capability and capacity for economic growth and wealth generation.

1 Although only 19 of the continent's countries have been surveyed, throughout the report Africa, sub-Saharan Africa and expressions such as survey countries are used interchangeably. Strictly speaking, the results pertain only to the 19 surveyed countries described in Annex 1.

Changing patterns of investment promotion practice in Africa

In an attempt to help overcome negative stereotypes about Africa as a business location and the relative paucity of FDI flows into productive sectors in the continent, African governments have established national Investment Promotion Agencies (IPAs[2]) to be able to compete globally for a share of international investment. In countries where IPAs already existed, many have been restructured and their mandates reviewed to facilitate investment based on an investor hand-holding concept. Facilitation services have been introduced with establishment of one-stop shops and advisory units within IPAs and other relevant agencies.

Other recent changes in investment promotion include abolition of technocratic hurdles such as prior approval of investment projects as a pre-condition for establishment and as a prerequisite for eligibility and granting of fiscal and non-fiscal incentives provided by IPAs. To expedite entry and establishment processes, registration procedures for project establishment and award of incentives have been considerably simplified replacing rigid regulatory approval regimes. And local equity participation regulations for FDI entry have been eased, except for a few sectors such as telecommunications, transportation and media.

The World Bank Report *Investing Across Borders* (World Bank, 2010) shows that sub-Saharan African countries are, *de jure*, less restrictive on FDI entry regulations than the global average (World Bank, 2010). To allay investor fears about investment insecurity, African governments have forged the swift proliferation of Bilateral Investment Treaties (BIT) with capital-exporting as well as African countries (UNCTAD, 2008). In many countries, these investment climate conditions have improved prevailing business environments leading to adoption of state-of-the-art investor-friendly legislation, to safeguard and facilitate foreign private investment

New and emerging forms of business alliances, together with complexities in structures of transactions in a fast-globalizing economy, require that institutions involved in investment promotion in African countries understand and reach out on a sustained basis to the private sector, to ascertain their concerns, challenges and expectations. To do so, IPAs need to develop strategies and advocate policies to allocate their limited resources to maximum effect. The aim is to contribute to achievement of counties' development objectives, as well as to unlock business opportunities within their client business constituencies. Only by developing such policies and strategies can IPAs position their countries to compete for and maximize the benefits of international investment and link local productive sectors to the global economy.

The Africa Investor Report 2011

This report is a continuation and extension of the 2005 report (UNIDO, 2007). The extensions occur along several lines. First, more countries and data are analysed than in last time. Secondly, this survey includes domestic as well as foreign investors to facilitate the study of interactions between them and assess the effect of FDI on domestic investment. Thirdly, whereas the previous report was confined to descriptive analysis and, consequently, restricted in devising policy recommendations, this one employs econometric methodologies to measure the impact of FDI on African host countries. In particular, the report analyses horizontal and vertical spillovers. This is central to understanding FDI and its consequences for local firms but difficult to conduct without econometric techniques. These techniques allow disentangling and control of multiple effects that occur simultaneously but are confounded in descriptive analysis. For example, firm size is likely to be associated statistically both with firm performance and capital intensity. Analysis of the effect of firm size on performance independently of capital intensity, at best, will lead to overestimation of the individual effects

2 In the context of the report, IPA encompasses all institutional players at national level–agencies, ministries, and parastatal entities–mandated to attract, promote, manage and service foreign investment activity in their countries..

and, at worst, be totally misleading. With this report controlling for such risks, conclusions akin to policy recommendations may be drawn. Fourthly, this report is able to provide IPAs with concrete targets and strategies, as well as describe the inherent trade-offs involved in different choices. This allows IPAs to argue better their case and raise funds for their priority activities.

The report confirms that foreign-owned firms perform better than their domestic counterparts. The analysis suggests that increasing the foreign component in an economy by changing composition of foreign and domestic firms in favour of the former will result in enhanced sector and country performance in terms of productivity. However, when analysing the impact of increased foreign presence on the well-being of the domestic firms, other effects are also observed. On the one hand, foreign direct investment may crowd out domestic firms in the same sector, which is a negative horizontal spillover. On the other hand, the entry of foreign firms may provide examples of good practice that can be emulated, introduce new technologies that can be adopted, provide access to new markets that can be exploited and increase demand for production factors to the benefit of local suppliers. This would be a positive vertical spillover. Furthermore, foreign firms that establish strong linkages with local ones appear to have an advantage over foreign counterparts with weaker linkages, which suggests a complex, dynamic interrelationship. The report also dwells on the social impact of FDI, where investment in some sectors increases domestic earnings but leads to unemployment in others. Overall, FDI appears to be contributing to structural transformation of African countries, which, in the long term, will lead to increased prosperity. With the information provided by the report, IPAs can accelerate, as well as contribute, to the transition from low to medium income.

Trends in foreign direct investment

So, to what extent does Africa receive FDI? Flow statistics (UNCTAD World Investment Report, various issues) for the 19 survey countries reveal an increased volume, as well as a more volatile, flow of FDI into the surveyed countries in the past decade. When the countries are divided into West, East and Southern Africa, 2010 flows to the first amounted to US$11 billion, US$2 billion to the second and US$3 billion to the third. As a share of total global inward FDI, sub-Saharan Africa, as a whole, has been less than successful. In the mid-1970s, the continent reached approximately 4.5 per cent of global flows, with 2.7 per cent for the survey countries. This fell to 0.5 and 0.2 per cent, respectively, in 2000 but recovered to slightly more than 3 and 1 per cent, respectively, in the late 2000s. However, even these small portions do not tell the whole story since a very large part is invested in resource exploitation rather than income generating productive sectors.

In stock terms, most FDI is located in West African countries, rising from some US$20 billion in 2005 to approximately US$30 billion in 2009, at constant 2005 US$. But this still falls short of the US$35 billion achieved in 1999 meaning that the region was divesting during the first half of the 2000s. At some US$6 billion and nearly US$10 billion, respectively, the FDI stocks of East and Southern Africa are lagging behind that of West Africa considerably. As in the case of investment flows, however, the stock of global FDI in Africa is sparse. In the past three decades, sub-Saharan Africa's share has hovered between one and two per cent.

The current share of FDI flows and stock in the region, as well as shares of FDI flows into productive sectors suggest that investment promotion needs to be strengthened to attract increased investment. Content and sectoral allocation, as well as amount of FDI, are crucial. For purposes of development, increasing the share of inward investment directly into manufacturing and services is essential. Diversification of African economies from being exporters of commodities to producers of value added products and services is an important way growth can trickle down to impact poverty. When FDI flows are disaggregated by target sectors, 43 per cent go into natural resource exploitation sectors (UNCTAD, 2011). Although FDI volumes may appear impressive in a few natural resource-rich countries, the fundamental question remains whether these types of investments are sufficient to contribute to sustainable economic and industrial development, as formulated by African host governments.

The challenge is about ensuring, through the formulation and design of investment promotion policies and strategies that African countries are able to attract quality investments to contribute to the attainment of socio-economic development goals. This is the key to accelerated economic development and also industrialization and transformation of African Economies.

Objectives of the report

Attempts have been made to research the impact of FDI on development, study transmission channels for this impact and measure spillover effects. Yet, few studies have had access to new firm-level data from 19 sub-Saharan African countries that this report is based on. The data are sufficiently detailed to enable the report to both confirms some of the established wisdom as well as generate new insights and knowledge on the nature and impact of FDI flows into Africa. Moreover, the data are used to provide an assessment of current investment promotion services, offer perspectives gleaned directly from the investors, and suggest investment promotion strategies. These are the report's guiding objectives.

By bringing together information on investor perceptions with that gained from econometric analysis of FDI impact, the report shows the kinds of IPA services needed to attract FDI with the greatest positive impact on host economies. This can be characterized as FDI that enhances productivity, creates employment opportunities, stimulates domestic investment and contributes to the integration of the local economy with the global economy. These are the requisite outcomes if investment is to drive improvements in people's lives and impact on poverty. In this report this is referred to as quality investment

An important objective of the report is therefore to develop the means to identify quality investment. Because the essence of quality investment is strong productivity performance, which is unobservable for IPAs, the challenge is to find observable indicators associated with productivity that can be used as identifiers. Such indicators include industrial sub-sector, foreign versus domestic ownership, industrialized versus developing country investor origin, TNC versus foreign entrepreneur investor type and exporter or non-exporter status. The combination of these characteristics that exhibit the quality attributes being sought would define the investor groups that investment promotion can target for achieving development objectives. There are several layers of information to take into consideration. For example, identifying high productivity firms should not be undertaken without heeding to implications for the rest of the economy. Even if targeted companies are better performers, their involvement in economies may have undesirable repercussions for domestic firms or have social consequences.

The conventional role of IPAs has revolved around how to entice foreign investors to invest in host countries and effectively promote host countries to potential investors in a multitude of economic sectors. This role and ensuing mandate has remained largely intact. Yet, IPAs have had little information and means with which to identify quality investment. The challenges to the IPAs and the implications for the implementation of their mandate in the present liberalized regimes in Africa in which the private sector is gradually emerging as a partner in the economic development process underscores the compelling need for the shift from "enclave status" institutions to lead agents in the development process. In this connection, the emerging role of IPAs in terms of their expected contribution to national development goals, such as poverty alleviation, employment creation, industrialization through technology and linkage between FDI and the domestic sector is coming to the fore.

The competition for investment attraction has shifted from sub-regional level or even continental level to the global level. This presents IPAs with tremendous challenges and calls for changes in the implementation of the investment promotion mandate, if investment promotion agencies are to withstand the competition. Investment promotion is not only about marketing a country for image building purposes. The requisite skills have to go beyond communication and public relations to extend a hand of welcome to investors. Determination on specific investment is the challenge for the IPAs.

The keen competition for investments will depend on the ability and expertise to influence location decisions. This depends on information from the private sector to evolve a strategic vision. African countries and IPAs lack the information to support this trend.

For example, foreign firms that establish themselves in host countries forge complex interactive networks with local firms and the domestic supply-system, rather than operating in isolation. They join business membership organisations (manufacturers and trade associations, etc.) and lobby governments. How these networks are formed and what type of linkages best benefit the host country hitherto has proved elusive to IPAs. IPAs could play a role in nurturing stronger linkages between foreign firms and the domestic supply system. Likewise, the report reveals that joint ventures between domestic and foreign firms are particularly strong entities. This presents an opportunity for IPAs to develop match-making functions, by helping to find suitable business partners. If the answers are yes to these questions, this is nothing short of suggest a cultural change in investment promotion, a modern form of promotion that looks at *both* foreign and domestic investment and their interactive relationship.

The survey

This survey and the data analysis and promotion platform, introduced below, is a response in the form of a new tool to help IPAs to formulate the right investor targeting strategies in order to reach out to investors with positive impact on the economy particularly, high value added investments.

UNIDO has always worked intensively with African IPAs (see Box No. 1). One fundamental obstacle to the formulation of such investment promotion strategies towards quality FDI is consistently re-emerging, namely, the lack of reliable firm level data. Without data, many IPAs have been unable to confront the challenges and demands of complex international marketing and intense competition. This has proven a serious disadvantage for their capacity to influence government policies and justify increased allocations of government resources. In some instances, limited resources have handicapped their ability to attract and retain skilled staff to deliver much needed services.

The collection of the dataset followed a rigorous survey methodology, in terms of strategic sampling and interview techniques. As such, the data constitute an authoritative contribution to analysis of foreign and domestic investment in Africa, built on UNIDO's experience in the field. They bridge a fundamental information gap for development policy formulation as well as scholarly research.

Close to 7,000 face-to-face interviews were conducted with top-level managers of foreign- and domestically-owned firms, in Burundi, Burkina Faso, Cameroon, Cape Verde, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Niger, Nigeria, Mozambique, Rwanda, Senegal, Uganda, United Republic of Tanzania and Zambia.[3] The collective GDP of the surveyed countries accounts for 42 per cent of that of sub-Saharan Africa.[4] The largest share is Nigeria's, at 18 per cent, while the other survey countries each account for less than three per cent of the region's GDP.

The survey data cover foreign and domestic investors mainly in manufacturing (49 per cent) and services (40 per cent). A separate, specialized questionnaire was developed for each of the categories of investors: foreign manufacturing, domestic manufacturing, foreign services and domestic services. Occasionally, firms in other sectors including mining, fisheries and commercial agriculture, construction and utilities were interviewed. However, the main focus of the report is an analysis of data collected from firms active in manufacturing, of which the food sector covers the largest number of data points, followed by metal products, chemicals and plastics. The reason for focusing on only a slice of the data is that FDI into other sectors is vastly different from that for manufacturing. Nonetheless, a subsequent report is being prepared on FDI in the service sector.

The questionnaire is composed of two main parts. The first provides all requisite investor characteristics, such as organizational structure, country of

3 Côte d'Ivoire would have been the twentieth country, but the data collection could not be completed.

4 In this calculation, GDP (in current US$) of all developing countries in SSA is used as a basis.

origin, market orientation, share structure as well as perception questions regarding the performance of the investments, interactions with local firms and organizations, and the investment environment, including the quality of support services. The second is a type of financial accounting sheet containing data on output and production factors including labour, physical capital, human capital, energy and intermediate goods, as well as factor prices such as wages. There are also questions dealing with international trade, trade barriers and trade agreements, while other sections concern linkages and partnerships with foreign and domestic firms. The issue of subsidiaries' autonomy is covered as are issues related to technology transfer agreements, in the form of licensing and franchising. The full content of the questionnaires is reproduced in the report's annex.

UNIDO's Investment Monitoring Platform

The scope of UNIDO´s technical assistance programme on IPA capacity building goes beyond the scope of the survey and the present report. Its objective is to make the aggregated survey data available to a large and diverse audience, in order to mainstream the findings of the data into the day-to-day routine operations of IPAs in Africa. To this end, UNIDO has developed an online investment-related information and management platform, the *Investment Monitoring Platform*, which offers participating government authorities, private sector associations, firms, financial institutions, development organizations, and civil society organizations access to an array of the most recent primary data and analysis on investment in Africa.

The platform allows users to challenge existing reports and judgments on business activity in Africa and independently carry out primary research using firm-level data available on the platform through an easy-to-use toolkit of intuitive data visualization instruments. It enables national authorities to analyse activities, performance, and investor perceptions of firms operating in the 19 survey countries. It facilitates comparing the benefits of different types of investment for host economies through a variety of impact indicators such as employment growth, expenditure on training and technological upgrading, or on development of domestic suppliers. Moreover, the platform also permits analysis of firm responses to changes in the business and economic environment. Through particular investor perception variables, it allows users to monitor changes in firms' assessments of the investment climate and future investment plans.

The Investment Monitoring Platform also features a simple and effective online workflow tool, which permits investors to directly connect to national IPAs, and gives the latter agencies the opportunity to swiftly reply to those requests with reports generated from the Survey data. This addresses the critical issue of response time, which is of essence in handling investor inquiries. The platform thus facilitates improved support of investors in their decision making and changes the widespread modus operandi from more general correspondence to evidence based provision of key information on relevant aspects of the investors' decision making.

Investment promotion in perspective

With access to survey data, IPAs have practical means to target quality investment, by being able to recognize the observable characteristics of high-performing firms, even though firms' productivity levels are unobservable. Examples of observable characteristics include exporter status, investor origin and type of investor

Firm-level data allow IPAs the dual learning of how foreign investors perceive current levels and types of services, as well as how their functioning can be improved. By analysing firm-level data, IPAs will be in a position to align their services with such wide-ranging goals as income and employment generation, higher wages for workers and faster growth, as well as issues related to productivity performance, such as technology transfer, adaptation and adoption. The report also shows how domestic industry is affected

by increased foreign presence. These two analyses together indicate the most fruitful paths to follow and concomitant policy trade-offs, while at the same time allowing IPAs to target those firms. As the report unfolds, the implications of analysis become far-reaching, suggesting a fundamental change of culture of investment promotion.

With its richness of data, in terms of quality and quantity, the report is only able to cover a fraction of all possible analyses. Analysing all parts of the questionnaire would come at the price of depth, so the report has opted for the latter. The main reason is to be able to pronounce on development policies and provide credible recommendations for the future of investment promotion. Another limitation concerns sector coverage. Whereas analysis of the impact of FDI on primary, secondary and tertiary sectors throughout the report would have been interesting, it would have been unwise because of the vastly different nature and motivations for such investment across sectors. Except for the chapter on IPA perceptions, which is less sensitive to these concerns, the report focuses on analysis of FDI in manufacturing.

The report's intention is that researchers, as well as policymakers and IPAs, draw on the wealth of pertinent data. Some of this work is already underway. Examples include determinants of future investment, work on labour market issues, productivity and ownership, and issues of international trade. In the coming years, more should be learned about how and what types of FDI best assist African countries in their quest for economic growth and social development, as well as how policymakers and investment promotion institutions can support the process.

The remainder of the report proceeds as follows: chapter 2 describes the data in more detail and presents information on productivity performance, employment, capital intensity and human capital across firm characteristics, such as firm age, investor type, investor origin, and ownership structure. An initial analysis is offered of linkages, in the form of subcontracting, as well as trade issues and autonomy. In chapter 3, the productivity dividend of foreign ownership is closely investigated and quantified. The chapter turns, then, to an analysis of horizontal and vertical spillovers, with special reference to the role of backward linkages. Investor perceptions of IPA are covered in chapter 4, with IPA services ranked according to perception scores. In chapter 5, the conclusions synthesize the findings from chapters 2-4, accompanied by an elaboration of implications for development and the future of investment promotion in sub-Saharan Africa. The Annex contains technical material.

CHAPTER 2:

Characteristics of investment in sub-Saharan Africa

Introduction

Drawing on the survey data, this chapter attempts to explain, insofar as descriptive analysis permits, differences between domestic and foreign firms from several perspectives, most importantly, performance. Firms' differential performances are contrasted with a set of firm characteristics thought to possess explanatory power. This generates several key observations, some of which prove surprising. Whereas important patterns are discerned, the analysis is limited by the fact that some of the explanatory firm characteristics may be strongly correlated, meaning that two variables may explain largely the same firm performance. The solution is to delve into more advanced statistical analysis, which allows for multiple explanatory variables at the same time.

To structure an analysis that ranges from pure economic impact to social implications, the chapter is divided in the following form. The second section presents an account of enterprises involved in foreign direct investment in terms of age, entry strategy, origin and type of investors. The approach of how foreign investors rank factors that influence location decisions is also explored.

The third section focuses on what distinguishes foreign from domestic investment and what they have in common. The question of whether foreign investors display discernibly superior performance compared to their domestic counterparts is explored. This is important because it gives a first view of how foreign investment affects aggregate sector and country performance or what, in Chapter 3, is termed first-layer analysis. For agencies involved in investment promotion trying to optimize use of scarce resources, it becomes imperative to learn whether to focus on, for example, foreign investors originating from industrialized or developing countries, be they TNCs or FEs. The focus is on comparison of domestic and foreign firm performance in terms of productivity and characteristics, such as capital intensity and human capital that may be strongly associated with good performance.

To discover how foreign investment impacts on domestic industry, the most obvious approach is to ask domestic firms. The forth section, therefore, starts with an account of domestic firms' perception of how they are affected by foreign investors. The chapter, then, delves deeper into the issue of impact on the domestic economy by considering indicators of particularly direct consequence for the population. To this end, differences between investors in terms of wages and employment are considered, by, for example, determining if foreign firms employ more persons and pay higher wages compared to domestic firms. Another topic of particular relevance is the extent of linkages with domestic suppliers and buyers. Foreign investors that to a larger extent rely on backward and forward linkages are more likely to have a greater impact on the domestic economy through vertical spillovers. The chapter provides a first view, which is explored in further depth in the following chapter.

The last section focuses on international trade issues as well as the impact of local management autonomy on performance of foreign owned firms. Formerly, it was fashionable to promote inward foreign direct investment based on import substitution by offering high effective rates of tariff protection to prospective investors. This approach to attracting inward investment has largely disappeared because of the strong disincentive effect on exporting along with the tendency to create high cost enclaves with few or no linkages to the domestic economy. Because most African economies are small, understanding exporter characteristics is equally important, since being able to export allows domestic firms to exploit scale economies both in production and purchase of production inputs.

The second part of this section examines whether degree of autonomy is important for firm performance. Many foreign investors interviewed share business risks by forming joint equity ventures with local partners so that even in terms of ownership, the boundaries between foreign and domestic investors are not clear-cut. Ownership rights confer an entitlement to a share in profits but not necessarily managerial rights. An important theme explored in this report is the relationship between ownership structures, nature of managerial control and performance and impact of enterprises on host economies. This analysis is aimed at contributing to the practical task of helping government agencies

better distinguish high quality investment with a strong positive contribution to national economic development from those whose benefits are more limited and mostly private.

The analysis in this chapter, it must be stressed, is indicative rather than definitive because several of the bivariate associations demonstrated here may have rival explanations. Chapter 3 attempts to disentangle the correct channels and mechanisms involved in the multiple explanations that occur simultaneously. Yet, it is useful to demonstrate that firm performance has several separate explanations, some of which are more observable than others and can, thus, be used as identifiers of quality investment for targeting purposes.

Characteristics of foreign investors

This section focuses on foreign manufacturing and service firms, both wholly foreign-owned and joint ventures. Domestic-owned manufacturing and services firms are introduced, as appropriate, for purposes of comparison. The major part of the presentation of the survey findings in later sections compares and contrasts the contribution and impact of foreign- and domestic-owned firms on host economies. There is also an analysis of linkages between them through contracting-out manufacturing activities and undertaking work as subcontractors.

Year of establishment

The average age of foreign manufacturing firms in the sample was 19.7 years. Service firms had an average age of 16 years reflecting liberalization of services and recent growth of foreign investment in the services sector.

Nearly a third of manufacturers were more than 20 years of age, while almost 15 per cent were less than six years old (Figure 2.1). In the 2005 UNIDO survey sample, a quarter of firms were less than six years old. In the 2010 survey, more than 44 per cent of investors from the North had been established for more than 20 years, compared with 20 per cent of those from the South. This may suggest that the current survey had vastly wider coverage of foreign investors, which, in turn, is, likely, an effect of the

Box 2.1 *Definition of foreign direct investment*

Foreign direct investment (FDI) can be broadly defined as international investment made to acquire a lasting influence over an enterprise operating outside the economy of the investor (IMF, 2003). Building on this definition, OECD defines foreign direct investment in an enterprise as, "an enterprise resident in one economy and in which an investor resident in another economy owns, either directly or indirectly, ten per cent or more of its voting power if it is incorporated or the equivalent for an unincorporated enterprise" (OECD, 2008). Where the foreign investor has voting rights of less than ten per cent, OECD defines this as a portfolio investment. The ten per cent benchmark is considered by OECD as sufficient to ensure that the investor has enough influence to have an effective voice in the enterprise's management.

In practice, this may not always be the case as managerial influence on a firm is determined by many factors only one of which is ownership share. A foreign owner with a significantly larger share than ten per cent may, for example, still be prevented from having a proportionate influence on an enterprise's management if the rest of the ownership rights are concentrated in the hands of one shareholder or, if the foreign owner, for some reason, does not assume an active role. Likewise, a smaller shareholding may come with considerable decision-making power if ownership is widely and evenly spread and the foreign owner is willing to have an active voice in management. Some countries, in fact, do not specify any threshold. Instead, they rely on other types of evidence, including an enterprise's own assessment (UNCTAD, 2009). However, from a practical perspective it is preferable to rely on an objective rule, such as share of voting power, rather than on purely subjective judgment. Furthermore, to ensure comparability between surveys, it is desirable that only one definition of FDI is applied.

Although the ten per cent threshold recommended by OECD is not universally adopted, this survey follows the OECD definition and considers all foreign direct investment that gives the foreign investor ownership of ten per cent or more of the shares of a firm as FDI.

Figure 2.1 *Sample firms by year of establishment*

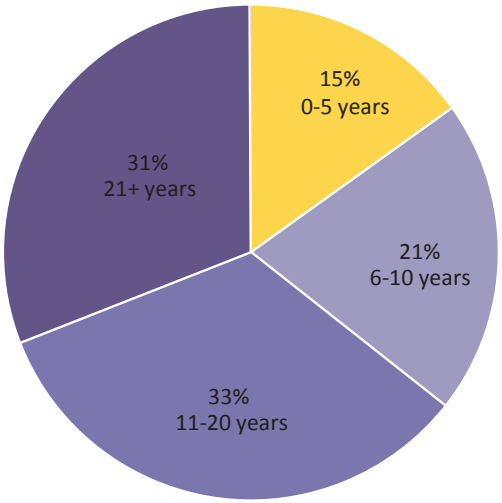
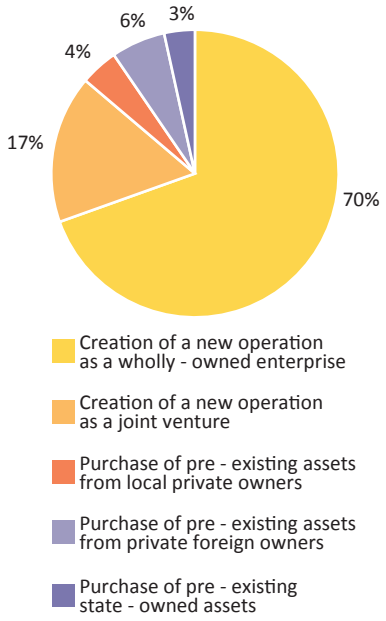


Figure 2.2a *Initial investment mode of manufacturing firms*



thorough sampling of firms described in the report appendix.

Nearly half of all investors from European countries with former colonial interests began operations more than 20 years ago confirming the persistence of long-standing economic relationships between Europe and sub-Saharan Africa. At the other end of the spectrum, nearly 30 per cent of Chinese manufacturing firms were less than six years old. Intra-regional investments from sub-Saharan Africa and from India were, on average, substantially older than Chinese investments.

One of the issues raised in the 2005 Report was the reason for the observed persistence of joint ventures between foreign and local partners. It might be expected that TNCs would, over time, take control of highly profitable subsidiaries. The 2010 survey confirms the continuing longevity of joint ventures involving either TNCs or FEs, in that they were significantly older than wholly-owned foreign firms. For example, more than two-thirds of joint ventures involving TNCs had been established for more than 20 years. The median age was 35 years compared to 12 years for wholly-owned subsidiaries of TNCs. This suggests that foreign investment in joint ventures in sub-Saharan Africa achieved some advantages from sharing business risks with such local business interests as oligopolistic power, market access and knowledge, reduced costs of setting up business and access to an already established distribution-system.

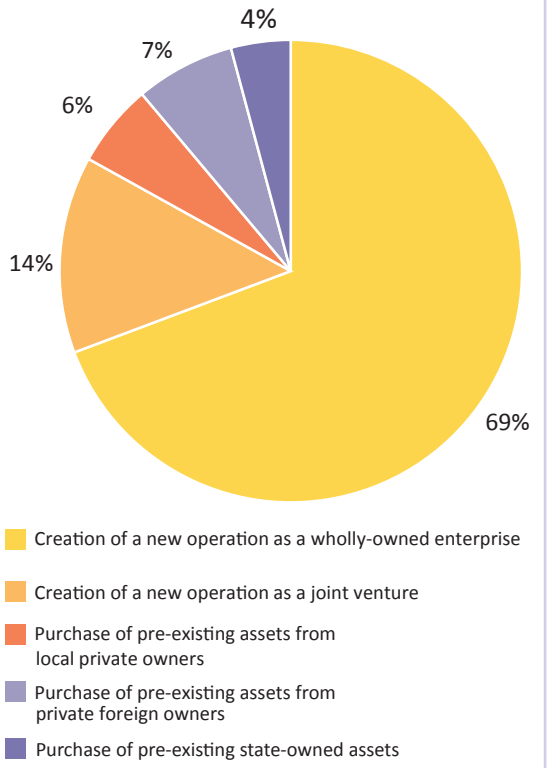
Investors' entry strategy

Notwithstanding the evidence of the survey of long-term survival of joint ventures and some of their advantages, manufacturing and service firms interviewed in 2010 reported a definitive preference for investing in SSA through new wholly-foreign owned subsidiaries (Figures 2.2a and 2.2b). Seventy-six per cent of subsidiaries of TNCs were established as greenfield investments, in the form of establishing new facilities. Wholly-owned foreign private firms followed a similar investment path, with 17 per cent in the survey sample having invested in new joint ventures.

There was little evidence of an active market for buying local firms as an entry mode, more were purchased from existing foreign investors. Only 30 manufacturing firms, or three per cent of the sample, involved privatization of previously state-owned assets. These patterns of investment were repeated in the services sector.

This was quite distinct from other regions of the world, where mergers and acquisition of existing establishments were the normal mode of foreign investment.

Figure 2.2b *Initial investment mode of service firms*



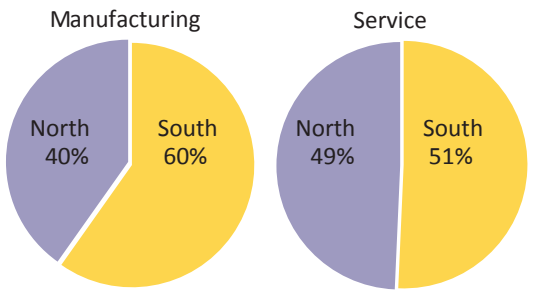
Origin of foreign investors

Investor origin may contain information relevant for understanding firm performance. For example, differential performance may be related to the concept of appropriate technology, with technology from the South closer and more suitable to local conditions and, therefore, easier to adopt and adapt in Africa. On the other hand, it is possible that more sophisticated technology, such as that originating from North, is needed. In addition, African countries differ in their characteristics, with, for example, some having greater absorption capacity than others.

Box 2.2 *Definition of north and south investor origin*

North origin refers to investors from industrialized countries, while South origin refers to investors from developing countries as defined in *The International Yearbook of Industrial Statistics (UNIDO, 2010)*. As such the definition is to a larger extent related to the economic development of the country than to its geographical location, although the two often coincide. One exception is, for example, South African, which is classified as North.

Figure 2.3 *Investor origins of manufacturing and service firms*



Box 2.3 *Diaspora investment: definitions and findings*

Although there is no consensus as to what defines diaspora, the encyclopedia equates diaspora with the dispersion or spread of peoples from their original homeland (Oxford English Dictionary, second online edition, 2011). Yet definitions differ substantially among authors. The World Bank, for example, distinguishes between voluntary and involuntary diaspora, with the former referring to migrants who have decided to relocate by choice and the latter those who have been forced to leave their country of origin (World Bank, 2008). The African Union's (African Union, 2005) definition of the African diaspora is "all the African people living outside the continent for various reasons, who claim citizenship of those countries", with a caveat restricting the diaspora to only citizens willing to, "contribute to the development of the continent and the strengthening of the African Union.". The definition employed in this survey was less strict defining diaspora investment as an investment made by nationals or former nationals of the particular survey country who reside or did reside outside of the survey country. Diaspora investment has received much attention recently (Plaza and Ratha, 2011), often in conjunction with discussions about the contribution of remittances to Africa and development. While it is well-known that official inflows of remittances to sub-Saharan Africa have increased steadily during the last decade and have been estimated to have reached US$20.6 billion, or 2.2 per cent of GDP, in 2009 (World Bank, 2011), much less is known about the flow of foreign direct investment by the diaspora into SSA. However, the few empirical studies that have been conducted on the subject show that diaspora investment, in general, does take place. Leblang (2011), for example, finds a strong and positive relation between the size of the immigrant population in 58 FDI home countries and 120 FDI host countries. From the extent of SSA diaspora savings—estimated as much as

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US$30 billion, or 3.2 per cent of SSA GDP, in 2009 (Ratha and Mohapatra, 2011)—diaspora investment can be expected. The considerable savings of the diaspora combined with the prevalent scarcity of capital in SSA has fuelled interest in mobilizing their potential for development and poverty alleviation. Consequently the demand for diaspora investment data for sub-Saharan Africa has increased.

This survey has responded to interest in African diaspora investment by having explored involvement of diaspora investors in the firms participating in the survey. Contrary to common belief, the results suggested that diaspora investment was still fairly uncommon in Africa. Only three per cent of the 2286 respondents who answered the survey question reported any investment in their firms was from diaspora investors. However, in these firms, nearly two-thirds were entirely diaspora-controlled, with an average investment share of 80 per cent.

The potential ambassadorial role of the diaspora in attracting new foreign direct investment into SSA is an issue of concern to investment promotion agencies and governments. The survey shows that, so far, this has been limited and under-developed. Only six per cent of investors interviewed in the survey cited the diaspora community as the main source of information about investment opportunities in Africa. Foreign investors usually first consulted existing investors in the country (45 per cent) or external advisors (nine per cent). Nonetheless, the diaspora community has a more important source of information than media, private sector-organizations, embassies or investment promotion agencies. Among diaspora investors, it seems to be much more common, one third of respondents relied on information from the diaspora community itself.

As a clear definition is lacking of the constituents of the diaspora, respondents may have had different views as to what the term diaspora investment actually referred, so there was likely to have been under-reporting of such investment. If this is true, it suggests that mobilizing the potential of the Diaspora as a source of FDI poses a serious challenge for investment promotion agencies and, first and foremost, requires unequivocal support from national politicians.

Main Source of awareness to invest in firms

	All investors		Diaspora investors only	
	N	Per cent	N	Per cent
Existing investor in the country	1,037	45.3	17	18.6
Diaspora community	146	6.3	33	36.2
External advisers	212	9.2	3	3.3
Host country's embassy	77	3.3	2	2.2
Home country's embassy	60	2.6	4	4.4
Direct contact with IPA	99	4.3	5	5.4
Private sector organization	78	3.4	3	3.3
Media	86	3.7	2	2.2
Headquarters/parent firm channels	200	8.7	9	9.8
Other	291	12.7	13	14.2
Total	**2,286**	**100**	**91**	**100**

At the country level two European economies with long historical ties with Africa, the United Kingdom and France are both displaced by India as the largest single source of foreign firms investing in manufacturing with 17 per cent of the total sample (Figure 2.4a). The United Kingdom and France with 11 and 8 per cent of foreign firms in the survey, respectively, were the second and fourth most important source countries. China was third with nine per cent of the sample. In box 2.4 survey findings on Chinese manufacturing in Africa are presented. Intra-regional investment from within sub-Saharan Africa (excluding South Africa) accounted for 13 per cent of the sample.

In the services sector there was much greater diversity in countries of origin. France supplied the greatest number of investors (17 per cent), while India was ranked second with 12 per cent and Kenya was third. (Figure 2.4b)

Figure 2.4a *Distribution of manufacturing firms, by origin*

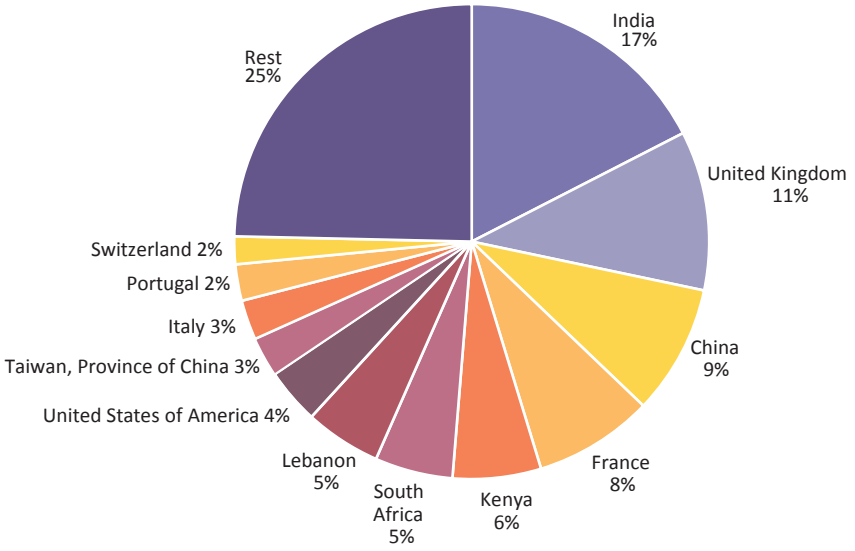
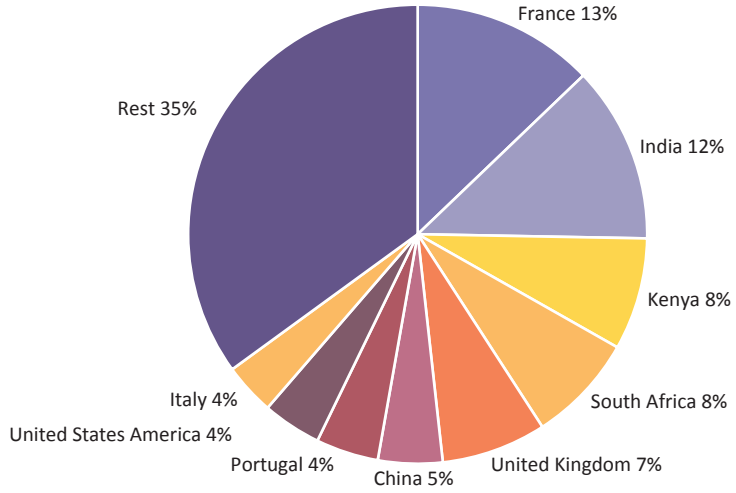


Figure 2.4b *Distribution of service firms, by origin*



Box 2.4 *Chinese manufacturers in Africa*

China's economy has been growing at an average annual growth rate of 10.5 per cent for more than two decades (World Bank, 2010). This very rapid and continuing expansion of manufacturing activity has resulted in sharp rises in wages and input costs in China encouraging a slow but increasing interest relocating parts of their activities to countries with lower production costs and significant domestic markets. Africa is no exception. According to Justin Lin of the World Bank (Lin, 2011), Africa has a great opportunity to benefit from the current structural transformation in China, since the reallocation of resources from labour-intensive to more skill-intensive, higher value-added sectors there may free up as many as 85 million jobs in labour intensive manufacturing. Furthermore, as manufacturing firms can bring technology and jobs to the continent, sub-Saharan African countries have been keen to attract FDI from China.

By 2009, direct investment by Chinese enterprises in the African manufacturing sector had reached US$300 million (Forum on China-Africa Cooperation, 2011), most notably in garments and leather goods owing to tariff concessions made available by the US authorities under the African Growth and Opportunity Act (AGOA to third-country foreign investors manufacturing in Africa.

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Pioneer Chinese investors in garment manufacture and other sectors had, according to this survey's respondents, proved to be important messengers encouraging investment in light manufacturing industry attracted by rising demand in domestic and African regional markets.

Eighty Chinese manufacturing firms participated in the survey. More than half entered the African market after 2000, through investment in new manufacturing facilities in order to access new markets. As with other foreign investors, Chinese respondents reported that they first became aware of investment opportunities mainly through existing investors. However, unlike other investors, a significant number of Chinese investors said they consulted embassies about investment opportunities both African embassies in China and Chinese embassies in Africa.

Chinese investment appeared to be concentrating in East Africa (Kenya, Ethiopia and Uganda), Lesotho, Ghana and Nigeria. Three-quarters of firms were operating in low capital-intensive manufacturing and half reported using low technology-production processes. The median value of the sample's investment in manufacturing capacity in the last five years was only US$650,000. However, this represented 55 per cent of fixed assets, the highest re-investment rate by investor origin and more than twice the median rate of European investors.

The 28 exporters in the sample were concentrated in textiles and garments, wood and paper products. The median export value was US$1 million. Exports by value were divided approximately between one-third to regional markets in SSA and one-third to the USA, with the remainder divided equally among China, the EU and South Africa.

An analysis of the employment patterns of Chinese firms revealed that the proportion of foreign employees in Chinese manufacturing firms was relatively high compared to firms from the North. With the concentration of Chinese manufacturers in the garments and textile sector, Chinese firms employed a higher proportion of women and paid, on average, lower wages than median European ones. The greater tendency of Chinese investors to rely on foreign employees than other investors may be expected to disappear as the recent upward trend in domestic Chinese labour costs persuades investors to rely more on SSA domestic labour.

An analysis of the linkages of Chinese manufacturing enterprises with their suppliers shows that more than a quarter had no domestic suppliers of raw materials or intermediate goods. Two-thirds by value of manufacturing inputs of the 80 firms in the survey came directly from China. A corollary of this was that the number of new local suppliers taken on during the past three years was significantly lower than those taken on by manufacturing firms from the North. According to the firms surveyed, the main reasons for not entering into local procurement contracts, were uncompetitive local prices or unsatisfactory product or service quality. Where local suppliers were used, the reasons cited included better access to local raw materials, easier logistics and reduced inventory.

These trends in Chinese manufacturing investment in Africa are of considerable importance, particularly as Chinese labour becomes more costly and African economic growth results in higher demand for manufactures. There would seem to be considerable scope to drive down costs by developing linkages with local suppliers and investing in development of requisite local skilled labour.

Type of foreign investors

Another characteristic that may affect productivity performance is whether a foreign firm is a TNC, which may imply strong organization backing and access to superior technology or an FE, which tends to be relatively small and have less organizational capital (Figures 2.5). This proved to be a significant source differential firm performance.

The survey revealed a vast majority of investors in the manufacturing sector were FEs. Only approximately one-third of firms were TNCs. Most investors in manufacturing, thus, seemed to come from developing countries and were to a greater extent FEs rather than TNCs. In services, however, the distribution was considerably more even, with more than half of firms FEs.

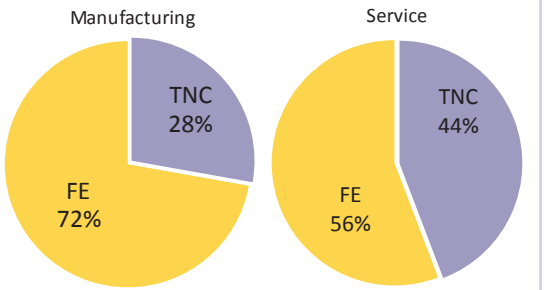
Factors influencing foreign investors' location choice

The two most important factors reported as influencing investment decisions were economic and political

Box 2.5 *Definition of transnational corporations and foreign entrepreneurs*

In this survey, a firm is considered to be part of a transnational corporation (TNC) if it is the wholly-owned subsidiary or joint venture of a parent firm with headquarters in another country. If the foreign investor is a foreign national or family that has invested in the firm alone or as a joint venture partner and it is not a subsidiary of an enterprise based in another country, it is considered to be a foreign entrepreneur firm.

Figure 2.5 *Distribution of manufacturing and service firms by investor type*

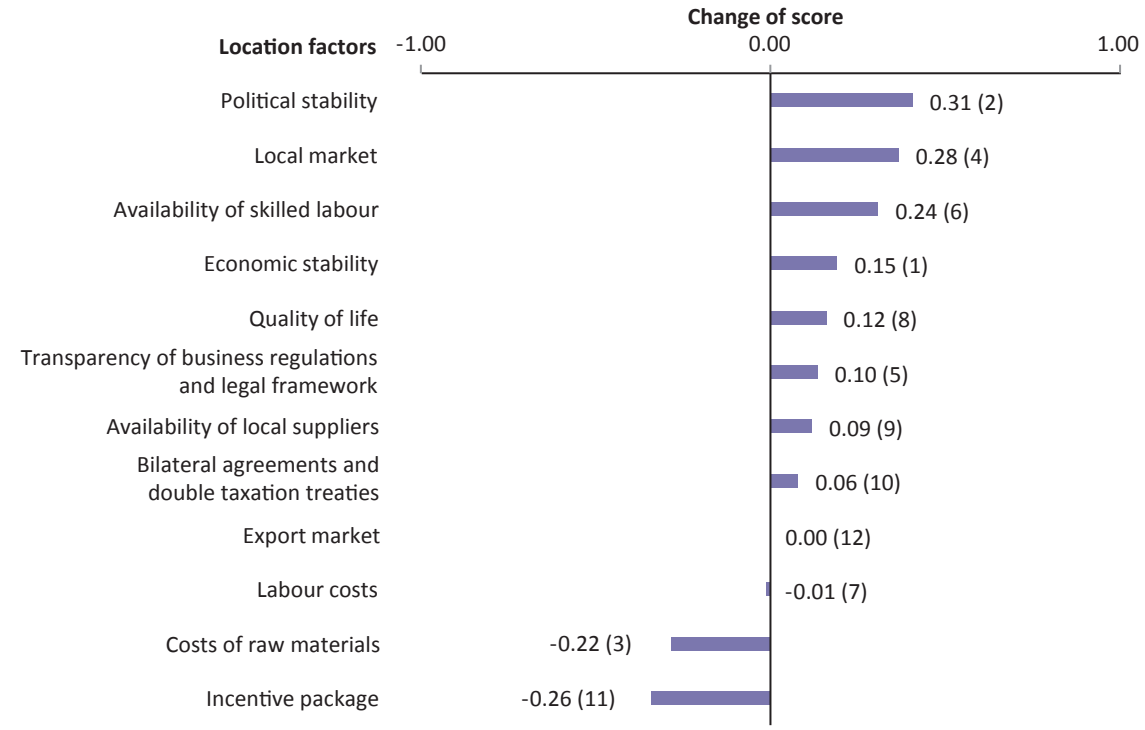


stability (Figure 2.6a). Firms reported that, during the last three years, most location factors had improved, particularly, political stability. Two factors have been assessed as deteriorating: costs of raw materials and incentive packages available to investors. Input costs were a source of concern representing the downside of the commodities boom. An Investment Promotion Agency (IPA) is unlikely to be able to influence the cost of raw materials directly unless it could justify a case for reviewing domestic tariffs or advocate steps to mitigate factory-gate cost inflation caused by inefficient transport infrastructure, such as port delays and bureaucratic import procedures. Respondents identified inadequate infrastructure and bureaucracy as important barriers to exporting and likely, as well, to feature in the concerns of firms reliant on importing materials.

The factor that has deteriorated most in the assessment of firm managers ranked one from the last in terms of importance, namely, incentive packages available to investors (Figure 2.6b). This may reflect that investors concerns are primarily of long-term nature as incentives mainly affect set-up and early operations.

Figure 2.6a *Foreign investors' ranking of importance of location factors and assessment of their changes in location factors, last three years*

Figure 2.6b *Foreign Investors' assessment of changes in location factors, last three years*



Note: Values in brackets indicate the rank of importance

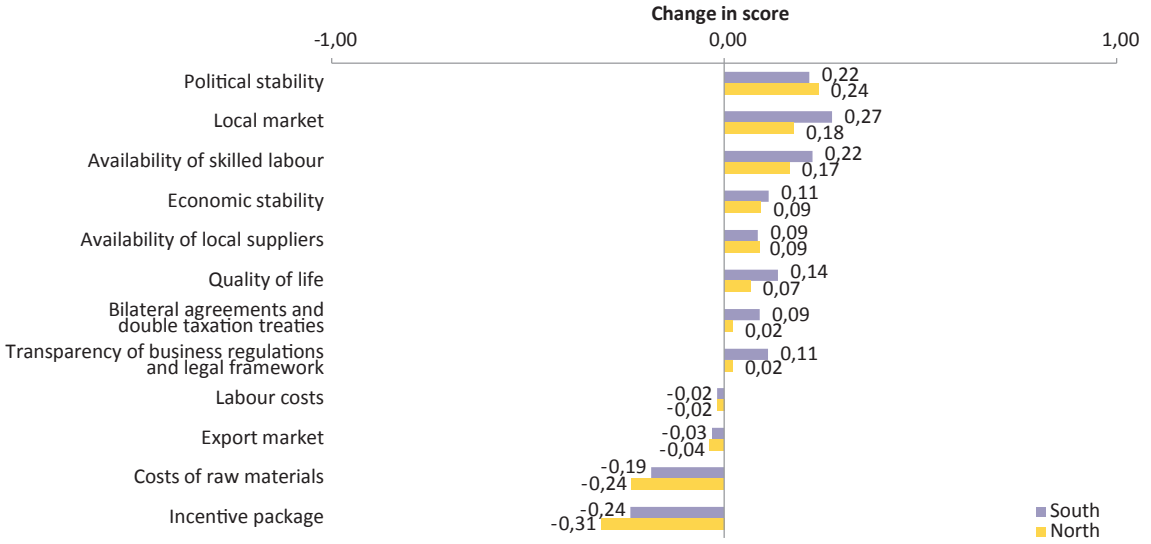
Table 2.1 reports the location factors that foreign investors considered to have deteriorated, classified by investors' country or region of origin. More than half from the Middle East and North Africa (MENA) identified just one factor as deteriorating, cost of raw materials, followed by those from India who identified two factors. Those most critical of changes in the African investment environment were investors from China and the rest of Asia, more than half of whom identified six factors as deteriorating.

According to the countries and regions the countries and regions from which they came, investors' perceptions of changes in location factors in sub-Saharan

Table 2.1 *Location factors investors considered to have deteriorated, by country or region of origin*

FACTORS	All investors	China	Europe	India	MENA	Other Asia	SSA	South Africa
Political stability								
Economic stability		*				*		
Transparency of business regulations and legal framework							*	
Quality of life								
Bilateral agreements and double taxation treaties						*		
Local market								
Export market	*	*	*			*	*	
Labour costs	*	*	*			*	*	*
Availability of skilled labour								
Costs of raw materials	*	*	*	*	*	*	*	*
Availability of local suppliers		*						*
Incentive packages	*	*	*	*		*	*	*

Figure 2.7 *Assessment of Southern compared with Northern investors of changes in location factors*



Africa are compared in Figure 2.7. On average, those from the South were more positive than those from the North concerning the direction of change in the investment environment. These findings are consistent with the results from the 2005 survey (pp.113-117) of investors' assessment of sub-Saharan Africa as an investment location.

Firm characteristics of foreign and domestic investors

The data allow for a set of interesting performance indicators to be computed. Most important of these are two measures of productivity. The first is labour productivity, which is simply a measure of gross output per worker. While this indicator of productivity caters to an overall understanding of the productivity-foreign investment relation, it confounds the respectively roles of production inputs and technology. In other words, output per worker may increase as a result of using more capital per worker but also as a result of more effective use of capital and labour through better technology. For that reason, and because of interest to better understand whether productivity differences among different ownership forms propagate through input or technology, also an indicator of TFP is computed[1]. It is computed as gross output over all inputs as conventionally weighted in the literature on TFP[2].

Labour productivity and TFP

Figure 2.8a present firm performance in terms of labour productivity and TFP, both expressed in terms of per cent of foreign and domestic productivity performance combined[3]. This is done to enhance understanding of, in particular, TFP levels, which are otherwise best presented in relative form. This is implicitly also done here. Thus, at nearly 70 per cent, the median labour productivity of foreign investors is more than twice that of domestic counterparts. However, this can also be expressed as: foreign investors account for nearly 70 per cent of all manufacturing labour productivity.

Difference in TFP between domestic and foreign investors is smaller, however, with the latter still

1 Also productivity measures based on value added have been tested. However, since much of resource-saving and innovation occurs for intermediate inputs the report has settled on gross-output based productivity indicators.

2 Inputs include labour, physical and human capital, and intermediate inputs. It proved impossible to employ firm-specific income shares at this stage. Otherwise, these would have been the preferred weights.

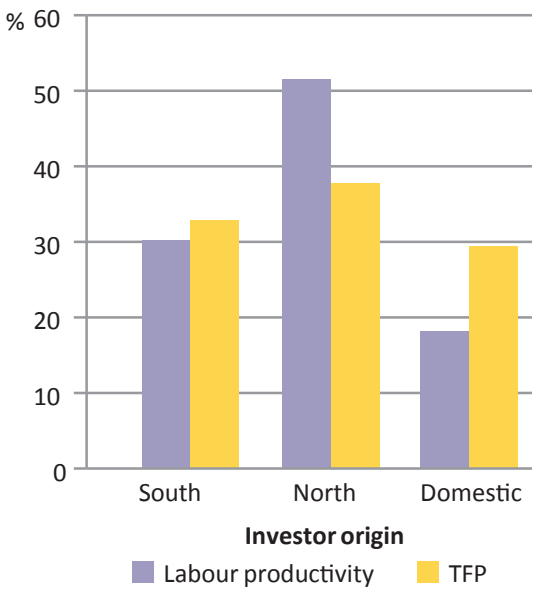
3 The reason for not presenting the actual TFP figures are twofold: first, labour productivity and TFP figures are of such different magnitudes that they cannot be presented in the same graph without one of them completely dwarfing the other, even to the extent that the latter becomes indiscernible. Second, absolute TFP figures do not mean much and so are best presented in relative (percentage) terms.

being good for a majority of firm performance. Performance differences between domestic and foreign firms thus appear to be more related to relative endowments of tangible production factors such as machinery and equipment than intangible assets such as knowledge. That is to say that African firms have the knowledge to embark on sophisticated activities, but not the means to do so because of, for example, lack of access to finance to purchase necessary fixed assets. This is also in line with the notion of a (relatively) global free flow of technology, but, again, undersupplied means to make it operational in terms of more efficient production. One may expect these important differences to show up in patterns of specialization consistent with the Heckscher-Ohlin-Vanek international trade model.

The source of this large difference is sought in two ways. Firstly, the answer can be found in terms of firm origin, investor type and organizational type and secondly, in terms of firm characteristics such as capital intensity and age as well as in the degree of technology sophistication production takes place in.

Starting with investor origin, Figure 2.8b clearly indicates that foreign investors, independent of productivity measure and whether they originate from an industrialized (North) or developing country (South) are more productive than domestic ones. For example, in terms of labour productivity, South firms are almost 50 per cent as productive as their domestic counterparts, with North firms holding a nearly 70 per cent productivity edge on South ones. These are large productivity gaps, but in line with the macro picture drawn in the introduction of the report. Interestingly, TFP differences are for all investor origins larger than those of labour productivity.

Figure 2.8b *Manufacturing labour productivity by origin, median*



The TFP story is slightly different in that domestic TFP accounts for more of total national TFP than domestic labour productivity does for total labour productivity. In addition, domestic TFP is, in principle, at par with that of southern investors, which is quite remarkable given on commonly held wisdom regarding technological know-how in sub-Saharan Africa as well as that implied by macroeconomic data.

Figure 2.8a *Manufacturing labour productivity by ownership, median*

Figure 2.8c *Manufacturing labour productivity by type of investor, median*

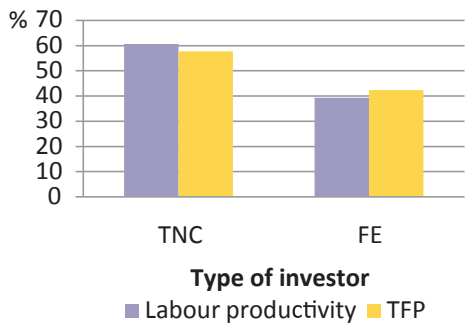
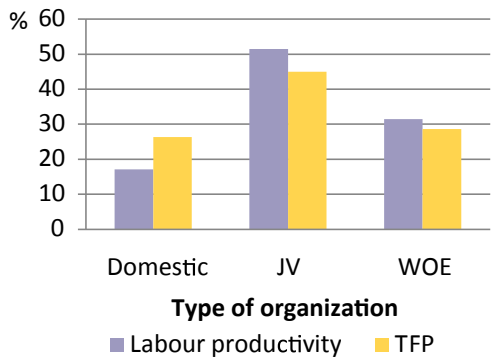


Figure 2.8d *Manufacturing labour productivity by type of organization, median*



Box 2.6 *Definition of wholly-owned enterprise and joint venture firm*

Wholly-owned enterprise (WOE)
Foreign share ownership is equal to or greater than 90 per cent.

Joint Venture firm (JV)
Foreign share ownership is equal to or greater than 10 per cent but less than 90 per cent.

As Figure 2.8c indicates, TNCs hold a decisive productivity edge over FEs, both for labour productivity and TFP. This is likely to reflect, partly, traits related to exploitation of economies of scale and, partly, access to superior technology through human and physical capital, intermediate inputs and international trade.

By far, compared with both WOEs and domestic firms, joint ventures between domestic and foreign firms are the most productive, with labour productivity gap being larger than that for TFP (Figure 2.8d). This does not come as a surprise, since foreign investors bring (international) market access, superior organizational capital, technological knowledge and financial strength to an already existing firm with local market knowledge, established supplier-system and abundance of labour. Wholly-owned firms are also they more productive than domestic counterparts, but yet behind JVs. Interestingly, the TFP gap between WOEs and domestic firms is fairly small, again suggesting that technological knowledge might not be the main constraint on industrial development in Africa.

The overall picture is further reinforced by Figure 2.8e, which shows that, for labour productivity, the foreign investors that came with the motivation to merge

Box 2.7 *Definition of local, regional and global market seekers*

Local market-seeking
If less than 10 per cent of total sales is exported

Regional market-seeking
If 10 per cent or more of total sales is exported and more than 50 per cent of the exported sales is directed to other sub-Saharan Africa countries.

Global market-seeking
If 10 per cent or more of total sales is exported and more than 50 per cent of the exported sales is directed to global markets outside of sub-Saharan African countries.

Figure 2.8e *Manufacturing labour productivity by investment motive, median*

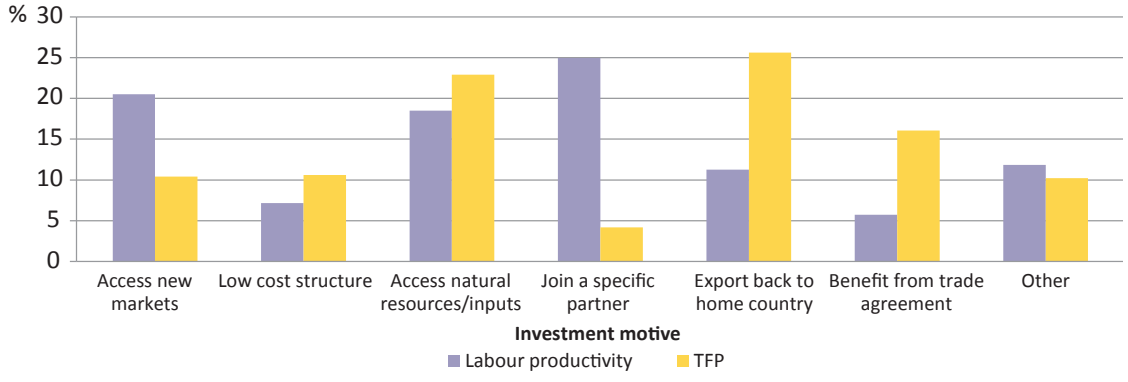
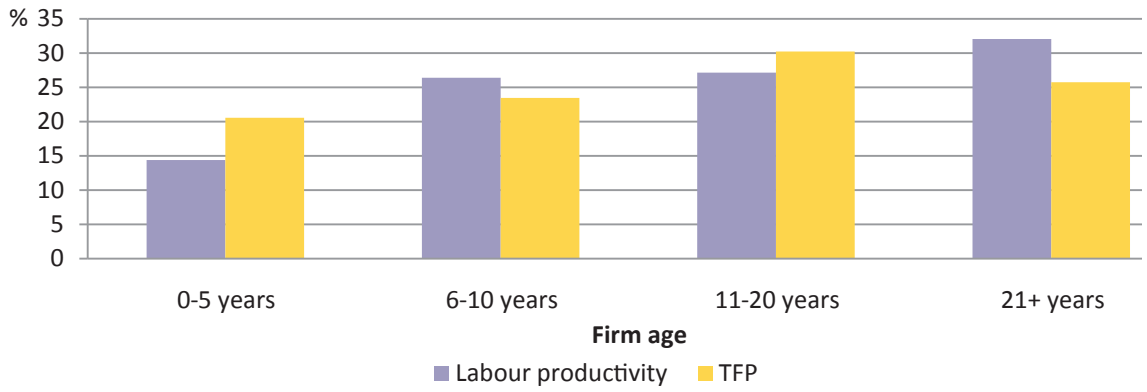


Figure 2.8f *Manufacturing labour productivity by age, median*



with a domestic firm are associated with productivity. Foreign firms that had either market-seeking or resource-seeking motives are not far behind. This shows both the importance of scale (market) and access to production inputs for firm performance. At the other end of the spectrum, firms that were motivated either by low cost or to benefit from trade agreements are less productive.

For foreign investors with strong TFP performance, to establish an export-platform and access natural resources—both likely to be related—are the main motivations. This result squares perfectly with the international trade theories that link possibilities to start exporting with the need to be productive. What is particularly fascinating is that it is not sufficient to be labour productive, but that the ability is linked to technology. To join a specific partner was the weakest type of motivation, contrary to firms strong in terms of labour productivity.

Comparing labour productivity in firms of different ages, it is striking how rapidly labour productivity increases after five years and is still apparently increasing even beyond twenty years of operational experience (Figure 2.8f). As will be argued below, it is therefore rational to pay higher wages in older firms to reflect and secure productivity improvement over time. In addition, this story in principle holds up for TFP as well; TFP increases with age for the first three cohorts, but thereafter drops a little. Overall, it seems that firms accumulate assets and knowledge over time and thereby become more productive.

It is striking how dissimilarly physical capital associates with labour productivity and TFP (Figure 2.8g). For the former, performance is clearly positively related to the amount of capital per worker, that is, labour productivity is increasing in capital intensity. What is more, the relation even appears to be exponential, with high-level capital intensity being more than twice as much associated with productivity performance than medium-high level capital intensity. On the other hand, firms with low capital intensities—labour-intensive firms—reach less than 10 per cent of the productivity performance of high capital-intensity firms. Most likely, this shows the importance of technological change embodied in machinery and equipment for firm performance.

Now, for TFP, firms with the lowest amount of capital per worker have the highest TFP, although the variation across levels of capital intensity is not particularly large. Yet, it is decreasing in capital intensity, showing less and less importance of capital for TFP performance. This may indicate that the productivity

Figure 2.8g *Manufacturing labour productivity by capital intensity, median*

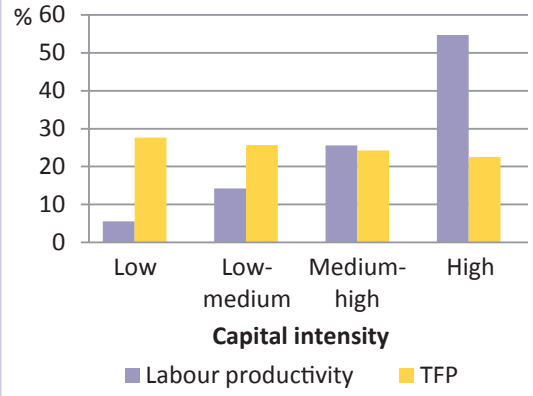


Figure 2.8h *Manufacturing labour productivity by human capital, median*

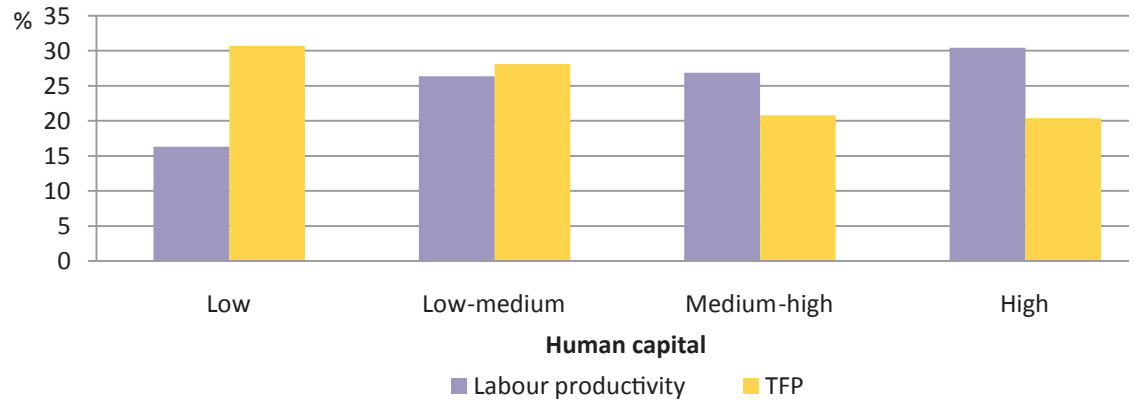
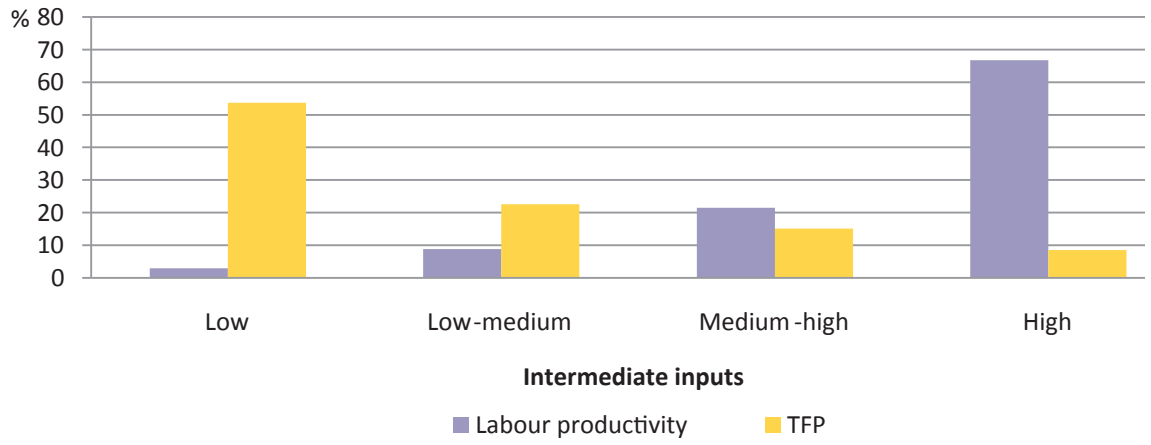


Figure 2.8i *Manufacturing labour productivity by intermediate inputs, median*



of workers benefits more from additional capital and that how to organize production is related to other kinds of investment, for example, intangible assets. This idea is further explored below. Moreover, from a development economics viewpoint, it is consistent with early ideas contained in models of structural transformation (see, for example, Lewis, 1954), where investment in physical capital triggers increases in labour productivity and wages, and thereby attracts workers from agriculture to manufacturing. And again, it is consistent with technology embodied in machinery and equipment being more important than disembodied technology at this stage of development and the constraints alluded to above regarding the possibilities to realize (disembodied) technological gains.

The story of human capital and productivity performance is both strikingly similar and different from that of capital intensity (Figure 2.8h). It is different because while labour productivity increases with more human capital up to medium-high levels, it thereafter peters out at very high levels, although remaining at high productivity levels. On the other hand, it is similar because TFP appears to be negatively related to the amount of human capital. One likely explanation is that the human capital invested in is more related to actual production than its organization, similar to investment in physical capital.

The use of intermediate inputs, like capital intensity, is intimately related to labour productivity (Figure 2.8i). Firms categorized as high intense in the use of intermediate inputs are by far more labour productive than other firms, with medium-high users at second place, however only at 25 per cent intensity level of that of high users. This is consistent with the capital-intensity story told above. TFP, on the other hand, falls with increased use of intermediate inputs. Although there is not necessarily an *a priori* reason

Box 2.8 *Classification of industrial sub-sectors according to level of technology*

The classification of industrial sub-sectors into low-, medium- and high-technology manufacturing follows a classification prepared by the OECD (OECD, 2005). In a slightly adjusted version- three categories were used instead of the original four- the sub-sectors represented in the survey fall into the following categories:

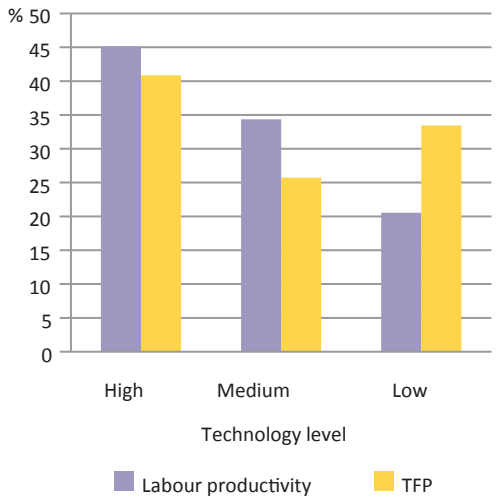
Low-tech manufacturing:
Publishing, printing and reproduction of recorded media; Manufacture of food products and beverages; Manufacture of wearing apparel, dressing and dyeing of fur; Manufacture of textiles; Tanning and dressing of leather, manufacture of luggage, handbags, saddlery, harness and footwear; Manufacture of furniture, manufacturing n.e.c.; Manufacture of wood and of products of wood and cork, except furniture, manufacture of articles of straw and plaiting materials; Manufacture of tobacco products; Manufacture of paper and paper products; Recycling

Medium-tech manufacturing:
Manufacture of rubber and plastics products; Manufacture of other non-metallic mineral products; Manufacture of fabricated metal products, except machinery and equipment; Manufacture of basic metals; Manufacture of coke, refined petroleum products and nuclear fuel

High-tech manufacturing:
Manufacture of chemicals and chemical products; Manufacture of machinery and equipment n.e.c.; Manufacture of electrical machinery and apparatus n.e.c.; Manufacture of motor vehicles, trailers and semi-trailers; Manufacture of office, accounting and computing machinery; Manufacture of radio, television and communication equipment and apparatus; Manufacture of other transport equipment; Manufacture of medical, precision and optical instruments, watches and clocks

to believe there should be a relation between intermediate inputs and TFP, the results warrants an explanation. Actually, the finding is consistent with the notion that technological advances often occur with respect to intermediate inputs, that is, firms are resource-saving. A complementary

Figure 2.8j *Manufacturing labour productivity by technology level, median*



explanation may be that firms that are knowledge intensive are not those that are engaged in production that require large amounts of intermediate inputs. Furthermore, earlier it could be seen that TFP indeed is higher amongst firms that are less capital-intensive. In other words, labour-intensive production is not necessarily synonymous with low knowledge requirements.

Figure 2.8j merely follows as a confirmation of the technology story told above in that relatively labour productive firms operate in high-tech sectors. TFP is also increasing in operations in more sophisticated activities, however with a dip for medium-tech production.

Capital intensity

Above, a strong association between capital intensity (fixed capital per worker) and firms' labour productivity performance was shown to exist. What other items that characterizes firms with high capital intensity is what is looked into in this section.

The first observation (Figure 2.9a) is that foreign firms are approximately 50 per cent more capital intense in their production than their domestic counterparts (US$ 16,000 versus 10,000), which is in line with what was found above regarding the relation between performance and capital intensity.

Figure 2.9a *Manufacturing capital intensity by investor origin, median*

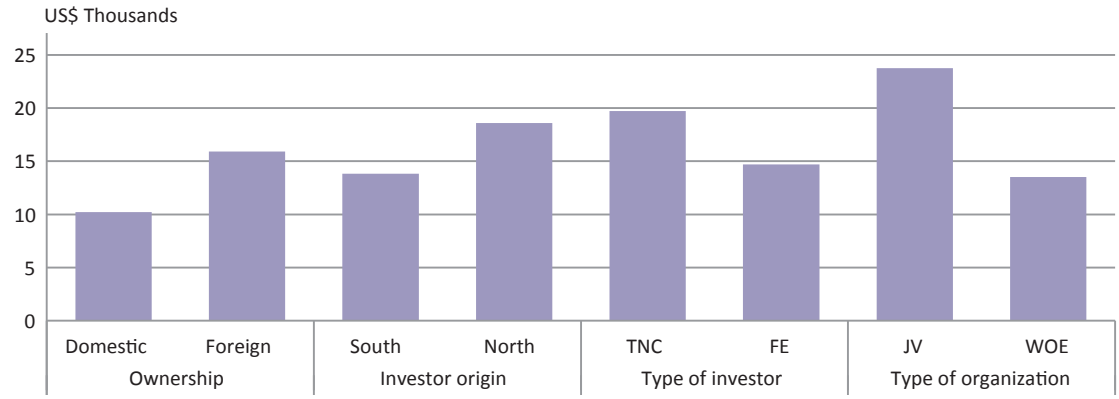
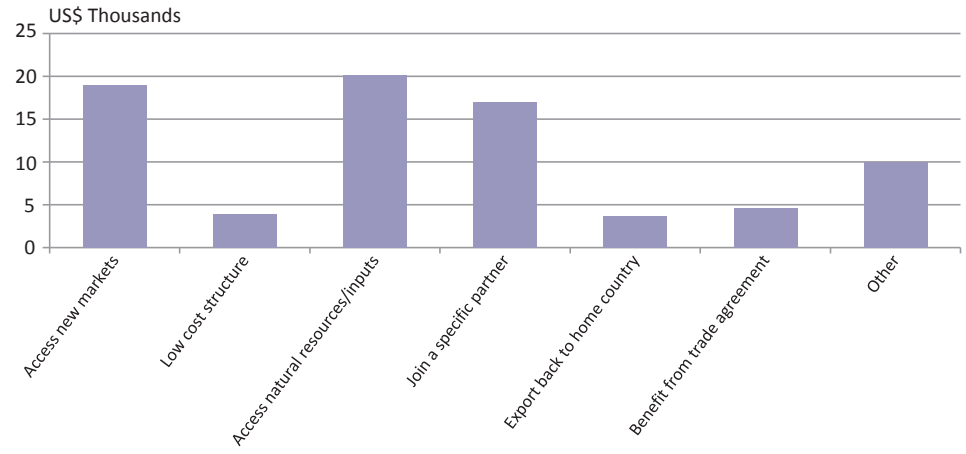


Figure 2.9b *Manufacturing capital intensity by investment motive, median*



Firms from industrialized economies operate more capital-intensive production than both foreign investors from developing countries and domestic investors, with southern investors being 40 per cent more capital-intensive than domestic ones. This points to fairly significant differences in economic structure not only between industrialized and developing economies but also within the latter group of countries. Amongst foreign investors, TNCs are approximately 30 per cent more capital intensive than FEs. Most likely, domestic investors will mainly face competition from FEs, which carry nearly 50 per cent capital per worker than their domestic counterparts. Turning to type of organizational structure, both JVs and WOEs perform more capital-intensive operations, with JVs by far the most capital-intensive. All of this is in line with the findings on productivity performance above.

