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Sudan Investment Climate Assessment

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ABBREVIATIONS AND ACRONYMS

BOO	Build-Own Operate
BOSS	Bank of Southern Sudan
CBOS	Central Bank of Sudan
CPA	Comprehensive Peace Agreement
DEC	Development Economics Group
DfID	Department for International Development
DTIS	Diagnostic Trade and Integration Study
EITI	Extractive Industry Transparency Initiative
DPA	Darfur Peace Agreement
FIAS	Foreign Investment Advisory Service
FDI	Foreign Direct Investment
GOSS	Government of Southern Sudan
GNU	Government of National Unity
GDP	Gross Domestic Product
IFAD	International Fund for Agricultural Development
ICA	Investment Climate Assessment
IDP	Internally-Displaced Person
ILO	International Labor Organization
IMF	International Monetary Fund
ISO	International Standards Organization
JAM	Joint Assessment Mission
KSE	Khartoum Stock Exchange
LDC	Least Developed Country
L/C	Letter of Credit
MSME	Micro, Small and Medium Enterprises
MOFNE	Ministry of Finance and National Economy, Government of National Unity
MTDF	Multi-Donor Trust Fund
NBFI	Non-Bank Financial institution
NEC	National Electricity Corporation
NCP	National Congress Party
NPL	Non-Performing Loan
OECD	Organization for Economic Cooperation and Development
PICS	Productivity and Investment Climate Survey
PPI	Private Participation in Infrastructure
PPP	Public-Private Partnership
SEZ	Special Economic Zone
SME	Small and Medium-Sized Enterprise
SPLM	Sudan People's Liberation Movement
SOE	State-Owned Enterprise
TFP	Total Factor Productivity
TPP	Trade Practices Proclamation
UMI	Upper Middle Income
UNEP	United Nations Environment Program
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
USAID	United States Agency for International Development
VAT	Value Added Tax
WDI	World Development Indicators
WIR	World Investment Report
WDR	World Development Report
WTO	World Trade Organization

Vice President:	Obiageli Katryn Ezekwesili
Country Director:	Kenichi Ohashi
Sector Manager:	Gerardo M. Corrochano
Co-Task Team Leaders:	Magdi M. Amin / Alwaleed Alatabani

Table of Contents

Figures

Tables

Executive Summary

At the midpoint of this decade, Sudan appeared to be emerging from two challenges that have plagued it since before its 1956 independence. On the one hand, the Comprehensive Peace Agreement (CPA) committed the Government and the SPLM to "resolving the Sudan Conflict in a just and sustainable manner by addressing the root causes of the conflict and by establishing a framework for governance through which power and wealth shall be equitably shared and human rights guaranteed." On the other hand, the government had begun to undertake reforms that appeared to have a fair chance of overcoming the legacy of Sudan's chronic economic underperformance, and investors responded to the prospect of peace and growth. Sudan became the fourth most important investment destination in Africa, reaching USD 3.3 billion in actual FDI in 2006, and was one of the fastest growing economies in the world.

The combination of peace and economic development is of course profoundly linked. As Paul Collier and Ibrahim Elbadawi have put it, economic performance is a more relevant predictor of conflict than political grievance. The expectation of Sudanese from peace is, above all, for sustainable livelihoods. Policymakers understand that the most important peace dividend that they can provide is a good job, which requires a growing economic base.

The political transformation envisaged in the CPA was backed by a sweeping set of reforms of political institutions at all levels. Unfulfilled commitments notwithstanding, the range of new institutions - constitutions, laws, entire levels of government – established in three years might normally take generations. These were building blocks to support the central strategy of creating democratic governance, decentralized power, and justice at the level of the Sudanese individual, so that over time Sudan's diversity becomes a source of strength rather than conflict. On the economic front, Sudan's leaders have expressed a vision in which favors broad-based growth of the private sector. The essence of a vision for private sector-led growth is that individual firms make choices in the process of competition that raise their productivity, and as a result, raise the welfare of the country as a whole. The Government's 2002 Twenty-Five Year Strategy, the 2005 Joint Assessment Mission, the 2007 Five-Year Plan (2007-2011), the Interim Constitution of the Government of Southern Sudan all commit the government to achieve private-sector led growth.

What remains is to create an investment environment consistent with the vision. Sudan's poor economic performance was due to a combination of an absence of public goods such as infrastructure and an effective banking system, macroeconomic and regulatory instability, and a state-led model that failed to lift the country out of Least Developed Country LDC status while adding billions to its public debt. The current national government has made respectable progress in creating macroeconomic stability, allowing more competition in some sectors, and has started to address infrastructure deficits. But the evidence is of limited progress in delivering microeconomic reforms that empower the private sector.

Oil revenues have complicated this vision. Countries that grow economically are those that diversify exports. Sudan's energy sector, while adding considerably to overall exports and public revenue, has resulted in a decline in non-energy exports in relative and absolute terms. Whereas economic development is associated with the diversification of a country's economic activities, Sudan is rapidly losing market share in all of its traditional exports except oil. The Government wants to promote the private sector, but the public sector continues to grow, now to 40% of GDP, in a manner that crowds out the private sector. These are the characteristics of "Dutch Disease." The question is what Sudan will do to change it.

The report asks if the opportunity to match the CPA with the necessary economic reforms has been lost. The report suggests that it is not too late, but that this will require a strategy based on raising productivity, diversification, and broadening the economic base. Such a strategy will serve Sudan beyond 2011. The report provides the evidence, but the strategy and its execution are up to the government and the private sector.

What are the key issues?

Raising Productivity. To raise aggregate productivity, a country can either (a) raise total factor productivity (TFP) at the firm level or (b) ensure that markets allocate resources to the most productive firms in each sector (allocative efficiency). Both appear to be issues in Sudan. At the firm level, production costs are high. Econometric analysis of manufacturing finds that infrastructure (particularly transport) and taxation are negatively associated with productivity, while firms with better access to finance have higher performance. For the service sector, access to finance is also linked to higher productivity, while crime and informal payments are associated with lower productivity. Managers report that the most severe obstacles are political instability/governance (including corruption) and infrastructure.

We examined four sectors (food/agribusiness, textiles/garments, furniture wood, and chemicals) and find that markets are not allocating resources to the most productive firms. Some factors – possibly government policies, financial markets, land markets – are preventing the productive firms from obtaining the highest market shares. In food, the degree of competition and productivity are relatively higher.

Market supporting institutions are weak. Market transactions in Sudan remain embedded in long-term personalized relationships. Because formal institutions for contract enforcement are weak and largely undeveloped, informal institutions based on ethnicity and personal contacts have emerged that help partially circumvent contract enforcement problems. But these institutions are not sufficiently strong to fully eliminate commitment failure (Fafchamps 2004). Firms protect themselves against opportunistic behavior primarily through prevention and risk avoidance. They hire guards, build inventories, buy generators, and don't sell or buy on credit. Formal laws and courts should be developed to strengthen commercial transactions. But courts are not the only relevant market institution. Others include credit bureaus, product quality standards, training certification, food sanitary and phytosanitary standards, export facilitation agencies, a free press so that commercial fraud can be exposed. Business networks play an important role as substitutes for formal market institutions (e.g., network connections rather than certification). We find little evidence of ethnic bias in business formation, although entrepreneurs originating from the Centre and Northern regions of the country have a business presence everywhere unlike others.

The size of the financial sector has increased significantly in the last five years. However, it remains below par in sub-Sahara Africa. In addition, financial intermediation is relatively weak: domestic credit to the private sector is only 13.2% of the GDP compared to an average of 45% in sub-Sahara Africa. Sudan's financial system is almost entirely dominated by the banking sector (comprising 36 institutions – including 5 in Southern Sudan), accounting for over 95 percent of the system's assets as at December 2008. There is a pressing need for reform in the Non-Bank Financial Institutions (NBFI) sector. There are liquidity constraints in the banking system, due to an increased demand from some service industries, the government, and quasi-private firms which are actually government contractors and their borrowings are guaranteed by government instruments. On average, a fifth of lending has turned bad as at December 2008.

The constraints for financial intermediation in Sudan are reflected in weaknesses in the lending environment and supporting institutions such as collateral legislation and the judicial system, creditor rights and lack of reliable financial information and credit information infrastructure. These affect small and medium enterprises more than large enterprises since micro, small and medium enterprises (MSMEs) often rely on unsecured and cash flow lending and rely on a lending environment that supports these modes of financing. The balance of costs and benefits are such that the informal sector finds it more effective to stay informal. Informality need not be seen as a threat, but as a consequence.

Regional Variations. Due to history, conflict, resource endowments and geography, Sudan's different states/regions have significantly different business climates, and therefore differences in performance of establishments. Macroeconomic conditions and political instability are more of concerns to businesses in Khartoum, North Kordofan and Gezira. Achieving political stability is a very critical factor needed to improve the overall business environment in Sudan, particularly in the Northern areas; while improved access to infrastructure and financial services in the Southern States should be an ideal policy priority.

Recommendations:

Enhancing Productivity and Competitiveness

1. Provide a clear role for the state not as an economic actor, but as an enabler of the private sector. The policy, institutional and catalytic role of the state will remain important to creating a more competitive environment that will raise productivity. The state should actively work to remove conflicts of interest, including the presence of state-linked but not formally state-owned institutions and party-owned firms that appear both at the level of the Government of National Unity (GNU) and Government of Southern Sudan (GOSS). These institutions divert the attention of the state and contribute to concern for governance and policy uncertainty.

2. Implement Administrative Barriers Reform. Although much has been done since 2006, more is required to reduce the high cost of doing business throughout Sudan and help reduce corruption. Associated with this, a move away from a regulatory culture of administrative discretion to one based on the rule of law. This entails strengthening legislative oversight by the National Assembly, legislative development based on hearings and stakeholder input with expert guidance from the government. As laws become more important, this will help limit administrative discretion and provide clarity and predictability to the private sector. The Public-Private Forum can be an important venue for developing legislative proposals.

3. Focus on provision of infrastructure. The Government has focused on infrastructure provision, and many service delivery indicators have doubled over the past eight years. But the problem remains acute. Access to a basic level of infrastructure services and connectivity to lagging areas is essential to support basic livelihoods, reduce costs and improve access to markets. Public private partnership (PPP) can improve both access and operational efficiency of infrastructure, and the 2006 Assessment of Institutional Capacity for Private Participation in Infrastructure provides five useful steps: (a) rehabilitation of rail and irrigation; (b) Establish PPP units to manage competitive public-private partnerships to maximize value for money. The units should report to Finance, rather than infrastructure line ministries; (c) Reform of key infrastructure institutions such as the National Electric Corporation (NEC) to allow greater competition; (d) In the west, and peri-urban areas where electricity grids do not exist, off-grid solutions should be pursued including renewable solutions such as off-grid solar; (e) for Southern Sudan the study recommends industrial zones, small hydroelectric, water/ waste-water treatment.

4. **Increase access to finance**. Effective management of non-performing loans (NPLs) and the development of the credit information infrastructure should be highest priority at the Central Bank. The Government should minimize crowding out of the private sector especially SMEs.

5. Take climate-related risks into account. Climate change will impact productivity. In the most recent *World Development Report 2010 (WDR), Climate Change and Development*, Sudan's agricultural yields are expected to decline by 56% by 2080, the steepest decline in the world (followed by Senegal at 52%). The 2007 United Nations Environmental Program (UNEP) report demonstrated the reality of desertification from population pressure and climate change, and its link to conflict. It points to a "deforestation crisis" which has led to a loss of almost 12 percent of Sudan's forest cover in just 15 years. However, climate change also offers the private sector a number of opportunities by capturing carbon credits associated with maintaining forests, replanting to sequester carbon on degraded land, and financing renewable energy.

Supporting Diversification

International experience suggests that diversification is central to economic growth, and that diversification into manufacturing is important because of the learning and skill upgrading potential it provides. The survey results indicate that the reverse may be true in Sudan. There are limited possibilities for Sudan to be competitive unless non-labor costs are relatively lower and/or product output prices are also higher. The "diversification" agenda overlaps with the "productivity" agenda. Along with this agenda, the exchange rate regime should be adjusted to allow the flexibility for Sudan to resume non-oil exports.

6. Diversification should build on an area of strength – agribusiness. The survey suggests that the food sector – agro-industry and food processing, including oilseeds, milling, juice processing - is relatively competitive within Sudan and may be competitive outside of Sudan. Its productivity can be enhanced by improving the efficiency – quality, cost and delivery- of supply chains to the food sector and linkages to farmers. However, water will remain a key challenge for much of Sudan, and requires a response in the form of sustainable practices such as no-till agriculture, better water management and reforestation programs to limit desertification. Fertilizers and chemical pesticides have not been used in many areas of Southern Sudan, which can therefore be certified as organic. Putting in place these mechanisms before chemicals begin to be used may be helpful.

7. Discover new strengths. Conflict and limited infrastructure and finance endowments have likely prevented the full range of its potentially successful activities from being discovered. New activities should emerge from competition and innovation, often as improvements or new applications of existing products. The government can help. Industrial policy should not focus on subsidizing targeted industries, but on facilitating diversification through support for new activities which typically encounter a range of difficulties as they are localized and adapted to a new environment. The state's efforts should aim to support this problem-solving process, with targeted subsidies to facilitate new activities with potential spillovers where necessary.

Recent studies supported by the European Commission[1] done in Southern Sudan under the Multi-Donor Trust Fund (MTDF) Sudan Private Sector Development Project by the OTF Group, and under the Diagnostic Trade and Integration Study (DTIS). The DTIS recommendations,

[1] *Assessing Sudan's Export Diversification Potential in Agricultural Products*, EU (2009).

particularly reforms in Port Sudan, in institutions that support product quality and safety, in trade finance and in transport infrastructure, should be implemented. Higher value production will require parallel investments in vocational training in order to raise skills. Ecotourism will be viable in parts of Southern Sudan which have retained large quantities of wildlife, whereas manufacturing may be viable on the Red Sea coast. For Western and Southern Sudan, deeper value chains for livestock, agro-industry in the short run create opportunities for diversification. Over time, deepening of economic linkages to the mining industry should be explored. The Extractives Industry Transparency Initiative (EITI) can create a foundation.

A More Inclusive Private Sector

8. Leveraging economic geography. Sudan's growth has been concentrated in a few larger cities, particularly the Khartoum tri-city area. Successive waves of drought, desertification and conflict drove a large of the country's population to the Khartoum metropolitan area, which now contains over 20% of Sudanese. While this agglomeration likely improved the prospects for firms in the capital, it did not serve to stimulate growth in lagging regions due to Sudan's vast geography, compounded by poor infrastructure, taxes levied en route, and poor market institutions which amplify economic distance. The benefit of further concentration in Khartoum may be limited, given overstretched infrastructure and regional inequality.

To create more dynamism in lagging regions, policymakers should leverage Khartoum as a source of market demand, ideas and investment capital. Three policies will help: (a) efficient infrastructure and logistics, and an end to interregional taxation and administrative barriers, will help create linkages between sources of demand and supply (particularly agribusiness and mining); (b) a better investment climate in lagging regions will help ensure that a productive response is not hindered by local regulatory or administrative burdens or a lack of finance; (c) the risk of transactions at great distance can be lowered through institutions such as market information systems, quality and food safety systems. The report finds great economic complementarities between states.

9. Financial Inclusion. The financial sector does not provide access to finance for large segments of the population. The report suggests a shift from one based on state-owned banks to one where the state focuses on reducing the cost and risk for commercial provision of credit to these sectors. Building on the current microfinance program, efforts should focus on enabling policies, instruments and catalytic investments in such areas as index-based weather risk insurance, credit information systems, a policy framework for leasing, and risk-sharing facilities which leverage the superior credit skills of the private sector. An upcoming Financial Sector Note will provide more detail on this.

10. Coordination and Steering. To increase the chances of success of the private sector-led growth strategy, we suggest that it be backed by a credible commitment of leadership, including in Southern Sudan, a small but highly qualified reform team with some autonomy from government to allow for politically difficult options to be tabled, public-private dialogue mechanisms with balanced public and private membership, and, most importantly, very strong monitoring and evaluation capacity so that interventions can be identified, piloted, monitored, learned from, and either terminated or expanded based on their success. Within clearly defined goals and principles, the *modus operandi* should be incremental, learning by doing, transparent, performance-based, and self-correcting.

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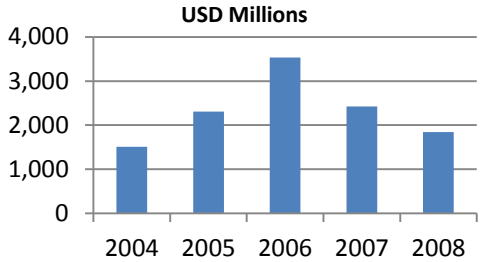
1 The Private Sector Challenge

1.1 A Missed Opportunity?

Sudan faced a golden opportunity after the signing of the Comprehensive Peace Agreement (CPA) in 2005: high prices for its main exports, macroeconomic stability, growing domestic demand and increasing investor interest. The country was confident, justifiably proud of achieving peace after the longest civil war in Africa, experiencing rapid growth and expected this to be the start of even higher achievements.

International investors shared this optimism. Sudan became the fourth largest destination for FDI in Africa in 2005, attracting $2.3 billion, before reaching an even higher peak of $3.3 billion in 2006. While much of this was directed to the energy sector, there were investments in financial services, construction and telecommunications. GDP growth averaged about 9 percent during this period, one of the fastest growing countries in Sub-Saharan Africa. It appeared that Sudan was building a foundation of growth and jobs which would sustain peace while it took on the complex political and institutional undertakings in the CPA.

Figure 1-1 : FDI in Sudan



Source: UNCTAD WIR

Four years later after the CPA was signed, the Sudan faces not economic stability underpinning a durable peace, but several challenges. There has been very important progress in such areas as power generation, roads, telecommunications, social services, microfinance, as well as progress on removing administrative constraints, a new currency, and much of the CPA. Yet, the list of challenges is long:

- An increasingly narrow export base, with manufacturing in long-term decline;
- Increasing dependence on the oil sector, an enclave industry, for balance of payments and public revenue;
- a failure to smooth expenditures against long-term revenue expectations;
- a failure to build sustainable levels of hard currency reserves despite unexpectedly high oil prices in 2007 and 2008;
- Despite the Peace Agreement, dominance of security expenditures in budgets;[2]
- Stalled peace efforts, such that the well-known skills of Darfur's citizens in agriculture and handicrafts are eroding in camps rather than providing livelihoods;
- Challenges establishing a policy framework and infrastructure in Southern Sudan;

[2] See Chatham House (2009)

- Increasing consumption as a share of GDP, but supplied to a large degree by imports – such that Khartoum became one of the world's fastest growing passenger vehicle markets for a time;
- Juba's growth has increased trade with Uganda, which claims to have captured 80% of the market, but a limited response among Southern Sudanese;[3] and
- Limited opportunities in the periphery, leading to a migration to Khartoum. This leads to a cycle which the resulting infrastructure requirements of the capital demand a larger share resources and limits emergence of alternatives.

Long-term strategic challenges are also emerging. These include clear risks from climate change, as made clear in the 2006 UNEP report[4]. More recently, Sudan was named as the country whose agriculture would decline most severely by 2050 (-56%) in the 2010 World Development Report, increased competition over water resources in the Nile Basin, a potential food crisis exacerbated by declining productivity of the Gezira due in part to maintenance and poor management. The report of the Stern Commission, led by Sir Nicholas Stern, notes that "adverse climatic conditions already make societies more prone to violence and conflict …Long periods of drought in the 1970s and 1980s in Sudan's Northern Darfur State, for example, resulted in deep, widespread poverty and, along with many other factors such as a breakdown in methods of coping with drought, has been identified by some studies as a contributor to the current crisis."

What is going wrong? One can speculate, in retrospect, on the reasons why the promise of 2005 has not been realized. The conflict in Darfur has certainly played a role in dissipating the hard-won confidence of investors following the CPA, and contributed to a continuation of sanctions which limit important sources of knowledge and opportunity, and full engagement by some donors. Public institutions – technical capacity to address economic problems and the very complex structural reforms mandated under the CPA – are weak and many plans to strengthen them have not taken root. Related to this, donor support, while substantial, did not materialize in the way expected by the Government in part because it was diverted to respond to the humanitarian crisis in Darfur. These issues may have played a role, but the problem appears more chronic. Sudan has enjoyed post-peace investment booms in the past, which were not translated into sustainable growth. The 1972 Addis Ababa Peace Agreement was followed by large-scale investments which failed to transform the country.

Many of these problems are symptoms of a central issue: a lack of a viable strategy to help direct private sector efforts toward a productive, sustainable and peaceful Sudan. Positive developments have taken place, but have not been leveraged, related to long-term goals, or sustained. Without a clear strategy through which the country's resources – assets, skills, fiscal resources, relationships, and diversity – can be brought to bear on Sudan's development challenges, resources may enter, but may just as easily dissipate with little long-term trace.

[3] President Museveni, speaking at the Presidential Investors' Roundtable, October 20th, 2009: "In Southern Sudan, 80 per cent of the products are Ugandan. That means that we are competitive in spite of all the constraints" quoted in the *Sunday Monitor*, October 21, 2009.
[4] United Nations Environmental Program, *Sudan: Post Conflict Environmental Assessment*. 2007.

It is not too late to restart the process of private sector led growth. However, this will require a strategy to achieve defined goals. This strategy need not be a static, fixed document, but set a clear direction with a set of principles which drive actions which are measured, evaluated and continuously corrected en route to the goal. The content of the strategy would be determined on an ongoing basis by stakeholders, supported by timely and relevant information. At a minimum, the strategy should take into account the operating environment, including conflict, environmental and social degradation, the state of policy and regulation, skills, and factor costs including labor, finance and land. A failure to take environmental sustainability into account would only perpetuate the issues that led to conflict, and of course raise risks for the investment itself. The strategy should also be self-sustaining in the medium-term – focusing on helping markets to work rather than subsidies through tax or fiscal policy. Based on a review of Sudan's experience with private sector development, this paper proposes that the key goals of such a strategy are:

- **Higher Productivity and Competitiveness**
- **Diversification**
- **Broad-Based Growth.**

Before undertaking and implementing such a strategy, policymakers will need to understand the depth of the commitment. Many countries fall into the resource trap not because they did not know the risks, but because the competing pressures – the desire to use fiscal revenues for immediate needs – are high and the evidence of Dutch disease is less visible than those needs. Dutch Disease appears gradually. Fleeting periods of high prices and liquidity moves jobs to oil-dependent sectors and away from non-oil sectors, but then each drop in prices then leads to progressively lower equilibriums. Eventually, when prices decline, there is no budget and there are no alternative jobs. Furthermore, to choose higher productivity, competitiveness, diversification and inclusion is a difficult agenda that requires focus, committed leadership and coordination.

The task of this report is to support policymakers- now and after CPA-mandated elections at the national level, in GOSS, and the regional entity that eventually emerge from peace in Darfur -- by providing a baseline assessment of challenges to productivity, diversification and inclusion. Chapter 1 describes some of the questions underlying the three issues of competitiveness, diversification and broad-based growth. The remaining chapters try to respond to these questions using the Productivity and Investment Climate Survey data as evidence. The final chapter makes some preliminary conclusions.

1.2 The Challenge of Productive Employment and Competitiveness

A better investment climate results in higher productivity. The contribution firms make to society through employment and service delivery is determined by location specific factors that create opportunities and incentives for firms to invest and trade (WDR 2005). The investment climate encompasses a range of specific attributes of the ecosystem within which firms operate, including the functioning of factor markets

(markets for land, finance and labor), product markets, the predictable regulatory environment, and efficient compliance with administrative requirements. Other work clearly demonstrates that corruption is strongly negatively associated with productivity and growth. [5]

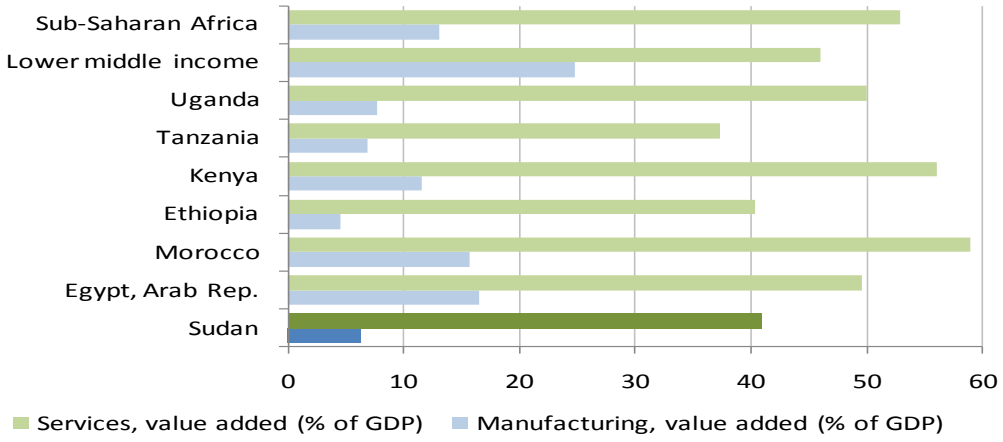
Countries in Africa that have improved their investment climates raise their productivity, grow more quickly and are more competitive. It has also been well established that investment climates characterized by high costs and high risks result in lower levels of firm creation, formalization, investment, trade and employment. For the private sector in Africa, "The most important determinant of performance will be the business environment in which firms operate. [6]" In Chapter 2, the report estimates productivity in manufacturing, compares Sudan with other countries, and uses this understanding to help focus on the most pressing issues.

1.2.1 Is there a productivity problem in Sudan?

While Sudan is largely an agricultural country, this study focuses extensively on manufacturing. Much of the cross-country evidence on economic growth focuses on the shift from agriculture to industry. While agriculture is increasingly driven by innovation and knowledge, the evidence particularly in East Asia is that manufacturing offers a superior platform for technological catch-up, for self-discovery, and for learning and productivity "spillovers" to the rest of the economy. The implications of the analysis apply to increasing value addition in agriculture and the agribusiness sector.

As one indication of the productivity problem, the formal private sector in Sudan, defined as the formal services and manufacturing sectors, contributes less than 50% of GDP. The manufacturing sector in particular contributes very little to the economy overall, around seven percent according to the World Development Indicators.

Figure 1-2: Value added manufacturing and services as % GDP in Sudan and comparators

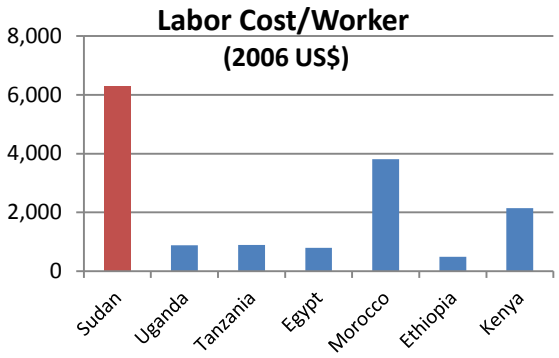


Source: WDI Indicators database, June 2009

[5] Kaufmann and Kraay, "Growth Without Governance", *Economia*, Volume III, Number 1 (Fall 2002).
[6] *Africa's Private Sector: What's Wrong with the Business Environment and What to Do About It.* V. Ramachandran, A Gelb, M. Shah, Center for Global Development, 2008.

1.2.2 Why is Economic Integration low?

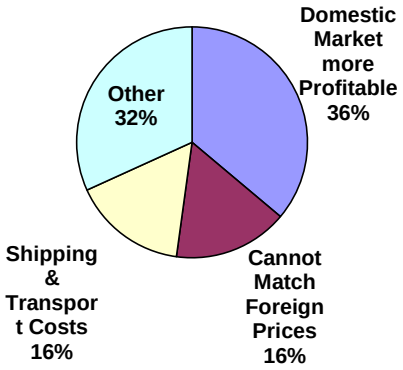
Figure 1-3 Manufacturing Labor Costs



Sudan has high labor costs. This means that it cannot compete, either in foreign markets or at home as trade barriers come down, without higher levels of productivity. With high costs and low levels of output per worker, Sudanese will quickly be displaced in any market, and to a large extent this has already happened. This also helps explain why Sudan has become a haven for immigrant workers.

Countries that increase exports and pursue complementary reforms experienced growth rates three and a half times the rate of countries that did not.[7] But few Sudanese firms are now able to export their goods and services, even lower than Ethiopia, a landlocked country, in which ten percent of manufacturing firms export. The majority of respondents were clear – price signals lead them to the domestic market. Sudanese firms also import little, due in part to high import duties, high international logistics costs and weak links to international financial services markets which limits access to technologies and buyers.

Figure 1-4 Reason for Not Exporting



Logistics costs are important. The recent Diagnostic Trade and Integration Study identified the reduction of trade costs, including modernizing Customs, the development of a trade logistics service, the need for better food and plant safety regulations, and rationalizing fees and charges at Port Sudan.

1.2.3 A level playing field?

Productivity results from fair competition. Competition leads to innovation and other improvements within firms, and a better distribution of resources across the economy. If the playing field is distorted in such a way that firms can win market share for other reasons –state ownership, political connections, corruption, ethnicity– over time the competitiveness of the private sector as a whole will decline.

Because the state establishes the "rules of the game" of competition, care has to be taken to ensure that the state's relationship with some firms does not distort competition. State ownership of firms can co-exist with increasing competition, as

[7] Dollar and Kraay, *Trade, Growth and Poverty* (World Bank, June 2001).

China in particular has shown. But this requires more than privatization alone – it requires efforts to promote and sometimes regulate competition.

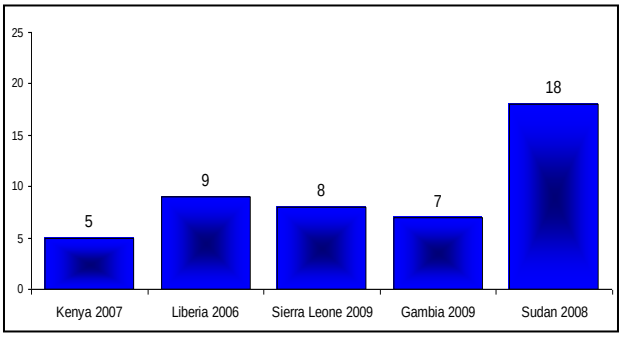
To support growth, the government has sought to privatize state enterprises. The Public Sector Enterprises Disposition Bill (1990) and the Privatization of State Corporations Act (1992) codified the privatization program, and a High Council for the Disposition of Public Enterprises was established to carry out the policy. A list of 190 enterprises was identified, of which 17 were sold. Over time the Government divested Atbara Cement, Sudan Duty-Free Zone Company, Bridges and Road Corporation, Sudatel, Sudan Airways and Bank of Khartoum.

In addition to direct ownership, the state indirectly owns enterprises through government officials or parties. In Southern Sudan, the SPLM owns Nile Commercial Bank and had owned the telecommunications firm GEMTEL (that was recently sold to a Libyan consortium). This problem has existed in Sudan since well before the current governments took power.[8] The imposition of strict fiscal discipline in the 1990s and market failures had the effect of creating government-linked firms, as some Ministries tried to establish revenue sources beyond the reach of the Ministry of National Economy and Finance. This raises a concern about whether this poses an obstacle to fair competition, good governance, and the government's effectiveness as a regulator.

1.2.4 High Administrative Barriers

While Sudan has few restrictions on foreign investment, there are high administrative barriers. Since the mid 1990s, Sudan's national government has made remarkable legal and institutional changes to promote domestic and foreign investments and economic growth. Only a few sectors are not open to full foreign ownership: import and export trade, security, civil aviation, and energy and mining. Unlike many developing countries, Sudan has opened its service sectors, telecommunications and banking, to foreign investment. The Investment Encouragement Act of 1999 and its amendments (1993, 1996, 1999, 2002 and 2003), the "one-stop-shop" of the Ministry of Investment, and the reduction in the corporate tax rate to 10% demonstrate a commitment to pro-investment policies. This has helped, but the share of management time required to deal with regulatory issues is 18%, higher than comparator countries in Africa.

Figure 1-5 Share of Management Time Dealing with Regulations



Sudan's administrative barriers are reflected in its rank in Doing Business Ratings. In the first year Sudan was ranked, it ranked near the bottom: 151st of 155. Through a series of reforms, it rose to 147th out of 181 countries in 2008. As other countries

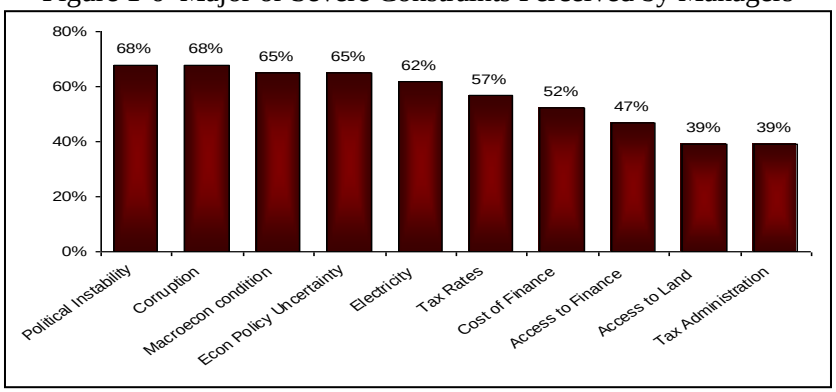
[8] See Tignor (1986).

reformed faster, it lost four places to now rank #155 out of 183 countries. Although Sudan does very well in registering property (rank 37th globally) and business registration is relatively smooth (ranked 118th), it is extremely difficult to employ workers (153rd), trade across borders (142nd), and get credit (134th). To enforce contracts, Sudan ranks very poorly at 146th and to close down a business Sudan ranks last at 183rd reflecting weaknesses in the judicial sector. The Presidentially-mandated[9] Administrative Barriers Reform Program, with technical support from FIAS, has begun to make progress on reducing the barriers, but much of this has not been implemented. This includes a new Investment Encouragement Act draft which has been reviewed and ready to be passed by the National Assembly. To what extent do administrative barriers reduce productivity?

1.2.5 A High Degree of Economic and Policy uncertainty.

The top four constraints rated "major" or "severe" in the investment climate survey are about uncertainty and predictability of the business environment. With an uncertain future, investors are less likely to undertake the type of long-term projects associated with productivity: building skills, innovation, and long-term assets. Other "Major" or "Severe" constraints include electricity, taxes and finance.

Figure 1-6 Major or Severe Constraints Perceived by Managers



Source: Sudan PICS 2008

The private sector in Sudan has emerged in a period of profound change. The magnitude of political and economic changes that the country has experienced over the past decades – government, policy, macroeconomic stability, conflict - is sweeping by any measure. The fundamental source of uncertainty was of course the North-South civil war, which raged continuously since independence save for the decade after the 1972 Addis Ababa Peace agreement.

Addressing these long-term sources of uncertainty is the central premise of the Comprehensive Peace Agreement – a tremendous achievement, the name of which actually underestimates its scope. The CPA mandates entirely new institutions of government: new constitutions, new national assemblies, new state governance arrangements and the new autonomous Government of Southern Sudan (GOSS). The intent is fundamental, deep reforms that go to the heart of the developmental challenges

[9] Presidential Decree of May 2007

facing Sudan – a more balanced sharing of political and economic power across its regions through democratization and decentralization.

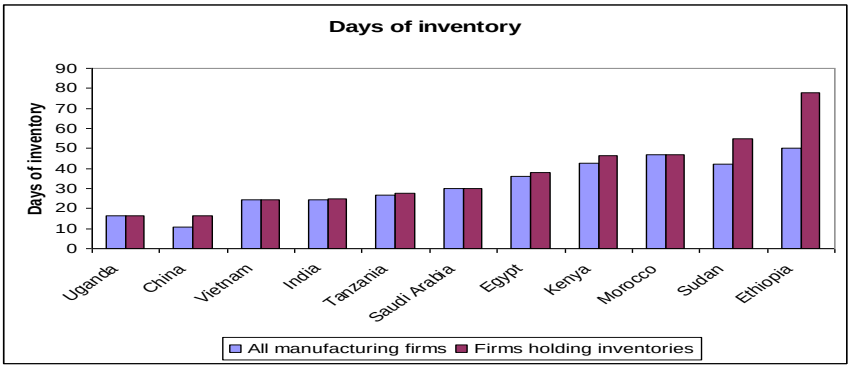
Corruption appears to be a serious problem that distorts competition and impacts investor confidence. Corruption is the leading constraint identified by Sudanese firms, formal or informal. Corruption imposes a substantially greater constraint on small and medium enterprises (SMEs) than on large enterprises. It is the leading constraint identified by SMEs but only the fourth leading constraint identified by large enterprises. To what extent is this perception supported by evidence that the level of corruption is higher in Sudan than its comparators?

1.2.6 Institutions that connect markets

As a large, geographically spread country, markets that connect various actors in Sudan are important not only to productivity but also economic integration. Productivity does not result solely from the efficiency of transforming low cost inputs to higher value outputs within firms – transaction costs between firms are important. Reducing transaction costs is necessary for an economy to evolve from personal, trust-based exchange to impersonal exchange over broader distances. Institutions, or rules of exchange, emerge over time to reduce the cost or mitigate the risk of transactions. In the absence of a strong framework of formal institutions to govern trade traders will rely on informal "trust networks" such as family, ethnic linkages or long-trusted partners. These networks can be effective, but have a cost. A recent examination of the role of trust networks based on ethnicity found that buyers are less likely to try new suppliers who offer better products, and that less trusted ethnic groups are especially constrained.[10]

The private sector maintains inventories as a buffer against disruptions of supply. These inventories are a reliable indicator of weaknesses in market-supporting institutions. Aside from Ethiopia, Sudanese firms hold the largest level of inventories in the region. This penalizes Sudanese manufacturers by consuming valuable working capital. To what extent are market-supporting institutions a constraint to productivity and diversification?

Figure 1-7 Days of inventory held by manufacturers



[10] The Speed of New Ideas: Trust, Institutions And The Diffusion Of New Products, Felix Oberholzer-Gee Harvard Business School, Victor Calanog, University of Pennsylvania, February 2007

1.2.7 A better financial sector

The financial sector plays a crucial role in determining productivity by serving as an intelligent system that allocates capital to its most productive use. Throughout the world, productivity growth is strongly associated with access to finance. The financial sector may help to finance government, but needs to invest in activities that generate new savings. The financial sector cannot be a well from which water is drawn without replenishment – by investing in businesses, farms and individuals that create savings.

The size of the financial sector, as measured by broad money as % of GDP has increased significantly in the last five years from 13% in 2003 to 21% in 2007. However, it remains below par compared with the rest of Sub-Sahara Africa. In addition, financial intermediation is relatively weak: domestic credit to the private sector is only 13.2% of GDP compared to 45% in sub-Sahara Africa. Furthermore, NPLs are very high, reaching 21% of all loans in 2008, and particularly high in state owned banks. These banks are misallocating capital at a high cost to the public. The financial sector represents the savings of average Sudanese: the civil servant, worker, teacher, government official or businessman. Safeguarding those savings is an economic and moral imperative. How can the financial sector better support productivity growth? What are the key recommendations for strengthening the sector?

1.2.8 Corporate Governance

Corporate governance in Sudan requires further development. Similar to a number of countries, Sudan's businesses are family-based. This is a feature shared with some of the best performing companies in the world, including Benetton, Carrefour Group, Michelin, Samsung and Ford. Family companies can be successful, but also have risks. Family businesses are usually more complex in terms of governance, are sometimes managed less formally by family who may not require the structure and rules that an outsider may need. As family firms grow, this problem becomes more serious. Finally, many family businesses do not pay sufficient attention to hiring skilled outside managers. Over 60% of family businesses are sold by the founder, and only 5 to 15 percent continue into the third generation in the family.[11] A few Sudanese enterprises model good corporate social responsibility (these include Haggar Group, DAL Group and some of the energy sector forms), but given the development challenges of the country one may expect this practice to grow.

1.3 The Diversification Challenge

Economic development is associated with diversification: an expansion of the range of products that a country produces. In Sudan, the opposite appears to be true; the range of products exported is narrowing rather than expanding. There is a positive correlation between the range of products that a country produces and its level of income,

[11] IFC Family Governance Handbook.

except at high income levels. Later in the development process, roughly when countries reach the income levels of Ireland,[12] growth is more closely associated with specialization in a few key products and services. At that stage, there are gains from specialization as predicted by the theory of comparative advantage.

Resource-rich countries that pursued a broad-based and diversified growth pattern experienced substantial poverty reduction since, agriculture and manufacturing creates jobs. But successful case studies are few. There are more examples of resource abundance wiping out industries that are important from a poverty reduction standpoint. Venezuela was among the world's top coffee exporters; it is now an importer. Nigeria was among the world's top exporters of groundnuts, cocoa and palm oil; it is no longer. Oil dependent countries such as Indonesia that have fared better at managing oil windfalls have done so by avoiding sharp currency appreciation, managing revenues and diversifying their export sectors away from petroleum.[13] This has led to a broader based growth pattern, stimulating the agricultural and export manufacturing sectors.

What can Sudan do to promote diversification? There is a wide literature on the topic, but the broad consensus is that diversification requires a combination of *supportive exchange rate policy* that promotes tradable sectors and *industrial policies*.[14]

1.3.1 A competitive exchange rate?

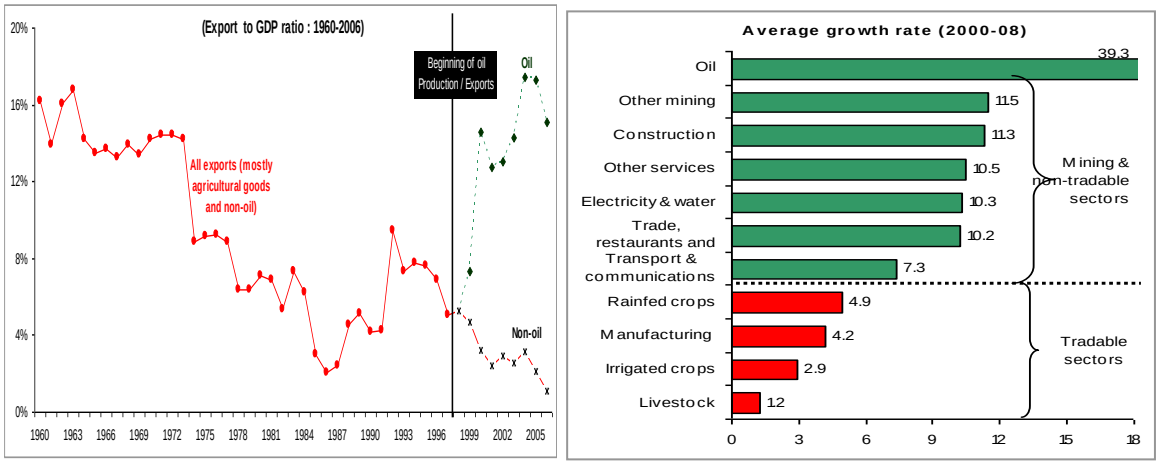
Long term real exchange rate competitiveness is essential to broad based growth and diversification. An appropriate real exchange rate is a requisite element of supporting the development of the private sector. Numerous assessments of economic policies of developing countries have demonstrated the importance of proper management of the real exchange rate. Exchange rate appreciation increases the prices and wages of non-traded sectors, such as real estate and construction, relative to the traded sectors, such as manufacturing and agricultural exports whose prices are determined in international markets. This cases a shift in the allocation of domestic resources away from production of exports, an increase in the consumption of relatively cheaper imports.

