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Ethiopia Toward the Competitive Frontier

Strategies for Improving Ethiopia's Investment Climate

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ABBREVIATIONS AND ACRONYMS

ADLI	Agricultural Development-led Industrialization
BRAC	Bangladesh
CBE	Commercial Bank of Ethiopia
CSA	Central Statistical Authority
DBE	Development Bank of Ethiopia
DEC	Development Economics Group
EDRI	Ethiopian Development Research Institute
EFFORT	Endowment Fund for the Rehabilitation of Tigray
EPOSA	Ethiopian Pulses, Oilseeds and Spices Association
EPRDF	Ethiopian Peoples' Revolutionary Democratic Front
FDI	Foreign Direct Investment
GOE	Government of Ethiopia
GDP	Gross Domestic Product
ICA	Investment Climate Assessment
ILO	International Labor Organization
ISO	International Standards Organization
JSCB	Joint Stock Commercial Bank
LLPTI	Leather and Leather Products Technical Institute
MENA	Middle East and North Africa
MCB	Ministry of Capacity Building
MOFA	Ministry of Foreign Affairs
MOTI	Ministry of Trade and Industry
MSE	Micro and Small Enterprises
NBE	National Bank of Ethiopia
NPL	Non-Performing Loan
OECD	Organization for Economic Cooperation and Development
PASDEP	Plan for Accelerated and Sustained Development to End Poverty
PICS	Productivity and Investment Climate Survey
PPESA	Privatization and Public Enterprise Supervisory Authority
SNNPR	Southern Nations and Nationalities Region
SSA	Sub-Saharan Africa
SME	Small and Medium-Sized Enterprise
SOE	State-Owned Enterprise
TFP	Total Factor Productivity
TPP	Trade Practices Proclamation
UMI	Upper Middle Income
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
WDR	World Development Report
WTO	World Trade Organization

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TABLE OF CONTENTS

SUMMARY.....	I
ACKNOWLEDGMENTS	V
CHAPTER 1: THE CHALLENGE OF PRIVATE SECTOR LED GROWTH IN ETHIOPIA.....	1
1.1 THE EVOLUTION OF POLICY TOWARD THE PRIVATE SECTOR AND INDUSTRY	2
1.2 THE INVESTMENT CLIMATE IN ETHIOPIA	4
1.3 THE STRATEGIC CHALLENGE.....	5
1.3.1 <i>The challenge of productivity and employment growth</i>	5
1.3.2 <i>The challenges of inclusion and diversification</i>	6
1.3.3 <i>The challenge of formalization</i>	7
1.4 OBJECTIVES OF THE PAPER	8
1.5 DATA AND ASSOCIATED RESEARCH.....	9
CHAPTER 2: POLICY AND PERFORMANCE.....	11
2.1 COMPETITIVENESS OF ETHIOPIAN FIRMS	11
2.2 LOW PRODUCTIVITY AS THE KEY CAUSE OF LOW INTERNATIONAL COMPETITIVENESS	13
2.3 THE ROLE OF THE BUSINESS ENVIRONMENT.....	19
2.3.1 <i>Product market competition and productivity growth</i>	20
2.3.2 <i>Productivity and the functioning of key factor markets</i>	21
2.3.2 (a) <i>Access to land</i>	22
2.3.2 (b) <i>Access to finance</i>	22
2.3.2 (c) <i>Access to Infrastructure</i>	27
2.3.5 <i>Governance and productivity</i>	28
2.3.6 <i>Problems of tax administration</i>	29
2.3.7 <i>Corruption and other aspects of governance</i>	30
2.4 CONCLUSION.....	31
CHAPTER 3: THE PRODUCTIVITY CHALLENGE: MARKETS AND TRUST.....	32
3.1 RATIONALE FOR FOCUSING ON INSTITUTIONS.....	32
3.2 HOW DO FIRMS CONTRACT?	33
3.2.1 <i>Finding business partners</i>	33
3.2.2 <i>Reaching agreements</i>	35
3.2.4 <i>Other forms of commitment failure</i>	38
3.3 RISK PREVENTION AND AVOIDANCE	39
3.4.1 <i>Hedging through Inventory and Avoiding Trade Credit</i>	40
3.4.2 <i>Paying for security services</i>	42
3.4.3 <i>Market Supporting Institutions</i>	42
3.4.4 <i>Business Networks</i>	43
3.4 THE ROLE OF LEGAL AND INFORMAL INSTITUTIONS	43
3.5 CONCLUSIONS.....	45
CHAPTER 4: CREATING A LEVEL PLAYING FIELD	47
4.1 BACKGROUND AND RATIONALE.....	47
4.1.1 <i>Governance and Growth</i>	47
4.1.2 <i>Weighing Market and Government Failures</i>	48
4.2 GOVERNANCE AND LEVEL PLAYING FIELD IN ETHIOPIA	49
4.2.1 <i>Openness – transparency and predictability</i>	49
4.2.2 <i>Privatization</i>	50
4.2.3 <i>Is the playing field level? Evidence from Enterprise Surveys</i>	51
4.2.4 <i>Endowment-Owned Enterprises</i>	54
4.3 POLICY REFORMS TO PROMOTE COMPETITION	56

4.3.1	<i>Competition Policy</i>	56
4.3.2	<i>Removing barriers to entry</i>	57
4.3.4	<i>Competition with the informal sector</i>	58
4.4	CONCLUSIONS.....	58
CHAPTER 5: THE CHALLENGES OF INCLUSION AND DIVERSIFICATION		59
5.1	PRO-POOR GROWTH AND INCLUSION	59
5.2	DIVERSIFYING INDUSTRY.....	59
5.3	REGIONAL DIFFERENCES.....	60
5.3.1	<i>Southern Nations and Nationalities (SNNP) – Awassa</i>	63
5.3.2	<i>Harar / Dire Dawa</i>	64
5.3.3	<i>Tigray/ Mekele</i>	65
5.3.4	<i>Oromia/ Nazareth</i>	66
5.4	DIFFERENCES IN EMPLOYMENT	67
5.5	CONCLUSIONS.....	68
CHAPTER 6 UNLOCKING THE POWER OF WOMEN		69
6.1	INTRODUCTION	69
6.2	CHARACTERISTICS OF FEMALE ENTREPRENEURS.....	69
6.2.1	<i>Share in ownership</i>	69
6.2.2	<i>Legal status</i>	71
6.2.3	<i>Experience and education</i>	72
6.2.4	<i>Size</i>	73
6.3	GENDER DIFFERENCES IN INVESTMENT CLIMATE CONSTRAINTS	74
6.3.1	<i>Intensity of constraints</i>	74
6.3.2	<i>Intensity of constraints by legal status</i>	76
6.3.3	<i>Ranking of constraints</i>	78
CHAPTER 7: ADDRESSING THE CHALLENGE OF FORMALIZATION		84
7.1	INTRODUCTION	84
7.2	WHAT ARE THE PRODUCTIVITY CONSTRAINTS FACING ETHIOPIA’S INFORMAL ENTERPRISES? ..	86
7.3	WOULD FORMALIZATION LEAD TO GROWTH?.....	89
7.3.1	<i>Formalization & Access to Finance</i>	89
7.3.2	<i>Cost of Formalization</i>	90
7.4	INCREASING FORMALIZATION	92
7.4.1	<i>Access to Markets</i>	92
CHAPTER 8: CONCLUSIONS AND RECOMMENDATIONS.....		93
1.	COMPETITION	95
2.	THE IMPERATIVE OF BETTER FINANCIAL SECTOR PERFORMANCE	96
3.	REFORM URBAN LAND POLICY	100
4.	BUILT INSTITUTIONS TO CREATE MARKETS	100
5.	A DYNAMIC INDUSTRIAL POLICY	100
6.	LEVERAGE THE DIASPORA.....	101
7.	SEND CLEAR SIGNALS	103
8.	TRANSFORM THE DIALOGUE.....	103
	REFERENCES.....	105