The reasons for investing in Africa (Figure 2.9b) are closely related to the wish to access resources and new markets, and to join a specific partner. In other words, it is the same finding that we had for productivity, showing that these are the same firms. Interesting, however, is that capital-intensity-age pattern is different from the productivity-age pattern. Whereas previously the observation was that productivity increases with age, Figure 2.9c implies a U-shaped pattern. Young and old firms are both more capital-intensive than the 6-10 year old ones; thereafter, capital per worker picks up again for the next cohort to reach the level of young firms. It is not improbably that had capital stock been corrected for vintage effects, the differences might have been smaller because old African firms tend to maintain and "count" old capital and thus overestimate their capital stocks.

The level of capital intensity appears to be closely linked to both human capital and use of intermediate inputs in production (Figures 2.9d and 2.9e). Interestingly, there seems to be a plateau at medium-levels

Figure 2.9c *Manufacturing capital intensity by age, median*

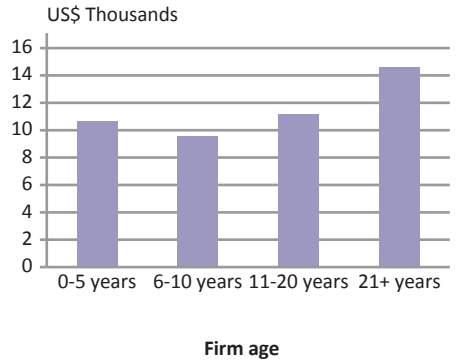


Figure 2.9e *Manufacturing capital intensity by intermediate inputs, median*

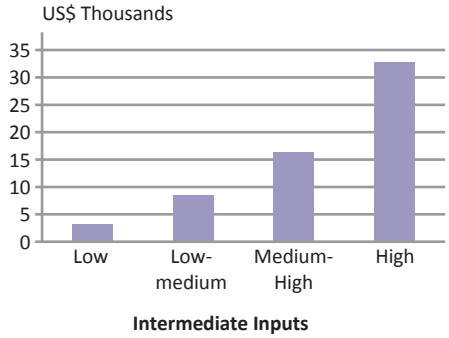


Figure 2.9d *Manufacturing capital intensity by human capital, median*

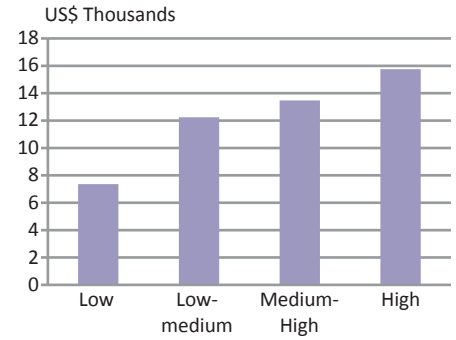
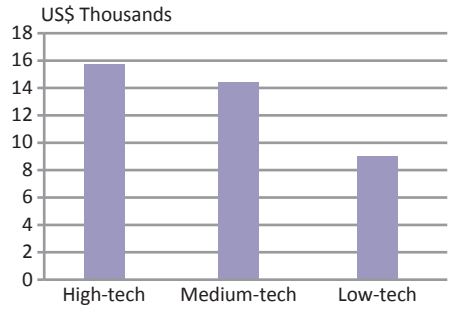


Figure 2.9f *Manufacturing capital intensity by technology level, median*



of human capital but with distinct differences between firms richly and poorly endowed with such capital. The data on intermediate inputs may indicate that energy costs constitute a large part of total costs for firms and that it is a crucial input. Constrained access to energy may therefore work as a serious business constraint and inhibit important infusion of productive and capital strong enterprises to the local economy.

The difference in capital intensity does not seem to be significantly large once a firm has crossed the threshold from low-tech to medium-tech, that is, medium and high-tech operate at more or less equal levels of capital-intensity (Figure 2.9f).

Investment

This section looks into change in capital stock. The first items concerns what firms have made any major investment in the past five years. Information like this provides an insight into what types of firm activities and sectors that are expanding. Thereafter, we are concerned with future planned investments, which give more fuel to the issue of changing population of African industry.

Major investment since 2005

Foreign firms were asked to provide information about their most recent major investment during the last five years. 486 firms report investing some US$1.7 billion of new capital. TNC-joint ventures report the largest investments over the period, with a median value of US$1.2 million (Figure 2.10). Foreign investors say they achieved an annual rate of return on new investment of nearly 26 per cent which compares favourably with the rate of return conventionally used in project appraisal in Europe

Figure 2.10 *Value of last major investment, by type of organization, median*

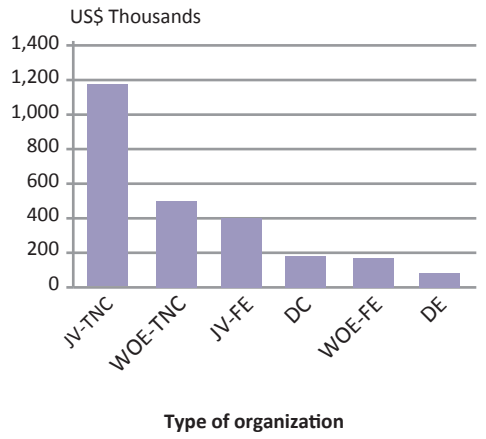
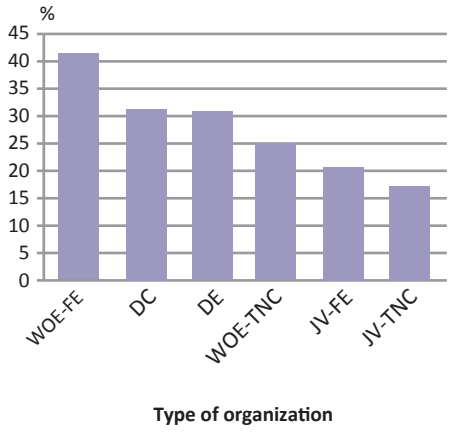


Figure 2.11 *Average ratio of value of recent major investment over stock of fixed assets, by type of organization, median*



of 10-12 per cent. If these rates of return reflect the norm on the continent, one would expect capital to flow to rather than out of Africa. Since such flow does not appear to square with observed flows this may not be the case. Alternatively, the rates of return are quoted in nominal terms. However, with inflation in the survey countries largely contained at single-digit levels, real rates of return seem to be implausibly high. This observation is consistent with the so-called Lucas paradox (Lucas, 1988). A third possibility, assuming these are nominal rates of return, is that they signify serious capital constraints. Finally, these rates of return are also likely to reflect the high risk involved in investing in Africa.

Domestic investors reported they had invested US$6.8 billion in 987 establishments, but this figure was inflated by a single entrepreneur who had invested US$4.5 billion in one project. More normally, the typical domestic firm had invested under US$200,000, while family-owned enterprises had invested just US$74,000. Domestic firms claimed their annual rate of return was on average over 30 per cent, but this figure again seems too high (see discussion in the foregoing paragraph).

Controlling for the value of existing fixed assets to estimate the investment rate in new capital projects over the last five year, the relation between type of organization and investment is inverted. FEs have the highest investment-capital stock ratios at nearly 40 per cent and TNC joint ventures have the lowest levels at less than 20 per cent (Figure 2.11). Domestic firms have a ratio of over 30 per cent. This suggests domestic investors are responding vigorously to the very attractive rate of return they report is available in sub-Saharan Africa as are foreign family businesses and entrepreneurs.

The median size of recent investment was proportionately larger for high technology manufacturing concerns with a noticeably greater 'technology' differential for domestic firms (Figure 2.12). The median domestic high technology firm invested roughly three times as much as a low technology one—US$240,000 compared to US$85,000 per firm. The superior labour productivity achieved by investment in high technology seems to have provided a powerful incentive for further upgrading such that recent investment was fourteen times greater in high productivity domestic firms compared to the bottom quartile of low productivity firms (Figure

Box 2.9 *Definition of domestic entrepreneur and domestic company*

Domestic Entrepreneur (DE)	**Domestic Company (DC)**
Share ownership of individual(s)/family is equal to or greater than 10 per cent.	Share ownership of individual(s)/family is less than 10 per cent.

Figure 2.12 *Value of last major investment, by level of technology, median*

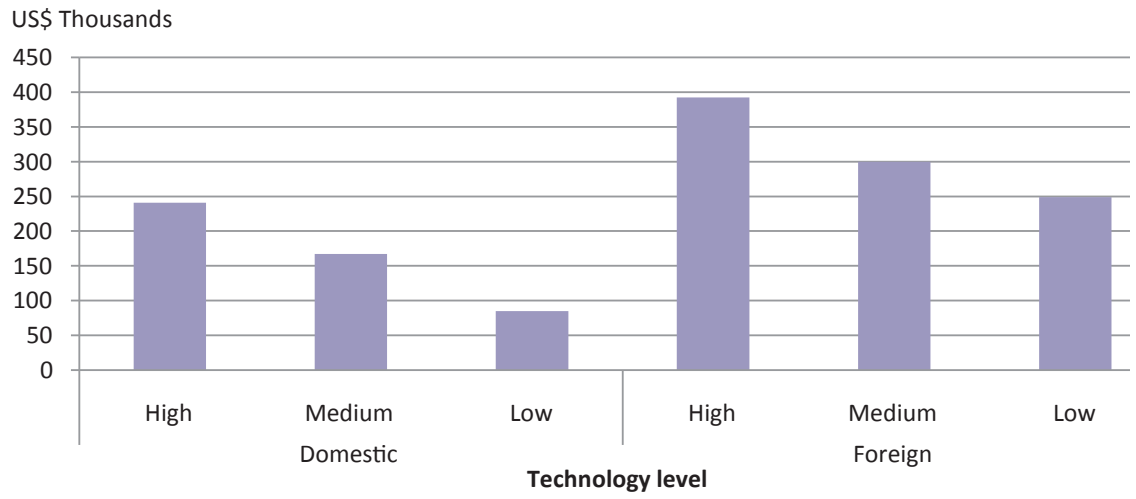
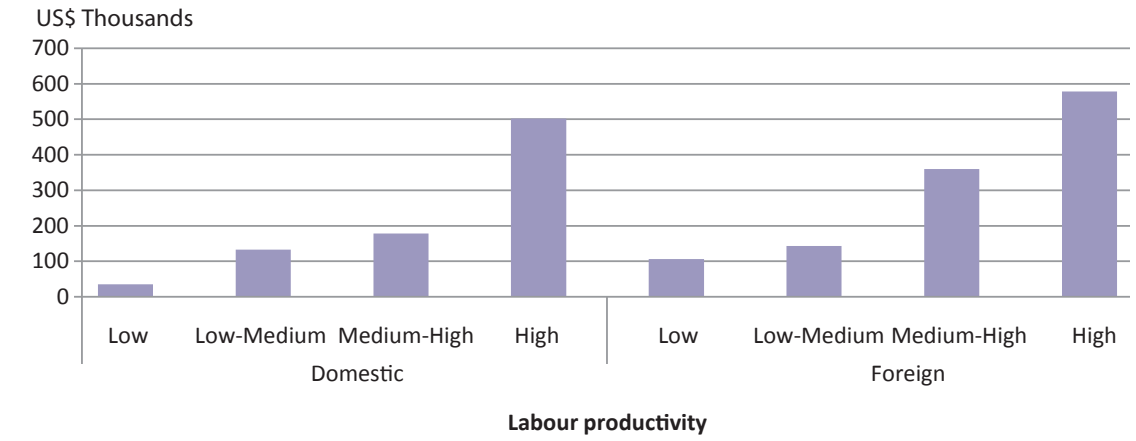


Figure 2.13 *Value of last major investment by labour productivity, median*



2.13). The median value of new investment in high productivity foreign firms was five times greater than in low productivity firms. As noted above, this was reflected in the rate of investment in new plant over the last five years.

From the two figures above, it seems that the rewards from productivity-enhancing investment are strongly positive for both foreign and domestic investors and more particularly for domestic investors. An interesting question to be tackled in the next chapter is whether this is simply a direct relation between investment in technology upgrading and productivity improvement, or is there an interactive relation between the foreign-owned and the domestic-owned sectors that adds something extra to the domestic sector? The productivity-enhancing spillover effects of foreign investment on domestic firms, both positive and negative, are analysed in depth in the next chapter.

Investment planned over the next three years

Foreign investors plan to commit a total of US$5.2 billion to new investment over the next three years with one joint venture planning expenditure of US$1.6 billion (Figure 2.14). Domestic investors are planning to spend US$6.1 billion including one firm planning on investing US$2.1 billion in new facilities. Typical subsidiaries of WOE-TNCs reported plans for spending US$500,000 over three years. The median domestic establishment is committed to capital expenditure of US$260,000 over the same period. Joint ventures with TNCs are the most bullish about investment with plans for expenditure of US$1.7 million.

Figure 2.14 *Value of planned investment over the next three years, by type of organization, median*

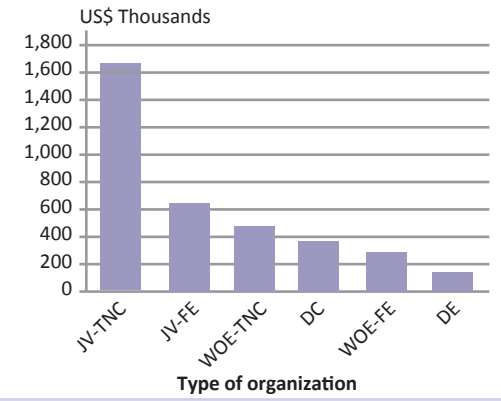
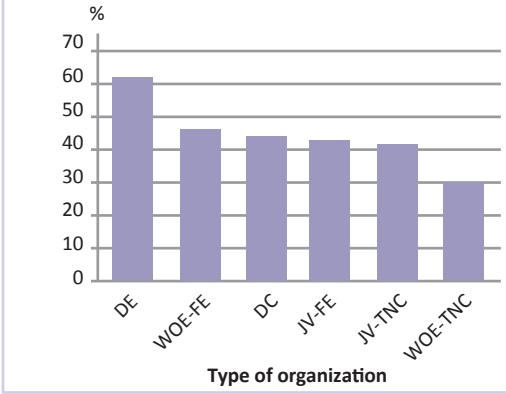


Figure 2.15 *Share of planned investment in fixed assets, by type of organization, median*



Box 2.10 *Sources of finance*

On average, approximately 60 per cent of working capital and financing of fixed assets come from retained earnings of both foreign and domestic firms. Joint ventures are able to raise nearly a quarter of their capital requirements from local banks so they are less reliant on retained earnings, while more than a quarter of the financing for fixed assets of subsidiaries of TNCs come from the parent firm. Chinese and other investors from Asia (apart from India) are least reliant on local bank financing.

The reputation that sub-Saharan Africa has sometimes had for being a cash-only business culture is not confirmed by the survey. Supplier credit is a significant source of working capital—nine per cent for foreign firms and seven per cent for domestic firms.

It is sometimes argued that banks taking deposits from local customers should be restrained from lending to foreign investors and instead should give preference to domestic business customers. Three countries, Ethiopia, Lesotho and Madagascar, are well below average in terms of their lending to foreign investors, with firms reporting less than six per cent of capital needs met by local banks. In contrast, banks operating in Kenya, Mali, Mozambique and Tanzania, supply more than 20 per cent of the capital financing needs of foreign firms. As regards lending to domestic firms, banks in Kenya and Tanzania come top of the list of providers, supplying more than a third of capital. Lesotho, Mali and Zambia are at the bottom, with local banks supplying less than 10 per cent of capital needs.

Complaints of firms about the lack of export trade finance are further explained in the discussion about international trade and autonomy later in this chapter.

The pattern of firm investment plans mirrors that of reported investments over the last five years. For example, foreign investors in high technology sectors spend 60 per cent more and plan expenditure of 78 per cent more than those using low technology. The differential is even greater among domestic firms.

If we plot the value of planned investment over the next three year divided by fixed assets against the type of ownership of the organization, domestic family firms claimed to have the highest investment rate, at 63 per cent. Subsidiaries of WOE-TNCs had the lowest investment rate at 28 per cent (Figure 2.15).

Human capital

Like in the case of capital per worker, the amount of human capital (i.e. the share of technical, administrative and sales staff in the total workforce) was shown to be a strong correlate of the target performance variable, productivity.

Perhaps unexpectedly, Figure 2.16a indicates that domestic firms have more human capital than foreign investors. A plausible interpretation is that foreign firms choose to allocate "white-collar" assignments, just like domestic firms, to the headquarters. In light of that it is human capital at the local market level

that is measured here it is perhaps less surprising to find that domestic firms have more human capital than foreign counterparts. This result does not change when splitting foreign investors into north and south origin.

However, it appears that southern investors have the smallest share of white collar workers, something which might be explained by different sectoral targets by the two groups of firms. For example, if south firms tend to a larger extent target labour-intensive sectors and north relatively capital-intensive industries, this result may ensue. The fact that FEs have more human capital than TNCs, corroborates this latter explanation. Likewise, JVs possess more human capital than WOEs. An interesting explanatory suggestion here can be that JVs to a large extent let headquarters remain in the target country, i.e., the local firm the foreign one joins, whereas WOEs obviously act as described above.

The joint-venture story is repeated when looking at why investors chose to invest in Africa (Figure 2.16b). In addition, countries that invested with the purpose of exporting back, and access new markets and raw material also possess relatively large shares of human capital. Unlike what was found for productivity and capital intensity, to benefit from trade agreement is to a much lesser extent associated with large shares of human capital.

Figure 2.16c shows that firm age carries very little information for the amount of human capital. This implies that firms do not routinely accumulate human capital over time, but that it likely to be closely related to the type of activity the firm is involved in. This is to some extent

Figure 2.16a *Manufacturing human capital, median*

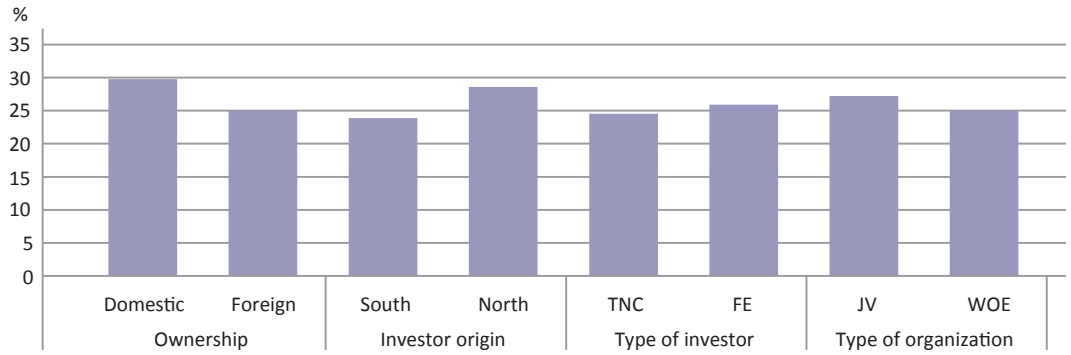
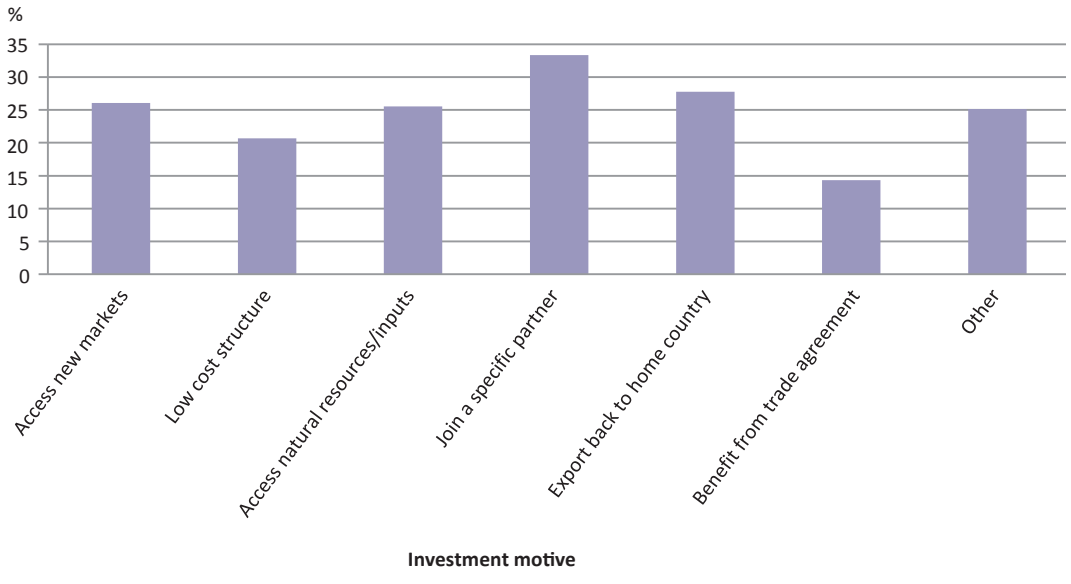


Figure 2.16b *Manufacturing human capital by investment motivation, median*



confirmed by Figures 2.16d and 2.16e, which show how human capital is increasing in capital-intensity and the amount of intermediate inputs used in production, as well as by Figure 2.16f which shows a steady increase of human capital from low to high-tech manufacturing. However, it is worth noting that the increases across categories of capital intensity, intermediate inputs and technology are not large, lending further support to the explanation offered above regarding location and activities of headquarters.

Training

The human capital of a firm and its workforce, in its broadest definition, comprises knowledge and skills acquired through education and training, but also the health level. While the survey does not address health issues, a major advantage over many other surveys is that firms' spending on training is investigated. Just like investment concerns change in capital stock, training may be viewed as change in the stock of human capital.

Figures 2.17 and 2.18 show that firm provision of formal training follows a pattern suggesting that older, more capital intensive firms have a higher propensity to spend on training their employees than other firms. For example, a foreign firm that has been operating for over 20 years spend US$109 per worker compared to US$65 for a firm less than six years old. This helps explain the observation above regarding labour productivity, TFP, capital intensity and human capital, namely, that investment in human capital is more related to actual production or skills than on production process or organization of production (i.e., TFP).

Figure 2.16c *Manufacturing human capital by age, median*

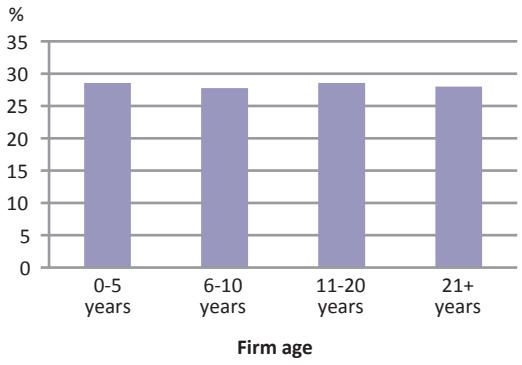


Figure 2.16e *Manufacturing human capital by intermediate inputs, median*

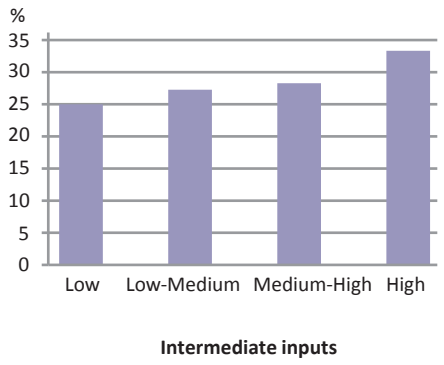


Figure 2.16d *Manufacturing human capital by capital intensity, median*

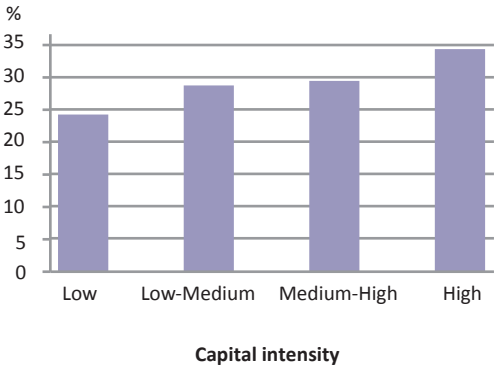


Figure 2.16f *Manufacturing human capital by technology, median*

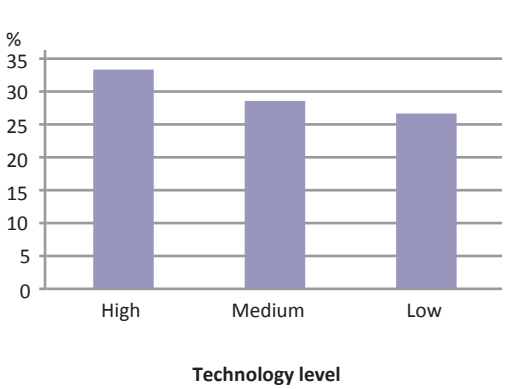


Figure 2.17 *Training expenditures per worker, by firm age, median*

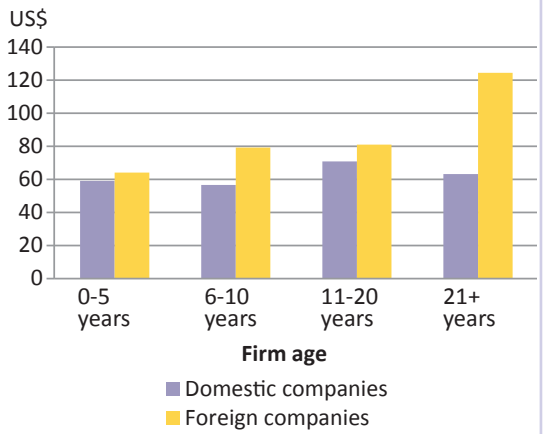
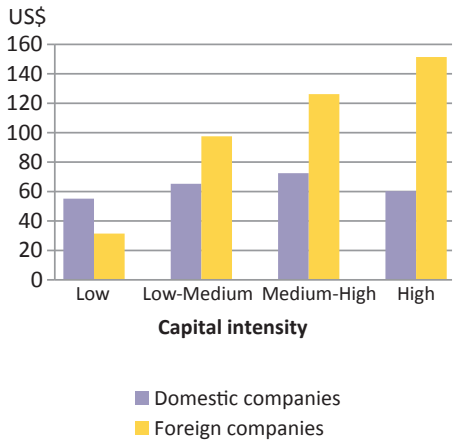


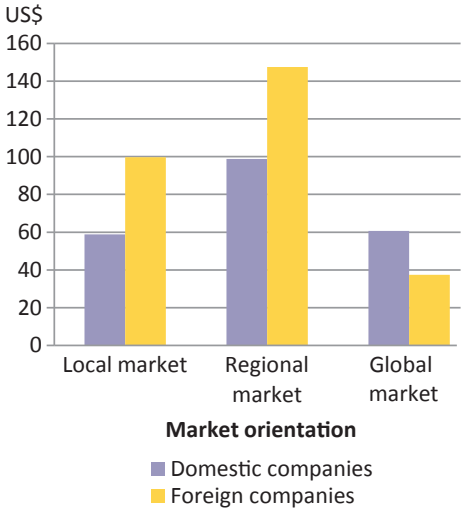
Figure 2.18 *Training expenditures per worker, by capital intensity, median*



In the discussion of firm-level wages policies below, it is suggested that it is rational for firms seeking to achieve higher levels of productivity to share some of the benefits with their workforce in the form of higher wages as a way of encouraging discipline and reducing labour turnover. The strong association between capital intensity and a foreign firm's expenditure on training, presented in Figure 2.18, further suggests that foreign firms are sensitive to the need to train their employees in order to obtain the optimum benefits from their capital investment. Reduced labour turnover, obtained from paying higher than average wages, helps to ensure that investment in training pays off. Domestic firms appear to be less sensitive to this proposition in that there is only a weak positive association between increasing capital intensity and training expenditure.

By contrast, regional market seeking firms, both domestic and foreign, seem to appreciate the importance of training (Figure 2.19). One can trace this observation back to international trade theory such as the Heckscher-Ohlin-Vanek model and empirical applications attempting to predict export destinations (Granér and Isaksson, 2009), where relative endowments of human capital may be insufficient for competition with firms from industrialized countries but represent a comparative context in an African context. Hence, training expenditures are more strongly related to destinations to countries and regions relatively poorly endowed with human capital.

Figure 2.19 *Training expenditures per worker, by market orientation, median*



The impact of foreign direct investment

How can the impact of foreign direct investment be captured? The answer is that there is no one "catch-all" tool to do so. This means one can only selectively assess the impact. In this chapter we have chosen to focus first on domestic firms' own reactions to foreign entry and thereafter on the social impact in terms of employment and wages. Perhaps the closest one gets

Table 2.2 *The perceived effect of foreign presence in the country*

Assessed area	Strongly negative	Slightly negative	No effect	Slightly positive	Strongly positive	Total
Overall ability to compete in the market	8.0	18.6	41.2	22.3	9.9	100
Business opportunities	5.4	14.5	39.7	28.7	11.7	100
Demand for firm's products	5.3	15.8	42.4	26	10.6	100
Costs of skilled labour	5.6	13.3	60.5	15.6	4.9	100
Availability of raw materials and other inputs	5.5	9.4	56.4	20.5	8.2	100
Access to finance	5.9	9.4	62.2	15.1	7.4	100
Access to export markets	9.6	8	60.5	13.7	8.2	100

to a generic understanding of how foreign investment affects the domestic economy is by way of linkages analysis and this is the final area covered in this section.

However the impact analysis does not end here. Chapter 3 employs regression analysis to further investigate the economic and social impacts. Furthermore, this was also implicitly carried out when differences in firm performance across ownership and possible explanatory factors were analyzed above.

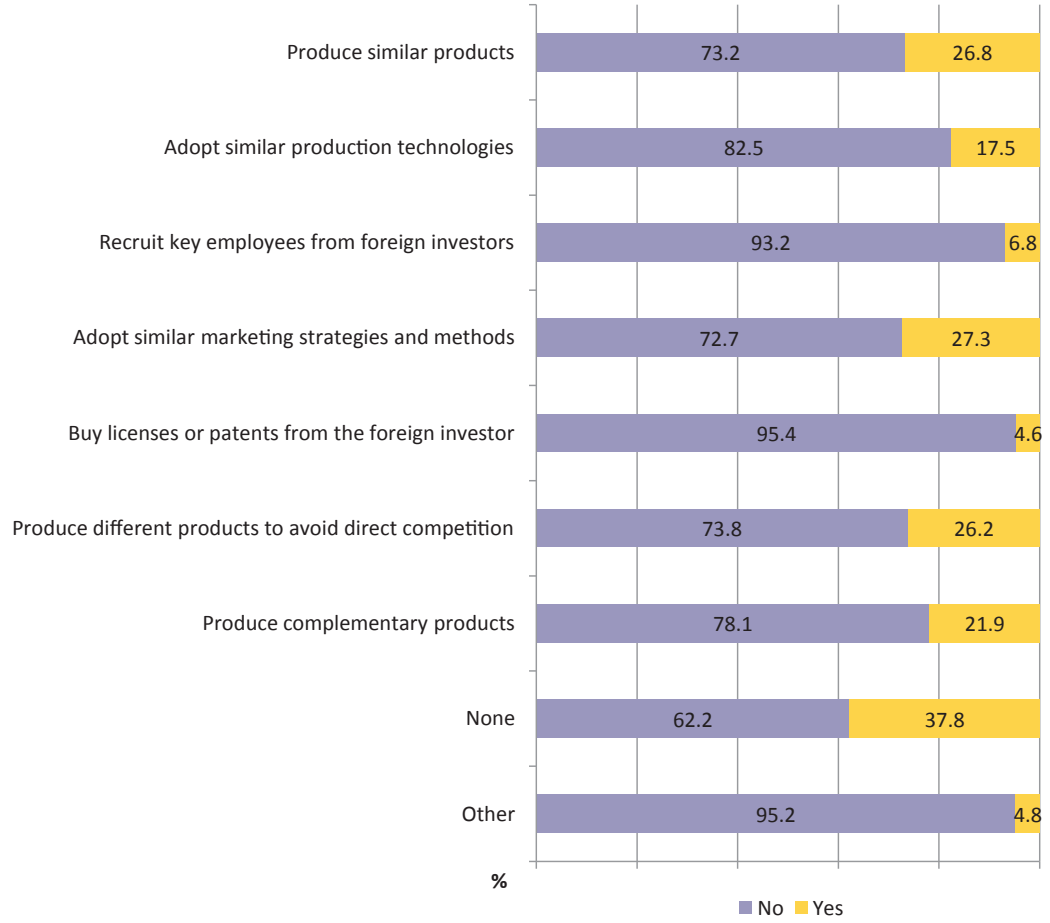
Domestic firms' perception of foreign entry

Table 2.2 shows how domestic firms perceive the entry of foreign firms. Domestic firms were asked to assess, on a five-point scale ranging from strongly negative to strongly positive, how the presence of foreign firms has affected seven different areas related to their business. In all areas most firms answered that the presence of foreign has been neither positive, nor negative, ranging from 39.7 per cent with regard to business opportunities to 62.2 per cent with regard to access to finance. Comparing the rest of the answers, the picture seems to be that domestic investors are generally more positive than negative to the entry of foreign firms. For example, almost 12 per cent of respondents regarded the effect of foreign presence on business opportunities strongly positive and almost 29 per cent slightly positive. Moreover, almost 11 per cent answered that the entry of foreign firms has had a strongly positive impact on the demand for the firm's products, whereas 26 per cent answered that it has had a slightly positive impact on demand. For both areas, significantly fewer answered that the impact has been slightly negative or strongly negative.

One issue not accounted for here is that one is likely to receive very different answers depending on if foreign entry is in the sector on which the domestic firm operates or in another sector. The entry of foreign firms into the same sector may, for example, decrease the overall ability of domestic firms to compete in the market whereas the entry into other sectors may have no effect or even a positive effect. That is, respondents may give very different answers depending on if they refer to the presence of foreign firms in the sector in which they operate or in the economy as whole. Chapter 3 digs deeper into this question by looking into both intra- and inter-sector effects of foreign entry in the form of horizontal and vertical externalities. The results of this analysis and a thorough explanation on how this was done are provided in the next chapter of the report.

In addition to the general perception of foreign presence, domestic firms were asked to provide information about their response to the entry of foreign firms (Figure 2.20). Also here some interesting variation is observed. The most common answer, 37 per cent, is that domestic firms did not change the way they operate. Other common responses seem to be to adopt similar marketing strategies and methods, to produce similar products and to produce different products in order to avoid direct competition. Interestingly the two latter strategies seem to be as common, whereas to produce complementary products seem to be slightly less common.

Figure 2.20 *Domestic firms' response to the entry of foreign firms*



To recruit key employees from foreign investors and to buy licenses or patents from the foreign investors seem to be rare responses.

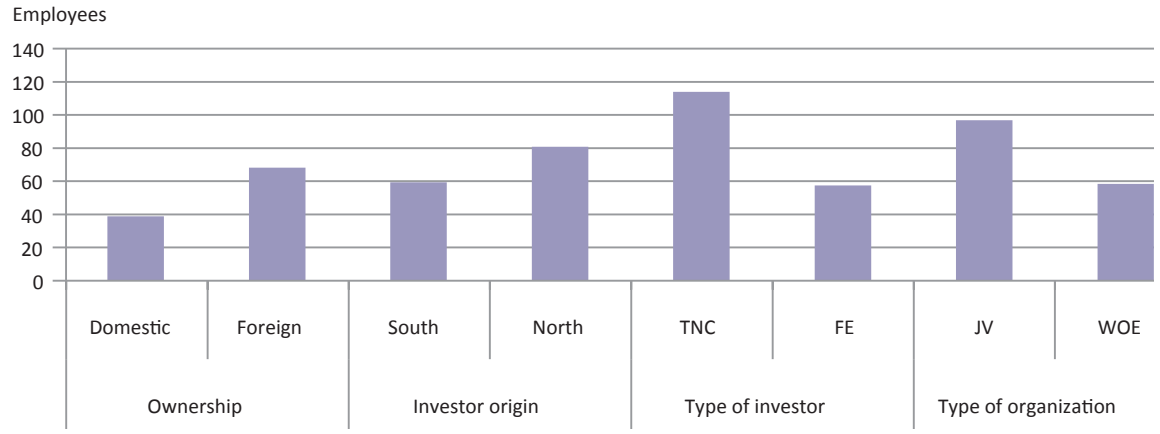
Finally, domestic firms were asked whether they had undertaken any new investment that can be attributed to foreign firms. The result shows that only six per cent of domestic firms responded that they had undertaken such an investment.

Impact on employment

Although there are approximately twice as many domestic as foreign manufacturing firms covered by the survey, their total contribution to employment is smaller, that is, foreign investment contributes importantly to total employment. Domestic investors employ a total of 178,000 people (in 1,715 firms) with a median size of 40 people. Foreign-owned firms employ 195,000 people with a median size of 70 people, as shown in Figure 2.21. Firms of north origin, at median, employ almost a quarter more people than those from the South; both categories of firms at the median level employ more workers than domestic firms. Firms of north origin have significantly higher employment figures than both firms of south origin and domestic firms, with the median southern firm employing more than the median domestic counterpart. However, in terms of impact on total employment it is the combination of median firm and number of firms that is important and again there are likely to be more south than north firms.

TNCs, with a median payroll of just below 120 employees, are the firms that generate more employment. In fact, this is almost twice as much as the median payroll of FEs. However, the total impact also depends on the number of firms so even if the median FE cannot compete in terms of employment, combined with a larger number of FEs their impact might be larger. Moreover, joint venture firms employ more

Figure 2.21 *Number of employees, median*



people than both wholly-owned foreign firms and wholly-owned domestic firms.

At the country level some additional interesting variation is found. The average manufacturing firm from South Africa employs the most people. Smaller foreign-owned employers are typically Indian firms employing 55 people (Figure 2.22). Intra-regional investors from sub-Saharan Africa employ just 47 people, rather similar in size to the typical domestic African manufacturing firm, which suggests they face similar constraints to growth.

Hence, the median analysis suggests that TNCs and firms of north origin seem to have a potentially large role to play when it comes to employment generation. However, the fact that firms with these characteristics do have a large work force does of course not automatically mean a large impact on domestic employment generation due to the number of firms effect discussed above. Nonetheless it gives an indication on which type of firms that have the potential to contribute significantly to reduced unemployment in the host economy.

There appears to be a similar underlying employment growth pattern for both domestic and foreign manufacturers. When foreign-owned and domestic firms are classified by ownership structure and grouped by age, older firms are found to be typically larger than younger ones (Figure 2.23). The same is true of domestic firms. It is possible that these older firms grew to be large some time ago and have stopped growing but are holding onto their market position and size. Also the composition of the population of manufacturers is likely to have changed over time with the introduction of reduced tariff protection and increased competition in African domestic markets from imports and firms exiting and new firms entering African markets.

Figure 2.22 *Number of employees by investor origin, median*

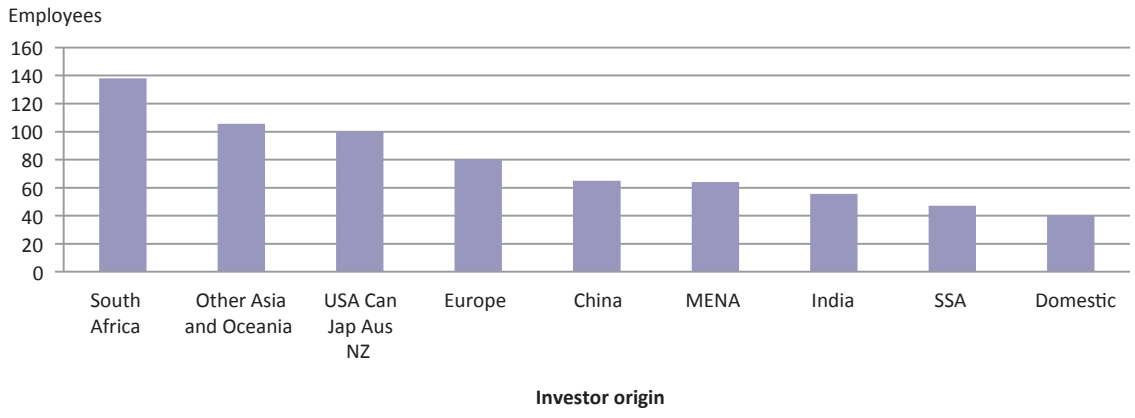
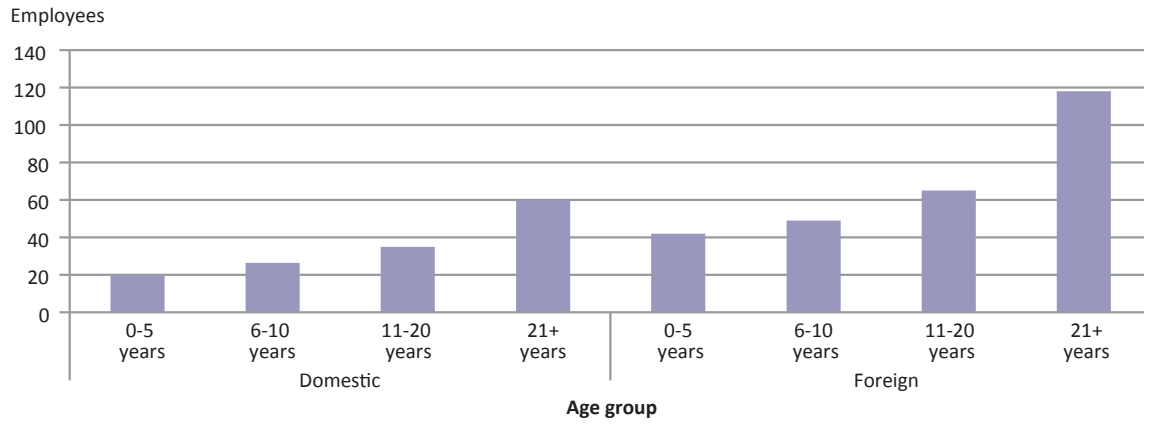


Figure 2.23 *Number of employees, by age of firm, median*



From a policy perspective, this points to the vital importance of the efforts of national authorities in nurturing existing firms, regardless of whether they are foreign- or domestically-owned firms. The slowest growing type of firm is family-owned domestic businesses. Joint ventures involving TNCs seem to have grown the fastest. This will be looked at in more detail below.

Firms that that have invested because of the low-cost structure in the host country and that have invested to benefit from trade agreements on average seem to employ more people compared to other motives to entry (Figure 2.24). Especially the two former observations are in line with expectations as this type of investment is likely to be in more labour-intensive industries. At the other end, it can be seen that firms that export back to home country employ the smallest number of workers. This is in line with the trade-productivity view of export participation alluded to above.

With regard to the capital intensity of firms the Figure 2.25 shows that firms with a higher capital to labour ratio on average also employ more people. At first glance this result may seem counter-intuitive but is in line with the notion that more capital-intensive firms also tend to be more productive and therefore, in the long-run tend to be larger and have more employees. This may imply that one perhaps needs not be too worried about short-term unemployment effects emanating from productivity increases brought about by foreign investment. These undesirable social consequences are, in effect, part and parcel of structural change and overall development and as such only represent friction unemployment. This is not to be confused with permanent unemployment, which is largely unrelated to this kind transformation.

Firms with a lower human capital level tend to employ more people on average compared to firms with a higher human capital level (Figure 2.26). This

Figure 2.24 *Number of employees by motivation, median*

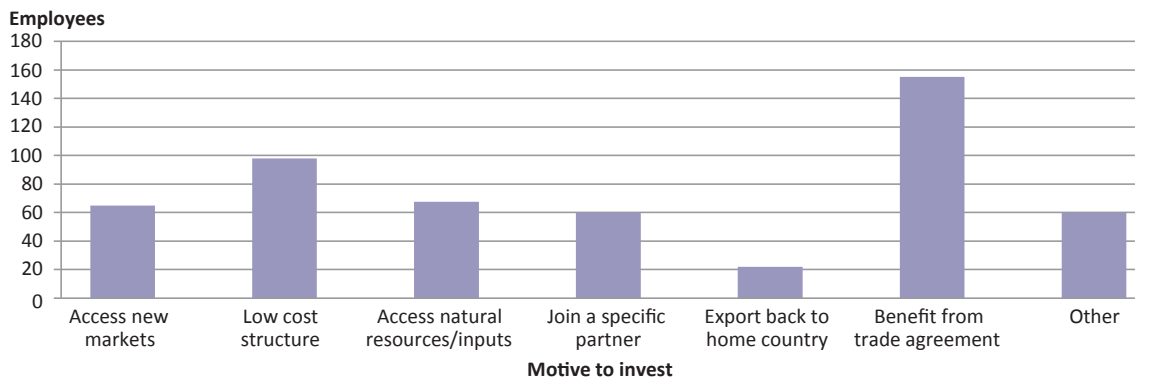


Figure 2.25 *Number of employees by capital intensity median*

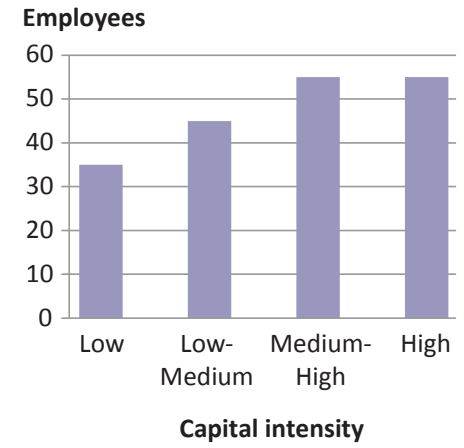


Figure 2.26 *Number of employees by level of human capital median*

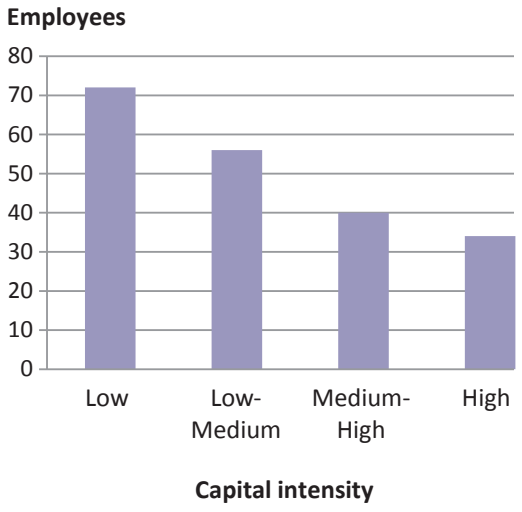
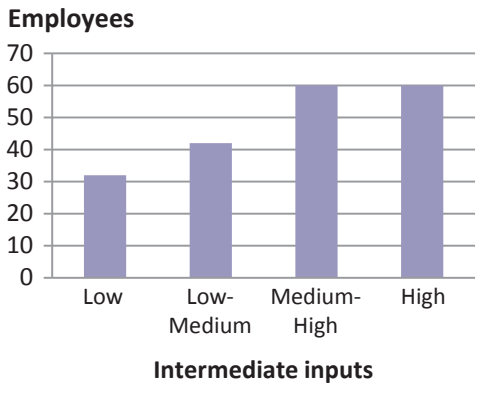


Figure 2.27 *Number of employees by use of intermediate inputs median*

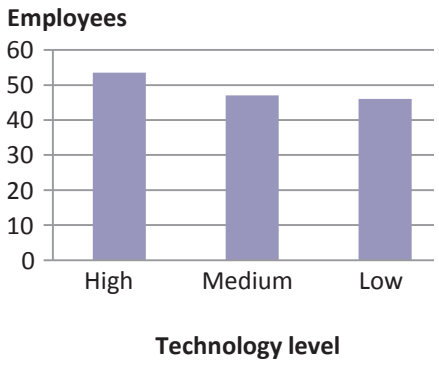


is in line with expectations since firms operating in more labour-intensive industries may not have the same skill requirements as firms operating in more technologically advanced industries. The difference between the low and the high human capital level group is indeed significant.

Firms that use more intermediate inputs in their production also employ more people. As Figure 2.27 shows firms that use a lot of intermediate inputs in their production also tend to be the ones that have the largest number of workers on their payroll. One explanation to this result is that more labour intensive firms have a production structure that requires more use of intermediate inputs per worker. One example is the Food & Beverages industry that is both labour-intensive and extensively uses raw materials as intermediate input.

As shown in Figure 2.28, firms operating in the high-tech sector on average employ slightly more people compared to firms operating in the medium and low-tech sectors. The difference however is not large and in for this analysis the median may not correctly reflect the sample. A close look into the data, for example, reveals that the low-tech Food and Beverages manufacturing sector employs the most people in the survey sample; 47,000 employed in domestic firms and 63,000 in the foreign-owned ones. Although the median domestic and foreign firms employ only 40 and 81 people, respectively, the subsector also included the single largest domestic and foreign employers in the survey with 5,000 and 16,000 employees, respectively.

Figure 2.28 *Number of employees by use of intermediate inputs median*



Wages

Having provided a first glance of the impact of foreign investment on employment, the next social impact indicator is wages. The main issue here is whether foreign investors pay higher average wages and, if yes, whether these investors can be identified.

Production workers

Examining median wages of production workers, the age effect is especially striking (Figure 2.29). For example, a production worker gains an average wage benefit of 43 per cent if he/she worked for a domestic firm that is over 20 years old compared to a typical worker employed by a firm less than six years old. A worker employed in a foreign-owned firm established for over 20 years receives a median wage twice that of the typical person employed in a domestic firm operating for less than six years.

Many studies have shown that foreign-owned firms operating in emerging markets pay a wage premium relative to domestic firms as a way of securing labour force commitment; ensuring that labour turnover is minimised and the benefits of investing in firm-specific training are retained. In general, a stable well-paid workforce is more likely to appreciate the importance of looking after the expensive machinery they operate.

In the fiercely competitive labour markets of sub-Saharan Africa, a domestic employer might be expected to pay the going rate and no more, so there should be no difference in the median wage paid in younger or older firms, unless, of course, labour productivity continued to improve over time due to innovations in production technology. It is unexpected that more well-established domestic firms also seem to pay a significant premium to production workers.

Figure 2.29 *Monthly wage of production workers, by age of firm, median*

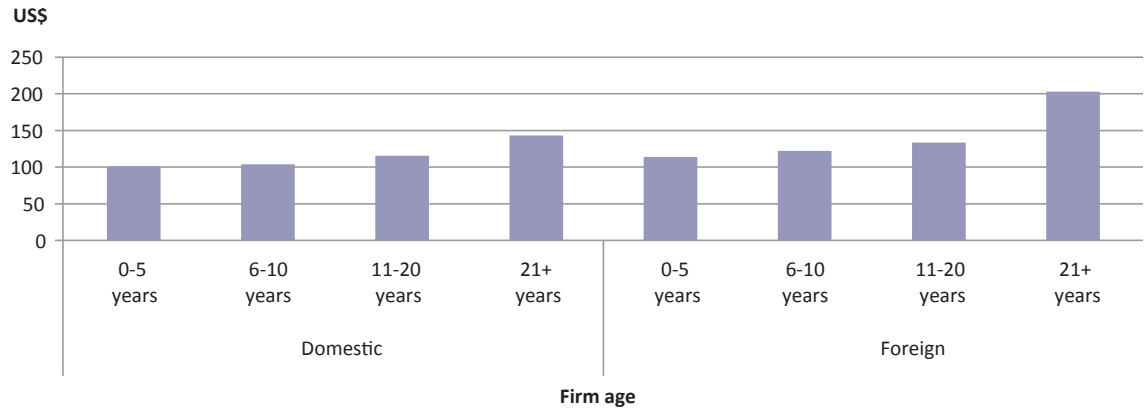
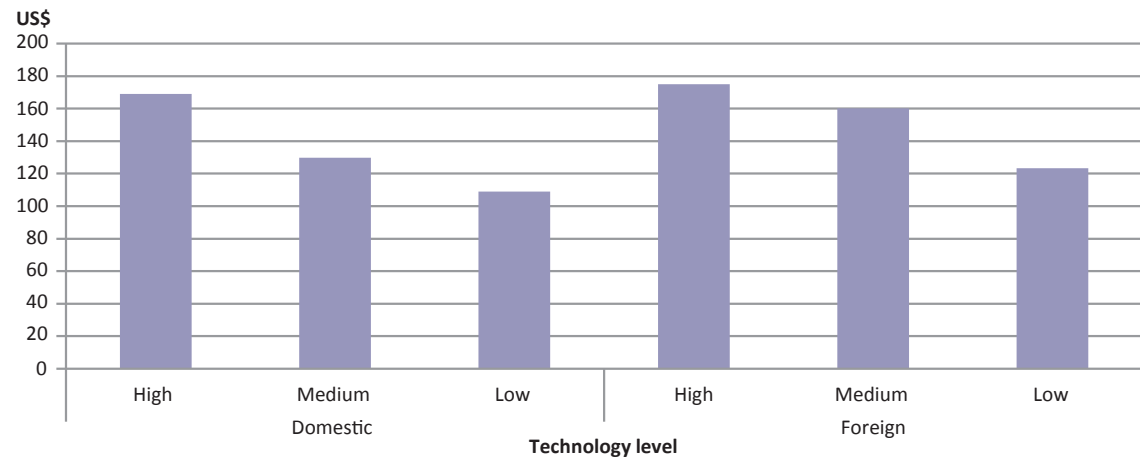


Figure 2.30 *Monthly wage of production workers, by level of technology, median*



An examination of median wages according to the level of sophistication of the production technology in use, suggests that domestic employers are behaving in the same way as foreign employers in that high technology firms, regardless of ownership, pay very similar wages (Figure 2.30). When it comes to lower levels of technology, domestic employers are noticeably less generous in competing with foreign investor wage norms. This implies the labour market for less skilled workers employed by domestic firms is more competitive than for the more skilled.

Joint ventures, in particular those involving TNCs, pay higher wages and this seem to be associated with age of the firm (Figure 2.31). Lowest wages are paid by domestic enterprises, which only pay some 50 per cent of those offered by JV-TNCs. These wage discrepancies are likely to source from differential productivity performances. Chapter 3 further explores this idea.

In summary, the average wages paid to production workers are related to how long the establishment employing them had been in operation; whether it is foreign or domestically-owned; whether it is a subsidiary of a TNC or a family-owned business and whether it is a joint venture. Higher than average wages is associated with higher than average labour productivity.

Technical and managerial staff

The age effect noted for production workers is also reflected in the increase in the median wages of technical and managerial staff with the age of employing firm (Figure 2.32). For example, the differential between the median wages of firms founded less than six years ago and firms that were more than 20 years old is 78 per cent for production workers and 82 per cent for technical and managerial staff.

Figure 2.31 *Monthly wage of production workers, by type of organization, median*

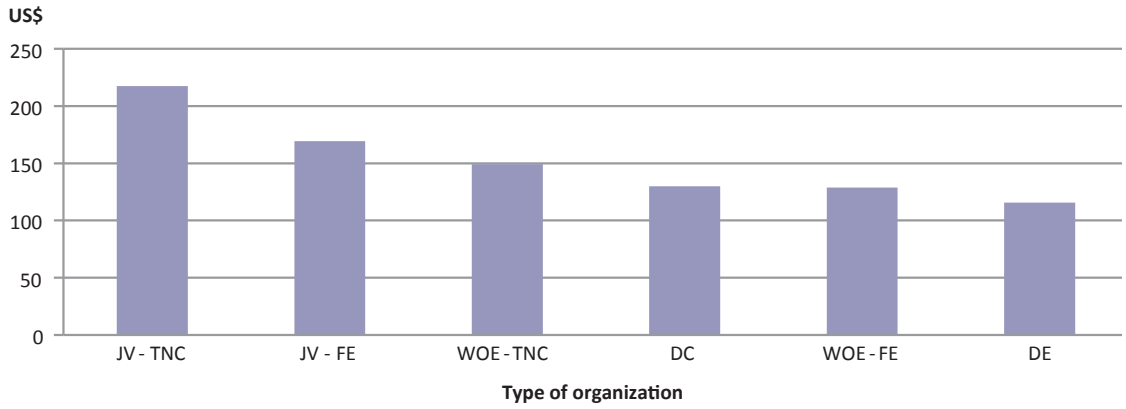


Figure 2.32 *Monthly wages of technical workers, by age of firm, median*

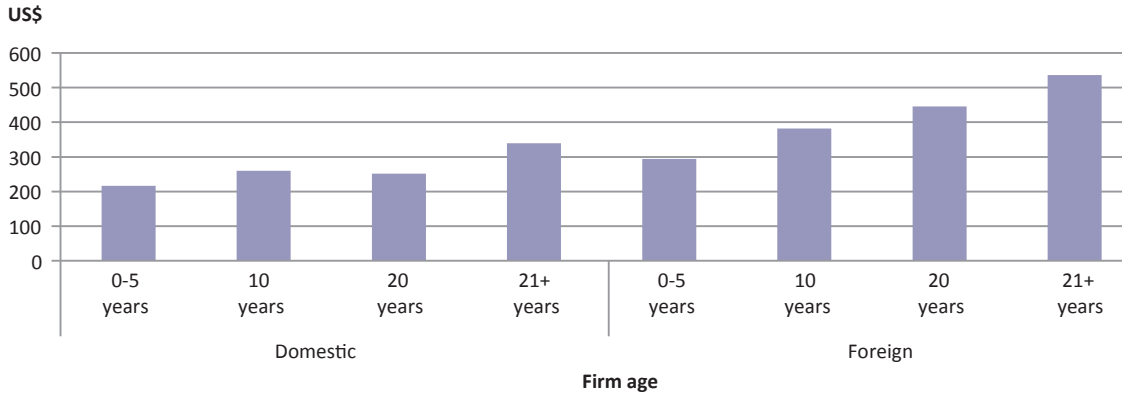
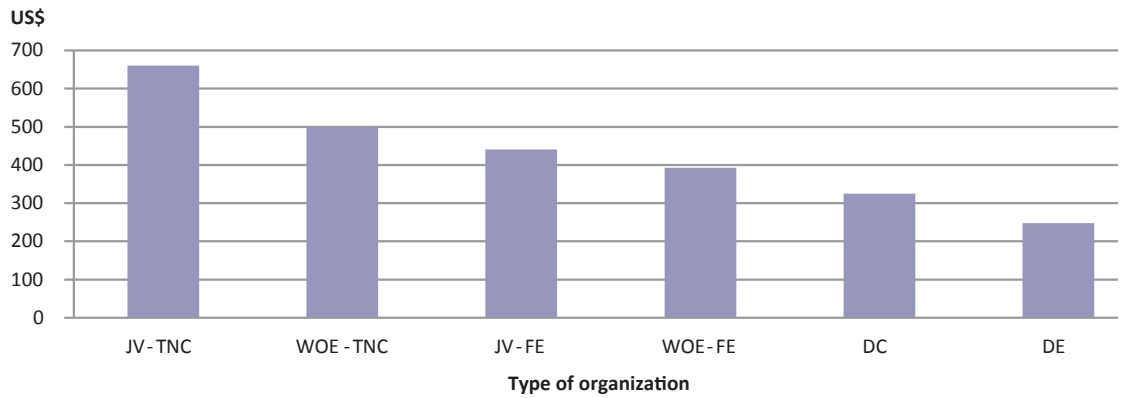


Figure 2.33 *Monthly wages of technical workers, by type of organization, median*



The premium for technical and managerial staff working for a joint venture with a TNC as compared to the wages paid by a wholly foreign-owned private firm is 68 per cent, the same wage differential as for production workers (Figure 2.33).

In the services sector, technical and managerial salaries are differentiated more by the sector in which people worked than the age of the firm. For example, the average salary in the financial services sector is over US$1,000 compared to retail and trading firms that pay on average under US$500.

The evidence presented above does suggest either considerable improvement in productivity driven by incremental technical change and managerial innovation, or possibly rigidity in the wage structures of some of the firms covered by the survey. The superior productivity of joint ventures with TNCs identified in the productivity analysis above, for example, justify a wage premium to reflect employers' sharing the profits from competitive enterprise with their employees. Even so, it is not obvious why significantly older firms should on average pay a wage premium over younger firms whose capital stock is likely to be of a more recent vintage and, therefore, more productive, unless established older firms have effective mechanisms in place for continuous improvements in efficiency.

It might seem that some of the institutional factors underpinning wage rigidity in the past may still exist for it is long established investors from Europe who on average pay the highest wages. On the other hand, they also maintain the highest levels of labour productivity. What appears more surprising is that domestic firms seem to pursue similar wage policies, although at a less generous level, most probably reflecting lower but improving levels of productivity.

This is highly suggestive of considerable long term investment in incremental productivity improvement in both domestic and foreign firms. Whether this is associated both with labour shedding as well as progressive wage enhancement is investigated in greater depth in the section on productivity and the impact of foreign investors on the host economy in Chapter 3[4].

Linkages with other manufacturing firms

Yet another type of impact analysis involves the extent to which foreign firm interact with the local economy. It is expected that a higher degree of interaction is associated with positive vertical spillovers in terms of, for example, positive employment and wage effects on the part of local workers. Chapter 3 delves deeper into these issues, but this section provides a first glance at the impact of foreign presence.

Manufacturing activities that are contracted out to other firms

Some 25 per cent of foreign-owned firms and 17 per cent of domestic firms participating in the survey report that they contract-out manufacturing operations or business services to other firms, with

4 How much of the wage premium that can be attributed to changes in the composition of the foreign and domestic sectors in different age cohorts is not considered.

Figure 2.34 *Value of work contracted out, by age of firm, median*

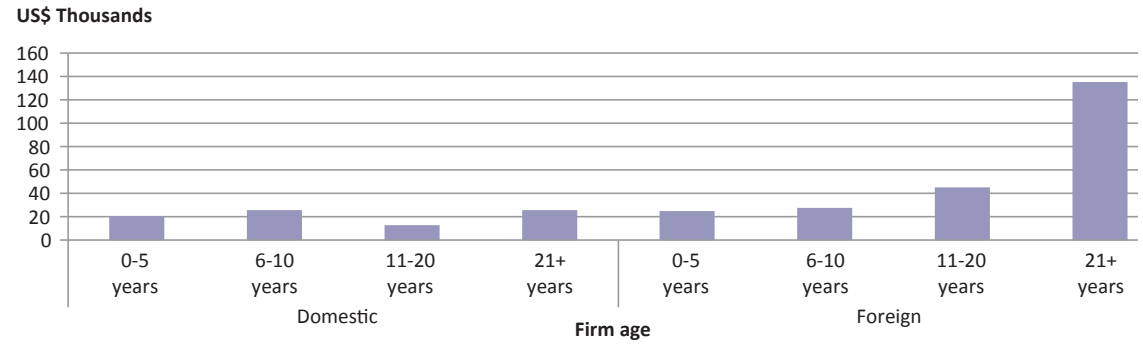


Figure 2.35 *Value of work contracted out, by type of organization, median*

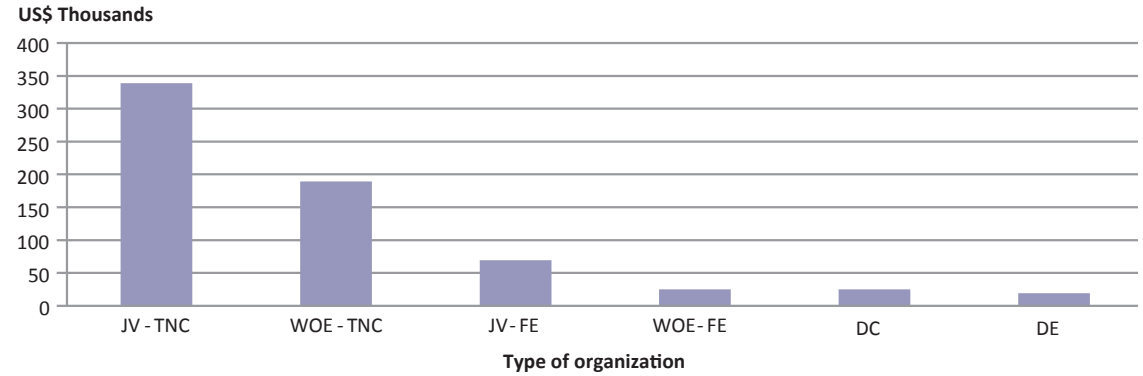
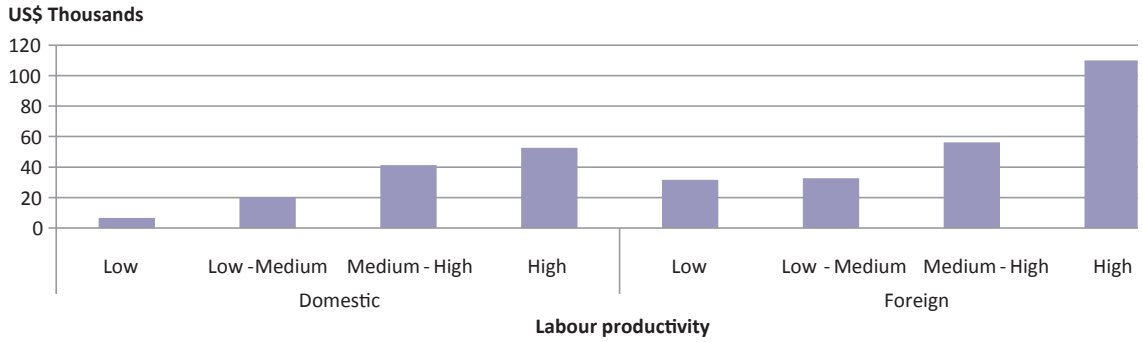


Figure 2.36 *Value of work contracted out, by labour productivity, median*



total values of US$132 million and US$67 million, respectively (Figure 2.34). The proportion of older foreign firms contracting-out is higher than among the younger ones and the median value of contracts range from US$25,000 for firms under six years old to US$135,000 for those over 20 years old. The pattern amongst domestic firms is not age-related and the typical size of contracts is much smaller.

Joint ventures with TNCs, followed by wholly-owned subsidiaries of TNCs, are most likely to outsource work to other firms and the value of this work is much higher: between five and nearly three times respectively of the median value for all foreign firms (Figure 2.35). As might be anticipated, high labour productivity is associated with contracting-out higher values of work by foreign investors (Figure 2.36).

Overall, firms that contracted-out the most work by value are typically older, high productivity foreign firms who compete in global export markets. The majority of domestic firms are too small to contract-out significant amounts of work. Higher productivity, domestic firms, however, contract-out work of a significant value.

Figure 2.37a *Proportion of firms undertaking subcontracting work by capital intensity*

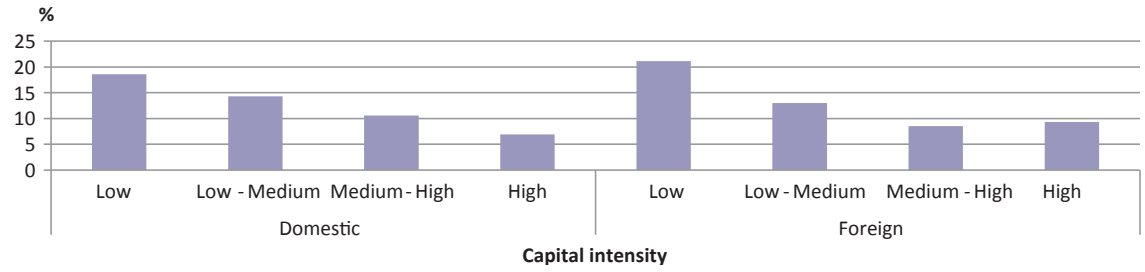
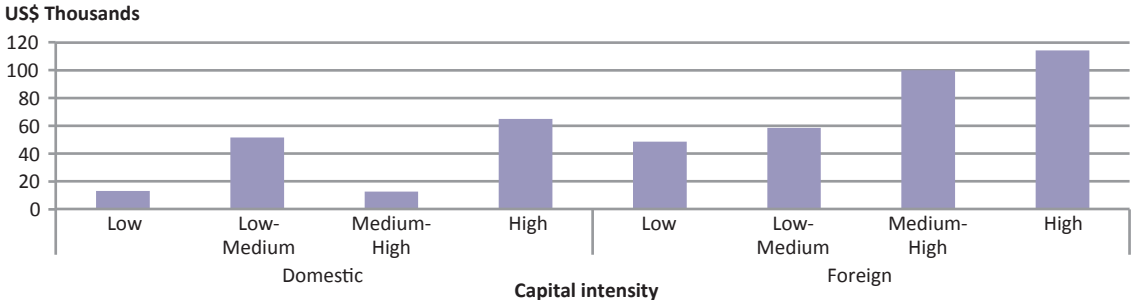


Figure 2.37b *Value of work undertaken by subcontract, by capital intensity, median*



Manufacturing activities that are undertaken for other firms

The proportion of firms undertaking subcontract work on behalf of others is just over half the proportion outsourcing work to other firms in the host country. Approximately 10 per cent of domestic firms take on work valued at US$108 million in total and about the same share of foreign firms undertake worked valued at US$107 million. A good predictor of whether a foreign or domestic firm takes on work under subcontract is the capital intensity of its operations (Figure 2.37a). A low level of capital intensity is associated with more than twice the probability of taking on subcontract work in comparison to the probability of a firm of high capital intensity. Higher earnings from subcontracting are, however, associated with higher capital intensity (Figure 2.37b), labour productivity and more sophisticated production technology.

These results imply that about half of subcontractors are small, operate low capital intensity production systems and are domestic or foreign firms engaged in low value jobbing activities to complement the output of larger firms. There are very few more sophisticated capital intensive domestic or foreign firms taking on subcontracting work. This suggests a lack of demand for this latter type of subcontractor and/or the absence of the technical capacity amongst potential suppliers of production and engineering services.

International trade and autonomy

Characteristics of exporters

A half of foreign investors report that they export some or all of their production, compared to less than a quarter of domestic firms. The total value of exports by foreign firms total US$4.0 billion. Some 270 European firms export very nearly the same value of goods (US$1.5 billion) as the 430 domestic African firms in the survey that export. Subsidiaries of TNC's, whether wholly-owned or joint ventures, dominate the export sector.