In Sudan, real appreciation of the pound appears to have created "Dutch disease" symptoms. Over the period 1999-2008, the oil sector increased its share of GDP from 2% to about 21% of GDP, whereas the share of the non oil sectors declined from 98% in 1999 to 79% in 2008. The fastest growing sectors are either related to oil or non-tradable services, while the growth of agriculture and manufacturing has been significantly lower. The real exchange rate appreciated by as much as 40 percent in 2005 and 2006. In trade terms, the impact has been more profound: whereas oil exports did not exist in 1998, now more than 90 percent of Sudan's exports are from the oil sector. Non-oil exports have

[12] Imbs and Wacziarg (2003)
[13] Eifert, Gelb, and Tallroth, 2002, Bevan, 1999.
[14] Literature summarized in Rodrik (2006).

declined by about 50 percent as a share of GDP.[15] In absolute terms, non-oil exports in 2005 were lower than non-oil exports in 1995.[16]

Figure 1-8 Sudan's Growth and Export Patterns



Source: right panel, IMF; left panel, Diagnostic Trade Integration Study (WB, 2008).

1.3.2 Industrial policy?

A narrow economic base may have implications for poverty. The evidence of declining non-oil sectors such as manufacturing or agriculture implies decreasing employment and viability of lower-skilled workers and farmers. Given geography, there are limited opportunities for the vast majority of Sudanese to participate in either the oil sector or the non-tradable urban sectors, or to enjoy substantially improved public service delivery in the short run. Given that conflict-affected parts of Sudan are largely agricultural, this suggests potential increases in conflict-related risk.

A set of principles can be applied to design of a public role. The broad consensus is that government efforts should be (a) temporary; (b) evaluated and quickly ended if they are not yielding results; (c) be neutral to the type of industry that will benefit to the extent possible (or favor interventions with a broader rather than narrow impact).[17] Moreover, modern industrial policy is better understood not as about the state picking activities and subsidizing them to create industries. Rather, modern industrial policy is about a process of *joint learning and problem solving* between the public and private sector, in which the next policy or action in a sequence is not understood until a first step is taken. This requires that policymakers engage in an ongoing conversation with the private sector to

[15] IMF 2008 Staff Report

[16] The Sudan Country Economic Memorandum (CEM) 2009 provides a full analysis of the impact of currency appreciation and Dutch Disease in Sudan.

[17] See *Growth Report: Strategies for Sustained Growth and Inclusive Development*, Commission on Growth and Development 2008

prioritize such actions as the removal of constraints that arise in the diversification process, such a logistics problem, information gap or poorly designed institution.[18]

Sudan's industrial policy is well intentioned, but runs counter to some of these principles. The investment policy, as well as the 2005 Act for the Assistance and Subsidies for Vitalization of Industry are well-intentioned, but focus primarily on granting subsidies for a set of activities that are already identified in the act: which include state-driven investment in disadvantaged regions, labor intensive production, metal smelting, herbal medicine, information technology, industrial areas and science parks. The Act establishes a Council including several Ministries, labor unions and the private sector, but this council is not designed to serve as a public-private dialogue mechanism but rather to oversee the granting of subsidies.

1.4 The Challenge of Broad-Based Growth

1.4.1 Finding complementarities across Sudan's regions.

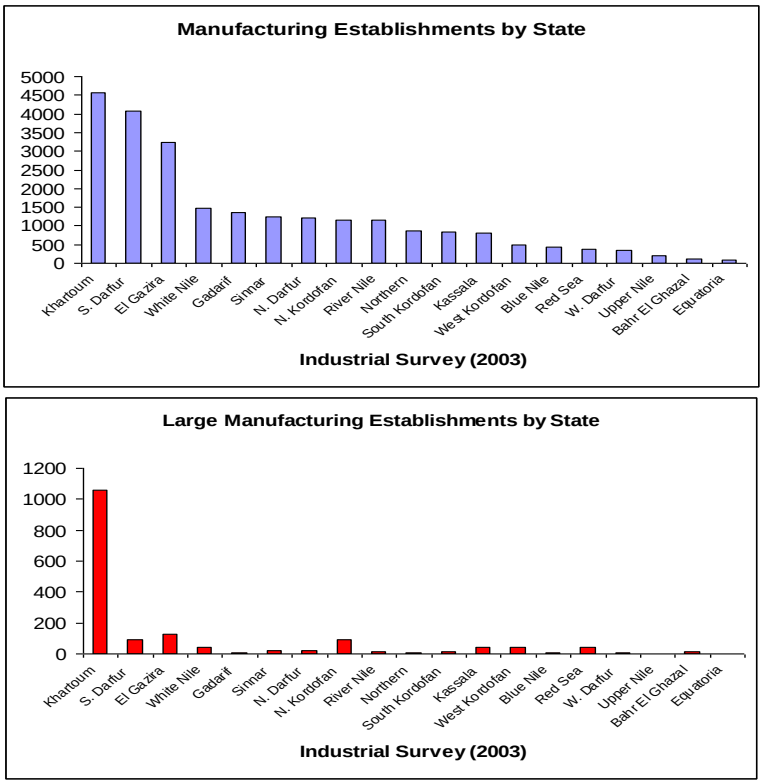
Sudan's size and diversity creates challenges and opportunities. Sudan is the largest country in Africa, with a surface area of 2.5 million Km^2. It shares extensive borders with nine countries and encompasses many climatic and ecological zones. This diversity of geography is also reflected in the diversity of its people. The country is multi–cultural, multi-ethnic, multi-lingual and multi-religious. According to the recent census (2008), the population of Sudan is estimated at 39 million, around 70% of whom live in rural areas. Although per capita GDP is over $1,000, the vast majority of citizens are poor.

Broad-based growth must mean growth that provides better livelihoods for the average citizen, whether in microenterprises or larger firms, Bahri or Bahr-al-Ghazal, Al-Geneina or Al Gedaref, Nuba or Nubia. This does not imply that all regions will become industrialized. Recent economic literature has made clear that economies of agglomeration – the powerful effects of geographic concentration – are an important part of the growth process (WDR 2009). But in Sudan, agglomeration has not taken place through a natural process of self-discovery, but in large part because governments over time failed to provide even basic infrastructure. It is too early to accept the status quo - potential new growth poles have not had an opportunity to emerge.

Since before its independence, Sudan's infrastructure and social services have been centralized. The country's infrastructure, social services and irrigation endowments are more concentrated in Khartoum and Gezira state. Larger firms, which are more intensive in use of formal institutions and infrastructure and benefit from economies of scale, are located primarily in Khartoum and to a lesser extent El Gezira, Nyala, Port Sudan and North Kordofan. Few parts of Sudan offer infrastructure and factor markets necessary to support large-scale, formalized manufacturing. As such, most of the country is endowed with a large number of smaller or informal enterprises.

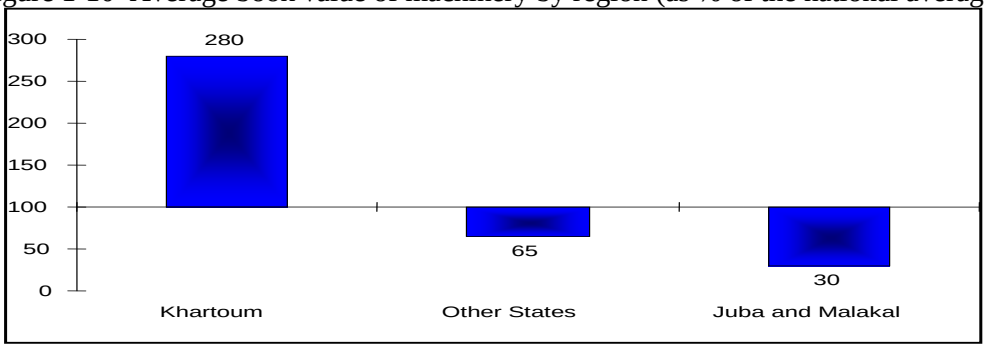
[18] See Charles Sabel, *Bootstrapping Development: Rethinking the Role of Public Intervention in Promoting Growth.* April 2005.

Figure 1-9 Distribution of Manufacturing Establishments



Within Sudan, productivity varies significantly by region and by size of firm. Labor productivity measured as value added per worker is one of the basic measures of establishment level productivity. Gezira and Khartoum regions appear to have relatively high labor productivity on average, which is due primarily to far higher productivity of large firms. The PICS data reveals that enterprises in Khartoum, Red Sea and Gezira are more capital intensive than enterprises in Juba and Malakal, as well as other states. Enterprises in Juba and Malakal in the south on average are just 30 percent as capital intensive as those in Khartoum; and enterprises located in other states are just 65 percent as capital intensive as those in Khartoum.

Figure 1-10 Average book value of machinery by region (as % of the national average)

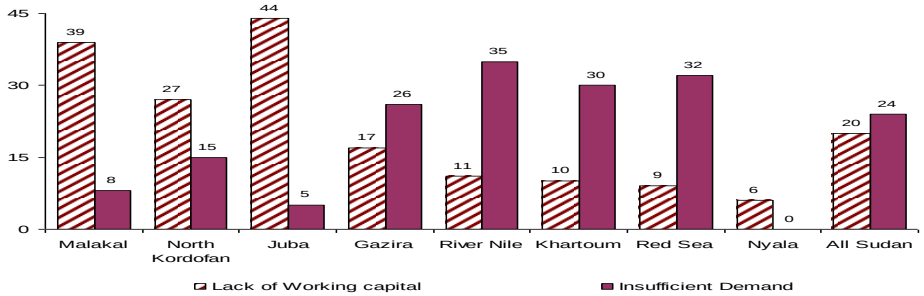


Source: Sudan PICS 2008

Furthermore, as indicated in Figure 1-11, enterprises in Malakal, Juba, Nyala and North Kordofan all see a lack of working capital as a key cause of low capacity utilization,

whereas they have relatively little problem with the prevailing level of demand. Enterprises in Khartoum, Gezira and Red Sea state, on the other hand, seem to have little issue with working capital (and are better capitalized, as indicated in Figure 1-10) but face insufficient demand. In other words, the relationship between regions is complementary – particularly between Khartoum/Gezira and Juba and Nyala. There is little sign that these complementarities are being exploited.

Figure 1-11 Regional differences in working capital and demand (% complained)



Source: Sudan PICS

1.4.2 Inclusion and Conflict-Affected Regions

Civil wars in Africa are fundamentally issues of economic opportunity. Economic performance is far more relevant as predictors of conflict than political grievances. Collier and Hoeffler, (2003), Elbadawi and Sambaing (2003). Rainfall variation is strongly correlated to income growth. Globally, a strong correlation between poverty and land degradation. A 5% negative growth shock (for example, through poor rains) increases the probability of a civil war by half (Miguel, et. al, 2004)

The consequences of conflict are all there to be observed in Southern Sudan: the legacy not only of lost lives and shattered families, but two decades of not being able to develop the skills, infrastructure, policies and institutions needed to create a thriving economy. In conflict affected settings, international experience suggests an important role for the private sector in promoting peace through creating sustainable sources of employment. As such, policymakers have a special obligation to focus on the investment climate in these regions.

The challenges faced by policymakers in Sudan's two conflict regions are different. The challenge facing Southern Sudan's leaders, whether as an autonomous region (as Banda Aceh in Indonesia) or a new African state after 2011 (as Timor Leste, formerly in Indonesia), are far deeper than any recent experience in building an economy in the wake of conflict. The decades of conflict not only destroyed lives, property and institutions; it also severely limited the emergence of Southern Sudanese entrepreneurs. The challenge for Southern Sudan is to simultaneously build the framework of policies, institutions, and infrastructure, reduce dependence on fiscal transfers, and catalyze entrepreneurship possibly also while building the foundations of a state. If the Resource Curse is a risk for Sudan as a whole, it is an order of magnitude more so for Southern Sudan.

For the conflict-affected states of Darfur, the challenge will be to recreate some of the vibrancy of its small and medium-sized enterprises which existed prior to the conflict. Darfur's light manufacturing served a very wide area, extending from Chad to Kordofan, with industries such as oilseed processing, fabrication of agricultural equipment (blacksmithing) and handicrafts. If the broad contours of the CPA are any guide, regional leaders will have increased responsibility to create the institutional framework for growth. As rebels and Government representatives, position and reposition ahead of peace talks, the problem they will eventually confront grows larger every day: skills are depleting as talented people while away time in relief camps or new urban homes, entrepreneurs who have temporarily left are less likely to return, fields are not being worked, machinery is rusting, mills are shuttered.

1.4.3 Including the urban informal sector

The informal sector is a large source of employment. Economists have emphasized the heterogeneity of the informal sector, both in the nature of the informality (the degree to which firms are in full compliance with regulations concerning wage employment, taxation, registration or licensing) and in the range of activities undertaken. As early as 1982, the International Labor Office estimated that the informal sector provided employment to up to 25 percent of the labor force in Khartoum (ILO 1986). According to IFAD, almost 36 percent of surveyed households in South Kordofan in 2005 reported trade (mostly petty trading) as a second occupation.

The informal sector provides an alternative service delivery mechanism. In a country with the geographical characteristics of the Sudan and a limited formal private sector, it is not surprising that a large informal sector has expanded to provide services and employment in areas where the public or formal private sector has failed to reach. In the peri-urban centers of Darfur and Southern Sudan, the informal sector provides water services where the public grid is absent. Much of the informal sector has emerged to fill service delivery gaps, from the tea lady or "tabliya" merchant, to the more established booths in Suqs, to ever-present informal urban transport networks such as "Amjad" microbuses in Khartoum or "Tiko" in Nyala. In rural settings, resilient and elaborate mechanisms emerged to provide credit, wholesaling, and marketing and distribution services throughout the country. Nizam el Sheil, traditional merchant-form of agricultural credit, worked due to the ability of merchants to supervise borrowers.

The incentives currently do not reward formalization. With the possible exception of finance, there are few requirements for operating a business in Sudan that cannot be met as easily by informal as by registered firms. Indeed some markets – notably for labor – appear to be more flexible for informal than for formal firms. While there are costs and risks associated with informality, these seem manageable compared to the larger and risks associated with paying taxes formally. Informal firms also report greater concern over corruption and economic policy uncertainty than formal firms. But overall, what is important to informal firms is also important to formal.

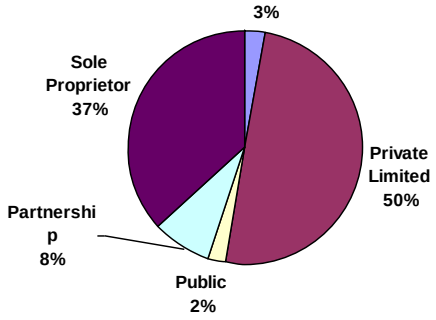
1.5 Methodology and Approach

The study focuses primarily on the use of an a Productivity and Investment Climate Survey (PICS) to understand which firms are more productive and which are less productive, to understand the policy and institutional factors that are most associated with higher productivity. A description of sampling and data characteristics is included as Annex II.

1.5.1 Sudanese Enterprises

The enterprise sector is diverse, including a traditional base of sectors linked to the agricultural base of the economy, and an increasing number of firms linked to increasing domestic demand for goods and services. Historically, the prevalence of traditional modes of production, fragmented over wide geographic areas, enabled the development of brokers, merchants, and transporters linking producers and markets, which in turn led to a manufacturing sector. According to the 2001 UNIDO-supported national industrial census, the largest industrial sectors were food processing, followed by metal working and wood processing. More traditional subsectors have been the sugar industry (including the large Kenana scheme), leather, textiles, pharmaceuticals, oilseed processing, soap and cement. More recently, automotive assembly, plastics, cable and pipe manufacturing have emerged.

Figure 1-12 Sampled Enterprises by Form



The enterprise sector as a whole consists largely of small firms, structured as private limited companies and sole proprietorships arrayed over a wide range of sectors. Of the sample of formal manufacturing firms in the PICS only 8 percent of firms were partnerships, 2 percent state-owned, and 3 percent listed. The 2002 UNIDO Industrial Census found that private ownership accounts for 95.2% and 96.2% in 1998 and 2002 respectively, and the 2007/08 PICS found only 2% of surveyed firms to be state-owned.

1.5.2 The PICS Survey

The private sector performance in Sudan is analyzed for the manufacturing and services sectors by taking advantage of data collected within the *Sudan Investment Climate Survey,* which was carried out between the second half of 2007 and the first half of 2008. The PICS sample covers firms with 5 employees or more. As shown in Table 1-1, the majority of firms in the manufacturing have less than 20 employees; the legal status of most firms is either private limited company or sole proprietorship. Both for the manufacturing and the services sector private firms concentrates in Gezira and especially Khartoum.

Table 1-1 Characteristics of manufacturing sample - Sudan PICS 2008

Industry	**% firms**
Food	35.87
Garments	0.71
Textiles	0.82
Chemicals	6.69
Non-metallic minerals	29.63
Wood, wood products & furniture	6.24
Metal & Metal products	8.45
Other Manufacturing	11.58

Enterprise size	% firms
Small (5-19 employees)	56.89
Medium (20-99 employees)	37.58
Large (100+ employees)	5.53
Total number of firms	388

Legal Status	% firms
Publicly listed company	2.93
Private held limited company	54.62
Sole proprietorship	32.48
Partnership	8.27
Other	1.69

State	% firms
Khartoum	74.96
El Gezira	11.10
Red Sea	3.33
North Kordofan	7.66
Juba	0.41
River Nile	2.54

Source: Sudan PICS 2008

Table 1-2: Characteristics of services sample - Sudan PICS 2008

Industry	**% firms**
Retail Services	79.61
Wholesale S	12.4
Repair Shop	4.1
Banking/Ins	0.28
Consultancy	0.19
Other	3.43

Enterprise size	% firms
Small (5-19 employees)	96.39
Medium (20-99 employees)	2.68
Large (100+ employees)	0.93
Total number of firms	141

Legal Status	% firms
Publicly listed company	0.45
Private held limited company	49.63
Sole proprietorship	37.98
Partnership	10.58
Other	1.36

State	% firms
Khartoum	85.93
El Gezira	7.05
Red Sea	0.71
North Kordofan	2.93
Juba	2.3
River Nile	1.09

Source: World Bank. Sudan PICS 2008

The survey covered 434 firms in the manufacturing sector as well as 164 firms in the services sector. An informal sector survey was also carried out, covering 350 firms, but it does not provide information about the firm's performance. The surveys covered the following states: Khartoum, Gazira, Red Sea, North Kordofan, Juba, River Nile, Nyala, and Malakal. However, Nyala and Malakal had to be excluded from the productivity analysis as sampling weights are not available for these two states. The capital city of Khartoum accounts for the bulk of the data: 50% of the manufacturing survey and 33% of the service survey. The two surveys focus on firms with permanent employees, and therefore do not cover the majority of microenterprises. Retail and wholesale trade represent a large proportion (37%) of the sample for the service survey, but otherwise a range of service enterprises is represented.

International comparisons draw on enterprise surveys collected in other African countries. The countries chosen for the comparison and the respective survey year are Egypt (2006), Ethiopia (2006), Kenya (2007), Morocco (2007), Tanzania (2006), Uganda (2006). Cross-country comparisons are restricted to the industries that are covered by all surveys. For the manufacturing sector such industries are food, garments, textiles, machinery and equipment, chemicals, electronics, non-metallic minerals, wood and wood products, metal and metal products. For the services sector the only common industry is retail. The proportion of small firms in Sudan's manufacturing and services sector is larger than in comparator countries and the proportion of large firms is larger.

We compare the responses of firms in Sudan with responses of firms in other countries. Other country data is also described in Annex II. The survey gathered data on costs, performance levels, and cost of such things as inventory, services, transport, and energy. We conducted interviews to better understand and validate the data, and reviewed existing analyses. We describe the results in chapters on Productivity, Markets, Financial Sector, Informal Sector, Conflict-Affected Regions, and Regional Differences.

2 Firm Performance and Competitiveness

2.1 Productivity and Investment Climate

Productivity growth is the foundation for the three goals of productive employment, diversification and inclusion. In order for the private sector to promote growth and to reduce Sudan's dependence on the oil sector, improvements in productivity and economic integration are necessary. The economic literature (see World Bank 2005 for a summary) has pointed out that investments alone cannot guarantee better firm performance; improvements in the investment climate are also necessary. As a consequence any private sector development growth strategy needs to include improvements in the investment climate. Despite increasing inward investment flows and constant improvements in GDP growth in the past few years, Sudan remains one of the most difficult places to do business (World Bank Doing Business Report 2010). In Sudan, attention to regional disparities must also be paid.

This chapter aims at indentifying patterns of firm performance and policy variables most closely associated with these patterns of performance. In particular, firm performance is analyzed across a number of dimensions in Sudan in order to identify the most productive industries and to investigate regional inequalities in terms of firm performance. The performance of Sudanese firms is also compared to the firm performance in neighboring African and Middle Eastern countries in order to gain a better understanding of Sudan's competitiveness in the global market. Finally an econometric analysis of firm performance is carried out to identify the relationship between productivity and firm characteristics and – most importantly – to identify the impact of investment climate on firm performance.

2.2 Indicators of performance in the manufacturing sector

2.2.1 Labor Costs and Value Added

The manufacturing sector only accounted for 6.1% of Sudan GDP in 2007 and its growth rate has been well below GDP rates. In the best performing countries in Sub-Saharan Africa, value-added in manufacturing accounts for 20 to 40 percent of GDP. Not only the contribution of the manufacturing sector to GDP in Sudan is much lower; the value added generated by the sector has also not increased significantly in real terms over the past forty years. The share of the services sector (41%) is instead closer to levels observed for comparator countries.

Manufacturing firms in Sudan operate well below their full capacity. Capacity utilization is the establishment's output in comparison to the maximum output possible given the existing facilities. International comparisons substantiate this as capacity utilization rate in Sudan is the lowest among comparator countries, together with Ethiopia.

Table 2-1 Median productivity measures for manufacturing in Sudan and comparators

	Capacity utilization (%)	Value added per worker (2006 US$)	Capital per worker (2006 US$)	Labor cost per worker (2006 US$)	Unit labor cost	Export
Sudan	65	6,682	16,118	6,280	0.19	10%
Uganda	70	1,975	1,863	880	0.22	19%
Tanzania	75	3,268	1,680	899	0.15	14%
Egypt	70	1,657	5,447	797	0.16	35%
Morocco	70	7,947	5,438	3,809	0.19	46%
Ethiopia	60	1,509	2,588	493	0.14	12%
Kenya	75	8,707	11,558	2,149	0.13	47%

Source: World Bank. Enterprise Surveys

Note: cross-country comparisons by industry have been limited to industries specifically covered by all enterprise surveys.

Note: Data were collected between 2005 and 2007 depending on survey period for each country. Value added is calculated by subtracting intermediate inputs and energy costs from sales from manufacturing. Workers include both permanent and temporary workers. Data collected in years other than 2006 is converted to 2006 figures using GDP deflators.

Labor costs are the highest among the comparator set in USD terms. Sudanese labor rates of approximately $500 per month far exceed those of the comparators including Morocco and Egypt. Other things being equal, firms with higher labor cost are less competitive. High labor productivity could however offset high wages paid to workers making the firms gain a competitive edge. A proper indicator of labor competitiveness is therefore unit labor costs, which measures the ratio of labor cost per worker to value added per worker: the higher the unit labor cost, the lower the competitiveness of the firm based on labor costs and labor productivity. With respect to labor costs, as shown in the fifth column of Table 2-1, Sudan is one of the least competitive countries among the comparator countries chosen, having a median unit labor cost of 0.19, lower than Uganda but higher than others.

Value added per worker[19] produced by the median manufacturing firm in Sudan is also high - just below 6,700 US$. By comparison, workers in the median firm in Kenya or Morocco are more productive, the value added per worker in the median firms in Uganda, Egypt and Ethiopia is less than a third than in Sudan.

Firms in the Sudanese manufacturing sector reported very high asset values and have the one of the highest capital intensity[20] among their comparator countries.

[19] Value added per worker is computed as the ratio of value added to total number workers; the former has been computed as total annual sales less total annual costs for labor, input and energy while the latter is the sum of the number of full time permanent workers and the number of temporary workers weighted by the average duration of temporary workers employment.

[20] Capital intensity is measured as the ratio of the total net book value of machinery, equipment, buildings and land owned by the firm to the total number of workers employed by the firm.

The median firm in Sudan has US$ 16,118 worth of machinery and equipment per worker, the median capital intensity observed in the comparator countries is less than US$ 6,000, with the exception of Kenya (US$ 11,558). The high capital intensity of Sudanese firms could be an explanation for the relatively high labor productivity observed in the previous section. Though Sudanese firms are relatively scarce in labor, each worker has a high capital endowment and can therefore be more productive. On the other hand, Sudanese firms have among the lowest capacity utilization, which would serve to bring down productivity.

Table 2-2: Median productivity measures for the manufacturing sector in Sudan

	Capacity utilization (%)	Export	Capital per worker (2006 US$)	Value added per worker (2006 US$)	Labor cost per worker	Unit labor cost
Manufacturing, overall	65	10%	16,118	6,682	6,280	0.19
			Size			
Small (5-19)	60	9%	15,603	6,682	6,908	0.20
Medium and large (20 +)	70	11%	20,861	8,776	5,181	0.10
			Location			
Khartoum	60	11%	17,583	6,682	6,050	0.20
Other	70	8%	16,118	6,782	7,536	0.17
			Legal status			
Publicly listed co.	100	n.a.	37,516	33,054	10,150	0.09
Private limited co.	65	12%	20,861	6,682	6,028	0.16
Sole proprietorship	70	9%	15,110	6,682	6,908	0.20
Partnership	50	5%	n.a.	8,776	5,756	0.07
			Industry			
Food	70	13%	20,861	6,682	6,280	0.17
Garments	60	5%	3,841	6,316	6,476	0.24
Textiles	60	5%	58,404	8,776	2,125	0.53
Wood	60	3%	13,589	6,682	5,024	0.17

Source: World Bank. Enterprise Surveys

Note: Value added is calculated by subtracting intermediate inputs and energy costs from sales from manufacturing. Workers include both permanent and temporary workers.

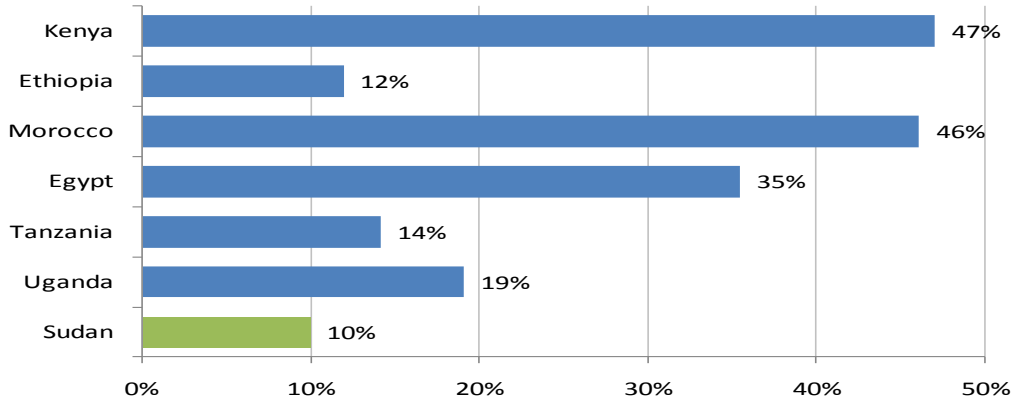
Within Sudan, small firms perform poorly in most dimensions. Table 2-2 , shows that capacity utilization, incidence of exporting, capital per worker, value added per worker in medium and large firms (that is firms with 20 employees or more) are all larger than in small firms. At the same time, most medium and large firms face lower labor cost. Within the manufacturing sector, large firms concentrate in the food and chemical industries (26% and 22% respectively) and, to a lesser extent, in the textile and metal & metal products industries (13% and 17% respectively).

Publicly listed companies are by far the most productive group of firms in Sudan, as measured by value added per worker. Their capital intensity is also high. Despite facing relatively high labor costs per worker, their labor competitiveness is strong. The

garment industry performs below average both in terms of value added per worker, capital intensity and labor competitiveness Performance indicators for textile firms appear instead to be better.

Exposure to international markets is very limited among Sudanese manufacturing firms. The economic literature recognizes that export performance is positively correlated with firm productivity because only the most productive among firms enter the export market (Melitz, 2003). Export performance can therefore be regarded as a general measure of firm performance. Sudan does not perform well by this standard: only 10% of the manufacturing firms in Sudan export at least part of their production, either directly or indirectly, even less than in Ethiopia, a neighboring country which is also landlocked. Exporting is more common among larger firms. None of the publicly listed companies are exporters, whereas the incidence of exporters is higher than average among private limited companies.

Figure 2-1: Exporting firms as % total manufacturing firm number in Sudan and comparator countries



2.2.2 Total Factor Productivity in Sudan's Manufacturing Sector

The remainder of this chapter focuses on the analysis of total factor productivity (TFP). Total factor productivity is here estimated through a stochastic frontier model. Output is measured as the log of total annual sales. Inputs are measured as the log of the total number of workers employed by the firm and the log of net book value of assets owned by the firm. The empirical equation also controls for size, industry and location of firms in order to allow average productivity to vary across these dimensions. Variables capturing the effect of access to finance, human capital, technology adoption, internationalization and governance are introduced.[21]

[21] Interactions between capital and labor with size and industry have been initially introduced in the estimated model in order to allow the production function to vary across dimensions and industries. Tests of the joint significance of the interaction terms and the direct effect however fail to reject the hypothesis that there are structural differences between firms of different size or across firms in different industries. The interaction effects between capital and the size dummies, the interaction effects between capital and industry, as well as the interaction effect between labor and industry have therefore been dropped from the regression

Table 2-3 Total factor productivity in manufacturing sector: Dependent variable – log sales

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
log labor	0.845	0.802	0.839	0.599	0.851	0.863	0.793	1.187	0.970
	(3.31)***	(3.11)***	(3.19)***	(2.40)**	(3.29)***	(3.37)***	(3.00)***	(4.91)***	(4.09)***
log capital	0.391	0.366	0.394	0.345	0.348	0.361	0.360	0.372	0.266
	(4.76)***	(4.89)***	(5.61)***	(4.89)***	(4.78)***	(4.73)***	(4.67)***	(3.98)***	(3.13)***
Firm characteristics									
Female owner		-0.482	-0.438	-0.340	-0.506	-0.366	-0.459	-0.881	-0.772
		(0.93)	(0.76)	(0.85)	(1.00)	(0.57)	(0.86)	(1.80)*	(1.45)
Age		-0.410	-0.510	-0.351	-0.402	-0.473	-0.420	-0.476	-0.528
		(1.97)**	(2.35)**	(1.86)*	(1.92)*	(2.03)**	(2.01)**	(1.92)*	(2.17)**
Special zone		0.138	0.157	0.912	0.105	0.410	0.014	-0.193	2.360
(dummy)		(0.40)	(0.41)	(1.40)	(0.28)	(1.14)	(0.04)	(0.37)	(1.93)*
Incorporated		0.562	0.383	0.322	0.585	0.444	0.520	0.184	-0.566
(dummy)		(1.40)	(0.92)	(0.57)	(1.54)	(1.08)	(1.35)	(0.37)	(0.76)
state participation		-0.606	-0.503	-1.024	-0.632	-0.344	-0.725	-0.001	-0.206
(dummy)		(1.45)	(1.03)	(1.91)*	(1.47)	(0.73)	(1.70)*	(0.00)	(0.24)
Infrastructure									
N. outages/ mo.			0.000						-0.013
			(0.02)						(0.60)
% consignment			-0.005						0.012
lost spoilage			(0.49)						(0.30)
% shipments own			-0.010						-0.011
transports			(1.78)*						(1.66)*
Globalization									
Exporter				-1.865					-3.495
				(1.90)*					(2.59)***
For. participation				1.020					1.250
(dummy 10%+)				(1.66)*					(1.91)*
Technology									
Foreign technology					0.421				-0.260
(dummy)					(0.91)				(0.69)
Human capital									
Share skilled						-0.302			-0.259
Workers						(0.39)			(0.34)
Share white collar						1.043			1.086
						(1.09)			(1.10)
workers (dummy)						(0.37)			(1.11)
Manager tertiary						-0.290			0.151
educ (dummy)						(0.56)			(0.34)
Finance									
Purchased on							-0.085		-0.155
Credit							(0.19)		(0.34)
% assets financed							-0.002		-0.001
by banks							(0.19)		(0.07)
Bank account							0.563		0.976
(dummy)							(1.43)		(1.66)*
Governance									
Labor regulation								0.421	0.331
								(0.79)	(0.70)
Informal payments								-0.310	-0.137
								(0.59)	(0.30)
Inspections								1.688	1.862
								(3.11)***	(3.13)***
crime								-0.413	0.452
								(0.54)	(0.71)
Security								-0.087	-0.165
								(0.15)	(0.35)
Controls									
Constant	4.881	6.452	6.688	7.431	6.658	6.433	6.174	3.613	5.900
	(3.20)***	(4.79)***	(4.63)***	(5.92)***	(4.91)***	(4.22)***	(4.54)***	(2.78)***	(3.85)***
Observations	320	303	295	303	294	249	300	228	182

Source: World Bank. 2008. Sudan PICS. Notes: Absolute value of z statistics in parentheses. * Significant at 10%; ** significant at 5%; *** significant at 1%: Excluded categories are Industry: Food and Beverages; State: Khartoum; Size: Small (5-19).

Table 2-3 displays the results of the TFP estimation for manufacturing firms in Sudan.[22] Results from eight different specifications are presented. Specification (1) only controls for the impact of inputs, industry, size and location on firm total factor productivity. Specifications (2) through (7) consider the impact of firm characteristics, globalization, technology, human capital, finance and governance on productivity. Each group of variables is included in the regression one at the time to avoid problem posed by possible co-linearity between them. Specification (8) includes all of the variables.

- Size, location and industry. While the dummies that control for a firm's size and its location have a positive coefficient, the confidence interval also includes negative values. Among industry dummies, only the dummy for metal products industry is significantly different from zero, with a negative impact on total factor productivity.

- Firm characteristics. Once the effect of size, location and industry are controlled for, the effect of firm-level characteristics such as age, female ownership, being located in an industrial or export special zone can be explored. *Only age and being in a special zone have an impact on total factor productivity that is significant at conventional levels.* The number of years since establishment has a negative coefficient suggesting that new firms are more productive than older ones while being in a special zone improves TFP.

- Infrastructure. Variables capturing the state of transport, telecommunication and power infrastructure in Sudan have been introduced among the investment climate variables. According to this regression's results, *problems in transportation do have a negative impact on productivity.*

- Globalization. A broad body of literature documents a positive correlation between participating into the global economy and increased firm performance. The data allow us to investigate such relationship through two variables: a dummy that identifies exporters and a dummy that identifies firms that are at least in part[23] owned by foreigners. *While being participated by foreign capital is associated with increased average productivity, being an exporter has a negative impact* - which is against the norm but anticipated by the previous descriptive analysis. Low productivity among exporters might be linked to overvalued exchange rates that drove firms to focus on the domestic markets as more efficient firms should be more easily capable to change their destination market if necessity arises.

- Technology. Use of technology is captured by a dummy variable indicating whether the firm uses foreign-licensed technology; while the coefficient associated with this variable is negative, its confidence interval also includes positive values and it is therefore not possible to ascertain its impact on productivity.

[22] The estimation of total factor productivity is restricted to the manufacturing sector because the necessary information on assets owned by the firm is not covered in the services survey.
[23] At least 10% of the firm.

- Human capital. Variables used are (i) a dummy indicating whether the average education of production workers is higher than 12 years of school; (ii) a dummy indicating whether the top manager has attained a tertiary degree; (iii) the share of skilled workers among production workers; (iv) share of white collar workers.

- Finance. The firms' ability to access financial resources is captured by a dummy indicating whether the firm has a bank account, whether the firm is able to purchase inputs on credit and whether fixed assets investments have been at least in part financed by banks. The analysis confirms that better access to finance, as measured by having a bank account, is increased by better access to financial resources. *Having a loan is also positively associated with total factor productivity*.

- Governance. This category consists of a set of variables that capture quantitative indicators of the investment climate in Sudan, including i) whether the firm was constrained by labor regulation in its hiring or firing decisions; ii) whether the firms was asked for gifts or informal payments to "public officials to "get things done" with regard to customs, taxes, licenses, regulations, services"; iii) whether the firm was subject to tax or labor inspections; iv) whether the firm offers its clients supplier credit or payment facilities v) the proportion of time that senior managers spend dealing with bureaucracy; vi) whether the firm suffered losses due to theft, vandalism or arson. The Analysis does not confirm that corruption is strongly influencing productivity.

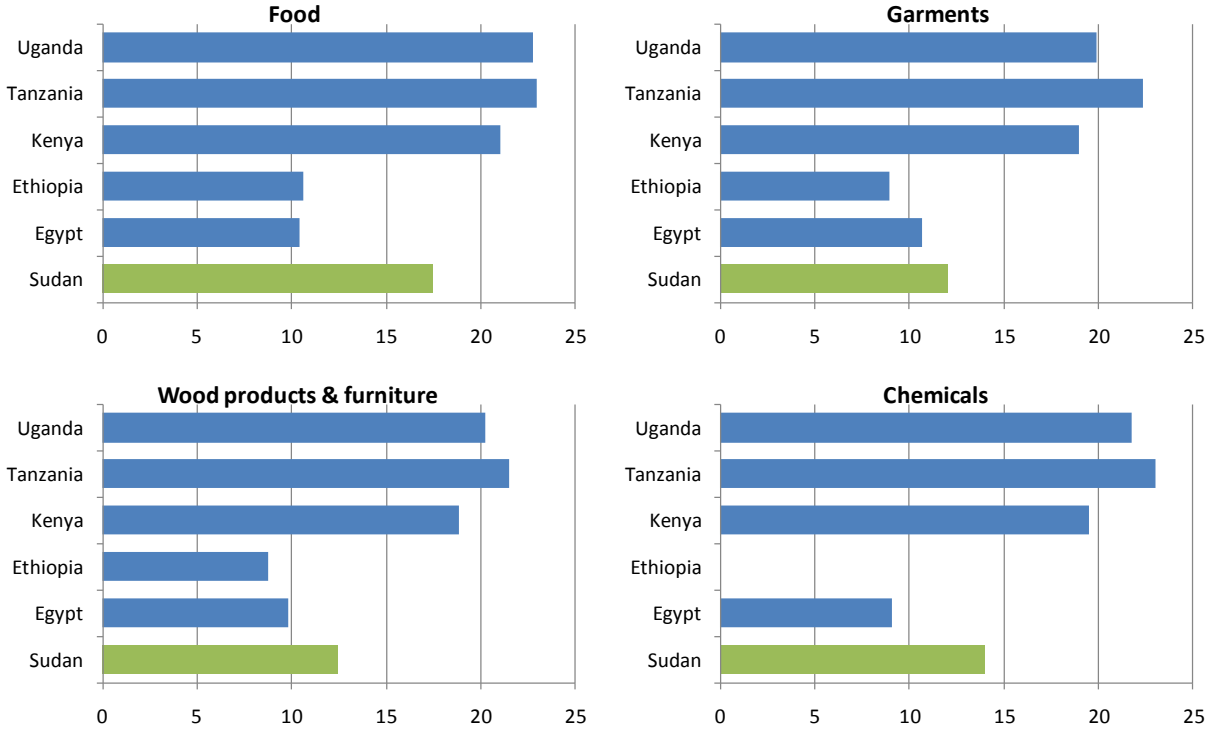
2.2.3 Total factor productivity by Sector

Using the total factor productivity estimates obtained from the above empirical model, and applying the same model to comparator countries,[24] the international competitiveness of manufacturing firms in Sudan can be assessed in terms of firm-level total factor productivity.

For the four manufacturing industries that were covered in all surveys, Sudan performs better in TFP terms than Ethiopia and Egypt but worse than Uganda, Tanzania and Kenya. Firms in the Sudanese food industry are closer to their international competitors in the comparison group than firms in the other three industries.