FIGURES

Figure 1	Structure of GDP	1
Figure 2	Ethiopia's Trade and investment Deficits	2
Figure 3	2002 PICS Survey - Top 10 Constraints	4
Figure 4	Top 10 Constraints: 2006/07 Investment Climate Survey.....	5
Figure 5	Value Added per Worker	6
Figure 6	Survey Characteristics	10
Figure 7	An Increasing Share of Firms are Exporting.....	11
Figure 8	But still well below many low income peers	12
Figure 9	Share of Firms with Foreign Ownership.....	12
Figure 10	Wages per Worker (USD Thousands) – Well Represented Industries	14
Figure 11	Sales per Worker (USD Thousands) - Well represented industries.....	14
Figure 12	Fixed Assets per Worker (thousands USD).....	14
Figure 13	Average TFP - Garment Sector	15
Figure 14	Average TFP - Food Sector.....	15
Figure 15	Weighted Average TFP - Wood and Furniture.....	15
Figure 16	Covariance Component TFP - Wood and Furniture.....	16
Figure 17	Covariance Component as Share of Average TFP - Wood and Furniture.....	17
Figure 18	Kernel Density Estimates for ICA Sample (A-D).....	18
Figure 19	Percent rating factor as obstacle to business operations (all industries).....	19
Figure 20	Credit to GDP.....	24
Figure 21	Loan-to-deposit ratio	24
Figure 22	Collateral Requirements.....	25
Figure 23	Access to Finance as a Constraint - African Peers	26
Figure 24	Legal Rights and Disclosure Ratings	26
Figure 25	Comparison of Regional Tax Rates.....	29
Figure 26	What Percentage of Purchase Orders Were Oral & Written? (Manufacturing).....	36
Figure 27	Absenteeism among workers due to sickness	38
Figure 28	To What Extent Is Disorder, Street Crime & Theft An Obstacle To Your Business?.....	39
Figure 29	Reputational Sanctions	40
Figure 30	Days of Inventory on Hand - Ethiopia vs. Comparators.....	41
Figure 31	Percentages of sales on Credit.....	42
Figure 32	Most Common Mechanism Used To Resolve Payment Disputes? (Manufacturing).....	44
Figure 33	Is the court system fair, impartial & uncorrupted?	44
Figure 34	Is the court system quick?	44
Figure 35	Governance and Growth	47
Figure 36	Ethiopia's Governance Indicators.....	49
Figure 37	Progress in Privatization.....	51
Figure 38	State vs Private Sector Perceptions of Investment Climate.....	52
Figure 39	Sources of Capital: SOE vs. Private	53
Figure 40	Productivity Differentials across Regions	60
Figure 41	Regional Differences in Severity of Constraints	62
Figure 42	Number Employment growth rate between 2002 and 2006 by region	68
Figure 43	Percentage of enterprises owned by women, by industrial sector	70
Figure 44	Average age of enterprises, by sector and sex of the business owner.....	70
Figure 45	Percentage of enterprises owned by women, by age cohort of the enterprise (years)	71
Figure 46	Legal status of enterprises, by sector and sex of the business owner.....	72
Figure 47	Percentage of enterprises owned by women, by legal status and age cohort of the enterprise (years).....	72
Figure 48	Education level of the top manager, by sector and sex of the business owner.....	73
Figure 49	Average total revenue by sector, legal status and sex of the business owner	74
Figure 50	Cumulative distribution of the intensity of selected constraints, by sex of the business owner	75
Figure 51	Predicted probability that an entrepreneur perceives a constraint as 'major' or 'very severe'	76
Figure 52	Cumulative distribution of the intensity of selected constraints, by legal status	77
Figure 53	Predicted probability that a female entrepreneur perceives a constraint as 'major' or 'severe'	77
Figure 54	Predicted probability that an entrepreneur perceives a constraint as their 'first biggest constraint', by sex of the business owner	78
Figure 55	Cumulative distribution of the intensity of two corruption-related constraints.....	81

Figure 56: Average Monthly Earnings Relative to the Poverty Line (2005)	85
Figure 57 Employment Growth Rates - Panel Data	86
Figure 58: Lease & Purchase Costs for the Informal Sector.....	88
Figure 59: Reasons for Not Applying for a Loan	90
Figure 60: Percent of Sales/Workers Declared by Informal vs. Formal Firms.....	91
Figure 61 Percentage of Female Employees in Formal & Informal Firms.....	91
Figure 62 Survey Characteristics	113

TABLES

Table 1 Ethiopia's Doing Business Rankings	4
Table 2 Ratings of regulation and competitive pressure as factors in business growth.....	21
Table 3 Selected Business Environment Indicators: Small vs. Large firms	23
Table 4 Estimated performance improvement premiums of enterprises growth constrained by business environment factors	27
Table 5 Factor Markets vs. Infrastructure as Constraints to Growth.....	28
Table 6 Governance as Constraints to Growth	29
Table 7 Aspects of Tax Admin Complained about by ICS Respondents	30
Table 8 How firms make contact with new suppliers.....	34
Table 9 Sources of confidence in new supplier.....	34
Table 10 Distribution of firms by main source of information they depend on about new suppliers	35
Table 11 Level of Policy Consultation with Government	50
Table 12: Destination of Establishment's Domestic Sales.....	53
Table 13 Percent of sales reported for tax purposes	54
Table 14 Restrictions on foreign investment & ownership, 2004.....	57
Table 15 Regional Variation in Investment Climate Priorities	61
Table 16 Suggested Reforms: Awassa Consultation.....	63
Table 17 Suggested Reform -Harar / Dire Dawa Consultation.....	65
Table 18 Suggested Reforms - Mekelle / Tigray Consultation.....	66
Table 19 Suggested Solutions - Oromia	67
Table 20 Mean and median number of employees at start-up and at the time of the survey, by sector and sex of the business owner	73
Table 21 Impact of investment constraints on productivity of business by gender.....	80
Table 22 Access to Finance - informal sector	87
Table 23: Description of Sample	107
Table 24: Globalization of Markets.....	108
Table 25 Constraints to the Firm.....	109
Table 26: Infrastructure Indicators.....	110
Table 27 Sources of Finance.....	111
Table 28 Characteristics of Finance	112
Table 29 Innovation.....	112

Boxes

Box 1 Key Elements of Vietnam's Reform	9
Box 2 The Rural Investment Climate Assessment	10
Box 3 Endowment-Owned Holding Companies	55
Box 4 China's Banking Sector Reforms.....	99
Box 5 Diaspora and Development: The Case of India.....	102

Summary

The Productivity and Investment Climate Survey suggests that the perceptions managers have of the investment climate in Ethiopia has improved dramatically since the first Investment Climate Survey in 2001/2002. The share of managers and owners who report being constrained by the investment climate, defined as the “location-specific factors that shape the opportunities and incentives for firms to invest productively, create jobs, and expand” in the 2005 World Development Report – was extremely high for almost all measured variables in the 2001 survey. Five years later, the share of complaining firms has declined to the point that Ethiopia performs more favorably than the low-income international averages. Despite serious economic challenges that became more acute after the survey was completed, the long-term trend is clearly toward improvement.

Nonetheless, productivity levels remain very low when compared with almost all peer groups, Ethiopia has attracted relatively little FDI, and reform has stagnated. Ethiopian products remain uncompetitive in international markets. Since Ethiopia’s domestic wages are a third the average in Sub-Saharan Africa, and given the substantial investment in infrastructure over the past decade, Ethiopia should be able to compete in a range of export commodities. Why does productivity remain so low despite a more favorable perception by investors? Why has Ethiopia not been able to increase manufactured exports more, or attract more FDI to sectors targeted in its development strategy? In 2002-2004 Ethiopia improved business registration, tax administration, and competition policy. But reforms appeared to have stalled, and Ethiopia’s Doing Business rating has gradually declined from 101st to 116th as other countries reformed faster.

Limited progress in raising productivity has contributed to Ethiopia’s current macroeconomic challenges, in particular the poor supply response to incentives and infrastructure spending which contributes to inflation, and the growing shortfall between imports and exports. The Ethiopian economy enjoyed a buoyant expansion since the drought-related contraction in 2002/03 before confronting the challenges of inflation, currency shortages and declining markets in 2008 and 2009. In part due to favorable weather, but also substantial growth in services, real GDP rebounded from negative growth in 2002/03 to average annual growth of 10.3 percent from 2003/04 to 2007/08. Per capita GDP nearly doubled from around \$107 in 2003 to \$201 to 2007, and the total size of the economy expanded by 64% over five years from \$9.3 billion in 2003 to \$15.2 billion in 2008. Yet the massive trade deficit, in which Ethiopia imports \$4 of goods for every dollar it exports, expanded from 13% of GDP in 2002 to 22% of GDP in 2007. For FY09, the trade deficit is projected to exceed \$5 billion, despite exports crossing the \$1.5 billion threshold.¹ Meanwhile the ratio of private investment to GDP has fallen from around 10 percent in 2001/02 to less than 7 percent in 2006/07.

Beyond the immediate macroeconomic difficulties, the messages from the investment climate assessment suggest fundamental challenges. The data suggest that productivity is held back by structural and economic factors that combine to make the economy less flexible and responsive to incentives. Beyond efficiency at the firm level, Ethiopia is inefficient in its allocation of resources across firms in part due to policy factors that protect the market share of incumbent firms from competition. The financial sector, land policies, patterns of inter-firm contracting, and the state of market institutions contribute to a lack of flexibility. Such factors distort or limit competition in such a way that the most productive enterprises are not systematically increasing their market share at the expense of less productive. The paper lays out this argument in Chapter 2, 3 and 4. Chapter 1 provides the policy context.

The Government has embarked on a number of reforms in its transition from state dominance, such as the administrative reforms mentioned above, and creation of private domestic banks alongside the state, and has developed an industrial strategy which aims to incentivize investment in key sectors in which Ethiopia enjoys factor abundance. Is this broad strategy appropriate to the task? Are there adjustments or reforms that can help realize this goal? Which are the highest reform priorities?

To help respond to these questions and prioritize reforms, the government requested that the World Bank launch the second investment climate assessment. In 2006/07, the second investment climate survey was launched, and measured the improvements in the investment climate in the five years since the first

¹ World Bank WDI 2008, GDP figures are in constant 2005 USD.