As might be expected, in the services sector, trading firms are active exporters, with foreign trading firms

Figure 2.38 *Exports, by type of exporting organization, median*

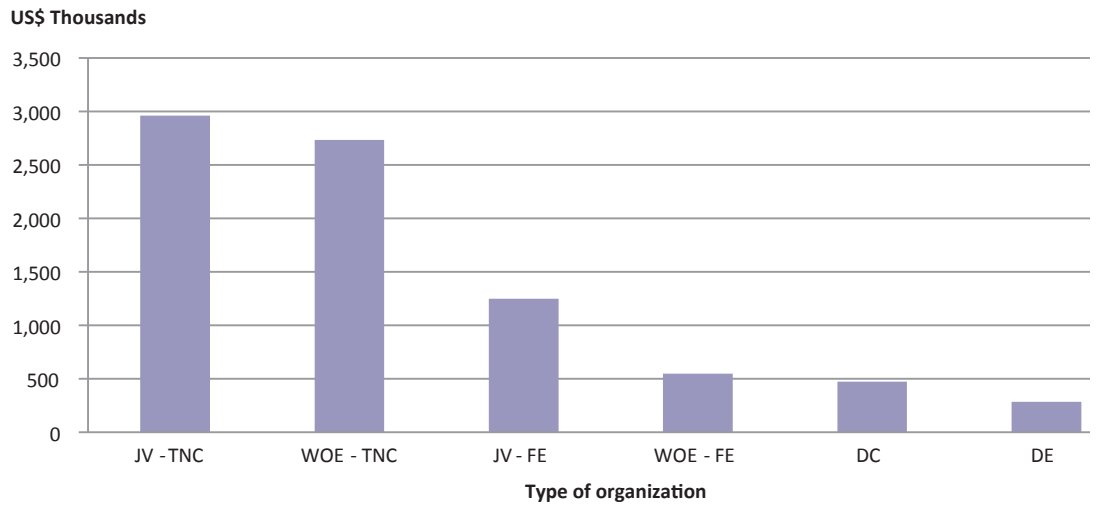
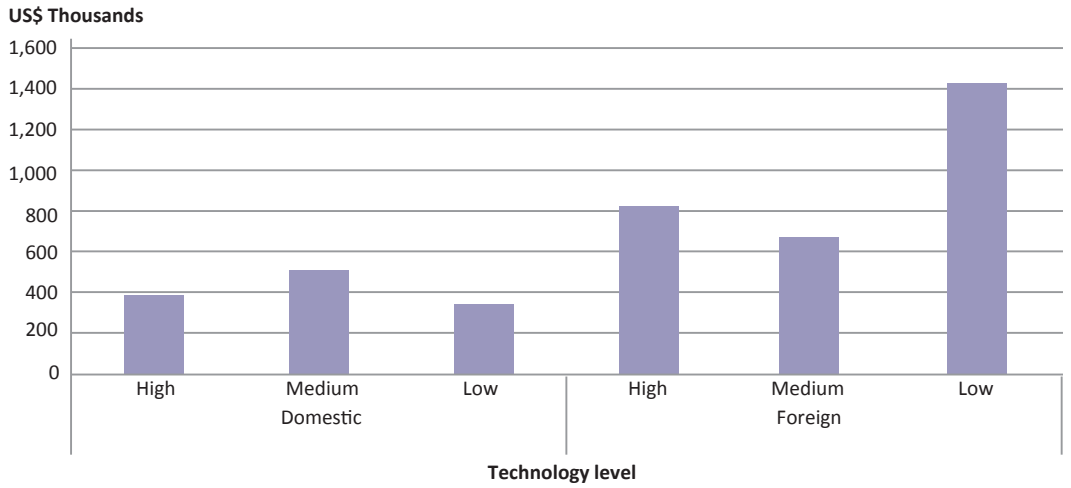


Figure 2.39 *Exports, by level of technology of exporters, median*



reporting exporting and re-exporting worth twice as much as that of domestic counterparts. Export trade is dominated by the subsidiaries of TNCs with a typical plant exporting nearly US$3 million, which is 22 per cent more than the median value of imported inputs of exporters (Figure 2.38).

There is very little evidence of a 'born global' phenomenon amongst small domestic firms, that is, firms which were established to export from inception. However, in general, that is not the way that family-owned businesses in sub-Saharan Africa develop their regional markets. The more usual route is to establish independent but informally associated firms in promising new markets that are not formal subsidiaries of the original parent but are controlled through share ownership and kinship ties to the investor(s). These firms are of course quintessential local market seekers, do not export and therefore do not show up in export statistics though their function is likely to be to replace exports from the founding firm located in another neighbouring country.

Further exploring the population of exporters, it appears that the typical large-scale, foreign-owned exporter operates with unsophisticated production technology in a low capital intensity environment—mostly garment production for export to the USA and Europe (Figures 2.39 and 2.40). At the same time, these foreign firms are achieving exports considerably in excess of the value of their reported imported inputs (Figure 2.41)

Figure 2.40 *Exports, by capital intensity of exporters, median*

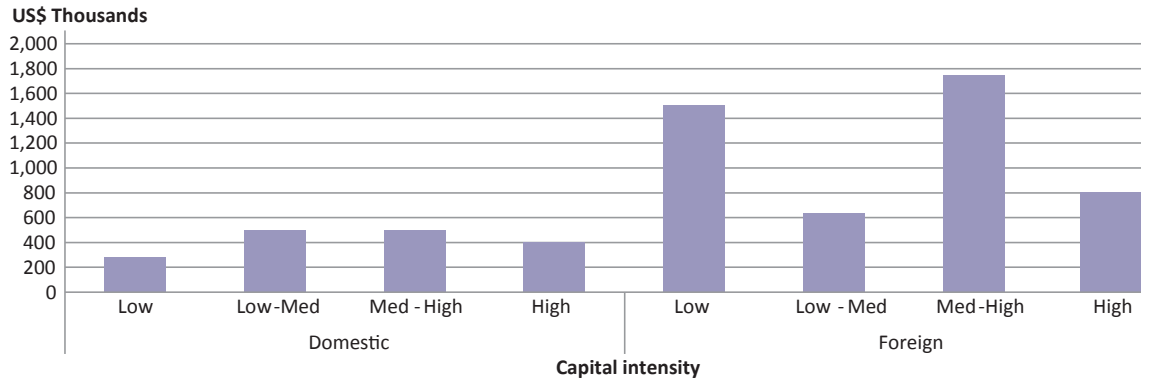


Figure 2.41 *Export-Import ratio, by capital intensity, median*

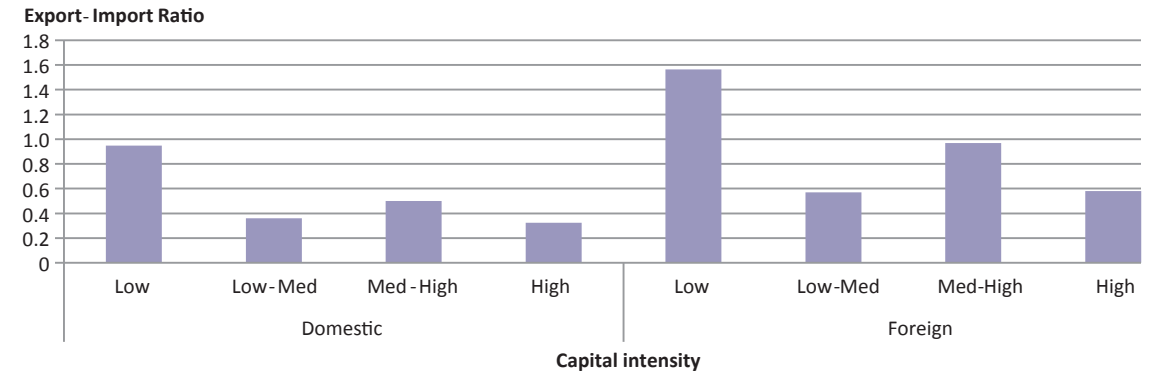


Figure 2.42 *Manufacturing productivity by exporter status, median*

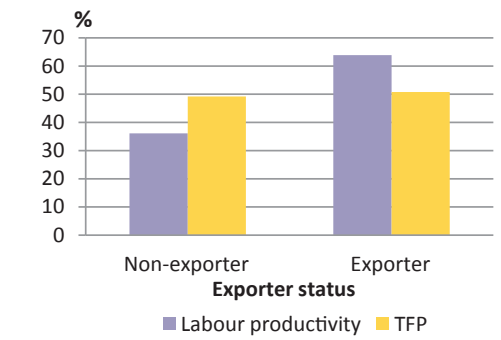
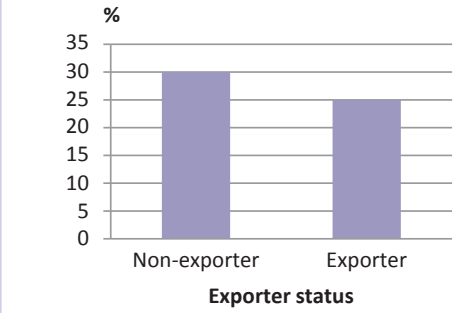


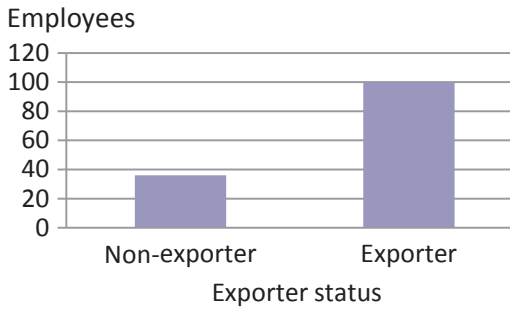
Figure 2.43 *Manufacturing human capital by exporter, median*



Linking exporting status to performance, can the common research finding that exporters are more productive—for both labour productivity and TFP—than non-exporters be confirmed by the data? According to Figure 2.42, the answer is a resounding yes. Exporters are almost twice as (labour) productive as non-exporters, an indication that technology transfer occurs through international trade, but also that more productive firms tend to self-select into exporting activities.

The fact that non-exporting firms have more human capital than exporting ones may perhaps be unexpected, at least when considering international trade theory (Figure 2.43). A plausible interpretation is that it is not endowments in human capital that drive competitiveness and the attendant decision to export. As discussed above, another possible explanation is that foreign firms choose to allocate "white-collar" assignments to the headquarters, just like domestic ones, which is not located in

Figure 2.44 *Employment and exporting behaviour*



Africa. Coupled with the fact that foreign firms are more likely to export, this finding is perhaps less surprising.

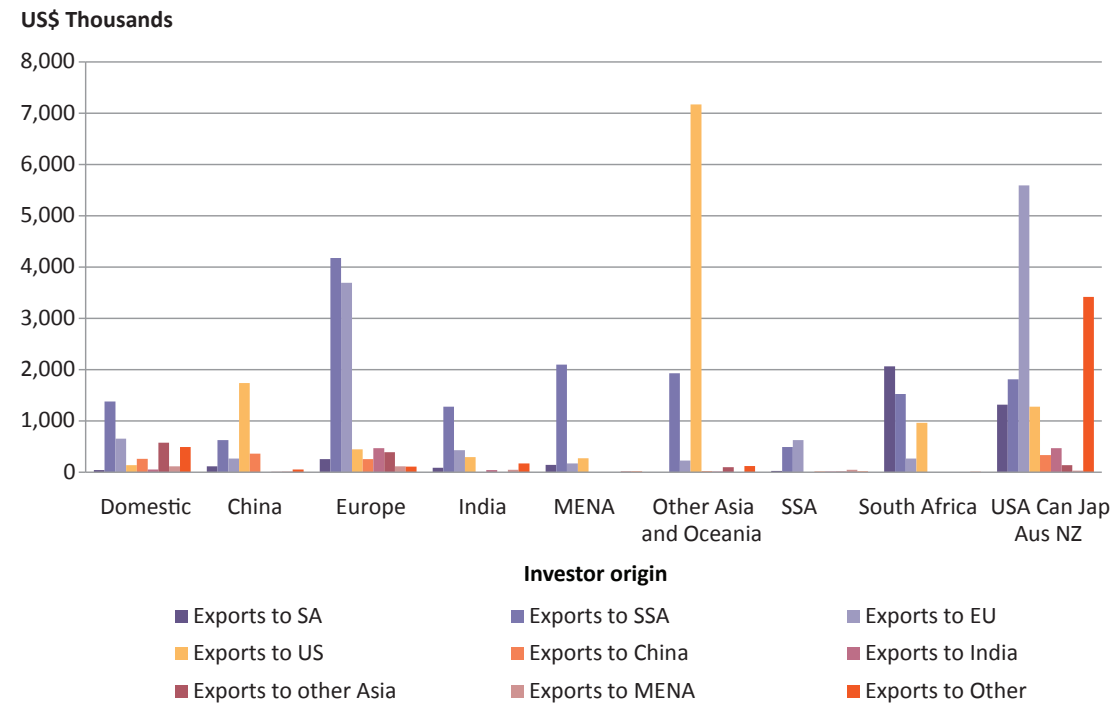
Figure 2.44 shows that on median exporting firms employ significantly more people. One possible explanation could be that exporting firms are more productive and therefore in the long-run tend to be larger in terms of number of employees.

Around two-thirds of imported inputs by South African firms come from South Africa and 41 per cent of exports go back to South Africa (Figure 2.45). The same amount is exported regionally within SSA. This suggests South African firms are actively investing in neighbouring countries to access and process commodities for consumption at home, principally non-metallic minerals such as cement and, to a lesser extent, food and beverages. Although foreign investors export considerable amounts of food and refined metal and metal products back to Europe, these do not constitute an export platform for manufactures. Exports from domestic firms are diversified but modest in value, and targeted at African regional markets.

One common concern about the impact of foreign investment is the consequences for the balance of payments (BOP) of trading activity associated with FDI. Figure 2.46 presents the average shares of imports and exports of foreign investors according to their different countries and regions of origin, firstly, as the source of imported inputs used by the foreign-owned subsidiaries operating in the 19 African countries and, secondly, as a destination for exports from African host countries.

Only foreign investors originating in sub-Saharan Africa have an export surplus with their region of origin and are clearly enhancing intra-regional trade. 70 per cent of exports generated by firms

Figure 2.45 *Destination of exports, by investor origin, mean*



owned by investors from SSA countries go to other SSA countries, while just 19 per cent of inputs are imported from SSA countries. Mostly they rely on locally sourced inputs.

By contrast, Chinese firms import two-thirds of their inputs from China, while just 14 per cent of their exports go back to China. A modest 4 per cent is imported as inputs from SSA countries but 34 per cent of exports go to the region. While about half of imported inputs of European-owned firms come from Europe, they source 28 per cent from other SSA countries.

Although most European firms are focused on regional markets, 30 per cent of exports still return to Europe. Indian and MENA firms are the most diversified in terms of sources of imports, supplying less than 30 per cent from the home country. Investors from both locations export predominantly to the SSA region.

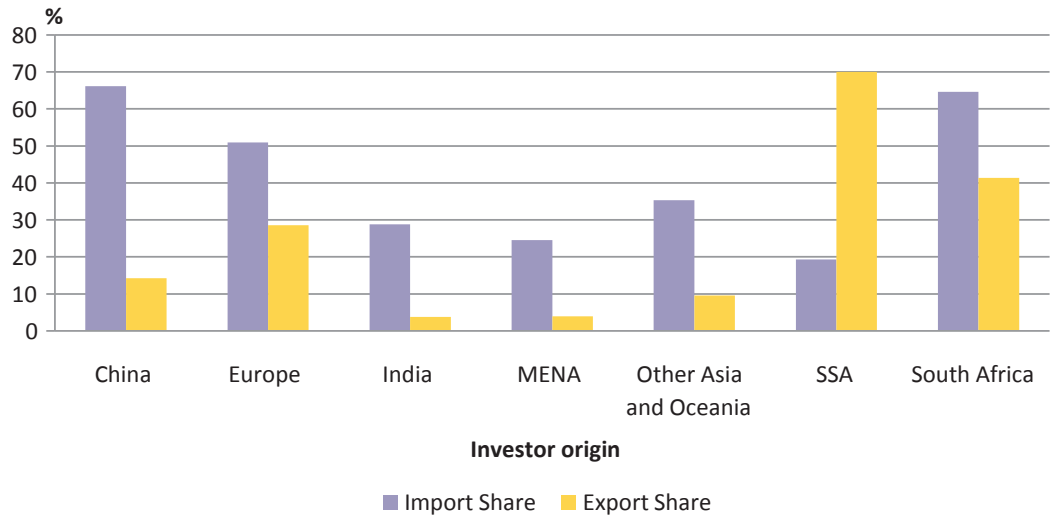
In summary, the majority of firms report that their largest export market was in sub-Saharan Africa. Chinese and firms from elsewhere in Asia (except India) are unusual in that their exports to SSA only account for a third by value. These firms are instead major exporters to the USA, 28 per cent and 55 per cent, respectively. European investors are major regional exporters and also export significant volumes back to Europe. MENA and Indian investors are the most focused on servicing regional markets apart from SSA investors. The concentration of SSA and African domestic exporters on the Africa region is understandable but suggests there is scope for policy intervention to help regional investors diversify their exporting activity outside the region.

Trade barriers and trade agreements

There is a consistency in investors' complaints about the exporting environment in sub-Saharan Africa, many of which could be dealt without major capital expenditure. Unfortunately, inadequate infrastructure, cited by both domestic and foreign investors as the greatest barrier to expanding regional exporting, is the most intractable (Figure 2.47a). Although there has been a radical transformation of telecommunications and significant improvement in air transport in the recent past, road, railway and port connectivity in Africa remains weak.

Tariff barriers and bureaucratic regulations are also considered to be important obstacles preventing the growth of exports in the Africa region. This is an area where timely intervention by investment promotion agencies can significantly improve the business environment and is relatively cheap and easy to implement.

Figure 2.46 *Imports from/exports to investors region of origin*



The cost of finance for domestic exporters is a matter of concern for local firms. This suggests there is scope for national authorities to improve the availability of trade financing and export credit guarantees. Foreign-owned firms are much less concerned about the cost of finance.

A comparison of the responses to questions about exporting in Africa and to outside the region reveals a shift in concern from infrastructure issues to a focus on difficulties in meeting the high standards of export markets and achieving cost competitiveness (Figure 2.47b). Issues related to tariff barriers and bureaucracy remain. Domestic firms continue to report trade financing as an issue.

As might be predicted from previous studies, more investors still identify the single main barrier to expanding intra-regional trade as physical infrastructure problems. However, many also identify less intractable barriers that national authorities can alleviate more quickly and at a relatively modest cost. Respondents' key priorities are removing unnecessary bureaucracy, tariff barriers and improving the supply of trade credit. A particular concern for global exporters is meeting international quality standards and the high cost of production for export markets.

Respondents were also asked about their awareness of international trade agreements and then, about regional trade agreements (RTAs). The only interna-

Figure 2.47a *Investor assessments of main barriers to exporting within Africa*

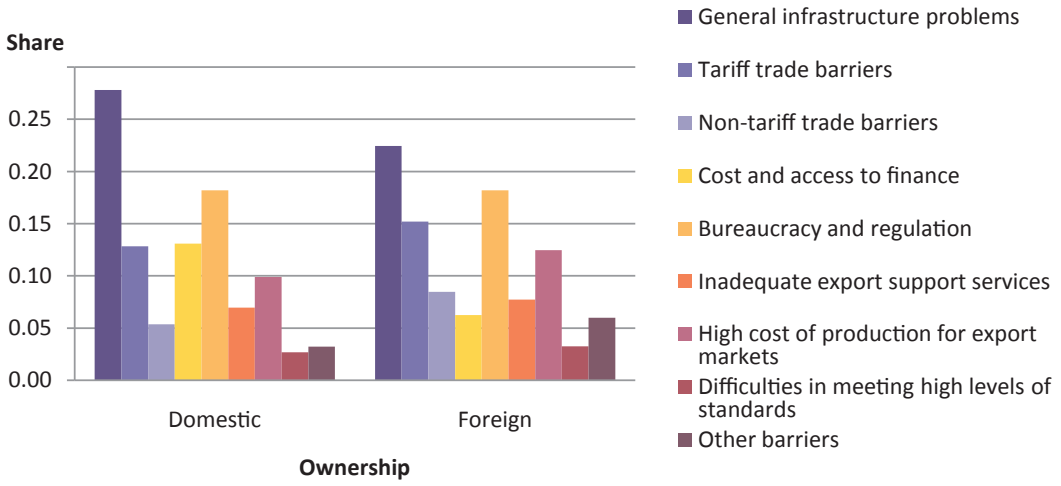
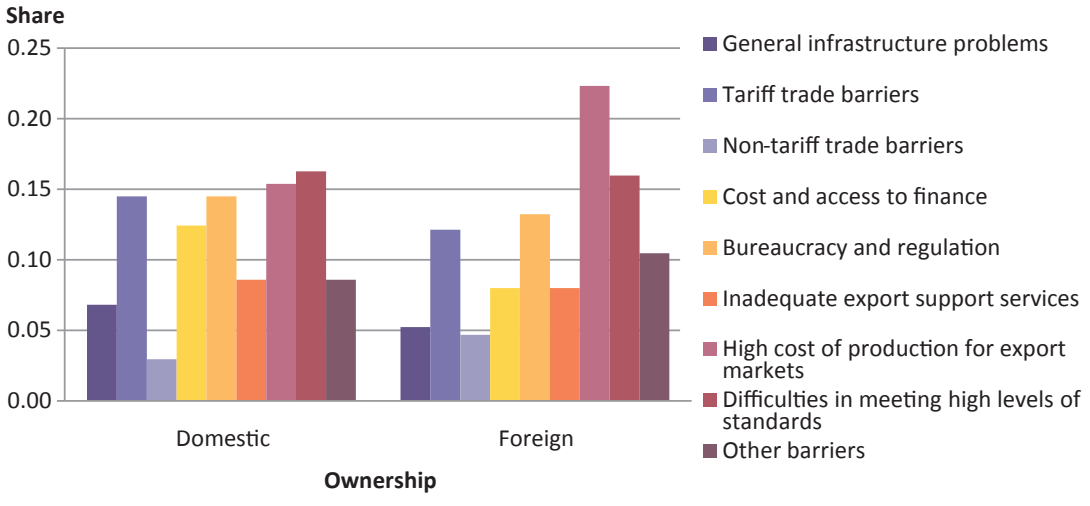


Figure 2.47b *Investor assessments of main barriers to exporting outside Africa*



tional agreement that was known by the majority of the respondents was the African Growth and Opportunity Act (AGOA) of the USA. When it came to evaluating the importance of agreements, it was clear that firms rated bilateral trade agreements more highly than either AGOA or Everything But Arms (EBA), presumably because where they were relevant to firms, the benefits were specific and more transparent. Nevertheless, AGOA remained very important for Asian and other garment exporters who rely on exporting to the United States.

Awareness of regional trade agreements was much higher than of international agreements. Nearly 90 per cent of respondents in East Africa knew about the Common Market for Eastern and Southern Africa (COMESA) and three-quarters were aware of the East African Community. Regional agreements were also recognised by the majority of firms in the Economic Community of West African States (ECOWAS) and the Southern African Development Community (SADC). It is also noticeable that few West African firms were aware of East or Southern African regional agreements. The reverse is also true, that is firms located in the east or southern Africa were less aware of ECOWAS than RTAs in their home region, suggesting that trade in SSA remains very much a regional activity.

The level of awareness about regional trade agreements clearly relates with the amount of trade within the particular region. More specifically, average exports of firms in COMESA that are aware of the trade agreement are six times larger than exports of those who are not aware of COMESA. However, this remarkable successful trade integration did not yet stimulate more investment, as the average planned new investment of COMESA-aware firms is below that of firms that are non-aware. For the case of EAC, the trade integration goes hand in hand with higher investment rates, as the EAC-aware firms have seven times higher export levels and almost two times higher levels of planned new investment than those firms who are not aware of EAC.

When asked about the benefits of SADC, 28 per cent of domestic and 20 per cent of foreign exporters from Southern Africa said there were none. By contrast, 94 per cent of foreign investors in East Africa acknowledged there are positive trade benefits arising from existence of the East African Community (EAC).

In summary, major benefits that are attributed to RTAs were: reduced regional exporting costs (26 per cent); better access to raw materials (19 per cent) and increased regional investment opportunities (14 per cent).

Local managerial capacity to influence decision-making in foreign subsidiaries and joint ventures

The final section of this chapter examines the replies given to questions about the decision making powers of local management of foreign firms. This is an important consideration in the design of technical assistance programs to encourage local managements of foreign firms to engage proactively with domestic businesses to undertake joint projects to reinforce positive spillovers to domestic firms. If local managers of foreign firms have very restricted decision making autonomy, for example, for sourcing raw materials and components or outsourcing technical services, clearly there is little that host government agencies or technical assistance can do to change the situation at the national level.

Degree of local managerial autonomy in wholly-owned TNC subsidiaries and joint ventures

Senior management were asked a series of questions about the decision making powers of local management, according to whether the establishment concerned was a wholly-owned subsidiary of a TNC, or a joint venture between a foreign firm and a local firm. Respondents were asked to rank each of nine items on a scale of one to five, where one meant 'all decisions came from Headquarters', two local management had a 'minor role in joint decision marking', three 'equal power in decision making', four local management 'dominates decision making' and five meant the management of the subsidiary being interviewed considered they had 'absolute decision making power'. An autonomy scale was created from the responses.

Table 2.4 presents the mean scores for each item on the autonomy scale for wholly foreign-owned subsidiaries, from which it can be seen that managers considered they had a degree of influence over all nine decision items. On average, even in capital expenditure decisions, they considered they had some influence, probably reflecting the importance of local sources of funding (see Sources of finance box above). In recruitment decisions, local managers considered they virtually controlled matters. In three other areas, they thought they had more influence than the parent firm's management: over product pricing, supplier selection and defining marketing strategy.

When the sample is divided by level of technology, it becomes clear that the highest technology category has distinction of low autonomy in managerial decision making (Figure 2.48). In the management of high technology firms, parent firms seek to maintain their competitive advantage by relatively tight control of the production technology. In the case of low technology processes, such as garment manufacture, management is focused on cost control through the supply and distribution chain in a competitive, low margin business environment.

A moderating factor appeared to be the age of the subsidiary (Figure 2.49).The management of older firms, in general, had greater autonomy than more recent establishments. Presumably older firms had built up their knowledge base and expertise in managing local business relationships and had convinced the parent firm of their competence in handling these relationships honestly, efficiently and at low cost.

Where a business is seeking to compete in markets outside Africa, cost controls are likely to play a key part in managerial strategy. The survey confirmed that the autonomy of global exporters is indeed substantially less than that of firms producing for local or regional African markets (Figure 2.50). Those with the most discretion in decision making were managers of older subsidiaries supplying African markets and operating medium level technology.

Overall, managers of joint ventures believed they had more autonomy than the managers of wholly-owned TNC subsidiaries (Table 2.3). Also, as might be predicted

Figure 2.48 *Assessment of autonomy of WOE-TNC subsidiary managers by use of technology, mean*

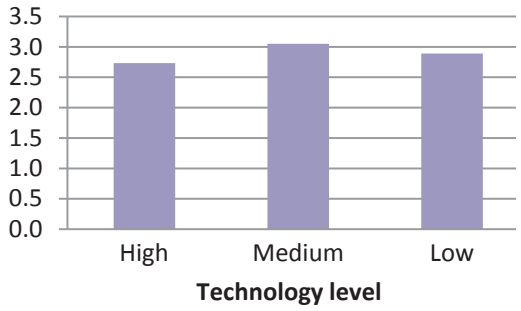


Figure 2.49 *Assessment of autonomy of WOE-TNC subsidiary managers according to age of firm, mean*

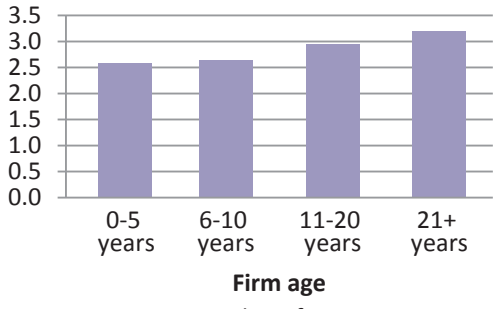
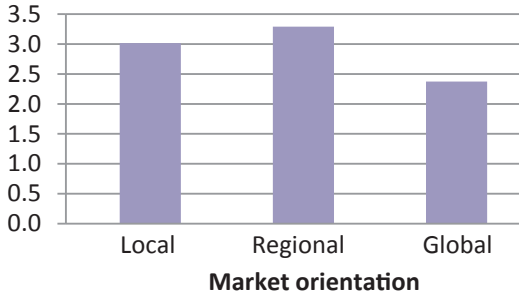


Figure 2.50 *Assessment of autonomy of WOE-TNC subsidiary managers by market orientation, mean*



from the results reported above, on average, they considered the assistance they received from the foreign joint venture partner to be less important than did managers working for wholly-owned subsidiaries of TNCs. Joint venture managers' answers also reflected a similar trade-off between managerial discretion and

assistance observed with wholly-owned subsidiaries, although the inverse relationship between autonomy and importance attached to assistance received from the foreign partner was weaker.

In general, it seems that joint venture managers believe they have greater autonomy than managers of wholly foreign-owned subsidiaries and they value less the assistance they receive from foreign joint venture partners. The reason for this can be related back to the particular governance structure of joint ventures. Joint ventures in our context are designed to share risk between foreign and local partners and by agreement control rights of the venture partners are shared. Successful managers of joint ventures need to juggle the aims and objectives of both partners, while retaining a clear strategic vision for the joint venture. This means trying to build up a degree of autonomy from both partners so as to better satisfy each partner and is consistent with the survey's finding that joint venture managers consider they have more autonomy than those of TNC subsidiaries.

The implications of the above analysis for policy initiatives to encourage foreign investors to engage with domestic investors and explore ways in which domestic firms can better meet the business needs of foreign firms is, firstly, that all things being equal, joint ventures are more likely to have the capacity to respond than wholly foreign-owned subsidiaries. This is because managers believe they have greater autonomy to make operational decision and appear to be less constrained by headquarters controls on the business. Clearly the local partner may have a different perspective.

Conclusions

This chapter has provided a first set of results that indicate a possible efficient resource path for institutions involved in investment promotion in their quest to attract the foreign investment that best nurtures the local economy. In the report, it is referred to as quality investment. While it is reasonable for such institutions to focus on maximizing a sector's and country's productivity performance, firm productivity is not an observable parameter. The report, therefore, seeks to identify discernible firm characteristics strongly associated with productivity. To facilitate search for productive firms, investor origin and type should contain crucial information as to where to search. In particular, distinctions were made between whether investors were from an industrialized or developing country and whether TNCs or FEs.

Sixty per cent of foreign investors in manufacturing are from other developing countries, while, in principle, industrialized and developing countries are equally represented in the service sector. FEs outnumber TNCs in manufacturing, with 72 versus 28 per cent and services, with 56 versus 44 per cent. The extent to which firm origin and type is associated with improved sector performance is further investigated in the following chapter.

The choice of location of foreign investors is guided primarily by considerations of economic and political stability, with firms reporting improved political stability. Costs of raw materials have increased, while incentive packages have become less attrac-

Table 2.3 *Average rating of the decision making power of local management of TNC subsidiaries compared with management of joint ventures*

	WOE-TNC	JV
Capital expenditure, including acquisitions	2.4	2.9
Introduction of new production and processing systems	2.7	3.0
Entering new export markets	2.7	2.9
Introduction/modification of products	2.7	2.9
Generating new business in this country	2.9	3.1
Supplier selection	3.1	3.1
Pricing	3.1	3.2
Defining marketing strategy	3.1	3.2
Recruitment/Selection	3.7	3.4

tive. Chapter 5 focuses on incentive packages as a significant motivator of foreign investment. With natural resources a major attraction for establishing in Africa, increased costs of raw materials might have worked as a deterrent to foreign investment.

Labour and total factor productivity (TFP) are positively correlated with foreign investment, especially that coming from the North. Moreover, productivity gains are obtained mostly from TNCs. This might run contrary to expectations based on the observation that foreign presence is dominated by FEs and firms from South. This could be explained from two perspectives: either that less than optimal foreign investment has been attracted or that such investment is what self-selects itself to establish in Africa. The former suggests a need to re-focus on the part of investment promotion agencies, while the latter is likely to be technology-related. At this stage, the result should be considered preliminary, as it might not hold up when controlling for other (technology-related) explanatory variables. In other words, coming from the North or being a TNC might not contain inherent traits that made such firms more productive. The following chapter delves further into this issue.

The considerable difference in labour productivity performance between foreign and domestic firms cannot be overlooked by investment promotion institutions in their targeting activities. A less expected finding is the observed narrow TFP gap, especially between Southern foreign investors and domestic counterparts. This highlights the relative importance, or sufficiency, of investing in tangible assets to be competitive in Africa.

Measured by labour productivity and TFP, firm performance is associated more positively with joint ventures than with wholly-owned firms. Local knowledge, market access and established linkages are three factors that help explain why joint ventures perform better. Furthermore, firm age, operating in relatively technologically sophisticated sectors and exporting activities are positive explanatory factors. On the other hand, while capital per worker, human capital and intensity of use of intermediate inputs are positively related to labour productivity, the association with TFP is either negative or neutral. While this may support the notion of focusing investment for competitiveness on tangible assets, it is still unclear whether this result will be maintained when simultaneously including all explanatory variables in one model, as explored in the following chapter.

To complete the analysis of the labour productivity-TFP difference, it should be noted that motivations for investing also differ. Whereas motivations such as access to natural resources and new markets and finding a business partner are strongly associated with labour productivity, TFP-oriented firms establish themselves mainly to export back to their home countries, although access to natural resources is important as well.

Firms richly endowed in physical capital share nearly perfectly the characteristics of labour productive firms. The largest recent investments, in absolute value, are made by TNCs. But relative to the stock of fixed capital, FEs invest most, followed by domestic firms. This creates an interesting trade-off in terms of investment promotion. If, on aggregate, the amount of physical capital is important the obvious focus should be on TNCs. However, if it is the propensity to invest that matters, then it is rather FEs *and* domestic companies that should be targeted.

The largest investments occur in high-tech sectors by the most labour productive firms. This may suggest that structural transformation is happening in Africa, which, if true, is a positive result, even if it is mainly foreign firms—joint venture TNCs—that undertake these investments. The same type of firms has planned additional investments.

Domestic firms hold more human capital than their foreign counterparts. Among foreign investors, FEs have more such capital than TNCs. There is a positive association between amount of machines and equipment and that of human capital, as well as between intermediate inputs and engagement in relatively sophisticated activities. However, exporters have far more human capital. Older firms invest more in improvements in human capital in the form of training compared to younger firms. Training activities are especially common among firms already strong on physical capital and those seeking to expand into other African regions.

Foreign investment has social effects, although domestic firms appear to be less concerned or were even slightly positive about the inflow of foreign firms. The largest positive employment effect is delivered by Northern TNCs, especially those that have formed joint ventures with domestic firms. There is a distinct age effect in that older firms employ more workers. Other characteristics associated with positive employment effects are capital intensity, low levels of human capital and high levels of intermediate inputs in production, exporting activities and activities in high-tech sectors.

Another social effect pertains to wages, which increase with age of firms and technological sophistication of production. Whether TNCs or FEs, joint ventures pay the highest wages. This is independent of whether workers are white or blue collar. In line with expectations, wages increase with labour productivity. Close linkage with the domestic economy is associated with social impact. Measured in terms of proportion of firms subcontracting, linkages are associated with lower levels of capital intensity, although the value of the same is increasing in amount of capital.

The biggest exporters in terms of value are TNCs, most likely, by virtue of size. Domestic firms export much less in terms of value across all technology levels and capital intensity. Although having low capital intensity, domestic firms enjoy fairly favourable export-import ratios, comparable to many foreign firms. Low capital intensity is the category with highest export-import ratios, both among domestic and foreign firms. This shows that African firms have yet to penetrate higher value-added export markets. However, planned and recent investments suggest that change in this area might be in the offering. All categories of capital intensity are associated with positive trade balances.

New arrivals from China rely heavily on imports from China for manufacturing and processing for export regionally and globally. Only limited output is exported back to China, more are destined to the USA and Europe. Regional exporting is less developed than among other foreign investors. South African firms appear distinct, in that they export a significant amount of material to subsidiaries, but a large share of output is exported back to South Africa as well as to the region.

Subsidiary firms have decision-making power mainly in terms of recruitment, choice of suppliers, marketing strategy and pricing. However, larger expenditures such as for physical capital or change of production processes seem to belong more to the parent firm. This gives an indication of the incentive structure and attendant decision-making constraints at the local level. Autonomy appears to be increasing with age, especially in combination with supplying African markets and operating in medium-tech sectors. Joint venture managers believe they have greater autonomy than those of wholly-owned foreign-owned subsidiaries.

While this chapter has provided insights into the differences between domestic and foreign investors, on the one hand and between foreign investors themselves, on the other, some of the explanations might be related to each other. For example, while both capital intensity and being an exporter appear to explain productivity performance, it may also be that exporters are relatively capital intensive in such a way that exporter status in reality proxies for capital intensity. Therefore it lacks much explanatory power. Moreover, the descriptive analysis has largely been silent on magnitudes of impact. In the following chapter, more advanced statistical tools are employed to deal with both issues.

This chapter has touched upon issues of social impact in the form of employment and wages and indirectly in terms of linkages. However, it has been silent on the impact of the inflow of foreign investment on domestic firms. Such analysis demands data and application of statistical methodology and is taken up in the following chapter. There it is shown that the impact on local entrepreneurs differs across sectors as well as is a function of the characteristics of foreign investors. This, in turn, presents significant challenges and trade-offs for investment promotion agencies that may call for differentiated strategies and policies depending on development goals.

CHAPTER 3:

Identifying quality foreign direct investment in sub-Saharan Africa

Introduction

The report's aim is to guide IPAs and their decision-making, especially in their endeavours to target quality investment. But targeting good performers is far from simple, as the most important traits of performance tend to be unobservable. Productivity is one of those. However, IPAs have much to profit if they can gain awareness of the observable characteristics of high-performing companies.

In this chapter, in particular one observable firm characteristic is considered, namely, ownership. It examines whether difference in performance is predicated on whether firms are foreign or domestic owned. Should this prove true, it poses three variables in the case of foreign investors: importance of their countries of origin, size of share of foreign ownership and whether they are TNCs or FEs.

The previous chapter has shown that these observable characteristics are associated with firm performance. But if ownership is also closely associated with firm characteristics such as size, age or amount of capital, it is difficult to determine whether ownership reflects the effect of ownership per se on performance or, for example, the effect of size. In order to isolate the effect of ownership, this chapter employs regression analysis, which simultaneously controls for correlates of ownership and measures its impact on performance. In doing this, much more accurate conclusions can be drawn and recommendations given than had the report presented only descriptive analysis.

While finding that, for example, foreign firms outperformed domestic ones is extremely helpful for IPAs, little may have been gained if the increase of foreign presence crowds out domestic firms. In particular, IPAs need to consider repercussions of their targeting. This is best done by accounting for effects over and above change of composition of firms, such as a larger number of foreign firms. These additional effects are referred to as spillover effects, or externalities, in the literature. Sometimes they are positive, while, in other cases, they are negative. Crowding out within the same sector, which may be considered a negative effect, could well be compensated for by increased demand generated for other sectors. In the best case, these effects are gauged and compared with those of changing the composition of firms in the country or sector.

Successful targeting may, therefore, be one that aims for a positive net effect on the domestic economy. To show IPAs how analysis can be used to target firms and, at the same time, identify in which sector the largest benefit from changing composition occurs is a challenging task. Therefore, rather than a prescribed formula, the report is an introduction to how data from the survey can be used to guide investment promotion activities and inform investment policy.

Framework for analysis of targeting FDI

To analyze all the benefits and risks involved in FDI is nearly impossible. Economies are too complex for this. No single analytical tool can capture all effects, and no single analyst can employ all existing tools.[1] The quest is complicated by country-idiosyncrasies, which provide an effective obstacle to generalization. Moreover, many benefits go unnoticed and, therefore, unmeasured because there is no recipient that absorbs the benefit of them. The absorptive capacity of local firms is too weak. Undaunted, however, this chapter endeavours to tackle this challenge, without any claim of being exhaustive. If some of the most important effects can be captured, they will assist IPAs in their work. Thinking in terms of a two-layer framework for the analysis of targeting foreign direct investment, the first considers the effects of when the composition of firms changes. This refers to how aggregate performance of a country or sector changes when, in the cases considered here, foreign presence increases. If the number of successful performers increases, so does aggregate performance.

Chapter 2 showed that foreign investors tend to be more productive, have higher outputs, be larger, grow faster and use physical capital more intensively than domestic firms. However, they seem to have less human capital.[2]

1 The toolbox includes everything from anecdotes to deep case studies, and from descriptive analysis to complex and rigorous regression analysis. In terms of intertemporal considerations, a full dynamic analysis of the effects of foreign direct investment may take a decade or more to complete, while in terms of economies' complexity the amount of data that need to be collected for a complete picture requires several surveys.

2 Theoretically, there is a host of other potential benefits of foreign direct investment, such as diversification and training dividend. Others are largely intangible and include entrepreneurial skill

Notwithstanding efforts by IPAs to attract foreign investors to their countries, the latter have their own objectives, which may have little to do with those of the host countries' development objectives. Oft-cited motivations, for example, are to search for low-cost production sites or to identify locations where capital is scarce or havens with lax environmental regulation.[3] However, the concept of "the internalization of intangible assets" argues that motivation is not necessarily related to such explanations (see for example Dunning, 1993). This concept is based on the notion that foreign investors seek efficiency gains as well as new markets. An example of the latter is the setting up of an export platform to avoid trade barriers, while the former occurs when TNCs want to control parts of or the entire supply chain. Commonly used terms for establishing a supplier network in the same sector or in other parts of the supply chain are horizontal and vertical linkages, respectively. While there are benefits for the domestic economy, such provision is not the goal of TNCs.

A common way to analyze first-layer effects is through regression analysis. In such a framework one can directly introduce an indicator that represents foreign ownership and measure whether such ownership is associated with higher performance. If there is, this would be an indication for IPAs that it may be worthwhile to target such firms. From here on the higher performance associated with the firm is referred to as a dividend, since host countries receive this if attracting the firm in question. In economics it is typically referred to as a premium e.g., foreign ownership or export premium.

If first-layer effects were the only conceivable impact of foreign direct investment on the host economy, it is clear on what IPAs should focus. Unfortunately, it is not that simple. Potentially, foreign direct investment promises several benefits to the host country, over and above first-layer effects, as well as a risk of negative impacts. In the literature, they are often termed spillovers or externalities. In the report, such effects are referred to as second-layer.

Perhaps the most dynamic component of benefits is that of technology spillovers to local firms, which, then, become more productive by adopting, for example, technologies, organization and similar assets that may prove superior to domestic standards. Other perceived benefits include workers who learn from working in foreign firms and, then, make use of acquired knowing when moving to domestic firms.

Empirical investigation into finding dynamic benefits from foreign direct investment has, for long, been attractive to analysts. However, benefits have proven to be elusive, with knowledge largely bypassing local firms. This is understandable because of the limitations of the absorptive capacity of host countries and the urge of foreign manufacturing firms to defend and hide the reason for their competitive edge. What is worse, the majority of research in the area seems to report negative effects of foreign direct investment. These include crowding out of local firms, lower profits and wages and, in the worst case, environmental degradation and total exploitation.[4]

Pre-amble to analysis

Moran (2011) provides a useful framework for analysis of foreign direct investment arguing that there are four types of foreign direct investment flows: in extractive industries, infrastructure, manufacturing and services. These are all different in terms of benefits and risks and, likewise, in impacts and policy challenges. Being so distinct, they are better analyzed separately. In this chapter, therefore, only manufacturing is considered.

Most of the commonly known risks and even harmful effects of foreign direct investment occur in extractive industries. Examples and anecdotes of Dutch Disease, corruption and the resource curse are legion. In manufacturing, domestic productivity and competitiveness are particularly at stake as well as whether domestic workers and local firms are able to benefit from the externalities that often accompany foreign direct investment.

A drawback of descriptive analysis is that several explanatory variables may be correlated to such an extent that proper inferences are rendered impossible. This is the main motivation for employing

and thinking, overcoming idea gaps and generating self-discovery (Moran, 2011).

3 Moran (2011) provides a sceptical view of these motivations.

4 The latter is mainly the concern of investment in extractive industries.

Box 3.1 *The LAD estimator*

Regression analysis encompasses a series of techniques that help researchers to understand the relationships between a dependent variable of interest and a set of independent variables that the researchers believe can help explain the dependent variable. In particular, it allows one to estimate how the value of the dependent variable changes as one of the independent variables is varied holding fixed the values of the other independent variables. For example, regression analysis may be used by a researcher interested in estimating productivity change of a firm that becomes an exporter, for given values of other determinants of productivity.

A variety of methods have been developed to estimate such relationships, though the most popular and familiar is estimation using the method of ordinary least squares (OLS). In most cases OLS is applicable but in some situations can lead to problems. This is the case where there are outlying or atypical observations, which can have considerable influence on the estimated relationships between variables when OLS is used. In such cases alternative techniques that are insensitive to the presence of outliers are likely to be preferred, with the least absolute deviation (LAD) estimator being one such technique. A linear regression model expressing a relationship between the dependent variable and a number of independent or explanatory variables, , can be written as:

$$y_1=\beta_0+\beta_1 x_{1i}+\beta_2 x_{2i}+\ldots+\beta_k x_{ki}+\varepsilon_i$$

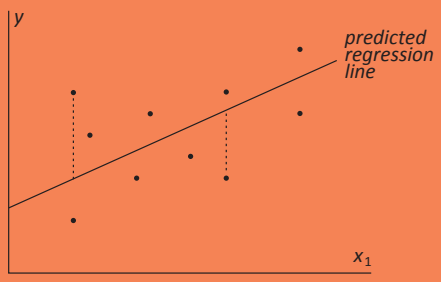
where $\beta_0, \beta_1, \ldots \beta_k$ are a set of parameters to be estimated, ε is the error or disturbance term and $i=1, \ldots, N$ are the set of observations for which data is available. The aim of regression analysis in this simple setting is to obtain a set of estimates for the parameters based on the sample of observations available. The parameters of such a model have a straightforward interpretation, with the parameter β_1 giving the impact of a one unit change in x_1 on y holding the values of all other explanatory variables constant.

OLS is one method of estimating these parameters and achieves this by minimizing the sum of squared vertical distances between the observed values in the sample of data and those values predicted by linear approximation. This can be seen in the figure above, which is a regression model with a single explanatory variable, *x*. The dots represent the observed sample of data with OLS minimizing the sum of squared vertical distances, represented by the dotted lines, between the sample observations and predicted regression line. The slope of the line that best fits the data then provides an estimate for the parameter, β_1, associated with the variable x_1. The vertical distances between the estimated fitted line and data points are referred to as errors or residuals. In this two-variable case, the intercept with the *y*-axis provides an estimate of the constant term, β_0.

While OLS is the most common approach to estimating regression models, it does have problems. Of particular relevance is that outliers can have considerable impact on estimated parameters. An outlier is an observation that is some distance away from the regression line. In the case of OLS, the squared value of the distance between the data point and regression line is relatively large for outliers. OLS produces a smaller sum of squared vertical distances, by having a regression line that fits such outliers. In addition, the method of OLS estimates the conditional mean function, in that it provides an estimate of the expected value of *y* for given values of the *x*s. In many cases however, researchers are interested in the conditional response of *y* to a change in one of the *x*s at different points on the distribution or quantiles.

In response, quantile regression methods, of which the least absolute deviations method, or median regression, is a special case, have been developed to estimate the conditional quantile of the dependent variable for given values of the explanatory variables. On the surface, the LAD estimator looks very similar to that for OLS. Rather than minimizing the sum of squared differences between the sample observations and the predicted regression

Box 3.1 Figure *Ordinary Least Squares Estimation*



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line, though, LAD minimizes the sum of absolute differences. The LAD model estimates the effects of the explanatory variables on the conditional median, rather than the conditional mean of the dependent variable.

This has a distinct advantage. Since the median is not affected by large changes in extreme observations, the parameter estimates obtained by LAD are resilient to outlying observations. As such, the LAD estimator is in the class of robust regression estimators. While the methods of OLS and LAD look similar, there are important differences. Most notably, there are no formulas for solving the estimators in LAD regression, so linear algebra cannot be used. Linear programming techniques are, therefore, used to estimate the values of the parameters.

multivariate regression analysis, which allows for isolating the relationship between two variables so that it can be studied separately. The base model, on which every subsequent model builds, includes measures of physical capital intensity, in the form of capital-labour ratio, human-capital, share of white collar in total employment, age and size of firms and exporter and ownership status. The base model gives the first important results on ownership productivity dividends that can help guide IPAs.

Thanks to the rich data available, several aspects of additional dimensions can be added to this base model, in particular, identifying aspects of firms that make them more productive. If foreign firms are found to be more productive than domestic firms, the difference, for example, could be due to the origin or types of firms.

All models are estimated for the survey countries and each sector. For the sector models, meta-sectors, consisting of low-, medium- and high-technology, have been constructed. The models are estimated for these as well, which helps IPAs to target the type of activities with the highest potential.

While the data are rich and allow for advanced analysis, they are not without challenges. The most important is its range. Such variables as output and capital stock range from fairly small to very large. This implies that data points are unevenly distributed, or skewed, rendering analysis of means problematic in that the mean is not an accurate representative of the sample. Therefore, the report employs a median estimator, LAD, which provides more representative results (see Box 3.1).

As in all economic analysis, this one has delimitations. First, one cannot control for every possible aspect that may affect firm performance, especially when analyzing nearly 20 countries. Therefore, the existing empirical literature on the aspects of firm performance and foreign direct investment, in particular the one that deals with sub-Saharan Africa, provides the guide. At the core, all models control for physical and human capital intensity, age and size of firms and whether firms are exporters. Some control is included for sectors, in this case, whether firms operate in low-, medium- or high-technology sectors. While it would have been useful to control for each sector covered in the survey, this proved impossible with an inadequate sample for some of them.

Certainly, this reflects the structure of the economies in Africa, where sectors such as food and beverages or garments and textiles have many more firms than, for example, medical precision instruments or recycling. Still, it makes comparison across all countries and sectors difficult. However, two ways out of this conundrum are applied in the report. First, it compares sectors for which there are enough observations and excludes the others. While this is not ideal, the sample collected largely reflects the industrial structure of the economy. Secondly, sectors can be aggregated to become meta-sectors in the form of low-, medium- and high-technology manufacturing.

Identifying quality investment: first-layer analysis

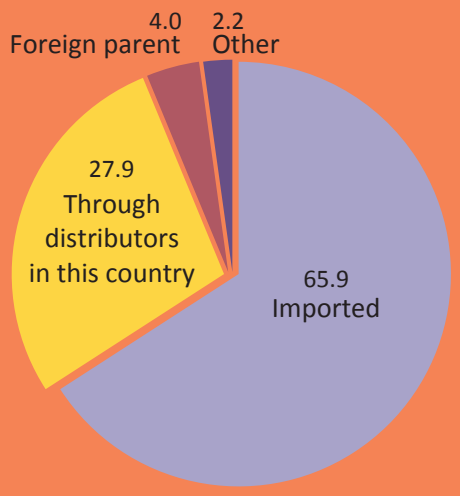
The framework laid out above depicts two layers for the analysis of quality investment and its targeting. Consequently, this chapter is divided into first- and second-layer analyses. These, in turn, are partitioned by topic, such as origin of investment or type of

Box 3.2 *Channels of capital goods acquisition and productivity performance*

Since productivity theory, as well as empirics, hold capital accumulation as vital to the productivity performance of firms, the question of how they acquire capital equipment becomes important. Do domestic and foreign firms differ in their way of obtaining capital goods and are there channels of capital goods acquisition that contribute more to plant performance than others? Three channels are considered: direct import, through distributors in the countries and through parent firms.

The results suggest that the relationship between capital and productivity is associated with how capital is required. However, they also suggest that policymakers may have limited influence over the process of capital goods acquisition. The figure below shows that the firms in the sample are heavily dependent on imports of capital goods but use different channels to acquire them. Nearly two-thirds in the sample import capital goods directly, slightly less than one third import them through distributors and four per cent of firms import them through foreign parents.

Box 3.2 Figure *Distribution of main capital asquisition channel in the sample*



One may speculate that direct import of capital goods might come with cost advantages compared to use of distributors and that foreign parent channels is superior to the others, in terms of costs, appropriateness of goods and procurement processes, as the procedure of acquiring goods is kept internal to firms. Domestic and foreign firms seem to differ in their use of acquisition channels, as shown in the table below. To a greater extent, foreign firms import capital goods directly and, to a lesser extent, capital goods through distributors, compared to domestic firms. Moreover, they had the possibility to acquire capital goods through parent firms.

These results are revealing when combined with regression results, where an interaction term between foreign ownership and acquisition channel of capital goods is used. According to the analysis, the productivity dividend associated with foreign ownership is not independent from channels through firms acquires capital goods. First, direct import of capital goods seems to lower the TFP dividend of foreign ownership, whereas acquisition through distributors does not. Secondly, foreign firms that obtain capital goods through parent firms receive a productivity dividend in terms of labour productivity and TFP. Reverse causality might be an issue; in terms of whether use of acquisition channels affect productivity performance or do more productive firms use a particular acquisition channels.

Nonetheless, the results give an indication of three things. First, the major share of capital goods used by firms in the sample is imported. Secondly, foreign and domestic firms use different channels to obtain capital goods. Thirdly, foreign firms that take advantage of the ability to obtain capital goods from parent firms, which domestic firms could not, were more productive in terms of labour productivity and TFP. The results suggest foreign firms might have another advantage over domestic firms, namely the opportunity to acquire capital goods on better terms and with more ease than domestic ones..

Main source of capital goods acquirement	Domestic		Foreign		Total	
	No.	%	No.	%	No.	%
Directly Imported	1,019	61.6	628	74.3	1,647	65.9
Through distributors in country	601	36.3	96	11.4	697	27.9
Through foreign parent	-	-	101	12.0	101	4.0
Other	35	2.1	20	2.4	55	2.2
Total	1,655	100	845	100	2,500	100

investor. The topics are analyzed, first, for all survey countries and, then, by sector.

Ownership and performance

The first issue is to determine whether foreign-owned firms perform better than domestic ones. There are several reasons to believe this to be the case. For example, foreign firms have better access to advanced technology (Box 3.2), human and physical capital and knowledge of industrialized country markets. In addition, they operate on a more efficient economic scale[5] and often have the ability to operate in better environments in terms of various kinds of infrastructure such as physical infrastructure, trade logistics and ICT in the host economies.

While some of these advantages translate well into new environments, domestic firms also hold advantages. Some of these include better knowledge of local and regional market conditions including language, customs, consumer preferences, business practices and cultural understanding, as well as, possibly, lower production costs .[6] For foreign firms, this can lead to lower efficiency levels in the short term (Dunning, 1998; Caves, 1996).

This implies that while foreign firms could be expected to out-perform domestic ones in several aspects of performance, this may not be the case in domestic settings such as the one studied here. Moreover, foreign and domestic firms might be differently affected by external macroeconomic shocks to the economy, such as the global financial crisis (Box 3.3). Such effects are largely unaccounted for here.

The first indicator to be focused on is whether foreign-owned firms perform significantly better than those owned domestically. A positive, statistically significant coefficient would be affirmative. The extent of foreign ownership might affect firm performance, while the type of foreign ownership might matter as well. For example, the technology possessed by multinationals is likely to differ from that of individually owned firms. A third aspect is that of firm origin, by which is

5 For instance, large-scale operations may allow them to purchase production inputs at lower unit costs.

6 On the other hand, lower production costs may be the main reason for foreign firms to establish themselves abroad.

Box 3.3 *Financial crisis in African manufacturing*

The global economic crisis of the late-2000s has seriously affected many countries around the world, with the aftermath still constraining policy options of governments. However, a common view is that Africa has been insulated from the crisis because of its relative weak integration into the global economy. This notion is based primarily on macro data, rather than information from firms. TThe UNIDO Africa Investor Survey provides an opportunity to ask African firms directly how they have fared during the crisis.

To analyze the direct effect of the global financial crisis on African firms, all respondents were asked about the rate of capacity utilization of their firms before and during the financial crisis. Any reported decrease in capacity utilization would represent a negative impact on the firm coinciding with the crisis.

Sixty per cent of respondents reported a decrease in capacity utilization, which stands in stark contrast to the common understanding that Africa has not been seriously affected by the crisis. This calls for further analysis into the characteristics of firms under stress as well as those less affected. It is particularly important to understand the transmission channels of these negative spillovers, that is, how the crisis is transmitted from country to another and from one firm to another. Such information will help policymakers design appropriate policies to avert similarly strong consequences in the future.

To do so, analysis of the probability of being affected by the crisis is regressed on a set of firm characteristics thought to influence the degree of firms' insulation as well as capture likely transmission channels. While controlling for country- and sector specificities, the analysis, which has been carried out for all manufacturing firms in the survey, provides the following insights:

- Firms with lower human capital were more likely to have been affected by the crisis than those with higher.
- Firms with a lower ratio of capital to labour faced a higher risk of being affected by the crisis.
- Firms less productive in terms of output per worker faced increased vulnerability.
- Older firms were less likely to be affected by the crisis.
- Exporting firms were more likely to report a loss in capacity utilization than non-exporters.

The last result – the role of international trade – is of particular interest in this analysis, as it can be interpreted

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as a potential transmission channel of the financial crisis. If there is a crisis in a country, then, all firms that export to this country may be suffering from this shock, even if their host country is not affected ex ante.

Several policy implications could be drawn from the reported results: Supporting investment in capital goods, having an educated labour force and supporting firms to reach higher levels of productivity would reduce the risk of being affected by a crisis from abroad, while such measures might also serve general development goals in themselves. Moreover, although integration into the global economy is widely considered a necessary ingredient of economic growth, it makes a country more vulnerable to economic shocks from abroad. Thus, policymakers might be encouraged to temper increased international integration with other trade-related policy measures in order to avoid its potential negative effects.

A detailed analysis and discussion of the effect of the financial crisis on African manufacturing can be found in Fethi, Isaksson and Kaulich (2011), "The Impact of the Financial Crisis on African Manufacturing," (unpublished paper).

meant whether the firm comes from an industrialized or developing country. If technology is positively related to the stage of development of countries, firms from the North are likely to possess more advanced technology than those from the South. Likewise, the scope for positive spillovers from the North may be greater than those from the South. However, since Southern technology is easier to adopt and adapt to local conditions, the spillover hypothesis might prove fallacious. These issues are dealt with below.

Firm performance can be measured in several ways. The literature tends to focus on some measure of productivity, for example, labour productivity or TFP. The rationale for separating the two is that it is useful to determine in what aspect firms outperform each other and, later on to identify channels of productivity spillovers. TFP permits better tracking of technology-related performance differences than labour productivity, which tends to confound differences relating to technology with those relating to factor differences, for example, in physical and human capital intensities[7].

Productivity can also be understood in terms of competitiveness. Although it is not the sole component of a competitiveness index, it is the most important. For instance, to be price-competitive implies being able to produce at low cost, which requires that a firm is productive.[8] Price competitiveness is the essence of why some foreign firms want to establish in low-cost production areas, be it for low wages or ready access to raw materials.

Compared with the standard literature, the report applies a broader concept of performance by including employment and output growth. The former is measured as the percentage change between last year's employment and that of two years ago. Output growth is similarly defined.[9] The quality of growth indicators is likely to be of some concern, since not all respondents provided their historical balance sheets but, rather, answered from memory.[10] Consequently, these data need to be viewed with caution, with and more weight possibly be attached to the data from the last financial year.

These performance measures are then regressed on several explanatory variables. Most important of these is a dummy variable representing foreign ownership, while the other variables are controls. For ease of interpretation, results can be interpreted as showing the difference in performance between foreign- and domestic-owned firms, with other firm characteristics constant. In so doing, the analysis explores whether foreign-ownership brings a performance dividend and, if so, its magnitude. If such a correlation is found, it gives an initial indication to IPAs as to how IPAs should weight their efforts between foreign and domestic investors, assuming they are targeting both groups of firms. Nevertheless, there is a host of other factors that IPAs need to consider before adopting such a strategy.

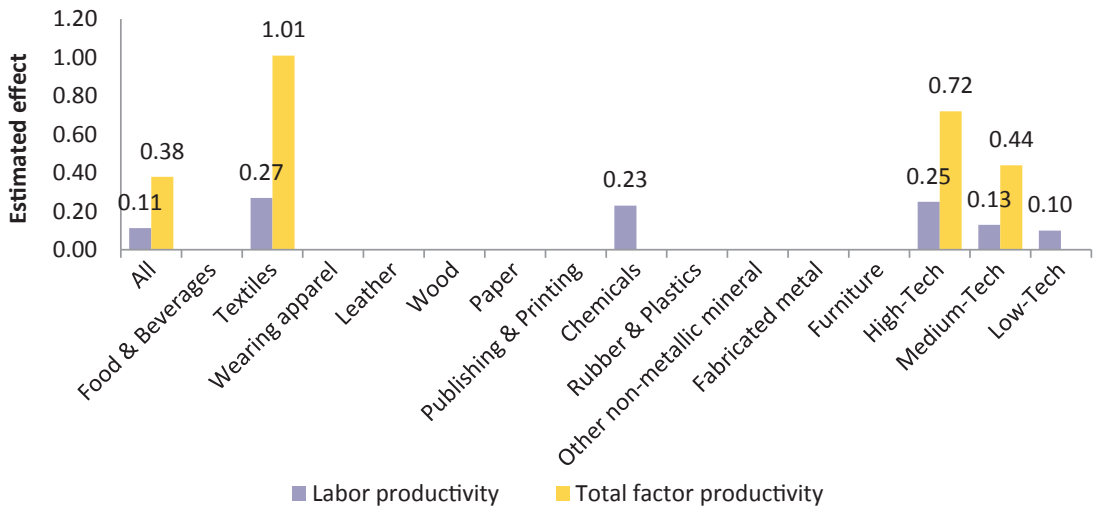
7 Within these two groups different measures of labour input have been tested, such as number of workers and hours worked. The latter is superior, in that it accounts for the rate of labour utilization as well as workers available to the firm. This is particularly important if firms are subject to seasonal variation in their production or shocks such as the recent recession and financial crisis. For this reason, both measures were tested on the data. When compared, they were found to yield similar results. Therefore, for reasons of convenience, only one measure, number of workers, is used.

8 Operating at increasing returns to scale would have a similar effect.

9 Output growth as measured here is a concoction of output and sales, in that sales figures have been converted to output and output growth assumed to equal sales growth.

10 In some cases, respondents misunderstood the question. Unless their responses could be converted to reasonable approximations of actual growth, they had to be deleted from the data.

Figure 3.1 *Foreign ownership productivity dividends by sector, labour productivity and TFP*



Theme one: productivity

In this section the relationship between productivity, firm ownership, origin and type is analyzed. Each section begins with an outline of the methodology used in order to reach the results. Bar-charts, with the coefficients obtained in the regression analysis, make the results comprehensible. Only coefficients statistically different from zero are displayed. Results pertaining to firm ownership are discussed, followed by those for firm origin and type.

Foreign ownership and productivity

The base model, run for all survey countries and across individual sectors, to be estimated relates performance to explanatory factors, one of which is firm ownership divided into foreign and domestic. A more extensive description of the regression model is found in the technical appendix at the end of the chapter (model 3.1).

The first regression explains labour productivity (Figure 3.1), measured as gross output per worker. It reveals that, on average for all survey countries, foreign-owned firms are 11 per cent more productive than domestic ones, holding other explanatory variables constant. This is considerably less than that suggested by the descriptive analysis and illustrates the importance of controlling for factors that the ownership variable would otherwise capture. Yet the results show a significant labour productivity advantage in favour of foreign firms, implying that these might constitute a worthwhile target for IPAs.

Moreover, all control variables of the base model have the expected signs, with most coefficients statistically significant. This means that manufacturing labour productivity in the survey countries increased with capital-intensity (0.11), human capital intensity (0.15), intermediate inputs (0.72) and firm size (0.04).[11] In addition, the results show that firms operating in the medium-technology manufacturing sector were 8.3 per cent less productive than those in the high-technology sector. This suggests a significant productivity dividend for moving into more sophisticated activities. Finally, the coefficients for age of firm and exporter status are not statistically significant. The latter, especially, seems to run counter to expectations. A table showing the estimated regression model is found in the technical appendix.

In the case of TFP, contrary to the results of the descriptive analysis, a larger foreign-ownership productivity dividend might be expected based on the notion of large technology differences between domestic and foreign firms. With foreign firms having as much as

11 This suggests a production function with close to constant returns to scale, which is indicative that the data possess good quality and produce plausible and credible results.

Box 3.4 *Product concentration and firm performance*

A common marketing strategy recommendation, often given to firms, is to diversify their product ranges. The strategy is based on the perceived virtues of diversification. For example, firms with diversified output portfolios ought to be able to deal better with shocks and, more generally, risks, as well as better adjust to changes in taste and preferences. The drawback, however, is that several production technologies might be in use simultaneously and that production inputs have to be acquired through several channels. This runs counter to the notion of specialization and its perceived virtues. For example, productivity increases through a more efficient division of labour in combination with training and learning by doing (Smith, 1776).

The survey asked firms about their three most common products and respective shares in the overall product portfolio. This information is used to construct a Herfindahl index of product concentration—with three components, or products. The index ranges from 0.33 for the most diversified to 1 for the most concentrated firm—which is tested against productivity in a standard regression model by way of an interaction term based on the following model:

$$Y_i=\alpha+\beta_1 FO_i+\beta_2 FO_i * CONC_i+\beta_a X_i+\varepsilon_i,$$

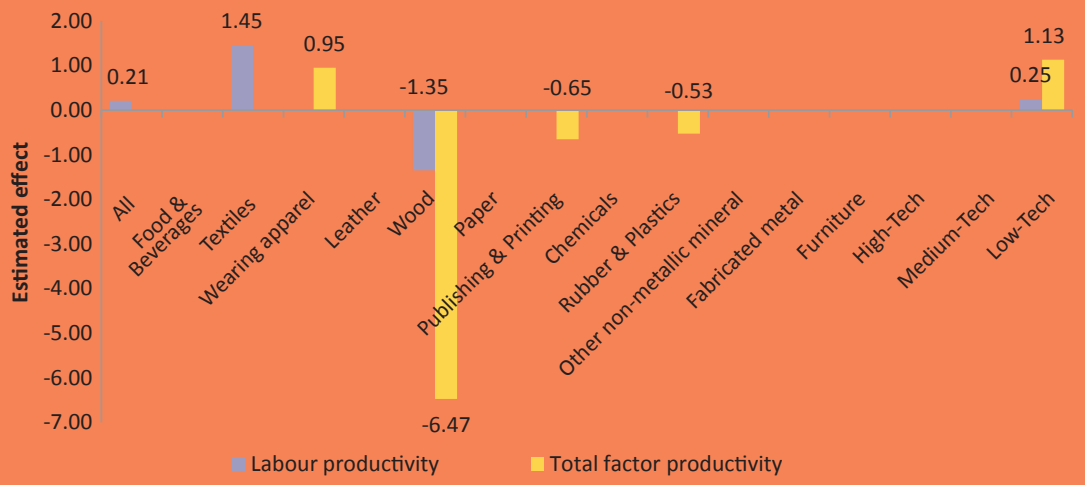
where $FO_i * CONC_i$ is the product concentration Herfindahl index in interaction with foreign ownership.

The results reveal that the level of product concentration matters for productivity in Africa. More specifically, a ten percentage point increase in the product concentration index gives rise to a 2.1 per cent additional foreign ownership dividend in terms of labour productivity.

In addition, a positive relationship is found in low-technology manufacturing, particularly textiles. A negative relationship is found in the leather and wood sectors, also low-technology ones. The graph shows that product concentration seems to matter for performance measured as TFP. Although no statistically significant relationship is observed for Africa, the estimation results are essentially similar to those obtained for labour productivity. However, in the sectors where a significant relationship is detected for both labour productivity and total factor productivity, the effect on TFP is considerably higher. The same seems to be true in the wood sector, however, in a negative direction. In short, foreign firms that specialize seem to be more productive, but the relationship seems to be sector specific and, with a few exceptions, confined to low-technology sectors. Thus, the results may have capture is the observed tendency of firms in developing economies to perform task-based production specialization in some stages of a value-chain, rather than in final products, as described in UNIDO's 2009 *Industrial Development Report* (UNIDO, 2009).

According to the Industrial Development Report, this type of product specialization is most prominent in low-technology sectors. It is typically replaced by increased product diversification as the economy develops and more resources shifted into medium- and high-technology sectors. Additional tests confirm this observation. First, product concentration is significantly higher in the low-technology sector (0.65) than medium (0.62) and high-technology ones (0.59). Secondly, there is a positive, significant association between product concentration and share of sales that goes to other manufacturing firms whereas a negative and association is found between product concentration and share of sales that goes to end users. However, to be more certain, more rigorous tests need to be undertaken.

Box 3.4 Figure



38 per cent higher TFP in the survey countries as a whole, this proves be the case. Thus, there is generally a significant foreign ownership dividend in terms of productivity levels, which tends to be larger for TFP.

So far, the analysis has shown that foreign ownership seems to matter for productivity performance of firms. However, it raises the question of whether this holds true for all manufacturing sectors or the relationship is sector specific, perhaps, confined to only some of the sectors in the sample. To answer this, the sectors for which there are sufficient observations to be meaningful, more than 80, are selected and the within-sector relationship between ownership and firm performance tested for them. The selected sectors are food and beverages, textiles, wearing apparel, leather, wood, paper and paper products, publishing and printing, chemicals, rubber and plastics, other non-metallic mineral products, fabricated metal and furniture, as well as the meta-sectors low, medium and high technology.

In the basic setup of the model, where a dummy variable captures the effect of foreign ownership on the dependent variable, the within-sector relationships seem to differ (Figure 3.1). With labour productivity as dependent variable, a positive, significant relationship is observed for textiles and chemicals as well as for low-, medium- and high-technology meta-sectors, where the foreign-ownership productivity dividend ranges from 7.2 to 27 per cent. The effect is more pronounced in high-technology sectors than in medium and low ones. This suggests a significant advantage for being involved in more sophisticated activities.

For TFP, the foreign ownership effect is greater than for labour productivity, which is also observed at sectoral level. A positive relationship is found in the textiles sector and in the medium- and high-technology meta-sectors, with productivity dividends ranging from 44 per cent in medium-technology to 101 in textiles. The effect seems to be greater in high-technology than in other meta-sectors, with no TFP effect in the low-technology meta-sector.

Investor origin and productivity

A significant ownership productivity dividend exists, in particular, for productivity levels and in more sophisticated activities. One explanation may be related to the concept of appropriate technology, where technology from the South is closer and more suitable to local conditions than that from the North and, therefore, easier to adopt and adapt in Africa. On the other hand, it is possible that more sophisticated technology such as that originating from North, is needed. Furthermore, African countries differ in their characteristics, with, for example, some having more human capital than others.

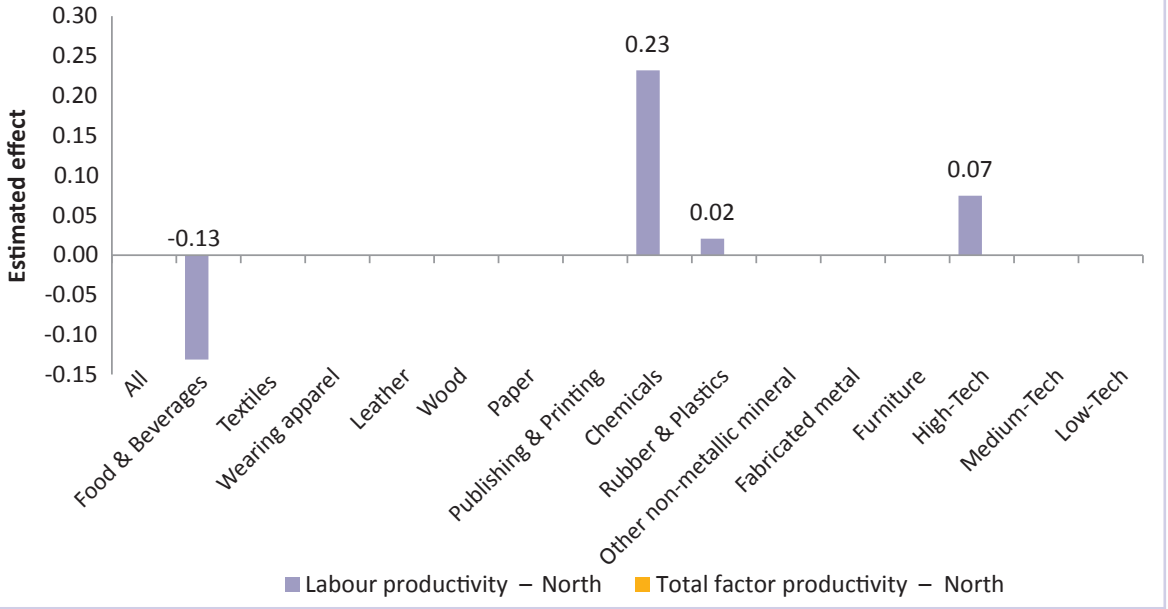
Related to this, but borrowed from the trade literature, Granér and Isaksson (2009) demonstrate that South-South exports may be more beneficial than South-North exports. The authors argue that Northern technology may be too advanced and, therefore, using the terminology of Basu and Weil (2008), inappropriate to local conditions. Exporting to slightly more advanced economies, on the other hand, could be within technological reach and just about right for the economy, also in terms of taking the next developmental step. Similar reasoning may apply to FDI, in that FDI flows from the North could have less spillover effects because the technology is too advanced and the technology gap too wide. FDI from the South, on the other hand, could be within reach and, thus, more appropriate. Ultimately, the issue of appropriate technology and origin of foreign ownership becomes an empirical one. It is also immensely complex as frontiers of technology do not map neatly onto countries or regions of origin. For example, few would consider India to be backward in software design.