[24] Results for TFP estimate for comparator countries are reported in the econometric appendix

Figure 2-2: Weighted average TFP, international comparisons by industry



Source: World Bank. Enterprise Surveys

2.2.4 Allocative Efficiency

A market's aggregate productivity can be divided into two components: the productivity of each firm in that market and the market's allocative efficiency, which can be defined as the tendency for more productive firms to have larger market shares. The larger each of these two component, the higher the market's aggregate productivity. This decomposition implies that aggregate productivity growth can be achieved not only through greater firm-level productivity but also through a reallocation of market shares to the more productive players in a market even while within-firm productivity remains constant. Allocative efficiency is therefore a measure of the market's competitiveness.[25]

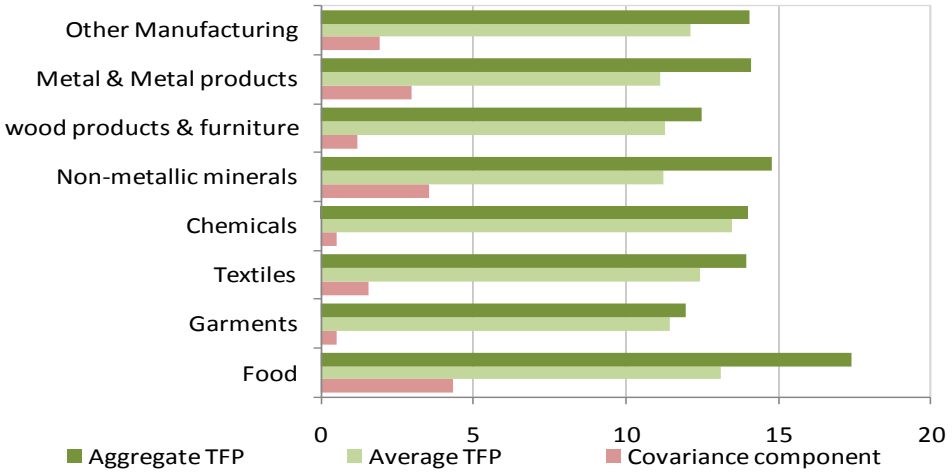
25 Allocative efficiency can be identified as the covariance term in the decomposition rule proposed by Olley and Pakes (1996)

$$P_q = \frac{1}{N_q}\sum_{i=1}^{N_q} P_{iq} + \sum_{i=1}^{N_q}(s_{iq} - \bar{s}_q)(P_{iq} - \bar{P}_q)$$

P_q, $\bar{P}_q$ and P_{iq} are, respectively, the market aggregate, market average and firm-level productivity in market q. N_q is the number of firms in that market. Finally, s_{iq} is firm's i share in market q and $\bar{s}_q$ is the average markets share in market q. The Olley and Pakes decomposition has been applied to compare allocative efficiency across industries and in Khartoum versus the rest of the country within each industry.

Food and beverages and the non-metallic product are the industries with the best allocative efficiency, thus being the most competitive industries. While firms in the chemical industry have the highest within-firm productivity, allocative efficiency is very poor in this industry and it results in an aggregate productivity that is lower than that of the food and beverages industries. The garment industry is instead the poorest performer both in terms of within-firm productivity and allocative efficiency.

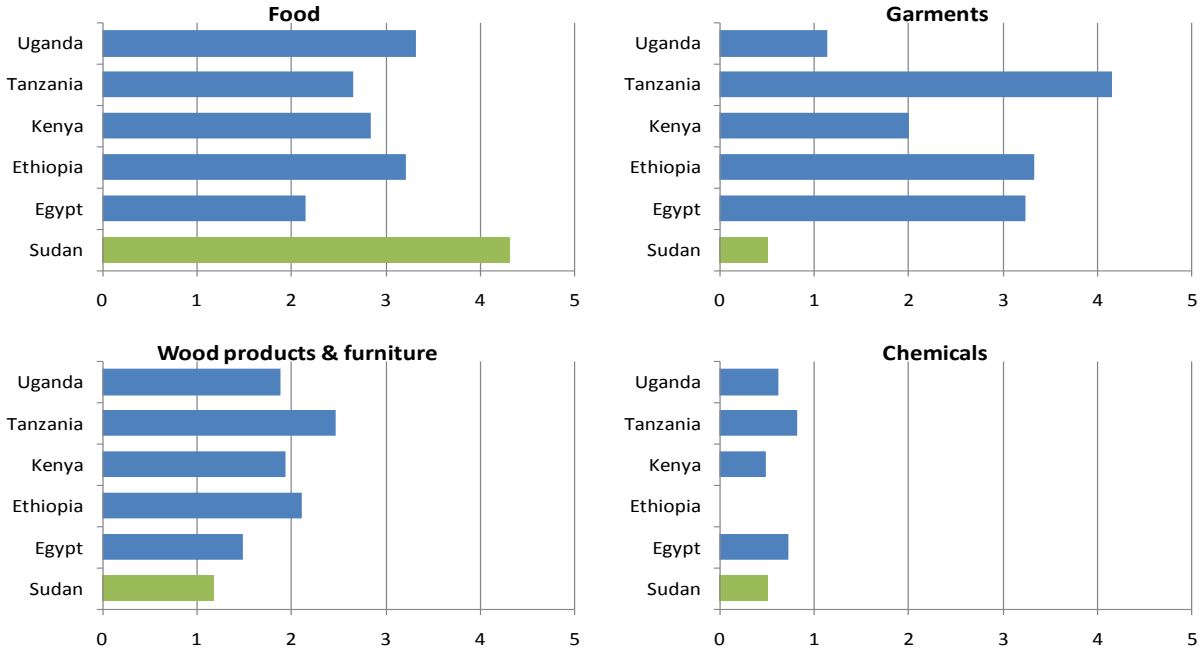
Figure 2-3: Aggregate TFP, average TFP and covariance component of TFP by industry



Source: World Bank. 2008. Sudan PICS

As shown in Figure 2-4, the allocative efficiency in the chemical industry is low in all comparator countries. The garment and the wood industries in Sudan are instead less competitive than in comparator countries, whereas competition within the food industry is stronger than in comparator countries.

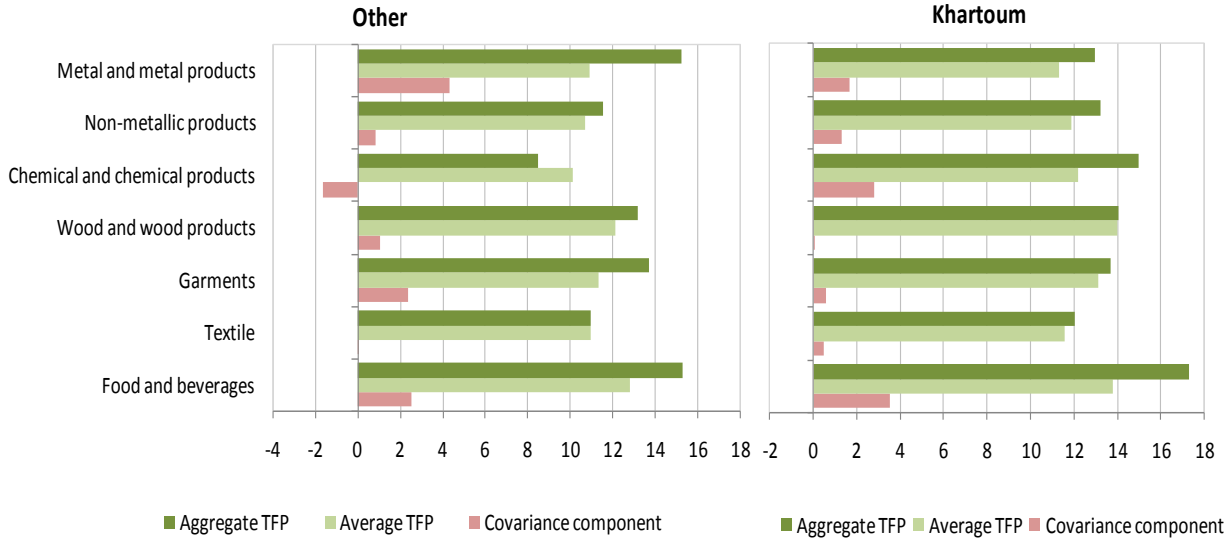
Figure 2-4: Covariance Component TFP, international comparisons by industry



Source: World Bank. Enterprise Surveys

In Khartoum there is more competition, as measured by the TFP covariance component, than in the rest of the country – with the exception of the metal product industry. The chemical industry outside Khartoum is actually characterized by allocative inefficiencies, meaning that the least efficient firms have larger market share.

Figure 2-5: Aggregate TFP, average TFP and covariance component of TFP by location



Source: World Bank. 2008. Sudan PICS

2.3 Indicators of firm performance in the services sector

Sales and labor costs per worker in the services sector[26] is very high in Sudan compared to other countries, reflecting the result of oil revenues filtering into the economy in Khartoum, where the vast majority of the sample was taken. Because labor costs are high, unit labor costs, as a measure of productivity, is comparable to other countries. In the services sector the incidence of small firms concentration is highest in the retail and wholesale sectors (99%) while the incidence of large firms is highest in banking and consultancy (16% and 9%). We are less confident in these results due to the smaller sample size, and the mix of industries in the Sudan survey relative to the other countries. The Sudan figures include banking and consultancy, which offer relatively high sales per worker.

Table 2-4: Median productivity measures for retail firms in Sudan and comparator countries

	Labor cost per worker (2006 US$)	Unit labor cost
Sudan	6,908	0.15
Uganda	715	0.13
Tanzania	564	0.15
Kenya	999	0.12

Source: World Bank. Enterprise Surveys

Note: Data collected between 2005 and 2007 depending on survey period for each country. Workers include both permanent and temporary workers. Data collected in years other than 2006 is converted to 2006 figures using GDP deflators.

Within Sudan, considering all of the industries included in the services survey, small firms perform better than large and medium firms. The performance of banking firms is also much higher than the service sector average. As for the manufacturing sector, medium and large firms face higher labor cost than small firms. Labor costs per worker are higher than average in banking and in publicly listed companies.

In the services sector, instead, being in the banking industry has a strong positive effect on productivity; being a small firm is also strongly associated with higher productivity.

[26] International comparisons of firm performance in the services sector have been restricted to the retail sector as this is the only industry common to most comparator countries. The sample size is limited.

Table 2-5 Labor productivity in Service Sector: Dependent Variable – Log Sales/Worker

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
log wage	0.250	0.038	-0.065	0.039	0.025	0.046	0.154	0.212	0.050
	(2.36)**	(0.22)	(0.41)	(0.22)	(0.14)	(0.26)	(0.89)	(1.26)	(0.46)
ln capital rent	0.573	0.676	0.749	0.573	0.687	0.687	0.467	0.616	0.711
	(3.30)***	(3.55)***	(4.83)***	(3.83)***	(3.54)***	(3.57)***	(2.83)***	(5.11)***	(4.80)***
Firm characteristics									
Female owner	-0.302	-0.663	-0.055	-0.317	-0.260	-0.649	-0.823	-0.835	-0.302
(dummy)	(0.64)	(1.37)	(0.11)	(0.66)	(0.57)	(1.46)	(1.85)*	(1.27)	(0.64)
Age	0.023	0.152	0.117	0.033	-0.022	-0.075	-0.099	-0.043	0.023
	(0.09)	(0.55)	(0.58)	(0.13)	(0.09)	(0.34)	(0.41)	(0.16)	(0.09)
Special zone	0.892	1.320	0.683	1.051	0.896	1.261	0.985	0.748	0.892
(dummy)	(1.71)*	(2.66)***	(0.95)	(1.58)	(1.74)*	(2.32)**	(2.00)*	(1.06)	(1.71)*
Incorporated	-0.489	0.077	-0.277	-0.387	-0.514	-0.468	0.890	2.605	-0.489
(dummy)	(0.28)	(0.04)	(0.17)	(0.21)	(0.28)	(0.31)	(0.76)	(1.48)	(0.28)
State participation	-2.645	-6.018	-2.694	-2.446	-2.509	-1.093	-2.641	-2.607	-2.645
(dummy)	(1.82)*	(2.35)**	(1.87)*	(1.58)	(1.60)	(0.78)	(2.08)**	(1.13)	(1.82)*
Infrastructure									
N. outages/month			0.052						-0.001
			(2.30)**						(0.04)
Globalization									
Exporter				-1.199					-0.869
				(1.09)					(0.60)
Importer				1.193					0.628
				(2.93)***					(1.37)
foreign participation				-0.403					-1.190
(10%+)				(0.72)					(0.89)
Technology									
Uses email					-0.404				-0.433
(dummy)					(0.78)				(0.74)
Human capital									
Manager tertiary						-0.284			-0.961
Educ						(0.65)			(1.50)
Finance									
Bank account							1.096		1.577
(dummy)							(2.87)***		(2.73)**
Purchased on credit							0.941		0.260
							(3.74)***		(0.91)
Sold on credit							-0.162		-0.175
							(0.49)		(0.45)
% working capital							0.016		-0.013
financed bank							(1.19)		(0.77)
Governance									
Labor regulation								0.686	0.567
								(1.47)	(1.65)
Informal payments								-1.026	-1.089
								(2.18)**	(2.09)**
Inspections								-0.003	-0.002
								(0.54)	(0.34)
Crime								1.546	2.176
								(4.16)***	(3.19)***
security								-1.067	-1.211
								(2.25)**	(3.22)***
Controls									
Constant	0.675	1.132	0.324	1.821	1.176	1.089	0.620	1.895	0.158
Observations	(0.49)	(0.72)	(0.23)	(1.52)	(0.73)	(0.68)	(0.55)	(1.49)	(0.09)
	117	109	104	101	105	108	108	75	64
R-squared	0.57	0.53	0.62	0.64	0.53	0.53	0.64	0.80	0.90

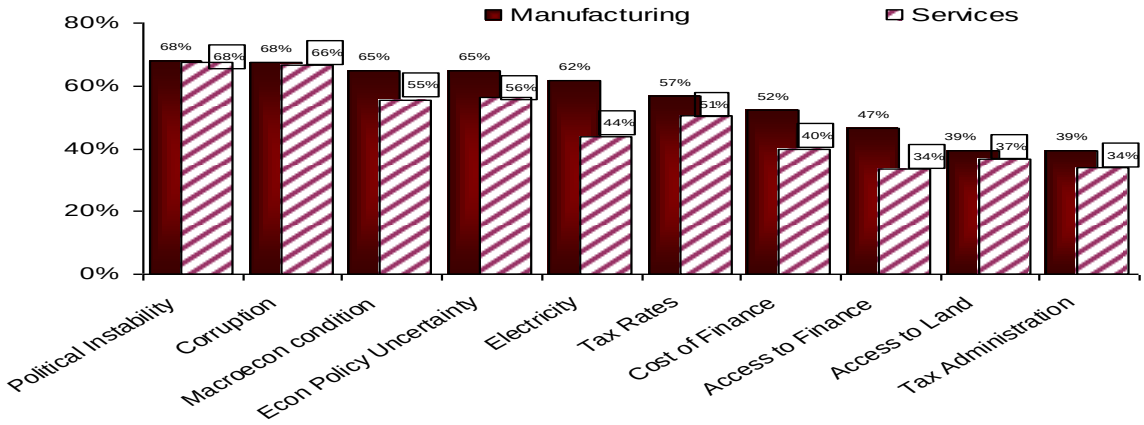
Source: World Bank. 2008. Sudan Investment Climate Survey I

Notes: Absolute value of z statistics in parentheses. * Significant at 10%; ** significant at 5%; *** significant at 1%: Excluded categories are Industry: Food and Beverages; State: Khartoum; Size: Small (5-19).

2.4 Manager Perceptions

Based on the responses to the Investment Climate Survey, political instability, corruption, economic policy and infrastructure issues are among the major constraints identified by the majority of Sudanese businessmen. It is quite likely that differences in average enterprise performance indicators between states as shown above is related to differences in business climate within the country. The following chart shows the ten major business obstacles in Sudan identified as major to severe business obstacles by the majority of respondents to the relevant questions in the investment climate survey (PICS) of manufacturing and services enterprises. We see from Figure 2-6 that Sudanese business owners and managers both in the manufacturing and services sectors are generally more concerned about the political instability, macroeconomic conditions and economic policy uncertainty as well as infrastructure.

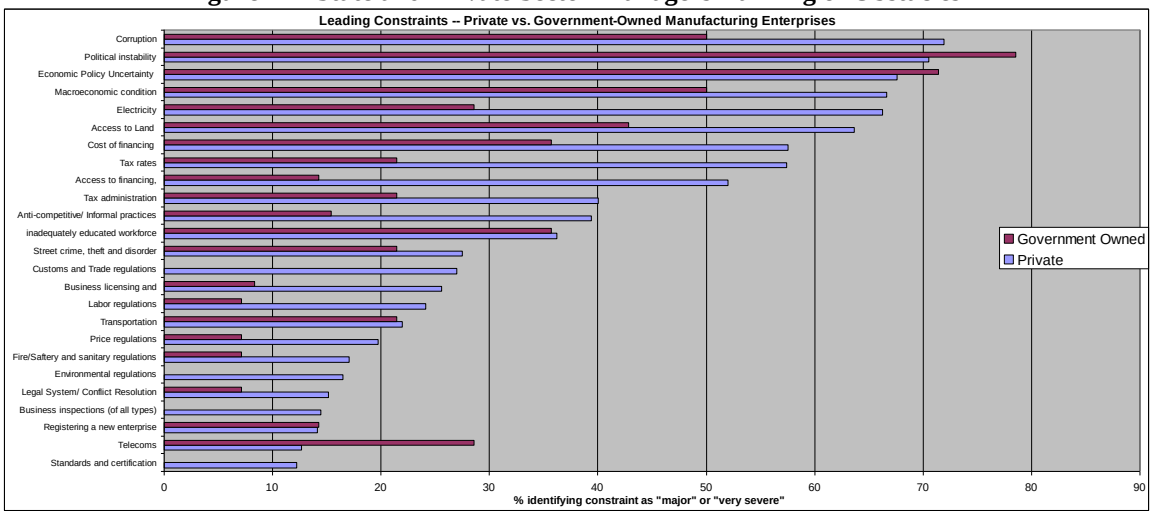
Figure 2-6 Ten major business obstacles in Sudan: Manufacturing vs. Services



Source: Sudan PICS 2008

State owned enterprises perceive the investment climate as less problematic than the private sector, with the exception of political stability and telecommunications.

Figure 2-7 State and Private Sector Managers Ranking of Obstacles



2.5 Conclusions

Sudan's manufacturing and services firms surveyed have high labor costs. This reflects the high cost of living in Khartoum, but also for other cities sampled including Juba. Taking into account the combination of low exports, high labor costs and high value added per worker, it appears that the remaining manufacturing sector consists predominantly of firms who enjoy high domestic prices and a natural hedge against imports. This allows them to continue production despite high costs and low capacity utilization. This is clearly not a basis for growth. To increase productivity Sudan will need to lower non-labor costs in the short run, and over time either move toward more sophisticated products where high labor costs are justified, or increase production in lower-cost parts of the country.

The TFP estimation confirms that infrastructure, access to finance and taxation are holding back the productivity of manufacturing firms and that policy that bring improvements in this regard will promote private sector growth through within-firm productivity growth. While differences in the observed level of productivity across regions are large, the econometric analysis does not provide evidence that being located in Khartoum or being a small firm – other things being equal – has a negative impact on productivity. If infrastructure, tax and finance endowments were equally distributed, the model suggests that productivity levels in Khartoum can be replicated.

The food sector is the most competitive, compared with other sectors in Sudan and compared with the food sector in other countries. More productive firms have higher market shares – allocation of resources is efficient. In other sectors less productive firms are retaining share through distortions in the playing field. Such factors may include distortions related to the presence of state-linked firms or procurement practices

In the services sector, productivity is affected by access to finance, paying bribes and having to pay for security. Also firms in special zones appear to be more productive. Governance and corruption issues were not as significant in the

manufacturing sector, as other factors appeared to be more important – particularly infrastructure and taxation.

The perception of managers reflects a high degree of uncertainty. Uncertainty raises return required for an investment to be made, because the investment will need to compensate the investor for the higher level of risk undertaken. Because it limits expansion of investment, this will impact Sudan at the aggregate level. If it limits investments in skills or capital that will raise productivity, uncertainty will also have an effect at the firm level. The sources of uncertainty include policy, macroeconomic conditions, corruption and politics.

3 Markets and Trust

Transaction costs and institutions are important to development. The dynamism of institutional development in developing countries is not as well understood as one would like. In this chapter, we use answers to specific questions added to the investment climate survey in Sudan to investigate what form market institutions take in Sudan and how they affect the way firms operate. Our main focus is on how firms deal with each other.

Institutions are critical in the path to development and growth. The key to a vibrant market economy is the gradual evolution from personalized exchange based on repeated interaction towards a more open, more flexible impersonal exchange. This evolution is only possible if adequate formal and informal market institutions are constantly upgraded so as to keep pace with the economy (North & Thomas 1973). The form taken by these institutions varies with the historical and institutional context. For instance, Milgrom, North & Weingast (1990) describe how an institution known as the Law Merchant enabled impersonal exchange to occur in the 12th & 13th century.

The purpose of this chapter is to assist Sudanese stakeholders in government, private sector and civil society in improving the institutional market environment in which firms operate. We investigate the formal and alternative market institutions that manufacturing and services firms rely on, and we examine how firms protect themselves against contractual risk and violations of property rights through the build-up of inventories, refusing trade credit to clients, security and even their own generators.

3.1 Rationale for focusing on institutions

Our approach fits within the broader context of New Institutional Economics (NIE) where the object of economic analysis is not just price and quantity, but the entire transaction. This shift in focus comes from the realization that exchange itself comes at a price and that transaction costs are incurred during the process of coordinating and enforcing exchange among the various market actors.

Productivity does not result solely from the efficiency of transforming low cost inputs to higher value outputs within firms – transaction costs between firms are important. Transaction costs exist that govern the extent and profitability of market transactions. Transaction costs vary across economic agents as they include the costs of (a) obtaining and processing market information (Hayek 1945, Alchian and Demsetz 1972, Hoff and Stiglitz 1990); (b) negotiating contracts (Coase 1937, Williamson 1985); (c) monitoring agents (Bardhan 1989, Cheung 1968, Eswaran & Kotwal 1985); and (d) enforcing contracts (North 1989, Milgrom, North & Weingast 1990, Greif 1993, Fafchamps 2004).

Reducing transaction costs is necessary for an economy to evolve from personal, or relational, exchange to impersonal exchange over broader distance. This, in turn is central to economic modernization and export growth. Appropriate institutions that reduce transaction costs enable a given trader to transact over greater distance and across distinct markets. Competition over broader geographical markets spurs specialization, enhancing the productivity gains from commerce and leading to growth (North & Thomas 1973). Commitment failure - the failure to deliver supply on time, to make timely payments or to deliver the agreed quality and quantity itself, is likely in the absence of appropriate institutions (Fafchamps 1996). Poor contract performance is likely to deter investment (foreign investment in particular), hence growth of the private sector. Widespread contractual non-honoring or reneging forces firms to focus on trust-based, relational exchange (as opposed to anonymous exchange), reluctant to deal with new partners in the same way they deal with old partners, which may stifle firm entry and competition (Lorenz 1988 as cited in Fafchamps 1996). Screening new partners is necessary in such environment, which is costly, effectively serving as a barrier to entry and competition. A recent examination of the role of trust networks based on ethnicity found that buyers who base their relationships with suppliers on trust are less likely to try new suppliers who offer better products, and that less trusted ethnic groups are particularly constrained by that barrier to entry.[27]

Institutions, or rules of exchange, emerge over time to reduce the cost or mitigate the risk of transactions. Institutions are an important – although not the sole – determinant of transactions costs. In modern economic thought, institutions are defined as those 'rules of the game' that provide the structure for human interaction (North 1990). Institutions include formal rules and organizations, such as laws and courts. They also include a wide range of informal constraints and organizations such as codes of conduct, social conventions and business norms. It is these formal and informal institutions that form the object of this chapter.

Understanding transaction costs and both formal and informal institutions that emerge in response is critical to understanding private sector development. As Rodrik (2003)[28] summarized, "Institutions that provide dependable property rights, manage conflict, maintain law and order, and align economic incentives with social costs and benefits are the foundation of long-term growth. … State institutions are not the only ones that matter. Social arrangements can have equally important and lasting consequences." Since there are positive returns to be made by reducing transactions costs, Coase (1937) initially conjectured that institutions should spontaneously emerge so as to economize on transaction costs and facilitate market exchange (see also Gabre-Madhin 2001). This view has not gone unchallenged, however. Many have pointed out that institutions are public goods. They generate benefits for many, but recouping their establishment and maintenance costs is often mired by free-riding and coordination

[27] The Speed of New Ideas: Trust, Institutions And The Diffusion Of New Products, Felix Oberholzer-Gee Harvard Business School, Victor Calanog, University of Pennsylvania, February 2007

[28] Rodrik, Dani, 2003. ed. *In search of prosperity: analytical narratives on economic growth*. Princeton, NJ, Princeton University Press.

failure. The general view today is that the institutions that emerge spontaneously to resolve transactions costs issues need not be optimal, and the reduction in transactions costs that they allow may be small and unequally distributed in society (Fafchamps, 2007). There is therefore a need for government to support market institutions.

Infrastructure and institutions go hand in hand in reducing transactions costs. It would also be erroneous to regard market institutions as static. Technological change opens new avenues for exchange and new possibilities for reducing transactions costs. Infrastructure and institutions go hand in hand in reducing transactions costs. Physical infrastructure such as roads and telecommunication networks play a crucial role in reducing transactions costs. But too often the full benefit of new infrastructure is not achieved because complementary institutions are missing.

For instance, a rapid expansion of road networks and telephones in Sudan can in principle facilitate commerce, so that people can deliver products safely over distances by negotiating an order over the phone and organize delivery through a trucking agent. For this to happen, however, sufficient trust must exist between parties: if the institutions that sustain trust are absent, the economic potential of new roads and phones cannot be reaped, and face-to-face commerce remains a necessity (Fafchamps and Minten, 2004).

Mobile phones and the internet are excellent illustrations. The rapid spread of mobile phones in Africa has made possible new forms of payment and money transfers. As illustrated with the recent experience of Kenya, the further expansion of these services now requires updating the legal environment in which these new financial services are provided. The internet is another illustration. The rise of e-commerce in developed economies took several years to materialize because new institutions and infrastructures had to be put in place to reduce various transactions costs, especially in terms of search (e.g., faster internet, EBay, Google) and product delivery infrastructure (e.g., expanded DHL-like services), but also in terms of payment (e.g., secure internet, PayPal) and reputation (e.g., internet ratings). Now that these institutions are in place, e-commerce is rising very rapidly.

As we will see in this chapter, market transactions in Sudan remain embedded in long-term personalized relationships (Palaskas & Harriss-White 1993). Because formal institutions for contract enforcement are weak and largely undeveloped, informal institutions based on ethnicity and personal contacts have emerged that help partially circumvent contract enforcement problems. But these institutions are not sufficiently strong to fully eliminate commitment failure (Fafchamps 2004). As a result, economic agents shy away from market practices that would increase efficiency but also leave vulnerable to opportunistic breach of contract.

3.2 Structure & Summary of Argument

The structure of the argument is divided into two parts. The first question we ask is: **is the market strong or weak**, as demonstrated by indicators such as contractual risk and theft. The second question we ask is: **which market institutions create this strong or weak market**? If it is strong, is it supported by formal institutions (e.g. courts & police)? If it is weak, does it use informal institutions (e.g. business networks) and preventive or risk avoidance measures to survive?

In the first half, we look at the evidence regarding contractual risk and theft, which we regard as meaningful indicators to understand whether the market is strong or weak. Contractual risk and theft are two useful indicators because: (a) if contracts are being fulfilled and there is a low incidence of theft, this is an indication that the market is working well. However, if (b) contracts are not being fulfilled and there is high incidence of theft, this is a sign of market failure or weakness.

Contractual risk can take the form of any of the following sub-indicators: absenteeism, delays, non-payment, non-delivery and bad quality. These indictors tell us where the market works and where it does not, but not why.

Theft is another indicator of the strength or weakness of market institutions. Respondents were asked: (a) whether they perceived crime to be an obstacle to their business; (b) whether theft occurred more frequently during transportation; and (c) what the government was doing to intervene. A low incidence of theft does not necessarily mean formal market institutions (e.g. police) are at work, because preventative or risk avoidance measures (e.g. security) could also be responsible.

Thus, contractual risk and theft tell us whether the market is working well or not, but not why the market is working well or not. The market could be supported by either formal institutions (e.g. legal enforcement) or informal institutions (e.g. reputational sanctions, repeated exchange). In either case, we still need to understand what institutions are driving the market and if either their absence or inadequacy of these institutions may result in market failure or market success.

In the second half, having understood that the market is, for example, weak, we turn to the reasons for this weakness, e.g. which market institutions are failing? Or alternatively, if the market is strong, which institutions (formal or informal) are supporting it? First, we look at formal institutions. Secondly, we look at informal institutions. Thirdly, we turn to preventive or risk avoidance strategies and the ways in which they distort the market.

Formal institutions include courts and police. Informal institutions include information sharing and reputational sanctions. In an economy where courts play little role and reputational sanctions are weak, contract enforcement rests primarily on repeated exchange (namely the fear of losing a valuable relationship).

If the evidence indicates that losses from contract breach and theft are small, yet both formal (legal) and informal (reputational) sanctions are weak, what then explains the relatively low incidence of malfeasance? The answer is in the third area of analysis:

prevention and risk avoidance. For example, extensive investment in equipment and personnel security (as an antidote to theft) or electricity generators/supply (as an antidote to non-performance or power outage), stockpiling inventory (as an antidote to delayed delivery), trade credit refusal (as an antidote non-payment) are all preventative or risk avoidance strategies. Moreover, as an antidote to the risk of opportunism, it is customary for firms to turn to informal business or ethnic networks.

It is easy to see how a detailed exploration of these meaningful indicators – contractual breach and theft as an indicator of market failure; formal and informal sanctions as an indicator of market enforcement; and preventative and risk avoidance strategies as an indicator of market survival – helps us to build a picture of a market that is operating against the odds, in a developing economy environment, where malfeasance often lurks, but is kept at bay by keen survival tactics.

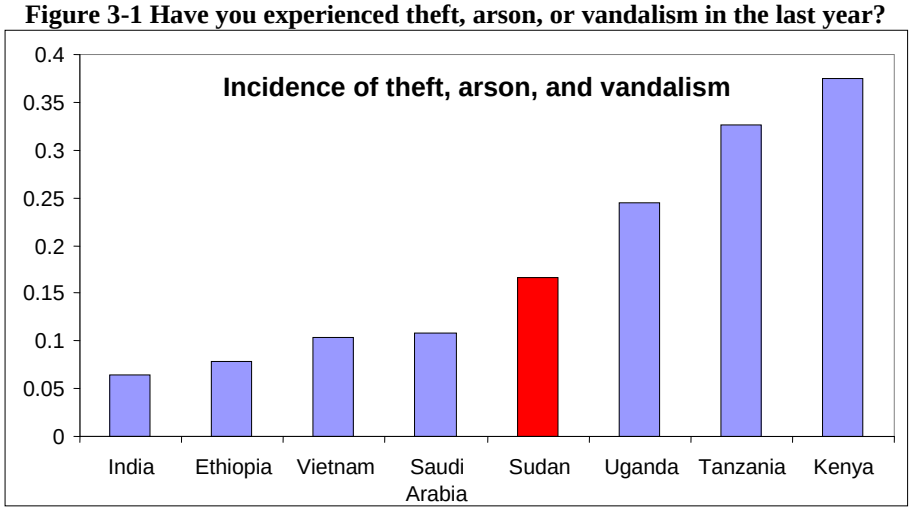
3.3 Contractual Risk and Theft

Having explained the structure of the argument and summarized it, we now turn to a detailed discussion of contractual risk and theft; the role of formal and informal institutions and preventive and risk avoidance strategies.

3.3.1 Incidence of Theft

Some 17% of surveyed firms – 16% of surveyed manufacturers and 18% of surveyed service firms – suffered from theft, arson, or vandalism in the year preceding the survey. As illustrated in Figure 3-1, this level of property crime puts Sudan in an intermediate position relative to countries at similar levels of development – halfway between India and Ethiopia on the one hand, and East African countries on the other.

Figure 3-1 Have you experienced theft, arson, or vandalism in the last year?



The national average hides a lot of variation across regions. While the incidence of property crime in Khartoum (14%) is slightly below the national average, several states

have an even lower incidence of crime (Nyala, Red Sea, Gazira, and River Nile), two are more seriously affected (Malakal and North Kordofan) with an incidence rate of 21/22% while Juba stands out with a much higher incidence rate of 43%. **This means that, in Juba, nearly half of the firms suffered from some kind of property crime in the year preceding the survey.**

The survey looked more closely at theft during transport. This is a potentially critical issue given that much of what is imported to – and exported from – Sudan transits long distances overland. Exporters were asked whether they incurred losses due to theft in transit; none did. The same question was asked to all manufacturers regarding theft of goods shipped to supply the domestic market; 11% of firms reported losses due to theft, averaging 1.5% of the value of the consignment over all firms – but an average loss of 14% for victims of theft during transport. Here too we note strong regional differences, with a significantly higher incidence of theft during transport in Juba.

Respondents to the three surveys were asked to list up to three most important obstacles to the development of their business. Street crime, theft and disorder was listed by 3.7% of manufacturers and 7.5% of service firms – way behind electricity which, for comparison purposes, was mentioned by 59% of manufacturers and 48% of service firms, and behind tax rates which were mentioned by 42% of surveyed firms in both surveys.

Respondents were also asked to list up to three priorities for government intervention. Around 16% of them mentioned reduction of crime and disorder as a government priority – far behind improving the reliability of electrical supply, which is mentioned by 55% of manufacturers and 64% of service firms, but at par with access to finance (for manufacturers) and with competition from the informal sector (for service firms).

More specific questions were also asked in the three surveys about crime as an obstacle to business. While around half of respondents view theft as a minor or non-existent obstacle to business, results also show that – perhaps not surprisingly – victims of theft hold strongly different views. This is illustrated in Figure 3-2.

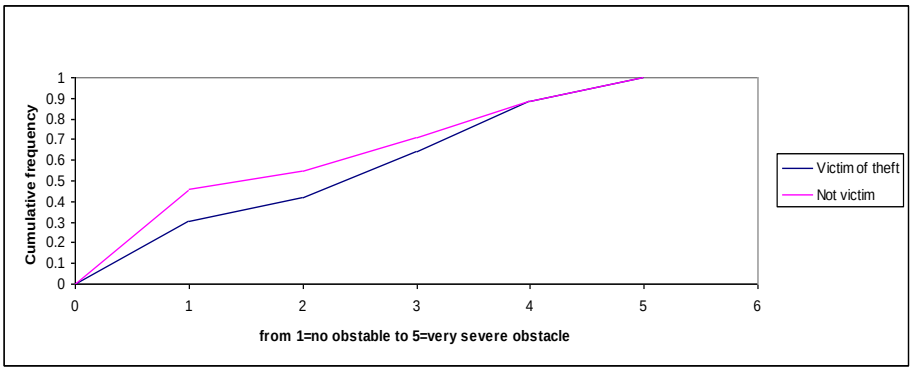


Figure 3-2 To What Extent Is Disorder, Street Crime & Theft An Obstacle To Your Business?

The Figure shows the cumulative proportion of respondents ranking crime as an obstacle to business, going from 'no obstacle' to 'very severe obstacle'. By construction, all

cumulative proportions sum to 1. The Figure shows two curves – one for victims of theft and one for non-victims. When a curve lies beneath another, it means that respondents judge crime to be a more serious obstacle to business. The Figure shows unambiguously that theft victims are much more negative in their views about crime. We also see that a little more than half of the surveyed firms regard crime as somewhat of an obstacle to business. This proportion rises to two thirds for victims of crime.

3.3.2 Contractual Risk

The surveys collected extensive information about contractual risk: quality, delivery and payment. Customers are likely to return supplies that are of a quality dramatically inferior to what was anticipated. To assess how prevalent this issue is, respondents were asked about goods returned to them because of inferior quality. Such returns are quite low, accounting on average for 1.2% and 1.7% of all sales among manufacturers and services, respectively. Order cancellation due to late delivery account for a slightly larger proportion of total sales on average: 3.4% and 3.3% among manufacturers and services, respectively. But these figures are strongly influenced by a small number of large answers: 84% of surveyed manufacturers and 77% of services did not incur any cancellations due to late delivery.

One third of respondents report having returned a fraction of their purchased inputs and across all firms the average percentage of returns is 6.3% of total purchases for manufacturers and 3.6% for services. These figures are twice those reported by respondents to a similar survey in neighboring Ethiopia. Once again these averages are affected by a small number of large answers; the median in both cases is 0. Information was also collected on the extent of breakage and spoilage in domestic transport. Averages are non-negligible: 3.7% losses on average, with more than one third of respondents reporting losses in transport. These figures are perhaps not entirely surprising given the sheer size of the country, but they are again much larger (6 times higher) than for neighboring Ethiopia, which shares an even more difficult terrain. Once again we note the worse performance of the Juba region where more than half of respondents report losses in transport, compared to a third in the rest of the country.

Payment problems are much more common than quality issues, especially when supplier credit is involved. Some 73% of all manufacturers – and 60% of all service firms – reported incurring late payment problems. The equivalent figures for non-payment are 62% and 53%. The average proportion of sales affected by late payment is very large – 25% on average across all manufacturers, and 20% for service firms. According to respondents, non-payment affects on average 10% of all sales. By comparison, in developed economies, non-payment in internet sales, which are considered risky, is thought to be around 2.5% – 10 times higher than in normal retail sales. Similar figures for Ethiopia are 3.5-4%.

Among firms that grant credit to at least some of their customers, the proportion of firms affected by late payment rises to 85% while non-payment affects 74% of them. Among credit granting firms, the average proportions of sales suffering from late and

non-payment are 31% and 12%, respectively. But even firms that do not offer credit are affected. It is also worth noting that while the Juba province was shown to suffer more from crime, late and non-payment in that region are in fact less prevalent than in Khartoum.

The figures for late and non-payment reported by Sudanese respondents are staggering, much larger than what is typically reported in other African countries. This is surprising considering that most sales are made face to face and that only a small proportion of firms report offering supplier credit to their clients. Such high proportions of late and non-payment undoubtedly represent sizeable costs for surveyed firms, and these costs are likely to be reflected in higher gross margins – meaning that most of the losses are in fact borne by customers, that is, by society at large.

A little under half of the surveyed firms stated that they do indeed pay suppliers late. The average proportion of supplies affected by late payment is 19% for manufacturers and 13% for service firms. Once again we note that late payment is more prevalent in Khartoum – and least prevalent in the Juba region. Not surprisingly, firms that receive credit from their suppliers are more likely to pay late: two-third of supplier credit recipients report paying late, and on average credit recipients pay 21% of their supplies late. Again these figures are higher than in neighboring countries.

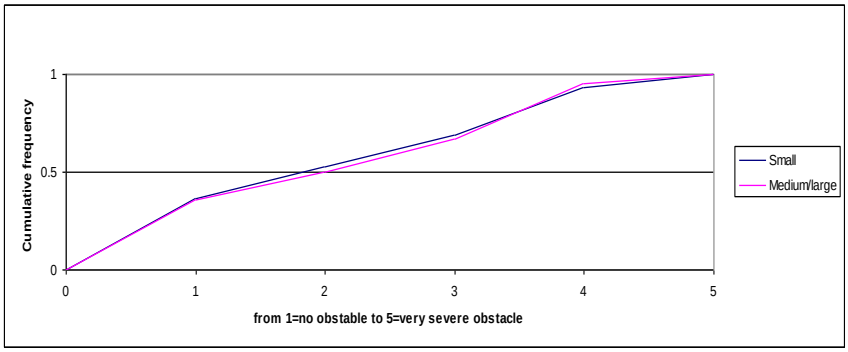
Survey results indicate that the incidence of payment problems is significantly higher among firms that receive and sell on credit. It is true that even firms that do not report selling and buying on credit nevertheless report a non-negligible proportion of payment problems. This may be partly due to an aversion to a problem of vocabulary: credit is frowned upon in a strict Muslim society because of its association with usury. For this reason, we expect that some respondents may have stated not buying or selling on credit because no interest charge was present, but nevertheless pay and get paid for supplies days if not weeks after delivery. The most effective way to protect oneself against payment problems is to insist on payment in cash. Indeed, it is only the physical separation between delivery and payment that makes late payment and non-payment possible. The fact that a large proportion of respondents who report not granting credit to clients nevertheless report late and non-payment suggests that they do in fact offer what in other countries would be called supplier credit. We revisit this issue below when we discuss contract breach prevention.

Delays in delivery are also an issue, especially for firms that are involved in import and export. The 48 manufacturers who export their products abroad were asked how long it takes for their goods to clear customs at the port of exit. The average reported time is 3.5 days and the longest reported time is 10 days,. Figures are much worse for imports: the average time for imported goods to clear customs at the port of entry is 15 days. On average across importers, the longest reported time to clear customs is 20 days. These delays are long.

3.3.3 Absenteeism

Non-performance also affects other factors of production. One relevant example is absenteeism among workers. Manufacturers and service firms were asked to evaluate, on the scale from 1 to 5, the severity of absenteeism problems among their workforce, either because of sickness or in order to care for sick relatives. As illustrated in Figure 3-3, survey results show that absenteeism is perceived as a moderate to severe problem by half of the surveyed firms. Contrary to other countries, we find no significant difference between small firms (less than 50 workers) and medium to large firms. There are, however, large differences across regions. According to respondents, absenteeism is least a problem in Juba where 61% of respondents say it is no obstacle to business. It is also low in River Nile, Malakal and Nyala. The incidence of absenteeism is highest in Khartoum and the Red Sea state.

Figure 3-3 Is Absenteeism among Workers Due To Sickness A Problem?



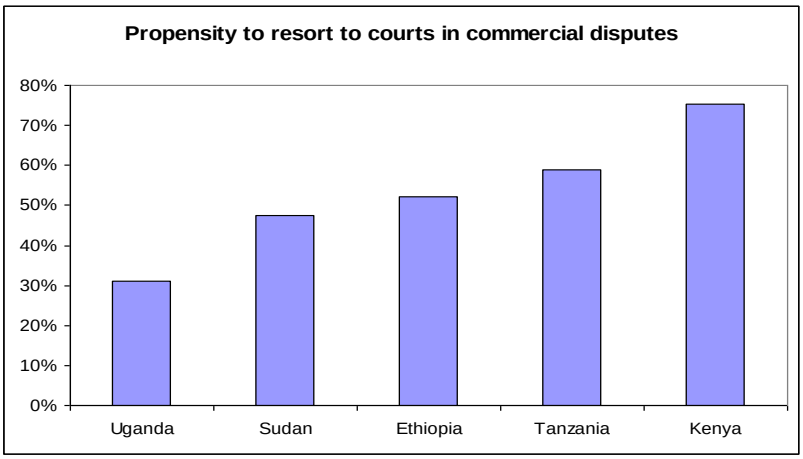
Power outages are another example of contractual non-performance, this time from a public utility. The surveys collected detailed information regarding the incidence of power outages. Results indicate that 81% of surveyed manufacturers and 79% of service firms experience power outages. For those experiencing outages, the average frequency is 19 times a month. The data also suggest that the incidence of outages varies somewhat by region, with a higher incidence of power outages in Nyala and a lower incidence in Gazira. We have already seen that survey respondents rank electricity as one of their first priority for government intervention.