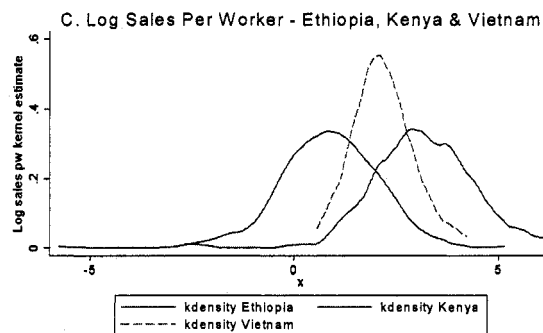
survey in 2001/02. The survey of roughly 600 enterprises (of which 120 were in the service sector and 120 in the informal sector) allows identification and prioritization of issues most closely associated with performance.

The paper focuses on productivity because differences in productivity explain differences in income between countries, and attracts new investment. When firms become more productive, they are able to offer a product more likely to meet the quality and cost requirements of foreign markets. They are able to pay higher wages, employ more workers, and the profitability will attract more investment. Developing a private sector that is able to fulfill its development role requires solutions to three challenges: *the challenge of productivity growth, the challenge of inclusion, and the challenge of formalization.* The chapters of this report address these themes.

The productivity challenge

As mentioned above, we find that despite the substantially improved business environment, productivity remains very low, and the trajectory of improvement is not commensurate with the challenge. Ethiopian firms are constrained both by factors *at the firm level*, and factors that *impact allocative efficiency* – the allocation of resources in the economy. Problems of access to finance and access to land have reduced aggregate industrial productivity growth through both of these channels. Both affect younger and smaller enterprises more than larger and longer established ones. Consequently, they have been significant forces protecting market shares of larger businesses against competition from smaller or younger rivals.

The most productive firms in Ethiopia define a competitive frontier which all Ethiopian firms can achieve. There does not appear to be a sufficiently strong dynamic through which the more productive firms are acquiring market share from the less productive (or that competition is driving less productive firms either towards the production frontier or out of the market) and creating convergence toward the frontier. If such a dynamic was sufficiently strong, aggregate productivity levels for Ethiopia as a whole would rise. Figure C compares the distribution of firms in the 2006/07 surveys according to their productivity levels and comparing these productivity distributions with competitors Vietnam and Kenya. Ethiopian firms are not only clustered around a lower productivity level in absolute terms, they are also very broadly distributed, indicating that more productive firms do not appear to gain market share.



Fixed capital per worker is extremely low by international standards, further pointing to the productivity gap contributed by the financial sector. However, even if capital per worker in Ethiopia were equal to that of comparator countries, productivity would be lower. In a comparison of performance across the Ethiopia Enterprise Survey 2002 and 2006 datasets, the average net job creation rate is lower by 44 percent for businesses reporting to be constrained by lack of access to external finance.

Sixty percent of respondents report to be constrained by access to finance. Access to finance remains a significant constraint, but the importance of the cost of finance as a constraint has decreased from 2002 to 2006 surveys. On the other hand, the average value of collateral taken relative to loan size has increased dramatically, indicating that only firms better endowed with collateral are accessing loans. Access to finance is having a deep impact on investment and growth. The cross country PICS dataset indicates large gaps in fixed investment rates between credit constrained firms and others. Given that smaller or younger firms are more likely to be financially constrained than others, the adverse effect of poor access to finance on investment rates translate to allocative efficiency losses thereby reducing aggregate productivity.

Other factors held constant, shortage of space for business premises reduces the average annual business growth rate by about 43 percent, and reduces the fixed investment rate and the average annual job creation rate per enterprise by about 40 percent. The GoE has land prepared in many regions as industrial estates and other land is also earmarked for priority sectors. Despite this, land constraints reduce within-

enterprise average TFP growth rate by 8 percentage points. The allocative efficiency losses of land shortage stem from the age and size profiles of the effects on fixed investment and net job creation rates.

The paper explored patterns of market exchange and the use of formal and informal institutions to support the efficiency of markets through specialized survey questions. The trading environment in Ethiopia seems to be characterized by a significant degree of risk aversion, and a heavy dependence on repeat transactions as a hedge against commitment failure which is high. There is very limited use of institutions such as court systems, formal settlement systems, credit bureaus or ISO certification to reduce risk of commitment failure. Formal institutions appear to have limited impact on these patterns of market exchange, but informal institutions do matter. Commitment risk is addressed principally through building inventories, limiting exposure to trade credit, and by transacting principally with partners established over five years earlier. These patterns of market exchange appear to limit flexibility. This suggests the need to develop and build trust in market-supporting institutions to accelerate the process of developing depersonalized, flexible and more efficient market relationships.

With the intent of focusing on increased competition to spur productivity gains, the study reviewed governance as part of the framework for private sector development. The assessment finds that the playing field is not yet fully level. The study concludes that government *preferences* play an important role in distorting competition, whereas *corruption* does not appear as influential. Types of preference include ownership of enterprises, directed credit, and barriers to entry. State firms appear to outstrip private firms in accessing some resources and opportunities, such as public markets. State and endowment-owned firms, on average larger, are less constrained by investment climate issues and are more likely to be consulted on policy issues. The government is taking steps to strengthen competition policy.

Diversification and inclusion

Sectoral and geographic diversification is essential to making growth more pro-poor. This requires that industrial policy be oriented toward diversification of Ethiopian industry rather than focus on a few selected sectors – at this stage of development. Diversification will require that industrial policy take a pragmatic, flexible and problem-solving orientation to help overcome the knowledge and risk-associated barriers to new product development. It will also require a more conducive macroeconomic environment. Recent exchange rate adjustments will certainly help restore some competitiveness.

Geographical inclusion will also require that location-specific obstacles be identified and eliminated throughout Ethiopia's economic regions. In both perception and objective data gathered through the survey, there were marked regional differences in the constraints facing business in different parts of the country. In Southern Ethiopia, corruption was perceived by managers as the most important, whereas in Dire Dawa, the issue is informal imports, in Harar and Mekelle, access to finance. An important step in reducing the obstacles to growth in these regions would be the creation of public private institutions at the regional level to focus on local investment climate improvements, and to monitor and evaluate those improvements.

Inclusion also involves increasing the participation of women in the economy. One third of all enterprises included in the Enterprise Survey were owned by women, a percentage similar to (or even higher than) the one observed in other Sub-Saharan African countries. This is encouraging. However, macro economic instability, finance-related constraints, and crime affect the performance of female entrepreneurs more than male. The average size of female-owned businesses was larger than male-owned firms, better capitalized, and grew faster. Nonetheless, women-owned firms had lower average productivity growth than male-owned firms. The gender gap exists despite measures taken by the Ministry of Women's Affairs.

The challenge of formalization

The informal sector is the fastest growing segment of the private sector, in large part due to the significant flows of labor from rural to urban Ethiopia and the absence of alternative ways to absorb the labor. Notwithstanding policies to improve lives in rural areas, urbanization as well as development of rural non-farm income is a reality. Some of these issues are explored in the Rural Investment Climate Assessment. We find that formalization is associated with access to finance and land, critical prerequisites to growth. Only around 8% of the urban informal sector firms sampled used microfinance for capital investments.

Conclusions and recommendations

At the start of its Third Millennium, the Government of Ethiopia has asked the private sector to be a key partner in its renaissance – a historic bid to overcome the legacy of poverty and conflict that has characterized Ethiopia in its recent history and transform it into a middle-income country in twenty years. The task, akin to the East Asian Miracle, is immense but not unimaginable. It cannot be accomplished, however, without unleashing the contribution of the private sector. Placing the private sector at the vanguard of Ethiopia's development implies overcoming a legacy of destructive policies, conflict and a depleted base of social, human and physical capital. It implies building trust and confidence in the investment climate. The study proposes eight thematic recommendations, which are suggested as the focal areas for an enhanced dialogue. These are:

- **Competition.** Markets are not sufficiently competitive due to a range of policy-based preferences that affect competition, in addition to land and financial sector policies that appear to protect incumbents. The study proposes a reconsideration of measures that currently limit investment in over twenty five subsectors, measures to ensure, and signal, that endowment-owned enterprises compete at arms' length from the Government, and a strengthened competition policy regime.
- **Better financial sector performance.** The significant reduction in productivity, investment, and job creation rates that result from weaknesses in financial sector performance is among the strongest messages emerging from the survey data. While the need for reform is urgent, the study proposes a gradualist reform path allowing for an injection of international capital and knowledge in key functions of the financial sector, such as insurance, leasing, institutional investment and credit information systems.
- **Reform urban land policy.** A growing private sector will depend on a more effective secondary market for land leases, a more predictable flow of new land, and more consistency between Federal and local authorities. Implementation of the Ministry of Works and Urban development's Urban Good Governance package would be a step forward.
- **Build institutions to support markets.** Relational contracting and risk avoidance behavior ultimately limit the scope of competition and trade. The study proposes a substantial investment in market-supporting institutions over time, particularly those which build confidence in exchange between Ethiopian producers. Legal frameworks supporting formal contracting and secured lending need reform.
- **Evidence-based, dynamic industrial policy.** The industrial policy evolving from ADLI has had some successes, including the flower sector and the revival of the leather industry and some cluster-oriented developments, but the framework lacks monitoring, evaluation and feedback loops which enable stakeholders to take corrective action. The approach of sector targeting should be replaced by search, coordination and problem solving frameworks driven by small, highly qualified and decentralized teams.
- **Leverage the Diaspora.** Diaspora Ethiopians enjoy several advantages that specifically address the weaknesses identified in the Ethiopian investment climate – exposure to international ideas, capital, participation in both Ethiopian and domestic market networks. As such, the Diaspora is more likely to succeed in the Ethiopian environment. Diaspora offer important public-goods, including transfer of market and technical knowledge. They lack comparative advantage in navigating the political economy, and as such the strategy recommends institutions to facilitate Diaspora entry.
- **Send clear signals.** Markets and asset prices depend significantly on investor confidence. The irreversibility and clarity of the government's commitment to private investment as an anchor of growth should be strengthened by removing inconsistencies. Resuming progress on the "Doing Business" agenda and signaling commitment to a level playing field by ensuring that endowment firms are managed at arms-length to the government is one such confidence-building reform. Similarly, the rationale for determining which infrastructure sectors and factor/output markets are liberalized should be updated.
- **Transform the dialogue.** The current policy dialogue, whether between the development partners, the government and private sector – is often characterized by entrenched positions and a lack of shared assumptions and objectives. Given the magnitude of the challenge, Ethiopia can afford nothing less than a pragmatic, evidence-based dialogue that is fully open to new solutions to long-standing problems. A results-oriented public-private dialogue is therefore an urgent matter.

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Magdi M. Amin led the World Bank team and prepared Chapters 1 and 8. Taye Mengistae and Maddalena Honorati prepared Chapter 2, Investment climate & Firm-level Performance and developed the central econometric models (see Technical Annex). Professor Marcel Fafchamps led Chapter 3 on Markets and Trust with Dr. Gebrehiwot Ageba of EDRI. Andrew Stone, Thomas Kenyon (UNIDO) and Hooman Dabidian prepared Chapter 4 on Governance and Level Playing Field. Chapter 5 on Regional Differences was prepared by Tilahun Temesgen, Menbere Taye Tesfa, and Gizaw Molla. Chapter 6 on Unlocking the Power of Women was prepared by Elena Bardasi and Abay Getahun. Rowena Chiu and Thomas Kenyon prepared the chapter on the informal sector. Douglas Zeng of the World Bank institute contributed key boxes on the Chinese experience in the financial sector and on the Diaspora. Samuel Maimbo, Olasupo Olusi and Nebil Kellow contributed to understanding survey data on the financial sector, and Caterina Ruggeri Laderchi helped our understanding of employment and labor flows. Jozef Loening, TTL of the Rural Investment Climate Assessment, contributed to the informal sector chapter and Mirafe Marcos provided background research on the tax system. The consultation conference was supported by World Bank Institute's investment climate team, led by Qimiao Fan and Douglas Zeng, with support from the DEC Trust Fund and the Investment Climate Anchor in the World Bank. Peer reviewers were John Speakman, Ibrahim Elbedawi, Vincent Palmade, and Eleni Gabre-Madhin. Very helpful guidance on the draft was received from the Country Director, Ken Ohashi, Sector Manager Gerardo Corrochano and the previous country director, Ishac Diwan.

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We partnered with the private sector to produce and discuss this report. The Ethiopia Chamber of Commerce arranged five regional consultations which were well attended by the private sector in each regional capital, and was also a partner, along with the Ministry of Industry, at a conference on the survey results in June 2007. A number of speakers, including HE Sufian Ahmed, Minister of Finance, former Country Director Ishac Diwan, Professor Charles Sabel of Columbia, and Professor Otsuka of FASID/GRIPS, Eyessuswork Zafu, Mesfin Eyanew, Ermias Emelga, Addis Alemayehu and others contributed richly to the conference. Finally, we would like to thank Dr Worke Zewde and the staff of Knit-to-Finish.

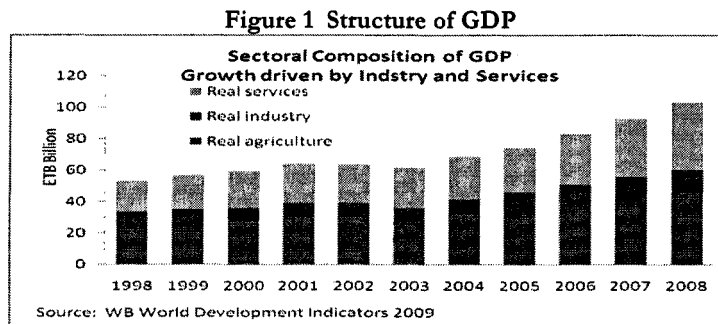
Chapter 1: The Challenge of Private Sector Led Growth in Ethiopia

The private sector, industry and manufacturing have played an important role in statements of development strategy, including in the country's first and second poverty reduction strategies. In his speech commemorating the Ethiopian Millennium, the Ethiopian Prime Minister placed the private sector among the vanguard of Ethiopia's development. Yet the ambition of the statements has been matched neither by the performance of the private sector nor the level of ambition of reforms to support the sector.

Unleashing the potential of the private sector implies an effort to overcome a legacy of destructive policies toward the private sector and the country itself. Seventeen years ago, Ethiopia was a Marxist command economy with a limited private sector. The economic destruction wrought by the Derg (1974-1991)² was comprehensive – it destroyed the country's capital base, its institutions, many of its talented people, and created a mass exodus of talented Ethiopians including many of its noted entrepreneurs. It left Ethiopia devoid of the institutional requirements of a modern economy. At the time, Ethiopia was one of the poorest countries in the world, maternal and child mortality were among the world's highest, less than one third of Ethiopians were literate, and the vast majority of Ethiopians lacked access to clean water. The Derg and conflicts destroyed Ethiopia's agriculture, left rural populations vulnerable to drought and famine.

Ethiopia has made great strides on the path to development. According to the 2004/2005 Household Income, Consumption, Expenditure Survey (HICES), 38.7% of the population fell below the poverty line in 2004/05, down from 44% in 1999/2000.³ In education, primary school gross enrollment has risen from 32% in 1990/91 to 91% by 2006/07. Its road density has increased from 29km per 1,000 Km² in 2000/01 to 38.6 km per 1,000 Km² in 2006/07. These public investments help set the stage for the take-off of the private sector as a self-sustaining engine of growth.

Yet private sector has remained small, largely informal, and concentrated in the service sector. Given its low wages, favorable demography and improvements in the investment climate, Ethiopia could conceivably competitively produce a range of manufactured products. As indicated in Figure 1 industry has declined from around 14% of GDP in 2003 to 12.9 percent in 2008.

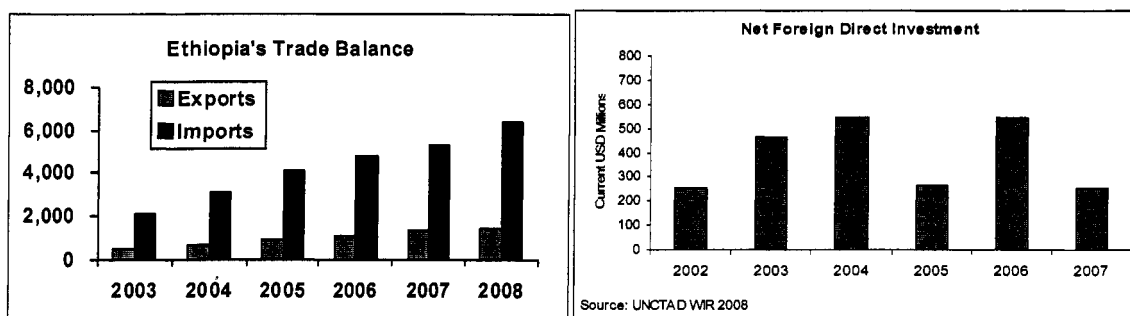


² Emperor Haile Selassie was deposed in 1974 by the Coordinating Committee of the Armed Forces, Police, and Territorial Army, or the Derg, which proclaimed Marxism-Leninism as their political ideology. A period of political turmoil, military reprisal, brutal civil war and murders of top officials resulted in the consolidation of power under Col. Mengistu Haile Meriam (a leading member of the Derg) in 1978. The People's Democratic Republic of Ethiopia was established in 1978, based on the Soviet model. Following military defeats by nationalist movements, the loss of Soviet sponsorship, popular dissatisfaction and economic neglect, Mengistu was deposed and fled Ethiopia in 1991. While there were several distinct political periods, for convenience, the period from 1974 to 1991 is collectively called the Derg regime.

³ PASDEP. The poverty line is based on the cost of a 2,200 calorie diet and essential non-food items.