These ideas are modelled and tested by distinguishing between foreign firms in terms of whether they originate from an advanced economy or another developing country.[12] As the previous chapter pointed out, nearly 60 per cent of the firms came from the North. In terms of modelling contingent on being a foreign investor, a dummy variable representing the origin of the investor has now been added to the base model. A more extensive description of the regression model used is found in the technical appendix at the end of the chapter (model 3.2).

For the survey countries as a whole, the regression analysis shows that, foreign firms from industrialized

12 Initially, a distinction between firms originating from other sub-Saharan African countries and from non- sub-Saharan African ones was made. With too few foreign investors from sub-Saharan Africa, this distinction, however, had to be abandoned.

Figure 3.2 *North-South origin and productivity performance*



countries seem to be less productive than those from developing ones. However, the coefficient is not statistically significant, so it is not shown in figure 3.2. For the survey countries as a whole, firm origin does not seem to have a statistically significant effect on total factor productivity, so these results are not shown.

The sector results suggest that Northern firms are 23 per cent more productive in chemicals, enjoy a productivity edge of two per cent in fabricated metal and seven per cent in the high-technology meta-sector. In one sector however, food and beverages, they are less labour productive than firms from the South.

The positive effect of Northern firm origin seems to be confined to sectors with higher technological content. The only low-technology sector with a significant negative result is a typical one, food and beverages. A possible interpretation is that Southern and Northern firms compete where they have comparative advantage. Without TFP results, comparative advantage originates from differences in capital stock, rather than differences in technology. These results largely confirm findings in the descriptive analysis of the previous chapter.

Investor type and productivity

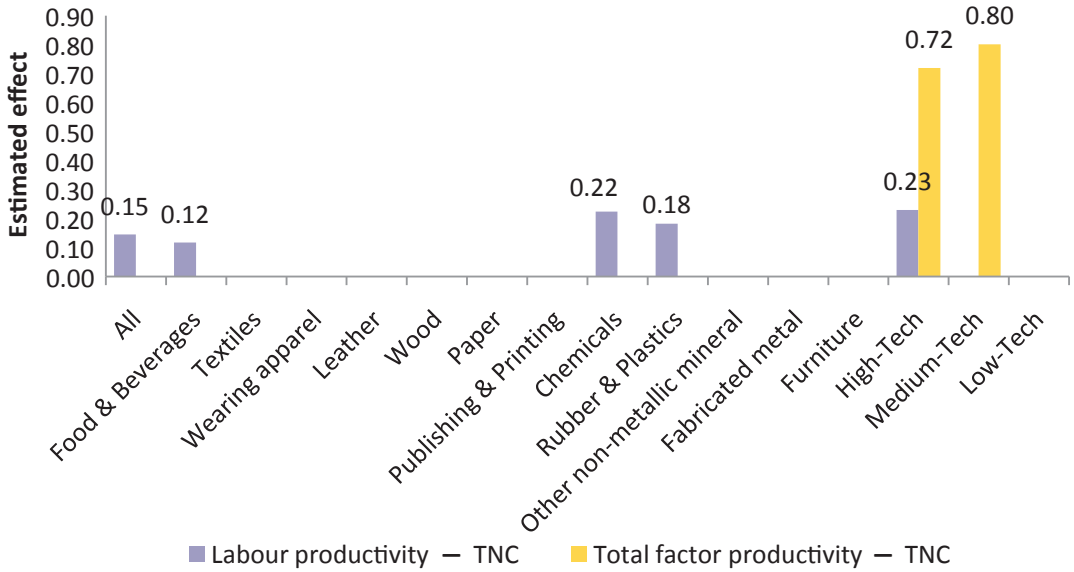
A characteristic that may affect productivity performance is whether foreign firms are TNCs, which may imply strong organizational backing, and access to superior technology or FEs, which tend to be relatively small and have less organizational capital. This is largely a neglected topic. To give a first account of the data, 72 per cent of firms surveyed are foreign entrepreneurs. The model is a version of the one used for firm origin but this time with an interaction term that distinguishes between foreign firms in terms of whether they are TNCs or FEs. The model is explained in more detail in the technical appendix (model 3.3).

The productivity level regressions confirm that TNCs are, by far, the most productive foreign firms. For the pooled sample of all survey countries and labour productivity, they are 15 per cent more labour productive than other types of foreign ownership. However, this favourable result for TNCs is not found when TFP is used as a dependent variable. Here, TNCs are not significantly more productive when analyzing the entire survey country sample, which suggests that what makes foreign firms more productive than domestic firms is more related to physical capital abundance than disembodied technology[13].

There is more to learn about sectors, as revealed by the results charts (Figure 3.3). The blue bars show that TNCs' labour productivity is 23 per cent higher than that of FEs in high-technology activities, which also holds true for chemicals, at 22 per cent and rubber and plastics, at 18 per cent. In one low-technology

13 Technology embodied in capital could still be important, so technology cannot be dismissed altogether as a distinguishing factor.

Figure 3.3 *Firm type, labour productivity and TFP performance*



sector, food and beverages, TNCs perform 12 per cent better than FEs. The latter result could be because the relative capital intensity of the food and beverages sector might give the more capital-intensive TNCs an edge over FEs. The red bars, which show a relationship between firm type and TFP, reveal a significant TNC productivity dividend in medium- as well as in high-technology meta-sectors.

In common with the conclusions about firm origin, these results indicate that the productivity difference between TNCs and FEs in the survey countries is connected to physical capital. At meta-sector level, however, there is evidence that the difference between TNCs and FEs in medium- and high-technology meta-sectors relates to disembodied technology. This suggests that TNCs are more involved in technologically sophisticated activities than FEs.

Theme two: growth

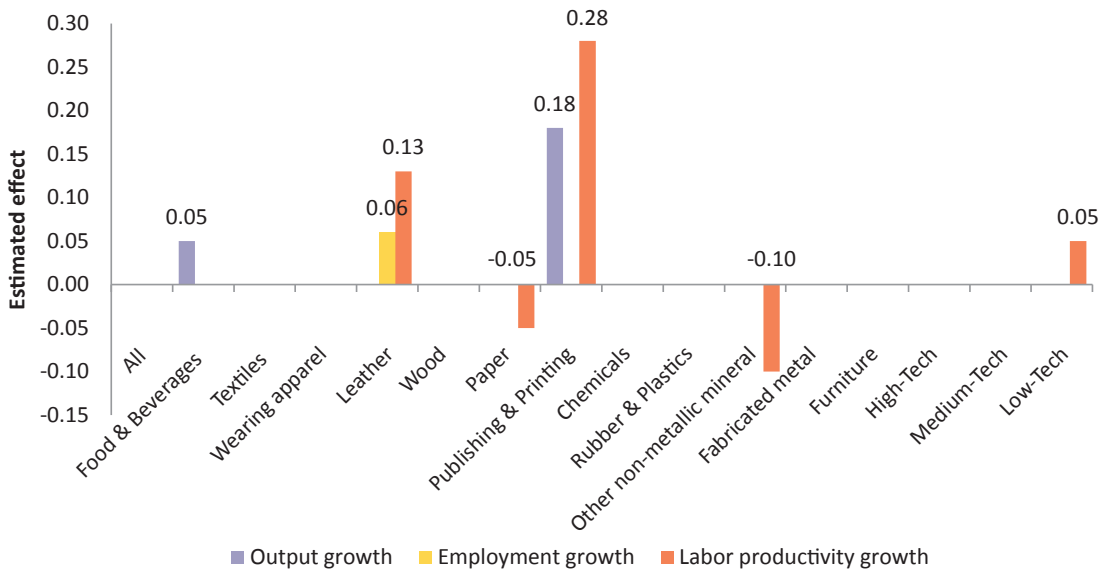
Firm ownership and growth

The next group of performance indicators is growth variables, which covers growth of output, employment and labour productivity. With respect to the standard model, the general expectation is that the larger, older and more greatly endowed are firms, the slower the growth rate in terms of employment. However, more capital-intensive firms are likely to grow at a higher rate in terms of output and labour productivity. The descriptive analysis showed that foreign firms, which are typically more capital endowed but also larger, grow faster both in terms of output and labour productivity. The results were displayed in Table 3.2a.

However, it is not obvious how foreign ownership and firm growth are related, once correlates of the former have been controlled for. As figure 3.4 illustrates, the findings of the regression analysis reveal that the result of the descriptive analysis changes once it has been taken into account that domestic and foreign firms differ in terms of size, age and capital intensity. The results for the growth performance indicators confirm that, for the pooled sample of all survey countries, there is no difference in growth performance between domestic and foreign firms. Thus, for growth, whether owners are domestic or foreign seem to matter little. This reinforces the importance of regression analysis to better understand these relationships.

At sectoral level, however, labour productivity growth occurs in several low-technology sectors, as exemplified by the meta-sector low-technology, which has a growth dividend of 0.05 percentage points. The highest growth dividend takes place in publishing and printing, at 0.28, followed by leather. The few negative growth results appear to occur in more technologically sophisticated sectors, in this case, in paper and paper products and other non-metallic

Figure 3.4 *Ownership and growth performance, at sectoral level*



mineral products. The output growth performance is fairly similar, although fewer results are registered, with a positive dividend in the relatively unsophisticated production sectors of food and beverages and publishing and printing. The only employment growth registered is confined to the leather sector where the relationship is positive.

Firm origin, firm type and growth

Regression analysis confirms the finding of the descriptive analysis that there is no significant difference in terms of output and labour productivity between firms of Northern and Southern origin. The results also show that there is no statistical difference in terms of employment growth.

The same seems true for firm type. There is no significant difference between TNC and FE firms with regard to labour productivity and employment growth. The only credible result is that in the survey countries TNCs grow slightly faster than FEs in terms of output.

Extent of foreign ownership and firm performance

This section examines whether firm productivity performance increases with the share of foreign ownership or, simply, because of the sheer influence of foreign ownership.[14] If the former, IPAs could benefit by refining their search for quality foreign investors.

Foreign ownership share is one of many indicators of the influence that foreign owners may exert on firms. Besides corporate governance i.e., how the firm is organized in terms of governance, how power is shared between management and shareholders and how power is shared between shareholders it does not capture less tangible issues, such as how actively foreign owners are involved in the business of firms and country specific customs.

Changes in the global business environment in recent decades— reduced transportation costs, rapid communication, improved managerial capability in developing countries and the like —speaks against the premise that foreign ownership share explains differences in firm performance. On the other hand, it implies that less-endowed firms can exert governance power from abroad without full ownership (Henley, Kratzsch, Kulur and Tandogan, 2008).

At this stage, the issue of extent of foreign ownership is complex and dependent on factors other than those the literature has considered. For example, while it is true that

14 The definition of a foreign-owned firm is at least ten per cent foreign ownership.

***Box 3.5** Foreign ownership and macro environment*

The large stock of literature on the important role of country characteristics for development suggests that performance of foreign investors depends on distinctive features of the county in which the investment is made as well as on foreign ownership per se (see for example Collier 2007). This begs the question whether size of ownership dividend matters in relation to overseas investment in, for example, relatively urbanized countries or those that are landlocked. To address such a question, regressions on pooled data with interactions between foreign ownership and a number of different country characteristics were run.

Starting with the ownership dividend, foreign firms that operate in countries with a high literacy-rate seem to be more productive, in terms of labour productivity and TFP. A comparison reveals that the literacy rate of the host country matters more for TFP than labour productivity of firms and that the net effect on TFP is larger. The productivity effect of foreign ownership has a relationship with the literacy rate in which firms operate. The net effect, however, is still roughly at par with the foreign ownership dividend estimated without taking literacy rate into account.

Another example relates to countries' income levels, which shows that foreign firms seem to be more labour productive in countries with a higher GDP per capita. Here the isolated foreign ownership effect is no longer significantly different from zero indicating that foreign ownership effect on labour productivity is dependent on the level of GDP per capita. Thus, countries with a higher GDP per capita may benefit more in terms increasing the overall labour productivity of the economy by attracting FDI.

In the case of urbanization, the productivity dividend associated with being a TNC seems to be augmented in countries where a higher share of the population lives in urban areas. This seems to hold true when the labour productivity as well as the TFP measure are applied. The fact that the TNC coefficient, which measures the isolated effect on productivity of being a TNC, is now insignificant indicates that the effect is not independent from the urbanization of the country in which the TNC operates. The net effect of TNC structure on labour productivity is slightly higher than that observed when urbanization rate is not taken into account, as shown to the left in the graph. The effect on TFP is much higher. For Southern TNCs, there is a strong positive effect when the urbanization level of countries is considered. The labour productivity as well as TFP effect associated with being a TNC of Southern origin does not seem to be independent from urbanization level. Moreover, TNCs from the South seem to benefit from this, in terms of productivity in more urbanized countries. The overall net effect of being a TNC from the South is positive when urbanization level is taken into account.

The final example concerns the level of interest rates. They seem to be associated positively to TFP of firms. The overall effect of being a Southern TNC is also positive in the model where the interest rate is taken into account. With many SSA countries facing problems of negative real interest rates, this may be an indication that productivity effects associated with Southern TNCs are likely to be higher if countries manage to establish a sound macroeconomic environment. As such the results are intuitively reasonable.

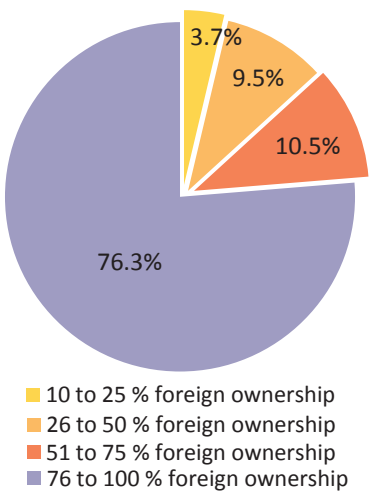
the extent of foreign ownership has little relevance to firm performance up to nearly wholly-owned levels, this is not necessarily the case for firms that lack human capital, with low capital-intensity and differences in size. The relationship between ownership share and performance depends on other firm characteristics, which warrant an investigation of the impact of ownership share.

Examining the sample of foreign firms, Figure 3.5 reveals that the distribution of foreign ownership for different types of firms is highly skewed towards wholly-owned firms. Accounting as well for firms with at least 50 per cent foreign ownership, 87 percent of firms had a majority of foreign owners. In terms of modelling, the sample is restricted to foreign firms only, with the foreign-owner dummy variable, used previously, replaced by a continuous variable representing the percentage share of foreign ownership. This is presented in model 3.4 in the technical appendix.

Productivity and extent of foreign ownership

The results of the regression analysis suggest that extent of foreign ownership is irrelevant. Only when the survey countries are analyzed as a group does foreign ownership share affect TFP, with the relationship being negative. In terms of growth, only in the

Figure 3.5 *Extent of foreign ownership*



Box 3.6 *Threshold regression models*

In most cases, regression analysis concentrates on a linear relationship between the dependent variable of interest and a set of explanatory or independent variables. The typical interpretation quantifies how much the dependent variable changes in response to a one unit change in one of the independent variables, with all other independent variables held constant. In many cases, however, the researcher may be interested in examining whether such estimated relationships differ for different observations. For example, a researcher may want to examine whether the relationship between two variables differs for rich versus poor countries or for large versus small firms. A number of methods have been devised to examine and test for such non-linear relationships. One common, simple approach is to allocate observations –countries, industries, firms, and the like –into relevant groups or regimes and test whether the relationship between variables differs between these regimes. Such an approach suffers in that the defined regimes are ad hoc and subjective.

In response to these shortcomings, threshold regression methods have been developed. They allow the data itself, rather than the researcher, to place observations into different regimes and determine the appropriate number of regimes. A more thorough explanation of threshold regression models is provided in the technical appendix of this chapter.

high-technology meta-sector do foreign firms that have a higher foreign share grow slower in terms of labour productivity, at -0.18 and only in the chemicals sector do they grow at a faster rate in terms of output growth, at 0.34.

Over the range of possible ownership shares, impact on productivity may differ. For example, majority ownership may involve a more active participation in the firms' businesses. To this end, the report employs threshold analysis, as set out in Box 3.6, to investigate further the issue of extent of ownership. To a large extent, threshold analysis confirms the findings of the previous section. With labour productivity, as well as TFP as dependent variable, a break is identified but is observed at such a high percentile that the conclusion must be that the extent of foreign ownership does not matter for productivity performance.[15] The least foreign ownership share a firm can have is ten per cent, as this is how FDI is defined in the survey. Firms with less than that are treated as domestic ones.

However, other factors that may affect the relationship between foreign ownership share and productivity can be brought into the analysis. The underlying notion is that the relationship may not be independent of other firm characteristics, such as human capital level, capital intensity and firm size. This turns out to be the case.

First, the extent of foreign ownership is positively related to labour productivity, as well as TFP, for firms with less than some 300 employees, after which the relationship becomes statistically insignificant. The relationship is significantly stronger with regard to TFP than labour productivity.

Secondly, the extent of foreign ownership only seems to matter for the productivity of firms if they hold sufficient human capital. The result suggests that only at a white-blue collar ratio of 0.11 or more a higher share of foreign ownership is associated with higher labour productivity. A significantly higher white-blue collar ratio, of 0.22, is required in order for a positive relationship to exist between foreign share and TFP. Hence, the results show that a higher level of human capital is needed in order to

15 Charts displaying these results can be found in the technical appendix (Figure A1).

benefit from increased foreign ownership in terms of higher TFP, which seems plausible since TFP is more directly connected to the role of technology in the production processes of firms than is labour productivity. The more technologically advanced are production processes of firms, the higher the demand on human capital and the more likely it is that an unskilled labour force constitutes a productivity bottleneck.

Thirdly, the results suggest that the positive relationship between foreign ownership share and productivity is not affected, in a statistically significant sense, by the capital-labour ratio of firms when labour productivity is used as measurement. When TFP is used, however, the relationship shifts at threshold value of some US$77,000 per worker. After this value, the positive relationship between foreign ownership share and TFP becomes significantly steeper.

Summary: first-layer analysis

The first-layer analysis, which considers the effects of a change in the composition of domestic and foreign firms, provides insights that are significant. First, there is generally a considerable foreign ownership dividend in terms of productivity levels. While this may come as no surprise to practitioners of FDI, who operate with the understanding that foreign direct investment is always associated with benefits for the host country, the issue is far from settled in the empirical literature on FDI. With its composition of foreign and domestic firms, this survey manages to address the issue in a unique way. The results show the difference in significant performance between domestic and foreign ownership controlling for several key firm characteristics. Moreover, they demonstrate that the productivity increase associated with foreign ownership occurs more often for labour productivity but tends to be greater for TFP. This implies that there is an additional dividend if the productivity gain has significant technology content. For growth, however, domestic or foreign ownership seems less important.

Secondly, the findings can guide IPA targeting, in terms of sectors, firm structure and firm origin. Regarding sectors, the results suggest that foreign firms operating in sectors with more sophisticated operations and higher technology content are of interest, since they are more productive than their domestic counterparts. This conclusion is a generalization, based on analysis of a pooled sample of all survey countries by sector that calls for circumspection, since important country differences may exist. Nevertheless, the first-layer analysis at least provides a step towards firm targeting. Regarding firm structure, foreign TNCs are, by far, the most labour-productive foreign firms. TNCs that operate in high-technology sectors are associated especially with high productivity, both in terms of labour and TFP. Regarding firm origin, the conclusion at this stage is that there is no difference in productivity between foreign investors from industrialized countries and foreign investors from developing countries when the entire sample is considered. However, at the sector level it appears that north investors are more labour productive in high-tech sectors. Especially north firms in chemicals are associated with high productivity performance.

A basic analysis of the relationship between firm performance and extent of foreign ownership suggests that extent of foreign ownership is relatively insignificant. Applying threshold analysis to further investigate the issue of extent of ownership, the report obtains similar results. More striking results were reached when other factors that might affect the relationship between foreign ownership share and productivity were brought into the analysis. The underlying premise is that the relationship may not be independent of other firm characteristics, such as human capital level, capital intensity and firm size, which proves to be the case. The extent of foreign ownership is positively related to labour productivity, as well as TFP, for firms with less than some 300 employees, after which the relationship becomes statistically insignificant. The relationship is more significant for TFP than productivity. Similarly, the level of human capital and capital intensity has a significant influence on the foreign ownership-productivity performance relationship.

Identifying quality investment: second-layer analysis

The first-layer analysis concluded that having more foreign-owned firms improves the composition of domestic and foreign firms, leading to improved aggregate productivity performance.

But composition effect is not the sole impact on the domestic economy. If a foreign investor establishes in a country in order to gain market shares, for example, there may be negative effects on the domestic economy. If these second-layer effects are larger than the first-layer, composition effects, negative net results are the consequence.

This part of the analysis focuses on second-layer effects, often referred to as spillovers or externalities. They can range from positive through neutral to negative. Two main topics are considered. The first is whether increased foreign presence implies any effects-horizontal and/or vertical-over those found for the first layer. The crucial aspect is what impact it has on domestic firms. The second is whether origin and type of foreign investors provide further information useful for investment promotion purposes. Thus, while essentially the same topics are dealt with in this section as in the former, there is a demarcation line between horizontal, or intra-sectoral, and vertical, or inter-sectoral, externalities. The former refers to the impact on local firms of foreign investments made in the same sector which, on the one hand, involves market-stealing and crowding out, while, on the other hand, learning through demonstration and human capacity building. By contrast, vertical externalities refer to the impact of increased foreign presence on upstream and downstream sectors. Here, increased demand and cooperation are essential concepts. In addition to the impact on domestic productivity, profit and growth, entry of foreign firms is likely to have social effects. Because of this, the impact on wages and employment of domestic firms are also considered.

Tuning in on externalities

A strong motivation for governments to channel resources into investment promotion would be the impact of FDI on the domestic economy beyond its addition to national capital stock, tax revenues, creation of new jobs and the like. Such impact may manifest itself in different ways. For example, knowledge transfers from foreign to domestic firms might raise the level of productivity at the latter. Another example might be if foreign firms' position in the production supply chain generates demand for domestic supply, creates jobs and improves domestic firm productivity and growth performance leading, overall, to lower transaction costs for domestic firms. In addition, foreign investors may also benefit from linking up with domestic suppliers, for example, by sub-contracting to domestic firms as shown in chapter 2. More specifically, preliminary analysis shows that foreign firms with many domestic suppliers are more productive than their foreign counterparts that are less connected to the domestic supply-system. Moreover, they also seem to grow at a higher rate. For a discussion on these results please see box 3.7.

Externalities associated with foreign presence may be neutral or even negative as well. Positive externalities may be countered by negative crowding-out effects. Examples of the latter are competition where there is a limited supply of skilled workforce or increased competition to the point that domestic firms eventually exit the market. Negative externalities can also include impact on the environment and health, which, in some sectors, may be a significant downside of foreign investment.

Box 3.7 *Linkages and productivity performance*

This box investigates the extent to which firms' linkages, globally and in host countries, affect performance differentials between domestic and foreign firms. For example, firms with larger networks in local economies might learn local business practices more rapidly and obtain better prices for their products as well as production inputs than those with more restricted networks. Reduction of transaction costs involved in seeking suppliers and clients allows firms to focus resources on core business operations, which, in turn, help increase performance. This notion is tested by creating an indicator for linkages, which is, then, linked to

Continued on next page.

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foreign ownership using an interaction term and inserted in the following model explaining productivity performance Y_i

$$Y_i = \alpha + \beta_1 FO_i + \beta_2 FO_i * LINKS_i + \beta_3 X_i + \varepsilon_i,$$

where $FO_i * LINKS_i$ is the interaction term involving foreign ownership status (FO) and linkages (LINKS), and X_i is a vector controlling for other firm characteristics.

There are essentially two types of linkages that are of interest: forward and backward. While forward ones are concerned with firms' relationships with other firms in the economy, in terms of supplying goods either as inputs, the backward linkages focus on suppliers of intermediate goods and other production inputs. The simplest measure of backward linkages is a number count, which is applied here. For forward ones, the value of linkages with manufacturing buyers is used. To avoid the obvious outcome that larger firms have more linkages, the count variable has been scaled with number of employees.

The backward linkages indicator may fail to recognize the relative importance of linkages because of its inability to capture other crucial facets, such as distinction between short- and long-term linkages and reputational effects involved. For example, it might be better to have a few, but stable, long-term relationships with suppliers and devote resources to other business operations, thus, reducing transactions costs involved in seeking suppliers.

The table below provides a first allusion to the frequency of linkages by ownership. Domestic firms have more domestic backward linkages than do foreign ones. To a greater extent, however, foreign firms have manufacturing firms as their customers. The mean is used because the median for both groups of firms is zero.

Of particular interest in this analysis is to determine if the foreign ownership dividend is larger or smaller for firms that have more linkages. Proceeding to regression analysis and beginning with backward linkages, it appears that foreign firms with many domestic suppliers are more productive than their peers. For Africa there is a small, but statistically significant, productivity dividend for foreign firms that have many domestic linkages. These firms are, on average, 1.7 per cent more productive than foreign firms without linkages, that is, the productivity advantage of foreign firms increases the more they are connected to the domestic supply-system. Moreover

Ownership	Median number of domestic suppliers per employee	Mean share of manufacturers as buyers in total sales
Domestic	0.16	13.65
Foreign	0.06	16.01

there is evidence that foreign firms with linkages tend to grow faster in terms of employment as well as labour productivity, although the growth effect is small. However, there is a possibility that this is due to the method used to measure linkages. When normalizing the variable it is assumed, perhaps incorrectly, that larger firms are more likely to have a large supplier network, since these are typically older than smaller firms and, therefore, may have had better chances to establish linkages with other firms. If this is so, the role of linkages for larger firms is underestimated.

Nevertheless, these results suggest that firms that overcome the disadvantages of being foreign in a local or regional market by linking up with firms in the domestic economy benefit in terms of higher productivity performance. By so doing, they reduce the lead domestic firms may have over foreign firms in terms of these factors.

With respect to forward linkages, the share of manufacturing buyers is used as indicator, based on the notion that closer linkages in terms of technology may involve learning effects in addition to the earlier assumption of minimizing transaction costs. The results indicate that this may be the case. Foreign firms that sell a larger share of their output to other manufacturing firms seem to benefit from this in terms of higher labour productivity. As in the case of backward linkages, the effect, however, is not economically large. Foreign manufacturing firms that sell a larger share of output to other manufacturing firms are, on average, 0.2 per cent more productive, in terms of labour and TFP, than foreign firms without such linkages.

The analysis on backward and forward linkages suggests that the relationship to productivity may be country- and sector-specific. These results in detail are omitted here but, at sector and country levels, negative and positive relationships are found. The positive effect of backward linkages is largely confined to the low-technology manufacturing sector and the forward ones to the medium-technology manufacturing sector.

The scope for externalities is linked to the motivation for foreign investment, which, in turn, relates to the stage of development of the country. If foreign firms locate in relatively low-income countries because of low labour costs or to gain access to natural resources, externalities may be confined to demonstration effects. In more advanced economies that attract foreign investment with higher technology content, technology transfer may occur. At one extreme, investment may be efficiency-seeking when domestic economies are more advanced than investment arriving from abroad. In this case, foreign firms attempt to profit because of location, rather than the other way around. South-South investment is one example of such investment.

Also the ability to absorb and make use of potential externalities is related to the stage of development. For example, countries with abundant human capital should have greater possibilities to learn from and exploit knowledge transfer. Countries with more flexible labour markets, where the work force moves between firms relatively easily, may have more knowledge turnover. By contrast, where technology gaps between the domestic sector and foreign firms are too wide, expectations of externalities may need to be curbed. In this instance, technology may be inappropriate and technology transfer beyond reach. This relates to the concept of appropriate technology.

Foreign investment has different motivations to locate in certain countries. Empirically, this may cause some issues with the interpretation of results. For example, if foreign firms are efficiency-seeking and, thus, attracted to a sector because it is performing well, this may not be an instance of positive externalities. On the other hand, if foreign firms are seeking to lower labour costs and apply slightly superior technology, foreign investment is rather driving sector performance, with causality likely to be in the opposite direction. Investment in Africa, it can be argued, is more likely to be resource- than efficiency-seeking, thus, driving performance. From an analytical viewpoint, this resolves a central large issue allowing for fairly straightforward interpretation of results.[16]

16 One criticism against cross-sectional studies is that they may give biased results because of inability to disentangle productivity differences across sectors correlated with foreign presence but not caused by them (Görg and Strobl, 2001). However, this is unlikely to be a major problem with Africa data, since foreign investors are generally not attracted to Africa for efficiency-seeking reasons.

The previous chapter established that foreign firms are more productive than domestic ones. This chapter tries to gauge whether the finding has significantly positive effects on the domestic economy and, if this so, its magnitude and the transmission channels. However, measuring externalities is far from straightforward. While this chapter gauges externalities by way of econometric techniques, in many instances deep case studies may be needed for illustrative purposes. However, case studies on their own may be anecdotal in nature disallowing rigorous handling and testing of information. The technical appendix provides a detailed explanation as to how and with what dimensions externalities are measured.

Organization of the rest of the chapter

The next section presents the results of the spillover analysis, organized into four different themes: productivity externalities, labour market externalities, output and profit externalities and growth externalities.

The first theme refers to the impact of foreign presence on domestic firms' labour productivity and TFP, the second to the impact on domestic firms' employment and wages, the third to the impact on domestic firms output and profits and the fourth to the impact on domestic firms' labour productivity, employment and output growth. For each, results of firm ownership, origin and type analyses are presented. For each of these, results pertaining to horizontal externalities are presented, followed by a presentation of results pertaining to vertical externalities. This is done for a pooled dataset as well as ISIC2 sectors[17] individually. For separate sector analysis, only sectors for which there are at least 80 observations are included. Smaller samples are less analytically meaningful. In addition, three meta-sectors receive attention, which indicate whether activities belong to a low-, medium- or high-technology sector. When sectors are analyzed, it is for the survey countries as a whole, since there are insufficient country- and sector-specific data

17 This level of aggregation is still too crude to do full justice to the concept of externalities and analysis undertaken here. At this aggregation level, activities, to some extent, still range from unskilled to sophisticated as well as from labour- to capital-intensive.

points. Before the presentation of results, a brief note on how to interpret the coefficients is included. This is crucial because some of the estimated coefficients may appear too large, especially in the case of vertical spillovers. Generally, higher estimates may be readily acceptable in the case of vertical externalities because it is the impact on all up- and downstream sectors taken together, rather than on one, that is estimated.[18]

18 Estimates of horizontal and vertical externalities cannot be interpreted at face value because these are percentage point changes of foreign presence. In terms of per cent, the change is smaller.

Box 3.8 *Evidence of externalities*

In a review of 40 studies, Görg and Greenaway (2004) refer to 19 cases of positive spillovers, eight of which were obtained in cross-sectional studies such as this report. Few of the studies, however, focus on spillovers for developing countries. Cross-sectional studies tend to find stronger evidence of positive externalities (Görg and Strobl, 2001). Whereas they attribute this to an upward bias due to causality issues, in cases where levels of performance are analyzed it cannot be excluded that stronger results are explained by the long-term nature of the data. The levels indicate the result of a longer-term dynamic evolution of which only the outcome is observed.

There is also an indication that stronger results are obtained when foreign presence is measured in terms of employment, rather than output, share. A meta-analysis covering 67 countries, by Havranek and Irsova (2010), suggests that a larger number of observations are positively correlated with finding evidence. On the other hand, use of newer data seems to lead to less evidence of externalities, generally but, actually, more positive spillovers (Diebel and Wooster, 2006). In addition, there is a tendency to find less evidence the more disaggregated the data. The meta-analysis of Mayer and Sinani (2009) hint that productivity spillovers are related in U-form fashion to host countries' stages of development, measured as GDP, human capital and institutional development.

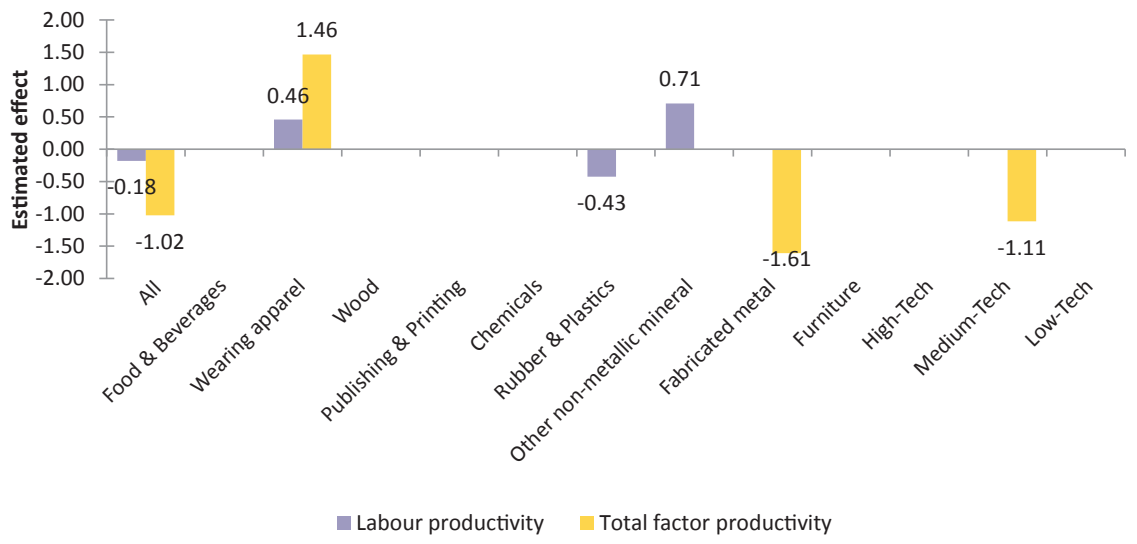
Negative externalities have been recorded by several studies as well, in developing and transition economies. The most common explanation refers to increased competition in product and factor markets, which crowds out domestic industry. If TNCs have lower marginal cost of production, for example, they can undercut domestic prices attracting away demand from domestic firms (Aitken and Harrison, 1999). However, it may be purported that while the short-term competition effect is negative, there may be efficiency gains in the longer-term. For example, Kokko (1996) provides such evidence for Mexico. The issue is complicated by the fact that firms with the lowest absorptive capacity may not compete directly with foreign firms and, therefore, may suffer less or not at all (Girma and Görg, 2005, 2007).

The link between externalities to be had and those actually absorbed and made use of ultimately determines whether there is any evidence. The notion of appropriate technology (Basu and Weil, 2008) appears to fit here, implying that complexity of technologies transferred and initial technology gap need to be factored in. For example, Kokko et al. (2001) provide evidence to this effect for Uruguay. How the issue of technology gap actually works seems to be complex. For example, Chuang and Hsu (2004) find externalities in low- and high-technology gap sectors, with higher in the former, while Sjöholm (1999) observes higher spillovers, in the case of Indonesia, when the technology gap is wider.

The most commonly used indicator for absorptive capacity of domestic firms is some measure of human capital (Sinani and Meyer, 2004) but also R&D (Kinoshita, 2001). The tendency seems to be to interact the indicator of absorptive capacity with that of foreign presence leading to suggestions of non-linear effects. Results appear to differ across countries, in terms of size of externalities and sign. A more advanced step would be to consider threshold analysis, in the sense of measuring level of human capital or R&D at which there are externalities, rather than simply using an interaction term that shows there is a threshold. Girma (2002) and Chuang and Hsu (2004) are examples of the latter.

There is some evidence for vertical spillovers. For example, Kugler (2001) finds support for Colombia but little for horizontal spillovers, while Javorcik (2004) obtains evidence for backward but little for forward or horizontal spillover linkages in the case of Lithuania. Similar results are found by Blalock and Gertler (2003, 2008) for Indonesia. Although only limited, Javorcik (2004) finds evidence of negative externalities for forward linkages.

Figure 3.6 *Horizontal labour productivity externalities, by sector*



Theme one: productivity

Firm ownership and horizontal externalities

As shown in Figure 3.6, domestic labour productivity for all survey countries is negatively affected by increased foreign presence in the same sector. An increase of such presence by one percentage point decreases domestic productivity performance by 0.18 per cent. In the pooled sample, horizontal labour productivity externalities are, thus, fairly modest. This is expected since the coefficient reflects the impact of all individual country results, some of which are negligible[19].

A strong negative externality is registered for foreign presence on TFP. At the level of all survey countries, a percentage point increase in foreign presence decreases TFP by 1.02 per cent, a one-on-one effect. This is a considerable effect, which needs to be qualified by understanding what a percentage point change actually implies. Since the median foreign presence for the whole survey country sample is 0.42 (Table 3.2a), a percentage-point decrease in practice means a decrease of just less than 0.5 per cent. This, in turn, reduces the per cent impact from one to some 0.5 per cent.

The first sector result to notice for productivity spillovers is that there is a mix depending on the sectors in which foreign investors established themselves. While domestic labour productivity in the pooled sample decreases with increased foreign presence, for example, the opposite relationship is observed in wearing apparel and other non-metallic mineral products. There is a decrease for rubber and plastics. Domestic TFP is crowded out by foreign investment in the survey countries as a whole. This effect occurs in the medium-technology sector and fabricated metal. The effect is positive in wearing apparel. This means that there are indications of both crowding-in and -out of domestic firms depending on the sector foreign firms enter. Accordingly, the result shows that IPAs should not haphazardly promote foreign investment as there is scope for attaining max returns on efforts.

Firm ownership and vertical externalities

Positive/negative horizontal spillovers might be strengthened or outweighed by positive effects on other sectors, that is, vertical externalities. Figure 3.7 provides an impression of serious technology transfer in low- and medium-technology meta-sectors as well

19 It is not obvious how best to measure foreign presence. In the case of investigating the impact of foreign presence on domestic labour productivity a more logical foreign presence indicator simply might be foreign labour productivity. This would not alter the results in a qualitative fashion. However, the size of negative spillovers increases to -0.32 in the survey countries.

Figure 3.7 *Vertical productivity externalities, by sector*

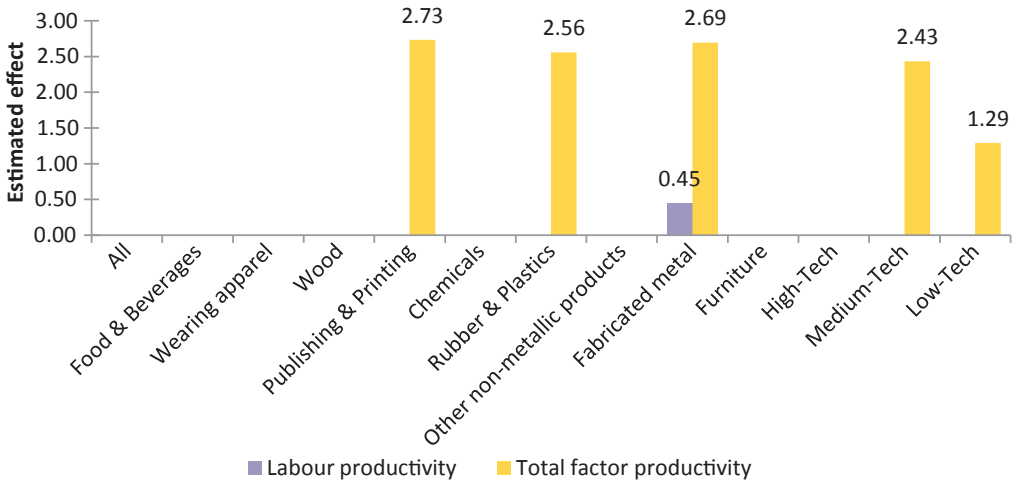
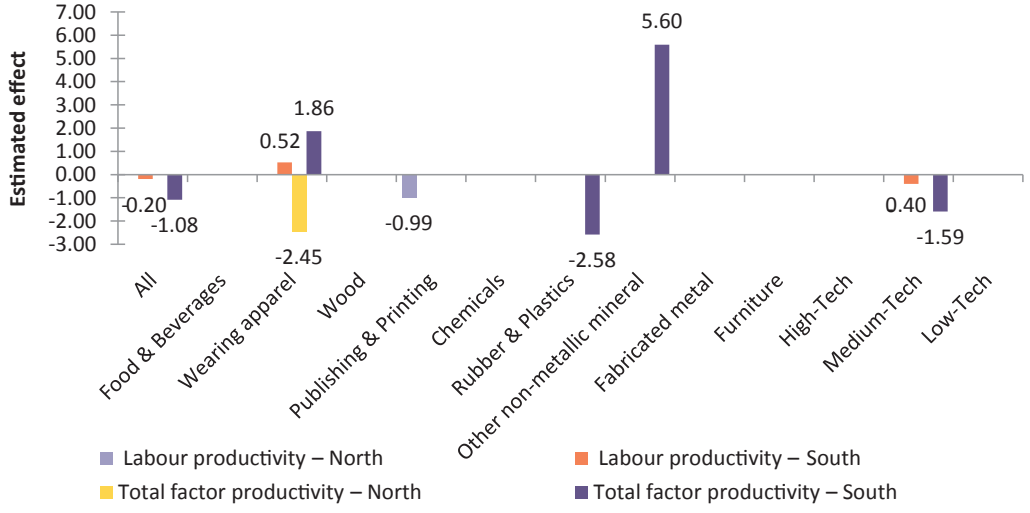


Figure 3.8 *Horizontal productivity externalities, by sector and origin*



as in publishing and printing, rubber and plastics and fabricated metal.

This is a positive and important conclusion to be drawn. Increased foreign direct investment induces positive vertical externalities into low- and medium technology-sectors. This suggests that, when foreign firms establish themselves in Africa, they increase demand for low- and medium-technology inputs. In addition, technology transfer appears to be involved. If foreign firms cooperate with selected suppliers, some of this may be voluntary. However, it may not be the most recent technology being transferred (Moran, 2011). Involuntary technology transfer cannot be excluded, whether it occurs through innocuous observation or sheer copying.

Firm origin and horizontal externalities

Investor origin may shed more light on sources of negative externalities. Figure 3.8 shows that domestic labour productivity in the survey countries falls when Southern investors increase their employment presence in the same sector.

Southern foreign presence seems to be responsible for the negative result in the survey countries, since domestic labour productivity decreases by 0.20 per cent for each percentage point increase in foreign presence. There are also negative spillovers in the medium-technology sector, while wearing apparel increases. Northern investment decreases domestic productivity performance in publishing and printing.

Figure 3.9 *Vertical productivity externalities, by sector and origin of investor*

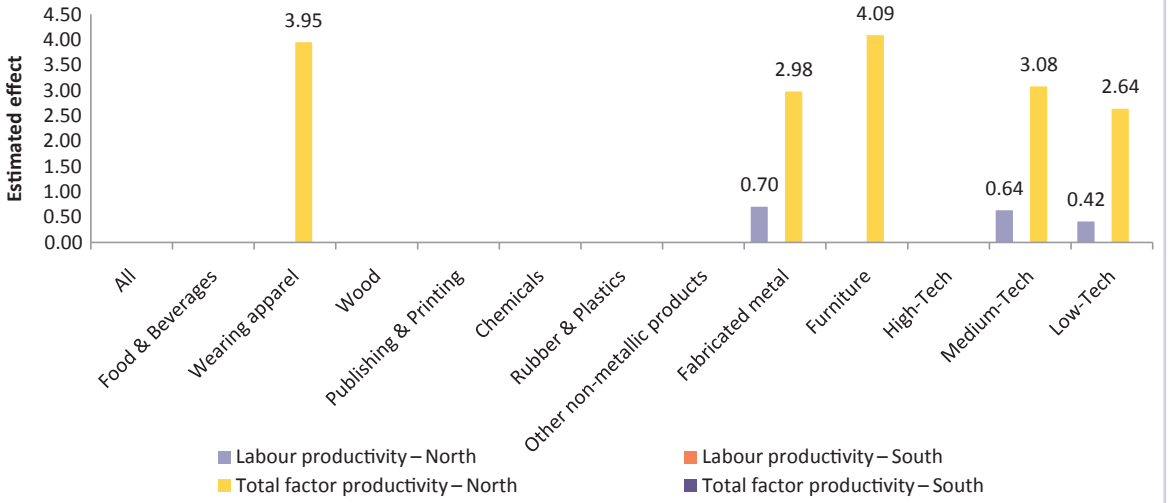
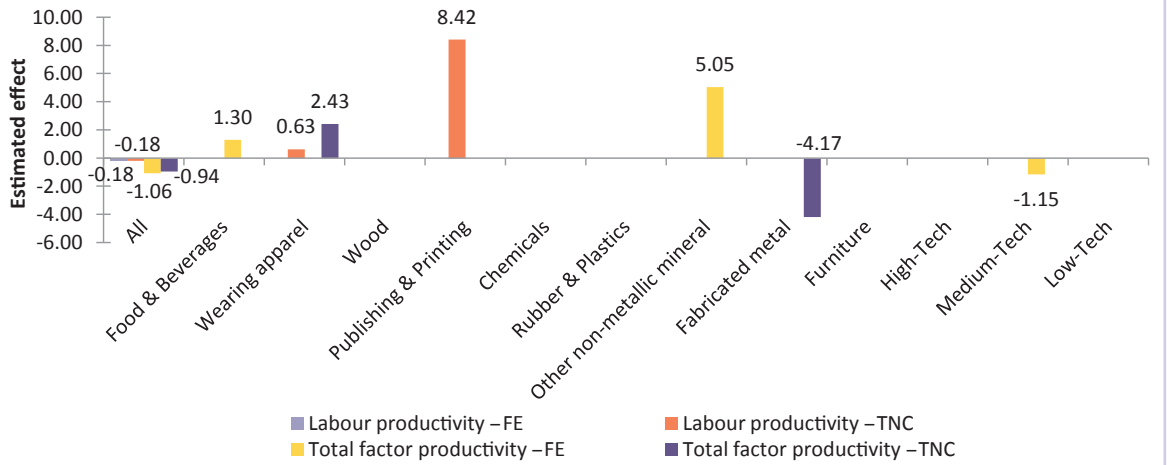


Figure 3.10 *Horizontal productivity externalities, by sector and type of investor*



For TFP, the picture is brighter, although foreign presence in the base model for the pooled sample continues to show negative externalities originating from firms from the South. The externalities are also negative in the medium-technology sector as well as in rubber and plastics. Positive spillovers are recorded in wearing apparel and other non-metallic mineral products. Negative externalities linked to Northern firms occur in wearing apparel. The largest of these, 5.59, translates into some 1.12 per cent increase, which is not implausible

Firm origin and vertical externalities

With regard to firm origin, neither labour productivity nor TFP vertical externalities seem to occur in the case of Northern and Southern investment when the whole sample of survey countries is analyzed (Figure 3.9). However, there are more results at sectoral level. For labour productivity, the observed externalities are positive and originate from Northern investment. These appear in the low- and medium-technology sectors as well as in fabricated metal.

For TFP, there are positive Northern externalities in the low-technology sector as well as wearing apparel, fabricated metal and furniture. There are no Southern externalities. The analysis shows that Northern investors in such low-technology sectors as wearing apparel and furniture seem to bring productivity gains beyond first-layer effects.

Firm type and horizontal externalities

Figure 3.10 shows that in the survey countries domestic labour productivity is affected independently of whether foreign presence consisted of foreign entrepreneurs or TNCs. However, these are very small horizontal externalities, at 0.01 and 0.04 per cent after calculation based on foreign presence shares. On the contrary, TNCs' investments affect positively wearing apparel as well as publishing and printing.

In the case of TFP, the impact of TNC presence seems sector-specific, as the average firm in the survey countries is negatively affected by increased presence of FEs and TNCs. For example, food and beverages and other non-metallic mineral products benefit from FE investment, while wearing apparel is positively affected by the presence of TNCs. By contrast, TNC investment has a negative impact in fabricated metal, while the medium-technology sector is negatively affected by FEs.

Firm type and vertical externalities

Figure 3.11 shows that no vertical spillovers are registered at the level of all survey countries. At sectoral level, domestic labour productivity is positively affected by increased foreign presence of TNCs in the low- and medium-technology sector as well as in fabricated metal. FEs' presence has a positive impact on domestic labour productivity in rubber and plastics.

Domestic TFP is positively affected by FE presence in rubber and plastics as well as furniture. While negative for rubber and plastics, presence of TNCs is positive for fabricated metal. Thus, positive labour productivity and TFP externalities are found for both FEs and TNCs, with the difference that the former affects low-technology and the latter more sophisticated activities.

This insight provides IPAs with opportunities as well as challenges demanding awareness as to countries' stages of development. Without such knowledge, resources and efforts may well be channelled into non-beneficial activities.

Theme two: labour market externalities

Foreign ownership and horizontal externalities

There are few horizontal wage externalities. For the survey countries as a whole, figure 3.12 shows that a percentage point increase in foreign presence is associated with 0.05 per cent decrease in domestic wages, which is a modest effect. At sectoral level, there are several cases of wage increases in the low- and medium-technology sector when foreign presence increases. More specifically, this increase might be driven by food and beverages, other non-metallic mineral products and fabricated metal. This conformed to the view that increased competition

Figure 3.11 *Vertical productivity externalities, by sector and type of investor*

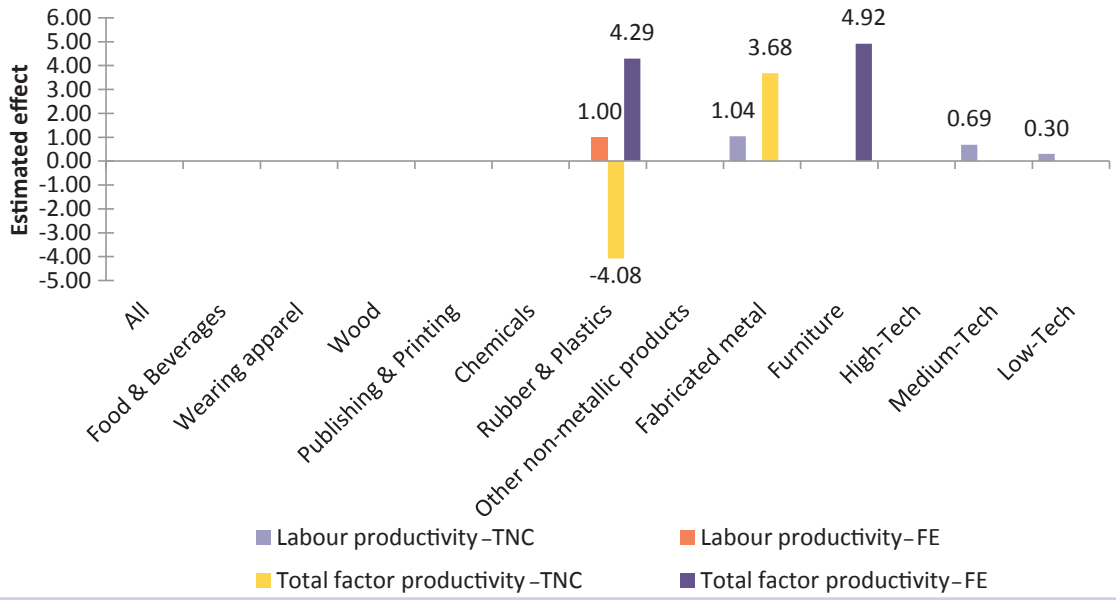


Figure 3.12 *Horizontal labour market externalities, by sector*

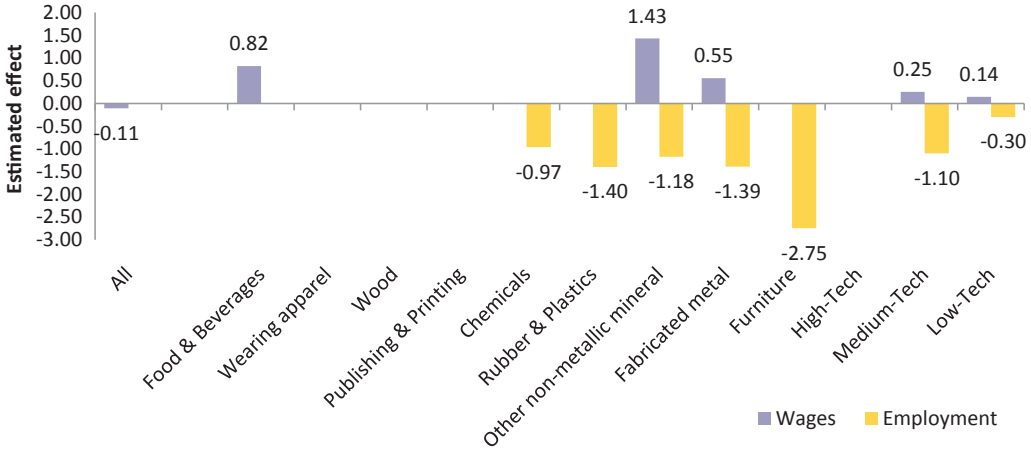
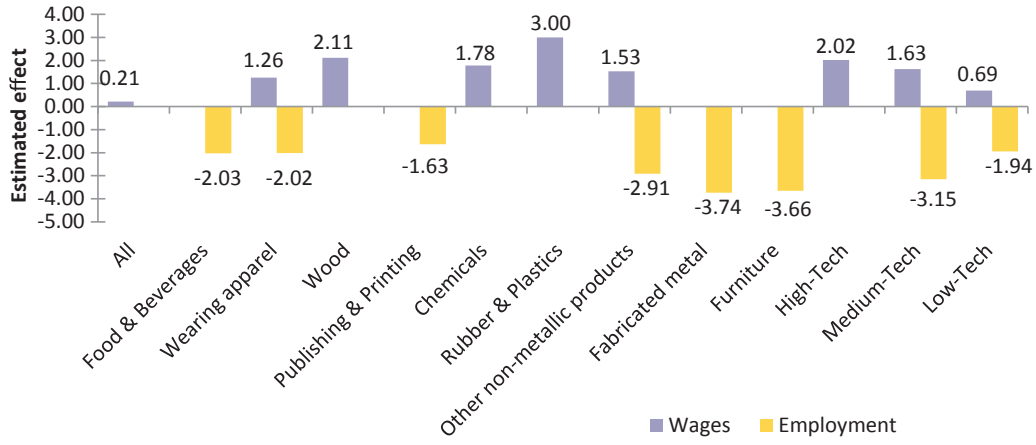


Figure 3.13 *Vertical labour market externalities, by sector*



drives up domestic wages through improved productivity performance.

By contrast, it is striking how hard foreign investment affects employment. In the low- and medium-technology sectors, the figure reveals that domestic employment suffers from increased foreign presence, in which case a percentage point of such presence reduces employment among domestic firms by -0.30. In chemicals, rubber and plastics, other non-metallic mineral products, fabricated metal and furniture, externalities are negative. In short, productivity and wage increases come at a cost, namely, that of job reduction. This points to an important trade-off between economic and social goals, something which needs to be factored in by policymakers.

Foreign ownership and vertical externalities

Figure 3.13 shows that serious impact on domestic employment generation appears to ensue from increased foreign presence, as evidenced by negative parameters for the low- and medium-technology sectors as well as food and beverages, wearing apparel, publishing and printing, other non-metallic products, fabricated metal and furniture. This means that competition effects due to increased foreign pressure also take place in upstream sectors. To be selected as suppliers, producers of intermediate goods, for example, would have to offer competitive prices and services and this can only happen if it is sufficiently productive. As part of their establishment in Africa, if foreign firms seize control of parts of the supply chain, this would likely result in job reduction and, hence, vertical spillovers.

In conformity with positive productivity externalities, the figure suggests that domestic wages in the survey countries as a whole as well as the low-, medium- and high-technology sectors rise, with the largest wage increase being in the latter sector when foreign investors enter the country. The other sectors with wage increases are wearing apparel, wood, chemicals, rubber and plastics and other non-metallic products. These effects are associated with improved productivity and release of surplus labour. They are also consistent with a view that those workers that remain are likely to be relatively skilled.

Firm origin and horizontal externalities

Information on investor origin might help IPAs' decision-making. As Figure 3.14 demonstrates, generally, domestic wages are increasing through foreign competition, especially by Northern investment. Yet, Northern horizontal externalities appear to be negative for the survey countries as a whole. Positive Northern externalities occur in low- and medium-technology meta-sectors, specifically, food and beverages, wood, other non-metallic mineral products and fabricated metal. Only wearing apparel suffers from negative spillovers.

By contrast, negative Southern externalities occur in the low-technology sector as well as rubber and plastics. Wearing apparel and other non-metallic mineral products enjoy positive externalities. For SSA countries in which low-technology manufacturing appear most relevant, Northern investors might bring improved earnings. This follows as a consequence of Northern firms being more productive than Southern ones.

The chart shows that, overall, foreign presence has a negative effect on employment. It seems that Horizontal externalities are of the negative kind, independent of where the investor originates. The same chart shows that when investors are from South, domestic employment falls in the low-technology sector. In the case of individual sectors, the worst affected are other non-metallic mineral products and furniture, followed by rubber and plastics and food and beverages. In Northern externalities, negative ones occur in the medium-technology sector, as manifested by negative spillovers in rubber and plastics, fabricated metal and furniture. The only sector that is outside the pattern is wearing apparel, which shows positive horizontal externalities. The observed job reduction thus is independent of investor origin.

Firm origin and vertical externalities

Since higher wages is a welcome effect, for, at least, those workers that remain employed, IPAs need to find out in more detail from where foreign investment originates as well as the types of investors driving salary increases. The base model produces positive Northern and negative Southern externalities when the entire survey country sample is analyzed (Figure 3.15), indicating that Northern, rather than Southern, investors are generating wage increases. This is overwhelmingly also the case in low-, medium- and high-

Figure 3.14 *Horizontal labour market externalities, by sector and origin*

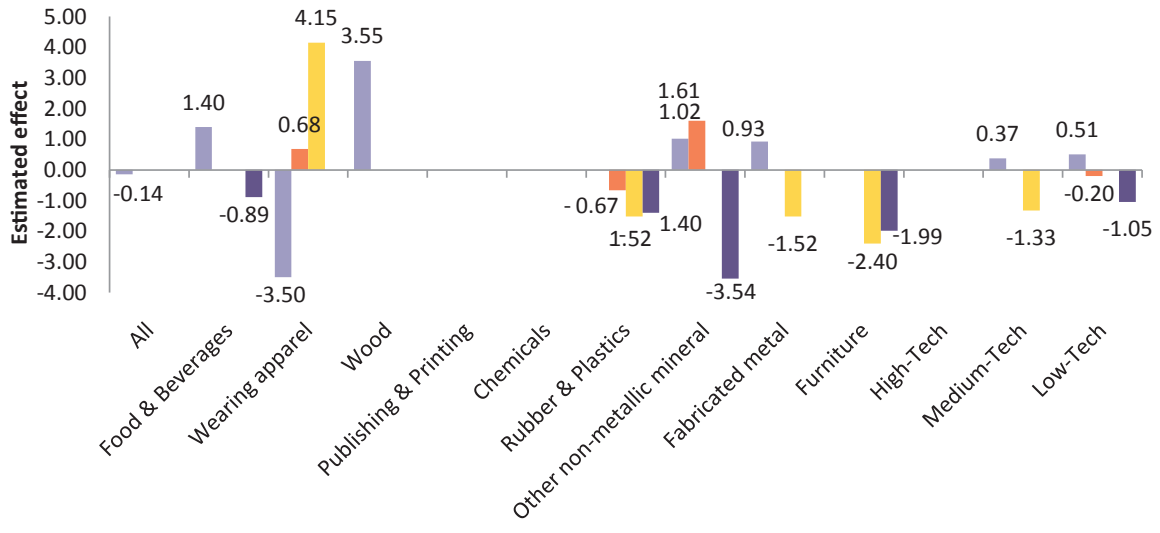


Figure 3.15 *Vertical labour market externalities, by sector and investor origin*

Figure 3.16 *Horizontal labour market externalities, by sector and type of investor*

technology sectors, although the South contributing to wage increases in the medium-technology sector. At individual sector level, Northern investment triggers salary increases in other non-metallic mineral products, rubber and plastics and wood. Southern externalities only appear in other non-metallic mineral products.

For the base model, negative employment externalities are found in the survey country sample (-1.20). This suggests that domestic employment is affected mainly by Northern investment. The negative effect emanates from negative externalities in low- and medium-technology sectors. By delving further into individual sectors, these results are supported by negative externalities in food and beverages, other non-metallic mineral products, fabricated metal and furniture. Negative Southern employment externalities appear also in low- and medium-technology sectors as well as in food and beverages, publishing and printing, rubber and plastics, other non-metallic mineral products, fabricated metal and furniture. Choosing between Northern and Southern investment is, thus, not the answer to the question as how to avoid job reduction.

Firm type and horizontal externalities

Figure 3.16 shows that, for the survey countries as a whole, domestic wages are reduced by increased presence of TNCs, although the effect is minimal. By

contrast, TNC and FE presence raise domestic wages at sectoral level. FEs do so in food and beverages, wood, other non-metallic mineral products, fabricated metal and the medium-technology sector. TNCs increase wages in the low-technology meta-sector, food and beverages, wearing apparel, publishing and printing and other non-metallic mineral products. This increasing of wages in different sectors might reflect where TNCs and FEs operate, rather than being a consequence of inherent traits related to firm type.

At sectoral level, domestic employment in wearing apparel increases with the presence of FEs, while they are negative in rubber and plastics, furniture and the high-technology sector. Low- and medium-technology sectors are negatively affected by TNCs. Negative spillovers also occur in food and beverages, rubber and plastics, fabricated metal and furniture. Hence there are fever negative employment spillovers emanating from FE than TNC presence. FEs seem to bring positive horizontal labour externalities, while the opposite appears to be the case for TNCs.

Firm type and vertical externalities

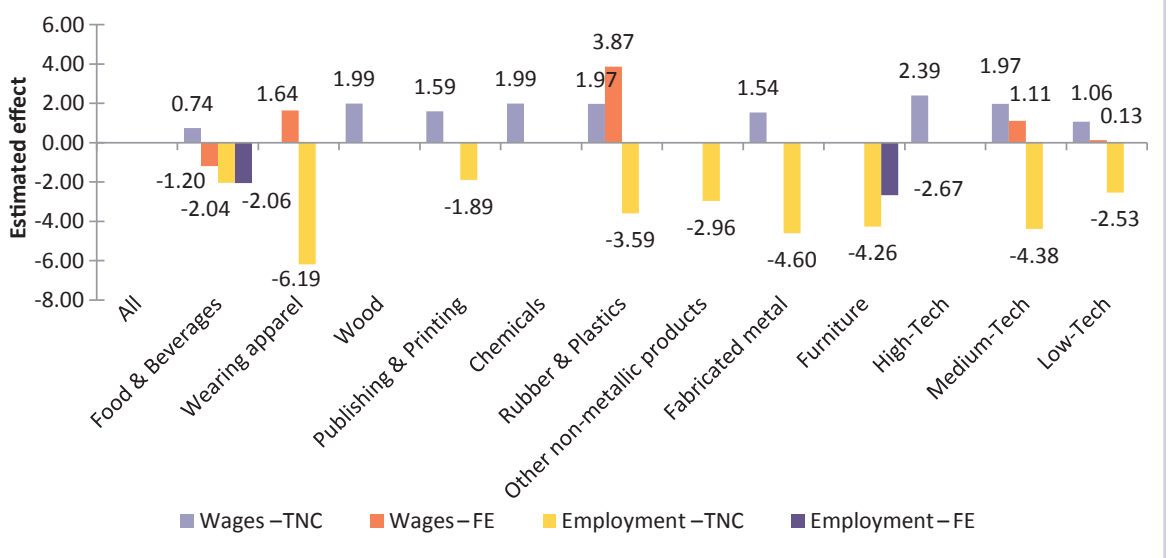
Figure 3.17 shows that TNCs generate most of the wage increases and that these occur in all meta-sectors, with high-, medium- and low-technology in that order. The largest increases take place in wood, chemicals and rubber and plastics, but the other sectors are close behind. FEs' presence increases domestic wages in low- and medium-technology sectors. Of both types of foreign investors, FE investment generates the largest domestic wage increase in rubber and plastics but also the only negative impact, in food and beverages.

These results reveal that, while both TNCs and FEs generate domestic wage increases, it is important to underscore that TNCs that help domestic workers increase their income to a much larger extent than FEs.

While North-South origin did not provide much guidance as to job reduction, consideration of type of investor could be more helpful. As Figure 3.17 shows, TNC investment is overwhelmingly negative almost across the board, in particular for low- and medium-technology sectors. At individual sector level, there are negative employment externalities for food and beverages, wearing apparel, publishing and printing, rubber and plastics, other non-metallic mineral products, fabricated metal and furniture. FE investment turns out to be more innocuous in that their investment is only negative for food and beverages and furniture.

Considering wage and employment spillovers together, a dilemma emerges. While TNCs are better at increasing wages, they are responsible for the lion's share of job reduction. The impact of increased FE presence is much more modest. In this choice one needs to factor in that employment reduction is part of structural change and mainly a short-term issue. In the longer term, productivity improvements increase

Figure 3.17 *Vertical labour market externalities, by sector type of investor*



employment, whereas, in other sectors, it is due to structural change.

Theme three: output and profit externalities

Foreign ownership and horizontal externalities

The negative horizontal spillovers into productivity documented earlier appear also for domestic output and profits (Figure 3.18). For the survey countries as a whole, this signals a decrease when foreign presence increases. The opposite relationship is observed in the wearing apparel and other non-metallic mineral products sectors, where domestic output increase with increased intra-sector foreign presence. Domestic profits are affected in the chemicals and fabricated metal sectors as well as in all meta-sectors, as with low-, medium- and, in particular, high-technology. The only exception is the positive effects for wearing apparel. Thus, it crowding out seems to take place in terms of output and profits as well as domestic productivity.

Foreign ownership and vertical externalities

Figure 3.19 shows that there is only one case of output externalities – positive in fabricated metal – and one of profit externality - negative in food and beverages. Other than these, there are no spillover effects onto domestic output and profits.

Firm origin and horizontal externalities

Figure 3.20 shows that, overall, foreign presence has a negative effect on output and profits. The survey

Figure 3.18 *Horizontal output and profit externalities, by sector*

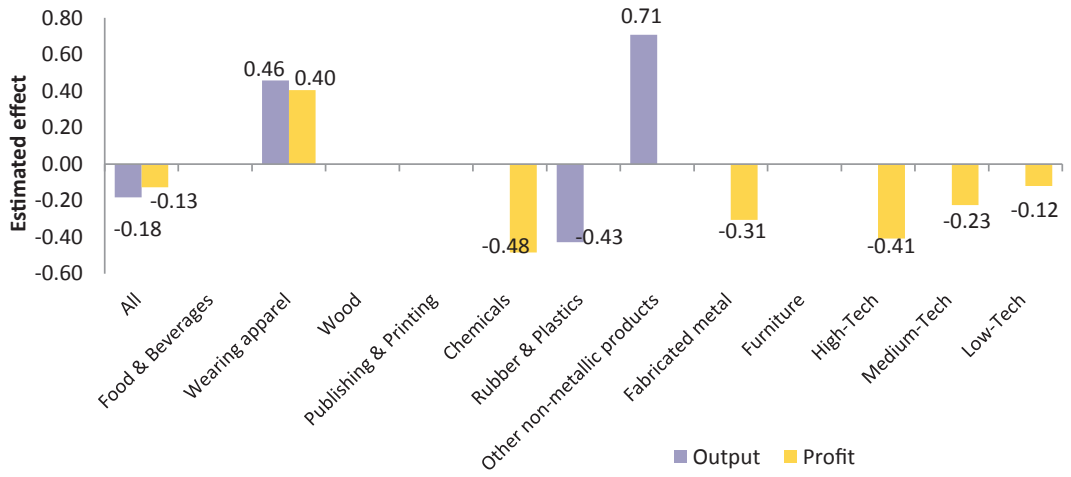


Figure 3.19 *Vertical output and profit externalities, by sector*

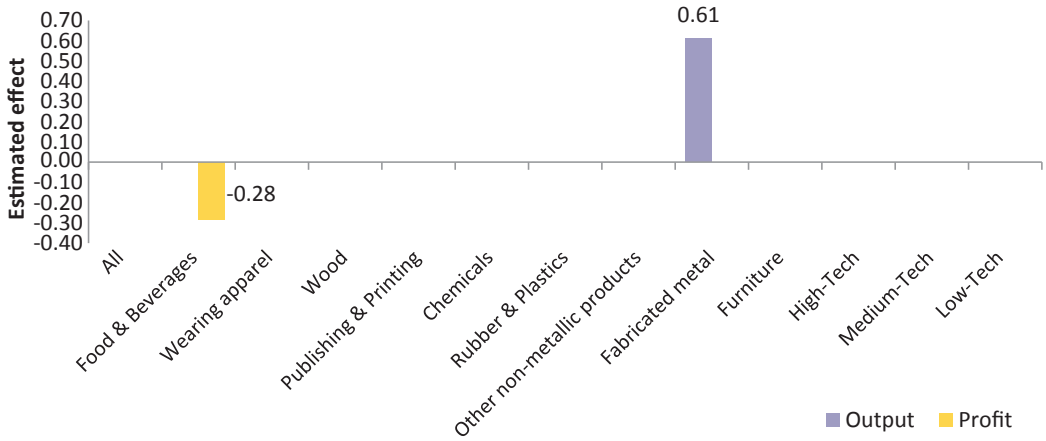
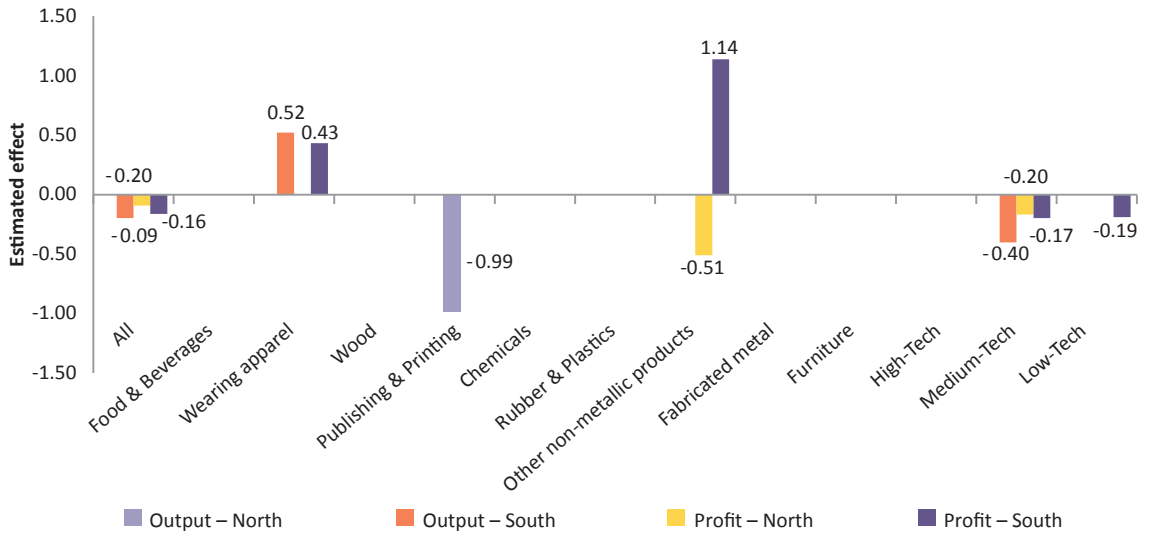


Figure 3.20 *Horizontal output and profit externalities, by sector and origin*



countries are somewhat affected on output and profits by Southern presence. Horizontal externalities are of the negative kind, independent of investor origin.