3.4 The Role of Legal and Informal Institutions

What role do legal institutions play in deterring opportunistic behavior? Respondents in the manufacturing and service surveys were asked to evaluate various government services for their integrity. One of these services is the police. Responses suggest that most respondents are satisfied with the integrity of the police: 65% of respondents think that the integrity of the police is good or very good; only 22% think that it is bad or very bad. There are strong differences across regions, however. In Nyala, 45% of surveyed firms describe the integrity of the police as bad or very bad. Khartoum and Juba also have a higher-than-average rate of dissatisfaction with the police, with 28-29% of respondents describing the police as bad or very bad. The integrity of the police thus appears to be a serious concern in some parts of the country.

Although we have seen that the incidence of non-payment is non-negligible, the proportion of surveyed firms that declared experiencing payment *disputes* is surprisingly low: 14% among surveyed manufacturers and 11% among service firms. As shown in Figure 3-4, a large proportion of these disputes – 47% -- are resolved through court action. The rest are handled through a variety of mechanisms, the most important of which is informal arbitration (Joudiya).

Figure 3-4 Did you go to court for your last commercial dispute with a client or supplier?



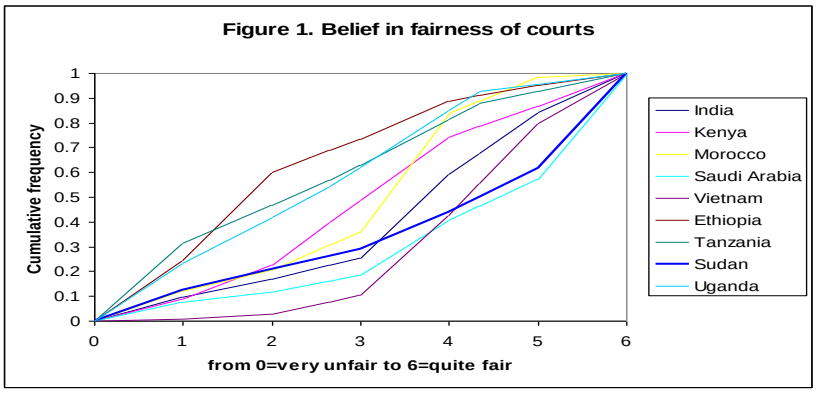
In the two years preceding the survey only a very small number of surveyed firms went to court to resolve payment disputes: 29 of the 432 manufacturers and 8 of the 164 service firms. Conditional on having a commercial 'dispute' with a client or supplier, the likelihood of going to court is much higher: a little of half Sudanese manufacturers resorted to court action following a commercial dispute with a client or supplier. As shown in Figure 3-4, this number is by and large comparable to what is observed in neighboring African countries. But it is difficult to interpret because facing a commercial 'dispute' is left to the respondent's interpretation. In all five African countries very few manufacturing firms go to court although many face non-payment by clients and non-performance by suppliers.

Among Sudanese respondents, most of those who went to court won their court case (31 out of 37 – 4 lost their case and 2 were still unresolved). We worry that it may take considerable time for a court decision to be taken. This does not appear to be the case. Two thirds of respondents state that it takes less than a year to resolve a dispute through courts. A sizeable minority, however, estimates that it takes several years to resolve a commercial dispute through the judicial system. In contrast, the time required to settle out of court is relatively short – the average duration is under 6 months while the median is 2 to 3 months. Of course, this is partly an artifact of self-selection: presumably, only cases that could not be resolved through informal arbitration are brought to court.

Survey respondents were asked about their opinion regarding courts. In particular, firms were asked whether they thought that courts are fair and predictable. Their responses ranges from 1 – 'strongly disagree' – to 6 – 'strongly agree'. Figure 3-5 shows the cumulative frequency of responses in Sudan as well as in neighboring countries and

countries at similar levels of development. The higher the line is, the higher the proportion of firms that think courts are unfair and partial. The Figure shows that the curve for Sudan is very similar to that for Saudi Arabia, with a generally high level of satisfaction with courts but most respondents shying away from extreme answers – i.e., the bulk of the answers are concentrated on intermediate answers. This means that a significant minority of respondents finds courts to be unfair. We also see that beliefs in the fairness of courts are lower among African countries neighboring Sudan.

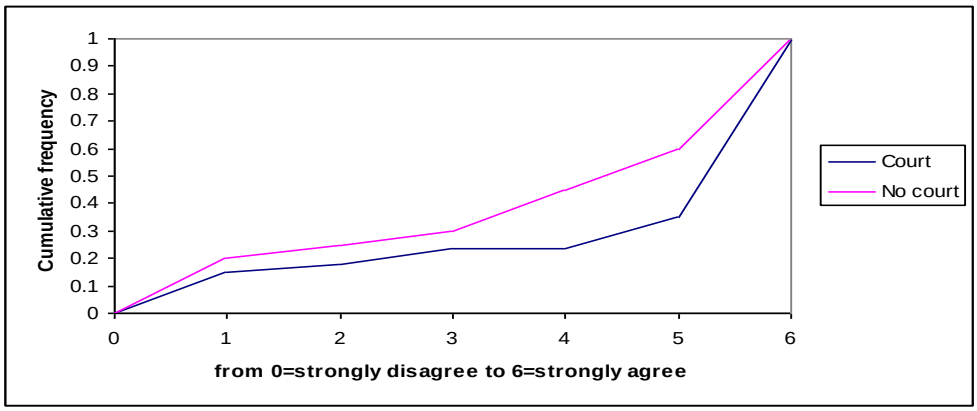
Figure 3-5 Did you go to court for your last commercial dispute with a client or supplier?



When interpreting the above results, the reader should keep in mind that most Sudanese respondents have no first-hand experience of courts. Their responses reflect their beliefs, but not necessarily the reality of the court system.

Firms that have made use of courts in the past find the functioning of the judiciary to be more satisfied that courts are fair, impartial, and uncorrupted than respondents who have never been to court. This is illustrated in Figure 3-6 below. They also find the judiciary less of an obstacle than firms that have never made use courts. But court users also find courts slower than non-users, suggesting that there is room for improvement.

Figure 3-6 Do You Think Courts are fair, impartial, and uncorrupted?



Respondents to the three surveys were also asked to list up to three most important obstacles to the development of their business. Their answers give an idea of whether the judiciary is a central concern of surveyed firms. Results show the opposite: only 0.9% of

manufacturers and 4.4% of service firms list the functioning of the judiciary as one of the main concerns. However, when asked which intervention should be the government's priority, 10% of manufacturers and 6% of service firms listed the judiciary – at par with improving the tax administration and reducing labor regulation.

Most firms rely exclusively on oral orders from clients and to suppliers. Written orders are used only for 33% of sales and 41% of purchases. Without written orders court action would be more difficult. The absence of written orders is consistent with the idea that most surveyed firms do not rely on courts to enforce commercial transactions.

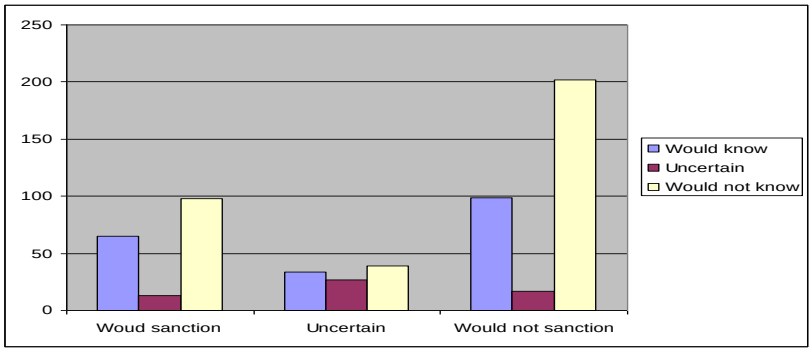
If courts are not the primary contract enforcement mechanism for commercial contracts in Sudan, what is? The economic literature on market institutions has often put the emphasis on reputational sanctions. These sanctions are supposed to work through the collective punishment of those guilty of opportunistic breach. The literature has brought to light the critical role played by information sharing in implementing reputational sanctions. As a result, lack of information sharing is often offered as an explanation for the non-existence of reputational sanctions.

The survey collected information on both information sharing and reputational sanctions. Respondents to the manufacturing and service surveys were asked whether other suppliers or customers would hear about disputes they might have. A sizeable proportion-33% of respondents thought that other customers would find out about a dispute with a customer; 30% of responded that other suppliers would hear of a dispute they would have with a supplier. There are strong differences across states. Reputational sanctions appear to be larger in Khartoum. The larger the firm, the more it believes that information about their commercial disputes with clients will be disseminated. Based on these answers, it appears that information about breach of contract circulates among firms but quite imperfectly.

Information sharing does not imply sanctions, however. When asked whether they would refuse to deal with a customer who had behaved unfairly towards another supplier, only 37% of surveyed firms said they would. Respondents were also asked whether they thought other firms would refuse to deal with clients or suppliers that had dealt unfairly with them. For clients 30% said they would. The corresponding figure for suppliers is 23% -- perhaps reflecting market power. This means that the expectation of reputational sanctions is fairly weak, even if stronger than in neighboring Ethiopia.

More interestingly, we also find that expectations regarding reputational sanctions and beliefs regarding information sharing are only weakly related: as shown in Figure 3-7, respondents who think information about breach will circulate do not necessarily think that other firms will refuse to deal with past cheaters: the blue bar on the right is shorter than the white bar, but it is not zero, implying that there are many respondents who think others would hear about a dispute with a client but would not sanction those clients by refusing to deal with them.

Figure 3-7 Reputational Sanctions
If You Have A Dispute: (a) Will Others Find Out? (b) Will Other Businesses Refuse To Deal? (Manufacturing)



This evidence is difficult to reconcile with the standard model of reputational sanctions whereby firms collude to punish breach of contract. But it is consistent with the alternative hypothesis proposed by Fafchamps (2004) in which information is used by firms to draw inference about hidden characteristics. According to that hypothesis, evidence of breach with one firm does not necessarily imply a higher risk of breach with another. In both models, however, the circulation of accurate information about contractual behavior is essential. In Sudan today, no formal institution – such as a well established credit reference bureau – appears to serve that purpose.

If courts and reputational sanctions are weak, theory predicts that contract enforcement rests primarily on repeated exchange: it is the fear of losing a valuable relationship that makes people hesitate before breaching a contract. Evidence from the three surveys is consistent with this prediction: surveyed firms are engaged in repeated contracting with their suppliers. Respondent firms have been dealing with their main suppliers and clients for 9 years on average.

3.5 Risk Prevention and Avoidance

We have seen that losses from theft and contractual breach are small. Yet, legal and reputational sanctions are weak. What then explains the relatively low incidence of malfeasance? The answer is: prevention. Surveyed firms avoid problems by protecting themselves against the risk of theft and contract non-performance. This is achieved through a variety of means.

Regarding theft, the surveys show that a significant proportion of surveyed firms incur expenses for security equipment and personnel. This is true for 23% of manufacturers and 30% of service firms. These proportions are much smaller than those reported, for instance, in neighboring Ethiopia. For those who incur security expenses, however, the cost is not negligible: 4.5% of total revenues for manufacturers, and 3.9% for service firms. The median, however, is much smaller – around 1% of revenues.

3.5.1 Hedging Delivery and Payment Risks

Firms protect themselves from delivery risk by building up inventories. In developed economies, modern management practices call for just-in-time delivery, making it possible to keep inventories to a minimum. This can only work if raw materials are delivered on time. Empirical research has shown that African countries and sectors where the risk of late delivery is highest are also those with the highest inventories among manufacturing firms. Surveyed manufacturers were asked to state how many days of stock of their most important input they normally hold at the time they receive delivery of imported inputs. Results from the surveys indicate that, by comparison with other African countries, Sudanese manufacturers hold large inventories: surveyed manufacturing firms hold on average 42 days of stock of imported raw materials. Firms that hold non-zero inventories hold on average inventories representing 55 days (just under two months) of production, which ties up considerable amounts of working capital. Figure 3-8 shows that this puts Sudan on the high end relative to neighboring countries and countries at similar levels of development.

Figure 3-8 How many days of inventories of raw materials does the firm hold?

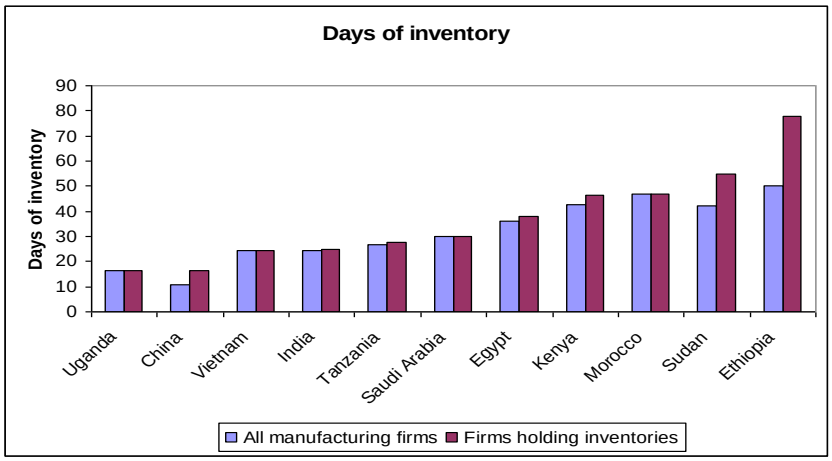


Figure 3-8 also reports the average number of days of inventory computed over those firms that hold inventories. In most countries in our comparison set, the two averages are the same because nearly all firms hold some inventories. But in Sudan a large proportion of Sudanese respondents hold no inventories at all at the time of restocking. This suggests that stocking-out is common and obtaining raw materials is difficult for many firms.

Given the size of the country and the logistical issues, this may not be surprising. But it undoubtedly penalizes Sudanese manufacturers. For the firms that accumulate large inventories, these inventories immobilize valuable working capital and are a symptom of serious stocking-out concerns among manufacturers and artisans alike. As we have seen, delays in import deliveries are long and common. A reduction in congestion and delays at the port of entry would reduce the need for inventories, thereby freeing capital for more productive investment.

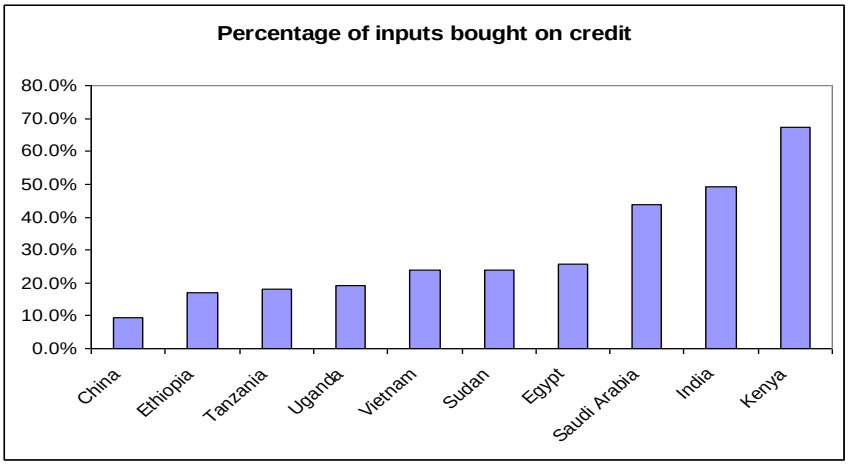
Firm can also protect themselves from contractual non-performance by investing in alternative sources of supply. This is what many manufacturing firms do with respect to power outages: 61% of them have their own generator or share a generator with another firm. Firms with a generator source on average 45% of their electricity from generators.

The fear of contract non-performance also affects the way firms deal with each other. In developed economies it is customary for suppliers to sell on short-term credit. The reason is that, beyond a certain size, it is impractical for firms to pay all their inputs cash-and-carry – and to require all their customers to do the same. The normal practice is for enterprises to deliver upon an order, to send a monthly invoice, and to expect payment within the next month or two.

This does not seem to be the case in Sudan. Trade credit is surprisingly rare. Only 45% of surveyed manufacturers and 54% of surveyed service firms purchase any inputs on credit. Of their total annual purchases, manufacturers state that 53% are paid upon delivery; only 22% are purchased on credit, the remaining 22% being paid for *before* delivery. Similar numbers of 56% payment upon delivery and 31% purchases on credit are reported by service firms. Even large firms do not receive the amount of trade credit that is customary in neighboring African countries.

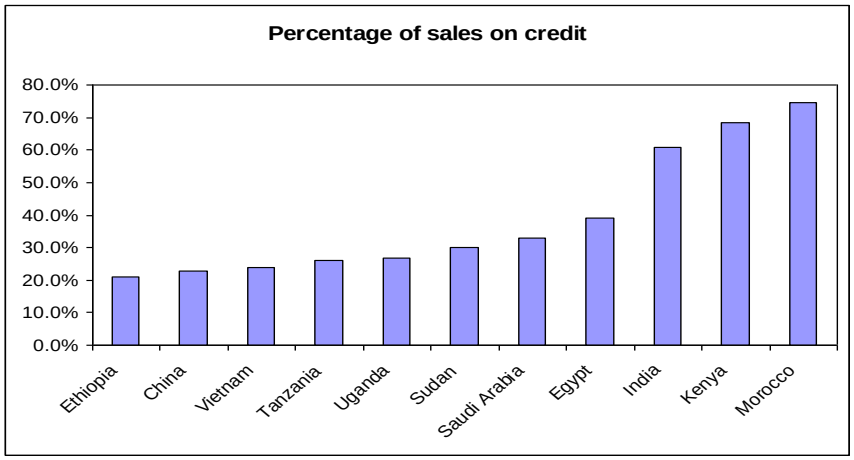
This is confirmed if we compare the percentage of inputs bought on credit in Sudan and other comparable countries in Figure 3-9. We see that Sudanese manufacturers rank fairly low, at levels similar to Egypt, Vietnam, and neighboring African countries – but much lower than Kenya, Saudi Arabia, or India. China ranks lower, but this may be because the manufacturing sector is growing so fast that suppliers of industrial raw materials do not find it necessary to offer supplier credit. This obviously does not apply to Sudan.

Figure 3-9 Inputs bought with supplier credit



Only 30% of total sales are made on credit. Although 63% of surveyed firms sell on credit to some clients, the average manufacturer sells 51% of its annual sales with payment upon delivery and 17% with payment before delivery. Figures for service firms are 57% cash and 32% on credit. As shown in Figure 3-10, these findings put Sudan at par with Saudi Arabia and Uganda – but much lower than India, Morocco, or Kenya.

Figure 3-10 Output sold with supplier credit



It therefore appears that the use of supplier credit is moderately low in Sudanese manufacturing compared to other similar countries. The findings may be explained by unusually tight credit conditions. A very small proportion of surveyed firms receive bank credit: only 8% of surveyed firms have a bank overdraft facility and 17% have a line of credit or loan. Only 21% of surveyed firms receive some form of bank finance. Whatever the ultimate cause, our findings suggest that the major way by which firms avoid payment problems is simply by insisting on payment upon – or even before – delivery. The lack of trade credit – and the clumsy conduct of business implied by payment before or upon delivery – is a major price firms pay for poor market institutions – and possibly difficult access to bank credit.

A small number of surveyed firms (10% of manufacturers and 12% of service firms) claim to have an internationally recognized quality certification, e.g., ISO certification. These tend to be larger firms. Many firms – 42% of manufacturers and 36% of service firms – have externally audited accounts. The proportion is much higher among large firms, however. Not all firms are current, though: 20% of manufacturers and 36% of service firms can only produce audited accounts that are more than one year out of date.

3.5.2 Business Networks

In situations in which the risk of opportunistic behavior is high, it is customary for firms and their owners to turn to informal business networks as channels for information and contract enforcement. Sudan is no different.

Business networks often play a role in helping firms identify reliable suppliers, customers and workers. The help of business contacts is then enlisted to screen potential suppliers and clients. To get at this issue, surveyed manufacturers and service firms were asked how they make contact with new suppliers. Their answers are summarized in Table 3-1 below. Some 38% of respondents stated seeking assistance from business acquaintances, 13% sought the help of former co-workers and employer,

and another 9% sought help from friends and relatives. A small number rely on direct contact and their own research, possibly because they lack the necessary contacts.

Table 3-1 How firms make contact with new suppliers

	Firm size (*)			
	Small	Medium	Large	All
Through a business acquaintance	38%	40%	32%	38%
Former co-workers or former employer	14%	12%	7%	13%
Direct contact	7%	17%	18%	10%
Through family or friend	9%	11%	0%	9%
Supplier contacted the respondent	9%	6%	0%	8%
Trade fair/exhibition	7%	4%	11%	6%
Advertisement	4%	4%	7%	4%
Through a government agency	1%	1%	7%	1%
Other	12%	6%	18%	10%
Number of observations	407	142	28	577

(*) Small >5 and <50employees, Medium >=50 and <250, Large >=250 employees

Respondents were also asked what gives them the most confidence in a supplier. Many respondents mention repeated interaction (38%), living in the same city/neighborhood (8%), and membership in the same business association (4%). Few respondents focus their answer on social proximity – such as sharing the same ethnicity or religion (4% in total). Other answers focus on actual contract compliance, such as quality of the products and timely delivery. There are strong differences associated with firm size. Repeated interaction and social proximity are much more salient for small and medium size firms, while contract compliance dominates the answers given by large firms.

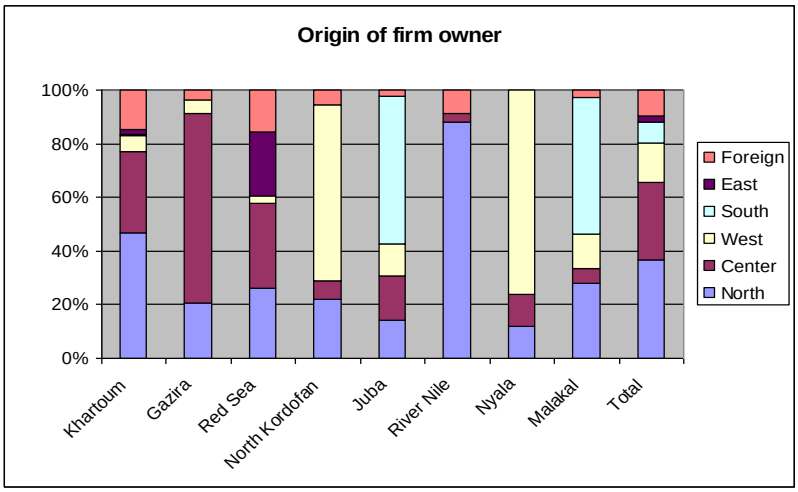
Membership in business association is common among surveyed firms: 46% of manufacturers and 33% of service firms belong to a business association or chamber of commerce. Membership in a chamber of commerce or a business association varies systematically with firm size, larger firms being more likely to belong to either. We however note that a significant proportion (37%) of small firms belong to an association or chamber of commerce.

Whenever informal business networks help solve imperfections in information access and contract enforcement, it is common to observe clustering of businesses around a similar ethnicity or religion. This is because people use pre-existing patterns of socialization to access valuable business information and contract enforcement services. To ascertain whether this is the case in Sudan as well, we examine the data for evidence that the ethnic composition of surveyed businesses differs from that of the surrounding population.

The geographical origin of business owners varies across regions. Figure 3-11 presents a decomposition of owners of manufacturing firms by origin. Because the ethnic composition of the surrounding population varies by region, we present the data by region. In all regions, locals represent the largest share of firm owners – albeit not always

a majority. People originating from the North – and, to a lesser extent from the Centre – are present in all regions. The same is not true for other origins. Westerners are present predominantly in North Kordofan and Nyala, while Southerners are only present in the South, e.g., in Juba and Malakal. Easterners are only present in the Red Sea region. We suspect that this pattern is explained by the existence of trader networks spanning the whole country. These networks appear to be predominantly Northern. This interpretation is confirmed by an analysis of the size distribution of firms by origin of the owner. Firms with foreign owners and owners from the East are the largest, on average. Sudanese firms in the hands of entrepreneurs originating from the Northern or Central part of the country are on average larger than firms with owners originating from the West or South.

Figure 3-11 : Ethnicity of Majority Owner by Region



We also note the very small proportion of foreigners among business owners. Furthermore, they are concentrated in the Northern half of the country. To the extent that foreign investors bring their technical know-how and knowledge of foreign markets to the service of local industry, their absence deprives the Sudanese business community from these services. This in turn means less pressure for the kind of institutional innovation that Sudan needs to bring its market institutions up to international standards.

3.6 Conclusions and policy implications

Market transactions in Sudan remain embedded in long-term personalized relationships (Palaskas & Harriss-White 1993). Ethnic and social networks have played an important role in promoting international trade for centuries, by helping to overcome weaknesses in the information and contracting environment (Greif, 1993; Rauch, 2001). Because formal institutions for contract enforcement are weak and largely undeveloped, informal institutions based on ethnicity and personal contacts have emerged that help partially circumvent contract enforcement problems. But these institutions are not sufficiently strong to fully eliminate commitment failure (Fafchamps 2004). As a result, economic agents shy away from market practices that would increase efficiency but also leave vulnerable to opportunistic breach of contract.

Business networks play an important role as substitutes for formal market institutions. This is particularly true for small and medium-size firms. Business associations are omni-present. We nevertheless find little evidence of ethnic bias in business formation. The only possible exception is that entrepreneurs originating from the Centre and Northern regions of the country have a business presence everywhere, while this is not true of other regions such as the South or the East.

Although surveyed firms are generally satisfied with existing legal institutions, they seldom use them. It nevertheless remains that the few firms that have used courts in the past do not find them a major obstacle to business, despite the difficulty in the enforcement of court rulings. The evidence further suggest that reputational sanctions are weak, with only a minority of respondents expecting other firms to refuse to deal with clients or suppliers suspected of opportunistically breaching a commercial transaction. Contractual enforcement seems to rely primarily on the fear of losing a valuable relationship. Some market support institutions can nevertheless be found in quality certification and the external auditing of accounts.

Because market institutions are weak, firms protect themselves against opportunistic behavior primarily through prevention and risk avoidance. A number of firms hire guards to protect themselves against thieves. They purchase generators to protect themselves against power outages. They build large inventories to avoid stocking out because of delays in input delivery. And most importantly they sell with payment either upon or before delivery; sales with supplier credit are the exception. This undoubtedly complicates firm operations and reduces productivity.

Repeated interaction is the primary mode of dealing with the contracting environment. Supplier relationships are long-term and stable. This is, in effect, a barrier to competition.

In some regions formal legal institutions have not fully recovered from years of internal conflict. Furthermore, we suspect that in Sudan, as elsewhere in sub-Saharan Africa, the ineffectiveness of the judicial system is related to various systemic weaknesses, such as lack of funds and equipment. Although the survey does not provide much direct evidence of this, it is not inconceivable that courts remain subject to interference from various levels of government when deciding on commercial matters involving government enterprises. This issue deserves further investigation.

One of the causes for poor contract performance is the weak physical infrastructure. For instance, although we did not study this directly, we suspect that electrical power is unreliable because production capacity has not kept abreast of rapidly expanding urban demand. We also suspect that the delays incurred when importing goods from abroad have to do with the fact that Sudan is a large country and must rely on long overland haulage and on congested port infrastructure in Port Sudan. Fafchamps, Gunning and Oostendorp (2001) make a similar observation for Zimbabwe.

Erratic supply of power and raw materials tends to ripple through the economy, raising contractual risk. First of all, firms that are affected directly find themselves unable to complete orders on time, hence causing delivery problems for other firms. Furthermore, firms that are made unable to process and sell the raw materials they have purchased also find it difficult to generate the working capital required to pay suppliers. Poor infrastructure thus tends to create an environment in which contractual performance is poor on average. Small, undercapitalized firms in the informal sector, for instance, typically do not have the financial wherewithal to accumulate the inventories and working capital that would buffer their operations from external shocks. As a result, their operations are extremely sensitive to these shocks. The presence of many such firms in the economy blurs the line between what constitutes excusable and inexcusable default, generating a culture of impunity for sloppy contract execution – what Bigsten et al. (1997) have called flexible contract enforcement.

It is often erroneously believed that, as far as policy is concerned, courts are the only relevant market institution. According to this view, improving market institutions boils to passing new laws and improving the court system. This is a misguided view. As the internet example used at the beginning of this Chapter has demonstrated, well functioning market institutions are a complex combination of public and private organizations and norms. There are many problems that need to be solved for transactions costs to be reduced and Sudanese firms to be competitive. Here are some examples:

- Credit reference bureau and other forms of information sharing about the past contractual performance of potential suppliers and clients
- Quality standards and certification to facilitate the search for quality raw materials and to reassure potential clients
- Export facilitation agency to help search for markets and accurate market information
- A free press with strong defamation laws so that commercial fraud and other abuses can credibly be exposed to the public
- Strengthening auditing standards to facilitate sound financing.

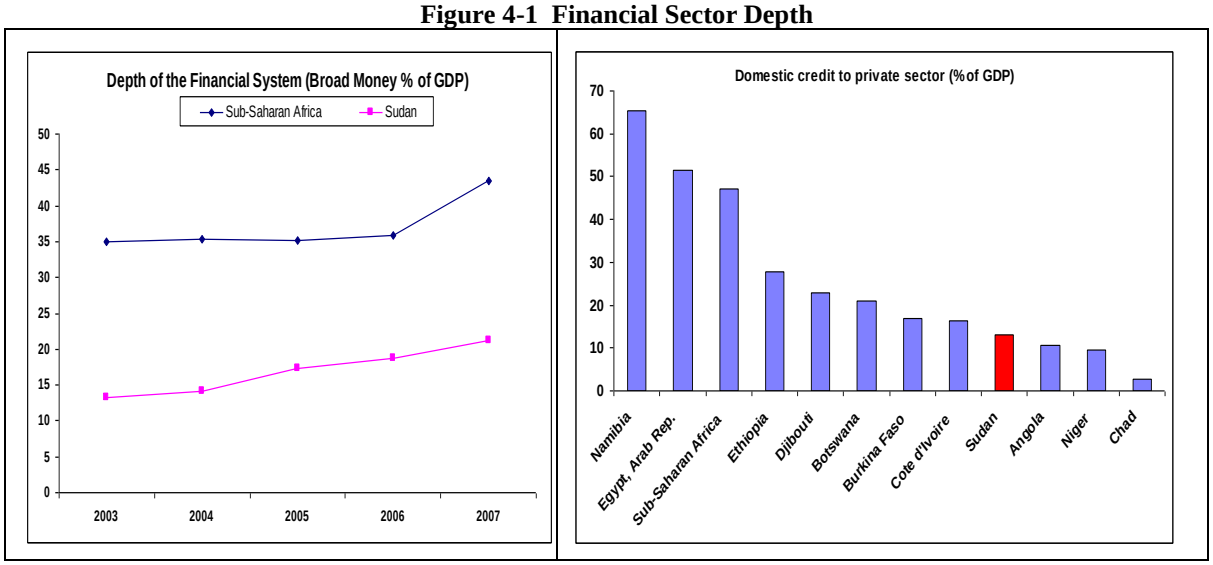
To support institution building, public-private dialogue is essential. One has to be careful about drawing policy implications from the analysis presented here. What we have done in this chapter is to present evidence regarding the state of market institutions in Sudan today, and to document some of the effects that imperfect institutions have on firm behavior. This analysis does not – and could not – identify the fundamental causes for the current state of institutional development of the country. This is because we have no counter-factual: we do not observe what would have happened if alternative policies had been pursued. As Easterly has pointed out, the development of a vibrant market economy requires a dialogue between government and private actors with the view of reducing transactions costs and introducing institutional innovations that reward performance and progress. This cannot be accomplished without strong business associations and a partnership with government at all levels.

4 The Financial Sector

4.1 Overview of the Financial Sector

The size of the financial sector has increased significantly in the last five years. Broad money (% of GDP) grew from 13.32% in 2003 to 21.13% by the end of 2007. However, it remains below par in sub-Sahara Africa. In addition, financial intermediation is relatively weak: domestic credit to the private sector is only 13.2% of the GDP compared to an average of 45% in sub-Sahara Africa.

Figure 4-1 Financial Sector Depth



Source: Central Bank of Sudan

Sudan's financial system is almost entirely dominated by the banking sector (comprising 36 institutions – including 5 in Southern Sudan), accounting for over 95 percent of the system's assets as at December 2008. The ratification of the Comprehensive Peace Agreement (CPA) in 2005 authorized the creation of the Bank of Southern Sudan, which may license conventional banks to operate in Southern Sudan. BOSS operates as a branch of the Central Bank of Sudan.

There is a pressing need for reform in the NBFI sector. The insurance industry (operating mainly in the North) consists of 14 entities but is effectively monopolistic in operation – a single government-owned company controls about 55 percent of the insurance market, given its advantageous position as the sole insurer of government entities. Many of the other operators are weakly-capitalized. Effective supervision of the industry is hampered by lack of regulatory framework, conflicts of interests in the supervisory board, government interference, and the dearth of technical expertise. The Khartoum Stock Exchange (KSE), the nation's capital market, has grown significantly in the last few years, with market capitalization increasing to about 10% of GDP at the end of 2007, from 3.5% in 2003. Trading volumes (% of market capitalization) also increased

to 22.2% from 12.6% over the same period but is still significantly low – relative to sub-Sahara Africa standards (29% average). Generally, the market is characterized by high transaction costs, thinly-traded stocks, and poor infrastructure and governance systems, curtailing the participation of users and providers of capital. Ancillary financial firms such as leasing companies are present in the system, but remain largely under-developed.

4.2 Access to Finance

Access to Finance is one of the biggest obstacles to the growth and development of Sudanese firms. About 45 percent of the 597 registered firms that participated in the Investment Climate Survey report that access to finance is a major or severe constraint. Access to debt financing is limited – only 15.31 percent of Sudanese firms have access to loans from formal financial intermediaries, one of the lowest rates of financial intermediation in the developing world. Worse still, in the view of about 51 percent of firms surveyed, the cost of financing is another major impediment.

Figure 4-2 Perception of Financing Constraint

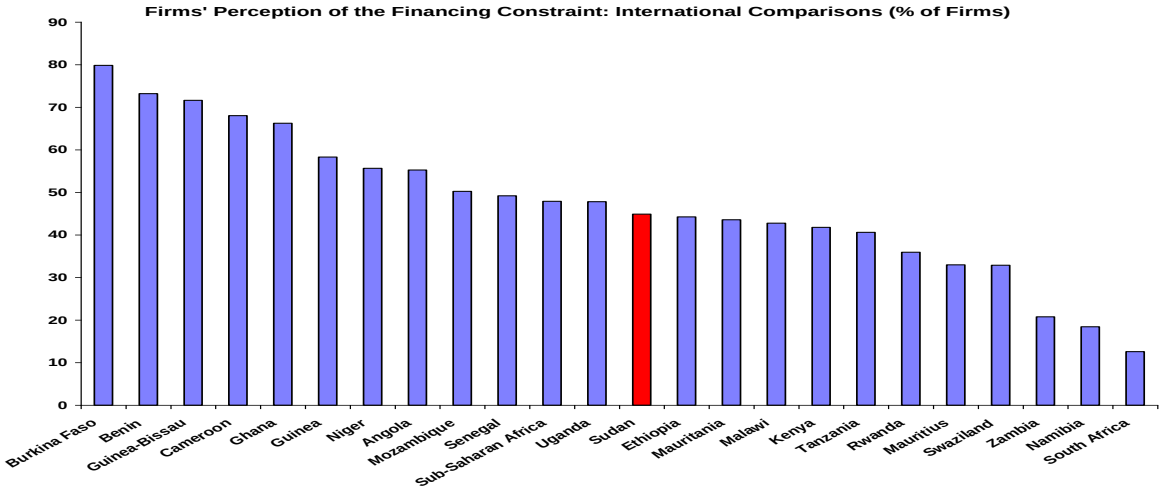


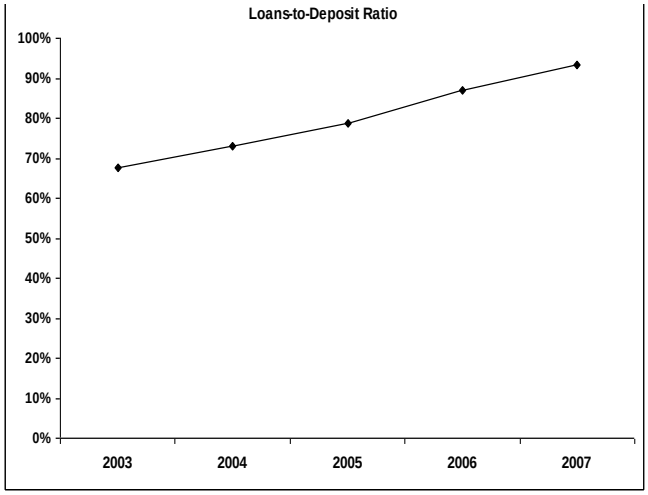
Figure 4-3 Access to Credit Markets - Share of Firms with Access

Source: World Bank's Investment Climate Survey: various years.

In general, there are significant challenges in accessing the credit system. The World Bank's *Doing Business* Report 2009 ranks Sudan 131st in the "*getting credit*" category; a deterioration from the ranking of 126th in the 2008 Report. The factors explaining the inefficiency of financial intermediation fall in three areas: (i) the environment surrounding credit markets; including the government's borrowing policies, the availability of reliable credit information, the state of the accounting and auditing system and availability of reliable financial statements of enterprises; (ii) the state of the banks and their capacity to intermediate funds, focusing on the soundness of the system (e.g. level of NPLs), and banks' risk aversion, and (iii) the issues affecting demand for credit; such as transparency and reliability of financial statements, lack of collateral/guarantees, poor feasibility studies / business plans etc.

4.3 The Credit Environment

Figure 4-4 Loan-Deposit Ratio



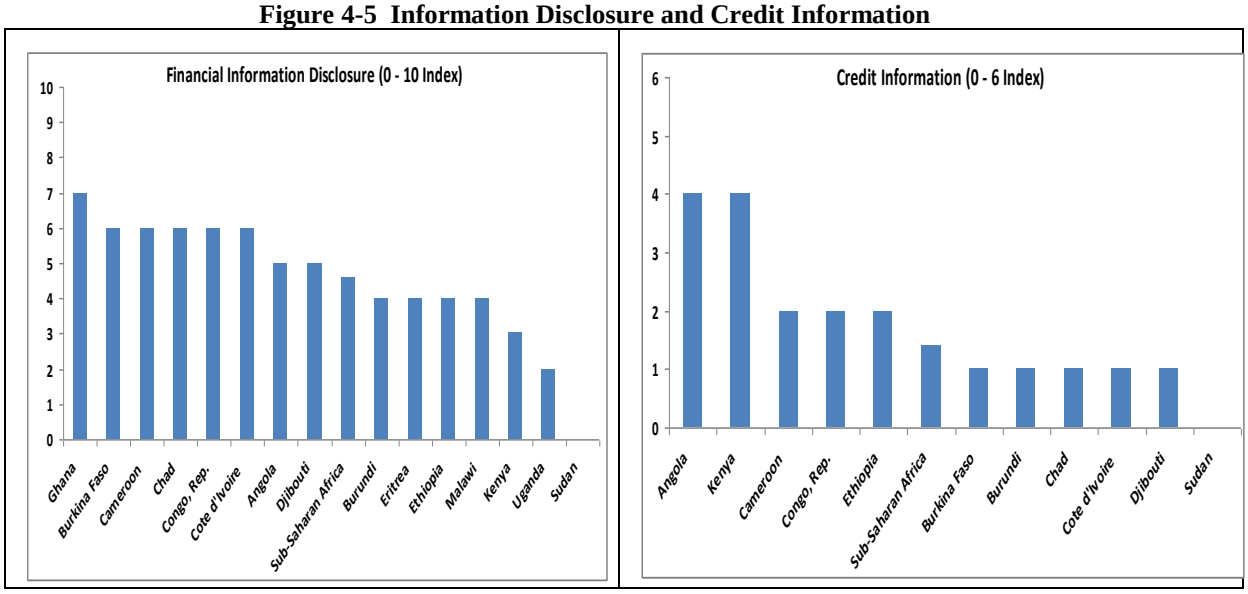
Data obtained from the Central Bank indicates increasing liquidity constraints in the banking system. The loans-to-deposit rate has risen continuously over the last five years, to 93 percent as at December 2007. A key culprit of the decline in liquidity is the slowdown in the growth rate of deposits– from 37 percent in 2004 to just 9 percent in 2007; even as the growth rate of commercial bank lending declined to around 20 percent in 2007, from 50 percent in 2004. Official estimates indicate that majority of bank lending is to the private sector (i.e. 88 percent of deposits as at 2007) and much of the recent growth in lending is to accommodate the increasing demand from the private sector. However, in reality, the difficulty in distinguishing between private and public sector transactions in the Sudanese financial system makes it difficult to support evidence of private-sector-led growth.

Many of the so-called "private sector" firms are actually government contractors and their borrowings are guaranteed by government instruments. Therefore, there are indications that the real private sector is actually *crowded out* of the credit markets – a plausible argument when one considers that the Central Bank permits commercial banks to hold up to 30 percent of their loanable funds in low-risk highly-liquid government investment certificates (or *Shahama*). Banks are the major buyers of government certificates, and have systematically increased their holding to around 40 percent of outstanding certificates in 2007, up from 29 percent in 2004. The value of outstanding certificates stood at SDG 4.2 Billion in 2007, up from SDG 1.7 Billion in 2004. These certificates have an annual rate of return of around 15 percent, whereas credit to firms attracts an annual return rate between 8 and 12 percent, as set out Central Bank policy. Therefore, banks are quite interested in investing in the government securities; hence the

government's high borrowing requirements may not be helping in providing a macroeconomic environment that encourages banks to supply much-needed credit to the real private sector, especially Small and Medium-sized Enterprises (SMEs).