Increasing exports is an urgent priority, to close the balance of payments gap (see Figure 2). Ethiopia suffers from a growing trade deficit, expected to exceed \$5 billion in 2009, which creates a balance of payments deficit that in turn constrains a number of development objectives and increases dependence on donor flows. Recent successes in increasing exports of cut flowers, oilseeds, gold, leather and continued export of coffee has demonstrated that Ethiopia can be a viable exporter across a range of products. Ethiopia is pursuing accession to the World Trade Organization, and as African Least-Developed Country, it can count on favorable market access to some of its most important trading partners, particularly the European Union and the United States. China and Japan have also offered preferential access. But has been demonstrated in many arenas, market access means little without (a) competitive firms able to consistently produce to international market standards; (b) sufficiently low cost and risk of making export transactions.

Figure 2 Ethiopia's Trade and investment Deficits



It is clear that obstacles continue to impede a private sector “take off,” particularly when measured in terms of private investment as a share of GDP, or foreign investment as a share of GDP. While registered investments are relatively high, actual investment flows are much lower, since many registered investments fail to materialize. Foreign investment has been limited to a peak of around \$545 million in 2004 and not sustained. These facts set the context for a review of policy that may help to identify the policy obstacles to the desired private sector take off.

1.1 The evolution of policy toward the private sector and industry

The Government assumed power facing an enormous breadth of challenges, that encompassed political, humanitarian, social, ecological and economic; and that would require both emergency responses and longer-term institution-building. The first priority, given the crushing burden of rural poverty, was to focus on rural development and agricultural productivity. The Ethiopian economy is agrarian, where agriculture contributes about 85% of the total employment and 85% of exports and about 47.8% of GDP (CSA, 2005).

A first generation of reforms was introduced in 1991/92. The Derg was overthrown in 1991. In the political convention months after taking power in 1991, the national parties that assumed power adopted in its platform the replacement of the command economy instituted by the Derg by a market economy that gave greater freedom to the private sector. The bulk of the focus in early years of the new regime was on political reconstruction, macroeconomic stability and rural development, but a first generation of reforms was in fact introduced. In this package of reforms:

1. The birr was devalued
2. Import tariffs were reduced and procedures for export/ import licensing were streamlined;
3. Interest rate structures were reformed toward more positive real rates;

4. Tax policy was reformed;
5. Public expenditure was rationalized;
6. Some public enterprises were privatized;
7. A new investment code was enacted; and
8. Price controls were reduced and internal trade was liberalized.

In the mid-1990s, the Agricultural Development-Led Industrialization (ADLI) strategy was introduced as the overall strategic vision for industrial development. The ADLI strategy involves raising the productivity of Ethiopia's small-holder agricultural sector, which comprises most of the population. By raising agricultural productivity, the theory holds that investment capital would be generated in order to invest in downstream industrial activity, which would in turn generate markets for agricultural produce, creating a virtuous cycle. The strategy involved mobilizing external resources to reconstruct and develop economic and social infrastructure, ensuring that farmers had sufficient access to key inputs such as fertilizer and credit, liberalizing external trade to improve competitiveness, and supporting industries that were intensive in use of agricultural inputs.

A second generation of reform was articulated in the 2001 Poverty Reduction Strategy. This included a basic platform of infrastructure and human capital investments, gradual privatization of state enterprises, and introduction of a Trade Practices Act.

The Government's Industrial Development Strategy, prepared in 2002/2003, provided more detail on the industrialization aspects of ADLI and the rationale for focus on selected sectors, and placed the "developmental capitalist" at the center of industrial development. It called for (a) elimination of obstacles to the growth of investors, both foreign and domestic; (b) provision of adequate support to enable entrepreneurs to compete globally; (c) determination that industrial development should leverage abundant factors; and (therefore) (d) assertion that industrial strategy should follow and support agricultural development. The strategy identifies supporting factors including a stable macroeconomic environment, transparency, infrastructure an efficient financial sector. The industrial strategy called for a strong state role to correct market failures. It specifically identifies strategic sectors for provision of direct support: *textiles and clothing, meat and leather, agroprocessing, construction and SMEs.*

The 2006 Plan for Accelerated and Sustained Development to End Poverty (PASDEP) aimed to raise the trajectory of growth to at least 8% on a sustained basis. Relative to the first poverty reduction strategy this second strategy contains a more extensive focus on private sector development. The target set for the industrial sector in PASDEP was annual growth rate of 11.5%, to increase the sector's share in overall GDP from 13.6% in 2004/05 to 16.5% by 2009/10.⁴ This target is not on track to be achieved.

More recently, leadership has framed its strategy in the language of the "developmental state." Ethiopia aspires to succeed through developmental capitalism, in which the state plays a proactive role both in addressing market failures and catalyzing growth. However, the policy platform focuses even more extensively on an activist role for the state modeled after Korea and Taiwan's experience. The industrial policy articulated in 2003 remains central to the Government's actions, and it continues to target key sectors with access to long-term subsidized credit, inexpensive access to land, tax incentives, and government facilitation. The Government has made land available on industrial estates.

Within this gradual evolution, a few themes have persisted. One theme is a shift from a command to a market-based economy – albeit with a limited set of property rights. A second theme

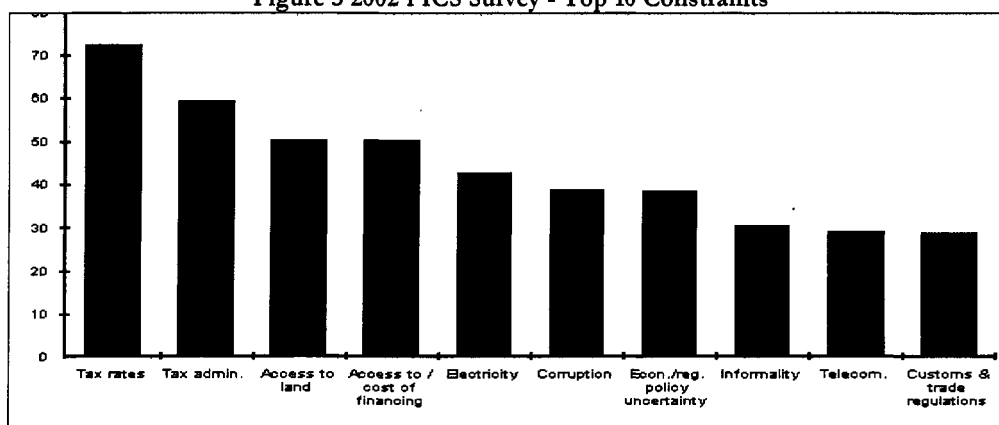
⁴ PASDEP, Page 152

which focuses on an activist state and sector-level interventions designed primarily to create industries that are linked to agricultural outputs. One would have to conclude, given the extremely low level of manufacturing and industrial development, the remaining low productivity levels, the extremely wide trade deficit, that Ethiopia's approach to industrial development has not yet worked. The analysis in the following chapters suggest that the main issues holding back investment and productivity growth are to be found in the policies that constitute the investment climate.

1.2 The Investment Climate in Ethiopia

The World Bank and Ethiopian Development Research Institute (EDRI) conducted an Investment Climate Survey in 2001/2002 that revealed poor productivity performance and linked them to a broad-range of policy problems. Enterprises had major or severe problems with nearly every aspect of the investment climate, particularly tax, land, finance and infrastructure.

Figure 3 2002 PICS Survey - Top 10 Constraints



With very little reform over the past four years, Ethiopia's Doing Business rank has steadily dropped from 101st to 116th. In 2002-2004, Ethiopia implemented reforms in business registration, made substantial revisions to the investment code, modernized the tax regime and introduced a value-added tax, established competition policy, partially reformed customs administration, built infrastructure reformed some aspects of urban land administration and prepared land for potential investment in many regions on industrial estates. The presumptive tax rate applied to smaller firms was substantially reduced after the 2005 elections. Since 2004, however, the administrative reform process has largely stalled. With respect to business registration, reforms have led to a reduction in the time and cost of business registration from more than 40 days and \$400 to 1 or 2 days and about \$70. In most other areas reforms are incomplete.

Table 1 Ethiopia's Doing Business Rankings

Indicator	Doing Business 2008	Doing Business 2009	Global Rank
Doing Business			116 th
Starting a Business	7 procedures	7 procedures	118 th
Dealing w Construction Permits	12 procedures, 133 days	12 procedures, 128 days	59 th
Registering Property	13 procedures, 43 days	13 procedures, 43 days	154 th
Getting Credit	Strong legal rights, limited credit bureau and registry	Limited legal rights, credit bureau and registry	123 rd
Protecting Investors	Disclosure index 1(5 max)	4	113 th
Paying Taxes	20 payments	20 payments	37 th
Trading across Borders	8 documents, 46 days for export	8 documents, 40 days	152 nd
Enforcing Contracts	39 procedures, 690 days	39 procedures, 690 days	78 th

The pace of reform has not been sustained. As a result, Ethiopia's Doing Business ranking has gradually declined back to 116th (see Table 1) as other countries continued to reform and surpassed Ethiopia's ranking. Within Sub-Saharan Africa Ethiopia's rank has dropped from ninth to eleventh.