In terms of output generation, the base model for the survey countries as a whole delivers negative South externalities. Negative South externalities also occur in the medium-technology sector, while they are positive in wearing apparel. Negative Northern externalities occur in publishing and printing.

For domestic profits, the base model for the survey country sample produces both Northern and Southern externalities. Negative Southern externalities occur in low- and medium-technology sectors. There are positive effects in wearing apparel and other non-metallic mineral products. Northern externalities characterizes the medium-technology sector, where they are negative, as well as in other non-metallic mineral products.

Firm origin and vertical externalities

Positive Northern output externalities appear in low-and medium-technology meta-sectors and in fabricated metal (Figure 3.21), while there are no Southern externalities. For profits, there are negative Northern externalities for food and beverages and wearing apparel but no Southern externalities.

Firm type and horizontal externalities

Figure 3.22 demonstrates that, in the sample of all survey countries and domestic output, negative spillovers emanate from FEs and TNCs. Rather than

Figure 3.21 *Vertical output and profit externalities, by sector and investor origin*

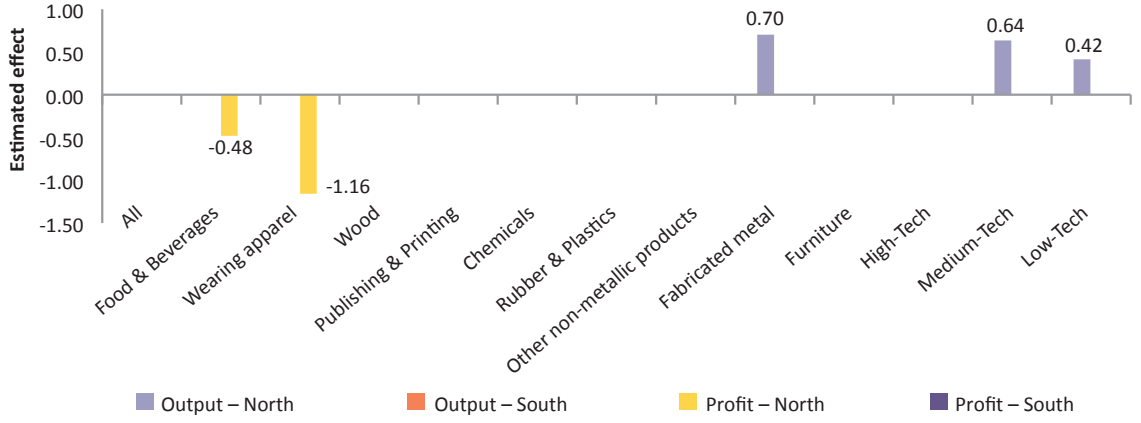


Figure 3.22 *Horizontal employment, output and profit externalities, by sector and type of investor*

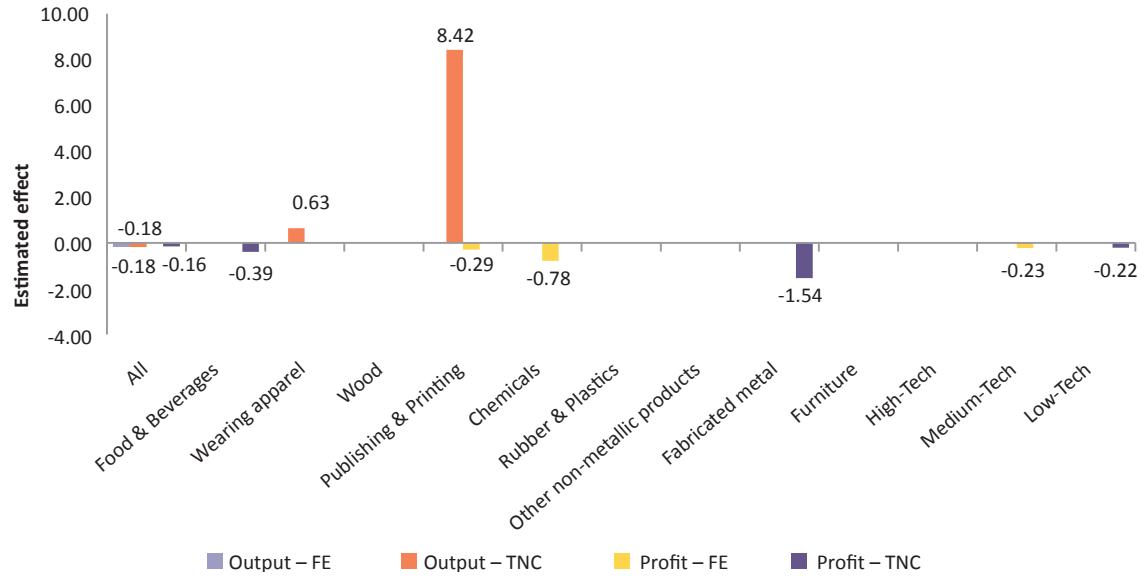
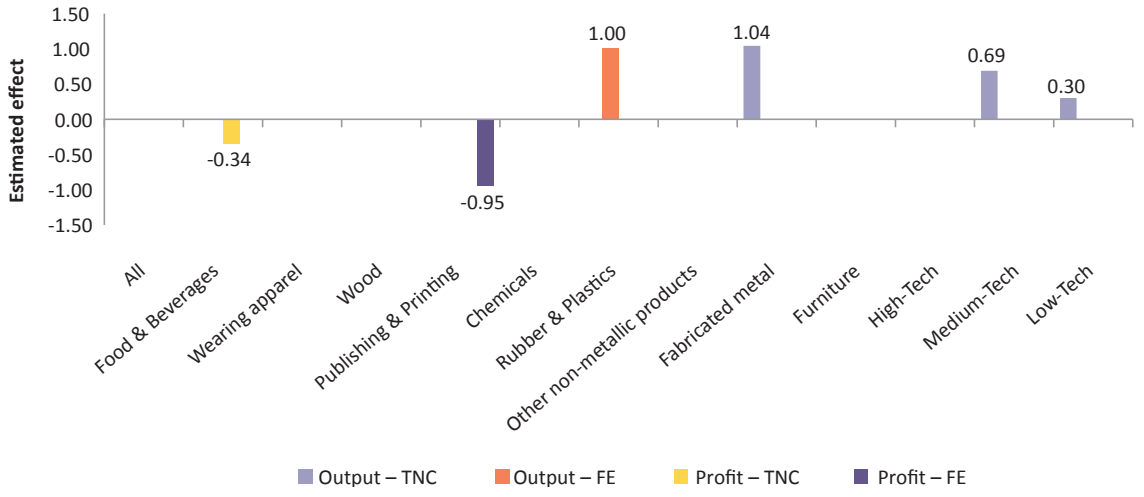


Figure 3.23 *Vertical employment, output and profit externalities, by sector and type of investor*



FEs' investment, it is TNCs' that negatively influence domestic profits in the survey countries.

By contrast, FE presence has a negative impact on domestic profits in the medium-technology sector, in particular, in publishing and printing and chemicals. The presence of TNCs affects domestic profits in the low-technology and fabricated metals sectors. The differential impacts of TNCs and FEs are potentially important information for IPAs, as they point to the need to take into consideration such critical elements as structural change and national development plans.

Firm type and vertical externalities

Domestic output in low- and medium-technology sectors increases with increased presence of TNCs (Figure 3.23). In two sectors, fabricated metal and rubber and plastics, TNCs and FEs, respectively, generate positive output spillovers. However, the effect of TNC presence on domestic profits is negative in food and beverages, something which occurs in publishing and printing for FEs as well. This suggests that the most positive vertical spillover results appear to have come from TNCs. For both groups of foreign investors, however, there are negative repercussions on domestic profits.

Figure 3.24 *Vertical growth externalities, by sector*

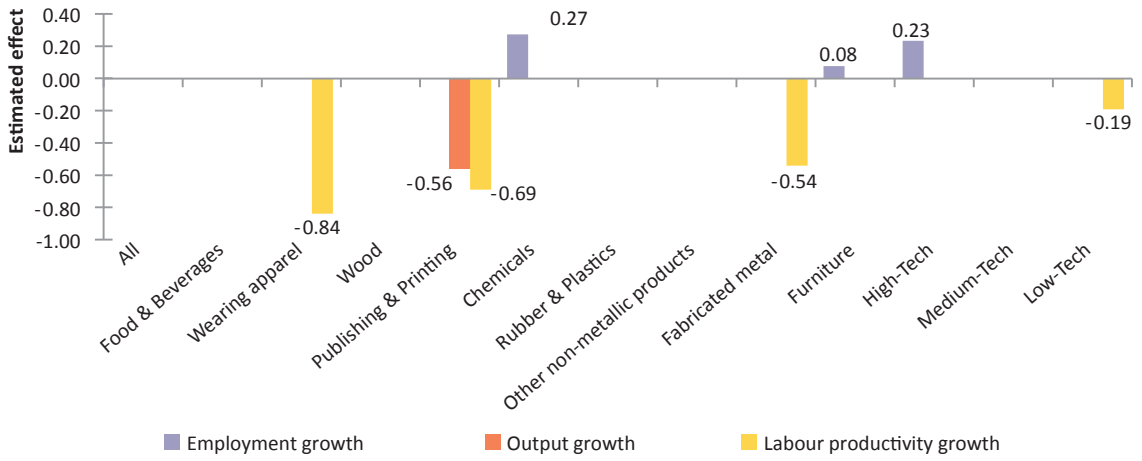
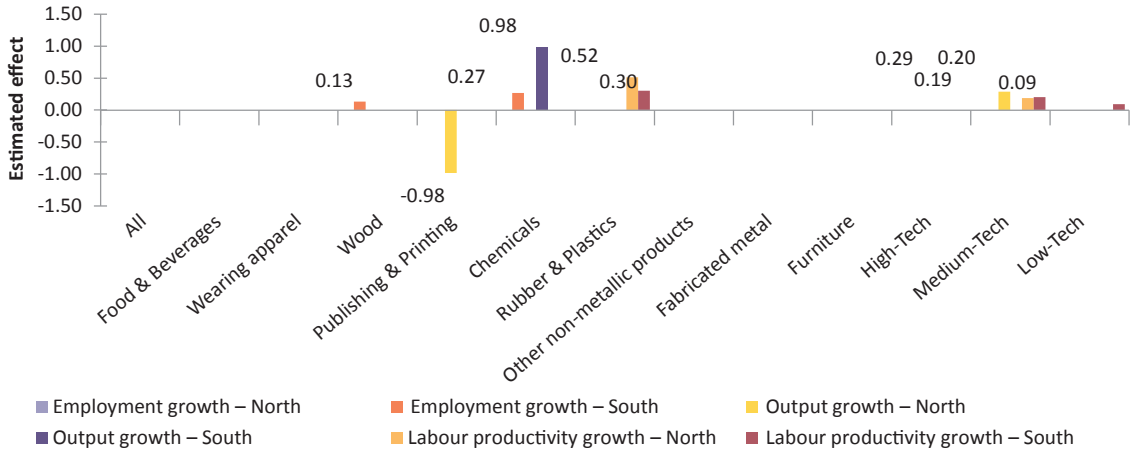


Figure 3.25 *Horizontal growth externalities, by sector and origin*



Theme Four: Growth Externalities

Foreign ownership and horizontal externalities

Generally, domestic growth is only weakly affected when foreign firms enter the same sector. Nonetheless, while the rate of employment growth is unaffected by increased foreign presence, domestic output growth in the medium-technology sector increase by 0.17 percentage points. This effect spills over to stimulate labour productivity growth by 0.18 percentage points. Possibly this could be the result of improvements in rubber and plastics, although in other non-metallic mineral products is negative.

Foreign ownership and vertical externalities

In the case of domestic employment growth in other sectors, there are some positive externalities (Figure 3.24). For example, the rate of domestic employment growth increases in the high-technology and chemicals and furniture sectors. Domestic output growth, however, falls in publishing and printing with a higher degree of foreign presence.

Domestic labour productivity growth appears to be affected. In the low-technology sector, for example, increasing foreign employment presence by one percentage point is associated with decreasing domestic labour productivity growth by 0.19 percentage points. There are also negative effects

in wearing apparel, publishing and printing and fabricated metal.

Firm origin and horizontal externalities

The origin of this positive spillover can be traced back to Southern investment, which also generate positive spillovers for domestic employment growth in wood and chemicals where an increase in foreign presence by one percentage point is associated with 0.13 and 0.27 percentage points faster growth, respectively, in domestic firms (Figure 3.25). These are sectors that typically attract resource seeking investors from the South.

With investors from the North, domestic output growth increases as result of foreign presence in the medium-technology sector but decreases in publishing and printing. Southern output growth externalities, they occur in chemicals.

Domestic labour productivity growth seems to increase in low- and medium-technology sectors as well as in rubber and plastics as result of Southern investment, while Northern investment seems to be pushed upward in the same medium-technology meta-sector as well as in rubber and plastics.

Firm origin vertical externalities

The most striking result presented in Figure 3.26 is negative Northern output and labour productivity growth externalities as well as Southern labour productivity growth externalities across sectors, in particular in low-technology ones. The explanation is that Northern and Southern investor presence is associated with positive externalities for domestic employment growth in several sectors including chemicals, with Southern externalities having an edge over Northern ones. While change in labour productivity is a consequence of changes in output and employment, increase in employment is difficult to explain by increased demand, since, at the same time, output decreases. This suggests that there are other factors behind these growth developments not captured by the model.

Firm type and horizontal externalities

As shown in Figure 3.27, employment growth in the wood and publishing and printing sectors benefits from increased TNC presence. However, TNC investment has a negative impact on food and beverages as well as on furniture. By contrast, FE presence has a positive impact on domestic output

Figure 3.26 *Vertical growth externalities, by sector and origin of investor*

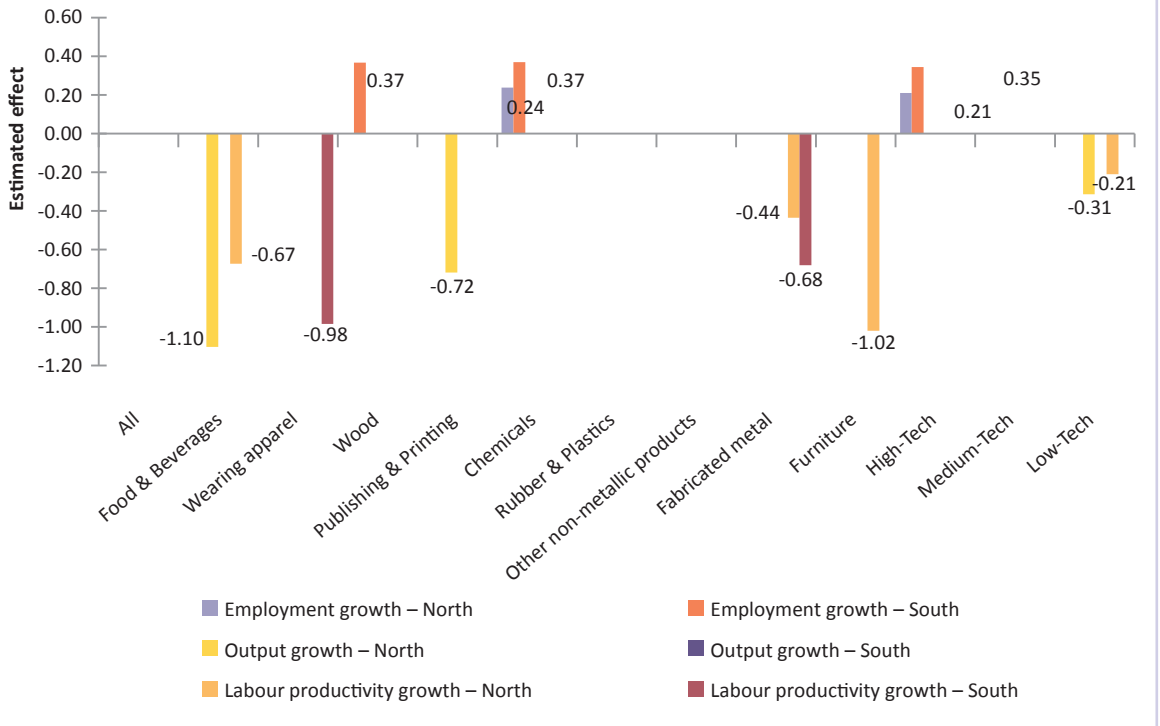


Figure 3.27 *Horizontal growth externalities, by sector and type of investor*

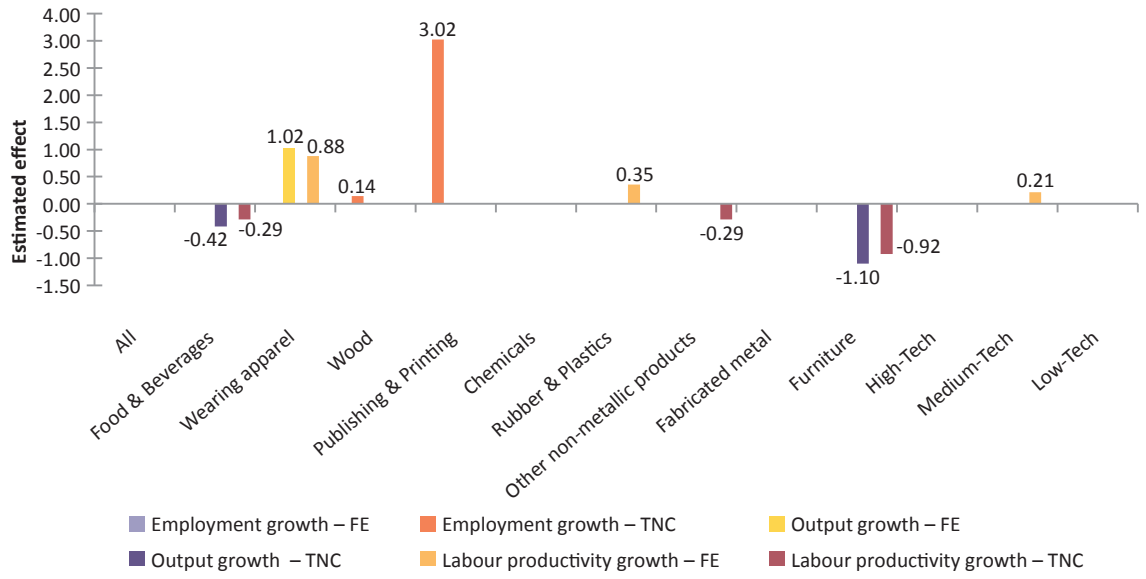
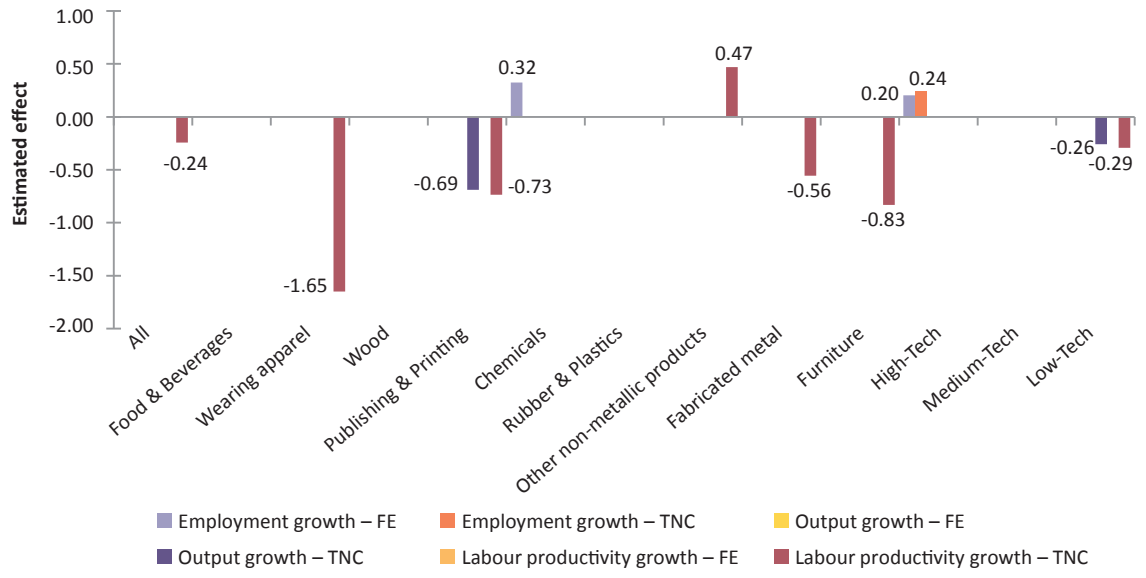


Figure 3.28 *Vertical growth externalities, by sector and type of investor*



growth in wearing apparel, which in turn drives the increase in labour productivity in this sector. A positive labour productivity effect of FE presence is also observed in the medium-technology meta-sector as well as in rubber and plastics. By contrast, TNC investment negatively impacts companies' labour productivity growth rate in food and beverages, other non-metallic mineral products and furniture. Overall, FE investment has favourable horizontal spillover effects on growth, while TNC investment has a mixed record.

Firm type and vertical externalities

The negative output and labour productivity growth externalities observed earlier are caused by increased TNC presence mainly in low-technology activities but also in chemicals and fabricated metal (figure 3.28). FEs played a more positive role, in that employment growth in chemicals increases with the presence of such investors. In the high-technology sector, positive spillovers occur from FEs and TNCs.

These results may point to differential requirements on supplier services by TNCs and FEs, where the demands of the former requires suppliers to become more competitive.

Summary: spillovers

Analysis of second-layer effects of FDI – in the form of horizontal or intra-sector effects of foreign firm entry – provide additional insights when combined with the results of the first-layer analysis. When the entire sample is analyzed, the overall result is that domestic productivity is negatively affected when foreign firms enter the same sector. This seems to hold true for labour productivity and TFP. In terms of origin, firms from industrialized countries seem to be much more associated with negative externalities compared to firms from developing countries. Moreover, negative externalities are even larger when TFP is the issue, especially in the case of foreign investors from the North. The reason may be that moving up the technology ladder is much more difficult than to accumulate production factors. If competition comes too early from mature foreign firms, this means that there is insufficient resilience. In terms of investor type, the summary appears to be one of negative horizontal externalities independent of whether foreign investors are TNCs or FEs, with the former being worse. Overall, foreign investment aimed at gaining market shares to some extent implies reduction in domestic productivity performance at the level of all survey countries as a whole.

At sectoral level, however, at least some sectors display evidence of positive externalities suggesting that domestic firms are able to improve their performance and meet increased foreign competition. Overall, however, the effect is negative in the high- as well as medium- technology meta-sectors. Thus, sectors with relatively low-technology seem to benefit, while there are crowding-out effects as activities became more sophisticated. This could be a sign that certain foreign investors, more advanced in their production, simply do not compete in low-technology activities. Likewise, domestic firms are affected where foreign investors choose to compete. In terms of impact of firm origin, investment originating in the South appears to generate more results than that from the North. The few positive effects come from Southern investment. If there were positive effects stemming from type of foreign investor, they tend to emanate from Southern FEs, while TNCs appear to exert negative externalities.

A somewhat more positive picture arises from analysis of vertical, or inter-sectoral, effects of foreign presence on domestic firms. Compared to intra-sector externalities previously observed, vertical externalities are much less prominent. When they do occur, they are, to a larger extent, positive. At aggregate level, no vertical productivity spillovers are registered for the entire sample of 19 economies. At sectoral level, increased foreign investment induces positive vertical productivity externalities in low-technology sectors, with some evidence of spillovers onto medium-technology sectors. This suggests that, when foreign firms establish themselves in Africa, they increase the demand for mainly low-technology local inputs. Technology transfer may also have been involved, at least according to TFP results. Some of this might be voluntary if the foreign firms cooperate with selected suppliers. Involuntary technology transfer cannot be ruled out, whether it occur through innocuous observation or sheer copying. Vertical productivity spillovers in the case of firm origin seem to a greater extent, to emanate from investors from industrialized countries than those from developing ones. In the sectors where they occur they are overwhelmingly positive. The positive effects are primarily confined to low- and medium-technology sectors. Moreover, positive productivity spillovers as a result of TNC and FE presence are registered in several sectors, although the former seems to be the one more commonly associated with the positive effect. Here, the effect is confined to low- and medium-technology sectors.

The overall finding for the intra-sector effect of foreign entry on employment, output, profits and wages is that horizontal spillovers onto employment show some positive sign, while in the case of output, profits and wages, they tend to be negative. Sub-sector analysis of intra-sector effects of foreign entry on employment, output and profits reveals the extent to which foreign investment affects employment. Foreign entry seems to lead to job reduction. Moreover, domestic profits and output are negatively affected. With regard to firm characteristics the effect mainly seems to be independent of the origin of the investor but not to the type of the investor. For employment and

output, positive effects are obtained from foreign entrepreneurs, rather than TNCs, which are negative for domestic economies. Domestic profits also suffer, with TNCs affected by more sophisticated production and FEs by less advanced activities.

Regarding labour market effects, wages seem to be suppressed for the survey countries as a whole, while at least at sub-sectoral level wages are pushed upwards. This supports the view that increased competition drives up domestic wages through improved productivity performance. The effect does not seem to be independent of firm origin or type. Northern investment seems to exert positive effects on domestic wages, while Southern investment results in a mix of outcomes. In terms of firm type, FEs seem to bring positive horizontal labour externalities, while the opposite appears to be the case for TNCs. There is a marked difference depending on levels of sophistication in sectors. This could point to different ways of entering sectors as well as how they compete. In addition, this suggests self-selection effects, where weaker domestic firms choose to exit and competitive domestic ones respond to entry of foreign firms.

The same seems to be true when employment, output and profit externalities are considered. Results for firm origin and type are, to a larger extent, mixed and country specific. They play very different roles for employment, output and profits in different countries. Presence of foreign firms seems to exert upward pressure on domestic wages for the survey countries as a whole, but the effect is not independent of origin of investors. More specifically, investors from industrialized countries seem to drive up wages in the economies they enter, while those from developing countries seem to suppress them. No vertical spillovers for growth are registered, except at country level, where results are mixed. The picture for employment is strikingly different. In the majority of sectors, foreign presence is associated with significant job reduction. The observed negative externalities seem to be equally associated with Northern and Southern investors indicating that choosing between them fails to answer the question as how to avoid job reduction. By contrast, negative employment externalities do primarily seem to be associated with TNCs leading to the conclusion that they should be avoided if job reduction is a main concern. This is unlikely, though, to be the complete picture because of first-layer productivity virtues brought about by TNCs. The significant, positive vertical wage spillovers in all meta-sectors, low-, medium- and high-technology constitutes an important finding of this section. Entry of investors from industrialized countries including TNCs was the primary influence for the upward pressure on wages. Nevertheless, entry of foreign entrepreneurs seems to exert upward pressure on wages but not to the magnitude of that of TNCs.

The overall conclusion on intra-sector effects of foreign entry on growth is that of positive growth externalities, which may suggest that while foreign investors drive domestic ones out of the market, those that remain see improvements in growth performance. However, the results seem to be sector specific.

Technical appendix

Base model (firm ownership)

Used for the pooled dataset of all survey countries and across individual sectors, the base model that was estimated relates performance to explanatory factors:

$$Y_i = \alpha + \beta_1 FO_i + \beta_2 X_i + \varepsilon_i \qquad (3.1)$$

Y_i is the indicator of firm *i*'s performance, FO_i is a dummy variable indicating foreign ownership and X_i is a vector of control variables.

The first step was to pool the entire sample and estimate the impact of foreign ownership on firm performance at an average level. In these regressions, country fixed effects were included to account for country-specific heterogeneity. In addition, controls for whether firms operated in low-, medium- or high-technology sectors were included. Thereafter, the regression was repeated for each manufacturing sector, in which case meta-sectors had to be excluded. The same procedure was followed when estimating firm origin, firm type and extent of foreign ownership models described below.

Firm origin model

Contingent on being a foreign investor, to the base model a dummy variable representing the origin of the investor was added:

$$Y_i = \alpha + \beta_1 NORTH_i + \beta_2 X_i + \varepsilon_i \qquad (3.2)$$

The focus was foremost on the sign and size of β_1 as the indicator of whether origin of investor affects the level of foreign ownership productivity dividend.

Firm-type model

The firm-type model is a version of the firm-origin model but with an interaction term that distinguishes between foreign firms as to whether they are TNCs or FEs:

$$Y_i = \alpha + \beta_1 TNC_i + \beta_2 X_i + \varepsilon_i \qquad (3.3)$$

The sign and size of β_1 provides the answer to whether type of investor affects foreign ownership productivity dividends.

Extent of foreign ownership model

As in the case of the previous two models, the sample remains restricted to foreign firms. The difference compared to the base model is also that the foreign-owner dummy variable is now replaced with a continuous variable representing the percentage share of foreign ownership:

$$Y_i = \alpha + \beta_1 FORSH_i + \beta_2 X_i + \varepsilon_i \qquad (3.4)$$

The variable *FORSH* is the indicator of the share of foreign ownership.

Measuring externalities

A typical regression focusing on measuring the extent of externalities explains a domestic performance indicator by a measure of foreign presence (*FOR*) controlling for a set of explanatory variables thought to influence domestic performance. For the report, it is plausible to build on the standard model encountered in the previous section. The difference now is that the left-hand side concerns only domestic, rather than all, firms:[1]

$$Y_{ij} = \alpha + \beta_1 X_{ij} + \beta_2 FOR_j + \varepsilon_{ij} \qquad (3.5)$$

Y is the performance measure of firm *i* in sector *j* (productivity, output, employment and wages), *X* is a vector of controls, *FOR* is the indicator of foreign presence in sector *j*, and ε is a white noise error term.[2] A positive (negative) and statistically significant β_2 would be taken as evidence that positive (negative) horizontal externalities have occurred.

A version of the generic model that, instead, isolates vertical spillovers is slightly different:

$$Y_{ij} = \alpha + \beta_1 X_{ij} + \beta_2 FOR_k + \varepsilon_{ij}, \qquad (3.6)$$

FOR_k measures the presence of foreign firms in all other sectors but *j*.[3] Since vertical spillovers involve supply-and-demand effects on other sectors (down- and upstream), it is likely that vertical externalities have a higher probability of being positive compared to horizontal externalities, which, essentially, concern increased direct competition.

The indicator *FOR* in the literature is often measured as a share in total sector employment or output. Although it is not obvious that this is the best choice when domestic labour productivity and TFP are employed as performance variables, the report follows the empirical literature using employment shares throughout. On the left-hand side, often a measure of domestic productivity performance is used in the literature. This report goes beyond a single performance indicator by considering several economic ones as well, such as output generation and profit and growth indicators, as well as social effects in the form of employment and wages of domestic firms.

As in the case of first-layer effects, impact of presence of foreign investors may differ across at least two lines. First, the amount of externalities may be a function of whether investors are from a Northern or Southern country. Secondly, impact on domestic economies could also depend on type of foreign investors. Again, distinction is made between TNCs and individual foreign entrepreneurs. The North-South model is:

1 A time subscript is normally included as well, but, since only a single year is considered, it has been omitted.

2 Some studies have considered geographic proximity, in addition to technology gap, as an additional determinant of externalities, in which case, *FOR* is a measure of foreign presence in a region, rather than sector. Since there is very little evidence of such presence, this is not included in the analysis.

3 No distinction is made between backward or forward linkages.

$$Y_{ij} = \alpha + \beta_1 X_{ij} + \beta_2 FORNORTH_j + \beta_3 FORSOUTH_j + \varepsilon_{ij} \quad (3.7)$$

FORNORTH and FORSOUTH are the indicators of foreign presence in sector *j* if the investors originates from industrialized or developing countries, respectively. A positive (negative) and statistically significant β_2 and/or β_3 would be taken as evidence that positive (negative) externalities occurred.

The corresponding TNC-FE model can be written:

$$Y_{ij} = \alpha + \beta_1 X_{ij} + \beta_2 FORTNC_j + \beta_3 FORFE_j + \varepsilon_{ij} \quad (3.8)$$

FORTNC and FORFE are the indicators of foreign presence in sector *j* if investors are TNCs or FEs, respectively. A positive (negative) and statistically significant β_2 and/or β_3 would be taken as evidence that positive (negative) externalities occurred.

Regression results table, base model

Below are the regression results of the base model shown in full with labour productivity and TFP as dependent variables, respectively.

Threshold analysis

Below are alternative methods for accounting for non-linearities, followed by a brief overview of threshold regression techniques.

A simple linear regression model can be written as:

$$y_i = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \ldots + \beta_k x_{ki} + \varepsilon_i \quad (3.9)$$

is the dependent variable to be explained, x_1, x_2, …, x_k a set of k explanatory variables, β_0, β_1, β_2, …, β_k a set of parameters to be estimated, ε the error or

Dependent variable: labour productivity	
Independent variables	All countries (pooled)
Foreign ownership	0.113***
	(3.816)
Capital-labour ratio (in log)	0.107***
	(11.41)
Human capital	0.154**
	(2.273)
Size (in log)	0.0442***
	(3.738)
Age (in log)	0.00371
	(0.212)
Exporter	0.0184
	(0.594)
Low -technology sector	-0.0586
	(-1.618)
Medium-technology sector	-0.0826**
	(-2.113)
Intermediate inputs (in log)	0.719***
	(77.55)
Constant	1.842***
	(11.86)
Observations	2,297
F-test	.
pseudo R^2	0.507
t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1	

Dependent variable: TFP	
Independent variables	All countries (pooled)
Foreign ownership	0.376***
	(3.198)
Capital-labour ratio (in log)	0.261***
	(6.892)
Human capital	0.903***
	(3.291)
Size (in log)	0.164***
	(3.473)
Age (in log)	-0.00304
	(-0.0432)
Exporter	-0.118
	(-0.954)
Low-technology sector	-0.313**
	(-2.148)
Medium-technology sector	-0.385**
	(-2.443)
Intermediate inputs (in log)	-0.685***
	(-18.15)
Constant	4.553***
	(6.557)
Observations	2,112
F-test	.
pseudo R^2	0.0894
t-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1	

disturbance term and i = 1, .., N the set of observations for which data is available. Using the sample of observations, the set of parameters can be estimated most often using the OLS estimator.

A regression model such as the above is linear in its parameters. That is, a one unit change in the explanatory variable x_1 leads to a β_1 change in y, with the change in the dependent variable as a result of a change in x_1 independent of the level of either x_1 or one of the other explanatory variables.

In many situations, however, it would be advantageous to allow for a non-linear effect of one or more of the explanatory variables. Allowing for the effect of firm size on productivity to depend on size of firm would be such an instance. Another would be allowing the impact of firms' export status on productivity to depend on third variables that capture absorptive capacity, such as average skill level of workers.

A simple method of achieving this would be to introduce an interaction between two or more of the explanatory variables. Such a model can be written as:

$$y_i = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 (x_1 x_2) + \varepsilon \qquad (3.10)$$

The i subscripts have been dropped for ease of presentation. The effect of a change in x_2 on y would be given by β_2 if the interaction term were omitted but is given by $\beta_2 + \beta_3 x_1$ when the interaction term is included. The effect of a change in x_2 on y, thus, depends on the value of the variable . If β_3 is positive, the effect of x_2 on y will increase as the value of x_1 increases.

While interaction terms are useful for allowing for non-linearities, they are restrictive, so alternative non-linear models have been proposed. One such method is to collate observations into different groups or regimes and allow the relationship between the dependent variable and one or more of the explanatory variables to differ between regimes. This approach is apparent in the case of a simple two variable regression model.

Here the observations are split into two regimes based on a variable z, which could be the explanatory variable of interest or some other variable. Observations with a value of z lower than λ are allocated to the low regime, while those with a value more than λ are allocated to the high regime. The relationship between x and y is, then, allowed to differ between the two regimes as expressed in the following equation:

$$Y_i = \beta_0 + \beta_1 1 x_i + \varepsilon_i \; if \; z_i \leq \lambda \qquad (3.11a)$$

$$Y_i = \beta_0 + \beta_1 2 x_i + \varepsilon_i \; if \; z_i > \lambda \qquad (3.11b)$$

If z is less than or equal to the threshold value λ, the coefficient on x is $\beta_{1,1}$, while if z is greater than λ the coefficient on x is $\beta_{1,2}$. This can be written as a single equation:

$$Y_i = \beta_0 + \beta_1 1 x_i I(z_i \leq \lambda) + \beta_1 2 x_i I(z_i > \lambda) + \varepsilon_i \qquad (3.12)$$

I is called the indicator function. Standard statistical tests could be used, then, to test whether the coefficients of the two regimes are the same, which requires testing the hypothesis $\beta_{1,1} = \beta_{1,2}$. If this hypothesis can be rejected, then, there are differences in the relationship between x and y in the two regimes.

In most cases, however, the value of the threshold, λ, will be unknown meaning that any threshold imposed on the data will be ad-hoc. A preferable solution would allow the data to determine the value of any threshold. Recently developed techniques allow one to estimate the threshold and coefficients from the regression model simultaneously[4].

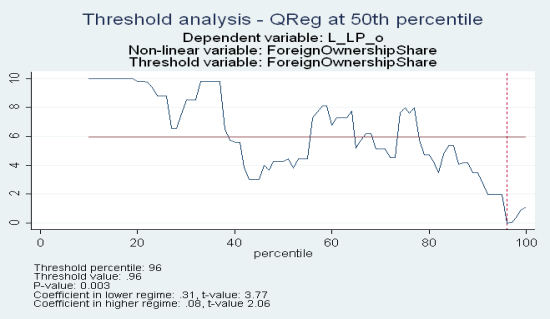
These techniques are relatively straightforward to implement. Initially, the data is sorted by the threshold variable z and, then, searched over the distinct values of z by estimating the regression model given by equation 3.12 assuming, in turn, that λ takes each of the distinct values of z. That is, if the variable z takes on ten distinct values, equation 3.12 is estimated by OLS assuming, in turn, that λ equals each of these values. Of the possible values of λ, the estimate of the threshold is the value that produces the best fitting regression model, with the minimum sum of squared residuals of all models estimated.

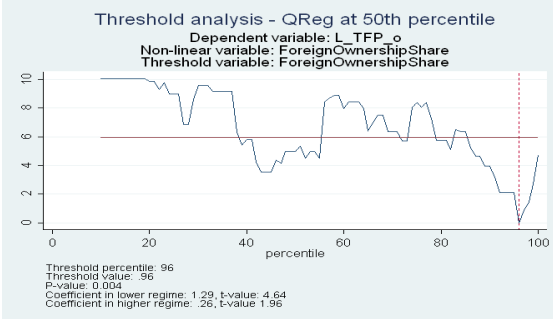
After finding a threshold, its significance needs to be tested. Rather than the case where the value of the threshold is known a priori, this is a non-standard

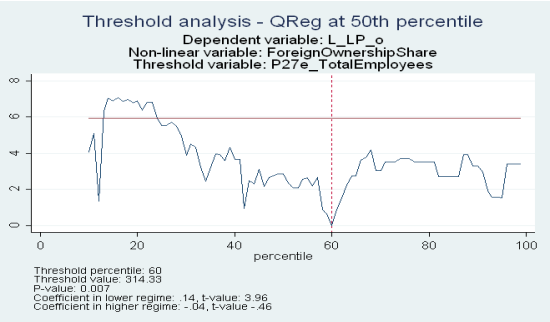
4 see Hansen, 1996, 1999, 2000

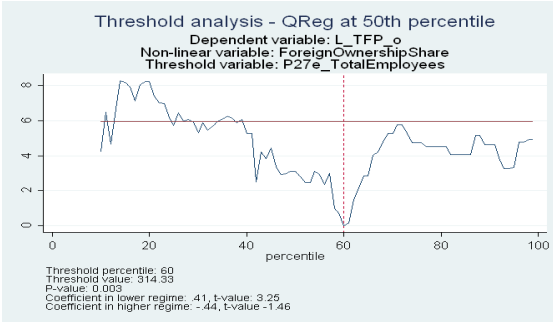
Threshold results in graph form

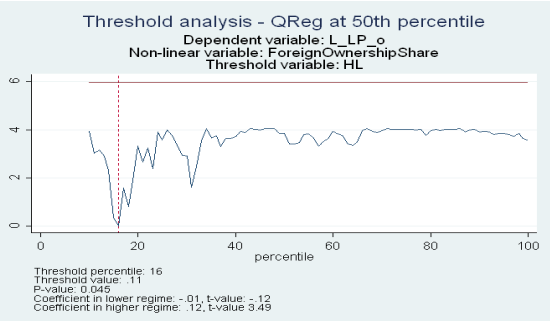
Figure A1 *Extent of foreign ownership and productivity*

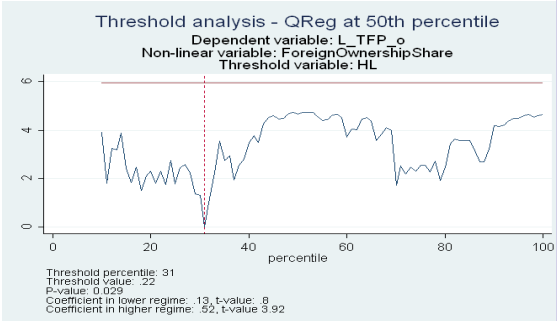


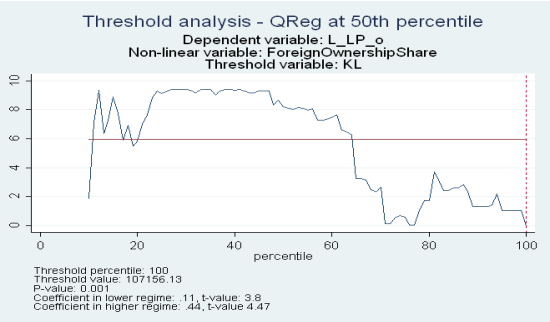


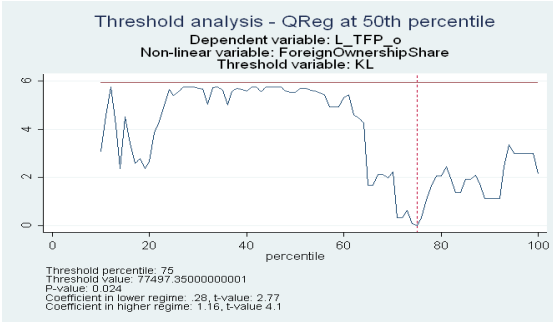












Note: The dotted red line shows the threshold identified by the model, with the corresponding percentile and value below the graph. Here statistics on the relationship between productivity measure and foreign ownership share are shown for the upper and lower regimes. The blue line in the chart does not show the direction of the relationship but the likelihood ratio sequence in lambda, which denotes the percentiles that are potential threshold values.

test, since, under the null hypothesis of $\beta_{1,1} = \beta_{1,2}$, the threshold value is not defined, with the linear model having no value for λ. Hansen recommends an alternative statistical technique, bootstrapping, to test this hypothesis[5]. Bootstrapping approximates the distribution of a statistic by repeatedly drawing a sample of observations from the fitted distribution of the observed data and, then, compares the actual test statistic with those obtained from the bootstrapped model.

The finding of a significant threshold implies that there is evidence of a non-linear relationship between the dependent variable and the relevant explanatory variable(s) that is dependent on the level of the threshold variable, z. After finding a significant threshold, it is possible to use the above approach to search for a second or third threshold. In this sense, threshold regression techniques also allow the data to determine the appropriate number of thresholds in addition to the positioning of the thresholds.

5 see Hansen, 1996, 1999, 2000

CHAPTER 4:

IPAs and their services

Background and outline

Over the last three decades, sub-Saharan African countries have established and developed IPAs to promote and attract direct investment in their economies, particularly foreign direct investment (FDI). While not all foreign direct investment is generated by IPAs, these institutions play a crucial role in fostering and accelerating investment in their economies in a variety of ways.

Embedded in diverse institutional and organizational set-ups, IPAs' operations vary from country to country. Their scope is, however, systematically expanding. Often the initial approach of IPAs begins with image-building to brand countries as attractive places for investment. This includes targeted advertising, public relations events, generation of favourable news and production of eye-catching brochures, websites and videos. Advanced IPAs offer much more including investor facilitation services to assist investors in analysing their investment decisions, establish their operations, expedite the approval process of licensing and obtain access to land, utilities and business premises. The concept of one-stop shops for complete licensing of newly established businesses is the ultimate attempt to reduce the administrative burden for investors to a minimum. This type of service is available already in many African countries. More advanced IPAs are increasingly pro-active in investment generation, through sector analysis and investor identification, as well as by establishing investor forums and matchmaking platforms and identifying and following up on investment leads. At the same time, IPAs are being perceived as a valuable source for policy advocacy, since they typically have access to first-hand information as to how to shape initiatives to improve investment climate and legal frameworks for investment.

This chapter focuses on responses in the survey results concerning IPA assessment by investors. It analyses how the surveyed firms evaluated IPAs in the various stages of their investment process. These range from investment promotion activities in the pre-investment decision phase, through registration services at the entry stage and provision of incentives at the implementation stage, to business support services at the operational stage. Survey results are disaggregated by type of ownership of foreign investors, country of investor origin, main economic sectors and regions of sub- Saharan Africa[1].

The chapter is structured into six sections. It begins by analysing the role of IPAs in promoting investment opportunities in their respective countries. Consideration is given to how investors view the role played by IPAs as well as to what extent investment promotion activities are crucial determinants for their awareness and realization of investment opportunities.

The chapter goes on to deal with investment support services once foreign investors become aware of investment opportunities and the decision to invest in a host country is evaluated and taken. The investment registration process is examined, as well as institutional arrangements for investment registration in the surveyed countries. For some investors, investment registration *de facto* represents the first contact with IPAs

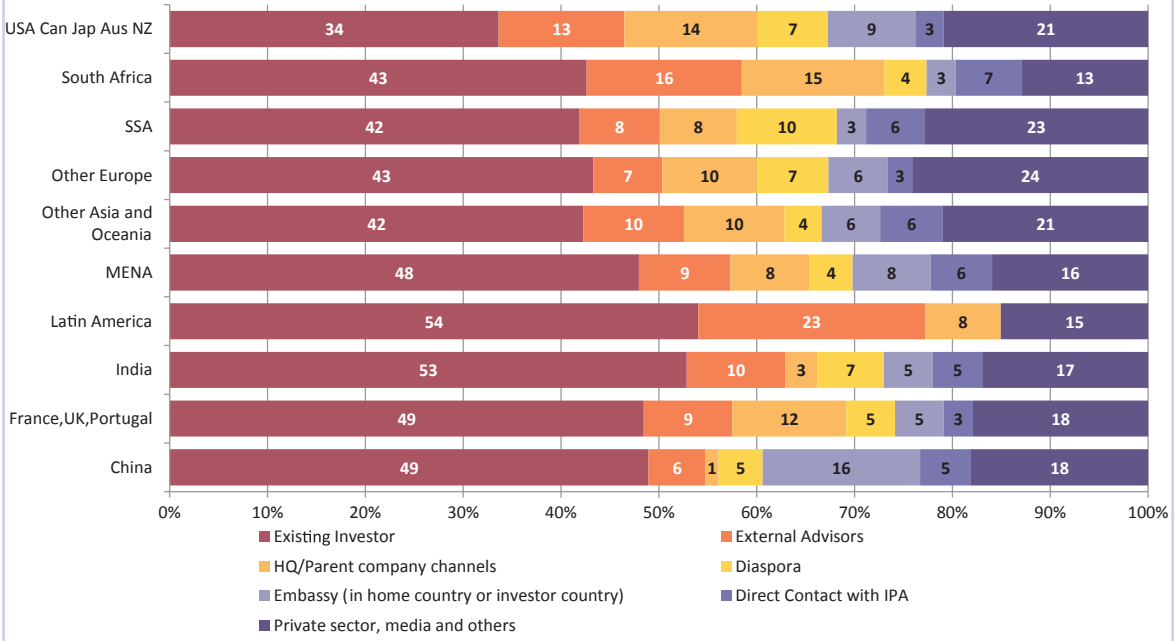
Following investment registration, the role of IPAs shifts to provision of a wider array of support services to investors. These consist, typically, of two main kinds: investment incentives and dedicated business support services. The chapter looks at the type of such incentives offered by IPAs and their perceived importance in the opinions of foreign investors. The analysis of business support services differentiates between four main stages in the investment cycle: decision/pre-investment/pre-expansion, entry, implementation and operations/ after-care. The survey data helps assess IPA performance in providing these services[2]. The survey responses are grouped by type of ownership of foreign investors, main economic sector, size of enterprise, foreign investor mode of initial investment and investors' motivation to invest.

The chapter follows with a general assessment of how investors rate the usefulness and importance of IPAs

1 Surveyed countries in East Africa included Burundi, Ethiopia, Kenya, Rwanda, Tanzania and Uganda. Surveyed countries in West Africa included Burkina Faso, Cameroon, Cape Verde, Ghana, Mali, Niger, Nigeria and Senegal. Surveyed countries in Southern Africa included Lesotho, Madagascar, Malawi, Mozambique and Zambia.

2 The terms investment support services and business support services are used interchangeably in the chapter.

Figure 4.1 *Information sources for investment opportunities (all surveyed countries)*



Note: Numbers in columns represent frequency for each category

in terms of general service provision. IPA usefulness is analysed by country of origin of investor and mode of entry. Country IPA services are ranked according to a measure of importance to quality relationship. From this analysis, a number of concluding observations and policy recommendations for IPAs emerge.

The survey included domestic investors in the participating countries and the chapter, therefore, also encompasses feedback received on country institutional frameworks that support domestic investment.

Promoting investment opportunities in host countries

A crucial aspect of IPA work is to engage actively with foreign investors. To do so, requires, first, identifying and promoting investment opportunities in host countries to potential investors.

Investment promotion activities typically include national image-building and investment generation. Image-building aims to shape the perception of host countries as attractive locations for foreign direct investment. Investment generation comprises identifying potential investors who might be interested in establishing a presence in these countries, developing a strategy to contact them and initiating a dialogue with the purpose of committing them to investment projects.

Investment promotion can be a cost-effective way of increasing FDI inflows, particularly to countries where information about business conditions is less readily available and bureaucratic procedures tend to be more burdensome. The purpose of investment promotion is to reduce transaction costs for foreign investors by providing them with information on business opportunities and prevailing laws and regulations as well as factor cost in host countries, and helping them deal with bureaucratic procedures[3].

3 Wells and Wint (2000) define investment promotion as activities through which governments aim to attract FDI inflows. Investment promotion activities may encompass: advertising, investment seminars and missions, participation in trade shows and exhibitions, distribution of literature, individual direct marketing efforts, facilitating visits of prospective investors, matching prospective investors with local partners, helping to obtain permits and approvals, preparing project proposals, conducting feasibility studies and servicing investors whose projects have become operational. Investment promotion excludes granting incentives to foreign investors, screening potential investment projects and negotiations with foreign investors, even though IPAs would likely be involved in such activities.

Information sources to detect investment opportunities

In the survey, data was collected on how foreign investors initially became aware of investment opportunities in the respective countries. Figure 4.1 illustrates the responses on information sources for investment opportunities in all surveyed countries.

The main source of information about prevailing investment opportunities was existing investors in the host countries. Other, but less prominent, sources of information were through headquarters and parent-firm channels and external advisors used to identify investment opportunities in prospective host countries.

While IPAs did not emerge as the principal source of information to potential investors on investment opportunities in prospective host countries, the survey results highlighted opportunities for them to broaden the scope of such services. IPAs should focus on nurturing existing investor communities, as these represent the core source of attracting new FDI and generating new investment queries. This could be realized through extended and better after-care services to existing investors, as well as by developing approaches to addressing investment queries from prospective investors.

Delving into the survey results indicates some variations by the investor country of origin. Latin American investors, for example, tend to use external advisors more often than other investors. Unlike investors from other regions, Chinese investors seldom rely on headquarters or parent firms as main channels. Rather, they used institutional channels as their main source of investment opportunities, particularly through embassy networks in Africa and China.

The analysis of responses by African regions and investor origin highlights significant differences. More than 30 per cent of South African investors operating in West African countries tended to use their headquarters' strategic capabilities to search for and identify investment opportunities, as did 45 per cent of the Asian investors in Southern African countries. Twelve per cent of Chinese firms relied on their embassies in West Africa, while, in Southern African countries, some 15 per cent of investors turned to African embassies in China for prospective opportunities. With the crucial linkage between foreign policy and investment promotion, the survey's findings highlights a considerable scope for developing IPA strategies based on bilateral relations.

These results reaffirm that existing investors are crucial advocates in the process of attracting, engaging and informing potential investors to potential host countries. In the light of this empirical evidence, IPAs could benefit considerably by focusing on provision of after-care services as well as bolstering investor relationship management with foreign investors operating in their countries. This approach can have important indirect investment promotion benefits in attracting new foreign investment.

Likewise, the results highlight the importance of external advisors to foreign investors and internal information channels within headquarters and parent-firm networks. Under the guidance of IPAs, host country authorities should work with other government and public administration channels, notably ministries of foreign affairs and embassies abroad, in order to use diplomatic networks for investment promotion, beyond their prevailing conventional institutional scope of operations. Capacity-building measures in investment promotion activities seems to be an effective strategy to capture a wider institutional audience.

Registration process: compulsory versus non-compulsory

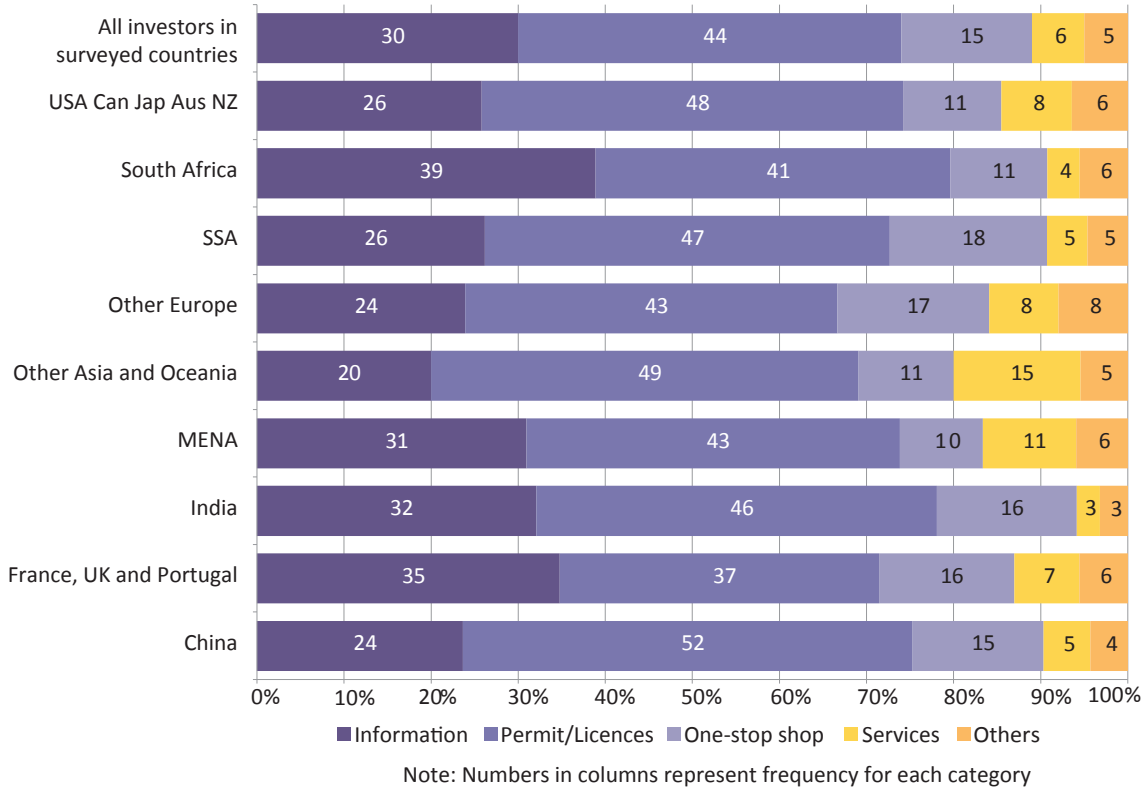
Once foreign investors become aware of investment opportunities and decide to realize their investment in host countries, their next contact with IPAs is through the investment registration process[4]. Registration, which may be compulsory or voluntary, can be required either solely with IPAs or with them and other national authorities, such as ministries[5].

Survey results suggest that some 48 per cent of foreign respondents across all surveyed countries

4 In some countries, this process is referred to as certification of firms. In the survey questionnaire, foreign firms were asked if they registered with IPAs and/or if they were provided with certificates by IPAs. Investors were asked also to assess the efficiency of the process, incentives received and importance attached to them.

5 In some countries, the registration process is a pre-requisite to gain access to investment incentives.

Figure 4.2 *Benefits from IPA registration (by investor country of origin)*



Note: Numbers in columns represent frequency for each category

registered their investment with local IPAs. The percentage of registered versus unregistered firms vary by country. Table 4.1 illustrates these differences, column four indicating whether compulsory and voluntary registration with IPAs applied in the surveyed countries.

Two crucial considerations emerge. The first is that compulsory registration does not necessarily entail actual registration with IPAs. The second is that compulsory registration might emanate from the perception of the investor. The *a priori* expectation would be that for countries where registration was compulsory, there would be a correspondingly high proportion of registered respondents in the survey responses. However, there are variations as country examples illustrate. In Lesotho, where registration is compulsory, there is a high proportion of unregistered respondents. This result may be partly explained by the fact that, at the time of the survey, respondents may not have been aware that the national agency had captured their registration in some way or another. In Burkina Faso, investment registration is based on the one-stop shop approach, which, then, relays information to the national agency making it highly unlikely that investors would know about the agency's existence. Conversely, Uganda's IPA, the Uganda Investment Authority, has a compulsory registration system, and 82 per cent of foreign investors surveyed confirmed being registered with the country's IPA. In Malawi, registration is not compulsory. However, investors are encouraged to register with the Malawi Investment Promotion Agency because most authorities required investment certificates to process permits or provide other essential services, such as opening corporate bank account[6]. Furthermore, it is a statutory requirement that businesses register with relevant government ministries or departments[7].

Several implications emerge from these observations. The first is that empirical evidence suggests that, at country level, investment registration is most likely to involve a process of registration with multiple institutions in host countries, rather than with only IPAs. What applies to investment registration may apply to investment promotion activities. While they

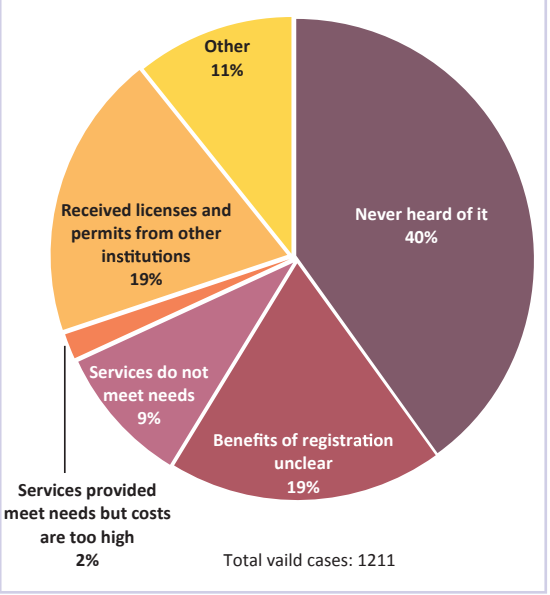
6 The permits include ones for business residence and temporary employment.

7 For example, a tourist operator is required to register with the Department of Tourism, whether seeking incentives or not. This entitles operators to receive support from the Department as well as serving regulatory purposes.

Table 4.1 *Investment registration requirements in IPAs (all surveyed countries)*

IPA registration requirements in surveyed countries				
Country	**Registered respon-dents**	**Name of IPA**	**Registration requirement**	**Notes**
Burkina Faso	15%	Agence Nationale de Promotion des Investissements (ANPI)	Not compulsory	Investors send application form to a one-stop shop that then forwards these onto the ANPI
Burundi	9%	Agence Burundaise de Promotion des Investissements	Not compulsory	An enterprise request for an IPA certificate when legally establissed
Cameroon	7%	Agence de Promotion des Investissement du Cameroun	Not compulsory	
Cape Verde	14%	Cabo Verde Investimentos	Not compulsory	It is compulsory for foreign firms to register with Cape Verde Central Bank (BCV) under the current law
Ethiopia	77%	Ethiopia Investment Agency (EIA)	Compulsory	All foreign companies are required to register except for telecom,mining and energy. They need to register with the ministry
Ghana	83%	Ghana Investment Promotion Centre (GIPC)	Compulsory	The GIPC is responsible for registering all (foreign) investment. It does not apply to either mining or petroleum enterprises.
Kenya	24%	Kenya Investment Authority (KenInvest)	Not compulsory	No blanket restrictions, but the telecommunication and insurance sectors need specific requirements on the percentage of ownership.
Lesotho	59%	Lesotho National Development Corporation (LNDC)	Compulsory	LNDC assists any investor in establishing a business in Lesotho and helps investors register the company in order to get the business started
Madagascar	15%	Economic Development Board of Madagascar (EDBM)	Not Compulsory	No incentives for foreign investors
Malawi	57%	Malawi Investment Promotion Agency (MIPA)	Not Compulsory	The investor must invest at least US$ 50,000.00 in order to be eligible for a Business Residence Permit (BRP).
Mali	19%	Agence pour la Promotion des Investissements au Mali (API-Mali)	Compulsory	
Mozambique	75%	Centro de Promoção de Investimentos (CPI)	Compulsory	The company must have a fiscal registration and obtain the respective tax registration number (NUIT) at the fiscal office of the area
Niger	29%	Centre de Promotion des Investissements au Niger (CPI)	Not compulsory	No incentives for foreign investors
Nigeria	19%	Nigeria Investment Promotion Commission (NIPC)	Compulsory	the law did not provide a penalty for defaulters, so many companies set up their business without registration
Rwanda	86%	Rwanda Development Board	Compulsory	Business registration is performed by the Office of the Registrar General (ORG).
Senegal	25%	Agence Nationale Chargée de la Promotion de l'Investissement et des Grands Travaux (APIX)	Not compulsory	
Tanzania	84%	Tanzania Investment Centre	Not compulsory	Enterprises operating must register with the Business Registration and Licensing Agency (BRELA) of the Ministry of Industries and Trade.
Uganda	82%	Uganda Investment Authority (UIA)	Compulsory	Foreign investors need to obtain an investment license from UIA
Zambia	34%	Zambia Development Agency (ZDA)	Not compulsory	All companies need to register with company registration office, but IPA registration is for incentives

Figure 4.3 *Reasons for not registering with IPAs (all surveyed countries)*



are crucial entities in investment promotion policy framework, IPAs may not be the sole ones in this area. A comprehensive analysis of IPA performance and its role in investment promotion needs to reflect the existence of multiple investment promotion institutions beyond specific IPA entities.

The second implication is that significant differences in investment registration existed in the surveyed countries. For example, in most francophone African countries, there is a whole system of investment approvals, rather than merely one single registration. In most countries, investment registration only occurs after approval[8]. These considerations are essential for the subsequent analysis in this chapter. Reference to IPAs is used interchangeably in different country contexts to refer to the single investment promotion entity as well as multiple institutions mandated with the investment promotion effort.

Benefits for investment registration with IPAs

Foreign firms that were registered or in possession of certificates issued by IPAs, were asked to highlight the most important benefits derived from registration. Figure 4.2 illustrates the distribution of responses, analyzed by investor country of origin.

Overall, some 44 per cent of investors in the surveyed countries indicate that the main benefit of IPA registration is mainly administrative, such as to obtain licenses, permits and registration forms. Some 30 per cent indicate that the main benefit is information facilitating core business activities. Only some 15 per cent indicate the convenience of using a one-stop investment shop facility as a main benefit resulting from IPA registration.

IPAs seem to play a systematically different role for investors of different origins. While 39 per cent of investors of South African origin and 35 of French, Portuguese and United Kingdom origin consider information as IPAs' crucial asset, only 24 per cent of Chinese investors share this view. For the latter, IPAs' main benefit was support in registration and licensing procedures. More than half of Chinese investor respondents and 49 of the other Asian investors indicate that the main benefit of IPAs was their support in obtaining licences and permits.

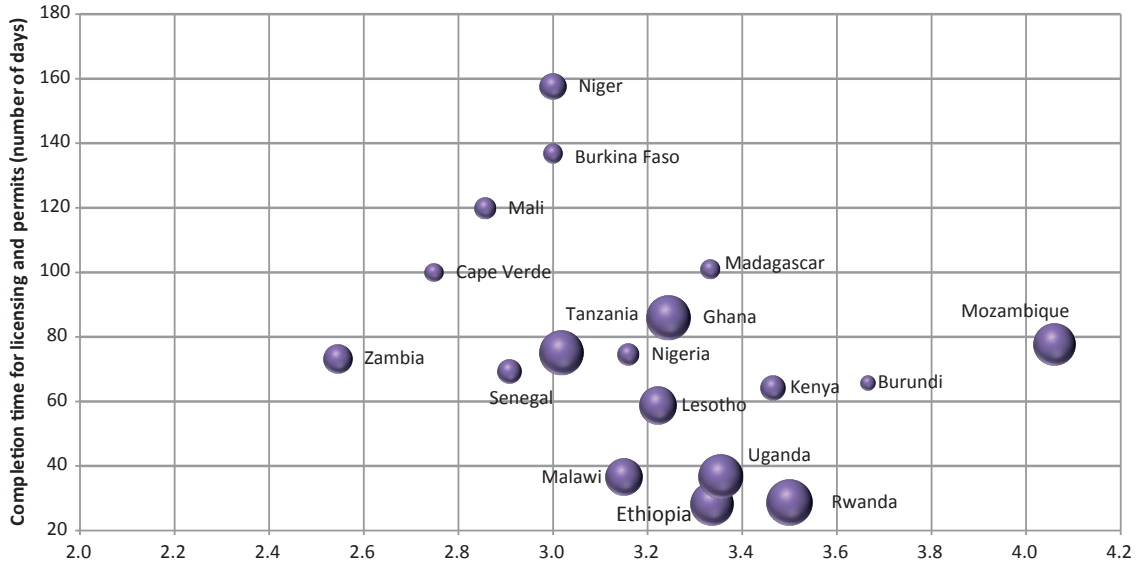
The reasons for investors not registering with IPAs are revealing. A summary of the 1,211 responses is illustrated in Figure 4.3. Some 40 per cent of respondents indicate that they had never heard of nor had information about their respective countries' IPAs. The planned new investments of this group of enterprises account for 50 per cent of those of non-IPA users. Another 19 per cent of respondents are unsure what benefits would have accrued from registering with IPAs. These findings suggest that IPAs could gain considerably from more effective communication with potential clients, as well as improve their visibility to investor communities and potential new investors. Only nine per cent of non-IPA users find that IPA services meet their needs, while two per cent state that IPAs service charges were too high. Neither service quality nor cost appeared to be the major hurdle for IPAs to gain those investors who were not yet their clients.

Efficiency of registration

Foreign investors were asked to indicate how long it took them to complete all registration requirements

8 Prevailing investment approval process regimes have been determined by extensive economic liberalization policies and reforms. Whereas the pre-liberalization regimes were based on more technocratic interventions to review viability of projects, post-liberalization reforms presupposed a greater role played by the Registrar's Office, in some cases integrated with one-stop investment shop functions within IPAs. The argument for mandatory registration calls for better assistance in compliance with country investment conditions and offering better information on investment.

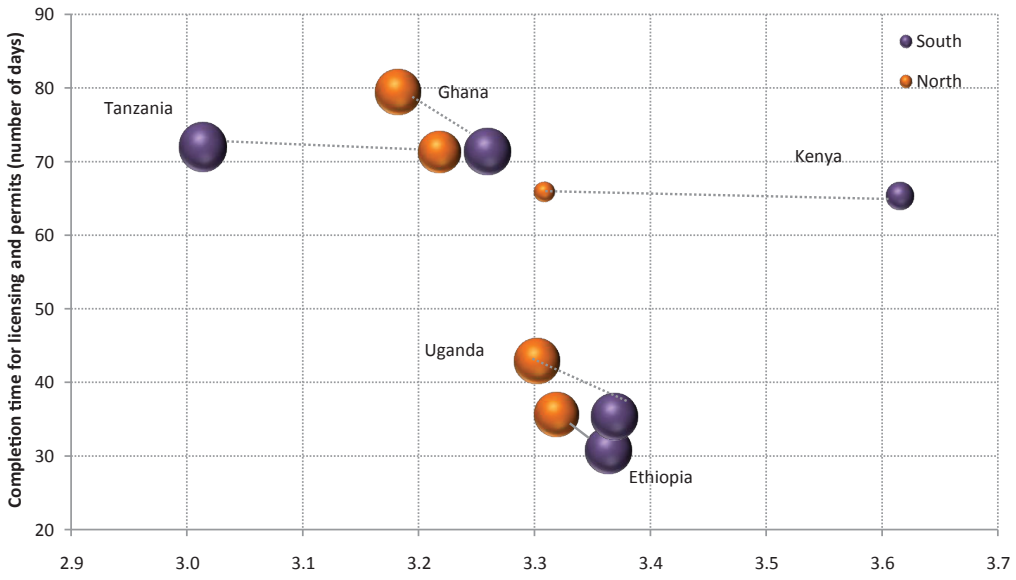
Figure 4.4 *Completion time and efficiency of IPA registration, by country*



Efficiency of registration process, mean value based on a 5-point likert scale with: 1=”not efficient”, 2=”sightly efficient”, 3=”efficient”, 4=”very efficient”, 5=”extremely efficient”

Note: The bubble size indicates registration rate in respective country

Figure 4.5 *Completion time and efficiency of IPA registration, by country and investor origin*



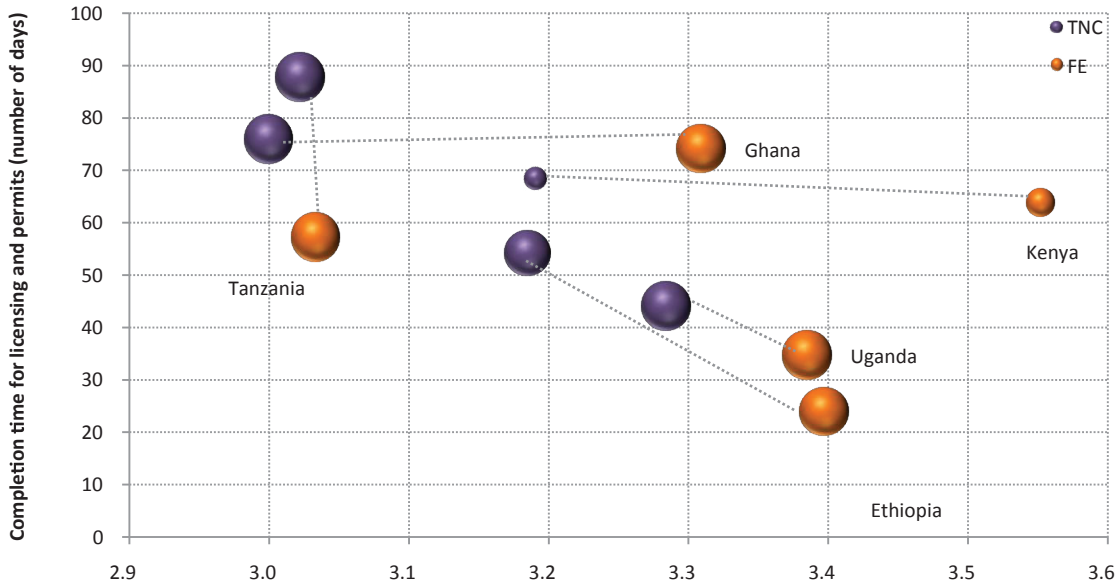
Efficiency of registration process, mean value based on a 5-point likert scale with: 1=”not efficient”, 2=”sightly efficient”, 3=”efficient”, 4=”very efficient”, 5=”extremely efficient”

Note: The bubble size indicates registration rate in respective country

and rate the overall efficiency of the process. Survey results show that foreign investors in Ethiopia and Rwanda indicated taking the least time to complete registration processes while investors in Mozambique rate the registration process to be very efficient.