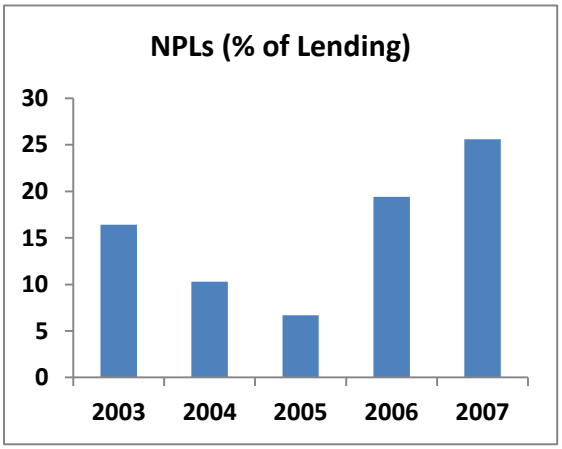
Other fundamental structural constraints in the credit environment include the lack of information on creditworthiness, which is reflected in the score awarded to Sudan in the 2009 Doing Business Report – zero. Some public credit information is available at the Central Bank but needs to be developed further. Essentially, credit bureaus are nonexistent. The accounting and auditing industry is fragmented, with the lingering dispute between practitioners certified internationally, and those with local qualifications. This fragmentation and poor administration of the profession in general has resulted in the international exclusion of Sudanese auditors, non-compliance with generally accepted accounting standards, and the inability to develop the profession through high-quality training. As a result, there is a credit industry-wide perception that financial statements of Sudanese firms (excluding publicly-traded companies) are generally unreliable.

Figure 4-5 Information Disclosure and Credit Information



Source: World Bank's *Doing Business Report* 2009.

Figure 4-6 Non-Performing Loans



4.4 Supply-side Constraints

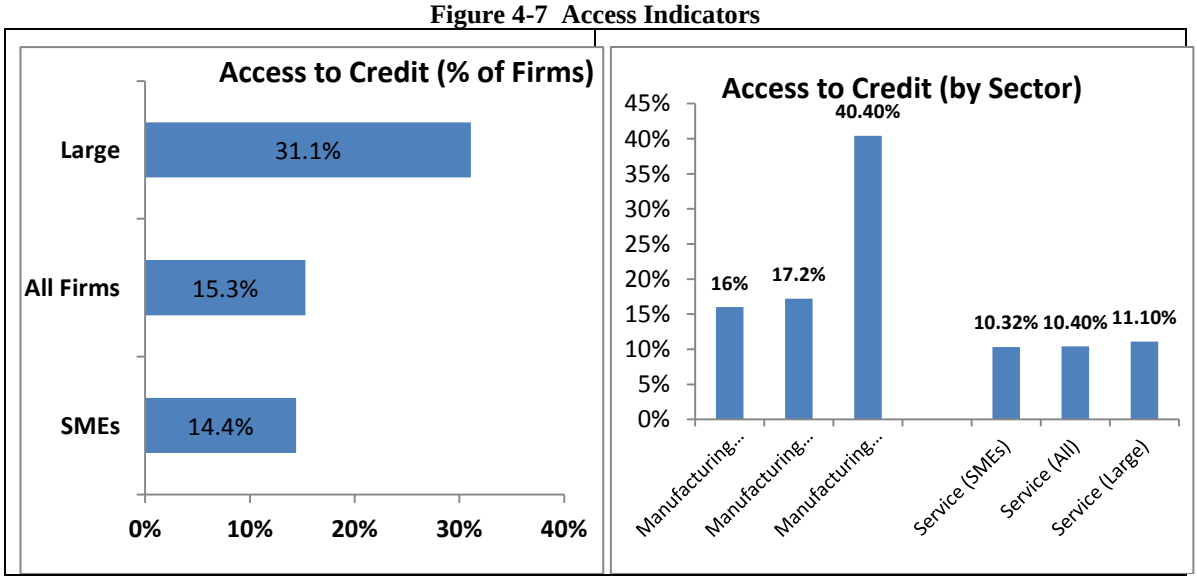
Bank perception of risk is very high: a quarter of their lending has turned bad as at December 2007. As a result, lending is restricted to large, low-risk corporations and government enterprises and few high net worth individuals, as well as investment in lucrative government certificates which ensure decent returns on assets. Some banks in the cash-based southern Sudan economy lend very little, and rely on fee income.

Furthermore, large firms constitute the bulk of the clients of the only leasing company. Secondly, banks' capacity to evaluate risk, particularly the risk associated with small firms is weak – a significant proportion of approved loans are based on relationship lending. More importantly, banks are unwilling to invest in capacity building to facilitate lending to microfinance and SMEs. Thirdly, many banks have complained of overwhelming control from the Central Bank, particularly on deposit and lending policies. In normal circumstances, banks respond to high-risk demand for credit by charging higher rates of return. However, the Central Bank provides 'guidance' or limits to lending rates, further curtailing the attractiveness of SME lending to most banks.

4.5 Demand-side Constraints

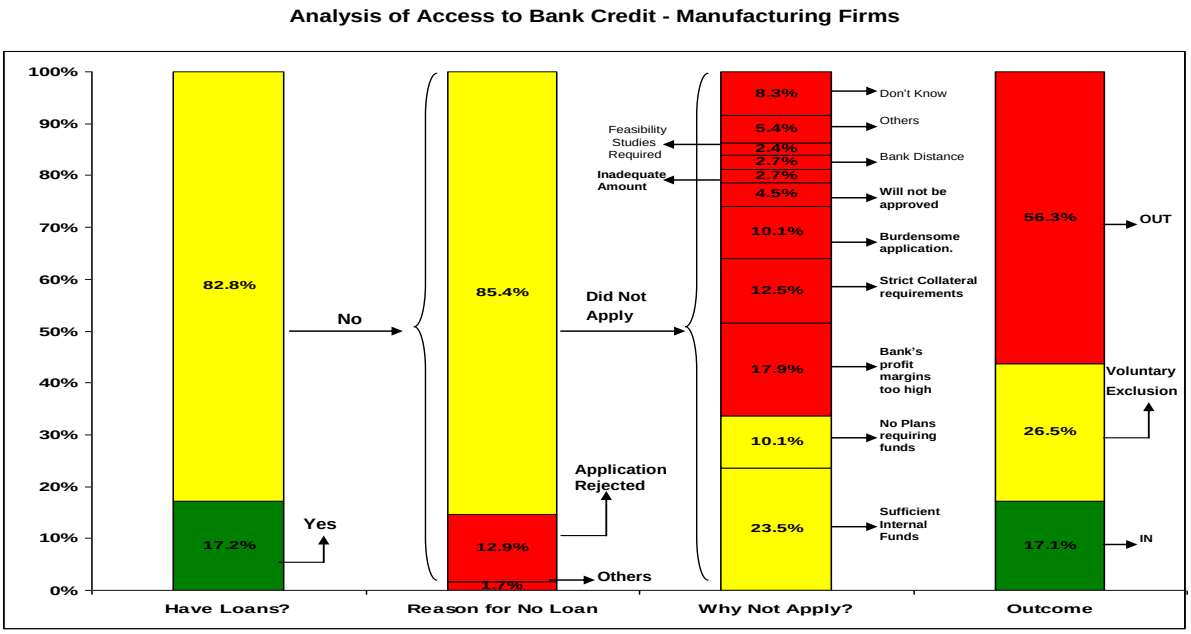
On the demand side, international experience suggests that the lack of access to finance is more peculiar to the SME sector than to large firms but in the case of Sudan, this is not clear-cut. For example, in the survey of the manufacturing sector, 49.2% of SMEs perceive that access to finance is a major or severe obstacle compared to 45% of large firms, indicating a more systematic problem than a sectoral problem. However, further analysis reveals a disparity in the level of access to credit markets between large firms and SMEs: 31.1 percent of large firms surveyed have access to credit from formal financial institutions, compared to only 14.4 percent of SMEs. There are also size disparities at the sectoral level: while 40 percent of large firms in the manufacturing sector have loans – above global average (31.74%) and close to the level of intermediation observed in countries with more efficient financial systems, only 16 percent of SMEs in the manufacturing firms have access to credit markets. This disparity is not so prominent in the service sector.

Figure 4-7 Access Indicators

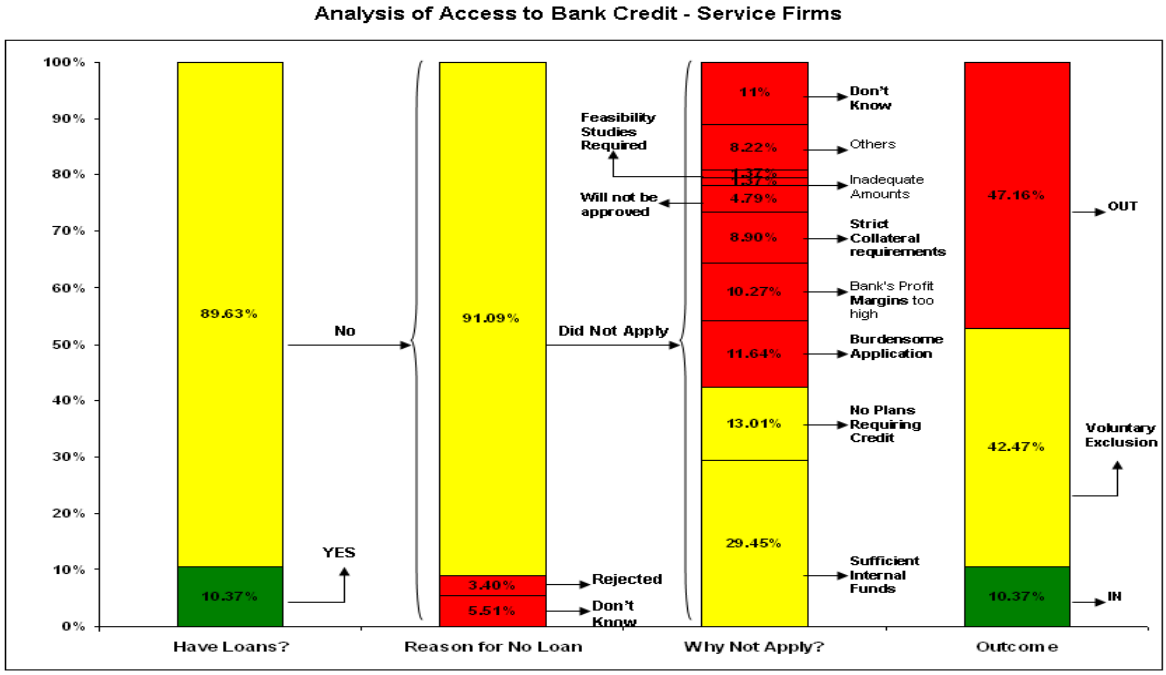


Source: World Bank PICS 2008

In any case, firms in the service sector have less access to credit markets (10.4%) than manufacturing sector firms (17.2%). This phenomenon may also result from the fact that a larger proportion of service sector firms (42.47%), are voluntarily excluded from credit markets either because of sufficient internal funds and/or lack of plans requiring access to credit, compared to 26.5% of manufacturing firms. Furthermore, only 33% of firms in the service sector perceive the access to finance problem as a major or severe obstacle, compared to about 49% of manufacturing firms.

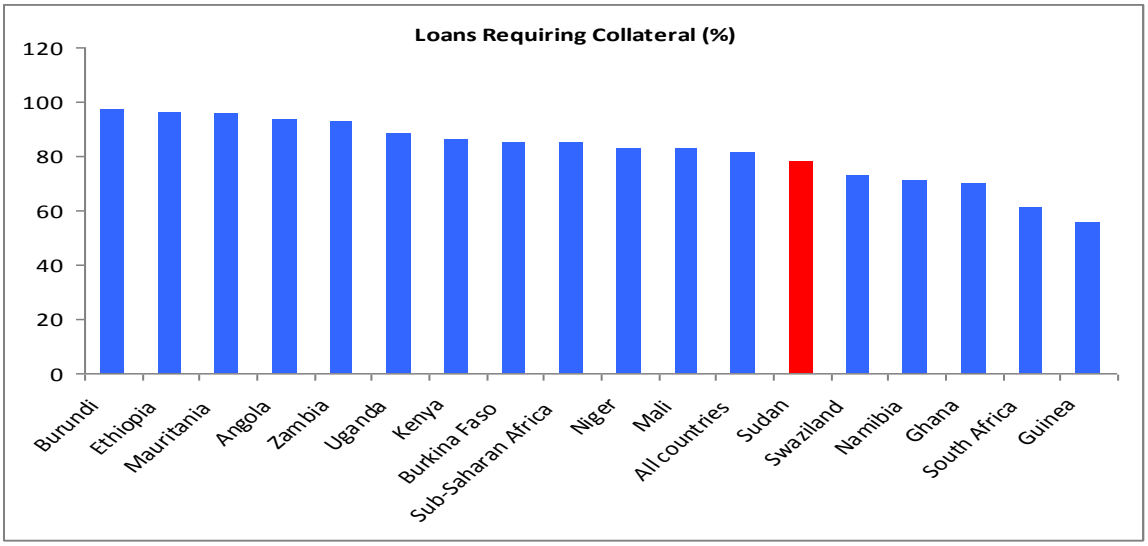


Source: World Bank's Investment Climate Survey: various years

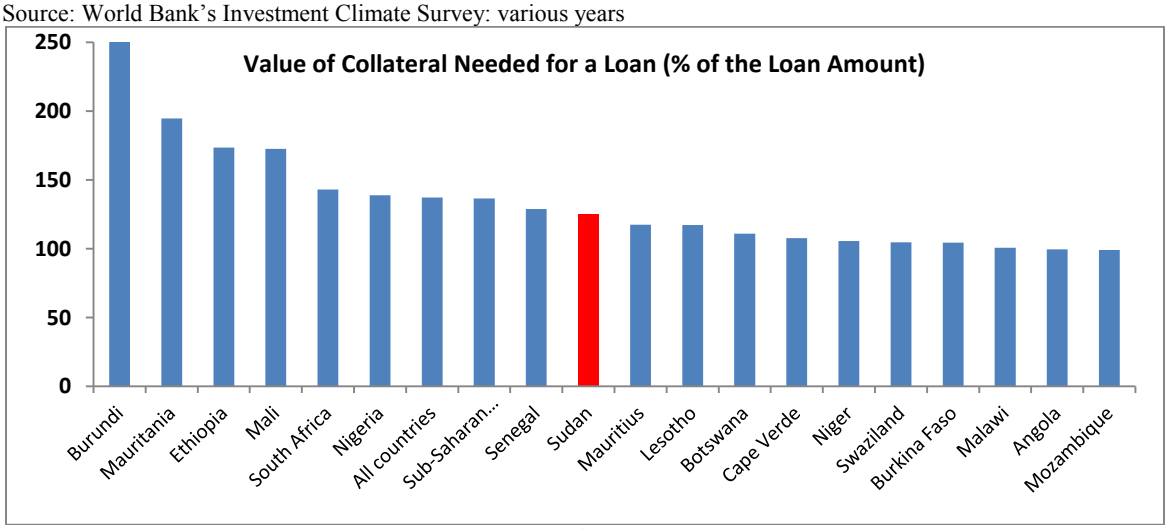


Source: World Bank's Investment Climate Survey: various years

About 48 percent of all loan applications made by firms surveyed were rejected. Interestingly again, there does not seem to be much disparity between rejection rates of SME applications and those of large firms: 47.8% and 45% respectively. The main reason for rejection of loan applications is the lack of collateral/guarantees (41.1% of cases), even though only 78% of loans approved required collateral: a collateralization rate below African average. Other important reasons are the lack of profitability (10.34%) and poor feasibility studies (5.2%). Nearly half of SME loan applications are rejected on the basis of lack of collateral, compared to only 28 percent of large firm applications. In northern Sudan, the Central Bank provides guidance on collateral policy – presently 125% of loan value, a high rate for SMEs even though it is slightly lower than the average for sub-Sahara Africa. Banks' preference for land and buildings, and machinery as collateral may also be a key barrier to access to credit for SMEs.



Source: World Bank's Investment Climate Survey: various years



Source: World Bank Investment Climate Survey. Data on Sudan is from the Central Bank of Sudan.

As perceived by firms that are *involuntarily* excluded from credit markets (about 53.7 % of all firms), strict collateral requirements are not the only major barrier to the demand for credit. Banks' profit margins (i.e. cost of finance) and burdensome application

procedures are also significant deterrents to credit applications. While the barrier imposed by the application procedure is more perceived by SMEs than by large firms, those imposed by high bank margins affects all firms, regardless of size. In addition to high rates of return, banks typically charge up to 2% fees on loans. As a result, 52% of SMEs view cost of financing as a major or severe obstacle, compared to 41% of large firms.

About 39% of firms have financial statements certified by external auditors. The reliability of some of these statements is questionable, in the view of the credit industry since very few Sudanese auditors are certified by qualification, and the law permits a large number of auditors to practice without any professional qualification. On a sector level, 27% of externally audited SMEs have loans, compared to 9% of SMEs which are not externally audited.

4.6 Policy Recommendations.

- **Effective management of NPLs and the development of the credit information infrastructure should be utmost priority at the Central Bank.** It is important to continue with the current program of reform in the banking sector especially with regards to NPLs and the establishment of credit bureaus. NPL figures for 2008 indicate a reduction in the proportion of NPLs from a quarter to just over 20 percent. Further progress will be essential.

- **Promote policies to minimize the crowding out of the private sector especially SMEs in the credit market**: commercial banks' investment in government certificates should be reduced to increase lending to private sector firms. It may be worthwhile to introduce a policy that forces banks to deploy a proportion of their loanable funds (i.e. dedicated lines of credit) to SMEs, as with microfinance. In addition, a loan guarantee scheme may be necessary to foster intermediation.

- **Facilitate access to business development services especially for SMEs**. The establishment of business development / industry modernization centers to provide accounting/auditing services, business restructuring, etc, and assisting with loan applications, is necessary

- **Reform in the Accounting and Auditing Industry.** The protracted crisis in the accounting and auditing profession must be resolved to improve quality of audits, enable training, and facilitate international recognition – a Review of Standards and Codes (ROSC) has been undertaken and the implementation of the ROSC recommendations will be critical.

- **Diversify financial products – promote leasing industry**. At the moment, only one leasing company is operating in Sudan. In spite of potential interests, a review of the current framework, especially Sharia-compliance, is necessary.

5 The Informal Sector

The chapter is organized around the following questions: how should policymakers respond to the informal economy? What do informal firms look like in Sudan? What can they tell us about the investment climate that they operate in and how do their perceptions differ from more formal firms? How should policy-makers respond to their concerns? Should they take active steps to encourage enterprise formalization or should they focus on more general interventions?

Informality is not necessarily harmful, either for individuals or for societies. It can be a legitimate coping mechanism for dealing with inefficient regulation or governments that fail to provide public services in return for compliance. This chapter starts from the principle that voluntary formalization should be encouraged. This is most likely to occur among firms with growth potential whose informal status excludes them from access to factor and product markets and business support services. But we must also recognize that there are likely to be a large number of micro-firms in Sudan for whom the benefits of formal status are and will remain small, particularly in the poorer parts of the country. A well-balanced policy response to informality thus calls for a combination of interventions to improve basic conditions and increase market access.

5.1 Understanding the Informal Sector

5.1.1 What are 'informal' firms?

We adopt a definition based on the degree of participation in state-sponsored institutions. We also recognize that the 'informal sector' is heterogeneous and the implications for policy-makers vary according to the motivations and growth potential of the entrepreneurs in question. Perry et al. define three types of informal enterprise:

- Micro-enterprises with little or no potential for growth and hence no interest in engaging with formal public institutions; this remains the dominant form of economic organization in many developing countries because entrepreneurs and workers have little alternative, given the smallness of the organized modern sector and traditional reliance on family and community;

- Micro-enterprises with an interest in and potential for growth but which are excluded or hampered by inefficient or predatory regulation; these 'marginal' firms are likely to respond to incentives such as market access so long as rules are enforced fairly and predictably;

- Larger firms that hide all or part of their activity (sales and/or workers) from the tax and regulatory authorities, in some cases for competitive advantage; this type of informality can, though it does not always, impose significant costs on more

formal firms (through unfair competition) or imply some other externality (e.g. lost tax revenue, poor labor and/or environmental practices etc.).

5.1.2 How should policy-makers respond to informality?

Devising appropriate policy responses to informality depends on understanding the motivation and concerns of informal entrepreneurs and the nature of their relationship with formal institutions:

Type of enterprise & motivation	*Connection with formal economy & state institutions*	*Possible policy approaches*
Microenterprises with no growth potential	Limited or non-existent	Improve basic conditions (infrastructure, services); encourage growth of formal employment (e.g. via labor market reform)
Microenterprises with growth potential	May supply goods and services to large and/or formal firms; may provide some information to licensing or tax authorities	Provide BDS and other opportunities (perhaps contingent on tax compliance); reduce barriers to formality and improve quality of regulatory institutions
Larger firms with hidden activity	Well-integrated into formal economy; but often under report sales and workers; may avoid product, labor, environmental and other standards	Improve effectiveness of monitoring institutions; more emphasis on surveillance and punitive measures to deter evasion

The case for formalization is strongest when formal status grants firms and individuals access to organized markets for skills, finance, and other inputs that enable them to become more productive and grow. Under these circumstances, the transition to greater formality resembles a voluntary bargain under which enterprises accept more state intrusion into their affairs, including the obligation to register for and pay taxes, in return for the right to participate in government programs, obtain a bank loan etc. In addition to regulation, this calls for strengthening institutions responsible for enforcing licensing, taxation and other regulations to make more fair and predictable.

The case for formalization is weaker when formal markets do not function efficiently – sometimes even to the extent that there may be little or no difference in productivity between formal and informal firms (Gelb et al.) – or when the rules and obligations that attend formal status are poorly or unfairly enforced. Under these circumstances policy-makers may wish to improve basic conditions for informal entrepreneurs and workers – for example, by providing them with basic infrastructure - but otherwise turn a blind eye to their activities. They may also wish to concentrate on improving the functioning of formal markets, including the labor market, in the hope that this will allow existing formal firms to grow and absorb informal workers.

5.2 The Informal Sector in Sudan

The following analysis draws on survey data from the 2008 Informal Sector survey, on face-to-face interviews with representatives from informal firms in five locations in northern and southern Sudan (El-Obeid, Juba, Khartoum, Malakal and Port Sudan) and,

for purposes of comparison, on data from the 2008 survey of formal firms. The method used was area sampling, with the choice of location corresponding to those markets used by the Sudanese Statistical Office for collecting consumer price data. The Informal Sector survey used two different instruments to collect enterprise level data for wholly informal firms, defined as those who had not at any time in the past provided information about their activities to any government institution, and partially 'formalized' firms, or those that had provided some information about their activities to government.

Table 5-1 Geographical Distribution of the informal sector survey, 2008

Name of	No of observations		% in sample	
State	Informal	Formalized	Informal	formalized
Al Jazera	23	30	19.0	13.0
Khartoum	55	112	45.5	48.7
Kordufan	15	15	12.4	6.5
Malakal	4	15	3.3	6.5
Nyala	6	13	5.0	5.7
Red Sea	4	18	3.3	7.8
River Nile	9	15	7.4	6.5
Other	5	12	4.1	5.2
Total	121	230	100.0	100.0

Source: Sudan Informal Sector Survey, 2008

5.2.1 Internal characteristics of sampled firms

The informal and partially formal firms sampled were small, sole-proprietorships involved in trading or services (70 percent). Compared to wholly formal firms, the informal enterprises participating in the survey tended to be shorter-lived, averaging 10 years in business compared to 20 for the formal sample.

Table 5-2 Firm characteristics, interaction with state and peers by degree of formality

	Informal	Partially formal	Formal
Internal characteristics			
Years in operation	10	11	20
Interaction with state			
Percent workers declared	-	42	51
Percent sales declared	-	51	48
Interaction with peers			
Percent with membership in profess. assoc.	9	27	42

Source: Sudan ICS, 2008. 'Formal' includes both manufacturing and services firms. Membership in professional associations includes Chambers of Commerce for formal firms.

5.2.2 Labor taxes contribute significantly to informality

Of the partially formalized firms sampled in the Informal Sector Survey, just over 70 percent had provided information to the public authorities for the first time within the previous two years. In about a third of these cases, the firms had incorporated themselves with the Ministry of Commerce; a third had registered with the tax authorities; and a third had provided some other form of information. Over half the partially formalized firms

interviewed said they reported none of their employees, and half admitted to declaring none of their revenues, including a quarter of those that had some relationship with the tax authorities. The most common reasons given for under-reporting are that the taxes on workers and income are too high and that evasion goes unpunished. Regulatory non-compliance is also prevalent among those firms sampled in the formal sector survey.[29]

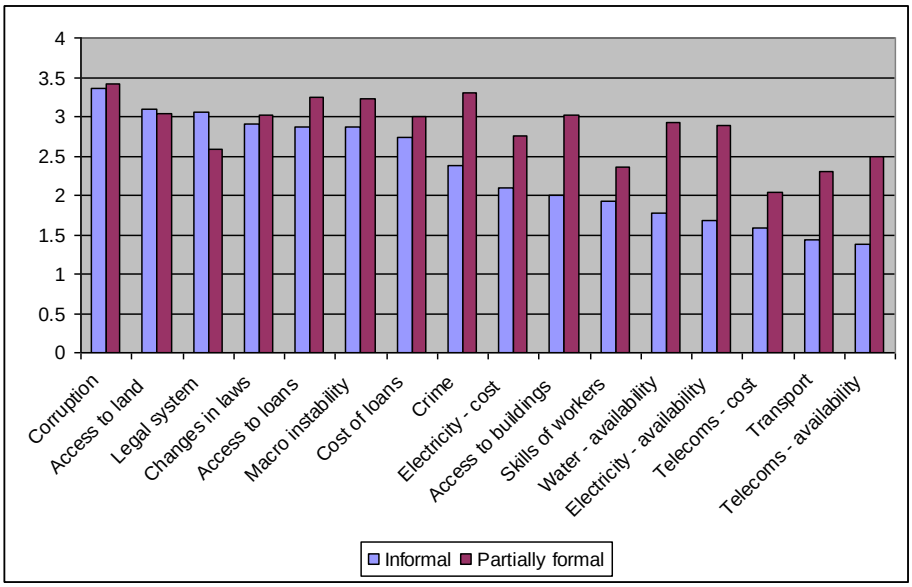
5.2.3 Interaction with other firms: segregated markets

For the most part, firms appear to interact with firms that resemble themselves. Informal firms compete largely with informal firms; partially formal firms with partially formal firms and so on. On average, informal firms say that around 10-15 percent of their competitors are registered with the authorities. For partially formalized firms, the figure is around 75 percent. (There was no corresponding question in the formal sector survey). Partially formal firms are also three times more likely to belong to a professional association than their informal counterparts.

5.3 How do informal firms view the investment climate in Sudan?

For informal firms, corruption, the legal system, access to land and access to loans are in the top five constraints. There is not much variation in the ranking across states or locations. The only exception is that the availability and cost of electricity, access to and cost of financing and access to land are perceived as more binding for informal firms outside Khartoum.

Figure 5-1 Assessment of constraints: informal and partially formalized firms



[29] The difference in self-reported compliance between them and the partially formalized firms is quite small. There is no statistically significant correlation between compliance and size for the manufacturing and services firms in the main sample; and only a weak correlation (0.13) among partially formalized firms.

5.3.1 How do their perceptions differ from those of formal firms?

Apart from their status, informal firms typically differ in other ways from formal firms – they are generally smaller, tend to concentrate in artisanal activities, employ family members and are less capital intensive. This means that they are likely to face a different set of constraints in their day to day activities than their formal sector counterparts. It follows that to understand the impact of informality on firms' perceptions of the investment climate; we need to control as much as possible for these other influences. The table below reports results from a regression of firms' perceptions of these constraints, controlling for size and the manager's level of education. The analysis is based on pooled data from the informal, partially formalized and wholly formal samples.

Table 5-3 Impact of formality on perception of investment climate constraints, with basic controls

Dependent variable: constraint	*Formality*	*Size (employees)*	*Manager's education*	*Constant*	*Number of observations*
Infrastructure					
Electricity	0.56**	0.00	0.02	1.07***	583
	(2.31)	(0.06)	(67)	(8.37)	
Transport	-0.09	0.00	-0.01	1.11***	620
	(0.60)	(1.03)	(1.06)	(8.00)	
Telecoms	0.00	-0.00	-0.01	0.68***	636
	(0.08)	(0.93)	(0.94)	(6.74)	
Finance					
Access to finance	-0.79	-0.02	0.04	2.46***	776
	(0.33)	(0.83)	(0.18)	(3.41)	
Cost of finance	-1.35	-0.04	-0.11	2.64***	604
	(1.87)	(1.42)	(1.36)	(9.08)	
Government relations					
Regulatory uncertainty	-4.04***	0.03**	0.37	2.69***	786
	(5.84)	(2.73)	(1.85)	(7.86)	
Corruption	-3.32***	0.01**	-0.01	3.86***	791
	(5.59)	(2.92)	(0.34)	(14.34)	
Other					
Conflict resolution/judiciary	-15.80***	0.04**	0.19	6.85***	783
	(13.87)	(2.29)	(0.97)	(9.36)	
Macroeconomic instability	-2.10***	0.01**	0.19	2.69***	786
	(4.13)	(2.47)	(1.16)	(7.86)	
Crime, theft and disorder	-2.63***	0.01	-0.1	2.89***	789
	(5.06)	(1.62)	(0.43)	(9.92)	
Land	-19.82***	-0.11***	-0.08	9.96***	624
	(12.62)	(3.02)	(0.23)	(8.84)	

*Note: OLS regression. Formality is coded as: 0=informal, 1=partially formal, 2=formal. Constraint is coded: 0=none, 1=minor, 2=moderate, 3=major, 4=very severe. Absolute values of t-statistics in parentheses. ***Significant at 1 percent, ** Significant at 5 percent, * Significant at 10 percent.*

Those constraints of most importance to informal firms (the inadequacy of judicial remedies, access to land and corruption) are also those that tend to bear more heavily on them than on their formal counterparts. We find that the reported severity of constraints differs quite significantly by status, even after controlling for size and managerial capacity. Our most striking results concern access to land and inadequacies in the functioning of the judiciary. Informal firms also report greater concern over corruption and economic policy uncertainty than do formal firms. On the other hand, they tend to worry less about electricity (possibly because almost 80 percent of them are involved in trade and services rather than manufacturing). There seems to be no significant difference in how they view other infrastructural obstacles such as telecoms and transport.

5.4 Should Sudan's policy-makers be concerned about informality?

5.4.1 Advantages and Disadvantages of Informal Status

Changing the level of formality depends on the firm's perception of costs and benefits of formalization. The main advantage appears to be the avoidance of labor regulations, followed by labor taxes and licensing.

Table 5-4 Most important advantage of informal status

	Informal	Formal
DK/NA	40	13.48
Avoidance of labor regulations/more flexible work force	17.5	16.52
No labor taxes/social security contributions	11.67	25.65
No product standards	0.83	5.22
No problems related to licensing	10.83	8.7
No health/safety inspections	0.00	3.04
No income/profit taxes	5	9.13
Easier/cheaper access to raw materials	0.00	0.43
No price controls on products	0.00	1.74
Access to "black market"	0.00	1.3
Cheaper price for utilities (electricity, water etc.)	0.00	0.43
Access to cheap "informal" land	0.00	2.17
Lower administrative costs associated w	0.00	0.87
Other	5.83	3.91
No advantages whatsoever	8.33	7.39

The main disadvantages are limited access to finance and the need to pay bribes to avoid formal regulations. Perhaps the most obvious risk associated with regulatory evasion is discovery and prosecution by the authorities. Three quarters of the informal

entrepreneurs in our sample reported that government measures to penalize informal businesses posed a 'serious risk' for them.

Another potential disadvantage of informal status is that it can exclude firms from judicial remedies. We have seen that informal and partially formal firms tend to view the inadequacies of the legal system as more of a constraint on doing business than do formal firms, even after controlling for size and managerial capacity. Several of those we interviewed during the focus group discussions told us they avoided the courts entirely because the process took too long. Others said they had lost faith in the capacity of the courts to enforce sentences.[30] In most cases, we were told, disputes are resolved using traditional methods - in part because entrepreneurs wish to avoid damaging their relationships with one another (See Chapter 3).

Being outside the law can also render informal operators liable to exploitation by unscrupulous public agents.[31] Participants in focus group discussions also pointed out that informal enterprises are subject to arbitrary and unpredictable tax demands from local government officials, without explanation or receipt. The survey also shows that corruption is more of a problem for informal than formal firms. And both informal and partially formal firms see the need to pay bribes as the second most important disadvantage of informality.

Table 5-5 Most important disadvantage of informal status

	All Sample	
	Informal	Partially formal
DK/NA	37.5	0.87
Limited access to finance (loans)	21.67	30.43
Need to pay bribes to avoid "formal" procedures	11.67	14.35
No access to and insecurity of premises	2.5	6.96
Inability to sell to/buy from formal enterprises	3.33	5.22
Theft by employees/suppliers/buyers	3.33	0.87
Fear of government retribution (formal)	3.33	2.61
No access to broader market	2.5	2.17
No tax reclaims	0.83	.
No access to utilities	.	4.78
Large labor turnover	.	3.04
Limited access to raw materials	.	4.78
Other	9.17	8.26
No disadvantages whatsoever	4.17	15.65

[30] One carpenter in Khartoum said he had once taken the local authorities to court and won, but that officials had ignored the verdict and locked his premises until he had paid the fees they claimed he owed.

[31] Just over a quarter of informal respondents report having incurred extra payments in order to sustain their status, with the amounts involved averaging around 30 percent of annual turnover but in a few cases ranging as high as 70 or 80 percent.

5.4.2 Impact of Informality on Access to Finance and Markets

Access to finance is viewed as the most serious disadvantage of informal status by both informal and partially formalized firms. Partially formalized firms are more likely to have applied for a loan and marginally more likely to have their applications accepted. They are also less likely to be discouraged by the feeling that they 'couldn't get a loan' or because they lacked the information about how to apply for one.

Informal entrepreneurs complained that they were excluded from government contracts because of their status. Financial institutions lack experience and products relevant to their needs. Collateral requirements are a serious obstacle[32]; so are high bank charges and the time required to prepare a loan application. Bank officials favor party-affiliated companies and other well-connected individuals.

Access to land is another important issue. This concern is slight greater among informal than among partially formalized firms. Of those interviewed, the overwhelming majority (97 percent) has use rights – whether they own the land themselves or lease it from the state or from private owners. It appears that the main problem is that land is simply too expensive to buy or lease; not that the administrative costs are too high or that the titling system is unclear or unenforced. However, several entrepreneurs we spoke to in Khartoum and Port Sudan also complained of the time it took to acquire land – in one case more than 20 years for a standard plot of 80 square meters

5.4.3 Does informality impose a burden on other firms and on society?

Formal firms in Sudan do not appear to regard competition from informal ones as a serious problem. Only one of the 83 manufacturing and services firms surveyed rated 'the practices of competitors in the informal sector' as the most severe constraint it faced. None ranked measures to 'encourage tax and regulatory compliance among all firms' as the most important reform undertaken by government in the previous three years (though this may be because there were no such reforms). The more serious competitive threat to those formal entrepreneurs we interviewed is from party-affiliated firms. Finally, the revenue gains from taxing informal enterprises are likely to be small and, as the data show, registration is no guarantee of tax compliance.

5.5 What policies towards informal firms might be appropriate?

Overall, the survey data give the impression of a regulatory system that imposes significant costs but provides few if any benefits in return.[33] There are costs to informal status certainly – most notably in terms of foregone access to finance – but these seem to be balanced by the advantages of operating outside the system. In particular, informal

[32] Though one interviewee said that it was possible to bribe bank officials to overlook collateral requirements or otherwise obtain a loan.

[33] As several small businessmen complained to us in Khartoum, 'They ask us to pay an anti-malaria fee, but we don't see any clinics; they ask us to pay a sanitation fee but we don't have clean water; and look at the rubbish in the streets.'

enterprises regard the ability to evade tax and labor market restrictions – in particular social security contributions – as an important advantage of informal status.

One of the implications of this analysis is that, on balance, policy-makers would be advised to concentrate on general interventions to improve the environment for both informal and formal firms. The most salient needs are for better access to finance and land. Expanding micro-finance and encouraging existing financial institutions to develop products appropriate to SMEs would help both groups and might persuade some informal entrepreneurs to regularize their activities. Reducing the time involved in acquiring and registering land would also help.

With the possible exceptions of access to finance and land it is unlikely that formalization will lead to any large changes in behavior or productivity on the part of informal firms. However, there are also actions that might be taken to increase the welfare of subsistence entrepreneurs – without necessarily requiring them to register and pay tax. Given the fragility of most entrepreneurial activity in Sudan, and particularly the South, any interventions to encourage participation in public institutions should be selective and focus on carrots rather than sticks.

Table 5-6 Reported reasons for not formalizing

	All informal firms
DK/NA	13.45
Lack of information about "what and how to do it"	6.72
Registration would impose excessive tax burden and/or tax administration costs	22.69
High costs (financial and time) for start-up	8.4
Administrative burden imposed to registered businesses	1.68
Registration would impose rigid labor market rules	2.52
If I registered I would have to comply	2.52
Weak enforcement/ no punishment	4.2
I simply do not see any benefit of registration	12.61
No local government office	0.84
Illiteracy	3.36
Social expectations (social environment	2.52
Other	18.49
Total	100

5.5.1 Improving operating conditions for informal firms

One approach would be to improve the physical conditions for informal enterprises - for example by providing a secure facility where market traders can store their wares. It would also make sense to focus on interventions to regularize relations with government

officials and strengthen mechanisms for resolving disputes. Among the other measures that policy-makers might take to improve conditions for informal firms are:

- Support for alternative dispute resolution mechanisms that are consistent with but separate from the formal court system
- Improving the predictability of regulatory enforcement: a third party guarantor idea might help – but it would need to be long term and credible (as one entrepreneur told us 'since Ottoman times, businessmen have not trusted government')
- Building capacity among business associations and supporting them in dialogue with the authorities (as one Sudanese businesswoman said: 'politicians fear collectivities')

5.5.2 Targeted measures to improve market access

In addition it would make sense to encourage those on the margin – perhaps from the partially formalized sample – to participate more fully in organized markets and to improve their relations with state institutions. The survey asked informal firms why they had decided not to register and operate formally. The two most common responses were that to do so would make them liable to pay taxes that they could not afford and that they saw no benefit to registration.
Probably the best approach would be to pursue a menu of technical and micro-political interventions, including combinations of the two. Among the measures policy-makers might consider are:

- Reducing the tax burden and associated administrative costs, and awareness creation about the benefits of registering and formalization.
- Generating opportunities for partially formalized businesses to supply to public enterprises/bodies, contingent on their registering and paying taxes
- Providing business development services and making them dependent on registration and/or tax compliance.

None of these is likely to feasible on a national scale. Instead, the approach should be to stimulate pilot interventions at a local level and document their effect carefully with a view to encouraging replication by other local authorities.

5.6 Summary and Conclusions

The picture that emerges from this analysis is consistent with the view of informality as a form of exit. With the possible exception of finance, there are few requirements for operating a business in Sudan that cannot be met as easily by informal as by registered firms. Indeed some markets – notably for labor – appear to be more flexible for informal than for formal firms. Similarly, there may be direct financial costs associated with operating under the authorities' radar, but these seem manageable compared to the larger and perhaps less predictable risks associated with paying taxes formally. Given the

absence of compelling reasons to participate in state-sponsored institutions, it is not surprising that many entrepreneurs should opt out.

The main implication of this analysis is that achieving significant reductions in informality will require actions to increase aggregate productivity in the economy. This calls mainly for general policy initiatives to improve the functioning of markets for finance, skills and other inputs. We must hope that, with time, this will allow those engaged in subsistence entrepreneurship to be absorbed into formal employment and those micro-firms with the potential for an interest in growing to participate in organized markets. That said, there may be some potential for more focused interventions to alter informal entrepreneurs' calculations of the costs and benefits of formalization – provided that they target those micro-firms that have an interest in and the potential for growth.

6 Conflict-Affected Private Sector Development

6.1 Introduction

International experience suggests an important role for the private sector in conflict affected environments in promoting peace through the creation of sustainable sources of employment. As Elbadawi, Collier and others have documented, economic distress is a precursor to conflict. As such, breaking the cycle of conflict requires cementing peace through broad-based growth.[34] This is an essential part of the peace dividend expected by citizens following an extended period of conflict.

Conflict disrupts economic activity, market institutions and livelihoods and the nature of economic activity changes drastically during war. In a conflict setting, the private sector is largely informal due to the breakdown of trust in market institutions and social networks. Government structures are often weak with limited capacity and unable to deliver essential services. Weak infrastructure is also common following years of conflict and in the absence of a properly functioning state, corruption is often prevalent. In the aftermath of conflict it is essential to provide vital services, employment opportunities, skills and training for many who have lost their livelihoods during war. This is particularly crucial for the reintegration of ex-combatants, who can return to violence. It is also vital for vulnerable groups - such as women, Internally Displaced People (IDPs) and the disenfranchised - that have been marginalized during conflict.

Sudan experienced conflict in all but a brief period following the signing of the Addis Ababa Accord that brought peace to Sudan during the period 1972-1983. Prolonged periods of conflict and the legacy of war have had significant effects on Sudan's economy at the national level. Macroeconomic instability, fiscal imbalances, inflated military expenditures, a weak currency, low levels of investment in infrastructure and a lack of development of financial services throughout the country characterized the economy in the 80's and 90's. Conflict also undermined the development of market institutions and the emergence of a vibrant market economy and has deterred both local and foreign investment. The CPA provided Sudan with an opportunity to invest in critical infrastructure and institutions that can allow the private sector to develop and grow.

Private sector development can address some of the root causes of conflict since economic factors play a crucial role in starting conflicts.[35] Introducing reforms to improve economic governance through a better investment climate, economic structures and market institutions can contribute towards poverty alleviation through the

[34] See, for example, *Breaking the Conflict Trap: Civil War and Development Policy* (World Bank, Oxford Press) 2003.

[35] Naoise Mac Sweeney, Private Sector Development in Post-Conflict Countries. A Review of Current Literature and Practice, Cambridge, UK, The Donor Committee for Enterprise Development

development of a viable private sector. Transparent dialogue between the public and private sector creates trust and confidence in government institutions.