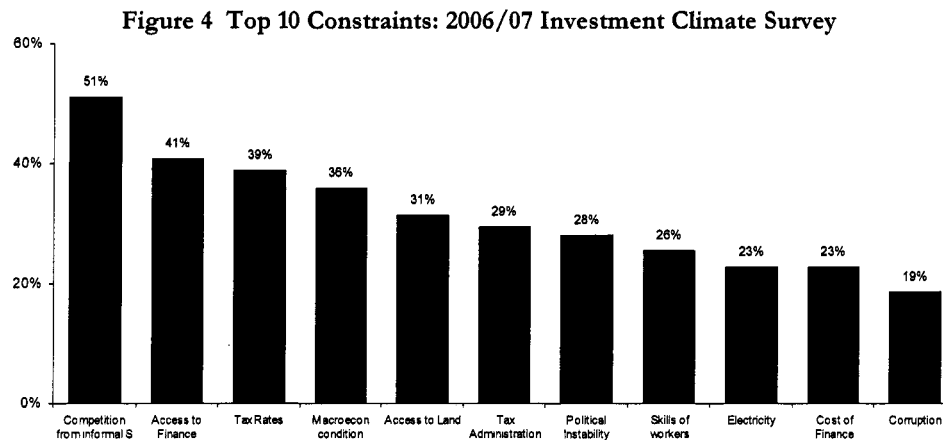
1.3 The strategic challenge.

The challenge for Ethiopia goes beyond administrative reform. Given the current macroeconomic challenges and the persistently low levels of industrial development, increasing unemployment particularly in urban areas, the team sees three related challenges: the challenge of increasing productivity levels, of building a more inclusive and diversified private-led industrial base, and of addressing the question of the informal sector.

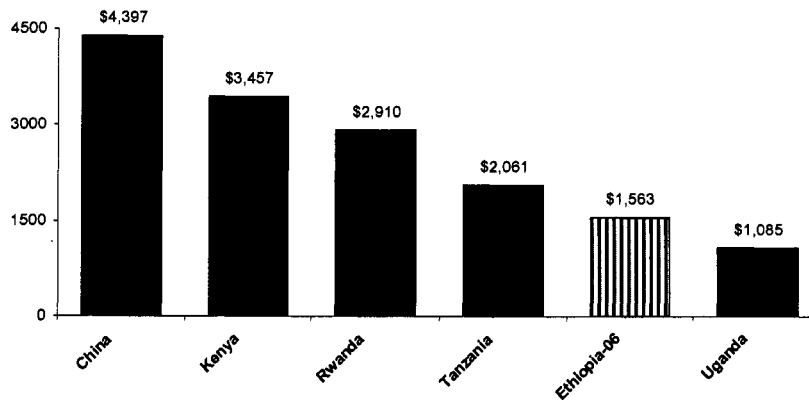
1.3.1 The challenge of productivity and employment growth

In Ethiopia unemployment especially in urban areas is a serious challenge. Working age population (labor force) stood at 54 percent in 2003/04. ... It is noted that the challenges faced by the Government in fulfilling the demand for increased employment progressively are two-fold: managing the dynamics of population growth and expansion of labor-intensive productive activities. PASDEP

The authorities have made a concerted effort to improve some aspects of the investment climate, and the perception managers have is that the situation has improved dramatically. The investment climate, as perceived by the private sector, has improved dramatically in many respects, and the private sector has responded to this new environment with growth. The share of firms reporting a major or severe investment climate obstacle has declined to less than 40% for most variables, with the exception of competition from the informal sector and access to finance. This represents a dramatic improvement in the perception of managers.



Yet productivity levels remain low by regional and international standards. Ethiopia's manufacturing and services enterprises operate at very low levels of productivity, which neutralizes their labor cost advantage against foreign competition. For most observed sectors, Ethiopian firms' wages are low by international standards, as are their output per worker.

Figure 5 Value Added per Worker

Productivity results from investment in people, institutions and infrastructure. Further international work clearly shows the important impact of investment climate conditions on economic growth. For example, countries that globally integrated during the 1990s experienced growth rates of more than three and a half times the rate of countries that did not, when they pursued complementary reforms⁵ Countries in Africa that have improved their investment climates grow more quickly and are more competitive. 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, regulation, and the rule of law are strongly associated with economic growth.⁶

Aggregate productivity can be influenced at two levels – at the firm level (productive efficiency), and at the industry or country level (allocative efficiency) by distributing market share to the most competitive firms in an industry or country. Within-firm productivity can be enhanced both by more efficient production, and by increasing the value of outputs relative to inputs. To be competitive, managers must be in a position to discover the product and market choices that allow them to maximize their productivity, and organize their firms most effectively. The second is allocative efficiency, by which we mean the distribution of market share across the productivity spectrum of enterprises within the industry. If more resources and higher levels of output are “allocated” to more productive firms in the industry, the greater aggregate productivity and, in that sense, the higher the industry’s allocative efficiency or competitiveness. On the other hand, a less competitive industry would be characterized by weaker correlation between an enterprise’s market share and its relative productivity within the industry. Policies and institutions influence allocative efficiency via their effects on net entry or business turnover rates, and on the dynamics or growth of incumbents across the productivity spectrum—that is, on business fixed investment rates and on rates of net job creation at the establishment level.

1.3.2 The challenges of inclusion and diversification

To sustain its recent successful growth, Ethiopian policymakers are concerned that this growth is shared. Since the 2002/03 drought, real GDP rebounded from negative growth in 2002/03 to average annual growth of 10.3 percent from 2003/04 to 2007/08. Leaving aside for the moment the severe macroeconomic challenges Ethiopia faces, history has shown that narrowly-

⁵ Dollar and Kraay, Trade, Growth and Poverty (World Bank, June 2001).

⁶ Kaufmann and Kraay, “Growth Without Governance”, *Economia*, Volume III, Number 1 (Fall 2002).

based private sector, in which pockets of vitality are geographically concentrated and much of the population is excluded, is not sustainable.

Creating broad-based growth requires, in earlier stages of industrial development, diversification. While there is a strong economic case for concentrating economic activity within some regions (WDR 2009), the economic gains from this empirical evidence suggests that diversification is the priority at lower income levels. Creating a manufacturing base is a form of diversification for Ethiopia's agricultural economy. But Ethiopia's industrial policy, which targets a few sectors based on factor endowment and offers more favorable access to basic factors, does not get at the deeper knowledge- and risk-based issues that constrain the emergence of new sectors. The Development Bank of Ethiopia has simply not proven capable of performing its role within a fairly static industrial policy and is certainly not appropriate for a more dynamic one.

Furthermore, Ethiopia is a very diverse country culturally, and in terms of the resource endowments with which various regions of the country are blessed. Improving the investment climate – which we define as location-specific factors – requires an understanding of the

1.3.3 The challenge of formalization

Informal enterprise, urban poverty and unemployment are intertwined problems. In 1991, as described above, poverty was a rural phenomenon, as most Ethiopians were farmers and the ecological, policy-induced and infrastructure situation created unparalleled levels of rural distress. In 2007, poverty is both rural and urban. Land distribution eliminated landlessness at the time, but as population growth continued, inevitably the next generations became increasingly landless. The generation of Ethiopians that has faced less viable prospects on the farm has chosen to migrate to cities. Migrating to cities has become one of the most important coping mechanisms utilized by rural Ethiopians to escape poverty. Analysis of the 2005 Labor Force Survey⁷ points to several trends. First, the economy is becoming more mobile and dynamic, with a larger share (18%) of those who were employed in 1997 finding themselves unemployed three years later. Only 2% of those in formal employment in 1994 found themselves unemployed in 1997. Though mobility appears to have increased, much of it is towards the informal sector. Roughly one in five of those unemployed in 2000 were self-employed or in informal wage work by 2004.

The informal sector has emerged in response these significant rural-urban population flows, to the extent that it has become the predominant form of organization of the private sector. By 2005, according to the 2005 labor force survey, the informal sector – defined as a firm with less than five employees- has become the source of the majority of employment in Ethiopia, representing 71% of urban employment. The informal sector is particularly important for youth, including four out of every five employed youths. This includes domestic work, wholesale and retail trade, hotels and restaurants, and primary production. At this point in time, 20-25 years old face the highest unemployment rates in Ethiopia.

The Government has committed to increasing employment growth as one of the eight pillars of its most recent development strategy, the 2006 Program for Accelerated, Sustainable Development to Eradicate Poverty (PASDEP). Given population pressure – PASDEP estimates that 1.2 million people join the labor force every year – addressing this challenge is tightly intertwined with accelerating economic growth, particularly in urban areas (large cities in particular) where poverty reduction has been sluggish and unemployment has remained high.

⁷ The Urban Panel is collected by Addis Ababa University in collaboration with Goteborg University in Ethiopia's seven largest urban areas. Data have been collected in 1994, 1995, 1997, 2000 and 2004.

Can the informal sector become a source of higher-productivity jobs? Should the informal sector remain a “default” option for urban migrants, and a residual element of policy, falling between policy for the formal sector and rural development outcomes, or should the informal sector be treated with within a more comprehensive approach to enterprise development? Can the productivity and performance of the informal sector be scaled up, e.g., through competition (and growth of better performing firms at the expense of weak firms), or should policy focus on moving resources from the informal to the formal sector? The role informal firms will be discussed in Chapter 7.