Figure 4.4 displays the relation between completion time and efficiency of IPA registration processes in bubbles for each country. The bubble size shows registration rates in respective countries. Foreign investors in countries with higher registration rates tend to face shorter time-spans in completing registration processes deeming registration processes as more efficient. With the higher the number of registrations, investor service organizations are encouraged to implement business processes more quickly, as this streamlining significantly eases their operations.

Figure 4.6 *Completion time and efficiency of IPA registration, by country and ownership status*



Efficiency of registration process, mean value based on a 5-point likert scale with: 1="not efficient", 2="sightly efficient", 3="efficient", 4="very efficient", 5="extremely efficient"

Note: The bubble size indicates registration rate in respective country

In Rwanda, 86 per cent of investors responded to have been registered with the country's IPA. With the highest registration rate among all surveyed countries, Rwanda was one of the countries with compulsory registration. Survey results suggest that the IPA in Rwanda could serve as an important regional benchmark in terms of efficiency in the registration process[9].

A selection of five countries — Ethiopia, Ghana, Kenya, Tanzania and Uganda — with the largest sample size of the 19 surveyed, are used to highlight the relationship between completion time and efficiency of IPA registration process. IPA registration experience in these countries is, then, disaggregated by investor origin, ownership status, mode of entry, main sectors and market orientation. Figures 4.5 to 4.9 illustrate the results.

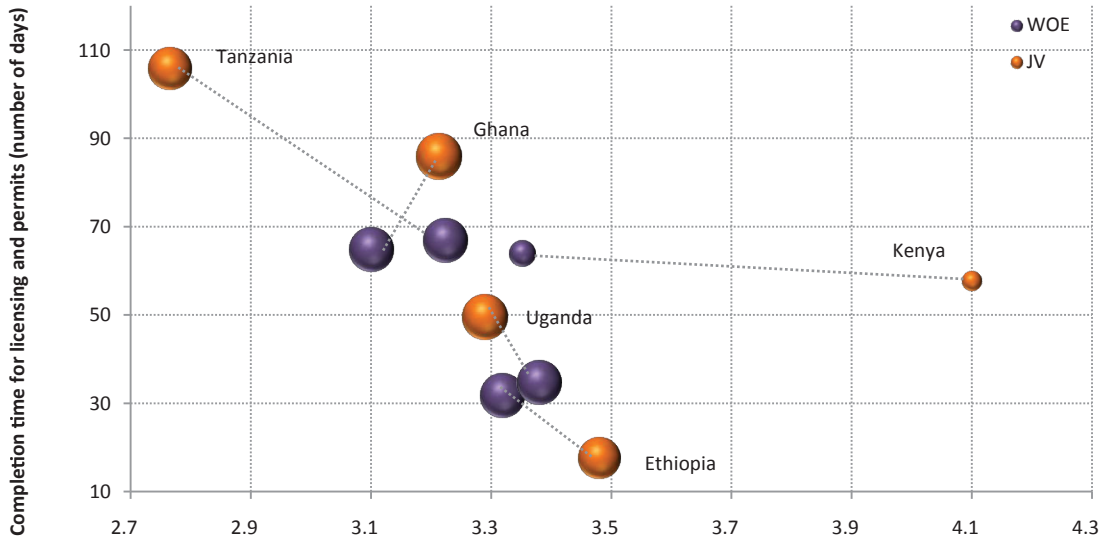
Figure 4.5 depicts the relationship between completion time and efficiency of IPA registration analyzed by North/South investor origin in selected countries. Investors originating from non-OECD countries, designated as South, typically spend less time on completing the registration process and tend to rate the efficiency of IPA registration higher. An exception is Tanzania, where the Northern investors give higher ratings on efficiency, yet they experience nearly equal time-to-licence delays as their Southern counterparts.

Figure 4.6 shows the relationship between completion time and efficiency of registration processes, disaggregated by investor ownership type, in terms TNCs versus FEs. The latter investor category tends to rate efficiency higher. This holds true for countries where investors complete registration processes more quickly, as well as for those where the time needed to obtain all licences equaled the time it took their TNC counterparts to start operations.

Figure 4.7 shows that the relationship between completion time and the efficiency of registration is mixed when analyzed by mode of market entry. No systematic nexus seems to exist between mode of market entry, time-to-licence and the ratings given. In Tanzania and Uganda, WOEs enjoy quicker registration than joint ventures and give higher efficiency scores. In Ethiopia and Kenya, joint ventures report shorter time-to-licence and rate IPA efficiency higher than WOEs. In Ghana, WOEs spend less time completing registration than joint ventures but, on average rate registration efficiency lower.

9 Cameroon is not included in the chart since its IPA was established formally only in 2005 and became fully functional in 2010. Therefore, it has yet to establish a strong foothold in the country's investment framework.

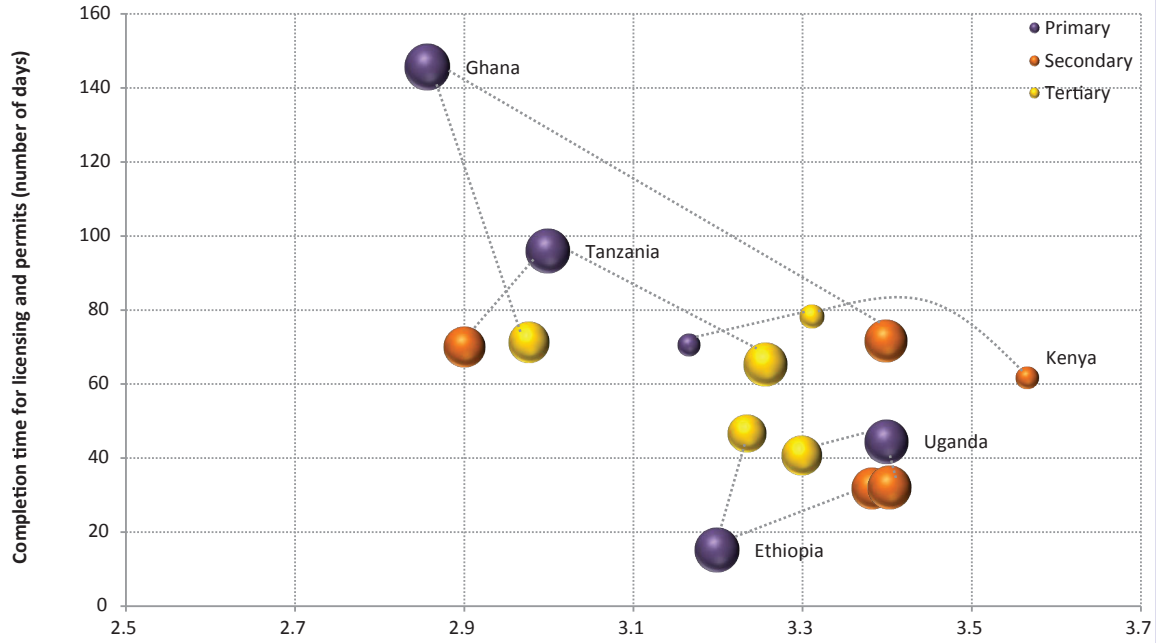
Figure 4.7 *Completion time and efficiency of IPA registration, by country and mode of entry*



Efficiency of registration process, mean value based on a 5-point likert scale with: 1="not efficient", 2="sightly efficient", 3="efficient", 4="very efficient", 5="extremely efficient"

Note: The bubble size indicates registration rate in respective country

Figure 4.8 *Completion time and efficiency of IPA registration, by country and main sectors*



Efficiency of registration process, mean value based on a 5-point likert scale with: 1="not efficient", 2="sightly efficient", 3="efficient", 4="very efficient", 5="extremely efficient"

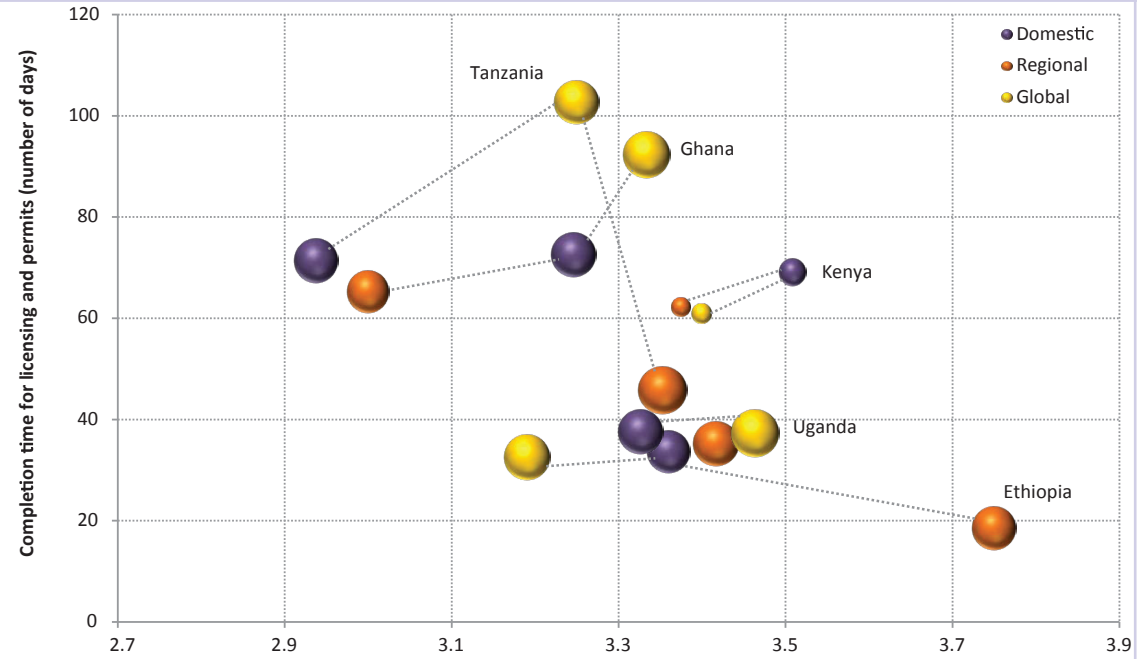
Note: The bubble size indicates registration rate in respective country

Figure 4.8 depicts the relationship between completion time and efficiency of IPA registration by main sectors of economic activity. In Uganda, there is very little observed difference in registration efficiency among the main sectors. The opposite case is Ghana, where time-to-license and efficiency ratings vary considerably by main sector. Experienced time-to-license is often higher in the primary sector[10] than in other sectors, except in the case of Ethiopia. The highest efficiency ratings went, on average, to the secondary sector, except in Tanzania, where IPA efficiency is graded highest by the tertiary sector and lowest by the secondary sector.

10 The primary sector is defined as firms in agriculture and mining, secondary as those in manufacturing, electricity, water and construction and tertiary as those in services.

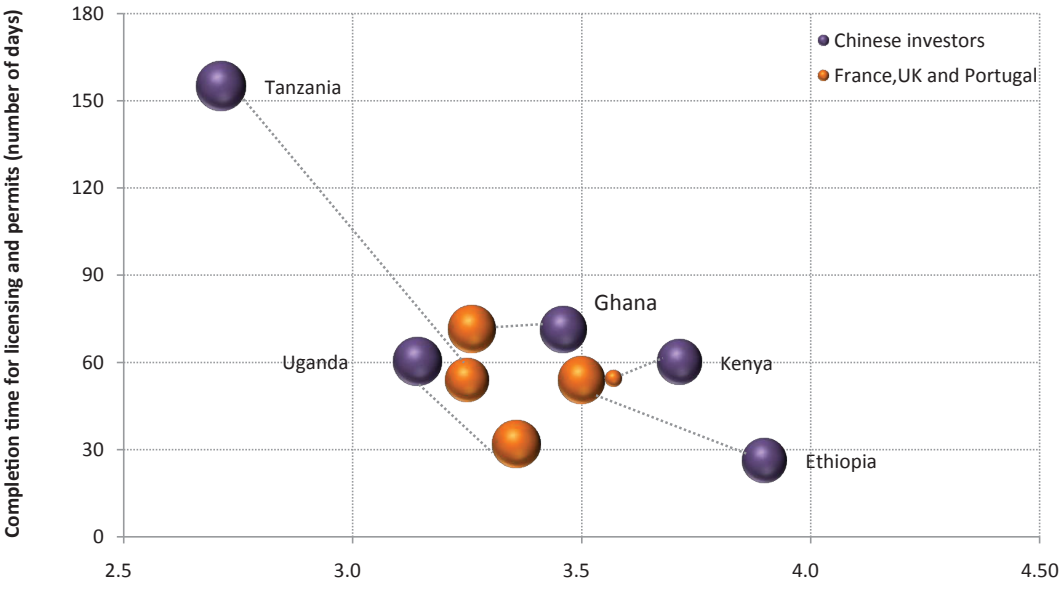
Figure 4.9 clusters investors according to market orientation—global, regional and local market seekers—in individual countries and looks at completion time and efficiency of IPA registration. Firms in Kenya and Uganda barely differ in their responses. On the other hand, domestic, regional and global market seekers perceive registration services they receive very differently in Ethiopia, Ghana and Tanzania. Regional market seekers across all countries rate fairly consistently IPA efficiency higher, while time-to-license is lower. The red bubbles almost form a trend-line from the top left to the bottom right of the chart. Global market seekers are quite far from such a consistent nexus, their average ratings not

Figure 4.9 *Completion time and efficiency of IPA registration, by country and market orientation*



Note: The bubble size indicates registration rate in respective country

Figure 4.10 *Completion time and efficiency of IPA registration (Chinese investors vs. France, Portugal and UK)*

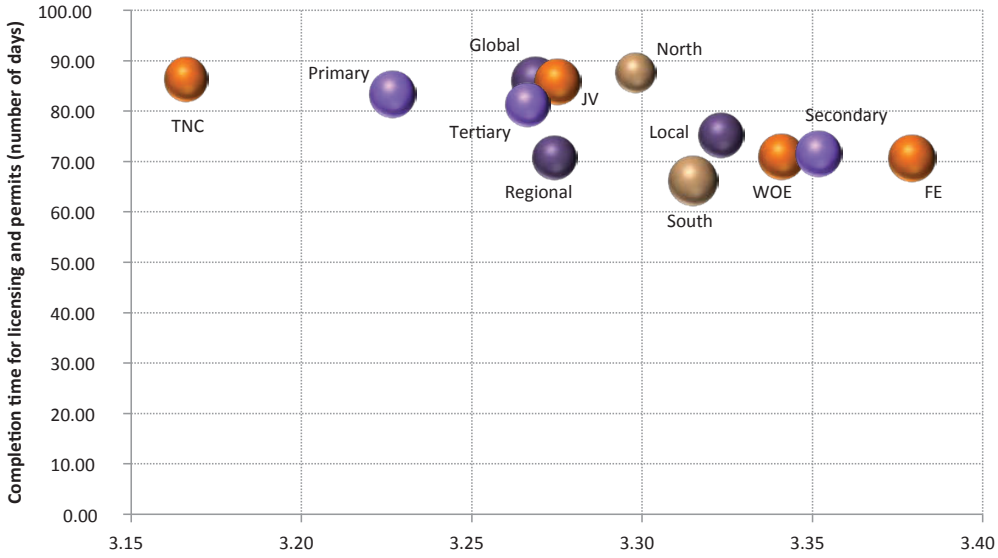


Note: The bubble size indicates registration rate in respective country

varying greatly, while experienced time-to-license vary considerably.

In Figures 4.5 to 4.9, Kenya emerges as a particular case. The bubble size indicates a relatively low registration rate in Kenya compared to other selected countries. However, investors who register with Kenya Investment Authority (KenInvest) tend to have positive perceptions of registration efficiency, especially FEs from the South that had been established through purchase of joint ventures. Differing from most other IPAs, KenInvest does not offer incentives nor is there an obligation for investors to get registered with them. Therefore, only the perceived quality of service offered by KenInvest attracts investors to use its services. This suggests that IPAs that have only the quality of the service they provide as an attraction have more satisfied clients than those that enjoy the right to issue benefits to investors.

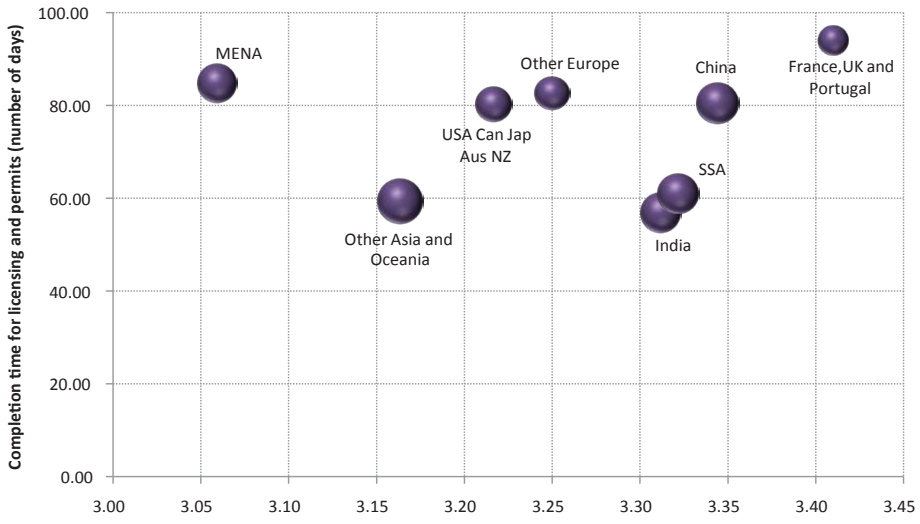
Figure 4.11a *Completion time and efficiency of IPA registration, by various clusters*



Efficiency of registration process, mean value based on a 5-point likert scale with: 1="not efficient", 2="sightly efficient", 3="efficient", 4="very efficient", 5="extremely efficient"

Note: The bubble size indicates registration rate in respective country

Figure 4.11b *Completion time and efficiency of IPA registration, by region of investor origin*



Efficiency of registration process, mean value based on a 5-point likert scale with: 1="not efficient", 2="sightly efficient", 3="efficient", 4="very efficient", 5="extremely efficient"

Note: The bubble size indicates registration rate in respective country

Figure 4.10 illustrates the differences between such newcomers as Chinese investors and traditional investment partners as France, Portugal and the United Kingdom. Traditional partners tended to complete their registration process more quickly, notably in Tanzania and Uganda. In Ethiopia, however, Chinese investors report a shorter time-to-license, while rating IPA efficiency notably higher.

The following two charts (Figure 4.11a and 4.11a) provide a brief summary of time-to-license and efficiency ratings for various clusters of investors across all countries covered by the survey. Figure 4.11a reveals that, on average, time-to-license varies between 66 and 87 days, which is not considerable. It also reveals that, on average, a shorter time-to-license coincides with higher efficiency ratings. Efficiency is rated high by foreign entrepreneurs, firms in the manufacturing sector, local market seekers and investors from the South. All of these report a relatively short time-to-license. TNC investors and those in the primary sector give, on average, the lowest ratings to IPA efficiency and higher to time-to-license. A factor that may have affected these ratings is age of firms. With many IPAs' registration processes having changed and improved over time, the average indicated by surveyed firms incorporates the average of their age as well, with older firms reporting on how long it took them to register several years ago and younger firms referring to the more recent registration processes.

Figure 4.12 *Receipt and criticality of investment incentives (all surveyed countries)*

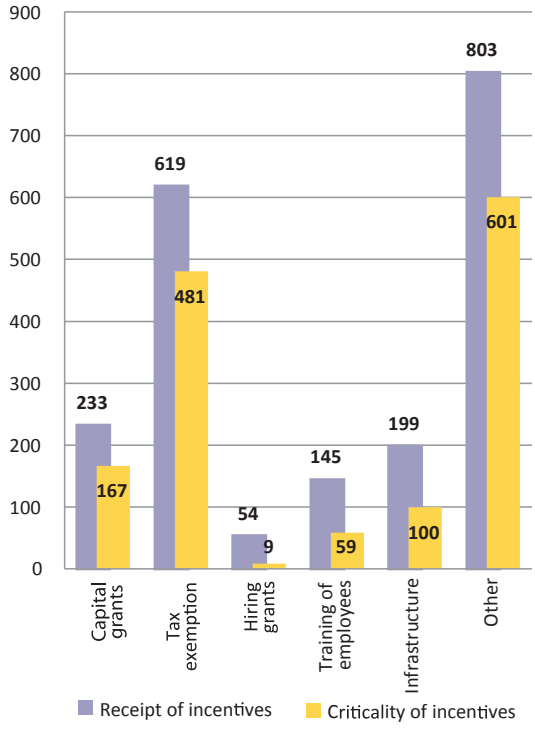


Figure 4.11b clusters respondents by country of origin. It shows that higher average efficiency ratings do not imply shorter time-to-license. Investors from France, Portugal and the United Kingdom gave the highest ratings on efficiency, while their response concerning time-to-license was highest. This reflects that they were, in general, registered several years ago when time-to-license was often longer than in recent years. Investors from Asia aside from China and Japan rate efficiency relatively low although experienced time-to-license was relatively low.

Receipt and importance of investment services

IPAs provide a wide array of investment support services to investors, mainly in the form of investment incentives and dedicated business support services.

IPA investment incentives

Respondents were asked to select investment incentives they received, as well as identify the most important investment incentive made available to them in the country. The results for all surveyed countries are in Figure 4.12. Around half of the respondents receive such financial incentives as capital grants, tax exemptions and grants for hiring of staff. The strategic importance of these fiscal incentives seems to outweigh the importance of non-fiscal incentives such as training of employees and provision of infrastructure.

Tax exemptions rank as the most crucial incentive for foreign investors who received them. Nearly four fifths of these firms indicate that this was the crucial incentive that made them invest. Some 13 per cent of foreign investor respondents received capital grants. Among them, 72 per cent regard these as the most important type of incentives. Other incen-

tives such as infrastructure, training of employees and hiring grants are much less frequently received and are defined as crucial to investment decisions.

Table 4.2 and Figures 4.13a and 4.13b provide more detailed insights, by country, into receipt and critical nature of investment incentives. Tax incentives were the most frequent instruments across all surveyed countries. In almost all countries, tax incentives constituted the largest group of incentives received. In Burundi and Kenya, capital grants seemed to be more frequently used as an investment incentive than tax breaks. This was influenced by the fact that, in most countries, tax incentives were the most common incentive offered and firms that received a tax break would unlikely say it was undesirable, even if they would have made the investment regardless of whether the incentive was available.

In a number of countries, foreign investors expressed their appreciation for non-fiscal incentives. Correspondingly, more than 20 per cent of the responding investors in Malawi, Mali, Nigeria and Tanzania received such incentives in the form of training for employees. More than 20 per cent of the respondents in Lesotho, Mozambique, Nigeria, Rwanda and Tanzania received such incentives in the form of infrastructure provision.

Investors were asked to indicate the incentive they received, crucial to their investment decision. The results show that tax incentives were often the critical instrument. In Burundi and Ethiopia, capital grants more often turned out to be critical. In several countries, a significant number of investors indicated the provision of such non-financial incentives as infrastructure and training as the crucial to having attracted their investment.

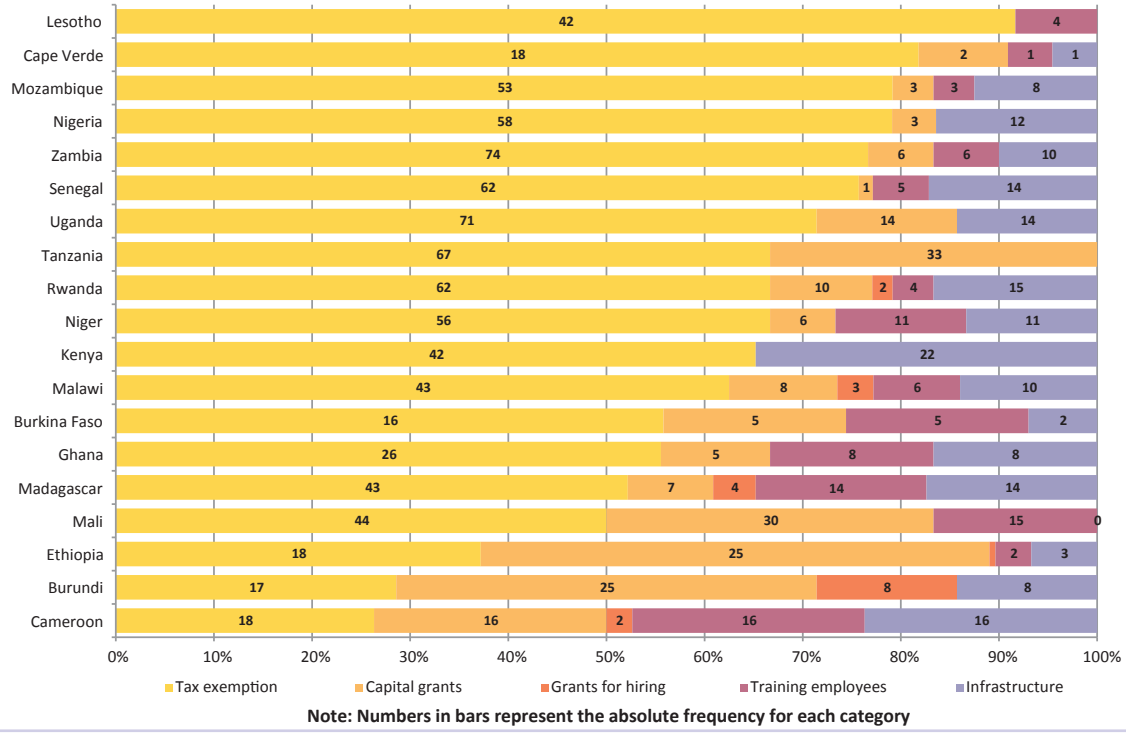
A breakdown of the crucial incentives for investment grouped by broad economic sectors is shown in Table 4.2[11]. It reveals that capital grants are more relevant in the primary sector than in any other broad sector. Tax exemptions are most frequently indicated as crucial. In the tertiary sector, 27 per cent of firms surveyed stated that such non-fiscal incentives as training and infrastructure provision played a key role in their investment decisions.

11 Besides the incentives listed in the charts, a small number of respondents listed other incentives, such as existence of industrial zones, land provision, dedicated loans, import duty reductions for machinery and inputs and export duty breaks.

Table 4.2 *Investment incentives provision, by type and by country*

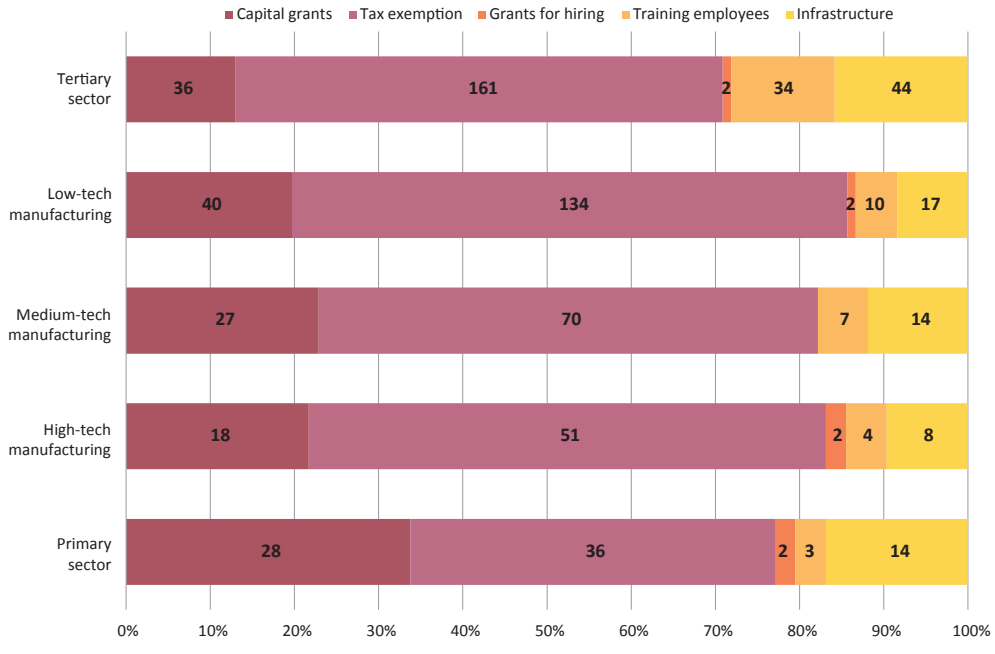
	Capital grants	Tax exemption	Grants for hiring	Training employees	Infrastructure	Others
Burkina Faso	22.2%	55.6%	0.0%	11.1%	11.1%	22.2%
Burundi	25.9%	22.2%	7.4%	7.4%	11.1%	66.7%
Cameroon	3.6%	19.8%	0.9%	4.5%	5.4%	78.4%
Cape Verde	5.9%	66.7%	0.0%	3.9%	11.8%	19.6%
Ethiopia	7.3%	59.7%	0.8%	0.0%	14.5%	41.9%
Ghana	7.5%	18.0%	2.5%	7.5%	3.1%	71.4%
Kenya	25.9%	18.2%	0.3%	2.9%	3.8%	51.5%
Lesotho	2.7%	48.6%	0.0%	5.4%	35.1%	40.5%
Madagascar	11.5%	42.3%	1.9%	11.5%	11.5%	48.1%
Malawi	39.3%	57.1%	14.3%	42.9%	17.9%	21.4%
Mali	7.0%	39.5%	7.0%	25.6%	16.3%	30.2%
Mozambique	7.2%	64.9%	6.2%	11.3%	23.7%	23.7%
Niger	14.3%	28.6%	0.0%	14.3%	0.0%	42.9%
Nigeria	25.6%	30.8%	19.2%	30.8%	26.9%	56.4%
Rwanda	20.0%	65.7%	2.9%	8.6%	22.9%	11.4%
Senegal	12.9%	30.6%	8.1%	17.7%	12.9%	64.5%
Tanzania	15.8%	77.2%	7.0%	22.8%	35.1%	12.3%
Uganda	7.8%	41.8%	4.1%	7.8%	15.2%	38.9%
Zambia	4.7%	30.2%	2.3%	7.0%	4.7%	67.4%

Figure 4.13a *Critical incentives provided, by type (by country)*



Note: Numbers in bars represent the absolute frequency for each category

Figure 4.13b *Critical incentives provided, by type (by broad economic sectors)*



Note: Numbers in bars represent the absolute frequency for each category

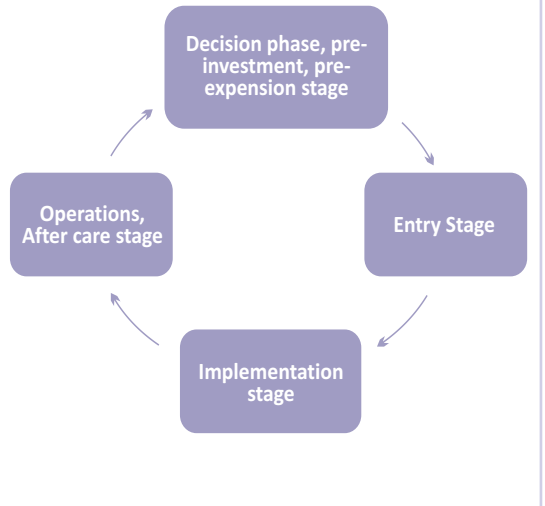
IPA business support services

The survey covered business support services provided by IPAs, by inquiring about their importance, availability and quality. Investors were asked to rank the relative importance and quality of a range of such services received from investment promotion institutions in the surveyed countries. The services are categorized according to the four stages of the investment cycle: pre-investment/pre-expansion, entry, implementation and operations. Figure 4.14

Table 4.3 *Overview of business support services, by stage of investment (all surveyed countries)*

Phase	Type of service
Decision phase/ Pre-investment stage/ Pre-expansion stage	Information on markets
	Information on availability of supporting infrastructure
	Information on corporate taxation and incentives
	Information on strategic partners (distribution, legal support, recruitment support, etc.) and on relevant industry or sector
Entry stage	Information on procedures and regulations for doing business in this country (company registration, permits, labour regulations, etc.)
	Facilitating company registration, licensing (work permits, import/export permits, etc.)
	Introduction to legal, accounting and other professional services
	Soft landing services (e.g. schools, housing, safety)
Implementation stage	Finding suitable sites (e.g. land, office, factory)
	Facilitating building construction
	Access to utilities and infrastructure
	Finding key staff
Operation stage/ After care stage	Complaint resolution (issues concerning tax, labour, customs, immigration, utilities)
	Information on finance
	Matchmaking (access to suppliers, buyers, finance)
	Assistance in upgrading (information on technology sources, terms of technology transaction)
	Access to utilities and infrastructure

Figure 4.14 *Investment cycle phases*



illustrates the investment cycle phases. Table 4.3 lists the business support services that typically apply to these stages[12].

12 The respondents for this analysis have been limited to two distinct investor category groupings, foreign firms established after 1 January 2003 and those before 2003 but which made major investments after 1 January 2003.

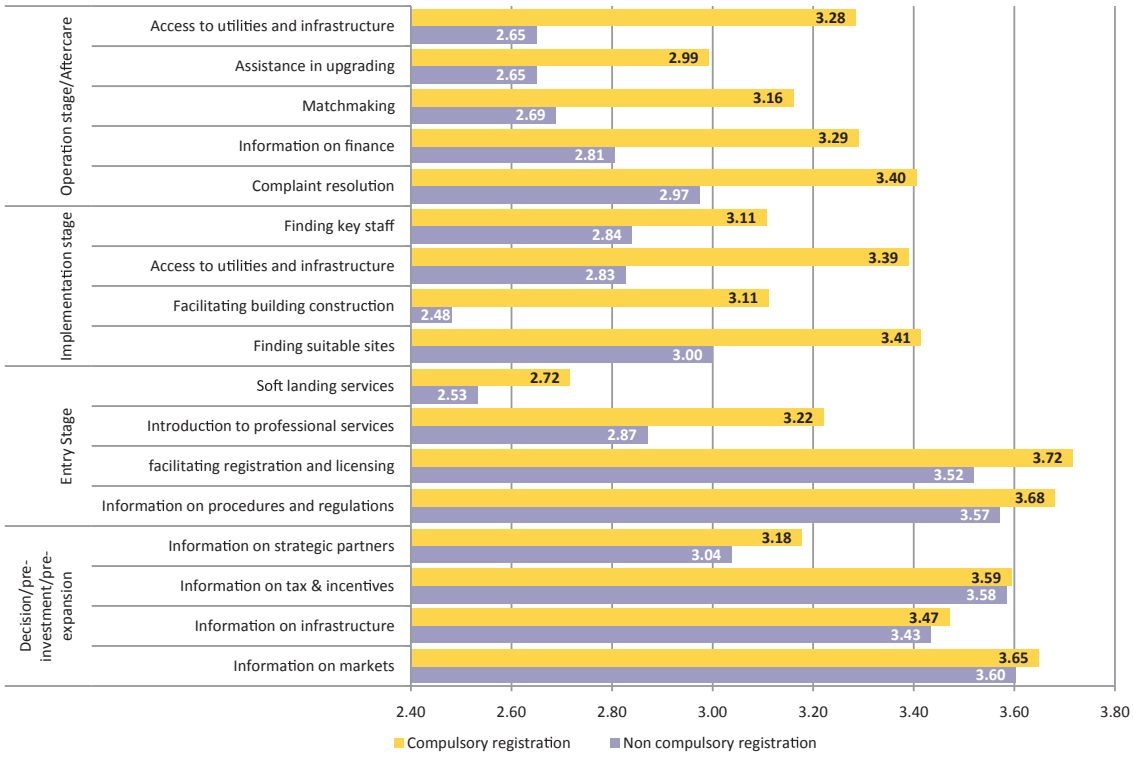
Importance of business support services

Figure 4.15 shows the average importance investors attributed to support services they received during the stages of investment. Responses are separated by IPA registration mode — voluntary versus compulsory — because this generates significant results. Generally, ratings of the importance of services obtained through compulsory interaction with IPAs were systematically higher than those for services offered in the context of voluntary interaction with IPAs. The rating gap between compulsory and voluntary services increased markedly in the later stages of the investment cycle, implementation and operations[13].

This result indicates that, through compulsory registration process, firms are forced to interact with investment promotion institutions. In this way, they realize the relevance of these services for their investment initiatives. Thus, such services are rated favourably. Regardless of the types of registration requirements, respondents tend to rank information on tax and incentives as one of the most important.

13 In the sample, the number of firms that responded that registration was compulsory was three times more than firms that thought registration was voluntary.

Figure 4.15 *Importance of business support services, by type and registration category (all surveyed countries)*



Note: Mean value based on a 5-point likert scale with: 1="not important", 2="slightly important", 3="important", 4="very important", 5="crucial"

This result is unsurprising, since information on tax and incentives is one of the most important services sought from investment promotion institutions.

Analyzing business support services for different African regions shows that, in East African countries, respondents who indicated registration was compulsory rated all business support services between slightly and very important, except soft-landing services and assistance in upgrading. In West African countries, a similar pattern in services related to the entry and implementation stage of investment. However, there were instances in which voluntary registration was associated with higher importance attributed to such services as recruiting key staff, identifying suitable sites and providing information on procedures and regulations. In Southern African countries, respondents with voluntary IPA registration rated the importance of services higher in the pre-investment stage as well as information on procedures in the entry stage than their counterparts with compulsory IPA registration.

Analysis by investor type — TNCs and FEs — shows that both groups ranked the importance of services very similarly. Although these varied by size, they tend to seek similar support services when establishing operations in host countries. Both types of investors rated facilitating registration and licensing, as well as information on procedures and regulations, tax and incentives and markets, as the most important business support services.

However, the importance of business support services varies by broad economic sectors, as illustrated in Table 4.4. Building construction facilitation is of lower importance in agriculture and mining and in services. Soft-landing services are rated as least important for respondents from all sectors but of little importance in agriculture and mining. Respondents across all broad economic sectors rate provision of information on markets, procedures and regulations and tax and incentives, as well as services to facilitate registration and licensing, significantly higher than other services.

Figures 4.16 and 4.17 illustrate the ratings of the importance of business support services by firm size for respondents in manufacturing and services sectors, respectively. In both, large firms tend to give higher ratings to business support services.

Table 4.4 *Importance of business support services, by type and economic sectors (all surveyed countries)*

		Agriculture and Mining	Manufacturing	Electricity-Water-Construction	Services
Decision/ pre-investment/ pre-expansion	Information on markets	3.5	3.6	3.7	3.6
	Information on infrastructure	3.4	3.4	3.4	3.3
	Information on tax & incentives	3.6	3.5	3.6	3.5
	Information on strategic partners	3.0	3.1	3.1	3.1
Entry Stage	Information on procedures and regulations	3.7	3.6	3.6	3.7
	facilitating registration and licensing	3.6	3.6	3.5	3.6
	Introduction to professional services	2.8	3.1	3.2	3.2
	Soft landing services	2.4	2.7	2.7	2.7
Implementation stage	Finding suitable sites	3.3	3.3	3.2	3.2
	Facilitating building construction	2.9	3.1	3.1	2.8
	Access to utilities and infrastructure	3.1	3.3	3.2	3.1
	Finding key staff	2.9	3.0	3.5	3.2
Operation stage/ Aftercare	Complaint resolution	3.2	3.3	3.3	3.3
	Information on finance	3.1	3.1	3.5	3.2
	Matchmaking	3.1	3.0	3.1	3.1
	Assistance in upgrading	2.9	2.9	2.9	2.9
	Access to utilities and infrastructure	3.1	3.0	3.1	3.1

Note: Mean value based on a 5-point likert scale with: 1="not important", 2="slightly important", 3="important", 4="very important", 5="crucial"

Only in soft-landing services, matchmaking support and assistance in upgrading services did small firms give higher ratings. In both sectors, services in the early stages of the investment cycle tend to receive higher ratings. In manufacturing, however, services offered in the implementation stage are rated higher. Conversely, in service industries, the importance of services in the after-care stage received higher ratings.

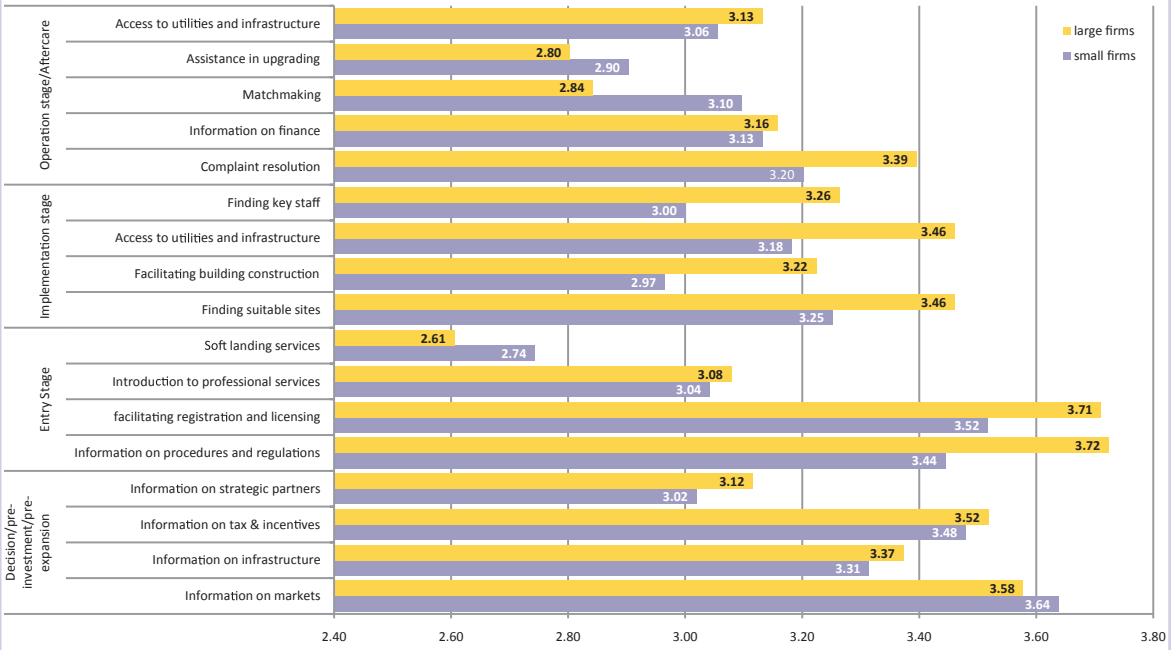
Receipt of business support services

Foreign investors were asked about business support services they received from investment promotion agencies. Figures 4.18 and 4.19 illustrate these results. Across all regions, services most frequently received were those related to the entry stage of foreign investment, especially those for facilitating registration and licensing and information on procedures and regulations. The least frequently received services were in the after-care stage, especially with respect to matchmaking services and assistance in upgrading.

Respondents who indicated that registration was compulsory received more business support services than the other group in the entry, implementation and operation stages. Those investors who claimed that registration was not compulsory received more services in pre-investment or -expansion stages. This suggests that, in those countries where registration was not compulsory, business support services had been focused on capturing new investors with less emphasis on after-care services.

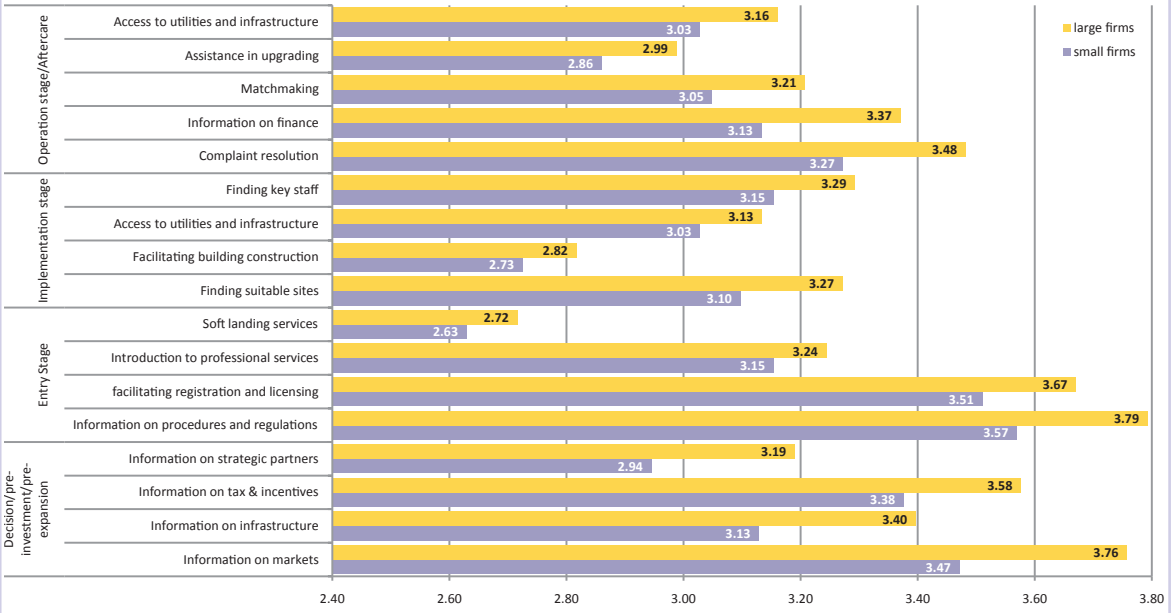
TNCs stated that they had received more IPA services in all four stages of the investment cycle compared to FEs. Nevertheless, both TNCs and FEs received more services in the entry stage, especially facilitation of

Figure 4.16 *Importance of business support services, by type and manufacturing firm size (all surveyed countries)*



Note: Mean value based on a 5-point likert scale with: 1=”not important”, 2=”slightly important”, 3=”important”, 4=”very important”, 5=”crucial”

Figure 4.17 *Importance of business support services, by type and services’ firm size (all surveyed countries)*

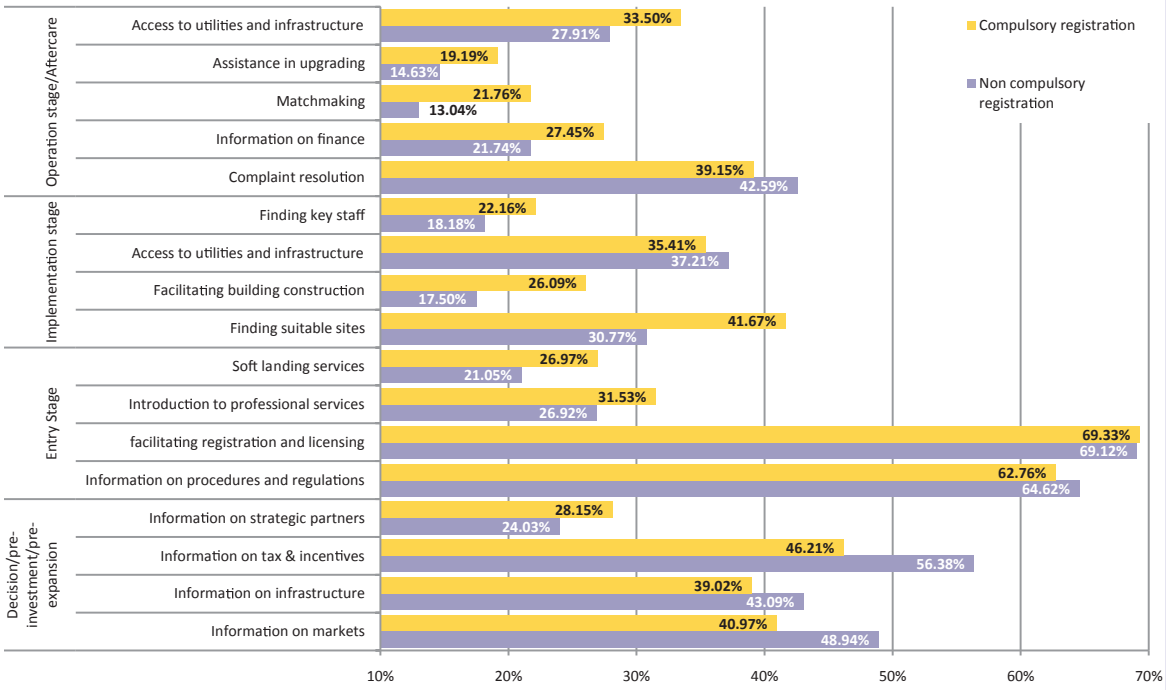


Note: Mean value based on a 5-point likert scale with: 1=”not important”, 2=”slightly important”, 3=”important”, 4=”very important”, 5=”crucial”

registration and licensing and information on procedures and regulations. Although both FE and TNC respondents perceived business support services for information on infrastructure and markets as extremely crucial, a comparatively low proportion received these services. Table 4.5 lists the frequency of IPA services received by economic sector in all surveyed countries. Respondents in all sectors received the largest proportion of services in the entry stage and the lowest in the operation stage. On average, 16 per cent of the firms in services indicated having received business support services in the after-care stage.

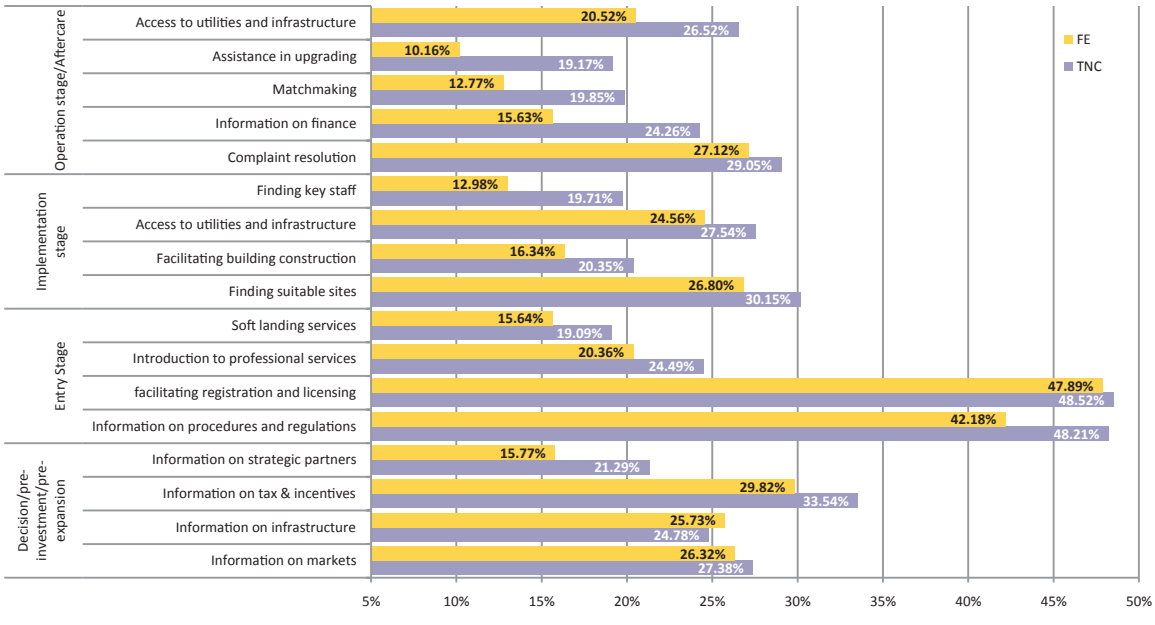
Table 4.6 shows the services received grouping the responding firms by mode of market entry. The number of respondents varies significantly among the modes of entry. While about 70 per cent were wholly owned enterprises, some three per cent entered the market through the purchase of pre-existing state-owned assets. The highest level of service coverage is observed in those firms that were founded by taking over state-owned assets. Sixty per cent of these received IPA support in information

Figure 4.18 *Receipt of business support services, by type and registration category (all surveyed countries)*



Note: Mean value based on a 5-point likert scale with: 1=”not important”, 2=”slightly important”, 3=”important”, 4=”very important”, 5=”crucial”

Figure 4.19 *Receipt of business support services by type and ownership type*



Note: Mean value based on a 5-point likert scale with: 1=”not important”, 2=”slightly important”, 3=”important”, 4=”very important”, 5=”crucial”

Table 4.5 *Receipt of business support services, by type and economic sector (all surveyed countries)*

		Agriculture and Mining	Manufacturing	Electricity-Water-Construction	Services
Decision/ pre-investment/ pre-expansion	Information on markets	24.4%	28.6%	28.2%	25.0%
	Information on infrastructure	20.0%	29.1%	19.4%	24.0%
	Information on tax & incentives	28.0%	33.4%	31.3%	29.6%
	Information on strategic partners	21.2%	17.4%	13.6%	18.8%
Entry Stage	Information on procedures and regulations	43.5%	50.2%	36.6%	39.1%
	facilitating registration and licensing	51.1%	55.4%	33.3%	42.0%
	Introduction to professional services	23.3%	20.9%	27.0%	22.7%
	Soft landing services	16.0%	16.9%	21.4%	16.3%
Implementation stage	Finding suitable sites	36.1%	33.0%	28.6%	21.0%
	Facilitating building construction	18.2%	17.8%	28.1%	14.9%
	Access to utilities and infrastructure	35.3%	27.7%	34.3%	19.4%
	Finding key staff	12.9%	14.0%	23.7%	15.5%
Operation stage/ Aftercare	Complaint resolution	26.3%	32.5%	30.6%	23.0%
	Information on finance	13.5%	18.0%	30.8%	18.0%
	Matchmaking	19.4%	13.1%	28.1%	14.1%
	Assistance in upgrading	16.7%	12.7%	23.3%	10.7%
	Access to utilities and infrastructure	28.1%	25.0%	33.3%	16.8%

Note: Percentage of respondents receiving services

and registration in the entry stage of investment. In later investment stages, they stood out slightly as receiving frequent support in finding suitable sites and complaint resolution. This is unsurprising, since post-privatization operations frequently involves tackling a number of challenging legal and regulatory issues inherited from the parastatal era. Generally, in implementation and after-care phases, the highest coverage ratios were observed for firms that began with the purchase of assets from local private owners.

Quality of IPA support services

In addition to perceived importance and actual receipt, data were collected on quality of IPAs' business support services. Figure 4.20 illustrates foreign investors' perceptions of quality of business support services, by type of registration requirement. Respondents tend to rate the services higher in countries where there was compulsory registration with IPAs. This was especially the case for such after-care types of services as assistance in upgrading and matchmaking but also some entry stage services, such as soft landing and introduction to professional services. IPAs with compulsory registration appear to better support long run of investor business activities. Where investment registration was voluntary, the perception of quality of business support services was poor. The largest difference between the two categories was in the after-care services of matchmaking. There were exceptions, though, to the convergence of compulsory registration and higher quality of services. These included information on infrastructure, finding suitable sites, facilitating building construction and providing information on finance, where investors in voluntary IPA schemes rated IPA services higher.

Figure 4.21 shows that TNCs generally tended to rate IPA quality higher than FE counterparts. The latter, however, evidently preferred services for finding key staff and soft landing services. Since smaller investors were more likely to request IPA services they

Table 4.6 *Receipt of business support services, by type and mode of entry (all surveyed countries)*

		New operation		Purchase of pre-existing assets		
		Wholly-owned enterprise (WOE)	Joint Venture (JV)	From local private owners	From private foreign owners	From state-owned assets
Decision/ pre-investment/ pre-expansion	Information on markets	27.2%	27.0%	24.1%	24.7%	18.8%
	Information on infrastructure	26.2%	27.9%	15.5%	14.5%	27.3%
	Information on tax & incentives	30.7%	35.0%	26.7%	24.0%	37.0%
	Information on strategic partners	17.7%	19.4%	16.1%	10.9%	18.9%
Entry Stage	Information on procedures and regulations	44.4%	43.6%	37.5%	44.0%	60.0%
	facilitating registration and licensing	48.4%	50.6%	38.7%	42.3%	60.0%
	Introduction to professional services	22.6%	22.4%	23.1%	13.0%	14.3%
	Soft landing services	16.7%	8.7%	36.8%	20.0%	16.7%
Implementation stage	Finding suitable sites	29.7%	23.9%	24.0%	19.0%	33.3%
	Facilitating building construction	16.7%	23.3%	24.0%	6.3%	14.3%
	Access to utilities and infrastructure	25.9%	25.4%	31.8%	18.2%	12.5%
	Finding key staff	15.9%	13.1%	26.1%	5.3%	11.1%
Operation stage/Aftercare	Complaint resolution	29.5%	21.7%	27.3%	20.8%	33.3%
	Information on finance	17.5%	19.7%	30.4%	5.0%	25.0%
	Matchmaking	16.0%	9.4%	33.3%	0.0%	22.2%
	Assistance in upgrading	11.9%	12.1%	33.3%	5.9%	28.6%
	Access to utilities and infrastructure	21.5%	25.0%	35.0%	20.0%	22.2%

Note: Percentage of respondents receiving services

were unable to deliver internally, the preference is unsurprising. The highest overall rating was for matchmaking services by TNCs, while the lowest was for introduction to professional services and finding key staff by FEs.

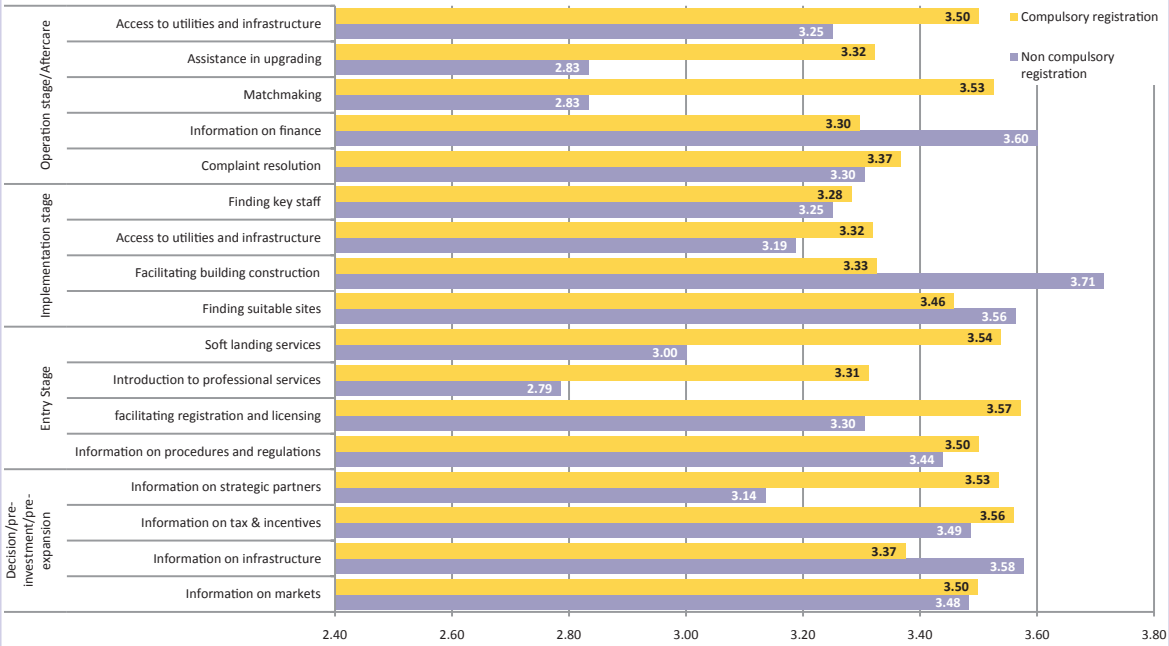
Linking importance and quality of business support services

After analyzing the perceived importance and quality of business support services, the congruence of both factors is revealing. This section compares the two measurements drawing conclusions for IPA operations. As Figure 4.23 depicts, each combination of the two dimensions — importance and quality — for particular IPA services can potentially result in a different policy recommendation. If importance and quality of a service are highly rated (refer to top right quadrant), service provision is optimal. If importance is high but quality low (see bottom right), a quick improvement of the service is needed. If perceived importance of a high quality service

(see top left) is low, there are two explanations. Either a communication issue exists and investors should be better informed about the potential benefit of the service, or the service is not needed and should be discontinued. If perceived importance and quality are both low (see bottom left quadrant), the service should be discontinued and resources diverted into other services that bring value to the investor.

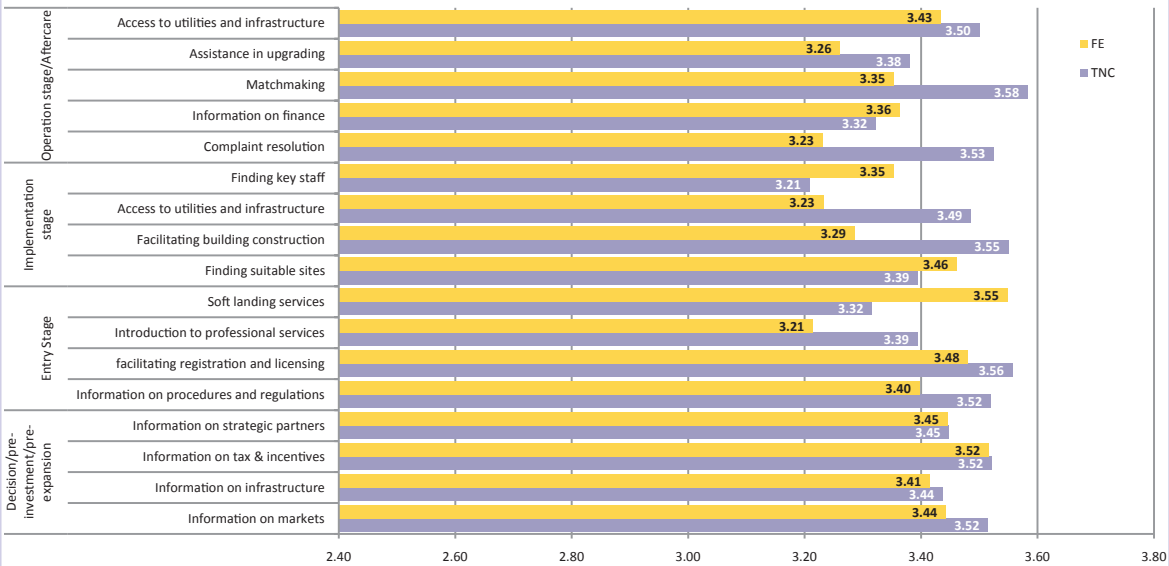
Based on this methodology, the following charts analyze the responses from all surveyed countries in multiple illustrations. The bubble size indicates the percentage of respondents receiving services.

Figure 4.20 *Quality of business support services, by type and registration category (all surveyed countries)*



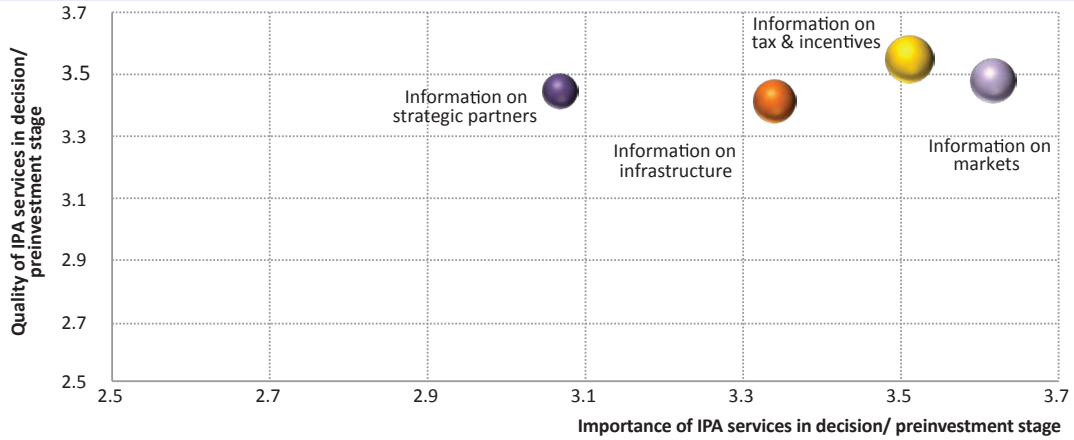
Note: Mean value based on a 5-point likert scale with: 1="not important", 2="slightly important", 3="important", 4="very important", 5="crucial"

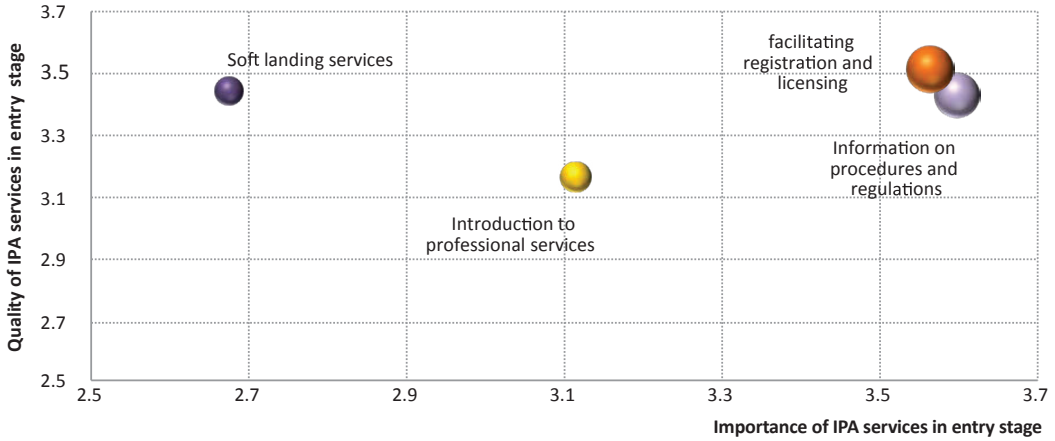
Figure 4.21 *Quality of Business support services, by type and ownership status (all surveyed countries)*

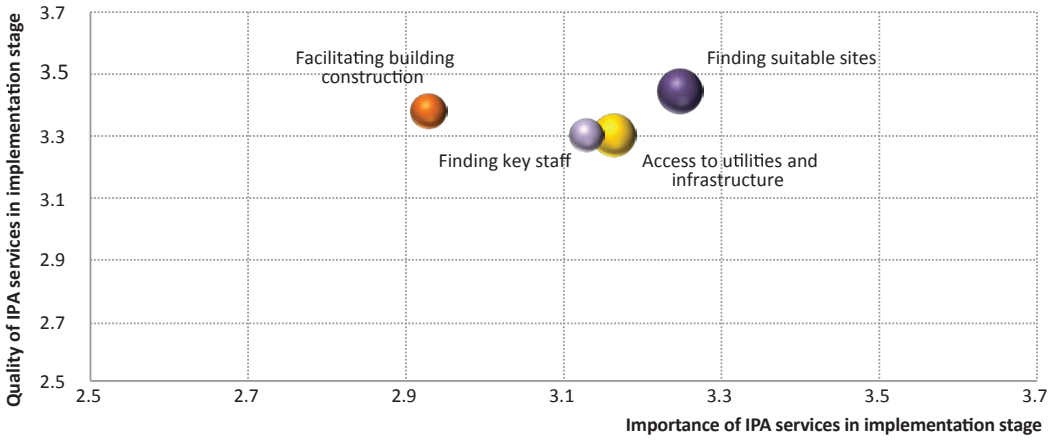


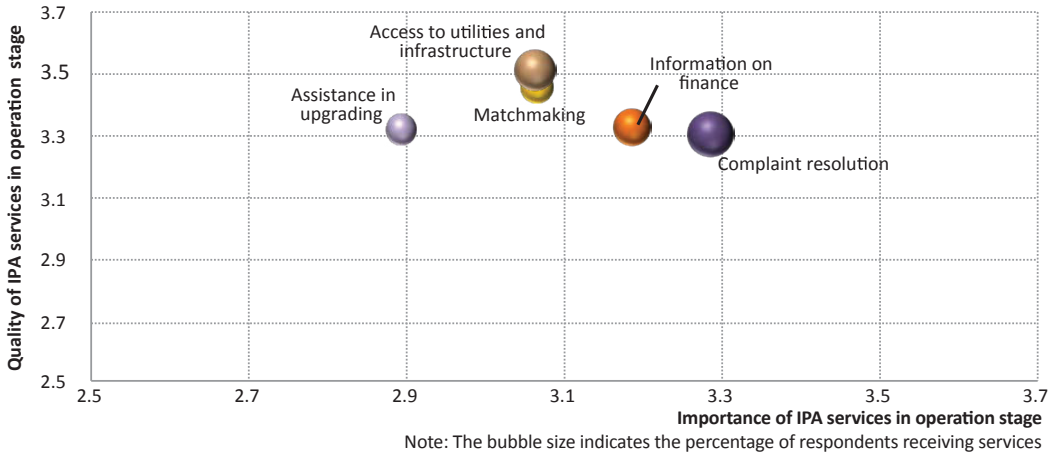
Note: Mean value based on a 5-point likert scale with: 1="not important", 2="slightly important", 3="important", 4="very important", 5="crucial"

Figure 4.22 *Importance and quality of business support services, by type (all surveyed countries)*



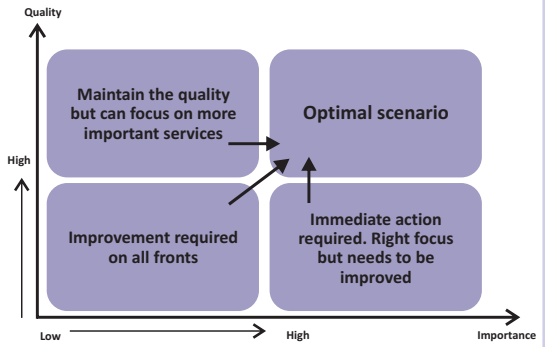






Note: The bubble size indicates the percentage of respondents receiving services

Figure 4.23 *Business support services, quality – importance - actions*



In the pre-investment stage, most services are in the top right quadrant. Business services providing information on markets are perceived to be the most important. Information on strategic partners is seen as less important, although quality ratings are high. This likely reflects that most FDI entered the host country as wholly owned, so the perceived need for partner information was low. However, joint ventures as a group outperforms wholly owned operations in many respects. Therefore, the importance of information on partners should not be underestimated.

In the entry stage, IPA services emerge as more distinct. Registration and licensing services are found in the optimal quadrant, while improvement seems to be needed for introduction to professional services. Soft landing services are evidently of good quality, but investors are either too unaware of their availability or the majority of the investors did not require them.

In the implementation stage, quality of services is slightly lower and less relevant to investors. Building construction support applies mostly to manufacturing investors, thus, being characterized by a lower overall importance rating.

In the operation stage, assessments produced a similar result. Access to infrastructure and matchmaking services are of slightly higher perceived quality than other services. Assistance in upgrading, information on finance and complaint resolution is rated relatively low in terms of both quality and importance when compared to the other services. The latter services are considered markedly more important to investors than assistance in upgrading services.

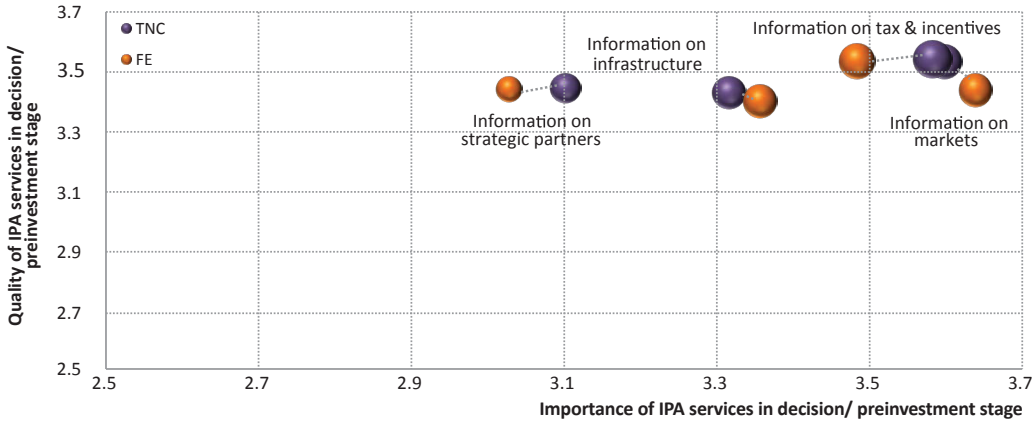
Figure 4.24 shows the previous results again but disaggregated for TNCs and FEs. In the decision stage, results for these groups differed slightly, with FEs rating service quality a little lower that TNCs. In the entry stage, FEs are significantly more positive about soft landing service quality, with both investor groups rating the importance of these services rather low. Registration and licensing are in the optimal quadrant for both groups, with FEs rating quality lower. However, the two groups view introduction to professional services quite differently. The service appears more relevant and of better quality to TNCs than FEs.