Sudan faces significant challenges for post-conflict reconstruction and development. The implementation of the Comprehensive Peace Agreement (CPA) has improved the prospects for enhancing political stability and provided a framework for wealth and power sharing between the Government of National Unity (GONU) and the Government of Southern Sudan (GOSS). However civil strife has continued in the Darfur region and border disputes in the protocol regions defined in the CPA (South Kordofan, Abyei and Blue Nile) between the North and South are threats to continued political stability and economic and social development throughout the country. The CPA provides for a referendum in 2011 that will determine whether Southern Sudan will secede from the North and become an independent state. The referendum will also determine the fate of the three protocol areas. Regardless of the outcome of the referendum, GOSS will need to consider diversifying its economy away from reliance of oil revenues. Attempts for a comprehensive peace agreement, signed by all parties in the conflict, in Darfur, have so far been unsuccessful.

This chapter considers the two regions that have suffered from prolonged periods of conflict and the potential and challenges for private sector development in Southern Sudan and the Darfur region.

6.2 Southern Sudan

Unlike many post-conflict countries and regions, Southern Sudan is blessed with considerable wealth from oil resources and has a broad base of potential export products. The Government of Southern Sudan (GoSS), which was established by the CPA, has autonomy over 648,000 square kilometers or roughly 25 percent of the country's land area. This land contains the majority of proven oil reserves in Sudan.

With 97 percent of government revenues derived from oil, Southern Sudan is almost completely reliant on its oil wealth. The development of the non-oil sectors is essential to transition it from conflict affected to a viable and integrated economic unit. Southern Sudan has vast economic potential that can be leveraged. Beyond proven oil reserves, Southern Sudan is endowed with tremendous agro-industrial potential, extensive hardwood forests (with potential for both timber and carbon credits), fertile land and an abundance of minerals including gold. The main challenge for the South is to translate the peace agreement and its oil resources to deliver a 'peace dividend' for the people of Southern Sudan. For Southern Sudan to extract the full value of its natural wealth and avoid the resource curse that has plagued other developing nations, it must seek to increase its production efficiency and transform its raw materials to capture value along the commodity value chain to extract greater value from its resources.

In spite of this vast potential, Southern Sudan faces considerable challenges. Years of conflict have impeded the emergence of a viable indigenous private sector and

hindered the development of market supporting institutions. Market linkages are virtually non-existent and there is a dearth of skills and capacity of indigenous Southern Sudanese. Five years after the signing of the CPA, input and product markets still remain underdeveloped. Investment in scaling up production without improved markets and market institutions will not be possible. The period of conflict has largely destroyed the traditional market linkages and channels – including the complex set of social and economic relationship between intermediaries necessary for markets to function. The present system of fresh supplies to retail markets in urban areas is dominated by imports – in the case of Juba, by supplies from Uganda. Apart from imports, inter-regional trade flows only really exist at present for livestock marketing.

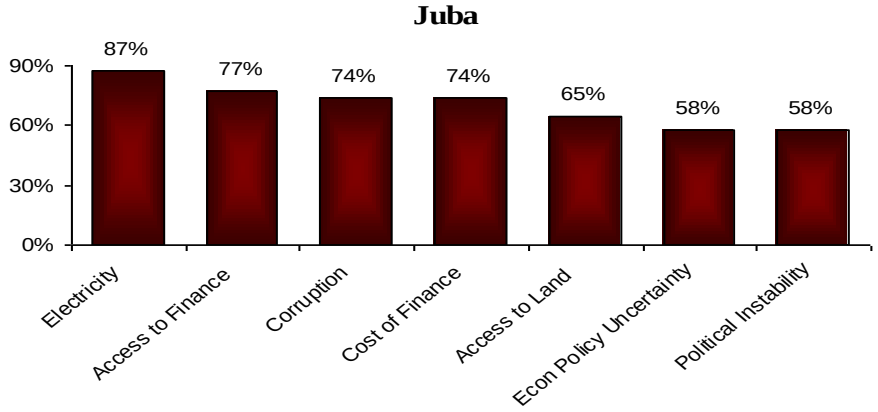
Uncertainty over the future in the post-2011 period as well as continued concern over local security conditions in various states has also contributed to the underutilization of resources by restraining productivity and curtailing long-term investments.

6.3 Perception Indicators for Southern Sudan

The Investment Climate Survey included two major cities in Southern Sudan, Juba, the regional capital and Malakal, the capital of Upper Nile State. According to the Survey, the major constraints faced by manufacturing businesses in Juba are electricity, followed by access to finance, corruption, access to land and economic and political uncertainty (see next chapter for regional differences). For businesses in Malakal, all infrastructure related constraints such as electricity, telecommunications and transportation are listed as major to severe obstacles by 100%, 88% and 75% of the respondents respectively. In Juba, 87 percent of the respondents cited electricity as the most significant constraint facing businesses (see chart below). In contrast with Malakal, only 19 percent of businesses in Juba cited transportation as a major constraint. This may be explained by the fact that most businesses operating in Juba that rely on trade are closer to the border with Uganda and Kenya, where the roads are relatively developed.

Due to the lack of reliable power generation in Southern Sudan, most businesses own or share generators to cope with the erratic and unreliable power supply, and a significant share of their energy consumption from electricity is produced by generators. Infrastructure shortcomings, particularly those related to power and transport infrastructure, are binding constraints to almost all productive sectors in Southern Sudan. This is particularly the case for Malakal and other cities that are not close to international borders where the interstate and intrastate road networks are underdeveloped. The poor transport infrastructure in Southern Sudan raises the cost of inputs for all sectors, where the vast majority of inputs are transported from neighboring countries or from Northern States. The lack of infrastructure development also constrains market access for agricultural products, not only to the local markets but also national and export markets.

Figure 6-1 Seven major business obstacles in Juba (% of firms complained)



The second major obstacle cited by businesses in Juba was access to and cost of finance. Access to finance and cost of financing were identified as major to severe constraints in Juba by 77% and 74% respectively by the respondents. Limited access to working capital has also contributed to underutilization of capacity in manufacturing in both cities surveyed in Southern Sudan.

Southern Sudan remains heavily under-banked. In February 2008, Islamic banks withdrew from the South since the Bank of Southern Sudan (BOSS) imposed conventional banking as the only form of banking in Southern Sudan. The removal of Islamic banks contributed to the huge gap between supply and demand for finance in Southern Sudan. This has been particularly severe in the Border States between North and South. Since end-2008, several banks from neighboring countries have been issued licenses to operate in Southern Sudan. In spite of the increased number of financial institutions, competition is still limited, margins are correspondingly high and services are mainly concentrated in the urban hubs.

The main products banks offer consist of foreign exchange, transfers and remittance services while only a few commercial banks provide loans, trade finance or savings products. Most lending in Southern Sudan is short-term and concentrated in the commerce, trade and services (mainly hotels) sectors since these are the major business sectors in Southern Sudan and are the businesses with significant short term cash flow and turnover that banks use to determine creditworthiness. These are often the sectors of government procurement and guarantees. Almost all lending is short term (3-6 months duration), and at a high interest rate (15-18%). The commercial bank loans consist mostly of working capital loans in the urban hubs to large firms in the commerce, trade, and service sectors (60%) with virtually no lending to manufacturing. Only 10% of loans cover the SME sector and all lending is concentrated in the main urban hub (Juba).

Microfinance Institutions in Southern Sudan estimate that they cover only 5% of the available clients in the greater Juba region, and less than 1% of the potential market in Southern Sudan. While the majority of clients are still focused in urban hubs, 7 of the 10 states in Southern Sudan currently benefit from microfinance services. The

MFIs rates are not unduly excessive (range of 15 to 36% per annum) given the high costs of Southern Sudan and the Kenyan averages (30% per annum), but their products are not diversified (mainly group loans, individual loans, and salary loans), and they have yet to service the strong demand for savings products and housing loans.

Most of the issues faced by the banking sector in the North apply to the South. However, given the level of development in Southern Sudan, these issues are more severe due to the lack of competition in the sector, the poor capacity of local banks (in terms of credit analysis skills, controls, risk management and corporate governance), the lack of collateral due to the frail structures for land registry and a nascent legal, regulatory and enforcement framework in Southern Sudan. Moreover, the lack of viable infrastructure including electricity, telecommunications and transport escalates transactions costs for banks operating in and throughout Southern Sudan.

Access to land has also been cited as a major constraint facing businesses by 65 percent of the respondents to the survey in Juba. Land policies have been established and the Land Commission is undertaking important work in defining policies and frameworks for allocation of land consistent with the CPA and the Interim Constitution. However the lack of institutions and structures for land registry creates reluctance of the part of the banks to accept land as collateral for loans without a clear system for land titling and registry and the resolution of disputes. The recently approved Land Act (2009) details three systems of tenure in Southern Sudan as customary (owned by communities), freehold and leasehold. Land is classified as public (held by government), community (held by communities) or private land (leaseholds of up to 99 years and freeholds). The Land Act effectively details ownership rights proven by legal title for all but short term leases and established a decentralized system of land registry maintained by the Ministry of Housing, Physical Planning and Environment. The Land Act also permits the right for title holders to use the land as a surety to secure debt (where mortgage contracts are to be registered in the land registry) and the right for creditors to foreclose on land title in the case of default.

Institutions and processes that support land legislation are still at a nascent stage. For instance it is unclear which agency will be responsible for the various types of registration. The institutions that currently register titles have low capacity and they lack the appropriate IT systems, procedures and support (especially at the decentralized level). Moreover, the current process does not sufficiently guard against duplication or usurp of titles. The institutions for the compensation for expropriation and the application of customary practices/law (in the Land Act) have yet to be established. In the absence of an overarching land policy that is consistent and enforceable, government land continues to be allocated in an inconsistent manner, where land is allocated in some states but not others. This creates uncertainty for the private sector. Outside of Juba, land is often leased through negotiation with local communities. It is unlikely that these methods will distribute land at its highest and best economic use.

6.4 Market Supporting Institutions

Post-conflict environments, are characterized by informal and micro enterprises. As they respond to gaps in availability of basic goods and services, informal enterprises are more tolerant of risk than larger capital investment projects, and are less demanding of public institutions and infrastructure. In Southern Sudan, this involves basic retail services such as small trade, blacksmith/repair, and construction. The dual challenge is to create the enabling conditions for these micro-entrepreneurs to grow, while at the same time preparing the environment for the development of larger, formal clusters of activity such as food processing, mining, or light manufacturing. Attracting larger domestic and foreign investments depends on reducing costs and risks of investment through the policy framework and infrastructure; competitive access to finance; adequate technical and managerial skills; and efficient markets for the inputs and products of firms. As clusters grow, they will require increasingly specialized inputs and infrastructure.

Box 1 The Southern Sudan Private Sector Development Project

In 2007 the Multi-Donor Trust Fund for Southern Sudan approved the Southern Sudan PSD Project. The project, focused on early-stage private sector development in a post-conflict setting, integrates key inputs required for micro- and small-enterprises to grow.

The project focuses on building capacity among South Sudanese policy makers and the private sector to develop the policy and regulatory framework for trade and investment through open consultation. It supports establishment of monitoring frameworks to feed back into the policy dialogue, and broad participation in private sector development by mobilizing grassroots support for entrepreneurship as a livelihood choice, particularly for women and ex-combatants.

Secondly, the project provides policy support to the Bank of South Sudan, and a South Sudan operation of the Sudan Microfinance Development Facility funded by MDTF N. The Facility will deliver technical and financial support to new microfinance institutions in South Sudan.

Third, the project supports the development of a strategy for the development of key industrial sectors, as well as capacity building of the public and private sector necessary to realize growth in those industrial sectors.

Finally, the project establishes a wholesale market in order to create efficient flow of product into rapidly-growing Juba, as well as backward linkages into the rural economy.

The interplay of these four factors – the policy framework, finance, skills and efficient markets – are intended to contribute to a favorable enabling environment for the growth micro and small enterprises now emerging in South Sudan, while providing a policy and strategic foundation for the emergence of larger economic sectors in the medium-term.

An interesting framework to assess Southern Sudan's prosperity and development challenges is presented below.[36] The lower forms of capital include natural endowments, financial resources and man-made capital. The higher or social forms of capital are institutional capital, knowledge resources, human capital and cultural capital. In addition to investing in critical infrastructure and strengthening its financial services sector, Southern Sudan will need to commit resources to building market supporting institutions

[36] Michael Fairbanks, *Culture Matters, How value Shapes Human progress, Chapter 7.* Inception Report: Industrial Competitiveness Strategy for Southern Sudan. Funding by MDTF, Southern Sudan PSD.

that support the development of the private sector, acquire market knowledge, develop the capacity and entrepreneurship skills of its citizens and creating a culture of competitiveness. Investments in these higher forms of capital will serve both to catalyze and sustain Southern Sudan's economic transformation.

Box 2 Forms of "Capital"

Social Capital	
Culture	+ Strong Desire to succeed and culture of sacrifice; pressure to see progress and "peace dividends" -/+ Historical lack of entrepreneurship but emerging private sector - Significant ethnic and tribal tensions
Human	+ Committed leaders with a high moral purpose and vision for the future -Shortage of individuals with critical skills – reliance on imported talent - Limited capacity to train and retrain
Knowledge	+Returning Diaspora members will help strengthen local capacity -Lack of knowledge across key industries – mining tourism, agriculture etc. - Absence of training and limited understanding of customers needs
Institutional	+/- GOSS ministries growing stronger, +/- Newly established regulatory and institutional framework -Limited dialogue between public and private sector leads to mistrust
Physical Capital	
Financial	+/- GOSS receives significant oil revenues, volatility creates fiscal pressures -/+ Nascent financial services sector with limited products (primarily forex and transfers) makes access to finance difficult; essential to increase competition
Man-made	-Slow development of critical infrastructure -Limited market access and high logistics costs negatively impact trade and competitiveness -Safety and security still an issue in some states/regions
Natural	+Well endowed with natural resources + Large tracts of undeveloped land ideal for commercial agriculture production – potential breadbasket of East Africa -Low agricultural productivity has ceded food security to regional trading partners

6.5 Darfur[37]

Unlike the conflict in Southern Sudan that prevented the establishment of an indigenous private sector, in Darfur, the conflict has had a profound impact on what had been one of the most established areas of private activity outside of the country's economic center. Historically, Darfur has been a trading economy and has played a key role in supporting the needs of the agricultural and transport industries both in Sudan and in neighboring Chad, Libya, Central African Republic, as well as central and South Sudan. Darfur has also long been a source of Sudan's key agricultural exports including livestock, groundnuts (raw and processed) Gum Arabic and tobacco.

[37] See Amin, M. B.Badri, A.Al Mahdi, A. Al Nasr, *Private Sector Development in Darfur, Chapter 2, Report of the Darfur Joint Assessment Mission (2007)*

In the 1970s and 1980s, Darfur was one of the most industrialized regions of Sudan, ranked by number of establishments. The 2003 industrial survey identified in excess of 4,000 small manufacturing establishments in South Darfur, second only to Khartoum State, while North Darfur was the seventh most industrialized state. Taken together, the number of small manufacturers in the Darfur states far exceeds that of Khartoum State. The manufacturing base is largely composed of SME's in the form of workshops and traditional industries focusing on post-harvest agro-industry (such as processing of edible oil from sesame), metalworking, Gum Arabic, tobacco, processing of ground nuts and livestock. These sectors were supported by a fairly extensive trucking industry. Much of the metalwork is related to the manufacturing or servicing of agricultural equipment.

As a consequence of the conflict, the current climate for investment is marked by the sharp reduction in the size and scope of the urban markets traditionally served by Darfur's private sector. Based on field interviews in 2006, it was estimated that only 10-20% of the 5,530 enterprises measured in the Industrial Survey of 2002 were operational by late 2006, meaning that the manufacturing sector has declined to between 500 and 1,000, and mostly very small manufacturing shops like blacksmiths. This suggests maximum formal industrial employment of 10,000 out of Nyala's population of 1.5 million, or less than 1% of the population. The Nyala Chamber of Commerce estimates that factories that have remained open operate at only around 30% of capacity.

Trade patterns have been severely disrupted by conflict. The market network in Darfur was based on a three tier system, village and rural assembly markets (primary markets), intermediate town markets (secondary markets) and urban markets in the three largest cities in Darfur, Nyala, El Fasher and El Geneina. Rural markets have been abandoned and traders displaced, disrupting the market and trading networks and infrastructure that were established for generations. Respondents to the Investment Climate Survey in Nyala identified Political Instability (88%) and Crime/Theft (68%) as two of the top four constraints for manufacturing in Southern Darfur.

Darfur's production and trading potential has never been fully realized due to poor interstate and intrastate transport infrastructure. This has been further exacerbated by violence and insecurity along established trade routes within the Darfur states and between states. This has raised transportation costs and is believed to have contributed to fuel shortages as well as increased isolation of rural markets. Transporting livestock from El Geneina to Omdurman, the major livestock market in the capital, used to take 40-45 days before the conflict and now takes 4-5 months due to longer travel routes chosen to avoid the risk of attack by armed groups. Herders also move livestock in smaller numbers to reduce the risks of looting en route.[38] Together, this pattern has raised the costs of moving livestock to assembly markets for export. The cost of renting a truck from El Gineina to Omdurman rose 150 percent between 2004 and 2005.[39] The cost of cement, for example, is 75% higher in Nyala than in Khartoum due both to distance and to numerous payments en route.

[38] Buchanan-Smith et al. Adaptation and Devastation: The Impact of the Conflict on Trade and Markets in Darfur, Tufts University, 2008

[39] *Markets, Livelihoods and Food Aid in Darfur: A Rapid Assessment,* USAID, 2005

Businesses and traders in Darfur pay a wide variety of formal and informal taxes, fees and levies to local, state and Federal authorities. The three states in Darfur apply the Federal government's tax policies and local taxes. Since the conflict started, business activity has decreased substantially and the number of taxable enterprises has declined. In order to increase revenues, state governments have imposed even higher taxes on a smaller number of firms and traders, due to insufficient transfers from the Federal Government. Informal payments by rebels along market routes have also increased since the conflict began, imposing heavy tax burdens on traders. Its estimated that at least one third of the cost of transporting cattle between Nyala and El Fasher is in the form of levies and other payments to pass through rebel and government checkpoints.[40]

The lack of formal finance and the cost of finance is a major constraint for businesses and traders throughout Darfur. The availability of credit through formal channels has long been a constraint for businesses in Darfur due to the perceived risks of doing business in Darfur. This situation has been exacerbated by the conflict. According to the respondents to the Investment Climate Survey in Nyala, 75 percent identified the cost of finance as constraint for businesses. Sudan lacks the financial infrastructure for financial intermediation and most lending is collateralized. With the conflict in Darfur, potential borrowers either do not possess the required collateral or are unwilling to put up their assets as collateral for fear of losing these assets as a consequence of non-repayment emanating from insecurity. Informal credit markets that are built on trust have also been affected by the conflict due to dislocation.

The rapidly growing urban centers have created new markets. Markets in the urban cities of El Fasher, El Geneina and Nyala, have grown substantially, fueled by a combination of increased international (humanitarian and peace-keeping) presence and migration of IDPs to the major cities in Darfur. There are also growing markets within the IDP camps that are not regulated by government authorities and traders are not taxed.

6.6 Summary and Recommendations

Sudan faces considerable post-conflict challenges. In the South, a peace agreement has been signed after a 20 year conflict and Southern Sudan has the potential to develop a vibrant indigenous private sector. Southern Sudan is well endowed with significant natural resources beyond oil and can reduce its reliance on oil revenues and attract long-term private investment capable of creating positive externalities for the whole of Southern Sudan. However the lack of critical infrastructure has limited access to markets and increased the costs of transportation and production substantially. This has negatively impacted Southern Sudan's trade and competitiveness. Access to finance and land are also major constraints facing businesses and entrepreneurs in Southern Sudan.

[40] Buchanan-Smith et al. Adaptation and Devastation: The Impact of the Conflict on Trade and Markets in Darfur, Tufts University, 2008

In Darfur, conflict has undermined a traditionally thriving and integrated economic region that served several neighboring countries. Despite several attempts, no comprehensive peace agreement has been signed for Darfur. This presents considerable security risks for traders and producers that continue to do business that have had to adapt to a high risk, high cost environment. The current climate for investment is marked by the sharp reduction in the size and scope of the markets traditionally served by Darfur's private sector. Market linkages have suffered during the conflict over the past six years and have led to the breakdown of trust between different groups of society. Mistrust in government institutions has also taken root in Darfur.

In order to arrest the decline in Darfur and provide the essential building blocks of a viable private sector in Southern Sudan, five key recommendations are proposed:

1. improving the investment climate
2. re-establishing market linkages
3. a medium term vision for industrial development
4. Private infrastructure development
5. improving access to finance for Small and Medium Enterprises (SMEs).

The focus should be on developing economic density in several parts of the country. For instance, Nyala, in Darfur, can recover its role as the manufacturing support center for regional agriculture, and light manufacturing. Another potential growth pole could be in Malakal, developing a downstream petrochemicals sector.

Improving the Investment Climate. International evidence suggests that economic growth in post-conflict environments is particularly sensitive to policy and institutional development that can reduce the risks and costs of doing business in a post-conflict environment. Southern Sudan will need to establish an investment climate that protects private property rights and commit resources to building market supporting institutions. Progress is currently underway with the support of many stakeholders including, government, the donor community, the private sector and civil society. However more will need to be done to strengthen the legal and regulatory framework to protect private property rights and strengthen public institutions to support the private sector.

The CPA has provided the stability and autonomy to enable GOSS to create an investment climate to support the private sector. With stronger institutions to support the creation of a vibrant private sector and newly drafted legislation, the government will be able to focus on executing its mandate. Many basic institutions related to the core legal framework supporting enterprise establishment are being developed in Southern Sudan. Since 2006, several laws related to business legislation have been enacted and several laws are currently being drafted, however the challenges and risks relate to the transparent and even application of these new laws to provide the confidence for the private sector and stem corruption.

As Southern Sudan's legal and institutional framework is being developed, it would benefit from public-private dialogue. The Foreign Investment Advisory Service (FIAS) study found that the current legal system is based on multiple sources of authority

which causes confusion. The CPA provides for new laws and institutions, but also clearly directs that "existing laws" should be used to govern Southern Sudan until such a time that GoSS has developed its legal framework. Some Ministries argue that the laws of the New Sudan should guide, other ministries tend to accept national laws. It is clear that these frameworks together do not yet provide the basis for investment and create confusion due to overlapping jurisdictions. Clarity and predictability are essential to provide the necessary level of comfort to create a vibrant indigenous private sector and attracting long-term investment. This will entail a significant investment in institution building, strategic choice and public-private partnerships. It will also be essential for the private sector to engage the government in a dialogue to address the challenges they face and shape policies that both address issues related to private sector development.

In Darfur, this will be more challenging since the longer-term impacts of the conflict on the private sector include the loss of confidence in institutions, both formal and informal. This includes a loss of confidence in government, as well as a loss of social capital and trust within and between different groups in Darfur. Informal institutions included sophisticated arrangements for marketing as well as land tenure. Key institutions, such as a rotating market which provided a "market day" for different towns in a rotational pattern, have ceased. Some towns that depended on border trade with Libya, such as the secondary market of Mellit in North Darfur, and other secondary agricultural markets such as Zalingei in Western Darfur, have also ceased to exist as market towns.[41] One way to stem the decline of the private sector in the short run is a reduction in fixed costs faced by Darfur-based businesses to reduce the rate of closure and allow those that remain open to begin to employ. While this will reduce public revenues in the short-run, it will substantially increase the tax base in the long-run. In both regions, it will be essential to focus on building the institutions to support the land law, land tilting and registration systems, dispute resolution systems and strong enforcement of land laws.

It will be essential to build institutions to integrate producers and markets. Improving market linkages and institutions will establish trust and contribute towards economic development. In Darfur, this will entail the re-establishment of traditional market linkages that have been undermined by conflict and investing in new urban markets that have developed as a consequence of the conflict. Following the cessation of conflict in Darfur, some IDP's will likely return to their traditional villages, however a considerable portion of the IDP population will likely remain urban, given the duration of the conflict and the fact that new livelihoods will have been established in these urban centers. This will undoubtedly alter the urban demographics in the larger cities and provide opportunities for new markets. In Southern Sudan this will require the establishment of new markets and developing the associated market linkages.

A Medium-term vision for Industrial Development. In Southern Sudan this has never been undertaken and in Darfur this will be essential due to the changes in the structure of the markets and the considerable shift in population from rural to urban markets. Southern Sudan has enormous resources that can be exploited and developed however due to the government's limited fiscal space and industrial capacity, it will be essential to

[41] Young, et al, *Darfur: Livelihoods under Siege*. Tufts, 2005.

focus and prioritize key industries that present the largest potential. Targeting specific industries for investment-climate support – such as agro-industry (including food safety standards), forestry, minerals, fisheries, tourism and construction (including construction standards to make capacity building and construction more efficient) are all areas that can be considered in Southern Sudan. This is currently underway as part of the Southern Sudan PSD project funded out of the MDTF. In Darfur, revitalizing light industries that once served the region may be a starting point.

Establishing special economic zones (SEZ's) in which infrastructure, property rights and some risks are addressed can provide an opportunity to develop industrial clusters in Southern Sudan and in Darfur. The regional markets present substantial opportunities that are currently supplied by imports. Credit and political risk guarantees and risk-sharing instruments, plus an emphasis on reliable information to reduce the perception of risk and uncertainty will provide comfort to investors. This will however require an investment in skills and building capacity to increase productivity and manufacture goods for export.

Establish modalities for Private Participation in Infrastructure. Ensuring access to a basic level of infrastructure services and connectivity (mainly power and roads) to lagging areas is essential to support basic livelihoods, reduce costs and improve access to markets. The whole of Sudan has limited infrastructure, including road densities that are amongst the lowest in the world. Most regions throughout Sudan lack access to basic services and connectivity between regions. However infrastructure deficiencies in Southern Sudan and Darfur are more severe. This was historically the case and in Darfur, and has been exacerbated by conflict.

Improving Access to Finance. In Southern and Western Sudan, access to finance has been identified as a severe constraint in the investment climate survey. The constraints for financial intermediation in Sudan are reflected in weaknesses in the lending environment and supporting institutions such as collateral legislation and the judicial system, creditor rights and lack of reliable financial information and credit information infrastructure.[42] These affect small and medium enterprises more than large enterprises since micro, small and medium enterprises (MSMEs) often rely on unsecured and cash flow lending and rely on a lending environment that supports these modes of financing. Better protection of property rights and stronger institutions are necessary to increase the availability of financing for small-scale borrowers.

[42] See Chapter on Access to Finance

7 Regional Inclusion

7.1 Introduction

Among Sudan's most defining features are its vast scale and its diversity in eco-climatic, linguistic, ethnic, and economic terms. Understanding and responding to this diversity is an important task in an inclusive private sector strategy. Notwithstanding this diversity, private sector activity in Sudan is concentrated. There have historically been several areas of concentration of enterprise: Khartoum North, in which much of the manufacturing sector has been based, the Darfur states, where an industrial base developed to support agricultural activities, the Red Sea, particularly Port Sudan, which had at various times flourished not only as a logistics center because of the Port, but also in manufacturing such as textiles and tires, Kordofan, where a leather tanning and handicraft industry emerged, and the Gezira, linked to the irrigated agricultural project established in Sudan's colonial times, the Gezira Scheme.

Recent decades have seen a deepening of concentration such that many of the enterprise centers outside of Khartoum have declined, and the metropolitan area has become even more dominant as a center of manufacturing and services. As the World Development Report 2009 on Economic Geography has clearly described, the path of economic development followed by many countries has involved an increase in geographic concentration due to powerful economies of agglomeration. However, there are limits to the benefits of agglomeration. Infrastructure deficits are growing around Khartoum. Furthermore, a strategy that relied heavily on economies of agglomeration raises substantial political risks, and thereby risks undermining a central pillar of the investment climate – that of security and stability. Disparity in economic conditions and opportunity has been a cause of Sudan's three recent civil wars, as indicated by the positions of those who have taken up arms against the government. A lack of economic opportunity has been empirically linked to an increased likelihood of a resumption of conflict in conflict-affected countries (see Collier, Hoeffler and Söderbom 2007).

With this in mind, this Chapter discusses how the investment climate varies across regions of Sudan both in terms of the subjective assessments of enterprise managers and in selected objective indicators. It starts by looking at the level of industrial sector performance in each state and continues to compare selected investment climate indicators across these states using the 2007/8 Investment Climate Survey (ICS) data. It uses this information to suggest some recommendations for a more inclusive private sector strategy.

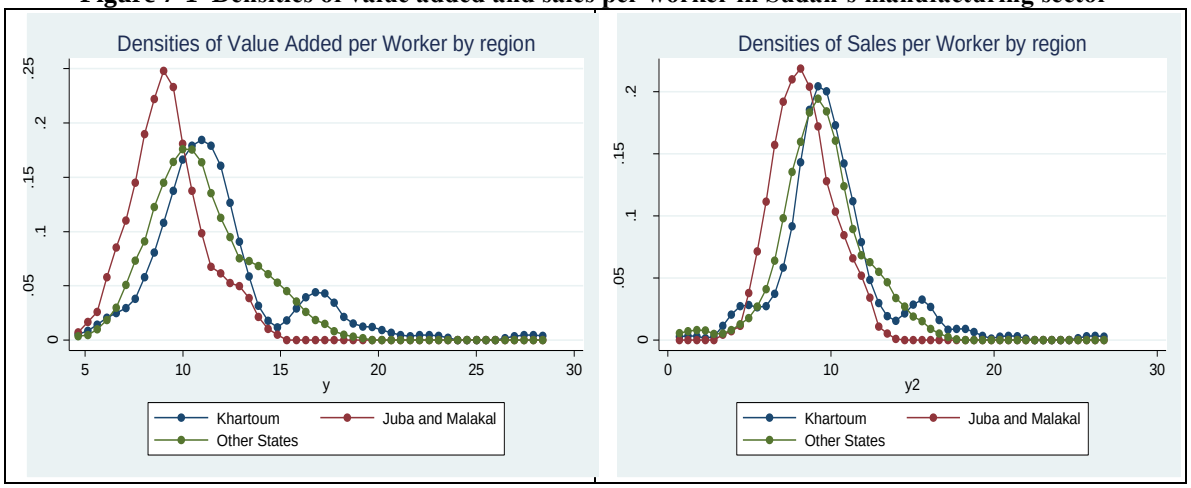
7.2 Regional Differences in Firm Performance

7.2.1 Differences in labor productivity by region

Businesses in Juba, Malakal, and Red Sea have lower value added per worker than Khartoum and other states. This can be due to a number of positive factors in the larger

cities such as capital intensity, access to markets (for inputs and products), better infrastructure facilities, as well as better access to technology. Same is true in terms of other possible performance indicators – for example, average annual growth rates of total sales revenue and employment during the three years period between the years 2002 and 2005 (see annex). The following chart shows the kernel density distribution for value added and sales per worker in Sudan by geographic location. In both cases, establishments in Khartoum perform better than those in southern Sudan and other states.

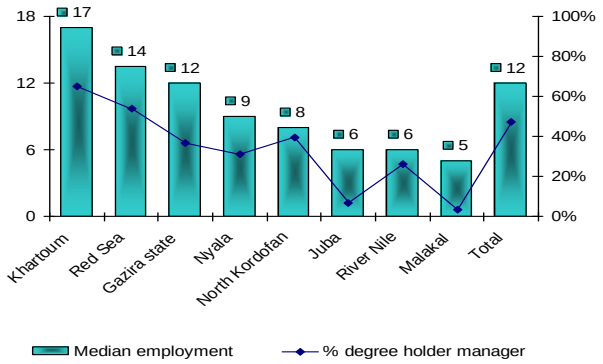
Figure 7-1 Densities of value added and sales per worker in Sudan's manufacturing sector



Source: Sudan PICS 2008

Khartoum and Red Sea have respectively 17 and 14 median number of workers compared, for example, with just six in Juba and five in Malakal; and more than half of the enterprises in Khartoum and Red Sea have managers with university level training compared with just less than 5% in Juba and Malakal in the south.

Figure 7-2 Median employment level and % of managers with university degree by region

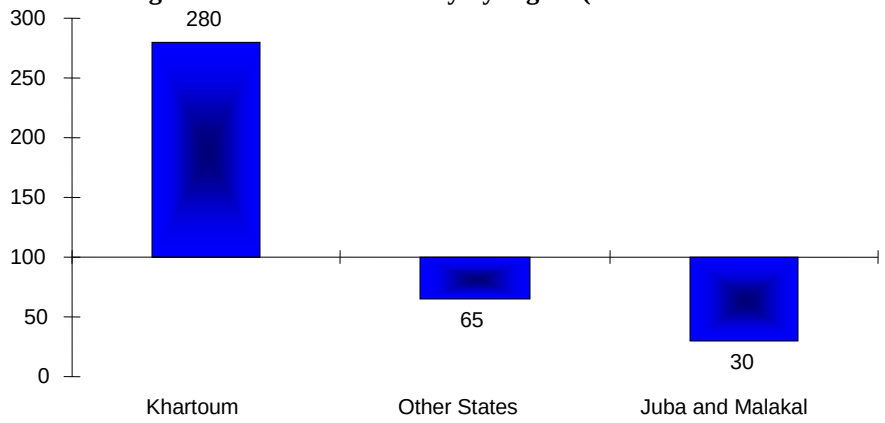


Source: Sudan PICS 2008

7.2.2 Differences in Capital intensity

The same is true in terms of capital intensity (measured as the average book value of machinery and equipments). We see that enterprises in Juba and Malakal in the south on average are just 30 percent as capital intensive as those in Khartoum; and enterprises located in other states are just 65 percent as capital intensive as those in Khartoum.

Figure 7-3 Average book value of machinery by region (as % of the national average)



Source: Sudan PICS

7.3 Regional variations in Perception Indicators

The subjective ratings of business obstacles and priorities of reform vary by region, as the needs of private sector agents in some regions within Sudan are significantly different from the general picture.

- **Political instability,** despite the fact that it is rated as a major to severe business obstacle by the majority (68%) of respondents in Sudan as a whole, it is in fact mainly a concern for businessmen in Nyala and North Kordofan states – where it was identified as major to severe constraint by a little less than 90% of the respondents in each of the two regions. On the other hand, it is not cited as a major concern by the majority of businesses operating in Juba and Malakal states -- both located in the Southern Sudan;
- **Infrastructure** concerns establishments in Southern states of Juba, and Malakal and Nyala in the west. For businesses in Malakal, all infrastructure related constraints such as electricity, telephone and transportation are listed as major to severe obstacles by 100%, 88% and 75% of the respondents respectively.
- **Corruption i**s cited as major to severe business obstacle to business performance and growth by the majority of respondents in Northern Kordofan and Red Sea.
- **Access and cost of finance** are identified as among the major constraints in Nyala and Juba, with about 75% of respondents rating them as major to severe business obstacles. Specifically, access to finance and cost of financing were identified as

major to severe constraints in Juba respectively by 77% and 74% respondents; while cost of finance was identified so by 75% of the respondents.

Table 7-1 Major perceived business obstacles in the manufacturing sector in Sudan by state

State	Ranking of business obstacle & % respondents complained			
	1	2	3	4
Khartoum	Macro-conditions (67%)	Political Instab (66%)	Electricity (64%)	Corruption (64%)
Gezira	Macro-conditions (70%)	Political Instab (70%)	Tax Rates (68%)	Econ Policy Uncertainty (65%)
Red Sea	Corruption (81%)	Electricity (73%)	Political Instability (73%)	Econ Policy Uncertainty(65%)
North Kordofan	Political Instability (87%)	Corruption (84%)	Macro-conditions (82%)	Econ Policy Uncert. (82%)
Juba	Electricity (87%)	Acc to Finance (77%)	Corruption (74%)	Cost of Finance (74%)
River Nile	Econ Policy Uncert. (74%)	Tax Rates (68%)	Tax Admin. (58%)	Corruption (53%)
Nyala	Electricity (100%)	Political Instab (88%)	Cost of Finance (75%)	Crime/Theft (68%)
Malakal	Electricity (100%)	Telecomm (88%)	Transport (75%)	Customs (68%)
All Sudan manufacturing	Political Instab (68%)	Corruption (68%)	Macro-conditions (65%)	Econ Policy Uncert. (65%)
All Sudan Services	Political Instab (68%)	Corruption (67%)	Econ Policy Uncert. (56%)	Macro-conditions (55%)

Source: Sudan PICS 2008

Based on the percentage of respondents to each of the business constraints in each state as shown above, one can see that the priority areas of reform for entrepreneurs and business managers are different from one state to another. The comparison of objective indicators at the outset has also shown that enterprises in the lagging states have different sets of constraints than the relatively developed and bigger cities. A closer look at the major business environment issues identified so far therefore follows.

7.4 Regional Differences in Investment Climate

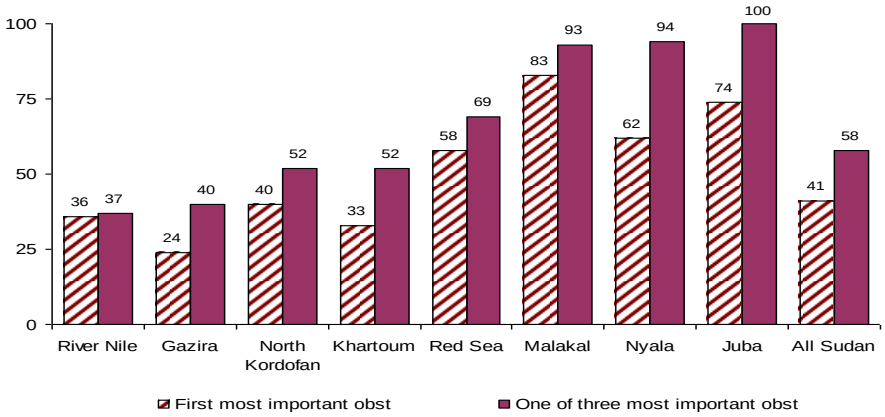
7.4.1 Regional Differences in Infrastructure

Electricity, transportation and telecommunications are cited by a significant majority as serious concerns in South Sudan cities, Malakal and Juba, as well as Nyala in the west. It is worth mentioning here that the Sudan PICS survey instrument also asked respondents to identify the three biggest problems in order of severity that constrain their business. Results show that in ALL states, the vast majority of respondents identified electricity as the first most important business obstacle. For the whole of the manufacturing sector in Sudan, about 42% of respondents identified power as their first most important business obstacle. A closer look at the results by region show that 83 percent and 74 percent

respectively of respondents in Malakal and Juba (both in the south) identified power as their first most important obstacle.

Electricity. The preceding results suggest that power supply is not sufficiently available in most of the regions in Sudan. As a result, most Sudanese businesses own or share generators to cope with the erratic and unreliable power supply, and they get a significant share of their energy consumption from electricity produced by these generators. Generally, a significant share of manufacturing enterprises in Sudan (from 36% in North Kordofan and 96% in Red Sea) share or own generators. There is also a significant dependence on generators as a source of electric power. Power from owned/shared generators contributes an average 29% of total power consumption in Khartoum and as high as 93% in Juba.

Figure 7-4 Establishments who identified electricity as most important obstacle (%)

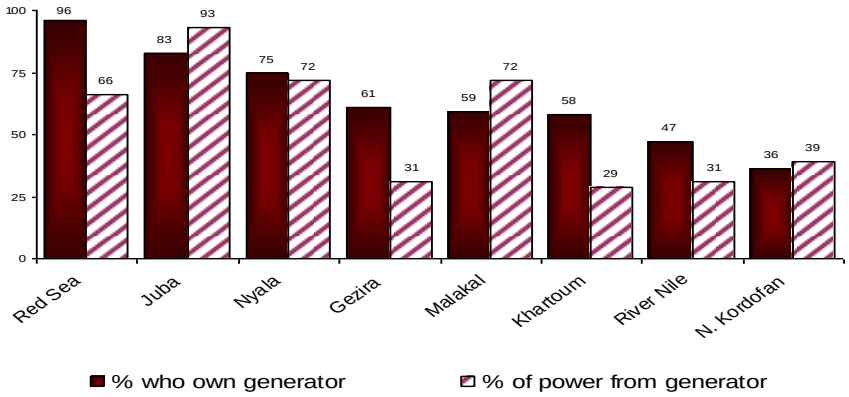


Source: Sudan PICS 2008

The survey data shows that for companies that owned or shared generators, the cost of electricity as a percent of sales is higher than those without generators. However, they also have less interruptions of production and therefore loss of output due to outages is lower. Generator ownership is the highest in Red Sea, Juba and Nyala where about 96%, 83% and 75% of respondents reported to own or share generators. The shares of electricity consumption produced by generators in these states respectively were 66%, 93% and 72%. Such a high share of electricity from generators increases firms' cost of production and reduces their international competitiveness. The investment on purchasing the generators also holds up a significant amount of resources that otherwise could have been used for other investment on fixed assets or to lower the working capital constraints of most of these businesses.

There are also variations in perceptions of infrastructure constraints as major business obstacles: Power, for example, has been identified as a major to severe business obstacle by 100% of respondents in Nyala and Malakal and by 87% in Juba. Similarly, Telecom has been identified as major to severe business obstacle by 88% of respondents in Malakal, 50% in Nyala and 35% in Juba.