1.4 Objectives of the paper

These strategic challenges are large, but not insurmountable. They are not likely to be achieved within the current strategy toward the private sector. As was seen in the case of Vietnam, a comprehensive program of reform may catalyze a virtuous circle of poverty reduction that results in a transformation no less complete than that described by the Ethiopian Prime Minister at the turn of the Ethiopian millennium. Vietnam’s *Doi Moi* was a comprehensive program to restructure an economy that had experienced collectivization of property and land, unsuccessful central planning, and major periods of conflict. Its per capita income dropped from 80.5% of that of Thailand in 1950 to 22.4% in 1990. The reforms contributed to a decade of economic growth averaging 5.7 percent per annum, and even more remarkable poverty reduction averaging 7.8 percent per year, ultimately lifting millions of Vietnamese out of poverty. What is remarkable is that this growth took place without severely widening inequality.⁸ The Gini coefficient was broadly unchanged throughout this period, and the share of the population consuming less than 2,100 calories per day was reduced from 58.1% in 1990 to 28.9% in 2000.

The aim of this report is to contribute to one element a program more likely to stimulate a new round of growth. The first objective is to help policy makers create an environment that enables a more robust private sector response to market opportunities. Growth requires new investment, and productivity and therefore profitability of its existing businesses. For its policy intent to be realized the Government may require a new generation of policy reform that more specifically calibrates the investment climate with its ambitious growth objectives. Furthermore, the policy must be supported by a more robust response by the private sector, which will require more than fiscal incentives, macroeconomic stability and land. Realizing Ethiopia’s vision will require the establishment of a critical mass of competitive firms within differentiated clusters that contain the essential resources - services, suppliers, skills, knowledge and external relationships – needed to compete in open markets. Among the key lessons of the growth of the 1990s is the catalytic role that selective interventions in the form of public private partnerships can play in supporting growth.⁹ The investigation must also be open to the possibility that Ethiopia’s current strategy is simply not delivering in the manner required for the country to achieve its goals.

⁸ An increase in growth typically results in an increase in inequality as the rural poor move to higher productivity wage employment.

⁹ *Economic Growth in the 1990s: Learning from a Decade of Reform*. World Bank 2005.

Box 1 Key Elements of Vietnam's Reform

The *Doi Moi* emerged from the recognition of the need for comprehensive reform of agriculture, services and manufacturing, and yet the need for gradualism to allow state-led elements to co-exist with reforms to create property rights and markets to leverage private initiative. The key elements:

- **Property rights over land.** Reversing the collectivization of farmland was a critical first step. Agricultural land was given to rural households on an egalitarian basis. The 1993 Land Law created tradable land use certificates that could be mortgaged. By 2000 11 million land titles were issued. Land reform coincided with a boom in coffee prices and rice yields, which raised rural productivity and incomes. Constraints to import of fertilizers were reduced.
- **Human capital investments.** Vietnam invested heavily in education, raising upper secondary enrollment from 7.2% in 1993 to 41.8% in 2002 (World Bank 2003), and raising enrollment of the poorest segments of the population in lower secondary from 12% to 54%.
- **Competition and privatization.** In the 1990s Vietnam decontrolled many prices, lowered barriers to entry, and allowed an increasing number of firms to export and import. It gradually liberalized tariffs while maintaining protection for key industries. It allowed competition among SOEs as it began to restructure them. Gradual equitization (large) or sale (small) of SOEs to directors and workers took place.
- **Creating a new private sector.** Economic and institutional reforms, such as the 1991 enterprise law, allowed for new private firms to appear at a rate of over 5,000 per year. The emergence of informal, and then formal, private sector allowed for off-farm income, and movement of labor from agriculture to industry and services.
- In early 2002, a special Party Central Committee meeting endorsed private sector development, and reforms were deepened. Formal firm creation jumped 5,000 per year to over 15,000 in 2000, supported through Special Economic Zones to attract Foreign Direct Investment.
- **Creation of a new financial sector.** The 1990s saw the ratio of credit to GDP increase from 13 percent in 1990 to 44 percent in 2000. This was based on (a) liberalization of interest rates starting in 1996, (b) removal of social mandates on state commercial banks and efforts to deal with non-performing SOE debt; (c) Vietnam allowed first private (joint stock) banks and the foreign banks along side state banks, which still dominate aggregate credit. Substantial progress was made on institutions such as registries of security pledges, the credit bureau, and the legal framework, while regulatory capacity is still being developed.
- **Economic openness.** Twenty years after *Doi Moi*, Vietnam was invited to join the World Trade Organization, capping a remarkable commitment to removing barriers to trade. Vietnam has also leveraged foreign direct investment since early in the reform process, and \$12 billion in approvals had occurred through 1994.
- **Credibility and macroeconomic stability.** Periodic decisions at the Party Congress signaled major reform milestones, removal of contradictory policies, and irreversibility of the reforms at key junctures in the process. Vietnam's record of macroeconomic stability contributed to investor confidence. Throughout the 1990s, with the exception of the crisis, Vietnam's macroeconomic indicators were among the world's top quintile.

Sources: World Bank (2002), Rainer Klump, "Pro-Poor Growth in Vietnam: Miracle or Model?" in World Bank (2007)

1.5 Data and Associated Research

This Investment Climate Assessment is based on two Productivity and Investment Climate Surveys conducted in Ethiopia, first in 2001/02 by the Ethiopian Development Research Institute (EDRI) with technical assistance from the World Bank. The second Productivity and Investment Climate Survey was conducted June-August 2006, with a short follow-up questionnaire on business networks completed in June 2007, also by EDRI. The 2006/07 survey is actually three combined urban surveys: a survey of 360 manufacturing enterprises; a survey of 124 enterprises in trade and services (hereafter 'service survey'); and a survey of 126 micro-enterprises. The surveys were undertaken at the same time by the same team of enumerators. See Appendix A for a full description of the data.

Figure 6 Survey Characteristics

Productivity & Investment Climate Survey 2001/2002	Productivity & Investment Climate Survey 2006/2007
<ul style="list-style-type: none"> • 427 firms, primarily manufacturing • Amhara, Oromiya, the Southern Nations, Nationalities and people (SNNP), Eastern and the Tigray regions. 	<ul style="list-style-type: none"> • 600 firms • 360 manufacturing (food and beverages, garment, furniture wood and metal) with more than 5 employees • 124 services enterprises • 126 informal sector enterprise defined as less than 5 employees • 212 manufacturers repeated from 2002

The ICA should be viewed in the context of a number of other studies being conducted in Ethiopia, particularly the Rural Investment Climate Assessment and regional growth strategies.

Box 2 The Rural Investment Climate Assessment

The Rural Investment Climate Assessment

In companion to this ICA the World Bank also conducted a Rural ICA taking into consideration the heterogeneity of the investment climate across rural areas and industries. The Rural ICA complements the ICA, which focuses on manufacturing and services in urban areas by looking explicitly at small and informal enterprises in rural areas. The empirical basis for the Rural ICA is a Rural Investment Climate Survey (RICS), fielded in Ethiopia in 2007 in collaboration with Ethiopia's Central Statistical Agency (CSA). It uniquely matched household, enterprise and community information and is representative for the four major regions of Ethiopia (Tigray, Oromia, SNNP and Amhara) which cover about 90 percent of Ethiopia's population.

Preliminary findings indicate that rural enterprise sector is sizeable: about 25 percent of rural households are engaged in some sort of entrepreneurial activity, though agriculture is the dominant source of income. For about 10 percent of rural households nonfarm enterprises income is relatively more important than agriculture. The sector is particularly important for women, and plays an important role during the low season for agriculture, when alternative job opportunities are limited. Returns to nonfarm enterprise employment are low on average and especially so for female-headed enterprises. Women nevertheless have much higher participation rates than men. Most enterprises are very small and rely almost exclusively on household members to provide the required labor inputs.

Rural enterprise constraints in Ethiopia mainly operate from the demand-side. Local fluctuations in predicted crop performance affect the performance of nonfarm enterprises, because of the predominant role played by the agricultural sector. Supply-side constraints such as better access to infrastructure services or finance rank next. The main findings also point out to the need for improvement of local market institutions. Rural enterprise performance is affected by the localized nature of sales and limited market integration for nonfarm enterprises. Rural trading is the predominant activity, mostly concentrated around small market towns or trading other centers. A central finding is that rural enterprises can help to reduce household food insecurity and smooth transitory income shocks.