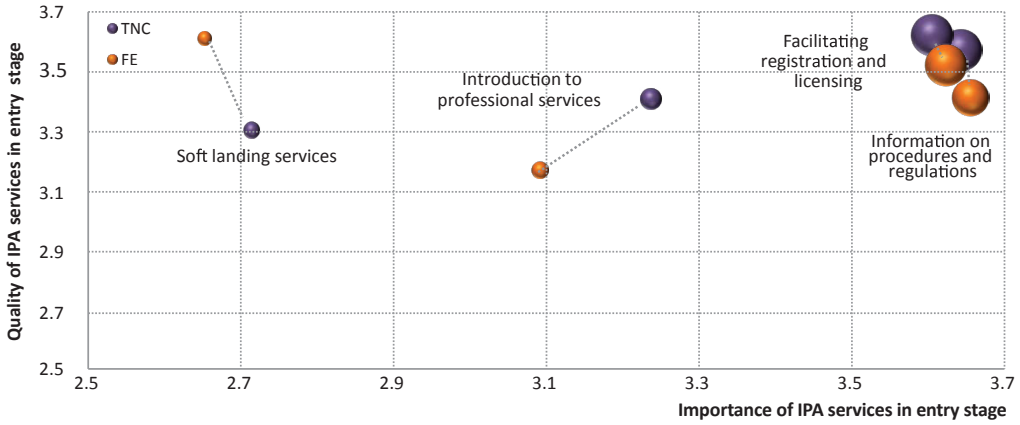
In the implementation phase, the two groups are even more diverse in rating IPA services. For FEs, support in building construction and finding suitable sites is much more important than for TNCs. Access to infrastructure is rated as more important by FEs. This, however, does not automatically imply better quality assessments. On the contrary, usually the group that rated the importance of particular services higher, at the same time, rated their quality lower. An exception was the service for finding suitable sites. FEs rate its importance and quality higher than TNCs.

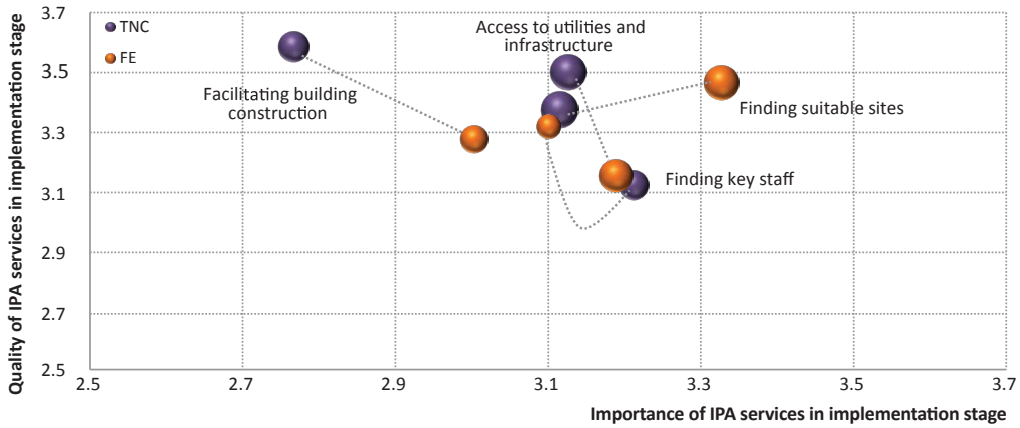
In the operation stage, average evaluation results are much more compressed within narrow boundaries. Bubble sizes were large, which means that the percentage of respondents who had received these services was fairly high. FEs tend to rate quality of the services lower. For TNCs, complaint resolution is the best performer among services in the operations stage. Matchmaking is notably more important for FEs than TNCs, but its quality is rated considerably higher by the latter.

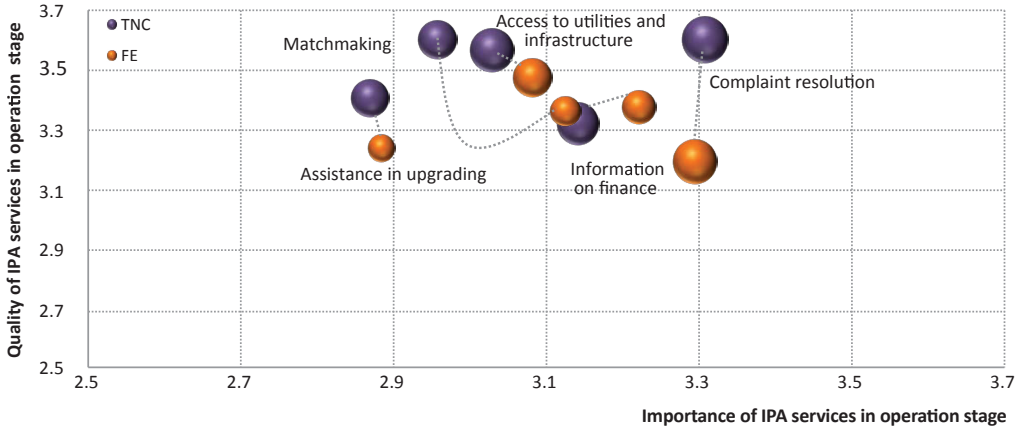
Figure 4.25 shows the summary of responses on importance and quality of business services for investors from the North and South. Investors from the North tend to rate IPA services as more important and receive better quality of services, especially in entry stage and operation stage. During implementation stage, investors from the South

Figure 4.24 *Importance and quality of business support services, by type and ownership status (all surveyed countries)*



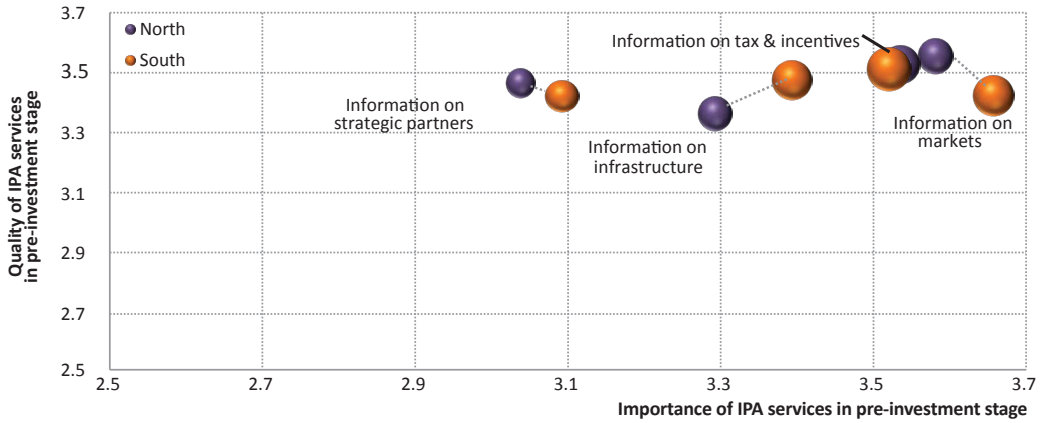


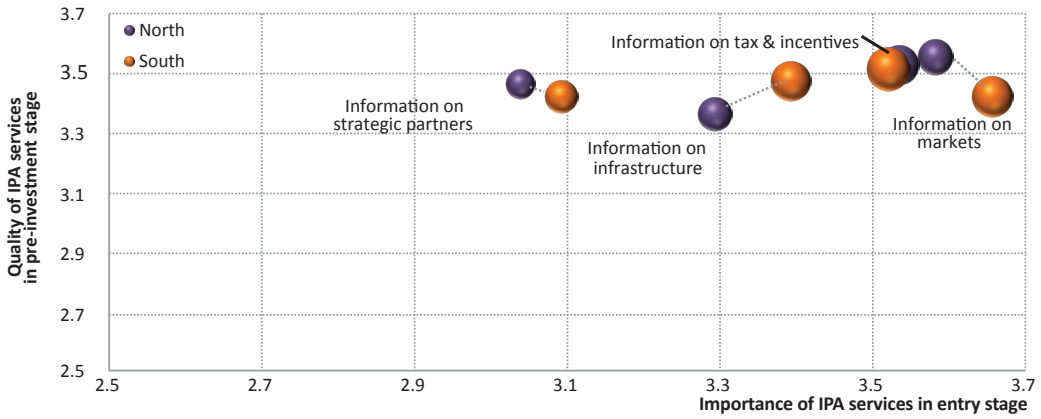


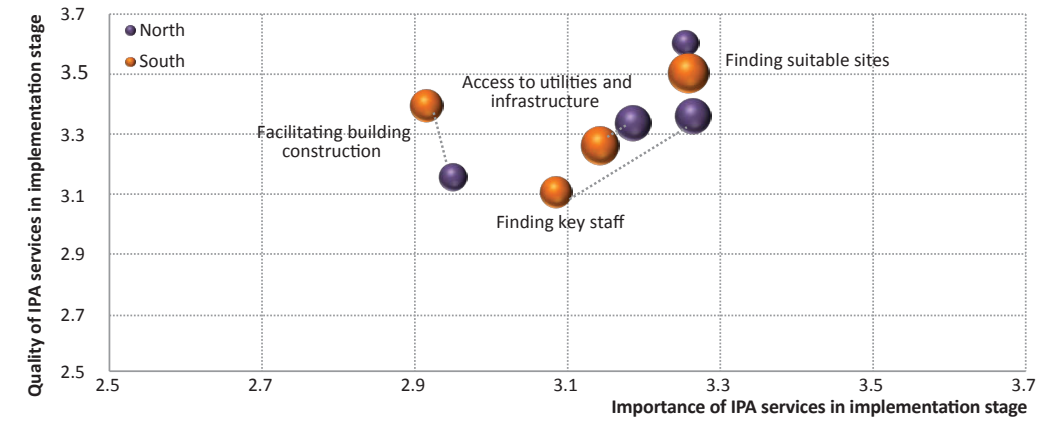


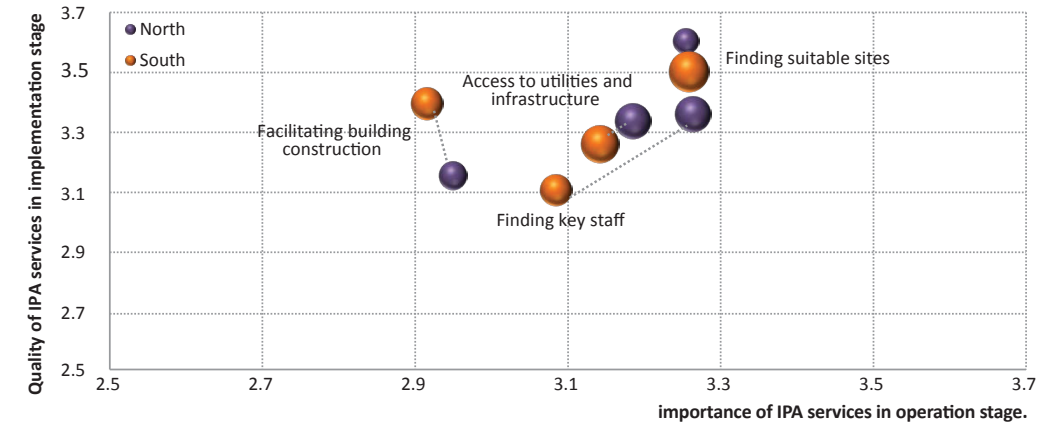
Note: The bubble size indicates the percentage of respondents receiving services

Figure 4.25 *Importance and quality of business support services, by type and investor origin (all surveyed countries)*









Note: The bubble size indicates the percentage of respondents receiving services

rate facilitating building construction lower but tend to receive services with better quality compared to investors from developed countries. Southern investors, however, receive more services in all stages of investment than those from the North.

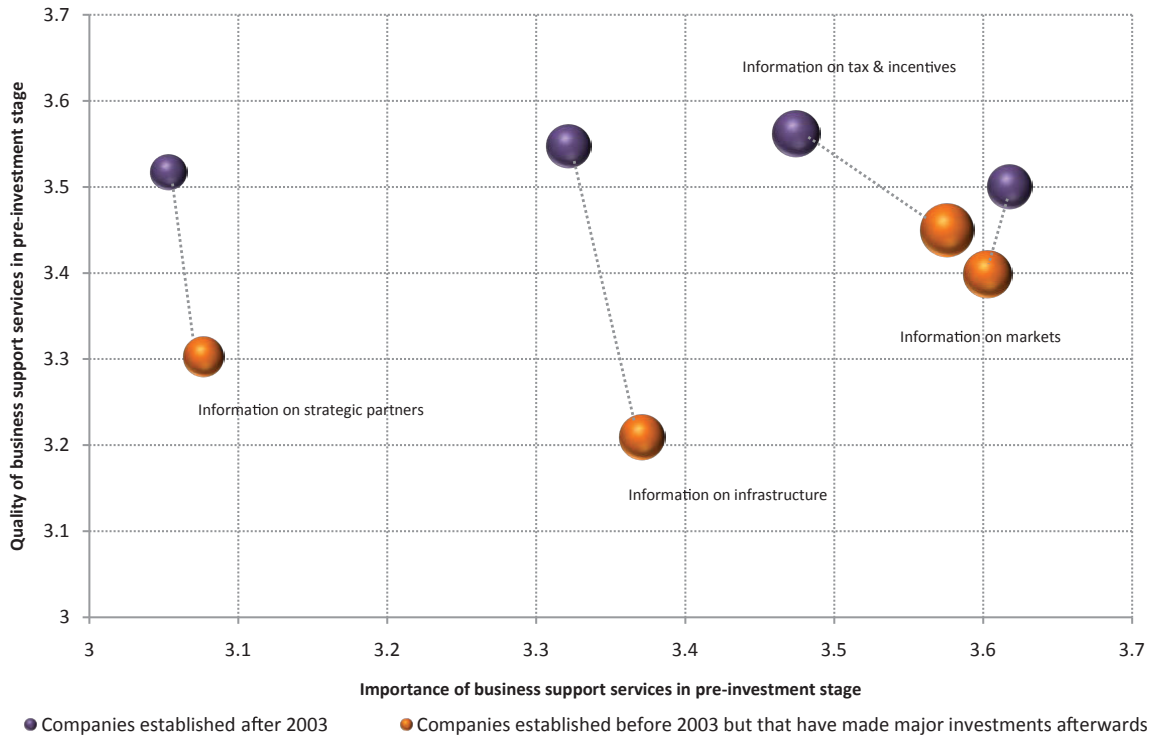
At the pre-investment stage, analysis shows no major differences between investors from the North and South. At the entry stage, Northern investors tend to rate services higher and receive services of higher quality. During the implementation stage, Southern investors rate the importance of IPA services in facilitating building construction lower. But they rate received services as of higher quality compared to investors from developed countries. Investors from the North give considerably more importance to assistance in finding key staff rating the quality of the service considerably higher that those from the South. In the operation stage, the quality of all services is relatively high compared to their relative importance, especially for those of matchmaking and access to utilities. Southern investors rate the importance and, generally, quality of after-care services lower.

Established investors versus new entrants after 2003

According to the survey's methodology, only foreign firms established after 2003 were asked to respond to questions on importance, receipt and quality of business support services at the different investment stages. However, foreign firms established before 2003 but which undertook major investments after 2003, were asked about availability and quality of business support services in the pre-investment stage. This methodology permits a dedicated analysis of service evaluation by these firms in the pre-investment stage.

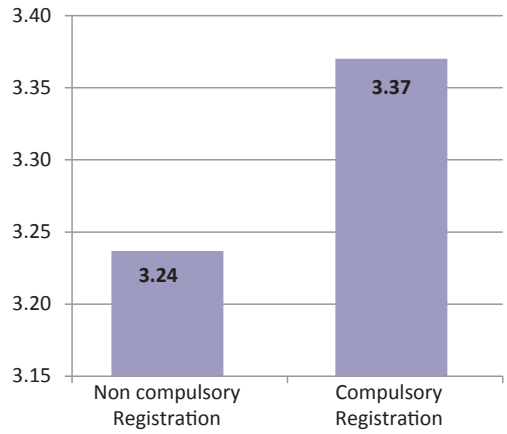
Figure 4.26 reveals significant differences between these two types of investors. While both groups of investors had a similar perception of the importance of IPA services, their quality was rated much higher by new entrants established after 2003. Overall and in absolute figures, firms established after 2003 received more services in all categories. Both types of firms rated the service of information on markets most

Figure 4.26 *Importance and quality of business support services, by type and by date of establishment before and after 2003 (all surveyed countries)*



Note: The bubble size indicates the percentage of respondents receiving each service

Figure 4.27 *IPA usefulness, by registration category (all surveyed countries)*



Note: Mean value based on a 5-point likert scale with: 1="not useful", 2= "somewhat useful", 3="useful", 4="very useful", 5="extremely useful"

important and on strategic partners least important. Feedback concerning quality of s suggests that the service on information on markets could have been improved given its importance. For firms established before 2003, all business support services required improvement, with the exception of information on strategic partners. These findings indicate that firms already operating in the survey countries, were not satisfied with the quality of service, when they wished to increase their investments. Lack of sufficient after-care for existing investors was a major general shortcoming of IPAs since as much as 60 per cent of new investments came from existing investors.

Foreign investors' overall ratings of IPA services

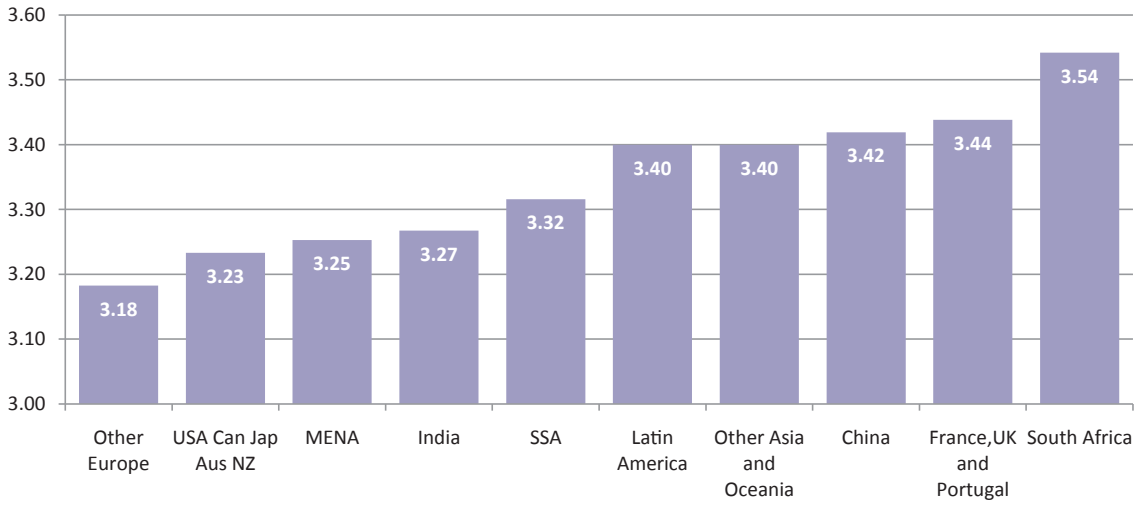
This Section consolidates previous results to offer a general assessment of how investors rated the usefulness and performance of IPAs' services. It begins with an analyses of IPA usefulness by investor origin and mode of market entry. Then, IPA performance ratings are examined and the interrelation of importance and quality of IPA services compared. From this, a number of observations and policy recommendations follow.

Overall IPA usefulness

Figure 4.27 highlights the difference in average ratings of respondents across all countries. Overall, investors who indicated that registration was compulsory rated IPA services as more useful compared to the other group, with scores of 3.37 compared to 3.24.

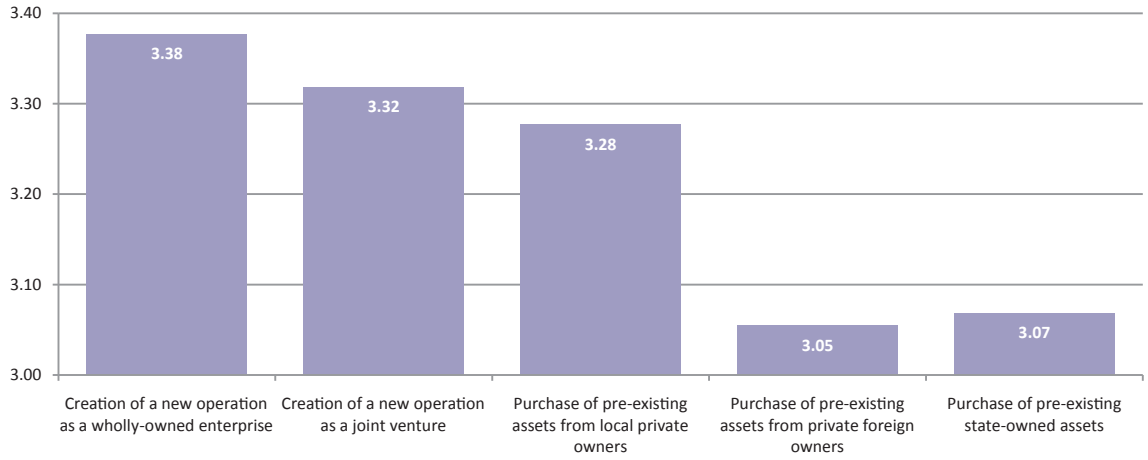
Figure 4.28 illustrates perceived IPA usefulness by investors' region of origin. Average ratings for each group score were between useful and very useful. Investors from South Africa rated IPA usefulness highest, followed by the United Kingdom, France, Netherlands, Germany and China. The data show that investors from China and South Africa had the

Figure 4.28 *IPA usefulness, by registration category and investor country of origin (all surveyed countries)*



Note: Mean value based on a 5-point likert scale with: 1="not useful", 2="somewhat useful", 3="useful", 4="very useful", 5="extremely useful"

Figure 4.29 *IPA usefulness, by investor mode of entry (all surveyed countries)*



Note: Mean value based on a 5-point likert scale with: 1="not useful", 2="somewhat useful", 3="useful", 4="very useful", 5="extremely useful"

Table 4.7 *IPA service score, by importance and quality (selected countries)*

		IPA importance		IPA quality	
		No. 1 Country	Score	No. 1 Country	Score
Decision/ pre-investment/ pre-expansion	Information on markets	Mozambique	4.16	Niger	4.50
	Information on infrastructure	Mozambique	3.93	Cameroon	5.00
	Information on tax & incentives	Mozambique	4.01	Niger	5.00
	Information on strategic partners	Nigeria	3.36	Niger and Malawi	4.00
Entry Stage	Information on procedures and regulations	Malawi	4.75	Malawi	4.67
	facilitating registration and licensing	Malawi	5.00	Malawi	4.33
	Introduction to professional services	Malawi	4.25	Cape Verde	3.67
	Soft landing services	Burkina Faso	3.50	Burundi	5.00
Implementation stage	Finding suitable sites	Malawi	4.00	Burundi	4.00
	Facilitating building construction	Malawi	3.50	Nigeria	4.50
	Access to utilities and infrastructure	Ethiopia	3.74	Malawi	4.00
	Finding key staff	Malawi	4.75	Nigeria and Zambia	4.00
Operation stage/ Aftercare	Complaint resolution	Malawi	4.00	Cape Verde. Nigeria and Zambia	4.00
	Information on finance	Malawi	4.00	Zambia	4.25
	Matchmaking	Mozambique	3.77	Zambia	5.00
	Assistance in upgrading	Mozambique	3.73	Cape Verde. Madagascar and Nigeria	4.00
	Access to utilities and infrastructure	Ethiopia	3.64	Nigeria	4.50

Note: Mean value based on a 5-point likert scale with: 1="not important", 2="slightly important", 3="important", 4="very important", 5="crucial"

highest frequency of extremely useful values and India, Kenya and South Africa the highest frequency of very useful values.

Figure 4.29 illustrates the overall IPA usefulness ratings by mode of market entry. The lowest ratings came from firms established through purchase of pre-existing assets from private foreign owners and pre-existing state-owned assets. This is hardly surprising. Investment through acquisitions from foreign firms and privatization might have required IPA services to a considerably lesser extent than for other forms of market entry. The highest usefulness ratings were given by firms established as wholly owned enterprises.

Foreign investors' overall ratings of IPA performance

The following analysis looks at foreign investors' overall ratings of IPA performance at country level, measured in terms of importance and quality of services received by them. Table 4.7 ranks importance and quality scores for IPA services provided in selected countries. Figure 4.30 compares perceived importance and quality of IPA services for each country in a symmetrically horizontal bar chart, which reveals that no direct nexus exists between importance and quality. High importance of IPA services neither implies high nor low perceived service quality.

Figure 4.31 illustrates results from calculation of an importance-to-quality-of-service ratio. In this analysis, a ratio of one stands for perfect alignment between importance of IPA services and their quality assessment by investors. A ratio of less than one refers to a situation where the quality of service provided is perceived to be higher than the perception of its importance. If the ratio is more than one, it implies that the importance of the service provided appears not to be matched by its quality.

Figure 4.30 *Investor perception of IPA service provision, by importance and quality (all surveyed countries)*

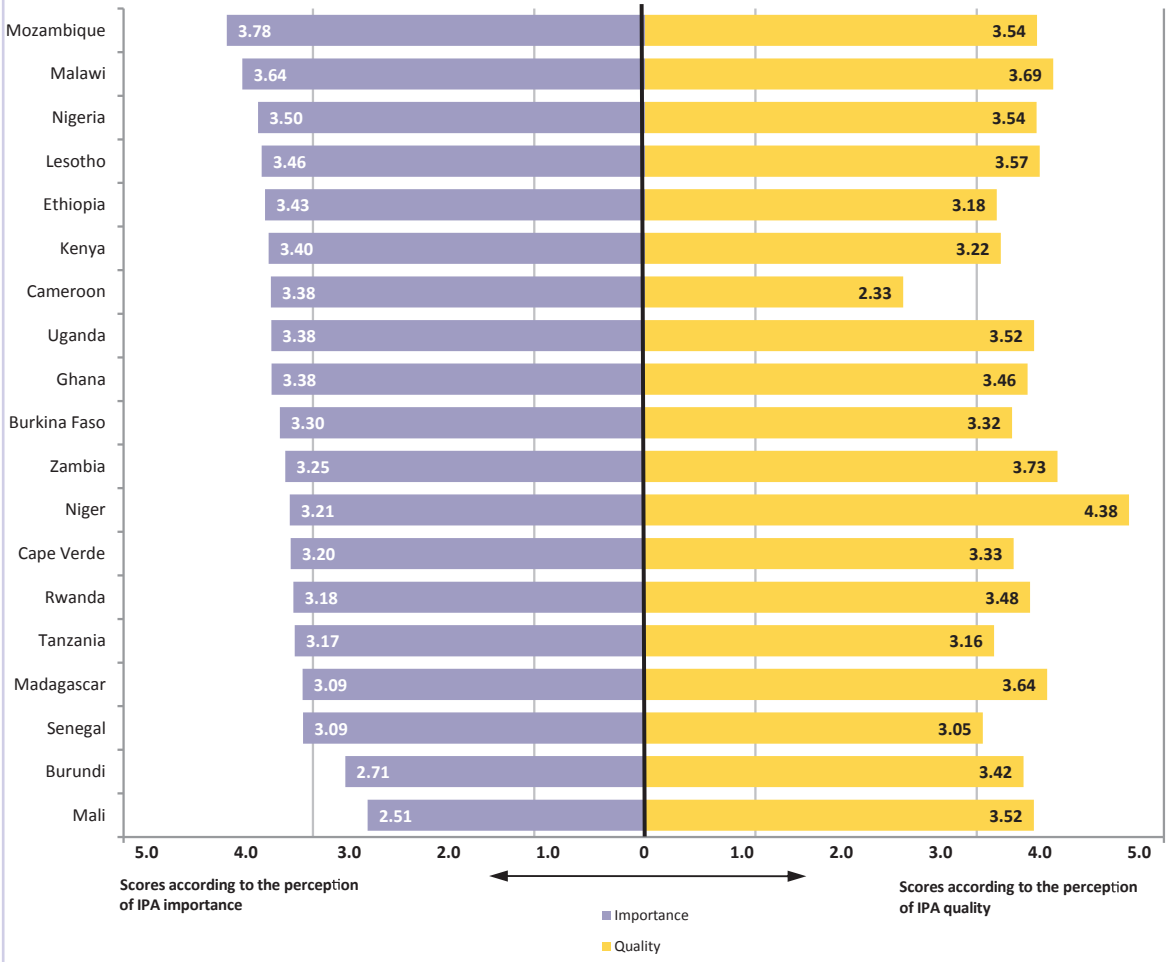
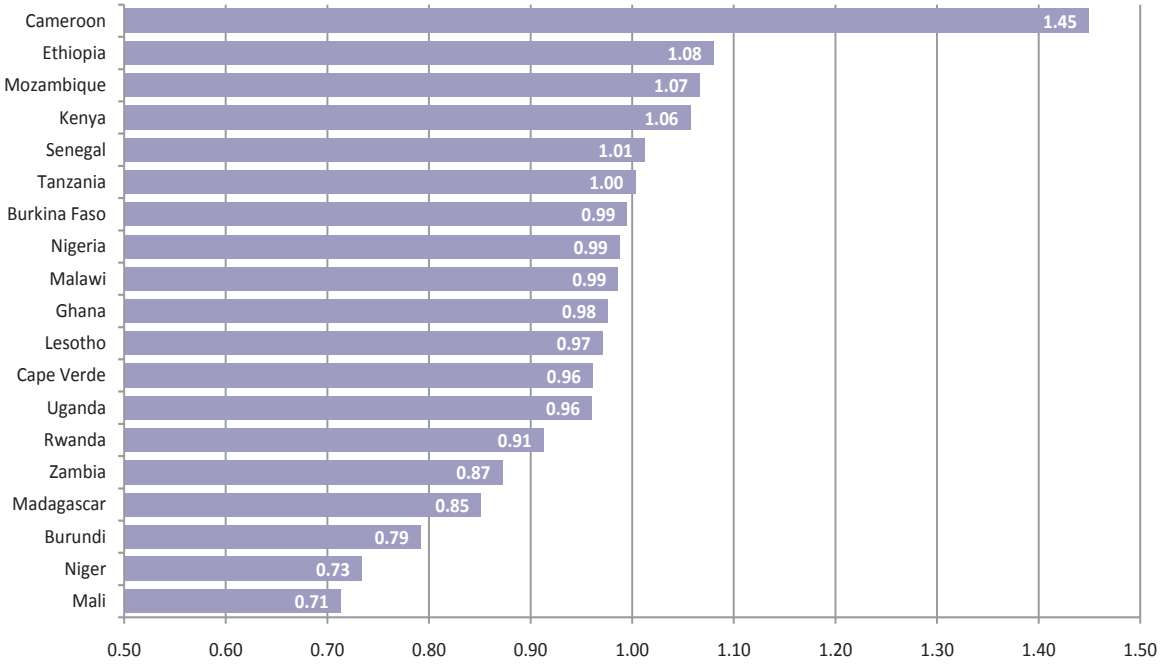


Figure 4.31 *IPA country ranking based on importance-to-quality-of-service ratio (all surveyed countries)*



Note: The numbers in the columns represent the investor perceptions of IPA importance/quality ratio

The IPA in Tanzania, Tanzania Investment Centre, emerges as the agency that, on average, seems to have aligned provision of important services with the quality demanded by investors. IPAs in Cameroon, Ethiopia, Kenya, Mozambique and Senegal have higher importance ratings compared to the rated quality they deliver. Their constituent investors would prefer more focus on higher quality in the services they receive. IPAs in Burkina Faso, Burundi, Cape Verde, Ghana, Lesotho, Madagascar, Malawi, Mali, Niger, Nigeria, Rwanda, Uganda and Zambia provide an average service quality that exceeds expectations. These might need to focus more on providing services considered to be important for investors while at the same time maintaining current levels of quality provision. Since these results are based on perception questions, their analysis should be taken in such a context. Nonetheless, results point to insights that may not be known to the respective IPAs[14].

14 Since IPAs were established at different times, under different circumstances and with different resources and mandates, an analysis of investor perceptions precluded their direct ranking. This reaffirms the importance of undertaking dedicated individual country diagnostic studies to shed more light on prevailing institutional framework conditions and institutional scope of respective investment promotion actors.

Domestic investor assessment of investment promotion agencies and institutions

Domestic enterprises were posed questions on investment and business support services in terms of importance, nature of service provider and quality and usefulness of service received. Since domestic investors might have different service providers than foreign investors, consideration of the quality of services also rates the institutional framework that supports domestic investment. This framework can include private sector associations/chambers, consultants and other related service providers. The analysis provides important information to IPAs in view of possible inclusion of domestic enterprises as IPA service beneficiaries. The analysis sequence in this section mirrors the analysis undertaken for foreign investors.

Main business support services providers

An analysis of the range of service providers to domestic investors is illustrated in Figure 4.32.

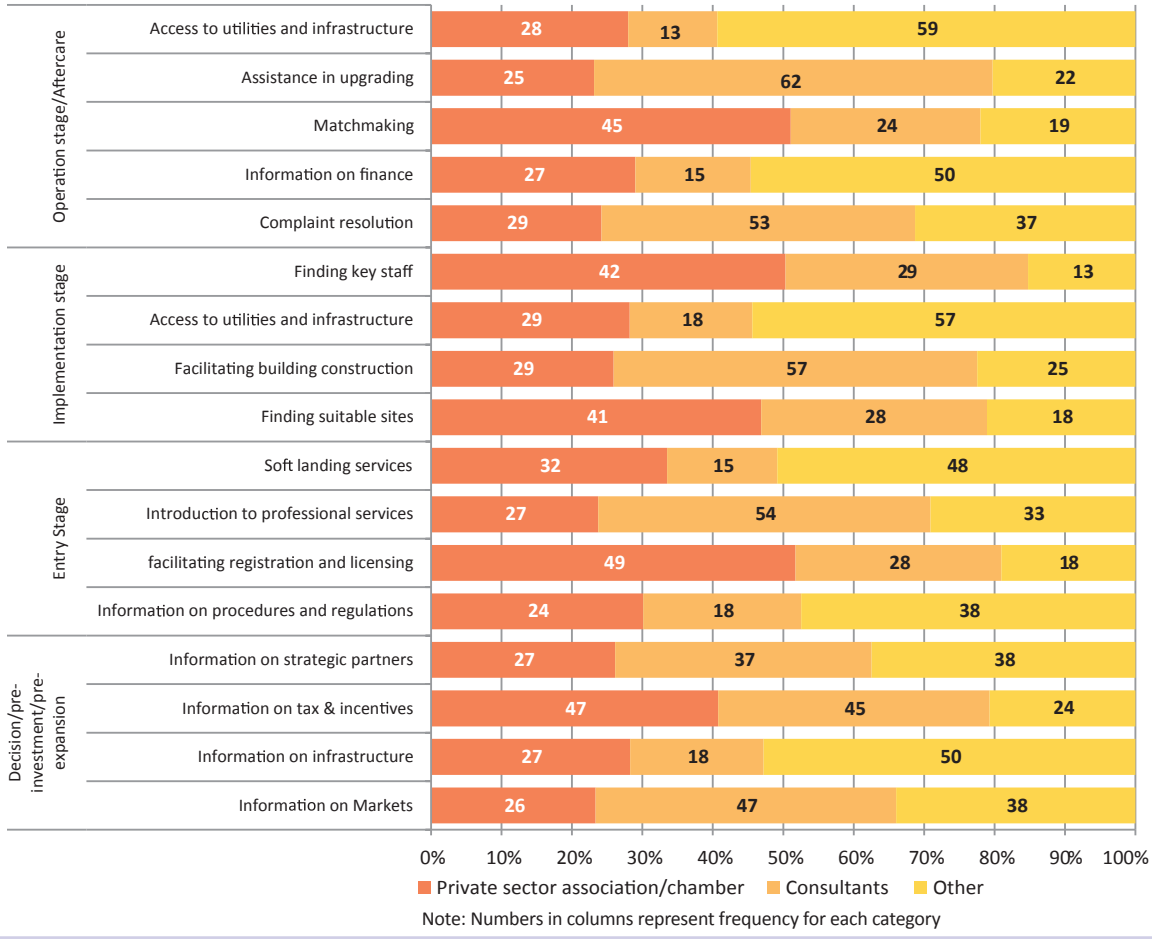
More than 50 per cent of the respondents indicate that they had obtained the services of assistance in upgrading, complaint resolution and facilitating building construction from consultants. Private-sector associations account for less than 50 per cent of the services provided in all types. Their most prominent service categories are information on tax, facilitation of registration and licensing, identifying suitable sites, recruiting key staff and matchmaking. For a number of business services, the highest responses are provided for the others category. More than half of the domestic respondents indicated that most of the services in information on infrastructure, access to utilities and infrastructure and information on finance were provided by the others category. The magnitude of this response points to the need for more in-depth analysis of what constitutes these other service providers, what they do and how they facilitate domestic investment

Importance of business support services for domestic investors

Figure 4.33 provides the results of these responses on importance[15]. No significant differences emerge in the importance of investment support services across the four stages of the investment process. Domestic investors find investment support services most important in the area of information on markets, information on procedures and regulations, information on tax and incentives and facilitating

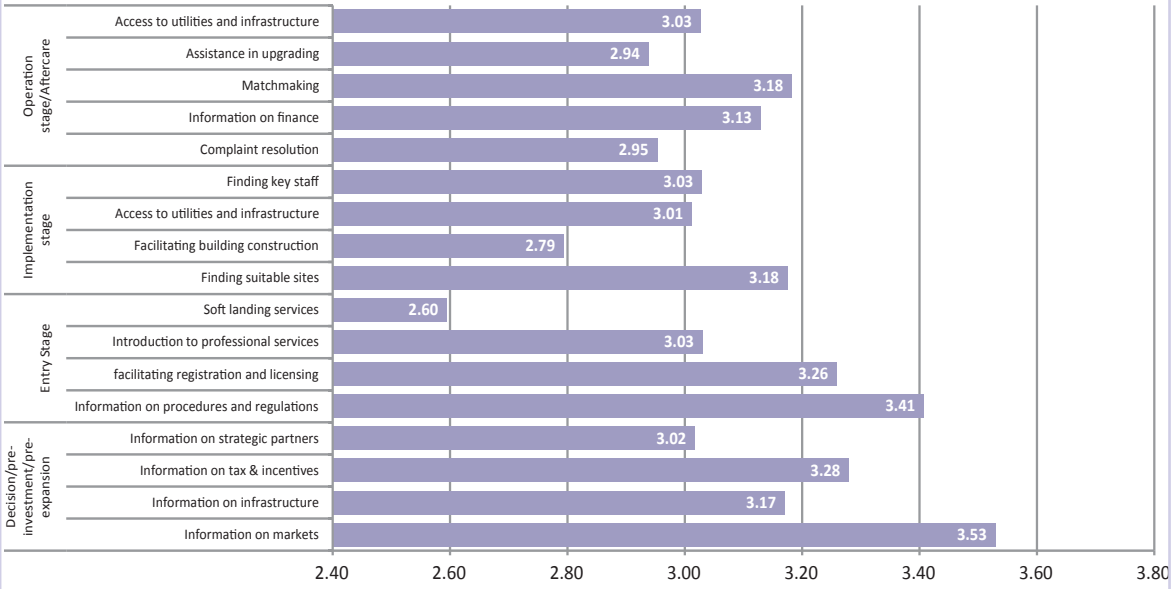
15 The following analysis is based on responses by domestic investors who were established after 1 January 2003 and asked to rate the importance and quality of a range of business support services received from different service providers. Firms that were established before 1 January 2003 but made major investments afterwards were asked to evaluate services in the pre-investment stage.

Figure 4.32 *Business service provision to domestic investors, by type of service and service provider (all surveyed countries)*



Note: Numbers in columns represent frequency for each category

Figure 4.33 *Importance of investment service provision to domestic investors, by type of service (all surveyed countries)*



Note: Mean value based on a 5-point likert scale with: 1="not important", 2="slightly important", 3="important", 4="very important", 5="crucial"

Table 4.8 *Importance of investment service provision to domestic investors, by type of service and economic sector (all surveyed countries)*

		Agriculture and Mining	Manufacturing	Electricity-Water-Construction	Services
Decision/ pre-investment/ pre-expansion	Information on markets	3.73	3.53	3.60	3.50
	Information on infrastructure	3.16	3.15	3.29	3.17
	Information on tax & incentives	3.42	3.24	3.40	3.29
	Information on strategic partners	3.05	2.98	3.15	3.03
Entry Stage	Information on procedures and regulations	3.62	3.31	3.49	3.46
	facilitating registration and licensing	3.46	3.23	3.19	3.28
	Introduction to professional services	3.26	2.90	3.00	3.14
	Soft landing services	2.72	2.59	2.82	2.55
Implementation stage	Finding suitable sites	3.36	3.20	3.07	3.15
	Facilitating building construction	2.95	2.85	3.03	2.68
	Access to utilities and infrastructure	3.15	3.08	3.10	2.91
	Finding key staff	3.08	2.87	3.07	3.18
Operation stage/ Aftercare	Complaint resolution	3.10	2.88	3.15	2.97
	Information on finance	3.26	3.04	3.31	3.17
	Matchmaking	3.47	3.20	3.16	3.14
	Assistance in upgrading	3.24	2.88	3.13	2.92
	Access to utilities and infrastructure	3.21	3.00	3.18	3.01

Note: Mean value based on a 5-point likert scale with: 1="not important", 2="slightly important", 3="important", 4="very important", 5="crucial"

registration and licensing. This result mirrors the importance ratings provided by foreign investors. Soft landing service is rated as the least important category by domestic investors, which is the case for foreign investors as well.

Table 4.8 depicts the importance ratings domestic investors attributed to business support services breaking them down by economic sector. Investors in agriculture and mining sectors tend to give higher ratings than other sectors. The service with the highest score of importance is information and markets, followed by information on procedures and regulations, both from manufacturing sector. The least rated across all sectors are soft landing services.

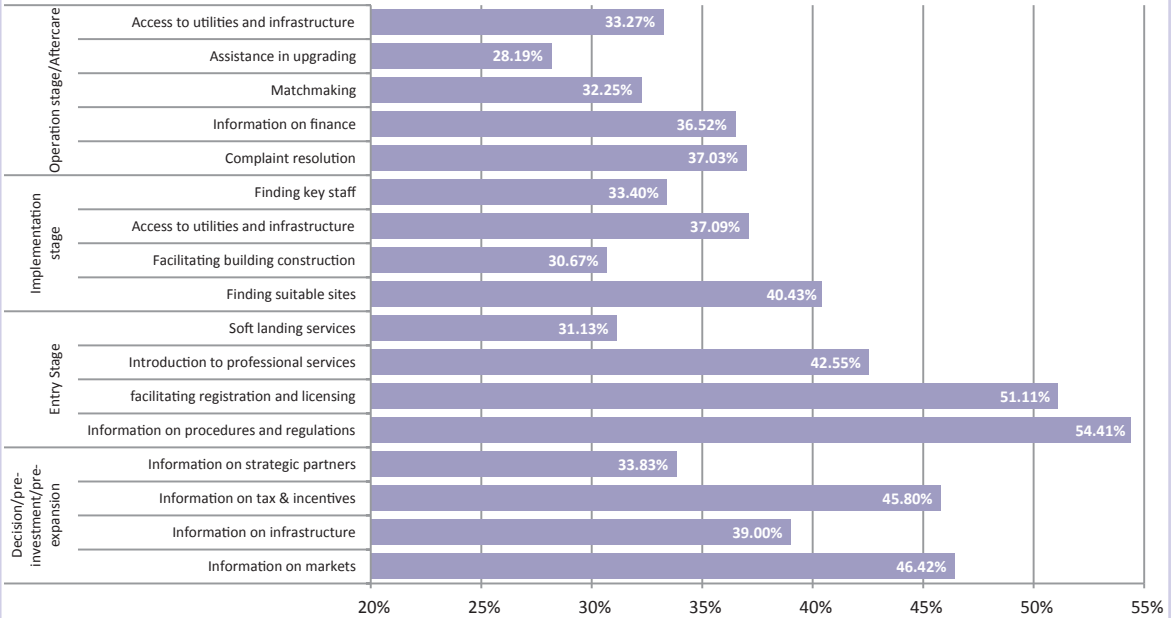
Receipt of business support services by domestic investors

Analysis of domestic investor responses concerning the receipt of business support services is depicted in Figure 4.34. The highest service delivery rates were measured for services at the entry stage, rather than the decision, implementation or after-care stages.

As with foreign investors, domestic respondents receive considerable support in facilitating registration and licensing, and information on procedures and regulations. The proportion of the receipt of those services is, however, relatively low compared to foreign respondents. Compared to foreign investors, domestic investors receive more services in the operation stage, especially assistance in upgrading, matchmaking and information on finance.

A breakdown by broad economic sector is shown in Table 4.9. The service receipt ratios of the domestic investors are, on average, notably higher than those of the foreign investors. Contrary to the foreign investors — where the manufacturing sector was the strongest recipient of investment support services — domestic investors in agriculture and mining often have much higher receipt ratios than manufacturing investors. Furthermore, there is considerable variation in the receipt of business support services within electricity, water and construction sectors. For example, some 64 per cent of investors in this sector indicated receiving information on procedures and regulations, while some 30 per cent of firms indicated receiving soft landing services. Some 49 per cent of firms in this sector took advantage of services in finding suitable sites, while 33 per cent of respondents used services to find key staff.

Figure 4.34 *Domestic investors' receipt of investment support services, by type (all surveyed countries)*



Note: Percentage of respondents receiving investment support services

Quality of business support services for domestic investors

Figure 4.35 illustrates domestic investor responses on the quality of business support services. Quality of services in implementation and operation stages is evaluated higher than in the pre-investment and entry stages. Matchmaking, finding key staff and suitable sites are the most highly rated areas of investor support. On average, domestic investors rate quality of investment support services higher than foreign ones, especially in the after-care stage. All quality scores are higher than 3.50 for domestic investors.

Table 4.10 displays sector analysis of quality ratings. There is a remarkable consistency in investor ratings across all sectors. Notable exceptions are agriculture and mining rating a high score of 4.3 for facilitating building construction in the implementation stage and a low score of 3.3 for soft landing services. While soft landing services might not have been necessarily as crucial to domestic as to foreign investors, projects established in rural areas required soft landing services, particularly if they involved relocation of the workforce.

Matching importance and quality of business support services

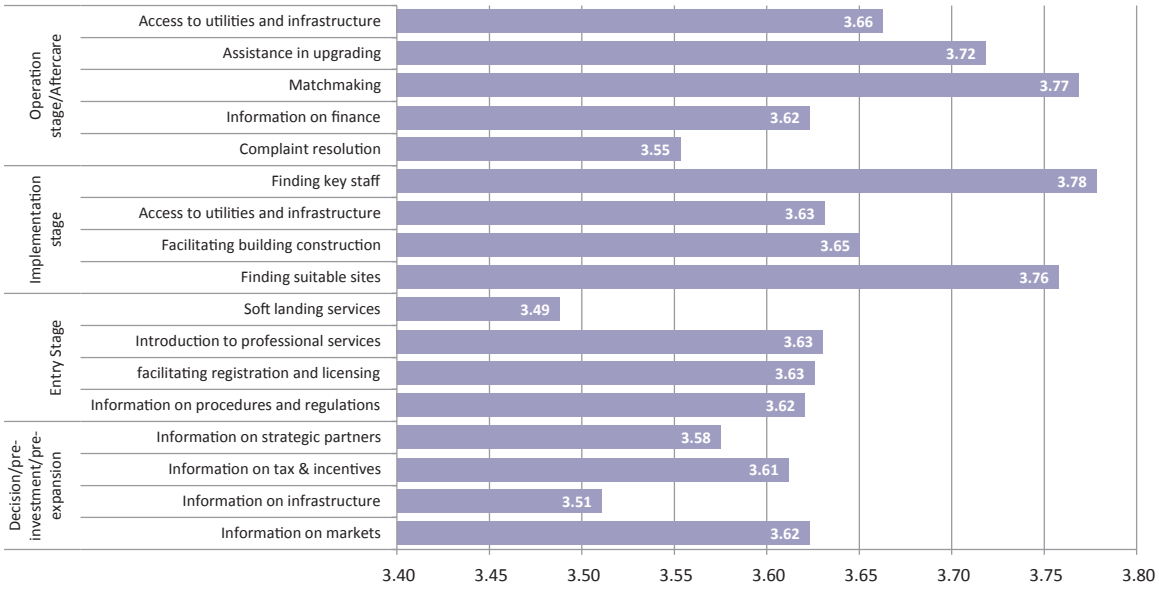
The following analysis of domestic investors is similar to that presented for foreign investors in previous sections of the chapter. Ratings for importance and quality of business support services are linked in a two-dimensional diagram. Figure 4.36 illustrates

Table 4.9 *Domestic investors' receipt of investment support services, by type and economic sector (all surveyed countries)*

		Agriculture and Mining	Manufacturing	Electricity-Water-Construction	Services
Decision/ pre-investment/ pre-expansion	Information on markets	52.9%	44.8%	51.3%	46.6%
	Information on infrastructure	46.7%	39.2%	38.8%	38.2%
	Information on tax & incentives	47.0%	47.0%	38.4%	46.0%
	Information on strategic partners	45.0%	31.3%	31.3%	36.2%
Entry Stage	Information on procedures and regulations	51.5%	54.0%	64.3%	53.3%
	facilitating registration and licensing	45.2%	53.1%	52.9%	49.5%
	Introduction to professional services	39.3%	36.8%	45.7%	47.5%
	Soft landing services	40.0%	24.3%	30.0%	37.4%
Implementation stage	Finding suitable sites	44.8%	36.0%	48.9%	42.7%
	Facilitating building construction	32.0%	28.1%	34.9%	32.3%
	Access to utilities and infrastructure	37.0%	36.8%	41.7%	36.5%
	Finding key staff	23.1%	29.3%	32.6%	38.1%
Operation stage/ Aftercare	Complaint resolution	32.1%	32.4%	37.5%	41.9%
	Information on finance	32.3%	34.0%	43.4%	38.0%
	Matchmaking	29.0%	31.0%	29.8%	34.2%
	Assistance in upgrading	25.9%	25.8%	28.9%	30.6%
	Access to utilities and infrastructure	33.3%	32.1%	38.8%	33.3%

Note: Percentage of respondents receiving services

Figure 4.35 *Domestic investors' perception of quality of services, by type (all surveyed countries)*



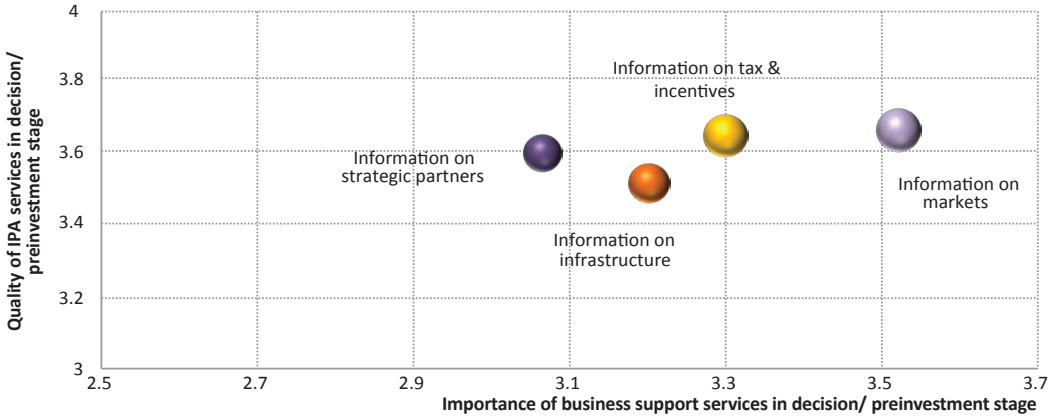
Note: Mean value based on a 5-point likert scale with: 1="not useful", 2="somewhat useful", 3="useful", 4="very useful", 5="extremely useful"

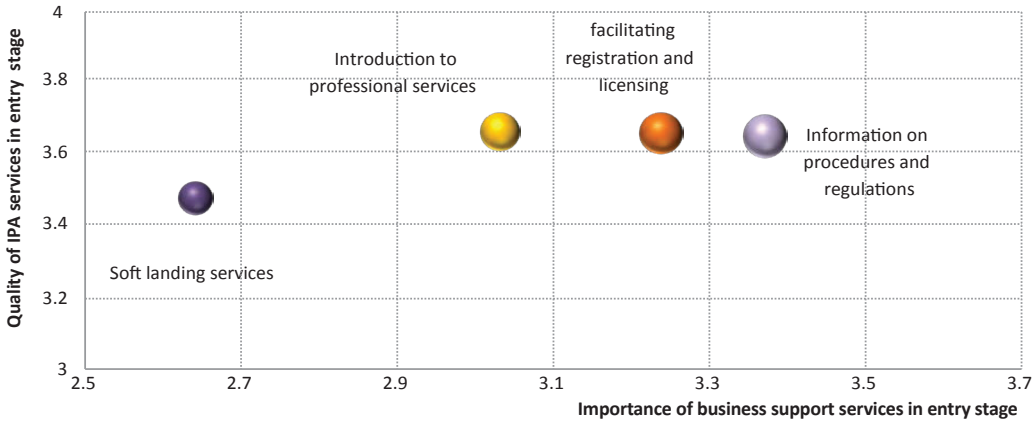
Table 4.10 *Domestic investors' quality of business support services, by type and economic sector (all surveyed countries)*

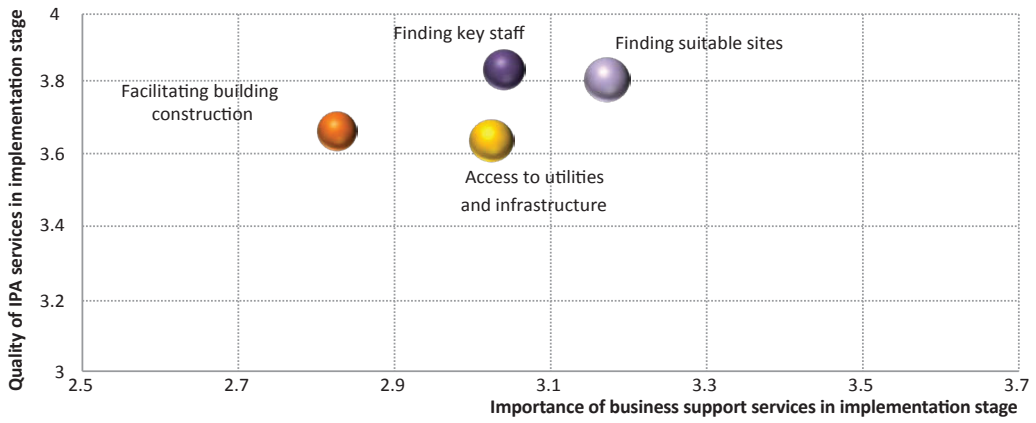
		Agriculture and Mining	Manufacturing	Electricity-Water-Construction	Services
Decision/ pre-investment/ pre-expansion	Information on markets	3.78%	3.59%	3.55%	3.66%
	Information on infrastructure	3.63%	3.51%	3.37%	3.53%
	Information on tax & incentives	3.52%	3.59%	3.55%	3.65%
	Information on strategic partners	3.56%	3.58%	3.53%	3.58%
Entry Stage	Information on procedures and regulations	3.59%	3.63%	3.53%	3.64%
	facilitating registration and licensing	3.64%	3.61%	3.69%	3.63%
	Introduction to professional services	3.55%	3.74%	3.74%	3.55%
	Soft landing services	3.13%	3.63%	3.73%	3.40%
Implementation stage	Finding suitable sites	3.85%	3.93%	3.65%	3.62%
	Facilitating building construction	4.13%	3.64%	3.57%	3.62%
	Access to utilities and infrastructure	3.70%	3.71%	3.47%	3.58%
	Finding key staff	3.67%	3.84%	3.57%	3.78%
Operation stage/ Aftercare	Complaint resolution	3.38%	3.60%	3.63%	3.52%
	Information on finance	3.70%	3.69%	3.55%	3.58%
	Matchmaking	3.67%	3.87%	3.36%	3.76%
	Assistance in upgrading	3.71%	3.87%	3.67%	3.61%
	Access to utilities and infrastructure	3.75%	3.81%	3.53%	3.55%

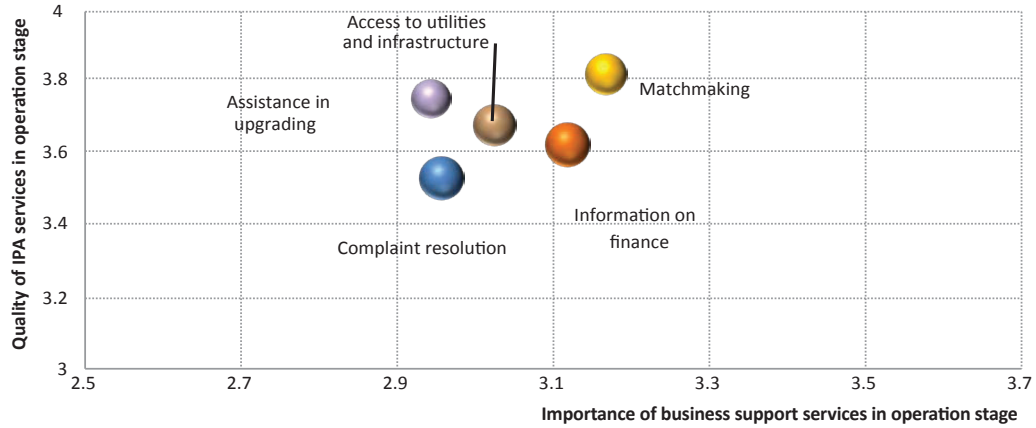
Note: Mean value based on a 5-point likert scale with: 1="not useful", 2="somewhat useful", 3="useful", 4="very useful", 5="extremely useful"

Figure 4.36 *Domestic investors, perception of importance and quality of business support services, by type (all surveyed countries)*









Note: The bubble size indicates the percentage of respondents receiving services

the results for the various phases. The bubble size displays the percentage of respondents who received the given services. The score of the quality for all provided services indicates very good level for domestic investors in all four stages. Some services might be overprovided, due to the importance of some services being rated low while the quality rating is much higher. These services are, typically, commercially procured but, when offered by public agencies without charge, are welcome windfall cost savers.

Support for building partnerships

Domestic investors were asked to indicate whether they would have been interested in receiving support for building partnerships in a number of areas. Respondents could choose from more than one option. Nearly half of the respondents were interested in partnerships to obtain loans. More than 30 per cent of investors were interested in support for market access and equipment purchase. In East African countries, domestic investors were focused in their interest for in joint venture support, marketing expertise, technology transfer expertise and access to loans.

Conclusions

This chapter analyzed the results of a series of questions, in the survey, designed to reveal investor perceptions of services provided by IPAs. These perceptions are particularly pertinent. They offer insights into investors' priorities, based on which IPAs can improve their service offerings and attract more high quality investment into their economies. Cognizant of the role that African IPAs play in promoting inflows of FDI, it is crucial to discover how IPAs can serve the investment community more effectively. The following sections provide conclusions and recommendations for IPAs based on analysis of investors' responses regarding IPA services.

Awareness of investment opportunities

Potential investors become aware about country investment opportunities mainly through existing investor communities. In very specific cases, investors may not even be aware of the existence of IPAs in their respective host countries. In this sense, IPAs should continuously promote their role as the lead source of information about investment opportunities. Even in an optimal scenario of perfect information provided to investors by IPAs, prospective investors might still decide to rely on existing networks of investors in the host country for support before they approached IPAs. Nevertheless, survey responses by foreign investors indicated that the direct contact with IPAs was still considered important for initial awareness of investment potential in host countries.

To develop contacts with new investors and attract more FDI, IPAs should implement investor relationship management programmes, combined with adequate capacity building of staff. Rather than pursuing new investors without considering the basis on which to build strategy, IPAs should focus on consolidating existing links with institutions, building relationships with existing investor clients and upgrading their investment promotion mechanisms accordingly. Survey evidence suggests that a number of existing investors are implementing investment expansions in host countries. In this context, after-care services need to be targeted to this investor category.

Additional channels could be used for targeting potential new investors. In the case of prospective Chinese investments, IPAs should pro-actively develop relations with country diplomatic networks as well as regional investment promotion agencies from Chinese provinces. With the close relationship between state and corporate entities in China, these institutions provide the crucial link to promote investment opportunities to Chinese firms. In the case of potential investors from Latin American, IPAs should develop linkages with international investment advisors with strong connections to investor communities. In the case of potential European investors, IPAs should establish close contacts with representative offices of national economic chambers, trade commissions and private sector organizations in Africa, since they are active in informing investors about investment.

In addition to the one-stop investment shop concept in a number of IPAs, other forms of investor after-care services are becoming more prevalent. Survey evidence suggests that more emphasis should be put on the nature and quality of similar services. IPAs are

advised to strengthen investor relationship management and after-care services aimed at providing specifically required services at best quality standards. This is especially crucial for investor assistance at the entry and operations stages.

Registration requirements and certification process

Survey results indicate a link between higher ratings of services provided and perception of compulsory investment registration. Investors who indicated investment registration as compulsory, rated IPA services as more important, whereas investors perceiving registration as voluntary rated services as less important. This variation is markedly so in the implementation and operation stages. Investors in compulsory registration systems tended to rate IPAs as more useful, with better quality of services provided. Whenever foreign firms are obliged to interact with IPAs because of the country registration system, IPAs should take advantage of this proximity to provide the most effective and highest quality business support services as well as optimal relations with investors.

Although investment registration was compulsory with IPAs in a number of countries, some investors were, nevertheless, unaware of their existence and, consequently, not familiar with the range of services being offered. This might have been the case for several reasons. In the context of national business landscapes, IPAs might have been recently established. Foreign investors might have registered already with other national authorities. There might also have been a general lack of monitoring for foreign investment registration at country level or in some countries IPAs may not be responsible for all categories of investors. In any event, IPAs should improve their investment monitoring and management framework beginning with clear guidelines for investment registration as a pre-requisite for provision of services. IPAs can create a mechanism to establish contact with potential investors as early as possible by being linked to all processes involving establishment foreign firms in their countries.

Evidence from some surveyed countries suggests that compulsory registration through IPAs could represent a sound basis for a more centralized investment promotion framework that would facilitate investment after-care and promotion services. However, limiting responsibility and accountability of IPAs to having a centralized registration system in place would be too simplistic. IPAs should complement registration processes (of either kind) by improving investment monitoring systems. Increased recognition and visibility among current foreign investors and greater interaction with them are crucial for IPAs in attracting new FDI.

Efficiency of registration

Even in countries with a compulsory registration system, efficiency of the registration process has an impact on investor decisions. Inefficient registration systems can become a major barrier to invest in host economies. Lessons can be learned from countries having a shorter registration process, something which investors perceive as highly efficient. In many countries, the registration process, measured by time-to-license duration, has grown significantly shorter. Survey responses suggest some notable variations in time-to-license duration among economic sectors. Investors operating in the primary sector indicate a shorter completion time compared to those operating in the secondary and tertiary sectors. Regional investors seem to have the most efficient completion time as well as considering the process as highly efficient. Investors from Asia and MENA countries indicate a short completion time corresponding to a slightly efficient registration process. In general, investors from OECD countries consider the investment registration process as very efficient, with minimum completion time.

Investment incentives

Within the wide array of investment incentives provided by IPAs, fiscal ones — predominantly tax exemptions — are considered the most important and highly critical to foreign investors. This result is reflected in the responses from foreign investors across all surveyed countries as well as among enterprises operating in different economic sectors. A notable proportion of respondents find registering with IPAs very useful in order to obtain tax exemptions or duty reductions. Enterprises in the primary sector tend to receive more capital grants than in any other sector,

seemingly reflecting the link between heavy capital investment and pertaining structural fundamentals of specific primary sector activities. Enterprises in tertiary and low-technology manufacturing activities tend to receive the bulk of investment incentives in the form of tax exemptions.

To attract increased foreign investment and promote local economic development, IPAs should be more strategic in the provision of financial incentives. Incentives for foreign firms should facilitate the establishment of linkages with domestic firms. Some domestic firms indicated that the presence of foreign investors in host economies increased their business opportunities. Others stated that more FDI activity in their economies had increased demand for their products. In this context, targeting the right incentives to benefit foreign investors can help create positive spillover opportunities for domestic investors.

IPA services: importance and quality perceptions

Survey results highlight a number of key investor perceptions about IPA services. Support requirements vary among investor groups, so IPAs should address the various needs through specific, tailored services.

Results suggest that during the entry stage, IPAs' service of information on markets needed to be improved for both TNCs and FEs, as well as for firms with longer and shorter investment track records. Some investors rated the services of IPAs equally important but tended to receive less dedicated services of lower quality. During the entry stage, IPAs should focus on providing information on processes and regulations, as well as on registration and licenses, since these services were considered to be the most important and most urgent in the opinions of investors.

Although after-care services are perceived to be slightly less important than those in the pre-investment and entry stages, survey results indicate that their receipt was low. More after-care services should be provided by IPAs, especially those aimed at complaint resolution, matchmaking and assistance in upgrading. After-care services are required by FEs, firms in the services and manufacturing sectors and investments involving acquisitions.

Based on the results on planned new investment across all surveyed countries, IPAs should tailor after-care services to the needs of enterprises and sectors planning to expand their operations in their respective host countries. Empirical evidence suggests that enterprises in the tertiary and medium-technology manufacturing activities are those planning investment expansions in the near future. This result seems to reflect the short-term investment cycle of FDI in manufacturing activities, with investment prevalently allocated in the short- to medium-term, as opposed to the long-term investment programmes of FDI in the primary sector, characterized by heavy initial long-term investment. For IPAs, there are dividends to be reaped from a more targeted approach to after-care services since planned new investment from existing investors constitutes an important share of total investment generated in host economies.

Extending the scope of IPA service provision

With the diverse characteristics of investors by age, sector and country of origin, the entire spectrum of services has been identified for supporting investors. Survey results showed a significant number of responses by older firms that relied on embassies in their home countries for information and firms that came about as a result of privatisation process. While IPAs are providing entry services relatively well, the results reveal the need to expand the scope of IPAs beyond image building and advertising towards targeted investment promotion. This entails creation of networks in countries they target as FDI sources, as well as networks composed of domestic and foreign investors operating in the country.

Survey results suggest that all services provided across all investment stages are perceived to be high quality. The comparative analysis between importance and quality of individual business support services suggests that services as soft landing and facilitating building construction appeared to be over-provided. The revealed importance of these was lower than the respective high quality scores.

Survey results point to potential investment support services that could be provided by IPAs to domestic investors. Survey responses offer insight as to how

domestic enterprises view investment support services provision in their respective countries. Results suggest that if IPAs decide to target explicitly the needs of domestic investors, they must be selective and aware of their pertaining requirements. IPA interventions in specific service provision could constitute an important way to deepen the relationship between IPAs and domestic investors. This would also represent an effective approach to consolidating IPAs' domestic enterprise assistance and support frameworks in the context of FDI spillover effects to domestic enterprises.

Survey evidence suggests that potential future business support services from IPAs should focus on key areas of matchmaking between local and foreign firms, joint venture facilitation, technology promotion and enterprise upgrading. IPAs need to bolster their service offerings with modalities to improve enterprise access to finance, assistance in technology sourcing and management support, as well as export promotion services. Investment promotion initiatives cannot be de-linked from private sector development initiatives and countries' industrial development agendas. In this sense, country evidence supports the premise that investment promotion strategies need to continue to be devised in line with countries' development objectives.

CHAPTER 5:

Investment Promotion, Quo Vadis?

Investment Promotion, Quo Vadis?

To conclude this report, the authors do not wish to repeat the findings of the individual Chapters preceding this one, particularly since such summary can be readily found in the *Overview and Summary of Findings* Chapter at the beginning of this document. Rather, what shall be done in this last segment of the report is to highlight what the findings mean for the art of investment promotion in Africa and in what way it should reshape professional perspectives in this area of expertise.

The report has used a broad source of data to learn from, analysed the results of a survey of foreign and domestic investors carried out in 19 sub-Saharan African countries1, mainly during 2010. The survey covered a sample of close to 7,000 firms, of which 36 per cent were foreign direct investment, as defined by international standards. The report is not understood as an exhaustive research on all aspects of this large data source. Rather, is it just an introduction to the primary results of the data. More research will be done as these data have been placed into a publicly accessible, interactive web-based research portal, the *Investment Monitoring Platform* (IMP), where users can draw on the data, pose their own research questions, and generate customized diagrams and reports based on their specific needs. This represents a paradigm shift in surveying emerging economies – and also in investment promotion for Africa, as African IPAs themselves are now using the IMP to research investment in their countries, to provide investors with systematic, focused, and speedy information on the economic and business situation aggregated from investors responses, and to conduct evidence based policy advocacy for a prosperous tomorrow in their economies.

At the very heart of the survey and research activity presented here lies the intention to respond to the needs of African IPAs for information and tools to enable them to play a more proactive role in the development of their countries. As the most recent in the series of surveys since 2001, the current one exceeded its predecessors in scope by including also domestic investors in the surveyed sample. This has permitted a more balanced, deeper analysis of the complex interaction between foreign and domestic firms. Emphasis has been put on analysing the impact of foreign investment in expanding local business opportunities, fostering growth and competitiveness of domestic firms and stimulating domestic investment. What emerges is an increasing recognition of the need to develop investment promotion policies, with the emphasis on *volume* of FDI being replaced by a focus on its *quality*, measured in terms of impact on the African economy and growth of domestic productive capacity.

Two over-arching objectives underpinned the survey and report.

The first was to provide IPAs, governments and individual investors with an information base from which to observe and respond to some of the most recent trends in foreign and domestic investment in Africa. Meaningful and results-oriented investment policies and promotion strategies must be contextual. While the past direction is important, such policies should be forward-looking and anticipate trends *pro-actively*, rather than backward-looking and reactive. In terms of foreign investment, investors who established new business operations during the last five years were mainly from the South. This is a trend that was previously observed in recent Surveys, especially the 2005 one. The interest of foreign investors from countries such as China, India, Kenya and South Africa is in exploitation of opportunities that emanate from fast-growing local markets as well as changing consumer patterns and preferences. Unsurprisingly, many new firms were established in sectors that serve local or regional markets such as food and drinks, rubber and plastics, construction and services, particularly trading, financial intermediation and tourism. In absolute numbers, only a few of the recent entrants were interested in Africa as a location to outsource labour-intensive production for export through, for example, trade agreements such as AGOA.

This has significant implications for allocation of scarce public funds that governments in Sub-Saharan Africa have for investment promotion activities. Funds must be allocated optimally to harness the positive aspects of such recent trends and ensure alignment

1 Burkina Faso, Burundi, Cameroon, Cape Verde, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Rwanda, Tanzania, Senegal, Uganda and Zambia

with national development strategies. For example, investment promotion campaigns in countries of recent and growing FDI arrivals are likely to lead to more successful results than staging campaigns in the traditional FDI countries of Europe or the United States. The motivations, modes of market entry, performance, and investor perceptions of these new entrants are valuable intelligence for IPAs in approaching new potential investors from the same countries. Likewise, African investment promotion agencies will need to develop sector-specific expertise to provide relevant services to recent foreign investors in local markets. Thus, the first goal is to study the correlation between changing foreign investor attributes and their impact on such development criteria as increased employment and business opportunities, increased competitiveness of the local economy and greater value addition to local resources. This process enables countries to target specific types of investors based on development priorities as well as transform investment promotion from quantity-driven performance indicators to quality measures of success.