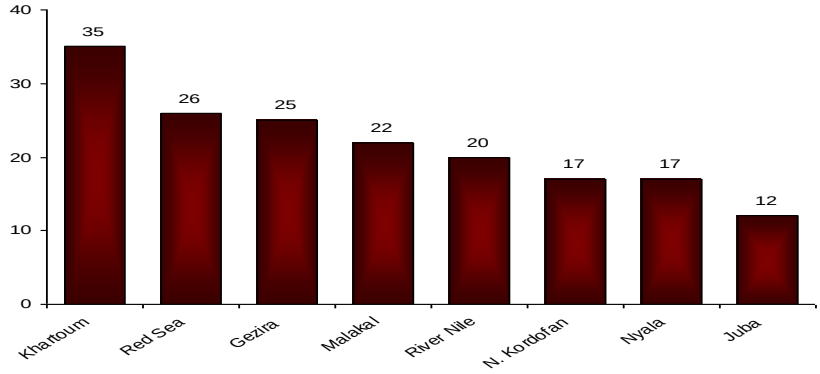
Figure 7-5 Reliance on Generators



Source: Sudan PICS

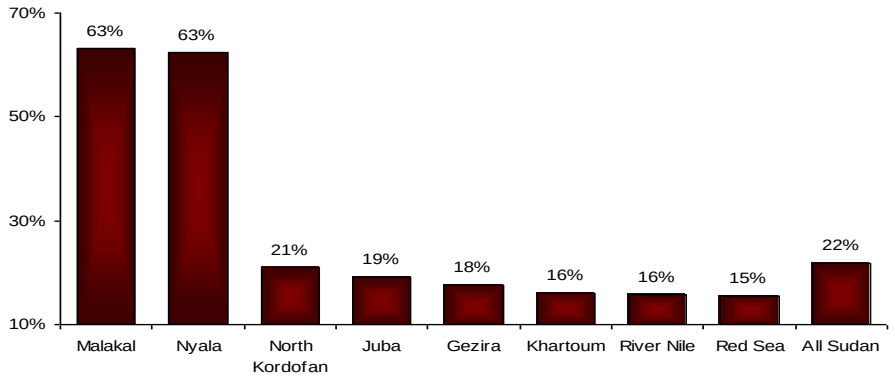
Access to and cost of transport Sudan's transportation facilities and networks are heavily concentrated in the North. The networks consist of about 2,748-miless of single-track railroad with a feeder line, supplemented by limited river steamers, about 1,200 miles of paved and gravel road--primarily in greater Khartoum and Port Sudan. In addition, some north-south roads that serve the oil fields of central/southern Sudan have been built, including an 840 miles oil pipeline that goes from the oil fields via the Nuba Mountains and Khartoum to the oil export terminal in Port Sudan on the Red Sea. The transport facilities and networks in Sudan in general, and in the South in particular are not sufficiently developed yet.

Figure 7-6 Share of own transport used (%)



A significant number of establishments therefore use their own transport facilities. The average share of own-transport use ranges from 35% of the total value of production related transport activities within the country in Khartoum to 17% each in North Kordofan and Nyala, to 12% in Juba; and the average for the whole sample is about 28%. The other states with high relative share of own-transport use are Red Sea (with 26%) and Gezira (with 25%). While the percentage of firms who rated transportation as a major to severe obstacle is about 22% for the whole sample, it is a serious concern for businessmen in Malakal and Nyala where more than 60% of respondents in each state rated it is a major to severe business obstacle.

Figure 7-7 Transportation as major business obstacles (% of firms complained)

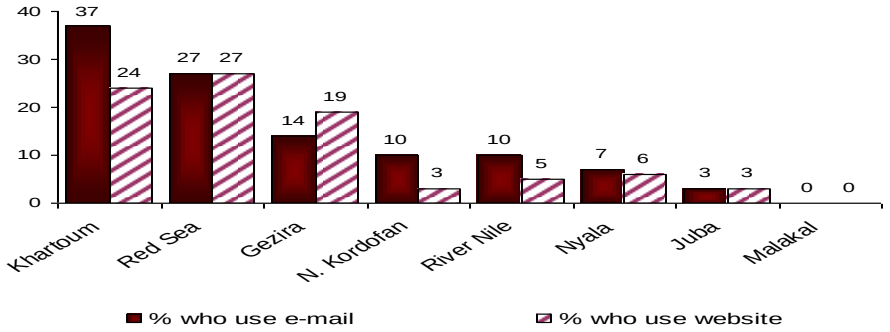


Source: Sudan PICS

The high rates of negative perceptions about the infrastructure deficit in the Sudan are also reflected in the fact that it costs businesses a lot in their day to day activities. According to the PICS data, transport and infrastructure related expenditures are among the major cost components in the Sudanese industrial sector. For example, about 19% and 16% of the total cost of production in the food and beverage producing sector is spent on electricity and transport respectively.

Communications. Use of modern communication technology is also very low in Sudan in general, mainly due to non-existent or under developed telephone infrastructure and networks. Most of the Southern states are the hardest hit in this case.

Figure 7-8 Use of modern communication by State (% of users)



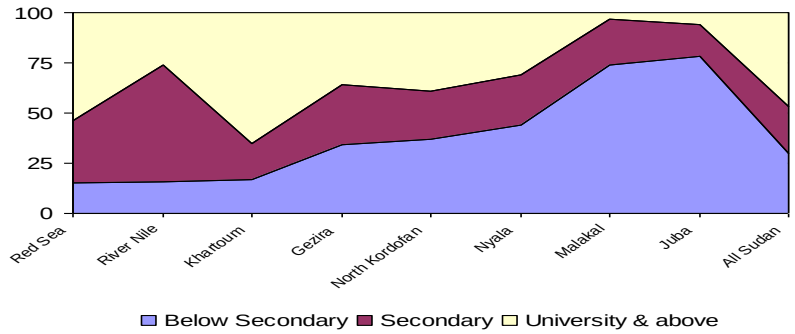
Source: Sudan PICS 2008

Very few establishments in the southern states use e-mail or websites to communicate with their clients and suppliers. Only 3 percent of establishments in North Kordofan and Juba reported to have used e-mail or websites, while 5 percent and 6 percent respectively of establishments in River Nile and Nyala reported so. Only Khartoum and Red Sea are states where close to a quarter of businesses reported to have access to e-mail and websites.

7.4.2 Regional Differences in Managerial Education and Worker Skills

The importance of general and managerial human capital for establishment growth has been confirmed by a number of studies (Kim and Kim, 2000; Lee and Lim 2001; Lee and Temesgen, 2008). Unavailability or shortage of such factors in some states would be growth constraining in those states.

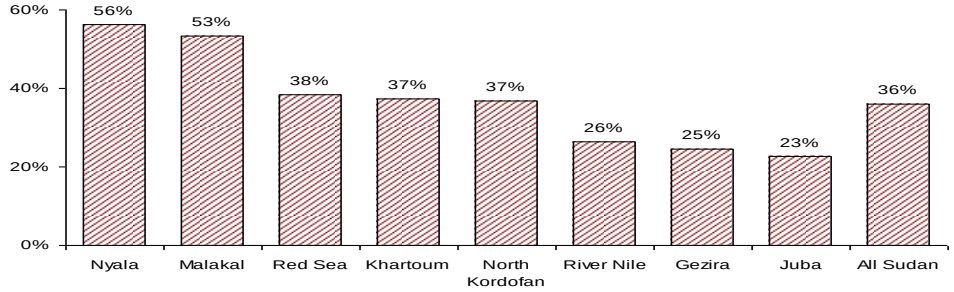
Figure 7-9 Education Level of Workers



Source: Sudan PICS 2008

Another crucial component of productivity, non-managerial skilled human capital, is also lacking in some states, particularly those in the south. Lack of skilled manpower was cited as a serious business obstacle by close to 40 percent of respondents to the PICS manufacturing survey throughout the whole of Sudan. However, the labor skills related constraints are more pronounced in two states – Malakal and Nyala, where 53 percent and 56 percent of respondents cited it as major to severe business constraints. The majority of Sudanese educated labor force is concentrated in the capital and other large cities. Similarly, the entrepreneurship skill gap is also enormous from one region (state) to another as indicated by the share of business managers with university degrees.

Figure 7-10 Unavailability of Skilled Workers as a major to severe obstacle (% complained)



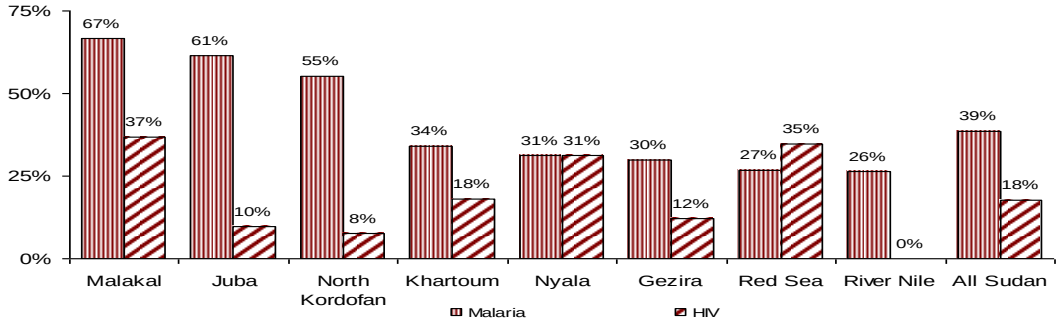
Source: Sudan PICS 2008

Work time lost to health problems is high and varies by region. Malakal, Juba and North Kordofan are significantly impacted by Malaria, while Malakal, Red Sea and Darfur are affected by HIV/AIDS. The survey asked respondents if they have experienced significant absenteeism due to sickness of workers during the last 30 days prior o the survey. Close to 34% replied positively. The survey also asked more specific questions: whether they have had significant worker absenteeism due specifically to malaria or HIV/AIDS. The responses were quite disturbing. Close to 40% reported that

their establishment has been affected by workers' absenteeism due to malaria, and close to 18% reported to have been affected by workers' absenteeism due to HIV/AIDS.

Absenteeism due to malaria is the highest in Malakal, Juba and North Kordofan where 67%, 61% and 55% of the respective respondents reported to have been affected; while the effects of HIV/AIDS was the highest in Malakal, Red Sea and Nyala where it was reported by 37%, 35% and 31% of respondents.

Figure 7-11 Workers' Absenteeism due to malaria and HIV/AIDS (% concerned)



Source: Sudan PICS 2008

Given these differences in performance enhancing endowments in bigger cities, one way of benefiting the lagging areas from such an opportunity in bigger cities such as Khartoum would be to "reduce their distance to economic opportunities" (World Bank, WDR 2009). This can be done by improving infrastructure, utility connection and other business support services linking the 'central' big cities with the lagging rest. According to the WDR 2009, there is a benefit to reap by surrounding locations from an increased access to 'big cities, mobile people and connected countries'.

A high level of investment on infrastructure for linking the different regions in the country would create an opportunity for improved factor mobility and allow more regions to benefit from economic density, and for specializations of each region in an area of service or product that is more efficient depending on its resource endowments. Such specializations in turn would increase the possibility of scale economies and cost savings, and also create the need for more integration among the regions within the country. This is consistent with the WDR 2009's general recommendation that "in places urbanizing rapidly, governments must put in place, in addition to institutions, connective infrastructure so that the benefits of rising economic density are more widely shared."

7.4.3 Regional Differences in Access to Finance

Access to finance is generally limited in Sudan. But this more evident in some states than in others. The major source of working capital for businesses in Sudan is internal funds/retained earnings with an average share of 66%. Borrowing from banks contributed only about 8.5% of working capital, compared with other non-bank and informal sources of financing that contribute a total of about 22.7%. Out of this, an average of about 3% and 2% of total working capital was financed respectively by borrowings from

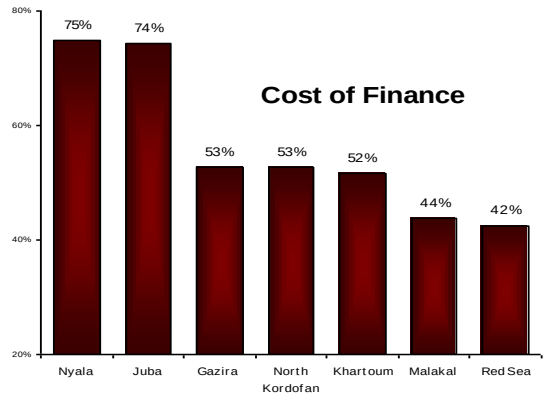
family/friends and purchases on credit from suppliers or advance receipts from customers. Same is true about fixed assets: 71% of purchases of fixed assets were financed by internal funds/retained earnings; while only about 10% was financed from bank borrowings. Access to bank financing for working capital and purchase of fixed assets is worse in the Southern states of Malakal and Juba states.

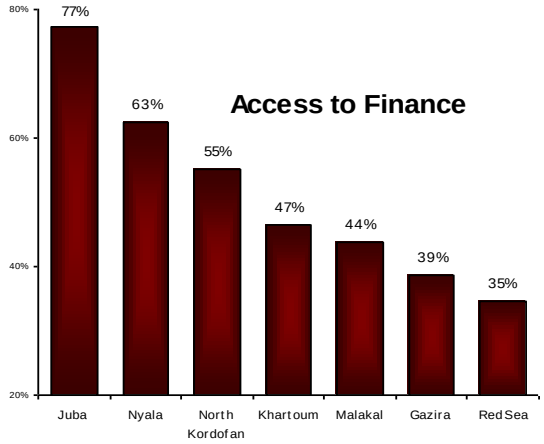
Table 7-2 Access to Finance – Regional Differences

	Khartoum		Malakal		Juba	
Source of financing	Working capital	Inv in Fixed Assets	Working capital	Inv in Fixed Assets	Working capital	Inv in Fixed Assets
Internal Funds/Ret. Earng	65.2	69.7	72.0	50.0	48.4	64.3
New equity/Share	..	0.0	..	0.0	..	0.0
Priv. commercial banks	8.5	10.3	0.0	12.5	0.0	0.0
Govt banks/agencies	1.2	0.5	0.0	0.0	3.2	0.0
Family/friends	3.4	2.8	9.0	16.3	0.0	0.0
Non-bank inst	1.1	1.3	0.0	0.0	0.0	0.0
Credit purchases	8.6	3.0	4.0	0.0	0.0	0.0
Customer Advances	1.3	0.0	11.8	6.3	0.0	0.0
Informal Lander	0.5	1.7	0.1	2.5	0.0	0.0
Other	9.3	9.8	2.5	0.0	48.4	35.7

Source: Sudan PICS 2008

Figure 7-12 Cost and Access to Finance

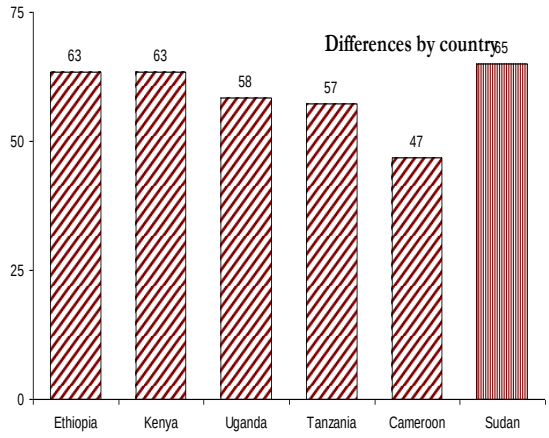


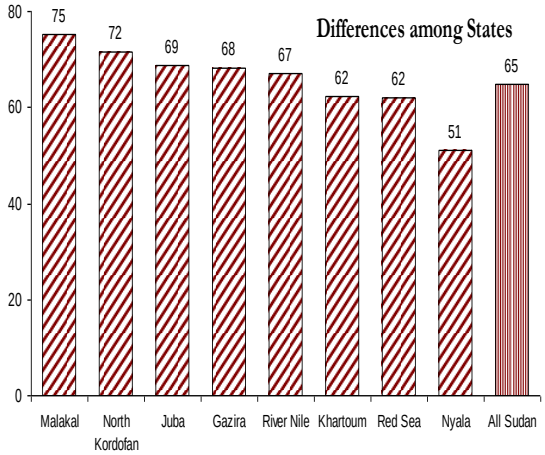


Source: Sudan ICS-1

Limited access to finance has also contributed to under utilization of capacity. The effect of constrained access to finance is also reflected on the rate of capacity utilization rate. Capacity utilization in Sudan is in line with what one observes in other African countries, but in some states it is extremely high due to varying factors. Establishments cited lack of working capital and low level of demand for their products as among the main reasons for the low level of capacity utilization.

Figure 7-13 Capacity Utilization Rates (%)





Source: Sudan PICS 2008

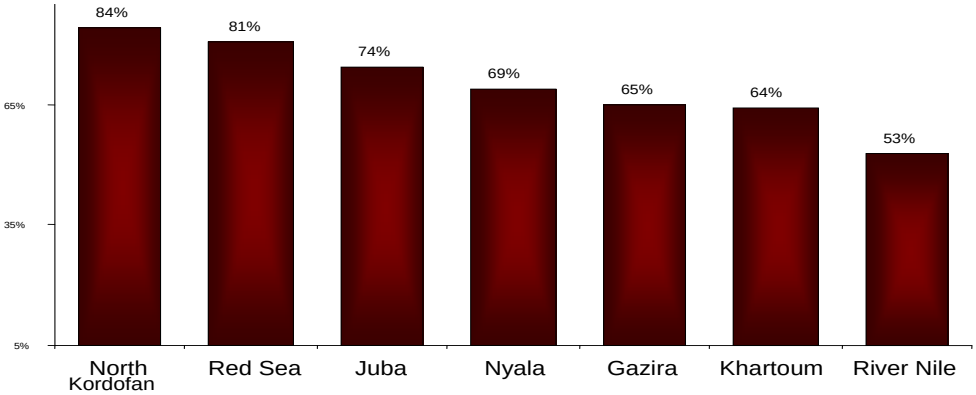
These two major factors were identified as the most important reasons for low capacity utilization respectively by 20 and 24% of respondents for the whole manufacturing sector. However, the effect of lack of working capital on the level of capacity utilization is perceived to be very high in Malakal, North Kordofan, Nyala and Juba; while the effect of insufficient demand is perceived to be relatively very high in River Nile, Red Sea, Khartoum ad Gezira states.

Therefore, policies that help accelerate growth and thus improve demand and policies that improve access to regions and areas beyond the specific location of establishments and improve market access/expand markets would lead to better rates of capacity utilization in regions such as Gezira, River Nile, Khartoum and Red Sea. On the other hand, improved access to finance, particularly short term working capital would help improve the rate of capacity utilization in Malakal, North Kordofan and Juba. .

7.4.4 Governance and Tax Evasion

Complaints about corruption, informal sector activities and practices such as under-reporting of sales and workers for tax purposes are generally high; and they vary significantly among the states/regions.

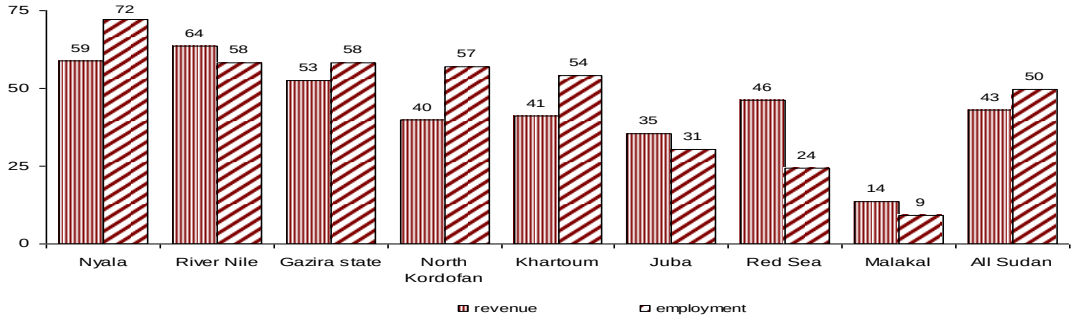
Figure 7-14 Perception of Corruption as a major constraint (% complained)



Source: Sudan PICS

There is also a large informal sector or informal activities in Sudan such as under-reporting of sales and employment figures for tax purposes. Businesses in general report about 50 percent of their employees, and less than half of their revenues. The under-reporting is more serious in Malakal, Red Sea and Juba where businesses are claimed to have reported only an average of 9%, 24% and 31% of their employment levels respectively. Businesses in Malakal and Juba also claimed that they reported an average of 14 percent and 35 percent respectively of their revenues.

Figure 7-15 Average reported levels of revenue and employment



Source: Sudan PICS

7.5 Establishments' expectations and operational plan

Expectations about the future are generally optimistic. Close to two-thirds of respondents reported to have expectations for increased sales over the next years. There are, however, also variations in terms of expectations and plans about the future among states – mainly due to differences in terms of the perceptions and overall regional investment climate.

Table 7-3 Expectations about the future:

State/plans	To Cease operations	To reduce sales	To increase sales
All Sudan	8	26	53
Khartoum	11	28	49
Gezira	5	38	44
Red Sea	8	21	39
North Kordofan	8	42	34
Juba	0	6	90
River Nile	10	21	68
Nyala	12	13	62
Malakal	0	10	89

Source: Sudan PICS

7.6 Conclusions

Due to history, conflict, resource endowments and geography, Sudan's different states/regions have significantly different business climates, and therefore differences in the performance of establishments. Identifying the reasons for relatively low business enterprise performance in each of the lagging states, and coming up with appropriate reforms would undoubtedly reduce regional disparities, spur overall economic growth and help reduce poverty in Sudan.

Northern Sudan.

The analysis also shows that political instability, governance and infrastructure issues are the major concerns of businessmen in Sudan. However, macroeconomic conditions and political instability are more of concerns to businesses in Khartoum, North Kordofan and Gezira. Achieving political stability therefore is a very critical factor needed to improve the overall business environment in Sudan, particularly in the Northern areas; while access to infrastructure and finance in the Southern States should be the priority.

- **Political Stability.** Major issues are rather related to low levels of business confidence due to perceived political instability. Working towards a lasting peace therefore is the most important priority for the North together with improving governance and tax administration issues.

- **Connectivity. P**olicies that improve access to regions and areas beyond the specific location of enterprises and that improve market access/expand markets would lead to better rates of capacity utilization in regions such as Gezira, River Nile, Khartoum and Red Sea.

- Corruption is cited as a major to severe business obstacle to business performance and growth by the majority of respondents in Northern Kordofan and Red Sea.

Southern Sudan

Establishments in the South generally have lower levels of productivity. This is partly due to the fact that firms in the South have lower capital investments and skilled human capital, and have lower access to infrastructure and other business support services.

- **Infrastructure:** In southern Sudan, infrastructure bottlenecks are worse; and this is a reflection of the fact that as a result of the war, destruction of the infrastructure facilities in the region was severe, and not much reconstruction has been done. Investment in infrastructure, particularly for Southern Sudan, to rehabilitate the road networks, power plants and communication infrastructure should be a priority.

- **A large skills gap relative to other regions** suggests a need to invest in improving both the availability and quality of education, and vocational training facilities, together with re-visiting the current curriculum.

- **Improved access to finance** access and cost of finance has been identified as a major constraint throughout Sudan particularly short term working capital. However improved access to finance would help raise the rate of capacity utilization in Malakal and Juba, along with North Kordofan. Moreover, we also see that access to and cost of finance are identified as major to severe constraints to performance and growth by the majority of businesses in Nyala and Juba than anywhere else in Sudan.

- **Health.** Malaria is a major source of lost time for workers in Malakal and Juba. HIV/AIDS is a major source of lost time for workers in Malakal, Nyala and Port Sudan.

8 Conclusions and Recommendations

8.1 A Credible Commitment

For decades Sudan's policymakers have expressed a vision in which broad-based growth of the private sector is central to Sudan's development, but implemented policies that undermined this vision. The enterprise sector in Sudan emerges from a deep historical legacy of state participation in many forms. Colonial administrators largely saw Sudan as a base for production of cotton for its textile industry in Lancashire; the state was basically an enterprise. At Independence, British colonial administrators turned over control of the economic apparatus supporting production and supply of cotton and other commodities to the government; these became parastatals which were at the center of economic planning. In the 1960s, the public sector contributed more to capital formation than the private sector, and the state continued to lead the economy.[43] In the 1970s, along with Egypt, Sudan first nationalized enterprises, then issued its "Infitah" policy welcoming foreign investment, but maintained the state's dominance in ownership, price setting, industrial policy, and costly attempts at state-led agriculture. In the 1980s, the private sector was called upon to create urban employment to ameliorate the impact of rural-urban migration[44] resulting from desertification and drought but the state did not invest in the infrastructure, institutions and reforms required to do so. By this time, the legacy of past policy mistakes were a core part of Sudan's chronic fiscal deficits.

This decade, the Government revived the vision, but only started the necessary underlying reforms. The Government has articulated a twenty-five year strategy (2002-2027) focused on restructuring the Sudanese economy with a major emphasis on agriculture and industry with special attention to small- and medium-scale industries.[45] The 2005 Joint Assessment Mission emerged with an emphasis on the Productive Sector (the private sector and agriculture) which proposed initiatives both at the policy and institutional level to improve the investment climate, and actions to catalyze specific value chains.[46] More recently the Government of National Unity issued a Five-Year Plan (2007-2011) which seeks: "Sustainable development through building the infrastructure, modernizing and developing agriculture, increase production and productivity, enabling the private sector to guide the economic development and building an economy of equitable supply of basic services..." Private sector development is a constitutional objective for the Government of Southern Sudan. Paragraph 40 (2) of the Interim Constitution commits all levels of government to "an efficient and self-reliant economy and encouraging free market and prohibition of monopoly" and "the development of the private sector, particularly indigenous entrepreneurs to establish and develop a viable

[43] *Development Planning in Sudan in the 1960s*, Ali, Khartoum University Press.
[44] *Sudan Country Development Strategy Statement*, USAID Sudan, January 1980.
[45] *An Industrial Agenda for Poverty Relief and Transition to Sustainable Development.* UNIDO, 2003
[46] *Joint Assessment Mission Sudan: Volume III, Chapter 4, Productive Sectors*, GOS, SPLM, WB, UNDP. March 2005

private sector capable of participating effectively in reconstruction and development of Southern Sudan."

These statements leave no doubt that the government understands that the enterprise sector, and the private sector in particular, is key to sustainable poverty reduction, to converting Sudan's natural resources and human capital to productive livelihoods which are the backbone of development and peace. But that the vision needs to be restated again and again reminds us that the agenda remains, after decades, one to be undertaken -- rather than one to be completed.

What remains is to create an investment environment consistent with the vision. The current government has made respectable progress in creating macroeconomic stability, addressing the dominance of state firms (in telecommunications, the dominance of one state carrier has been replaced by five competing entities), and dealing with some of the infrastructure deficits. But the investment climate today is marked more by the instability of oil revenues and therefore budgets, the persistence of administrative barriers, poor performance of the financial sector, and a weak institutional environment that does not facilitate trading between firms. The Government wants to promote the private sector, but the public sector grows to 40% of GDP and crowds out lending to the private sector.

The Resource Curse is no longer a risk – it underway. The question is what Sudan, at the national level, and especially Southern Sudan, will do to change it. International experience, particularly in countries with weak institutions, suggests that resource-rich economies are less able to provide productive employment through manufacturing and agriculture. It also suggests that diversification into manufacturing is important because of the learning and skill upgrading potential it provides. The survey has made clear that the reverse has been true – Sudan is experiencing de-industrialization and limited diversification due to effects of Dutch Disease.[47]

This limits the role of the private sector in delivering broad-based growth and a peace dividend in conflict-affected areas. The literature suggests that narrow, undiversified economies are more likely to experience conflict (Collier, Hoeffler and Soderbom 2007). The history of Sudan suggests that a lack of economic opportunity, particularly in distant regions that have less access to the dynamic urban center, contributes to conflict. Sudan's current and future challenges – to address conflict and environmental degradation – will not be achieved without the private sector. The private sector cannot create peace, but by creating jobs, can certainly help tip the odds in favor of a lasting peace. The private sector cannot change Sudan's environmental risks, but can mitigate or exacerbate them.

The Sudan has tremendous economic potential, as the 2005-2006 performance indicated. As the global economy emerges from crisis and oil prices rise, Sudan will again face a window of opportunity. But this window will also close, as the higher prices

[47] The political developments observed in resource-rich economies – particularly patronage politics driven by resource rents –would also seem to go against the principles of the CPA – decentralization of authority.

will be followed by a decline. There are indications that the country's oil production may soon peak. How will Sudan leverage this opportunity?

The report suggests a private sector strategy with three key goals: raising productivity and competitiveness, economic diversification and inclusion. Productivity is foundation for growth; diversification to avoid the job losses and risk of Dutch disease and inclusion to make enterprise development pro-poor and pro-peace.

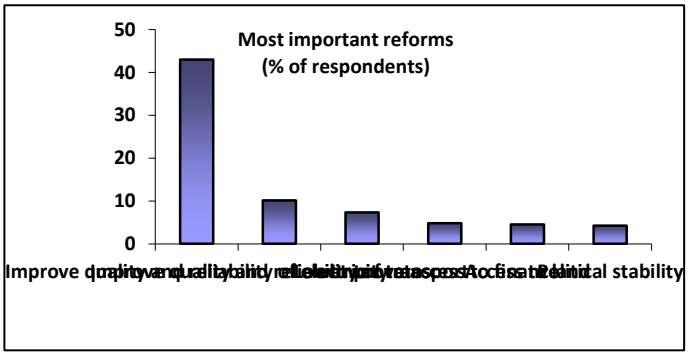
8.2 Remove Obstacles to Productivity Growth

To raise aggregate productivity, the Sudan can either (a) raise firm-level productivity or (b) improve the allocation of resources across firms so that the most productive firms will gain a greater share of resources and constitute more of the economy. The study used three forms of analysis. The regression analysis looked for evidence that specific problems were associated with lower productivity at the firm level. An analysis of allocative efficiency (Olley and Pakes 1996) focused on market shares of productive and less productive firms to see whether markets were working to allocate resources to more productive forms. An analysis of business perceptions would also validate or repudiate the results of the regression analysis.

The regression analysis pointed to infrastructure, finance and taxation as the key obstacles to productivity growth. This is not to say that such factors as skills / human resources are not obstacles, but that they are less urgent on average, to the sample.

The perception data shows that political instability, governance and infrastructure issues are generally the major concerns of businessmen in Sudan. However, macroeconomic conditions and political instability are more of concerns to businesses in Khartoum, North Kordofan and Gezira; while infrastructure issues such as electricity are concerns of establishments in the Southern cities of Juba, Nyala and Malakal. Corruption is cited as a major to severe business obstacle in Northern Kordofan, Red Sea and Juba. Moreover, we also see that access to and cost of finance are identified as major to severe constraints to performance and growth by the majority of businesses in Nyala and Juba than anywhere else in Sudan.

Figure 8-1 Most important Reforms Cited by Respondents



When asked what the most important reforms are for private sector growth, managers list the issues that appear in regression data: improving electricity, transport, taxation and access to finance as the key reforms.

The allocative efficiency analysis suggests poor functioning of markets allocating resources in the economy. It is clear that for the majority of sectors, the mechanisms for allocating

resources in the economy – the market, competition for the business created by the state through procurement, financial markets, and land markets – is not functioning effectively. Existing efforts to establish competition policy should be revived.

8.2.1 Infrastructure.

Ensuring access to a basic level of infrastructure services and connectivity to lagging areas is essential to support basic livelihoods, reduce costs and improve access to markets. The Government has focused on infrastructure provision, and many service delivery indicators have doubled over the past eight years. But the problem remains acute, particularly in conflict-affected areas. The whole of Sudan has limited infrastructure, including road densities that are amongst the lowest in the world. This includes basic infrastructure such as water supply and sanitation which impact health and livelihoods, intercity and rural roads, electricity, rail and barge transport –virtually any subsector except telecommunications.

At the national level, the agenda requires a major effort on rehabilitation and renewal, a reduction of role of state in key aspects of delivery by unbundling and opening sub-sectors of delivery chain to private sector (rail, electricity), target subsidies to poor rather than throughout system. The Merowe Dam, once fully operational, will increase the supply of electricity to the Sudanese grid. While the environmental and social aspects are beyond the scope of this report, it is certainly clear that the availability of electricity was a serious obstacle throughout the country at the time of the survey. Stable, reliable, and low-cost power will help create jobs and will eliminate the requirement to own and operate a generator – which affects 60% of Sudanese enterprises.

Private Participation in infrastructure. Investments in infrastructure in the whole of Sudan will require substantial outlays that are beyond the capacity of the Federal Government and the Government of Southern Sudan. Direct participation of the private sector in infrastructure development through public private partnership (PPP) in construction and operation is one option that could improve both access and efficiency of infrastructure. Credit enhancements and political risk guarantees can complement these PPP structures to mitigate associated payments risks. However in order to be viable, this will require a proper regulatory and institutional framework for PPPs and a legal framework that protects the rights of private investors investing in infrastructure in Sudan. The 2006 Assessment of Institutional Capacity for Private Participation in Infrastructure provides five useful steps.

- **Establish a PPP Unit in GNU and GOSS,** with a mandate of providing value for money through competition and to coordinate a cross-ministerial process of establishing public-private partnerships,
- **Clear legislation and implementing regulations** on PPP which protects property rights and requires that the terms of all PPP contracts be competitively tendered and publicly disclosed.
- **Undertake reform of the electricity sector** to encourage competition, particularly where NEC is not present, and to allow tariffs to be set by the

providers. For Southern Sudan in particular, the study recommends very low entry barriers to allow private participation to flourish. In industrial zones, tariffs can be borne by zone operators, allowing public investment to focus on non-commercial users.

- **Focus on small-scale renewable energy**. Much of Sudan's electric grid remains to be developed in conflict and non-conflict regions. The Sudan should encourage private-led solutions such as off-grid solar power, small and micro hydro power.
- **Pursue off-grid solutions.** In the west, and peri-urban areas where electricity grids do not exist, off-grid solutions should be pursued. In the South, PPPs are most relevant for industrial zones, market institutions, and small hydroelectric, water and waste-water treatment.

8.2.2 Role of the State and Regulation

Provide a clear role for the state. The Sudan should not repeat the mistakes of the past, in which the state acting directly or indirectly through government-sponsored private enterprises to realize economic goals. The analysis suggests that it is more important for the state to focus on the instruments of public policy: public investment, policies, institutions and incentives in order to catalyze a response by the private sector that will in turn address the long-term development challenges.

Deal with the most obvious conflicts of interest. A number of state-linked institutions, including party-owned firms, firms owned by officials or indirectly by government appeared to raise concerns in focus groups. To the extent that growth depends on the most productive firms, rather than politically-connected firms, winning in competition, this type of distortion can be very harmful in the long run.

Change the culture of administrative control which creates overlapping and complex compliance requirements. The Presidency is typically the authority which issues the most important regulations, but the combination of orders, decrees and regulations, mixed with previously issued ones, may create overlaps with other Ministries unless arbitrated by Cabinet. This creates a logjam at the Cabinet level and confusion and frustration for the private sector and potential foreign investors. Accelerate Implementation of Administrative Barriers Program. Administrative barriers not only involve significant costs on their own, they also consume 18% of the time of managers, adding to the high cost of doing business. This is truly low-hanging fruit, in that the barriers have been identified and agreed, but not implemented.

Invest in the legitimacy of laws and empower the private sector. Moving to legislative oversight by the National Assembly and legislative development based on hearings and stakeholder input will increase increased legitimacy of law. As laws become more important, this will help limit administrative discretion so as to provide increasing clarity and predictability to the private sector as to how the rules will be applied to firms. The Public-Private Forum can be an important venue for developing legislative proposals.

Box 3 Political Transition and Reform

Chile's political transition offers some insights for Sudan. Chile's military took power amidst a deep economic crisis, and a highly regulated economy marked by state ownership and control. The government focused on structural changes designed to deregulate and open the economy while establishing macroeconomic stability. The reforms did increase growth, but were less focused on equity and had narrow benefits.

The smooth transition back to democracy had the effect of making the reforms more widespread, laws more legitimate, and introducing a greater focuses on equity considerations. The level of discretion afforded to government is limited by a modernized rules-based legislative process. Presidential Commissions, supported by technocrats, discuss and submit proposals to Parliament which seeks to identify overlaps and linkages with other laws and policies. Reforms are designed to support the interest of majorities.

Source: Klaus Schmidt-Hebbel, Central Bank of Chile, *Chile's Growth and Development: Leadership, Policymaking Process, Policies and results.* Paper for the Commission on Growth and Development, August 2007.

8.2.3 Increasing Access to Finance

Effective management of NPLs and the development of the credit information infrastructure should be utmost priority at the central bank. It is important to continue with the current program of reform in the banking sector especially with regards to NPLs and the establishment of credit bureaus. NPLs have a high cost to society.

Minimize the crowding out of the private sector in the credit market: commercial banks' investment in government certificates should be reduced to increase lending to private sector firms. It may be worthwhile to introduce a policy that forces banks to deploy a proportion of their loanable funds (i.e. dedicated lines of credit) to SMEs, as with microfinance. In addition, the introduction of risk sharing schemes may help foster intermediation in sectors that lack access to finance.

8.2.4 Take climate change and environmental degradation into Account

The case for a focus on climate change is clear: climate change will impact productivity. In the most recent World Development Report, Sudan's agricultural yields are expected to decline by 7% by 2050 and 56% by 2080, the steepest decline in the world (followed by Senegal at 52%). These projections are based on models and are uncertain, but the ground-breaking 2007 UNEP report has clearly demonstrated the reality of desertification which results from a both population pressure and climate change, and its link to conflict. It points to a "deforestation crisis" which has led to a loss of almost 12 per cent of Sudan's forest cover in just 15 years.

However, climate change also offers the private sector a number of opportunities by capturing carbon credits associated with (a) maintaining Sudan's forests, particularly the 30% forest cover in Southern Sudan; (b) replanting forest to sequester carbon on

degraded lands; (c) renewable energy, including off-grid solar (electricity, solar cookers) small hydropower. Sudan's ability to capture these revenues depends on its ability to verify carbon claims which requires capable government institutions. Sustainable forestry and careful management of timber resources is essential to Southern Sudan but there will be a strong temptation to exploit the resource quickly. Rapid exploitation will not only preclude it from benefiting from carbon flows and will contribute to climate change; it will also reduce soil quality and contribute to potential desertification. The UN Collaborative Program on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD) can provide an income stream for avoiding the rapid reduction of Sudan's remaining forest cover, so long as Sudan invests in the Monitoring and Verification mechanisms.

8.3 Diversification

Avoid the Resource Curse means maintaining macroeconomic stability (with modest inflation levels) and linking spending to a long-term sustainable level (as in Timor Leste)[48]. It means substantial investments in human capital, and stimulating important sectors, including agriculture and non-mineral exports (Roemer, 1997; Westphal, 2002; Collier and Hoeffler, 2002). In Indonesia, policies focused on enhancing existing comparative advantage in labor intensive manufacturing. Botswana built infrastructure to support future diversification.

8.3.1 Basic competitiveness

Reduce the cost structure for manufacturing and agribusiness. Sudan is a high labor cost country according to the survey data. There are limited possibilities for Sudan to be competitive unless non-labor costs are relatively lower and/or product output prices are also higher (value added increased). Higher prices through increased value added is a possibility for the more sophisticated industries and locations, but for the majority of the country, reducing non-labor costs is a more viable approach. Sudan's high labor costs are compounded by the highest electricity costs in the region (higher than Egypt, Ethiopia, Uganda, Kenya, Rwanda and Tanzania), as well as high transport costs, administrative barriers, the cost of corruption, and the cost of excessive inventories. The substantial progress made in telecommunications through private participation can be replicated in other sectors, particularly electricity.

Implementation of DTIS. The Diagnostic Trade and Integration Study (DTIS) provided a number of key recommendations for improving competitiveness within Sudan, including reforms at Port Sudan, in quality standards, in trade finance and in transport infrastructure. These recommendations are a key foundation for diversification, in combination with other efforts to improve the cost and improve the quality of production.

[48] The adoption of a Medium Term Expenditure Framework (MTEF) is a good tool for sustainable spending

Exchange rate policy. There is little scope for Sudanese enterprise, either in Khartoum or Juba, to compete with imported product or compete for export markets under current exchange rates. An undervalued, rather than overvalued, exchange rate is a central policy feature of countries that have diversified, particularly in East Asia and Pacific.

8.3.2 Industrial policy to Support Diversification

Build on strengths: agribusiness. It is clear from the survey that the food sector – agro-industry and food processing, including oilseeds, milling, juice processing - is relatively competitive within Sudan and has a good chance to be competitive outside of Sudan. Diversification within the food sector is the natural place to start for Sudan. This will include new or upgraded products, and new markets for existing products.

Its productivity can be enhanced by improving the efficiency – quality, cost and delivery- of supply chains to the food sector and linkages to farmers. Linkages to farmers can be enhanced a number of ways, including through strengthening product quality standards, improving grading and sorting at the point of origin, contract farming (provision of seeds and fertilizers in exchange for the right to purchase the output at an agreed price). Lead firms who purchase from farmers are in the best position to drive these efficiency improvements by specifying their quality requirements and participating in supplier upgrading programs. This requires a long-term vision and substantial capacity, but can reap substantial rewards in terms of deepening the impact of FDI.[49]

For agriculture as a long-term driver of growth, sustainability is key. The Sudan need not accept inevitability of desertification, but needs to act. Throughout the world, reforestation programs are being used to adapt to climate change, restore degraded dry lands by replanting forests. The possibility to use carbon finance to support well designed efforts is significant in Sudan. Plantations of Gum Arabic have the added benefit of improving the soil (nitrogen fixing), creating an income source for farmers through gum sales, and a source of dry-season fodder for pastoralists. Because of the limited production due to conflict, fertilizers and chemical pesticides have not been used and many areas of Southern Sudan can now be certified as organic. Putting in place these mechanisms before chemicals begin to be used may be helpful.

Large-scale commercial agriculture. Many countries in Africa, including Sudan, are destinations for large scale commercial farming investments by countries from East Asia and the Gulf. These operations are effectively ways to export Sudan's factor abundance in water and arable land, but these are not inexhaustible resources. As much of Sudan's previous history of large scale semi-mechanized farming has resulted in large-scale land degradation, large commercial farming operations by foreign entities may have a similar effect, particularly since (a) environmentally sound practices (such as low-till or no-till cultivation, land set-asides, water-efficient irrigation) are not widely practiced in Sudan; (b) water and environmental policies are not rigorously enforced, (c) water is not effectively priced, and there are few economic incentives to conserve land and water

[49] *Thailand's Master Plan for the Automotive Sector.* Thailand Automotive Institute.

either from the supply or demand side. The benefits in the short run, in terms of rents, may be far outweighed by the long-term costs of restoring degraded land and contaminated water. Foreign investment that attracts these forms of agriculture, enforces rigorous environmental stewardship and brings new capabilities in environmental management would add considerably to Sudan's long-term growth.

Discover new strengths. Sudan is diverse, and it is unlikely that the country has discovered its full range of potentially successful products. A strong case can be made for public support for the self-discovery process, given that the returns to the discovery would accrue to many firms that would then undertake the activity. However, government-led efforts rarely succeed, given the poor track record of governments in choosing winning sectors.

Ethiopia's cut flower industry provides a good example of public-private collaboration. A foreign investor moving from Kenya discovered that Ethiopia can support a high quality, competitive rose due to its altitude and low labor cost. In 2002, there were only four main producers: Golden Roses, Ethio-Dream, Summit and ENYI Roses. By 2005 the industry had attracted around 40 enterprises of which twenty-two were already exporting to the Dutch flower auction, with annual growth exceeding 70% during this period.

In contrast to nearly all other industries in the country, floriculture has succeeded in overcoming obstacles to growth at each stage of its development through an unusually high level of trust between competitors and with the government. Initial efforts focused on research to adapt growing practices (hydroponic, greenhouse and field) to Ethiopia. At a later stage, as outbound logistics became the primary obstacle, the Horticulture Association set up the EthioHorticultureShare Company to negotiate increased cargo space with Ethiopian Airlines and European carriers flying into Addis Ababa to alleviate the barriers posed by the lack of available transport. This prevented growers from having to negotiate airline space individually at less than economic lot sizes. Finally, the Government made land and finance available to growers. According to the World Bank value chain analysis, logistics accounts for around 74 percent of the delivered cost of flowers. By managing this cost, Ethiopia was able to help diversify Ethiopia's exports. As the sector has grown, the dialogue has moved on to issues such as quality and safety.

The lessons from this example, as well as better known ones such as the Indian Spice Board and Chilean grape industry, are that (a) diversification results from a continuous process of problem solving, monitoring, and connecting to solutions; (b) it requires public-private dialogue; (c) the process is dynamic, and characterized by trial, error and adjustment; (d) subsidies should focus only on new activities with potential for to create broader growth, on common-use infrastructure such as logistics, quality testing and certification. The recent EU study determined that the Sudan has great potential in meat and livestock, fruits and vegetables (counterseasonal export to Europe), but that it must overcome similar challenges that Ethiopia faced – cold storage, shipping, and quality.

Different regions of Sudan have different opportunities for diversification. Ecotourism will be viable in parts of Southern Sudan which have retained large quantities of wildlife,

whereas manufacturing may be viable on the Red Sea coast. For Western and Southern Sudan, deeper value chains for livestock, agro-industry in the short run create opportunities for diversification. Special Economic Zones for downstream industries such as petrochemicals in Unity State can promote specialized industrial clusters. Over time, deepening of economic linkages to the mining industry should be explored, first by examining the supply chains to these industries and then seeking partnerships with the industry to create more productive local linkages.

Box 4 Indonesia and Broad-Based Growth

If there is one country that sheds light on Sudan's potential political and economic transition, it is Indonesia. Indonesia's tropical landscape contrast with Sudan's arid plains, but the country has faced challenges which are remarkably similar. As an archipelago consisting of seventeen thousand islands, multiple ethnicities, languages and religions, it faces a similar challenge in reaching its far-flung population with economic opportunity to reduce poverty, and governance. Both countries face the challenge of managing energy exports, and have had conflicts.

To diversify the economy, Indonesia under Soeharto focused on attracting export-oriented manufacturing particularly from Japan, building infrastructure, maintaining an undervalued exchange rate and a liberal trade regime. It attempted to create spillovers from this FDI to create larger Indonesian firms, but also to raise income levels through jobs that paid better than agriculture. Indonesia's growth was profound, but did not satisfactorily address the problem of poverty since the largest gains were captured by a narrow government-linked elite which controlled the banking system and largest enterprises. The largest family controlled 16% of total corporate assets, and the top ten families controlled over 57%. (Claessens, Djankov, Lang, 1999).

The 1997 Asian Financial Crisis revealed the deep structural flaws, as many of these corporate failed, leading to bank failures and ultimately IMF intervention. A popular uprising ended the regime of Suharto and led to the *Reformasi* program. Pressures for decentralization, transfer of authority for public service delivery and expenditures to local governments were authorized in Laws 22 and 25 in 1998 and 1999. The banking system was transformed, with a strong emphasis on improving governance, introducing rules-based processes and institutions, and broadening access. Over time, more specific efforts have been undertaken to create more inclusive growth, including investment climate reform at the local level, community-led projects, microfinance, and a strong emphasis on agriculture.

Elections at the local level introduced the population to accountable government and paved the way for increasingly issue-based and peaceful national elections including direct election of the President. This has, over a period of several elections, led to a politics in which economic performance now plays a more decisive role than identity. Recent governments in Indonesia has moved to expand opportunity to broader segments of the population, to improve the investment climate at the local level, to extend infrastructure and services across a number of growth centers that leverage Indonesia's diversity. In the current crisis, Indonesia has not only continue to grow at nearly 5% despite a global slump, it has also had smooth and peaceful elections returning a government even more focused on growth and equity. The changes which it has undertaken – political and economic - have put Indonesia on a new trajectory.

Sources: Hal Hill, "Intra-country Regional Disparities," *Asian Development Forum 2000*. *Can East Asia compete: innovation for global markets*, Volume 1, World Bank, 2002

8.4 Broadening the Private Sector

Exploit complementarities. The facts emerging from the study point to great complementarities between states, and particularly between the conflicted affected regions and the center. These revolve around differences in capital availability, capital endowment, demand, and skills. As Collier noted, diversity is a challenge for governance, but an asset for private sector development (Collier 2009).

Focus on urban dynamism as a source of demand. Given the power of agglomeration economies and returns to scale, urban markets in both Northern and Southern Sudan can be a driver of growth. The Khartoum metropolitan area, where over 8 million Sudanese live, can serve as a particularly powerful driver of growth in lagging regions if effective linkages are developed. Three policies will help:

- **Build institutions and infrastructure to integrate producers and markets.** The roll-out of transport infrastructure, especially rural roads, is a fundamental requirement for reducing costs, and allowing improved access to markets. In addition, a basic rural roads network could be an important initiative to strengthen the infrastructure network, along with telecommunications and rural electrification. Revival of border trade in Western and Eastern Sudan leveraging Sudan's comparative advantage would be helpful.
- **a better investment climate in lagging regions** will help ensure that a productive response is not hindered by local regulatory or administrative burdens or a lack of finance. As discussed in Chapter 7, investment climate obstacles vary considerably by region. This calls for efforts to empower local stakeholders to understand and prioritize the removal of barriers in their regions.
- **Infrastructure must be complemented by institutions that allow firms to trade at distance.** As Chapter 3 described the institutional environment forces firms to reduce risk by relying on long-term relationships. This will work against broadening the private sector. An investment in institutions is needed to reduce transition risks. Examples include the credit reference bureau, quality standards, export facilitation agencies, stronger auditing standards and stronger commercial laws and commercial courts.

Financial Inclusion. The financial sector does not provide access to finance for large segments of the population – the informal sector, specific regions, and to farmers. State-directed efforts, particularly through state-owned banks or by directing private banks to lend a share of their credit, have failed to sustainably address this gap. Until recently, the range of instruments available was limited to three traditional Islamic instruments, of which only Murabaha and Mudaraba were widely used. Microfinance is very limited, and only one leasing company is operating in Sudan, branch networks are highly centralized. Not only does this limit growth outside of larger cities, but also means that substantial savings of rural populations are stored in the form of livestock or other non-liquid assets. This has an immense environmental toll that is decreasingly sustainable in light of climate change and desertification.

The Governor of the Central Bank of Sudan has played a crucial role in establishing microfinance at the national level by establishing specific policies and institutions to support the sector, and working with the World Bank and others to help attract catalytic investments. The entry of BRAC has had a transformative impact on microfinance in Southern Sudan, as did SUMI at an earlier more pioneering stage. Building on the lessons of that work, the approach to financial inclusion should focus on commercially-sustainable mechanisms by reducing the risks and lowering the costs of delivery by addressing the problem at three levels: policies, institutions, and catalytic investments. The right policies (including allowing the private sector to charge a sustainable rate) can have a similar impact. Such institutions and mechanisms as index-based weather risk insurance, credit information systems; mobile banking (leveraging the increasing mobile phone penetration in Sudan) and a policy to allow capital leases in which the lessee can take ownership of the asset at the end of the lease period can give asset-poor but economically viable Sudanese a role in building the economy.

8.5 Coordination and Steering Mechanisms

The recommendations in this report are not technically complex, but they require coordination, and a credible commitment by the Government to implementation. Some of these reforms will be politically difficult and will require overcoming coordination gaps at various levels of government.

8.5.1 Leadership

A politically-autonomous reform team. Successful cases of reform are often led by small technocratic and semi-autonomous teams, empowered by leadership to take a long-term view. To support this agenda public-private dialogue is essential. As Easterly has pointed out, the development of a vibrant market economy requires a dialogue between government and private actors with the view of reducing transactions costs and introducing institutional innovations that reward performance and progress. This cannot be accomplished without strong business associations and a partnership with government.

8.5.2 Strong monitoring and Evaluation

For any strategy that depends on public investment or intervention, monitoring and evaluation must be a central tool. For a strategy that calls for self-discovery, evaluation becomes even more important, since it is expected that experimentation is part of the self-discovery and diversification process. Evaluation can be technically complex or simple, but it is important that it be undertaken in order to both support and terminate support activities based on their success in achieving strategic goals. Interventions should be piloted in a manner that allows for quasi-experimental design. An intervention – the elimination of a particular tax or the introduction of a specific service, such as a one-stop shop for licenses – can be piloted in three states, with three other states used as control groups to allow clear measurement of the impact.

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Annex I: Standard Tables

Sudan - Manufacturing - 2008

Table 1: ICA Survey Sample Structure			
Firm Size (%)		**Firm Activity (%)**	
Size	**Percent**	**Activity**	**Percent**
Small>5 and <50	78.47	Mnufucture of food and Beverages	17.97
Medium >= 50 and < 150	17.59	Mnufucture of Textile	3
Large >= 150	3.94	Manufucuring of Wearing Appreal and acc	4.61
Market Orientation (%)		Manufucuring of Tanning and Dressing o	1.61
Exporter / Non Exporter	**Percent**	Manufucuring of Wood and Wood Products	12.44
Exporter (>= 10% sales)	5.76	Manufucuring of Chemical and Chemical P	9.68
Non-Exporter	94.24	Manufucuring of Rubber and Plastics Pro	7.37
Firm Ownership (%)		Manufucturing of Non Metallic Products	14.06
Ownership structure	**Percent**	Manufucturing of Fabricated of Metal Pr	16.13
Publicly listed company	2.86	Manufucturing of Furniture	3.92
Private held, limited company	46.67	Others	9.22
Public Company	2.14	**Firm Location (%)**	
Partnership	7.38	**Location**	**Percent**
Sole proprietorship	40	Capital City	66.99
Other (SPECIFY	0.95	Other city of over 200,000 people	17.7
Firm Location - Province (%)		City of 100,000-200,000	1.2
Province	**Percent**	City of 50,000-100,000	9.33
		Town or Location with less than 50,000	4.78
Almaseed	2.3	**Firm Location - Region (%)**	
Atbara	3	**Region**	**Percent**
Bahr Eljabal	3.23		
Balit	0.23	Khartoum	43.09
Centre	0.23	Gazira state	13.13
ELobied	0.69	Omdurman	11.29
Eldamer	0.23	Bahr Eljabal	7.14
Gazira state	1.38	Sheakan	7.14
Juba	0.92	North Kordofan	6.68
Kamlein	3.23	Upper Nile	6.45
Katour	2.76	Red Sea	5.99
Khartoum	10.14	Pore Sudan	5.07
Khartoum North	28.57	River Nile	4.38
Madani	5.99	Darfour	3.69
Firm Location - City (%)		Khartoum North	3.69
City	**Percent**	Upper Nile	3.46
		Omdurman	3.23
Khartoum	50	Malakal	2.76
ELobied	8.76	Nayala	2.07
Nyala	8.53	River Nile	1.84
Juba	7.14	South Darfour	1.61
Wad Medani	6.68	ELobied	1.38
Port Sudan	5.99	North Kordofan	0.92
Kamlein	4.84	Sheakan	0.69
Atbara	3.23	Shendi	0.46
Other	2.07	Malakia	0.23
Elbagair	1.61	Orjon Market	0.23
Damar	0.69	Moniki	0.23
Shendi	0.46	Tonga	0.23

Table 2: Globalization of Markets and Inputs								
	Sudan (MNF)	Micro	Small	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter
Percent of Sales								
Sold Domestically	96	97	94	82	96	93	100	34
Exported Directly	2	2	3	12	2	6	0	40
Exported Indirectly	2	1	3	6	2	1	0	26
Percent of Inputs/Supplies								
Purchased from Domestic Origins	66	73	44	39	68	48	66	73
Purchased from Foreign Origins	33	27	56	64	31	53	34	27

Table 3: Competitors and Suppliers								
Average Number of Competitors	Sudan (MNF)	Micro	Small	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter
-	6	5	9	18	6	5	6	5
1	4	3	7	6	4	8	4	5
2-5	27	26	24	59	26	33	26	32
6-10	22	21	29	6	21	25	21	32
>10	41	45	32	12	43	30	42	27

Table 4: Sources of Finance

BY COUNTRY

Source of financing	Sudan		Kenya		Uganda		Ethiopia	
	Working capital	*Inv on Fixed Assets*	*Working capital*	*Inv on Fixed Assets*	*Working capital*	*Inv on Fixed Assets*	*Working capital*	*Inv on Fixed Assets*
Internal Funds/Ret. Earng	66.0	67.7	45.8	44.6	80.0	71.1	60.8	76.0
Borrowed from comm.banks	9.5	10.6	25.2	27.3	7.0	13.5	21.0	16.3
Family/friends	3.8	2.9	1.2	0.8	1.4	2.0	2.1	2.2
Credit purchases	5.8	1.8	15.3	3.1	5.3	0.5	9.2	0.2
Informal Lender	0.3	1.1	0.0	0.0	0.4	1.5	1.0	0.7
Other	13.7	11.9	7.1	8.0	6.1	11.0	6.0	4.6

By state within Sudan

Source of financing	All Sample		Khartoum		Gezira		Red Sea	
	Working capital	Inv on Fixed Assets	Working capital	Inv on Fixed Assets	Working capital	Inv on Fixed Assets	Working capital	Inv on Fixed Assets
Internal Funds/Ret. Earng	66.0	67.7	65.2	69.7	74.3	81.5	49.4	51.9
New equity/Share	..	0.0	..	0.0	..	0.0	..	0.0
Priv. commercial banks	8.0	9.6	8.5	10.3	8.2	6.8	17.3	23.1
Govt banks/agencies	1.5	1.0	1.2	0.5	2.3	6.3	3.1	0.0
Family/friends	3.8	2.9	3.4	2.8	1.9	5.0	2.1	1.9
Non-bank inst	0.6	0.8	1.1	1.3	0.0	0.5	0.0	0.0
Credit purchases	5.8	1.8	8.6	3.0	5.1	0.0	0.0	0.0
Customer Advances	1.7	0.2	1.3	0.0	0.2	0.0	2.7	0.0
Informal Lander	0.3	1.1	0.5	1.7	0.0	0.0	0.0	0.0
Other	11.4	10.8	9.3	9.8	6.3	0.0	25.4	23.1

Source of financing	North Kordofan		Juba		River Nile	
	Working capital	Inv on Fixed Assets	Working capital	Inv on Fixed Assets	Working capital	Inv on Fixed Assets
Internal Funds/Ret. Earng	75.4	90.9	48.4	64.3	85.3	70.0
New equity/Share	..	0.0	..	0.0	..	0.0
Priv. commercial banks	9.7	0.0	0.0	0.0	7.9	30.0
Govt banks/agencies	1.8	0.0	3.2	0.0	0.0	0.0
Family/friends	0.8	0.0	0.0	0.0	5.3	0.0
Non-bank inst	0.0	0.0	0.0	0.0	0.0	0.0
Credit purchases	0.0	0.0	0.0	0.0	1.6	0.0
Customer Advances	0.4	0.0	0.0	0.0	0.0	0.0
Informal Lander	0.0	0.0	0.0	0.0	0.0	0.0
Other	9.2	9.1	48.4	35.7	0.0	0.0

Source of financing	River Nile		Nyala		Malakal	
	Working capital	Inv on Fixed Assets	Working capital	Inv on Fixed Assets	Working capital	Inv on Fixed Assets
Internal Funds/Ret. Earng	85.3	70.0	51.3	32.7	72.0	50.0
New equity/Share	..	0.0	..	0.9	..	0.0
Priv. commercial banks	7.9	30.0	10.7	1.8	0.0	12.5
Govt banks/agencies	0.0	0.0	0.0	0.9	0.0	0.0
Family/friends	5.3	0.0	23.3	0.0	9.0	16.3
Non-bank inst	0.0	0.0	0.0	0.0	0.0	0.0
Credit purchases	1.6	0.0	14.7	0.0	4.0	0.0
Customer Advances	0.0	0.0	0.0	0.0	11.8	6.3
Informal Lander	0.0	0.0	0.0	0.0	0.1	2.5
Other	0.0	0.0	0.0	9.1	2.5	0.0

Source: Sudan ICS-1

Table 5: Infrastructure Indicators	Sudan (MNF)	Micro	Small	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter
Freq of power outages(times per month)	17	18	11	17	17	10	17	10
% of production lost due to power outages	NA	NA	NA	NA	NA	NA	NA	NA
Have own generator (%)	61	53	89	88	60	73	60	73
percent of the consignment value of the products shipped for direct export was lost while in transit because of breakage or spoilage?	1	-	4	-	0	8	0	8
percent of the consignment value of the products shipped to supply domestic markets was lost while in transit because of theft?	1	2	1	0	2	1	2	1
percent of the consignment value of the products shipped to supply domestic markets was lost while in transit because of breakage or spoilage?	4	4	2	0	3	9	3	9
No. of days to obtain a telephone connection	7	6	9	4	7	5	7	5
No. of days to obtain an electricity connection	15	14	23	9	16	10	16	10
No. of days to obtain a water connection	9	9	8	11	9	6	9	6
No. of days to obtain A construction-related permit	8	4	22	8	8	8	8	8
No. of days to obtain An import license	5	3	8	5	4	10	4	10
No. of days to obtain An operating license	3	2	6	5	2	5	2	5

Table 6: Auditing, Transaction Costs, and Property Rights	Sudan (MNF)	Micro	Small	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter
Share of firms whose financial statements are audited by outside auditors:	42	33	73	82	39	69	40	67
Share of land that is:								
Owned by this establishment %	59	54	73	88	61	38	59	57
Rented by this establishment %	29	33	13	13	29	32	29	25
Leased by this establishment %	12	12	14	-	10	29	11	18

Table 7: Regulatory Burden and Administrative Delays by Country

	Sudan (MNF)	Micro	Small	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter
	% Agreeing							
"Government officials' interpretations of the laws and regulations affecting this establishment are CURRENTLY consistent and predictable"	36	37	26	41	36	34	34	57
"Government officials' interpretations of the laws and regulations affecting this establishment WERE consistent and predictable THREE YEARS AGO"	29	29	26	47	29	31	28	43
"It is common for establishments in this line of business to have to pay informal payments/gifts to get things done with regard to customs, taxes, licenses, and regulations, etc.	28	27	34	24	28	26	27	38
"Establishments in this line of business know in advance about how much this informal payment/gift is to get things done."	35	35	37	24	35	29	34	42
% senior management's time spent dealing with regulations	18	17	23	16	17	22	18	21
% revenues typically paid to officials to "get things done"	3	2	3	4	2	4	3	2
% total firm revenues typically reported for tax purposes	43	42	47	37	42	49	43	47
Over the last year, how many inspections or meetings were carried out by:								
Tax inspectorate	4	4	4	3	4	5	4	3
Labor and social affairs	1	1	2	2	1	1	1	2
Garbage authority	4	4	5	4	4	3	4	4
Other	1	1	1	1	1	1	1	2
% of those meetings where a gift or informal payment expected or requested								
Tax inspectorate	9	9	13	10	9	17	8	31
Labor and social affairs	7	6	7	22	6	12	6	18
Garbage authority	12	10	19	13	12	15	12	19
Other	12	9	21	50	12	14	10	38
Imports								
Avg. days to clear customs (days)	8	6	13	10	7	10	8	5
Longest delay to clear customs (days)	10	8	19	19	9	19	10	7
Exports								
Avg. days to clear customs (days)	0	0	0	1	0	0	0	2
Longest delay to clear customs (days)	0	0	1	1	0	0	0	6

Table 8: Governance -- Uncertainty and Corruption

	Sudan (MNF)	Micro	Small	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter
Uncertainty								
Percent of payment disputes resolved in the courts	33	32	33	34	33	31	32	34
% Saying Gift/Payment Required for:								
a telephone connection	2	2	-	-	2	-	2	6
an electricity connection	10	9	16	14	11	6	9	27
a water connection	7	7	4	20	7	-	6	11
A construction-related permit	9	9	14	-	9	13	8	33
An import license	9	7	16	14	7	24	8	33
An operating license	7	5	17	-	5	19	6	33

Table 0-1 List of business obstacles and % of respondents who rated them as major to very severe

Business Obstacle	% who rated it as major to severe	
	Manufacturing	Services
Political Instability	67.8%	67.7%
Corruption	67.5%	66.5%
Macroecon condition	64.9%	55.5%
Econ Policy Uncertainty	64.9%	56.1%
Electricity	61.9%	43.9%
Tax Rates	56.7%	50.6%
Cost of Finance	52.3%	39.6%
Access to Finance	46.6%	33.5%
Access to Land	39.2%	36.6%
Tax Administration	39.2%	34.1%
Competition from informal Sector	36.9%	15.9%
Skills of workers	33.8%	40.9%
Crime/theft	24.0%	37.2%
Business Licensing	23.2%	18.3%
Labor Regulations	20.9%	19.5%
Transportation	17.0%	25.6%
Trade/Customs Regulation.	14.7%	11.0%
Legal System	11.6%	7.3%
Telecommunications	10.1%	19.5%

Source: Sudan ICS-1

Annex II:
Sampling and Data Characteristics

The Sudan Investment Climate Survey (ICS) I used a stratified sampling methodology similar to that used in other enterprise surveys undertaken by the World Bank. The survey was originally designed to cover both manufacturing and services enterprises in six major cities of the Sudan where there is a relative major concentration of economic activities. These major cities, representing respectively the state they are located in, are: Khartoum, Madani, Atbara, Juba, Port-Sudan, and El-Obied. However, towards the end of the survey, two additional cities, Nyala (in the North) and Malakal (in the south) were also included through the United Nations Industrial Development Organization (UNIDO) in order to ensure better geographical coverage and to address specific project objectives.

Within the formal manufacturing and services sectors, the following economic activities were covered by the survey: Manufacturing: manufacturing of food and beverages (International Standard Industrial Classification system code 15), manufacturing of textiles (ISIC 17), manufacturing of apparel and accessories (ISIC 18), tanning and dressing of leather (ISIC 19), manufacturing of wood and wood products (ISIC 20), manufacturing of chemicals and chemical products (ISIC 24), manufacturing of rubbers and plastic products (ISIC 25), manufacturing of non-metallic products (ISIC 26), manufacturing of furniture (ISIC 36) and all other remaining manufacturing activities.

Services activities included in the sample are: Wholesale Services, Retail Services, Retail and Maintenance Workshops and Services, Banking and Insurance, Consultancy Services and Other Services.

Sample Frame. Preparation of the sample frame was carried out the survey company, H and H Consultancy. The process started from a list prepared for the Comprehensive Industrial Survey (CIS) was carried out by the Central Bureau of Statistics together with UNIDO and UNDP in 2005. H and H updated the CIS comprehensive frame by including additional listings from the Ministry of Industry, Central Bureau of Statistics, Tax Authority as well as the Ministry of Investment. Similar lists from these sources were also collected for establishments in the Services sectors.

Once the additional listings from the different sources were added to the CIS frame as outlined above, duplicates were removed from the resulting listing, and for each establishment in the final list, additional variables such as identifiers for economic activity, location, and employment size were incorporated and checked for validity and duplicates. Enterprises with five (5) or more employees were then retained to serve as a frame for the formal manufacturing and services sectors. The remaining list with enterprises employing fewer than five employees was also retained separately to serve as the sample frame for the informal sector survey.

The total number of establishments in the final sample frame for the formal manufacturing sector survey was 2,639; while that for the services sector was 27,987. The sample frame for the informal sector consisted of about 6,651 enterprises.

Sampling methodology. Based on the World Bank's enterprise survey sampling manual, H and H followed a stratified sampling methodology to select enterprises to be interviewed. Three stratification variables were used for each of the manufacturing and services samples. These stratification variables are: sector (activity), region (city) and employment size. H and H used the following size groups for stratification purposes: small (those with 5-49 employees), medium (those with 50-249 employees) and large (those with 250 and above employees).

Replacement samples were also drawn using the same methodology and stratification variables in order to ensure replacement of sampled establishments with other establishments of the same characteristics in case of refusals to participate, closure and other reasons for non-participation. When an establishment failed to participate for any reason, survey supervisors provide replacement of another establishment with similar characteristics from the replacement samples.

For the informal sector survey, the sample frame was further updated by focusing on, and going to, marketplaces with a high concentration of informal sector activities in each state. A random sample with due consideration of the types of business was selected from each of the market places selected. It is important to note here that the marketplaces that the informal sector survey focused on are the same markets that the central Bureau of Statistics collects data from in the preparation of its Consumer Price Index (CPI).

Weights. Weights were calculated for each of the data sets based on the stratification variables and the probability of selection within each of these variables, and adjusted for non-response.

Final data sets. Using the sample frame and sampling strategy discussed above, the final data sets for the Sudan ICS I, before the additional surveys in Nyala and Malakal, consisted of the following observations (enterprises):

i) manufacturing : 388
ii) services : 143
iii) Informal sector : 310

However, as pointed out above, the two additional cities of Nyala (in the North) and Malakal (in the South) were later added through discussion with and funding from UNIDO in order to ensure a better geographical coverage of the survey and also to help UNIDO in their specific project objectives in these two cities. The stratification and sampling procedures followed in these two cities are also similar to the rest of the cities. However, the number of manufacturing enterprises in these cities was found to be quite few, and as a result no weights were calculated by the survey company. No additional information was provided by the survey company regarding weights for the services and informal sector surveys from these additional two cities. The numbers of additional enterprises sampled from Malakal and Nyala respectively were: 30 and 16 for the manufacturing sector, 10 and 11 for the services sector, and 24 and 29 for the informal sector survey.

Annex II: Cross Country Data

Only part of the evidence that the chapter reports on the role of institutions on growth and productivity is based solely on the analysis of data from the Sudan PICS. A good deal of it also relates to effects that could only be identified from cross-country variation in performance and business environment from analyses of the cross country World Bank Enterprise Dataset (PICS). Unless otherwise stated we have used in all these and tables of the Appendices the subset of the PICS dataset that relates to the textile, garments, leather goods, food, beverages, wood and furniture and electronics industries. The cross-country PICS dataset includes data from 166 surveys conducted in 97 countries sometime between 1999 and 2007. All monetary figures from the dataset that we report and have used in regression analyses are in 2006 US dollars, which we have converted from local currencies using official exchange rates and GDP deflators.

Table 0-2 of Countries in the sample

1	Albania	36	Greece	71	Peru
2	Algeria	37	Guatemala	72	Philippines
3	Angola	38	Guinea	73	Poland
4	Argentina	39	Guinea-Bissau	74	Portugal
5	Armenia	40	Guyana	75	Romania
6	Azerbaijan	41	Honduras	76	Russian Federation
7	Bangladesh	42	Hungary	77	Rwanda
8	Belarus	43	India	78	Saudi Arabia
9	Benin	44	Indonesia	79	Senegal
10	Bhutan	45	Kazakhstan	80	Serbia and Montenegro
11	Bolivia	46	Kenya	81	Slovak Republic
12	Bosnia & Herzegovina	47	Korea, Rep.	82	Slovenia
13	Botswana	48	Kosovo	83	South Africa
14	Brazil	49	Kyrgyz Republic	84	Spain
15	Bulgaria	50	Lao PDR	85	Sri Lanka
16	Burkina Faso	51	Latvia	86	Swaziland
17	Burundi	52	Lebanon	87	Syrian Arab Republic
18	Cambodia	53	Lithuania	88	Tajikistan
19	Cameroon	54	Macedonia, FYR	89	Tanzania
20	Cape Verde	55	Madagascar	90	Thailand
21	China	56	Malawi	91	Turkey
22	Colombia	57	Malaysia	92	Uganda
23	Congo, Dem. Rep.	58	Mauritania	93	Ukraine
24	Costa Rica	59	Mauritius	94	Uruguay
25	Croatia	60	Mexico	95	Uzbekistan
26	Czech Republic	61	Moldova	96	Vietnam
27	Dominican Republic	62	Mongolia	97	Zambia
28	Egypt, Arab Rep.	63	Morocco		
29	El Salvador	64	Namibia		
30	Eritrea	65	Nepal		
31	Estonia	66	Nicaragua		

32	Ethiopia	67	Niger
33	Gambia, The	68	Nigeria
34	Georgia	69	Pakistan
35	Germany	70	Panama

Table 0-3 List of Countries in the Sample by Groups

Sub-Saharan Africa	**Low Income**	**Lower Middle Income**	**Upper Middle Income**
Angola	Bangladesh	Albania	Argentina
Benin	Benin	Algeria	Botswana
Botswana	Bhutan	Angola	Costa Rica
Burkina Faso	Burkina Faso	Armenia	Croatia
Burundi	Burundi	Azerbaijan	Czech Republic
Cameroon	Cambodia	Belarus	Estonia
Cape Verde	Cameroon	Bolivia	Hungary
Congo, Dem. Rep.	Congo, Dem. Rep.	Bosnia & Herzegovina	Latvia
Eritrea	Eritrea	Brazil	Lebanon
Ethiopia	Ethiopia	Bulgaria	Lithuania
Gambia, The	Gambia, The	Cape Verde	Malaysia
Guinea	Guinea	China	Mauritius
Guinea-Bissau	Guinea-Bissau	Colombia	Mexico
Kenya	India	Dominican Republic	Panama
Madagascar	Kenya	Egypt, Arab Rep.	Poland
Malawi	Kyrgyz Republic	El Salvador	Russian Federation
Mauritania	Lao PDR	Georgia	Slovak Republic
Mauritius	Madagascar	Guatemala	South Africa
Namibia	Malawi	Guyana	Turkey
Niger	Mauritania	Honduras	Uruguay
Nigeria	Moldova	Indonesia	
Rwanda	Mongolia	Kazakhstan	
Senegal	Nepal	Macedonia, FYR	
Swaziland	Nicaragua	Morocco	
Tanzania	Niger	Namibia	
Uganda	Nigeria	Peru	
Zambia	Pakistan	Philippines	
	Rwanda	Romania	
	Senegal	Serbia &Montenegro	
	Tajikistan	Sri Lanka	
	Tanzania	Swaziland	
	Uganda	Syrian Arab Republic	
	Uzbekistan	Thailand	
	Vietnam	Ukraine	
	Zambia		

Annex III: Summary of Focus Group Discussions

A World Bank Team travelled to El-Obied and Port Sudan respectively on March 19th to 20th and March 21st to 23rd to conduct a focus group discussion on the results of the informal sector survey data analysis with selected entrepreneurs from the sample. The team also had an opportunity to discuss with few selected manufacturing sector entrepreneurs the issues of competition that were identified in the analysis of the investment climate perceptions data for the formal enterprises. Another focus group discussion was also conducted on March 25 at the World Bank office in Khartoum.

The team explained the survey, its main results, etc. asked the participants, among others, the following: What their major constraints are, whether they agree with the identified major problems in the preliminary results, what their motivation/reason was for being involved in their current businesses. We also asked them their specific operational experiences related to these business constraints. They all confirmed that the major constraints listed in the preliminary results (namely corruption, access to finance, access to land and the judiciary are indeed their major constraints).

Description of Participated Businesses

North Kordofan (Al Obeyed)
18 businesses participated in the discussion, out of which, 2 small manufacturing businesses were in the group. 3 small businesses were informally registered and had no formal operating licenses or business name. The remaining businesses presented variety of types but were all operating with at least business names.

Red Sea (Port Sudan)
Two separate sessions were held in Port Sudan. The first invited 10 informal businesses with wither business names, formal licenses, or unregistered informal legal status. The second meeting invited four manufacturers of mid to large size or various goods such as soft drinks, printing house, salt processing, and Marbles cutting.

Khartoum (Khartoum)
Two sessions were held in Khartoum. The first, invited 17 small informal business representatives such as a Call Centre, Metal workshop, Small farmers, and Restaurant
The second meeting was attended by manufacturers such as carpenters, and appliances assembly business.

Focus Group Protocol:
a) The discussion with the informal sector covered the following topics:
- Corruption
- Legal system/jurisdiction
- Access to Finance
- Access to Land

- Other business constraints that participants would like to emphasize

b) Discussions around competiveness with the manufacturing sector included the following areas:

(i) Access to land, and finance, and legal/judiciary system.
(ii) Lack of level-playing fields in government tenders
(iii) Favoritism and deferential treatment by government departments to government/party affiliated firms, and the degree by which such deferential treatment has impacted market access, and therefore firm's competitiveness.

The summary is divided into two sections. The first section is a summary of the informal sector focus group insights on barriers and practices as it relates to access to capital, land, corruption, and judiciary and legal system. The second section, details manufacturing sector view on market competitiveness in their state and in their line of business. Details of informal sector focus groups discussion points are annexed separately.

i) Discussions with the informal sector focus groups

- They complain about the judiciary, access to finance, land, and corruption.
  - In terms of corruption faced by informal establishments, they complained that they pay some sort of taxes as a local levy, but do not see any of the benefits as small business owners. The payments are usually levied by local government offices with no office Stamp or receipts and such payments can be requested at any day, at random. In Some Cases, the officials come and tell them that if they pay them directly a fraction of the levy, they would let them avoid the full payment.

- *Regarding the Legal system/ judiciary system, t*hey also pointed out that most of conflicts are resolved out of court due to the lengthy Process of taking a case to a court (than the issue of the outcome being just or unjust).

- *In terms of problems related to Access to Finance, c*ollateral requirements are the major obstacles. They feel banks favor big firms, and also traders due to high turnover and ability to repay quickly. One participant said that he once applied for a loan and was told that the bank does not have a facility for SME applicants like him. Some said they did not want to apply for bank loans even though they would like to get one, and that was because they think it is difficult to go through all the process till the approval.

  - Some indicated that they would like to get longer term financing arrangements to deal with the current Access to Finance problem that they are facing. Unattractive term of loans (timing) from formal sources of finance (banks) were cited as problems -- They usually have short repayment requirements.

- Most agree that formality is important because they can get access to government contracts, and they can put their company's name and logo at their premises to be better known. On the other hand, most said that they see no advantage of remaining informal. If the cost of registration is lowered, most of the unregistered businesses claimed that they would opt to register.

- O*ther obstacles mentioned include competition from cheap imports and market access:*
    - Competition from very cheap imports (mainly Chinese produced) is killing their businesses. Particularly individuals selling these cheap imported items on cars, on streets, etc. at bottom low prices are their major problems these days.
    - Access to markets outside their locality was mentioned by one participant. Similar products (in his case agricultural products) are being dumped into the market at the same time, on the same market location – and this lowers their prices and profitability.

ii) Discussions with manufacturing enterprises and competition:

It was concluded from meetings with manufacturing sector in Al Obeyed, Port Sudan, and Khartoum, concluded that competition is not generally fair. They said who you know matters to succeed in doing business. Such imperfect practices have had direct impact on firm's ability to expand. Firm's opinions were confirmed in the following discussion points:

a) Government Tenders: Groups agreed that government tender process might seem fair, while it involves unfair practices in favor of government/party affiliated firms. Public tenders are divided into large and small contracts. Given the perception they have on the level of unfairness in the business environment, most businesses refrain from participating in government tenders. Large tender contract are always won by party affiliated firms. While competition in small tenders is open, and all firms can easily compete particularly since government and party affiliate firms do not usually compete in small tenders. Further clarifications indicated that, when large in value, a sole source selection process is used by the government limits the awards to government affiliated firms.

Given the size and type of the businesses interviewed (leather tenure, carpenters, appliances assembly line). The group view of competition of government tenders process is relatively fair. However, all participants expressed that government does not necessary apply to tenders through their firms, especially in goods provision types of tenders. Government/ party affiliated firms are always prepared to compete with better prices, large quantities than their local counterparts. Firms with privileges due to their party, direct or indirect affiliation to government officials are equipped with more capital, and better facilities.

A demonstration of such level of competition was elaborated by a tenure business owner, who has been in the business for 25 years. Difficulties in competing in government tenders illustrated on being able to compete with imported leather goods mainly from China to supply military shoes. He expressed that, there are local companies which in his view are owned by government officials or part officials that is heavily trading goods from China. These firms, have strong capital base which he could not explain its sources, and penetrated the local market through a supply chain linked to small and large retailers chain all throughout Sudan, and are flooding the market with Chinese made goods. These firms are able to supply the government with goods at a much cheaper price, and are able to cut a deal with better payment terms, than local firms who usually require 20% advance payment.

Government favored businesses are in better competitive position as participants from Al Obeyed have expressed it. A carpentry business expressed his concerns on having no protection as a local producer from Chinese imports. According to him, the trade chains by which Chinese goods in this case furniture flows into the market, are lead by party connected and financed businesses. These businesses have privileges in not paying access taxes and local levies, and run with minimal operating cost compared to their local furniture carpenter counterpart. Because of the favored firm's stronger financial position, goods are sold in the markets in installments.

The government in contrast avoids taking measures to protect local manufacturers from international dumping. Other elements such as operating cost, has had direct impact on business competitiveness against regional producers. Transport cost for instance, is uncompetitive in Sudan. State and Federal government charges such as localities levies, federal VAT, has reduced local manufacturer's chances of competing with foreign imported products, high utility cost also reduced firm's competiveness particularly with regional producers. When local firms as expressed by a Salt Processing Plant in Port Sudan get the potential to export to COMESA countries, State levies can claim up to 90% in some instance, ultimately they end up uncompetitive. Salt is potentially the major export item for the state, but discourages its exporters.

b) Corruption: The majority of participants of both informal and industrial sector expressed that corruption particular to party affiliated firms in wining contracts for instance is a common practice. In service provision, such as electricity and water, participants of both sectors agreed that they do pay officials to expedite the process of connecting electricity to their businesses. Some preferred not to wait for the service connection which might take a while for them to receive. Others have also added that bribing state levy collection agents and police is practiced.

c) Access to Capital: At the state level, and unlike Khartoum, banks are only representative of small branches. These small branches have minimal authority to disburse review or approve loans applications prior to approval by the main branch in Khartoum. Many felt that centralization of bank services is limiting private sector accessibility to capital. In addition, the process of reviewing and approving loan applications through local banks was described as lengthy. Although they did not have

clear incidents of deferential treatments of favored applicants, participants in Port Sudan, stressed that the practice exists in local banks, where favored applicants of those who either have personally or close relations with bank's managers tend to have stronger recommendations for approval on their applications.

In Port Sudan participant's views were shed on the role of government and banks in managing delinquencies. The government designated department of the National Security and Intelligence Agency authority commonly known as the Economic Security Force (ESF), was created to reduce illegal market practices, however, the manufacturers group felt that ESF is usually selective of businesses, and tends to ignore illegal practices, or loan defaults committed by government, or party affiliated businesses, while follows sever enforcement on delinquent business regardless of the loan sizes, where in some instances imprisonment is enforced.

In Al Obeyed, formal establishments reported that getting loans is easier for party affiliated enterprises in their areas of business. They said also that in addition to party affiliation, another easy way of getting loans is through corruption (say by paying about 5% of the loan amount to the bank manager). Also paying to bank officials helps to them get an overvaluation of the collateral (e.g. collateral with an actual value of 10 million Can be assessed as having a Value of 20 million.

d) Access to land: Access to land in Red Sea state has been functional in the sense that a designated committee with a broad representation from the private and public sector was assigned to review land applications. Investment land allocation exercise according to the manufacturing sector was described as equitable and favorable. Many believed that the new land allocation process, which has recently been streamlined, is designed to draw investors in the manufacturing sector to newly planned industrial zones. Although the streamlined process comes with a relatively high cost, it is designed to enable the government to cover the cost of extending utilities such as electrification and road construction.

e) Judiciary and legal System: The question on judiciary system explored firm's practice in arbitrating disputes. Collectively most firms confirmed that resolving conflict outside the court has been the tradition of dispute resolution, where business owners. In the very rare cases the court system is used, mainly when there are long delinquencies in payments of funds borrowed between business owners. Many believed that the lengthy process has discouraged them from using the court system. No remarks were made on courts or judiciary misconducts at all.

Annex IV: Informal Sector Data

Most important disadvantages of informal status

	All Sample (% reporting)	
	Informal	**Formal**
DK/NA	37.5	0.87
Limited access to finance (loans)	21.67	30.43
Need to pay bribes to avoid "formal" procedures	11.67	14.35
No access to and insecurity of premises	2.5	6.96
Inability to sell to/buy from formal enterprises	3.33	5.22
Theft by employees/suppliers/buyers	3.33	0.87
Fear of government retribution (formal)	3.33	2.61
No access to broader market	2.5	2.17
No tax reclaims	0.83	.
No access to utilities	.	4.78
Large labor turnover	.	3.04
Limited access to raw materials	.	4.78
Other	9.17	8.26
No disadvantages whatsoever	4.17	15.65

Major perceived business obstacles in the formal and informal sectors in Sudan

State	Ranking of business obstacle & % respondents complained			
	1	**2**	**3**	**4**
All Informal sector	Corruption (62.2%)	Functioning of the Judiciary, (56.7%)	Access to land (47.2%)	Macroecon condition (47.2%)
Khartoum Informal Sector	Corruption (61.8%)	Functioning of the Judiciary, (56.4%)	Access to land (50.9%)	Macroecon condition (47.3%)
All Recently Formalized	Corruption (62.2%)	Macroecon condition (59.6%)	Street crime/disorder (58.3)	Access to land (57.0%)
Khartoum Recently Formalized	Macroecon condition (65.2%)	Corruption (61.6%)	Street crime/disorder (59.8)	Access to land (52.7%)

Source: Sudan Informal Sector Survey