The second objective of the survey and research endeavour presented in this report was to utilize the insights as to which FDI types constituted "quality investments" in order to support the design of more focused investment promotion policies and strategies. The report and the Investment Monitoring Platform serve to sharpen and strengthen such investment promotion policies that best support development and growth of host countries, crowd-in investment from domestic entrepreneurs, expand local markets and, ultimately, improve domestic welfare. The survey combined analysis of the economic impact of firms with demand for and provision of investment promotion services. It examined the kinds of investment promotion services considered useful by different kinds of firms, as well as the business support services sought by various types of firms. This provides IPAs with a clearer strategy for determining priority services according to investors' willingness to engage with IPAs and their likely impact on host countries' economies. Moreover, the data also allows IPAs to compare performance and development impact of investors that took advantage of IPA services compared to those that have not used those services.

A critical finding is that any attempt to single out one specific investor group as constituting quality investment overlooks the multidimensionality and complexity of the study of FDI impact and its associated externalities and spill-over effects. The report was based on the premise that the study of improved productivity performance, at all levels of aggregation, needs to be pursued, and that short-term and long-term effects need to be considered in evaluating overall welfare gains. If the role of FDI in enhancing overall productivity can be ascertained, investment promotion activities should, in principle, target firms that add to economies' productivity directly, by being productive themselves and indirectly, by enhancing productivity of domestic firms. This report highlights FDI types that exhibited positive productivity spillover effects, in labour productivity and total factor productivity, vis-à-vis local industries in affiliated sectors. Such productivity spillovers come with economic and social costs, in terms of a low, or even negative, contribution to the creation of employment in most host economies in the short run.

Trade-off relations like this highlight the need to pursue investment promotion strategies that target successful and balanced combinations of investor types, rather than individual investor groups per se. UNIDO's 2009 *Industrial Development Report* pointed out that economic welfare gains have to go hand-in-hand with industrial diversification, which is a function of well-aligned and appropriate investment promotion strategies and policies. A universal recommendation on what such combinations should be is, however, dependent on host country or regional effects and should not be made at continental level. Additional analysis at individual host country level is required to take into consideration such factors as size of local markets, geography, skill level of work forces and absorptive capacity of the local private sector to learn from FDI, adapt established technologies and climb the productivity and growth ladder. With the limited budgetary resources of African IPAs to carry out investment promotion, prioritization is required so that public resources are allocated appropriately. Priorities depend on development objectives of each country, as reflected in development plans, visions, industrial policies, national budgets and investment promotion laws. This presents a dilemma for host countries and their investment promotion agencies,

since not all development objectives can be addressed simultaneously.

Over the past decades, Africa has played host to TNCs in the extractive industry sector as represented by the early pattern of investments in the continent; these were followed by foreign entrepreneurs (FEs) from Asia, Europe and North Africa, whose motive was to migrate to new locations. In this context, migration was a primary objective for investment location decisions. In most of these cases, the decision to locate was made prior to the encounter with the country. The need to influence location decisions was therefore not as much of a challenge as it is today.

A new category of investors are emerging who can make a positive impact on African economies. They have become more formal and complex in terms of organizational structures, management and governance cultures. Concurrently, decision-making within investor enterprises is increasingly becoming more technical, professional and demanding. Sophisticated governance systems have shifted decision-making powers from business owners to experts within enterprises who, on the basis of empirical evidence, help owners take informed decisions on investment locations, business expansion and other strategic considerations.

Such investors have a regional focus in deciding on locations. They look into a region and collect information about specific countries, which their experts review prior to building consensus on a location decision. This brings a new element of competition based on economic parameters of host countries, as well as on investment promotion services and the timeliness, quality and relevance of the information provided. IPAs should recognize this new reality in order to work with investors in a meaningful manner by providing them with quality technical information to influence their decision-making. This information needs to go beyond general website presentation; it facilitates and maximizes the potential of new investor groups to support the industrialization and modernization of African economies and also contribute to addressing the development challenges.

To meet the challenge of transforming the culture of investment promotion in Africa, investment promotion stakeholders in the public and private sectors need to build consensus. Rather than ad hoc, consensus building should be a continuous, dynamic process driving the requisite changes. This must be underpinned by the collective voice of the private sector as partners in the development process. The IMP facilitates the consensus building process by providing all stakeholders with aggregate data capturing the collective voice of investors. In such context, policymaking becomes more meaningful since it is based on empirical evidence from the private sector, which should drive the process on a continual basis and factor private sector feedback into the reform process.

This new role of the private sector in development does not mean, however, that government relinquishes its lead role in the investment promotion process. Rather, it relies on listening to the private sector as well as giving timely support to IPAs in order to influence location decisions in favour of their countries. Government can also unlock potential expansion programmes by existing investors as well as stimulate the generation of new investments by potential investors. This requires a new, more pro-active approach to aftercare services delivery, strategy design and policy advocacy.

The need for IPAs to take the lead in developing investment opportunities is an emerging dimension of their mandate, which should complement ongoing initiatives by the private sector to generate investments. This allows IPAs to organize investment opportunities in line with their countries' natural and factor endowments to foster value addition, linkages within economic sectors, creation of spatial development, public-private partnerships to address infrastructural deficits and foreign exchange earnings through exports. It also improves the portfolio of projects and opportunities for promotion by IPAs. Through such initiatives, IPAs will be in a better position to continuously improve the attractiveness of their countries as investment locations.

As firm characteristics differ in origin, size, ownership structure and impact on the economy, IPAs need to organize their strategies in line with these characteristics. This approach provides an insight into the opportunities and threats associated with

the different categories of firms. It also allows for meaningful design of policies and strategies, as well as delivery of focused aftercare services to particular categories of investors. Awareness of the peculiarities of the different types underpins effective dialogue with the private sector and enhances policy advocacy to government by IPAs and private sector associations. The IMP facilitates this awareness by granting insights into investment behaviour and investor perceptions of the various investor types. It thus plays an important role in identifying IPA's aftercare services and facilitating new investments resulting from aftercare activities.

IPAs should be in a position to design more meaningful and investor-oriented strategies, based on the needs and priorities of their countries, rather than on general strategies advantageous only to particular investor categories. This shifts the emphasis of studying FDI impact in general terms to more in depth analyses of the impact of particular investor categories.

Promotion of domestic firms, which form the bulk of the private sector in African economies and are the principal drivers of economic and social development, can no longer be ignored. This is an emerging reality that IPAs need to confront. While introducing domestic firms to potential investors or buyers through ad hoc matchmaking programmes and fairs may yield short-term benefits, it does not guarantee strategic, lasting partnerships. Linking domestic firms with supply chains of the growing FDI and FE sectors offers considerable potential for maximizing the impact of FDI benefits on the economy. This aspect of the investment promotion mandate calls for programmes that develop and support domestic firms in overcoming technical and capacity constraints enabling them to become full members of international supply chains or credible joint venture partners. Designed to raise domestic firms to world-class level through benchmarking, the Sub-contracting and Partnership Exchange offers realistic approaches for domestic firms to benefit from FDI and cooperate successfully with large investors.

All in all, with new technologies and abundant concrete investor information at hand, investment promotion becomes an evidence-based, new kind of operational activity, fairly different from its previous form. If IPAs manage to achieve a cultural change in the way they operate, in order to embed the new tools into their operational strategy design and day-to-day business, their ability to trigger investment and thus enhance economic and social development is significantly boosted. This will move IPAs more towards the center of attention and action in the development policy making process.

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Annex 1: Sample composition

A1.1 Type of data

In 2010, 6,359 face-to-face interviews were conducted with top-level managers of foreign- and domestic-owned firms, in 19 sub-Saharan African countries, active in following sectors: agriculture, mining, manufacturing, utilities, construction and services.

A1.2 Characteristics of the survey sample

The distribution of firms interviewed in the survey is contained in Figure A1a. With more than 800 firms, Uganda has the largest number of interviews, followed by Kenya, Nigeria and Ethiopia, with about 600 firms each. The proportion of foreign-owned firms interviewed in each country is between 20 and 50 per cent. In the whole sample, the share of domestic-owned firms is 35 per cent.

Figure A1b presents the number of firms by sector. Within manufacturing, the food sector comprises the largest number of firms, followed by metal products, chemicals and plastics. The survey includes a sample of service sector firms concentrating on retailing, distribution and wholesale firms, hotels and restaurants and financial and business services. In addition, smaller samples of firms in agriculture, mining, utilities and construction were included.

A1.3 Size of firms

In this report, large firms are defined as those employing 100 or more persons. As large firms account for most of a country's economic output they were over-sampled in this survey. This enabled increased accuracy in estimating investment and output. Nevertheless, small firms, that is, those that employed less than 50 persons, accounts for the largest number of firms interviewed (Figure A1c). This figure also reveals that foreign firms participating in the survey were on average larger than domestic ones, although Ethiopia, Nigeria and Kenya had significant numbers of large domestic firms.

Figure A1a *Number of firms by country*

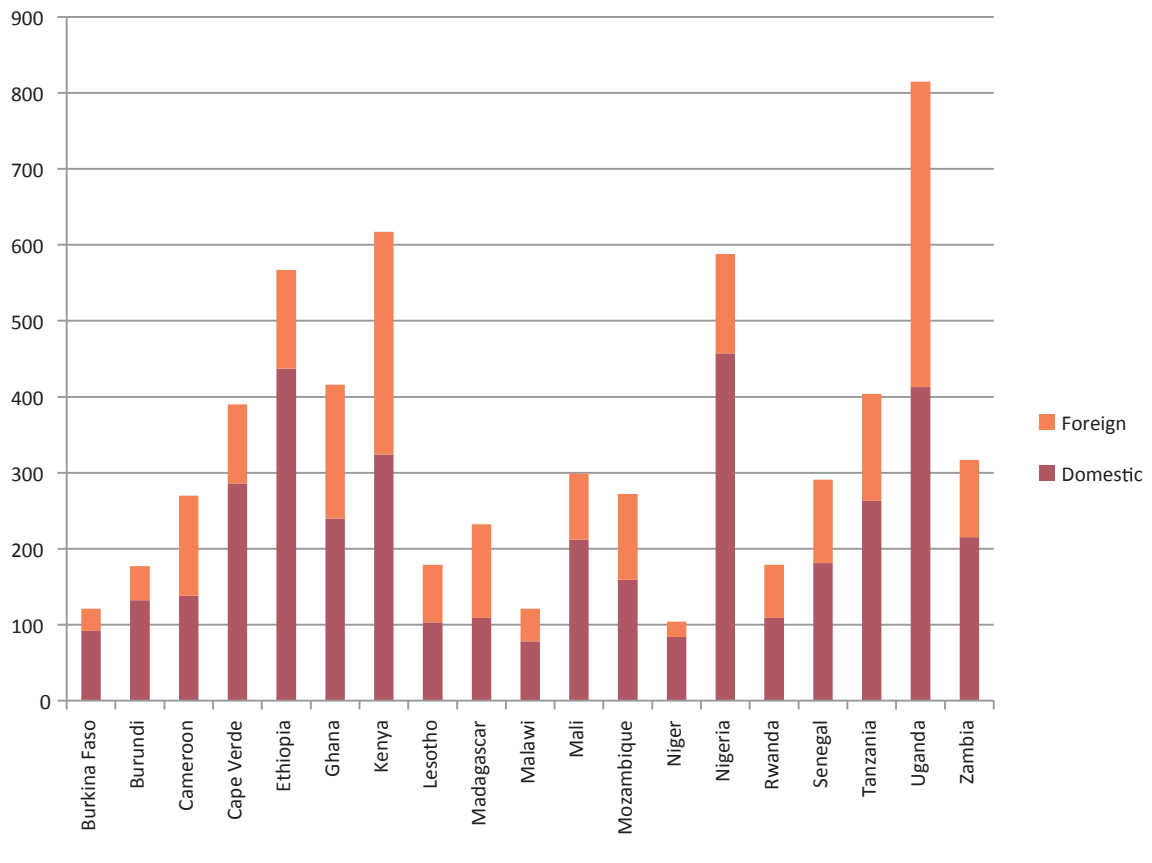


Figure A1b *Number of firms by sector group*

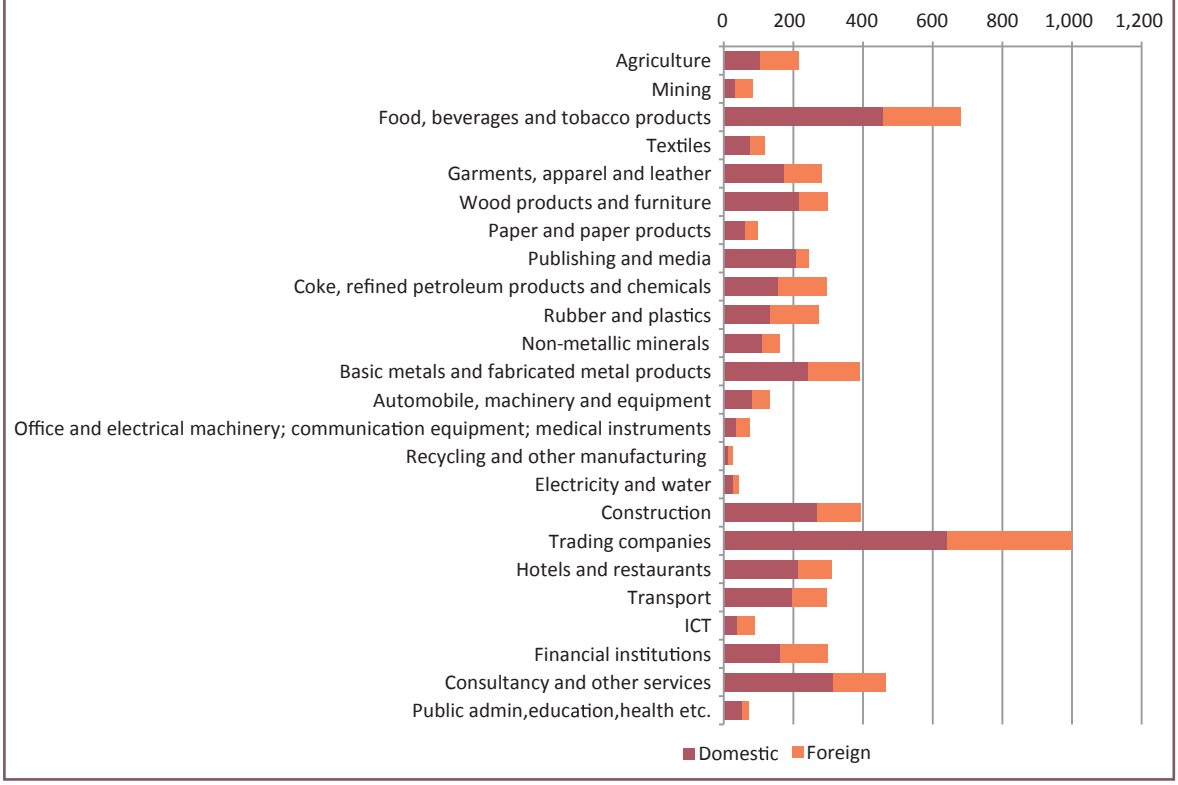
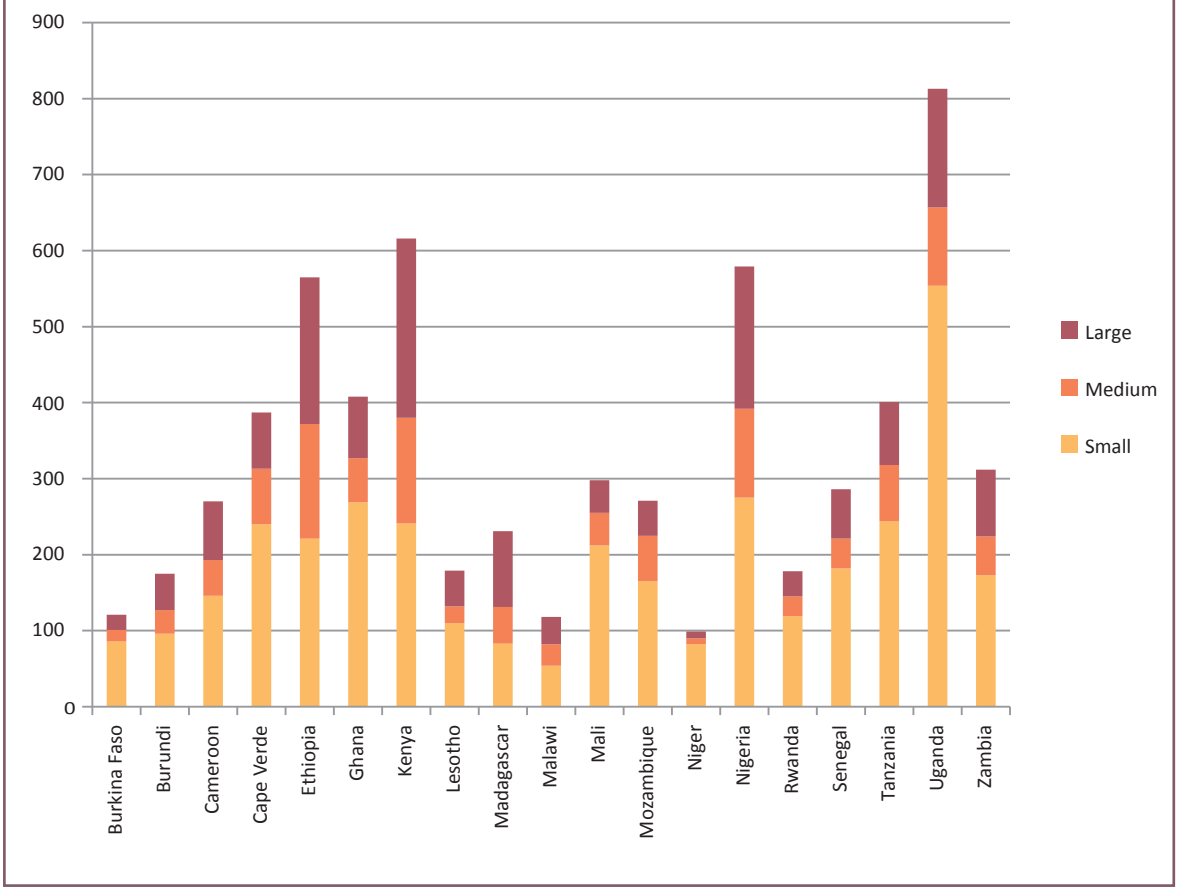


Figure A1c *Size by country*



Annex 2: Survey implementation and data quality assurance

A2.1 Survey implementation

The preparatory phase of the Survey included the theoretical and methodological groundwork required to ensure that the 2010 Africa Investor Survey (AIS) met rigorous standards and would be internationally recognized as an authoritative reference survey of investment in sub-Saharan Africa.

The design of the questionnaire was guided by a selected group of distinguished scholars established as the International Advisory Team and an in-house UNIDO task force. The team members were chosen for their expertise in FDI and development, the role of TNCs in internationalizing trade and investment and the impact of FDI on domestic investors and growth.

The draft questionnaire was designed and tested in Kenya and Senegal. The main purpose of the pilot survey was to simulate conditions under which the full-scale survey would be carried out and to collect respondents' feedback on the clarity and comprehensibility of the questionnaire. CEOs were consulted about how easy they found the questionnaire to complete and the range of topics covered by the survey. This information was useful in improving the acceptability of the survey and increasing participation rates of firms.

The results of the pilot survey were used to finalize the questionnaire, begin documentation of the implementation process of the Survey and develop the interview manual for country survey teams. The survey used four different variants of the questionnaire. Version 1 for foreign-owned firms in the manufacturing sector, Version 2 for foreign-owned firms in services, Version 3 for domestic-owned firms in manufacturing, and Version 4 domestic firms in services. The questionnaires for the manufacturing sector (versions 1 and 3), were also used for firms operating in the agriculture, mining and construction sectors.

Further preparatory work was carried out concurrently with the Survey design. This included selection of national country team leaders (CTLs) in the 19 countries participating in the survey. In-country project governance was established through an Implementation Committee (IC) in each country. This included the National Investment Promotion Agencies (IPAs), the National Statistics Offices (NSOs) and representatives from business associations. The tasks of the IC covered, among others, consensus building among country stakeholders (government officials, business organizations, business leaders, etc.), working with the media, preparation of profiles of local firms for sampling, ensuring data quality and active monitoring of the survey process. More particularly, the leadership of the IC in organizing campaigns and media publicity was important in ensuring that the private sector, the government, and other stakeholder institutions were made aware of the objectives of the 2010 survey.

The survey was designed to cover a representative sample of all public and private sector, for-profit enterprises which were registered and employed more than ten employees. Before sampling could begin it was necessary to create a business directory or list of firms from which to draw the sample. UNIDO Headquarters coordinated the activities of CTLs in compiling firm lists in accordance with the survey's sampling requirements. The sampling frame for each country contained, apart from each firm's contact details, information on the three sampling dimensions or "strata". For each firm, these were: economic sub-sector, size (number of employees), and ownership status (foreign- or domestic-owned).

A variety of lists of firms were provided by members of the Implementation Committee in each country. These had then to be consolidated and cross-checked for duplication and missing sampling criteria (sub-sector, size and whether foreign-owned) by UNIDO Headquarters staff. Frequently, these lists only captured basic registration information about firms. In order not to compromise the statistical rigour of sampling, UNIDO hired additional staff both in the survey countries and at Headquarters to check and clean the lists of firms.

Most firms were contacted directly to validate individual firm data and to verify that they were still operational. Duplicate firms and those that had ceased to exist were eliminated from the business directory. The directory required further amendment

as new firms that fell within the defined criteria of the sample frame were identified by the survey teams during field visits.

What was initially conceived as a by-product of the Survey turned out to be a key output, namely, the business directory. It turned out that in none of the 19 countries participating in the 2010 survey was there a comprehensive business directory adequate for sampling purposes. By the end of the UNIDO survey in each country a directory had been created that covered all foreign-owned and domestic firms employing more than ten people. These directories are now available for institutions that are planning to carry out firm-level surveys. They can also be used as a tool for encouraging business-to-business linkages.

In each survey country, a national subcontractor was identified to carry out the survey. In most cases, the National Statistics Office, a University-based team or a recognized Policy Research Institute was selected for this purpose. The survey supervisors and enumerators employed by subcontractors were trained by one of three UNIDO teams using either English, French or Portuguese as the medium of instruction. Refresher training was organized, as and when required.

The training comprised of different modules covering the purpose of the project, the content of the questionnaire, interviewing techniques, data quality control, as well as hands-on training using the questionnaire software. Enumerators were mostly graduate university students with a research interest in business, individuals who had worked as enumerators in enterprise-level surveys conducted by institutions such as the National Statistics Office or the Central Bank, or other suitable candidates with appropriate background and experience. The sample size for each country determined the number of enumerators recruited, which varied between five enumerators in small countries and more than 20 enumerators in large countries such as Nigeria or Kenya.

The mode of data collection was face-to-face interviews to ensure a maximum level of participation of firms. In most cases, the interview was scheduled with the most senior decision maker within the firm, that is the chief executive or general manager. For some, more specialized and rather technical questions, the enumerator was instructed to ask to be referred to other members of the management team, such as the chief financial officer, the human resources manager, or the sales manager. An electronic scheduling tool was developed by UNIDO to help Country Team Leaders (CTL) and subcontractors manage the scheduling of interviewing activities. This also facilitated reporting progress of each country survey back to headquarters.

A2.2 Data quality assurance

Assuring data quality is imperative in any survey. In this survey, it is particularly important because the data, analysis and conclusions are publicly accessible and are intended to be used by many people, including entrepreneurs, public and private sector organizations, research institutions, financial institutions and civil society groups and organizations. Evidence based policy formulation requires high quality data as a sound basis for decision making. Indeed, a key objective of the overall project is to encourage people to carry out their own analysis using the survey data available online on the Investment Monitoring Platform.

In general, quality assurance means much more than just simply checking the data. In fact, it includes various quality monitoring elements at different stages during the execution of the survey. Taken together, each part of the quality assurance process should ensure the high quality of the data being analysed. In this survey, several distinct quality checking mechanisms have been incorporated before, during and after the data collection phase.

A2.2.1 Before data collection

Members of each national survey team were recruited on the basis and were expected to be familiar with business activities in their country. Enumerators worked directly under the guidance of a supervisor, who was a senior member of a national research institution. The above mentioned training workshop complemented their prior knowledge and thus enables them to critically assess the respondents' replies to the questionnaire.

To reinforce the training workshop and to address frequently asked questions after the workshop, handbooks were prepared and distributed to the enumerator teams in the field, including the CTL Handbook, the Supervisor Handbook and the Enumerator Handbook. While the CTL Handbook focused on details of the Investment Promotion Programme and the relationship between the various stakeholders, the Supervisor and Enumerator Handbooks contained detailed explanations of the questionnaires, definitions of all technical expressions, guidelines on how to conduct interviews, how to use the questionnaire software, how to avoid common traps and mistakes, how to manage the survey workflow and quality control mechanisms.

A2.2.2 During data collection

Supporting software was designed specifically to provide data quality checks in terms of content and consistency of answers. After the interview, the enumerator was required to enter the answers from the respondent as soon as possible into a computer using the software. The software automatically carried out a number of checking routines and provided instant feedback to the enumerator. This feedback included information about major inconsistencies in the data as well as an assessment of the completeness of the questionnaire.

The enumerator was expected to check any major errors identified by the software with the firm. Enumerators were equipped through their training with a thorough understanding of the questionnaire and were empowered to follow up errors and omissions with the respondent. The supervisor was also always available as a back-up.

A2.2.3 After data collection

After collected data were processed and verified by various means, both in the field and at UNIDO Headquarters in Vienna. As a first step, supervisors were required to review the consistency of answers and verify whether values lay within reasonable ranges. Where errors, omissions or inconsistencies were detected, the supervisor was instructed to ask the relevant enumerator to make another visit to the firm or make a phone call to the respondent to complete the questionnaire. Where the supervisor detected systematic errors that came from a misunderstanding of certain questions, he/she was expected to conduct a workshop with the enumerators concerned. The survey handbooks were used as the guide for re-training to ensure a consistent implementation of the survey across all national teams. In some cases, re-training by HQ advisers was delivered to the entire country team either through a conference call or in the field.

Once the questionnaire and responses had been approved by the supervisor, the data were transmitted to HQ both electronically via the questionnaire software and the original paper questionnaires. The first component of review at UNIDO headquarters consisted of an immediate calculation of the completeness of each questionnaire to ensure responses lay above certain thresholds and that all essential questions had been completed. The second component involved a comparison between paper and electronic questionnaires to correct errors that happened during data entry. The third component was a thorough review of each individual questionnaire in terms of consistency and plausibility.

The results of these HQ reviews were communicated to field supervisors to take corrective action and where necessary re-call and/or re-visit firms. This review process not only served the direct purpose of improving the quality of particular questionnaires, but was also indirectly intended to contribute to the general level of understanding of country teams and raising the quality of interviews

Annex 3a: Foreign manufacturing questionnaire

IDENTIFICATION QUESTIONS

1. Does the company have a share of foreign ownership of 10 percent or more?

2. What percentage of this company's sales/turnover comes from Manufacturing/Financial services/ Non-financial services/Agriculture, forestry and fishery/Mining, oil and gas?

COMPANY HISTORY

3. Please briefly describe the investment history of the company in a few sentences.

Part I: Company profile and investor perceptions

SECTION A. GENERAL PROFILE OF THE COMPANY

4. Please indicate this company's three main products and their current share in total company's sales.

5. Please select the sub-sector that best describes this company's main manufacturing/business activity.

6. When did the initial foreign investment take place?

7. What was the foreign ownership share at the time of the initial foreign investment?

8. What was the total value of the initial foreign investment?

9. What was the share of the foreign ownership five years ago?

10. The foreign investor is [name of the parent company] with Headquarters in [country]. Does the parent company has other subsidiaries in this country/in other sub-Saharan African countries/in the rest of the world? What is the number of establishments?

11. This company is a stand-alone investor/part of a family or group of companies? The foreign investor is an individual/family from [specify country]. Does the foreign investor have other ongoing operations in this country/in other sub-Saharan African countries/in the rest of the world? What is the number of establishments?

12. Does the company have a local partner? Does the local partner have other ongoing operations in this country/in other sub-Saharan African countries/in the rest of the world? What is the number of establishments? The local partner is a stand-alone investor/part of a family or group of companies? The foreign partner has: Formed this company as: A new joint venture with a local partner/Invested into an existing local company? If the foreign partner has invested into an existing local company, when did this company first start its operations?

13. Is this a Diaspora investment? If yes, what is the ownership share of investors who are members of the Diaspora? In which country/countries were/are they residents?

14. Is the general manager or one of the managing directors a major shareholder in this company?

15. Please indicate details of the current ownership structure of this company.

16. How do you rate this company's performance compared to your overall expectations for this company before the global financial crisis? Now, as a result of the global financial crisis, your expectations might have changed. How do you rate this company's current performance compared to your revised expectations?

17. Please, indicate the average level of capacity utilization in the company: Over the last three years before the global financial crisis/During global financial crisis?

18. If the production capacity of this company is underutilized under normal circumstances, what is the most important reason?

19. What is the average age of your capital equipment?

20. When was the last major new investment undertaken in this company? In what did you invest? What was the value of this investment? What is the annual rate of return or the payback period for this investment? Did this company make any disinvestment in the last 3 years? If yes, what was the value of this disinvestment?

21. Do you plan to make any investment or disinvestment over the next three years? If yes, by how much?

22. Do you expect to expand your operations, in the next three years, by investing in Neighbouring countries/Non-neighbouring SSA countries? If yes, what is the value of planned investment?

23. Does the company operate under a: Management contract/Licence agreement? If yes, what is the annual amount paid?

24. In the last financial year, what was the total value of sales/value of exports/value of the total wage bill /value of fixed assets/number of full time employees/expenditure on advertising/average price change of this company's products?

25. What was the value of sales, exports and the number of full-time employees two financial years ago?

26. What is the expected growth rate or value of sales, exports, and number of employees in the current and next financial year?

27. During the last three financial years, what was the average annual profit margin before taxes? What was the rate at which you paid interest for long-term credit? What was the rate at which you paid interest for short-term credit?

28. What is your forecasted average profit margin before taxes for the next three financial years?

29. What was the total tax payment during the last financial year?

30. For your main product sold in the domestic market, where does your main competition come from?

31. Which investment incentives did this company receive? Which one was crucial? What was the value of the incentives received in the last financial year?

SECTION B. FOREIGN INVESTOR HISTORY

32. Were you involved in the initial decision to invest in this country?

33. What was the main motivation behind the foreign investor's decision to invest in this country?

34. What best describes the way in which the initial investment took place?

35. How did the foreign investor initially become aware of investment opportunities in this country?

SECTION C. INVESTMENT SUPPORT SERVICES

36. Has this company registered or been assisted by the IPA? If yes, is registration compulsory? When did you register with the IPA? How do you rate the efficiency of registration process? How do you evaluate the overall usefulness of the IPA for this company? What is the most important benefit from being registered with the IPA?

37. If you have not registered or been assisted by the IPA, please indicate why not.

38. How long did it take this company to obtain all the licenses and permits necessary to start its operations?

39. Rank the three most important improvements or additional services you think the IPA should include in their range of services.

40. How important is the availability of business support services? How do you generally rate the usefulness/utility of the service provided by the IPA?

SECTION D. REGIONAL AND INTERNATIONAL TRADE

41. What do you consider to be the most important barriers to starting or expanding this company's export activities within Africa and/or outside of Africa?

42. Are you familiar with any of these international trade agreements: EBA/AGOA/Bilateral trade agreements? If yes, please evaluate how important they have been in stimulating/expanding your exporting activities.

43. Are you familiar with any of these regional trade agreements: COMESA/EAC/ECOWAS/SADC/UEMOA/CEMAC/ECCAS? If yes, how important have they been in stimulating/expanding your exporting activities?

44. What is the most important aspect of regional trade agreements for this company's business operations?

45. In the last financial year, what percentage of this company's total sales was: Sold in the domestic market/Directly exported/Indirectly exported through a third party?

46. Out of this company's direct exports in the last financial year, what percentage, by value, was supplied to its foreign parent company/foreign partner or its other subsidiaries?

47. What were the percentage shares of this company's exports to South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East/North Africa/Other?

48. If the company exported to sub-Saharan Africa, please indicate the three most important sub-Saharan Africa country destinations and their share in your total exports, in terms of value, during the last financial year.

49. What were the percentage shares of the following countries and regions in this company's expenditure on direct imports during the last financial year: South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East/North Africa/Other?

50. If this company imported from sub-Saharan Africa, please indicate the three most important sub-Saharan African countries as sources for these imports and their percentage shares of your total imports, during the last financial year.

SECTION E. LINKAGES WITH SUPPLIERS AND BUYERS

51. What is the approximate number of suppliers of raw materials, components or finished goods to this company? How many of them have long-term arrangement? What percentage of inputs, by value, comes from these suppliers with a long-term arrangement? How many new local suppliers have been added to your supplier's list during the last 3 years?

52. What percentage of production inputs by value, was: Imported through the foreign parent company/Imported directly by this company/Imported by a local importer/Locally manufactured input/Other?

53. What is the share, by value, of the following types of suppliers: Distributors/wholesalers/Manufacturers?

54. Do you have a special department for: local sourcing/local supplier development? If yes, what is its annual budget?

55. Does this company interact with local suppliers/sub-contractors with the intention of helping them to improve their operations?

56. Does this company contract-out work to other companies, such as manufacturing operations or providing business services in this country? If yes, please indicate approximate total value of contracted-out work in the last financial year: Manufacturing operations/Support services.

57. Please provide the names of your three most important suppliers or sub-contractors for locally sourced goods and their location in this country.

58. What is the most important factor that influences the decisions for local procurement?

59. What is the most important factor that influences decisions to cancel or not enter local procurement contracts?

60. What are the shares of Retailers/Distributors/Wholesalers/Manufacturers/Government/Consumers/NGOs and international agencies in your total sales?

61. Does this company undertake sub-contract work, such as manufacturing operations, or business services for other companies in this country? If yes, please indicate the value of sub-contracted work in the last financial year.

SECTION F. ORGANIZATIONAL RELATIONSHIPS

62. Please rate the decision-making power of the local management on the following decisions of the local unit.

63. How important is the assistance of the foreign parent company?

64. How does the foreign partner influence this company?

65. How much decision-making power does the local management have vis-à-vis the foreign partner?

66. How important is the assistance of the foreign partner and the local partner?

67. How important is the expertise of the foreign owner to the company?

68. If the owner has other ongoing operations as a part of family or business group/trust, how important is the assistance to this company of other associate companies in the business group?

SECTION G. LOCATION FACTORS

69. How important were the following factors in this company's decision to invest and how have these factors changed over the last 3 years: Political stability/Economic stability/Transparency of business regulations and legal framework/Quality of life/Bilateral agreements and double taxation treaties/Local market/Export market/Labor costs/Availability of skilled labour/Costs of raw materials/Availability of local suppliers/Incentive package?

Part II: Information from the company's accounts

SECTION H. LABOUR-FORCE PROFILE

70. Please indicate the average number of full-time and part-time employees with their average weekly work hours per employee over the last financial year.

71. How many of the total permanent full-time employees were: Production workers/Technical, supervisory or managerial staff/Clerical or administrative staff?

72. What was the average number of production shifts per day during the last financial year?

73. What was the average monthly wage paid to: Production workers/Technical, supervisory or managerial staff/Clerical or administrative staff during the last financial year?

74. Does this company provide formal internal/external training to its employees? If yes, what was the value of this company's expenditure on internal and external training provided?

75. How many unpaid workers did this company have on average during the last financial year?

SECTION I. TURNOVER, WORKING CAPITAL AND FIXED ASSETS

76. Please state the end of the financial year covered by this questionnaire.

77. Is this company's production subject to seasonal variation? If yes, how many months is this company producing during the year. What is the main reason for this seasonal variation in production?

78. What was the value of your annual sales and other receipts during the last financial year?

79. What was the total value of the inputs purchased during the last financial year?

80. What were the sources of working capital and fixed assets for this company during the last three financial years?

81. What was the value of the stock of this company at the beginning and end of the last financial?

82. What was the total value of current assets of this company at the end of the last financial year?

83. What was the value of this company's liabilities at the end of the last financial year?

FIXED ASSETS

84. What was the value of the fixed assets of this company in the last financial year?

85. How does this company mainly acquire capital goods?

86. During the last three years, what was the average annual amount spent on technological upgrading through Adaptation of technology/Research and Development?

SECTION J. ENERGY CONSUMPTION

87. Which of the following fuels does this company consume and what was the quantity of those fuels consumed in the last financial year?

88. What was the total amount of electricity consumption from the grid during the last financial year?

89. What was the total cost of electricity consumption from the grid during the last financial year?

90. Do you own or share a generator? If yes, what was the amount of this company's electricity consumption supplied by generators during the last financial year? And what was the type and amount of fuel used to produce electricity from generators during the last financial year?

SECTION K. CLOSING QUESTIONS

91. Have you participated in UNIDO's Foreign Investor Survey in 2005?

92. Would you be interested in receiving a report of this year's study?

93. Would you be interested in having support for building partnerships in the following areas: Joint venture/Loan/Managerial expertise/Technical expertise/Marketing expertise/Market access/Sub-contracting arrangements/Technology transfer/Joint research and development/Equipment purchase/Other?

Annex 3b: Foreign service questionnaire

IDENTIFICATION QUESTIONS

1. Does the company have a share of foreign ownership of 10 percent or more?

2. What percentage of this company's sales/turnover comes from: Manufacturing/Financial services / Non-financial services/Agriculture/forestry/fishery/Mining/oil and gas?

COMPANY HISTORY

3. Please briefly describe the investment history of the company in a few sentences.

Part I: Company profile and investor perceptions

SECTION A. GENERAL PROFILE OF THE COMPANY

4. Please indicate this company's three main products/services and their current share in total company's revenue.

5. Please select the sub-sector that best describes this company's main business activity.

6. When did the initial foreign investment take place?

7. What was the foreign ownership share at the time of the initial foreign investment?

8. What was the total value of the initial foreign investment?

9. What was the share of the foreign ownership five years ago?

10. The foreign investor is [name] with Headquarters in [country]. Does the parent company have other subsidiaries: In this country/In other sub-Saharan African countries/In the rest of the world? What is the number of establishments?

11. This company is a stand-alone investor/part of a family or group of companies? The foreign investor is an individual/family from [specify country]. The foreign investor has other ongoing operations: In this country/In other sub-Saharan African countries/In the rest of the world? What is the number of establishments?

12. Does the company have a local partner? The local partner has other ongoing operations: In this country/In other sub-Saharan African countries/In the rest of the world? Number of establishments? The local partner is: a stand-alone investor/part of a family or group of companies. The foreign partner has: formed this company as a new joint venture with a local partner/invested into an existing local company. If the foreign partner has invested into an existing local company, when did this company first start its operations?

13. Is this a Diaspora investment? If yes, what is the ownership share of investors who are members of the Diaspora? In which country/countries were/are they residents?

14. Is the general manager or one of the managing directors a major shareholder in this company?

15. Please indicate details of the current ownership structure of this company.

16. How do you rate this company's performance compared to your overall expectations for this company before the global financial crisis? Now, as a result of the global financial crisis, your expectations might have changed. How do you rate this company's current performance compared to your revised expectations?

17. When was the last major new investment undertaken in this company? In what did you invest? What was the value of this investment? What is the annual rate of return/the payback period for this investment? Did this company make any disinvestment in the last 3 years? If yes, what was the value of this disinvestment?

18. Do you plan to make any investment or disinvestment over the next three years? If yes, by how much?

19. Do you expect to expand your operations, in the next three years, by investing in Neighbouring countries/Non-neighbouring SSA countries? If yes, what is the value of planned investment?

20. Does this company operate under a Management contract/Licence agreement/Franchise agreement? If yes, what is the annual amount paid?

21. In the last financial year, what was the total value of sales/turnover/value of exports/value of the wage bill/value of fixed assets/number of full time employees/expenditure on advertising?

22. What was the value of sales/turnover, exports of goods and services and the number of full-time employees two financial years ago?

23. What is the expected growth rate/value of sales, exports, and number of employees in the current and next financial year?

24. During the last three financial years, what was the average annual profit margin before taxes? What was the rate at which you paid interest for long-term credit? What was the rate at which you paid interest for short-term credit?

25. What is your forecasted average profit margin before taxes for the next three financial years?

26. What was the total tax payment during the last financial year?

27. For your main goods and services provided in the domestic market, does your main competition come from: Local service or goods providers/Foreign-owned goods orservice providers based in this country/Service providers located outside this country?

28. Which investment incentives did this company receive? Which one was crucial? What was the value

of the incentives received in the last financial year?

SECTION B. FOREIGN INVESTOR HISTORY

29. Were you involved in the initial decision to invest in this country?

30. What was the main motivation behind the foreign investor's decision to invest in this country?

31. What best describes the way in which the initial investment took place?

32. How did the foreign investor initially become aware of investment opportunities in this country?

SECTION C. INVESTMENT SUPPORT SERVICES

33. Has this company registered or been assisted by the IPA? Is registration compulsory? When did you register with the IPA? How do you rate the efficiency of registration process? How do you evaluate the overall usefulness of the IPA for this company? What is the most important benefit from being registered with the IPA?

34. If you have not been registered or assisted by the IPA, please indicate why not.

35. How long did it take this company to obtain all the licenses and permits necessary to start its operations?

36. Rank the three most important improvements or additional services you think the IPA should include in their range of services.

37. How important is the availability of business support services?

38. Hotels:

How many beds are available? What was the annual average occupancy rate during the last financial year? What percentage of your guests were foreigners during the last financial year? What is the share of local sourcing in your total procurement? What percentage of supplies by value, was: Imported through the foreign-owned hotel management company/Imported directly by this company/Imported by a local importer or local manufacturer/other? What is the share, by value, of the following types of suppliers: Distributors/Wholesalers/Manufacturers? What proportion of room reservations, during the last financial year, were made through: Agencies located outside this country/Agencies in this country/Direct reservation by guests/Foreign-owned hotel management company/Others?

39. Travel agencies:

What percentage of your customers were foreigners during the last financial year? What proportion of business, during the last financial year, came from: Agencies located outside this country/Agencies in this country/Direct reservation by guests/Others?

40. Consultancy companies or other business services companies:

What percentage of your revenue, during the last financial year, came from foreign companies? What percentage of your revenue, during the last financial year, came from services provided to clients abroad? What was the share of the following client types in your total revenue during the last financial year: Service companies/Government/Manufacturers/International organizations/Others?

41. Transport companies:

What was the share of the following modes of transport in your total revenue during the last financial year: Road/Air/Sea/Rail? What was the share of the following client types in your total revenue during the last financial year: Government/Manufacturers/International organizations/Others? What percentage of your revenue, during the last financial year, came from foreign companies based in this country? What percentage of your revenue, during the last financial year, came from services provided to clients abroad?

SECTION D. REGIONAL AND INTERNATIONAL TRADE

42. What do you consider to be the most important barriers to starting or expanding this company's export activities within Africa and/or outside Africa?

43. Are you familiar with any of these regional trade agreements: COMESA/EAC/ECOWAS/SADC/UEMOA/CEMAC/ECCAS? If yes, how important have they been in stimulating/expanding your exporting activities?

44. What is the most important aspect of regional trade agreements for this company's business operations?

45. Out of this company's exports of goods and services in the last financial year, what percentage, by value, was supplied to its foreign parent company/foreign partner or its other subsidiaries?

46. What were the percentage shares of this company's exports to: South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East/North Africa/Other?

47. If the company exported to sub-Saharan Africa, please indicate the three most important sub-Saharan African country destinations and their share in your total exports, in terms of value, during the last financial year.

48. What were the percentage shares of the following countries and regions in this company's expenditure on direct imports, by value, during the last financial year: South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East /North Africa/Other?

49. If this company imports from sub-Saharan Africa, please indicate the three most important sub-Saharan African countries as sources for these imports and their percentage shares of your total imports, during the last financial year.

SECTION E. LINKAGES WITH SUPPLIERS AND BUYERS

50. Does this company contract-out work for support to other companies? If yes, please indicate your expenditure on contracted-out work in the last financial year.

51. Does this company undertake sub-contract work for other companies in this country? If yes, please indicate the value of sub-contracted work in the last financial year.

Questions for Trading companies only

52. Please indicate the percentage of goods purchased for resale by value, procured through each of the following supply channels during the last financial year: Imported through the foreign parent company/Imported directly by this company/Imported by a local importer or distributor/Locally manufactured input/other?

53. What are the shares of Retailers/Distributors/Wholesalers/Manufacturers/Government/Consumers/NGOs or international agencies in your total sales?

SECTION F. ORGANIZATIONAL RELATIONSHIPS

54. Please rate the decision-making power of the local management on the following decisions of the local unit?

55. How important is the assistance of the foreign parent company in the following areas?

56. How does the foreign partner influence this company?

57. How much decision-making power does the local management have vis-à-vis the foreign partner?

58. How important is the assistance of the foreign partner and the local partner?

59. How important is the expertise of the foreign owner to the company?

60. If the owner has other ongoing operations as a part of family or business group/trust, how important is the assistance to this company of other associate companies in the business group?

SECTION G. LOCATION FACTORS

61. How important were the following factors in this company's decision to invest and how have these factors changed over the last 3 years: Political stability/Economic stability/Transparency of business regulations and legal framework/Quality of life/Bilateral agreements and double taxation treaties/ Local market/ Export market/Labour costs/Availability of skilled labour/Costs of raw materials/Availability of local suppliers/Incentive package?

Part II: Information from the company's accounts

SECTION H. LABOUR-FORCE PROFILE

62. Please indicate the average number of full-time and part-time employees with their average weekly

work hours per employee over the last financial year.

63. Of the total permanent full-time employees how many were: Manual workers/Sales staff/Technical, professional or managerial staff/Clerical or administrative staff?

64. What was the average monthly wage/salary paid Manual workers/Sales staff/Technical, professional or managerial staff/Clerical or administrative staff during the last financial year?

65. Does this company provide formal internal/external training to its employees? If yes, what was the value of this company's expenditure on internal and external training provided?

66. How many unpaid workers did this company have on average during the last financial year?

SECTION I. TURNOVER, WORKING CAPITAL AND FIXED ASSETS

67. What was the value of the fixed assets of this company in the last financial year?

68. Please state the end of the financial year covered by this questionnaire.

69. Is this company's activity subject to seasonal variation? If yes, how many months is this company active during the year? What is the main reason for this seasonal variation in activity?

70. What was the total value of the inputs purchased during the last financial year?

71. What was the value of the stock of this company at the beginning and end of the last financial year?

72. What were the sources of working capital and fixed assets for this company during the last three financial years?

73. What was the total value of current assets of this company at the end of the last financial year?

74. What was the value of this company's liabilities at the end of the last financial year?

SECTION J. Banks

75. Please describe the kind of banking license this bank has.

76. Please indicate the breakdown of this bank's loan portfolio at the end of the last two financial years.

77. Please indicate earnings before interest and tax for the last two financial years.

78. Please indicate return on net assets for the last two financial years.

79. Please indicate return on equity for the last two financial years.

80. Has there been an increase in this bank's capital over the last financial year? If yes, by how much?

81. How was this increase in capital financed?

82. What is the value of the planned annual new investment of this bank over the next three financial years?

83. Do you forecast any changes in the overall annual level of this bank's lending activity over the next three years? If yes, what would be the overall increase/decrease?

SECTION K. Insurance companies

84. Please indicate the categories under which you write insurance.

85. What was the gross value of written premiums of this company in the last two financial years?

86. What was the net earned premium income in the last two financial years?

87. What was the company's return on its investments in the last two financial years?

88. How much did this company pay out in claims incurred in the last two financial years?

89. What was the profit before tax of this company in the last two financial years?

90. What was your average combined ratio for the last two financial years?

91. What was the value of net assets of this company at the end of the last two financial years?

92. Are you planning to enter or exit any new insurance markets in this country in the next three financial years?

93. What do you estimate will be the gross value of written premiums of this company in the current and next financial year?

94. What do you estimate will be the net earned premium of this company in the current and next financial year?

SECTION L. CLOSING QUESTIONS

95. Have you participated in UNIDO's Foreign Investor Survey in 2005?

96. Would you be interested in receiving a report of this year's study?

97. Would you be interested in having support for building partnerships in the following areas: Joint venture/Loan/Managerial expertise/Technical expertise/Marketing expertise/Market access/Sub-contracting arrangements/Technology transfer/Joint research and development/Equipment purchase/Other?

Annex 3c: Domestic manufacturing questionnaire

IDENTIFICATION QUESTIONS

1. Does the company have a share of foreign ownership of 10 percent or more?

2. What percentage of this company's sales/turnover comes from: Manufacturing/Financial services/ Non-financial services/Agriculture, forestry, fishery/Mining, oil and gas?

COMPANY HISTORY

3. Please briefly describe the investment history of the company in a few sentences.

Part I: Company profile and investor perceptions

SECTION A. GENERAL PROFILE OF THE COMPANY

4. Please indicate this company's three main products and their current share in total company's sales.

5. Please select the sub-sector that best describes this company's main manufacturing/business activity.

6. When did this company start its operations in this country?

7. What was the total value of the initial investment?

8. Does this company have other ongoing operations? If yes, please indicate the number and location of establishments, amount of investment made, and the most important reason to invest.

9. Is this a Diaspora investment? If yes, what is the ownership of investors who are members of the Diaspora? In which country/countries were/are they residents?

10. Is the general manager or one of the managing directors a major shareholder in this company?

11. Please indicate details of the current ownership structure of this company.

12. How do you rate this company's performance compared to your overall expectations for this company before the global financial crisis? Now, as a result of the global financial crisis, your expectations might have changed. How do you rate this company's current performance compared to your revised expectations?

13. Please, indicate the average level of capacity utilization in the company over the last three years before the global financial crisis/during the global financial crisis?

14. If the production capacity of this company is underutilized under normal circumstances, what is the most important reason?

15. What is the average age of your capital equipment?

16. When was the last major new investment undertaken in this company? In what did you invest? What was the value of this investment? What is the annual rate of return or the payback period for this investment? Did this company make any disinvestment in the last 3 years? If yes, what was the value of this disinvestment?

17. Do you plan to make any investment or disinvestment over the next three years? If yes, by how much?

18. Do you expect to expand your operations, over the next three years, by investing in neighbouring countries/non-neighbouring SSA countries? If yes, was the value of planned investment?

19. Does the company operate under a management contract/licence agreement? If yes, what is the annual amount paid?

20. In the last financial year, what was the value of sales/value of exports/value of the wage bill including supplementary benefits/value of fixed assets/number of full time employees/expenditure on advertising/average price change of this company's products?

21. What was the value of sales, exports and the number of full-time employees two financial years ago?

22. What is the expected growth rate or value of sales, exports, and number of employees in the current and the next financial year?

23. During the last three financial years, what was the average annual profit margin before taxes? What was the rate at which you paid interest for long-term credit? What was the rate at which you paid interest for short-term credit?

24. What is your forecasted average net profit margin for the next three financial years?

25. What was the total tax payment during the last financial year?

26. For your main product sold in the domestic market, does your main competition come from Imports/ Locally-owned manufacturers/Foreign-owned manufacturers based in this country?

27. Are there any business/investment incentives you benefited from? If yes, please list them together with the value of received incentives.

SECTION B. INVESTOR HISTORY AND RELATIONS

28. What was this company's main source of financing for the initial investment?

29. Has this company ever had a foreign owner or a foreign joint venture partner? If yes, when did the foreign owner or joint venture partner have an investment in this company? What was the main reason for the foreign investor selling his investment in this company?

30. How do you rate the effect of the presence of foreign investors in this country on this company?

31. What has been the response of this company to the presence of foreign investors?

32. Have you undertaken investment that can be attributed to the presence of foreign investors? If yes, what was the average annual amount invested over the last three financial years?

SECTION C. INVESTMENT SUPPORT SERVICES

33. How important is the availability of business support services? Who was your main service provider?

34. How long did it take this company to obtain all the licenses and permits necessary to start its operations?

35. For your business development, how would you rate the quality and accessibility of: Quality control, standardization/Distribution channels/Innovative production technology/Support institutions/Consultancy services.

SECTION D. REGIONAL AND INTERNATIONAL TRADE

Investors that export or have the intention to export

36. What do you consider to be the most important barriers to starting or expanding this company's export activities within Africa and/or outside Africa?

37. Are you familiar with any of these international trade agreements: EBA/AGOA/Bilateral trade agreements? If yes, please evaluate how important they have been in stimulating/expanding your exporting activities.

38. Are you familiar with any of these regional trade agreements: COMESA/EAC/ECOWAS/SADC/UEMOA/CEMAC/ECCAS? If yes, how important have they been in stimulating/expanding this company's exporting activities?

39. What is the most important aspect of regional trade agreements for this company's business operations?

40. In the last financial year, what percentage of your total sales: Was sold in the domestic market/Directly exported/Indirectly exported through a third party?

41. Out of this company's direct exports in the last financial year, what percentage, by value, was supplied to an associated or sister company?

42. What percentage of your total exports is through foreign-owned companies in this country?

43. What were the percentage shares of this company's exports to South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East/North Africa/Other.

44. If the company exported to sub-Saharan Africa, please indicate the three most important sub-Saharan Africa country destinations and their percentage shares in your total exports.

45. What were the percentage shares of the following countries or regions in this company's expenditure on direct imports, during the last financial year: South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East/North Africa/Other?

46. If this company imported from sub-Saharan Africa, please indicate the three most important sub-Saharan African countries as sources for these imports and their percentage shares of your total imports, during the last financial year.

SECTION E. LINKAGES WITH SUPPLIERS AND BUYERS

I SUPPLIERS

47. What is the approximate number of suppliers of raw materials, components or finished goods to this company? How many of them have a long-term arrangement? What percentage of inputs, by value, comes from these suppliers with a long-term arrangement? How many new suppliers have been added to your supplier's list during the last 3 years?

48. What percentage of production inputs by value, was procured through: imported directly by this company/imported by a local importer/distributor/locally manufactured input/other.

49. Do you have a special department for local sourcing/local supplier development? If yes, what is its annual budget?

50. Does this company contract-out work to other companies, such as manufacturing operations or providing business services in this country? If yes, please indicate the approximate total value of contracted-out work in the last financial year.

51. Please provide the names of your three most important suppliers or sub-contractors for locally sourced goods and their location in this country

II BUYERS

52. What is the total number of buyers/customers with whom this company has long-term relationships? What percentage of your sales by value goes to buyers with whom this company has long-term relationships? How many new buyers have been added to your buyer's list during the last 3 years?

53. What are the shares of Retailers/Distributors/Wholesalers/Manufacturers/Government/Directly to end users/NGOs and international agencies in your total sales?

54. In which ways do your buyers interact with your company with the intention of helping you to improve your operations in any of the following ways?

55. Does this company undertake sub-contract work, such as manufacturing operations, or business services for other companies in this country? If yes, please indicate the value of sub-contracted work in the last financial year.

56. Please provide the names of your three most important local buyers and their locations in this country.

57. How many times did you reject orders due to capacity problems during the last financial year?

58. What is the estimated annual value of rejected orders?

SECTION F. TECHNOLOGY TRANSFER AND INNOVATION

59. Over the last three financial years, what was the average annual amount invested into: Acquisition of technology/Adaptation of new production or business processes/Research and Development?

60. Please indicate the distribution of the sources of newly acquired technology: Acquired from domestic sources/Acquired from foreign-owned companies in this country/Acquired from sources abroad.

61. During the last three financial years, has this company introduced any new or significantly improved products/services into the market? If yes, please specify the product.

62. During the last three financial years, has this company introduced any new or significantly improved production processes including methods of supplying services and ways of delivering products? If yes, please specify the process.

Certification

63. Are any of this company's products or production processes certified by a national or international certification agency? If yes, please specify which type(s) of standards agencies.

64. How important for your operations is the use of the services of certification and testing institutions in this country?

65. If you have never used any services of certification and testing institutions in this country, what are the main reasons for this?

Part II: Information from the company's accounts

SECTION G. LABOUR-FORCE PROFILE

66. Please indicate the average number of full-time and part-time employees with their average weekly work hours per employee over the last financial year.

67. How many of the total permanent full-time employees were: Production workers/Technical, supervisory or managerial staff/Clerical or administrative staff?

68. What was the average number of production shifts per day during the last financial year?

69. What was the average monthly wage/salary paid to Production workers/Technical, supervisory or managerial staff/Clerical or administrative staff?

70. Does this company provide formal internal/external training to its employees? If yes, what was the value of this company's expenditure on internal and external training provided?

71. How many unpaid workers did this company have on average during the last financial year?

SECTION H. TURNOVER, WORKING CAPITAL AND FIXED ASSETS

72. Please state the end of the financial year covered by this questionnaire.

73. Is this company's production subject to seasonal variation? If yes, how many months is this company. producing during the year? What is the main reason for this seasonal variation in production?

74. What was the value of your annual sales and other receipts during the last financial year?

75. What was the total value of the inputs purchased during the last financial year?

76. What were the sources of working capital and fixed assets for this company during the last three financial years?

77. What was the value of the stock of this company at the beginning and end of the last financial year?

78. What was the total value of current assets of this company at the end of the last financial year?

79. What was the value of this company's liabilities at the end of the last financial year?

FIXED ASSETS

80. What was the value of the fixed assets of this company in the last financial year?

81. How does this company mainly acquire capital goods?

SECTION I. ENERGY CONSUMPTION

82. Which of the following fuels does this company consume and what was the quantity of those fuels consumed in the last financial year?

83. What was the total amount of electricity consumption from the grid during the last financial year?

84. What was the total cost of electricity consumption from the grid during the last financial year?

85. Do you own or share a generator? If yes, what was the amount of this company's electricity consumption supplied by generators during the last financial year? And what was the type and amount of fuel used to produce electricity from generators during the last financial year?

SECTION J. CLOSING QUESTIONS

86. Have you participated in UNIDO's Foreign Investor Survey in 2005?

87. Would you be interested in receiving a report of this year's study?

88. Would you be interested in having support for building partnerships in the following areas: Joint venture /Loan/Managerial expertise/Technical expertise/Marketing expertise/Market access/Sub-contracting arrangements/Technology transfer/Joint research and development/Equipment purchase/ Other.

Annex 3d: Domestic service questionnaire

IDENTIFICATION QUESTIONS

1. Does the company have a share of foreign ownership of 10 percent or more?

2. What percentage of this company's sales/turnover comes from: Manufacturing/Financial services/ Non-financial services/Agriculture, forestry, fishery/Mining, oil and gas

COMPANY HISTORY

3. Please briefly describe the investment history of the company in a few sentences.

Part I: Company profile and investor perceptions

SECTION A. GENERAL PROFILE OF THE COMPANY

4. Please indicate this company's three main products/services and their current share in total company's revenue.

5. Please select the sub-sector that best describes this company's main business activity.

6. When did this company start its operations in this country?

7. What was the total value of the initial investment?

8. Does this company have other ongoing operations: In this country/In other sub-Saharan African countries/In the rest of the world? If yes, please indicate the number of establishments, amount of investment made, and the most important reason to invest.

9. Is this a Diaspora investment? If yes, what is the ownership of investors who are members of the Diaspora? In which country/countries were/are they residents?

10. Is the general manager or one of the managing directors a major shareholder in this company?

11. Please indicate details of the current ownership structure of this company.

12. How do you rate this company's performance compared to your overall expectations for this company before the global financial crisis? Now, as a result of the global financial crisis, your expectations might have changed. How do you rate this company's current performance compared to your revised expectations?

13. When was the last major new investment undertaken in this company? In what did you invest? What was the value of this investment? What is the annual rate of return or the payback period for this investment? Did this company make any disinvestment in the last 3 years? If yes, what was the value of this disinvestment?

14. Do you plan to make any investment or disinvestment over the next three years? If yes, by how much?

15. Do you expect to expand your operations, in the next three years, by investing in neighbouring countries/non-neighbouring SSA countries? If yes, what was the value of planned investment?

16. Does this company operate under a: Management contract/Licence agreement/Franchise agreement? If yes, what was the annual amount paid?

17. In the last financial year, what was the total value of sales/turnover/value of exports/revenue from operations outside of this country/value of the wage bill including supplementary benefits/value of fixed assets/number of full time employees/expenditure on advertising?

18. What was the value of sales/turnover, exports of goods and services and the number of full-time employees two financial years ago?

19. What is the expected growth rate or value of sales, exports, and number of employees in the current and next financial year?

20. During the last three financial years, what was the average annual profit margin before taxes? What was the rate at which you paid interest for long-term credit? What was the rate at which you paid interest for short-term credit?

21. What is your forecasted average profit margin before taxes for the next three financial years?

22. What was the total tax payment during the last financial year?

23. For your main good/service provided to the local market, does your main competition come from: Local service or goods providers/Foreign-owned good or service providers based in this country/Service providers located outside this country?

24. Are there any business/investment incentives you benefited from? If yes, please list them together with the value of incentives received.

SECTION B. INVESTOR HISTORY AND RELATIONS

25. What was this company's main source of financing for the initial investment?

26. Has this company ever had a foreign owner or a foreign joint venture partner? If yes, when did the foreign owner or joint venture partner have an investment in this company? What was the main reason for the foreign investor selling his investment in this company?

27. How do you rate the effect of the presence of foreign investors in this country on this?

28. What has been the response of this company to the presence of foreign investors?

29. Have you undertaken investment that can be attributed to the presence of foreign investors? If yes, what was the average annual amount invested over the last three financial years?

SECTION C. INVESTMENT SUPPORT SERVICES

30. How important is the availability of the business support services?

31. How long did it take this company to obtain all the licenses and permits necessary to start its operations?

32. For your business development, how would you rate the quality and accessibility of: Quality control, standardization/Distribution channels/Support institutions/Consultancy services/Other?

33. Hotels:

How many beds are available? What was the annual average occupancy rate during the last financial year? What percentage of your guests were foreigners during the last financial year? What is the share of local sourcing in your total procurement? What percentage of supplies by value, was: Imported through the foreign-owned hotel management company/Imported directly by this company/Imported by a local importer or local manufacturer/other? What is the share, by value, of the following types of suppliers: Distributors/Wholesalers/Manufacturers? What proportion of room reservations, during the last financial year, were made through: Agencies located outside this country/Agencies in this country/Direct reservation by guests/Foreign-owned hotel management company/Others?

34. Travel agencies:

What percentage of your customers were foreigners during the last financial year? What proportion of business, during the last financial year, came from: Agencies located outside this country/Agencies in this country/Direct reservation by guests/Others?

35. Consultancy companies or other business services companies:

What percentage of your revenue, during the last financial year, came from foreign companies? What percentage of your revenue, during the last financial year, came from services provided to clients abroad? What was the share of the following client types in your total revenue during the last financial year: Service companies/Government/Manufacturers/International organizations/Others?

36. Transport companies:

What was the share of Road/Air/Sea/Rail modes of transport in your total revenue during the last financial year? What was the share of the following client types in your total revenue during the last financial year: Government/Manufacturers/International organizations/Others? What percentage of your revenue, during the last financial year, came from foreign companies based in this country? What percentage of your revenue, during the last financial year, came from services provided to clients abroad?

SECTION D. REGIONAL AND INTERNATIONAL TRADE

37. What do you consider to be the most important barriers to starting or expanding this company's export activities within Africa and/or outside Africa?

38. Are you familiar with any of these regional trade agreements: COMESA/EAC/ECOWAS/SADC/UEMOA/CEMAC/ECCAS? If yes, how important have they been in stimulating/expanding your exporting activities?

39. What is the most important aspect of regional trade agreements for this company's business operations?

40. Out of this company's exports of goods and services in the last financial year, what percentage, by value, was supplied to associated or sister companies?

41. What were the percentage shares of this company's exports to: South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East/North Africa/Other?

42. If the company exported to sub-Saharan Africa, please indicate the three most important sub-Saharan African country destinations and their percentage shares in your total exports, in terms of value, during the last financial year.

43. What were the percentage shares of the following countries or regions in this company's expenditure on direct imports, by of value, during the last financial year: South Africa/Sub-Saharan Africa (excluding South Africa)/European Union/United States/China/India/Other Asia/Middle East/North Africa/Other

44. If this company imported from sub-Saharan Africa, please indicate the three most important sub-Saharan African countries as sources for these imports and their percentage shares of your total imports during the last financial year.

SECTION E. LINKAGES WITH SUPPLIERS AND BUYERS

45. Does this company contract-out work for support services to other companies? If yes, please indicate your expenditure on contracted-out work for the last financial year.

46. Does this company undertake sub-contract work for other companies in this country? If yes, please indicate your expenditure on contracted-out and sub-contracted work for the last financial year.

47. Please indicate the percentage of goods purchased for resale, by value, procured: imported directly by this company/imported by a local importer/distributor/locally manufactured input/other.

48. What are the shares of Retailers/Distributors/Wholesalers/Manufacturers/Government/consumers/NGOs/international agencies in your total sales?

Part II: Information from the company's accounts

SECTION F. LABOUR-FORCE PROFILE

49. Please indicate the average number of full-time and part-time employees with their average weekly work hours per employee over the last financial year.

50. Of the total permanent full-time employees how many were: Manual workers/Sales staff/Technical/professional/managerial staff/Clerical/administrative staff?

51. What was the average monthly wage/salary paid to Manual workers/Sales staff/Technical/professional/managerial staff/Clerical/administrative staff during the last financial year?

52. Does this company provide formal internal/external training to its employees? If yes, what was the value of this company's expenditure on internal and external training provided?

53. How many unpaid workers did this company have on average during the last financial year?

SECTION G. TURNOVER, WORKING CAPITAL AND FIXED ASSETS

54. What was the value of the fixed assets of this company in the last financial year?

55. Please state the end of the financial year covered by this questionnaire.

56. Is this company's activity subject to seasonal variation? If yes, how many months is this company active during the year. What is the main reason for this seasonal variation in activity?

57. What was the total value of inputs purchased during the last financial year?

58. What was the value of the stock of this company at the beginning and end of the last financial year?

59. What were the sources of working capital and fixed assets for this company during the last three financial years?

60. What was the total value of current assets of this company at the end of the last financial year?

61. What was the value of this company's liabilities at the end of the last financial year?

SECTION H. Banks

62. Please describe the kind of banking license this bank has.

63. Please indicate the breakdown of this bank's loan portfolio at end of the last two financial years.

64. Please indicate earnings before interest and tax for the last two financial years.

65. Please indicate return on net assets for the last two financial years.

66. Please indicate return on equity for the last two financial years.

67. Has there been an increase in this bank's capital over the last financial year? If yes, by how much?

68. How was this increase in capital financed?

69. What is the value of the planned annual new investment of this bank over the next three financial years?

70. Do you forecast any changes in the overall annual level of this bank's lending activity over the next three years? If yes, what would be the overall increase/decrease?

SECTION I. Insurance companies

71. Please indicate the categories under which you write insurance.

72. What was the gross value of written premium of this company in the last two financial years?

73. What was the net earned premium income in the last two financial years?

74. What was the company's return on its investments in the last three financial years?

75. How much did this company pay out in claims incurred in the last two financial years?

76. What was the profit before tax of this company in the last two financial years?

77. What was your average combined ratio for the last two financial years?

78. What was the value of net assets of this company at the end of the last two financial years?

79. Are you planning to enter or exit any new insurance markets in this country in the next three financial years?

80. What do you estimate will be the gross value of written premiums of this company in the current and next financial year?

81. What was the estimated net earned premium in the current and next financial year?

SECTION J. CLOSING QUESTIONS

82. Have you participated in UNIDO's Foreign Investor Survey in 2005?

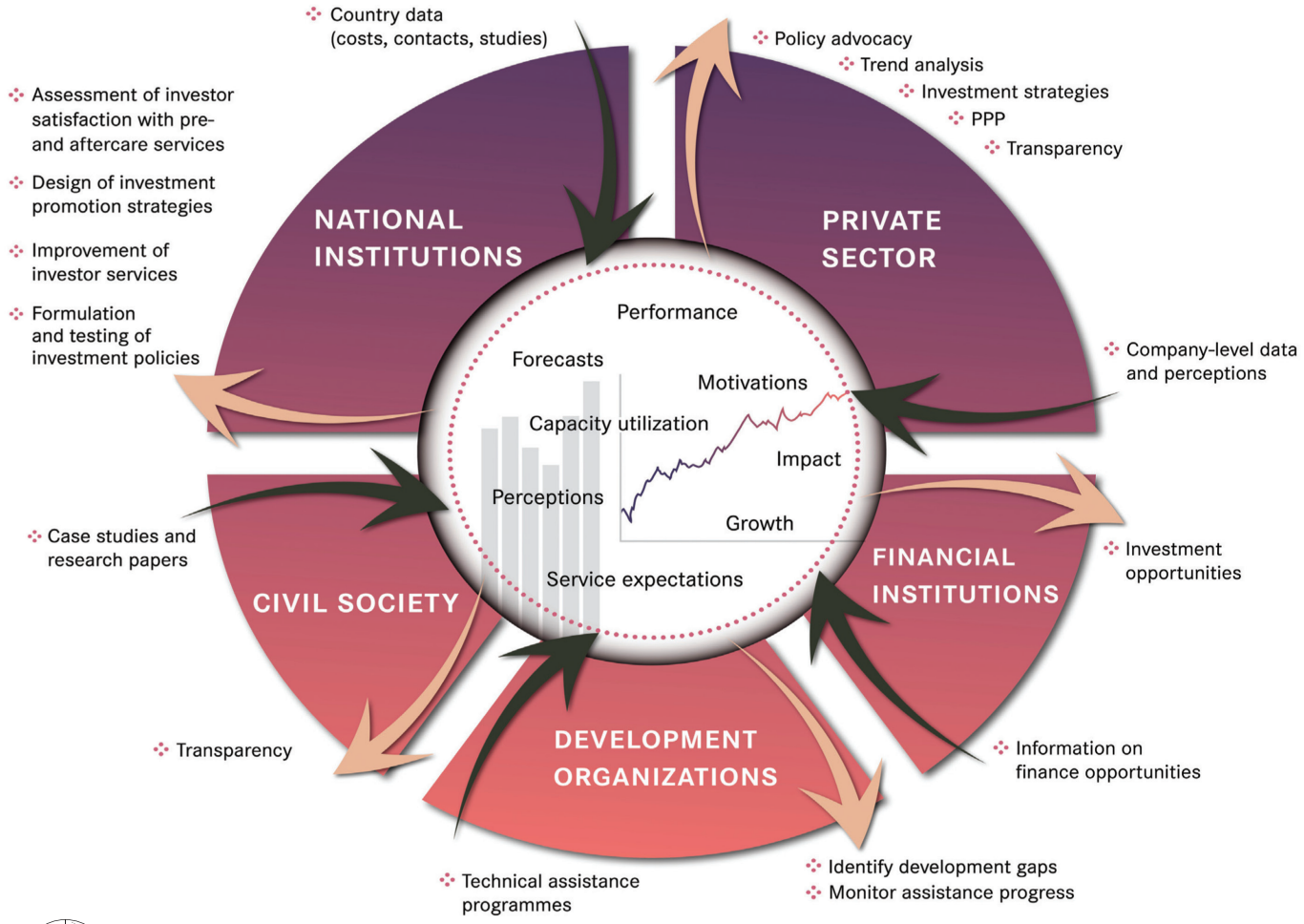
83. Would you be interested in receiving a report of this year's study?

84. Would you be interested in having support for building partnerships in the following areas: Joint venture/Loan/Managerial expertise/Technical expertise/Marketing expertise/Market access/Sub-contracting arrangements/Technology transfer/Joint research and development/Equipment purchase/Other.

"The message is simple: To accelerate the pace of industrial development in Africa, there is a need to find innovative ways to promote investments, both domestic and foreign. Investment promotion is no longer a function of glossy websites and brochures and endless and costly travels around the globe. Investment is by investors and investors cannot be ignored in the formulation of our policies and strategies. The Investment Monitoring Platform affords all stakeholders the invaluable opportunity to tune in and hear the voice of the private sector".

Late African Union Commissioner for Trade and Industry, Madame Elizabeth Tankeu (29 September 1944 – 16 October 2011)

UNIDO Investment Monitoring Platform



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