Chapter 2: Policy and Performance

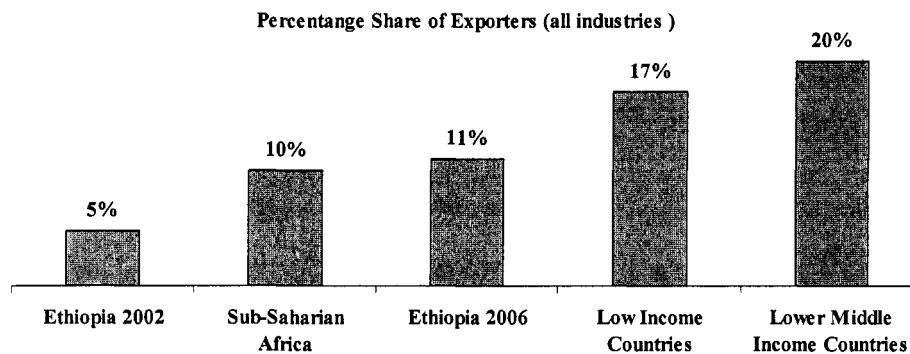
“Ethiopia’s strategy has to be based on taking advantage of its most abundant resource: labor, on exploiting the opportunities created by relatively low wage rates... However, there is also an acute shortage of capital with which this labor can work. At \$100 per capita there is little domestic surplus to be accumulated, so the strategy to moving forward has to involve a significant injection of external capital, either in foreign direct investment, or of donor financing for infrastructure investments.” PASDEP

Productivity is the single most important factor in explaining national income differences among nations. Hall and Jones’ review of international evidence suggests that over two thirds of country differences in worker productivity can be accounted for by productivity, rather than the contribution of physical or human capital. This suggests the central role productivity is playing in economic growth. Other work has clearly shown that the income of the poor rises in rough proportion to overall economic growth, indicating that a growing economy is the single best anti-poverty strategy. Where the vision may require further elaboration is on how to actually achieve productivity gains. Capital is clearly part of the problem, as the country is undercapitalized. But a broad range of factors impacts productivity, including the efficiency of input markets, output markets, efficiency of firms, the nature of competition between firms, and external constraints to firms. Our task is to find out which are important to Ethiopia.

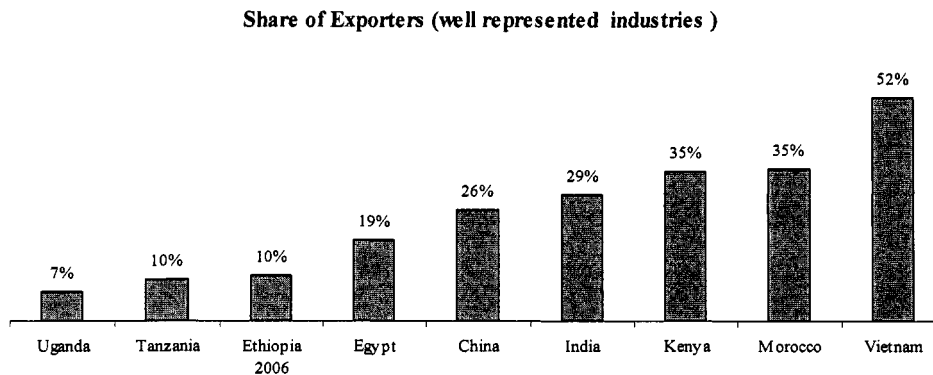
2.1 Competitiveness of Ethiopian Firms

Ethiopia’s manufacturing industries have grown more competitive internationally in recent years at least by one key indicator: a significantly greater fraction of them are now selling in export markets than was the case at the time of the Ethiopia’s first investment climate survey in 2002 (See Figure 7).¹⁰ Despite this, too few Ethiopian producers participate in export markets. For example, confining ourselves to industries that have significant presence in Ethiopia, we see that one in four of producers in low income countries sell in international markets against a figure of one in ten for Ethiopia. The contrast is even more glaring with recent fast globalizers such as Vietnam where, one in every two producers is an exporter, and more traditionally open economies such Kenya and Morocco, where one in three manufacturers sells in international markets.

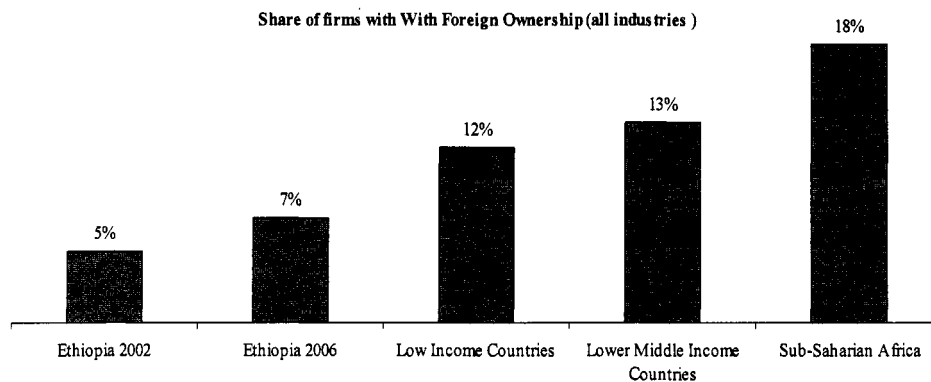
Figure 7 An Increasing Share of Firms are Exporting



¹⁰ See Appendix A for an explanation of data sources for countries other than Ethiopia in this Chapter.

Figure 8 But still well below many low income peers

The proportion of businesses that are foreign invested has also increased slightly (see Figure 9), but remains low relative to low income or African averages.

Figure 9 Share of Firms with Foreign Ownership

Recent gains in the international competitiveness of domestic industry have a lot to do with significant improvements in the environment for private enterprise. The domestic market is now more competitive, as customs and trade regulation have become less of barriers to imports, and permit requirements and licensing are not the deterrent to business formation they used to be. This means that the typical local manufacturer operates under greater competitive pressure from rivals than it did in the past. At the same time, all indications are that businesses face fewer and weaker growth bottlenecks. Notably, they now seem to have better access to land, and are probably finding it easier to raise external finance for working capital and for fixed capital formation. Physical infrastructure has also improved. So has the quality of governance, fewer businesses now complaining of high taxes, problems of tax administration, or corruption.

That said, too many businesses continue to complain of serious shortcoming in almost every aspects of the current business environment. For example, more than half of the respondents to the 2006 Enterprise Survey reported that they were being held back by lack of access to land. Some 60% complained of lack of access to finance, and 47% of businesses rated problems of tax admin as moderate to severe obstacles to their growth. A corollary of our claim that improvements of business climate have helped enhance competitiveness is that further reforms would have even more payoffs in terms of productivity.

There are two channels through which the investment climate can influence aggregate productivity. The first is by increasing production efficiency of firms, and the second is by influencing the allocative efficiency of sectors, by which we mean the distribution of market share across the productivity spectrum of enterprises within the industry. The greater is the market share of more productive firms in the industry, the greater aggregate productivity and, in that sense, the higher the industry's allocative efficiency or competitiveness. On the other hand, a less competitive industry would be characterized by weaker correlation between an enterprise's market share and its relative productivity within the industry.

Problems of access to finance and access to land have reduced aggregate industrial productivity growth through both of these channels. Limited access to key resources affects productivity at the firm level. Both affect younger and smaller enterprises more than larger and longer established ones. Consequently, they have been significant forces protecting the market share of larger businesses against competition from smaller or younger rivals. We estimate that shortage of space for business premises – holding a number of other factors constant- reduces the average annual business growth rate by about 43 percent. This in turn breaks down into reduction, for the same reason, in the average annual business fixed investment rate and the average annual job creation rate per enterprise by about 40 percent each and reduction of the within-enterprise average TFP growth rate by 8 percentage points. The allocative efficiency losses of land shortage stem from the age and size profiles of the effects on fixed investment and net job creation rates.

The impact of access to finance on allocative efficiency results in lower fixed investment and net job creation rates. In a comparison of performance across the Ethiopia Enterprise Survey 2002 and 2006 datasets, the average net job creation rate is lower by 44 percent for businesses reporting to be constrained by lack of access to external finance. This is controlling for a wide range of observable factors and unobserved and possibly idiosyncratic fixed effects. Within the same dataset, and subject to the same controls, average within-enterprise TFP is lower by about 20% for those complaining of problems of access to finance.

Just like those of access to land and access to finance, problems of tax administration affect smaller businesses more than larger ones, and, partly for that reason, have reduced allocative efficiency. Within the 2002 and 2006 Ethiopia PICS datasets, businesses complaining about the problem grow, on average, 52% slower. This is mainly because their annual net hiring (job creation) rates are smaller by about a third. Again this is controlling for a host of observable business and location characteristics as well as for unobserved heterogeneity. Although we cannot reliably estimate its effects based on our data, there are some indications that corruption may be a significant source of allocative efficiency losses. A sizeable proportion of businesses report to be held back by it, and, like problems of access to land and finance, affects smaller and younger enterprises more.

2.2 Low productivity as the key cause of low international competitiveness

Since the average annual manufacturing wage rate in Ethiopia is less than a third of the average for Sub-Saharan Africa, and less than half of that for low income economies (See Figure 10), the proximate cause of the lack of international competitiveness of Ethiopian manufacturers is therefore their low productivity. Measured as annual sales per worker, average labor productivity in industries of significant presence in Ethiopia is less than half of the average for SSA countries, and an even smaller fraction of the low-income country group average (See Figure 11).

Figure 10 Wages per Worker (USD Thousands) – Well Represented Industries

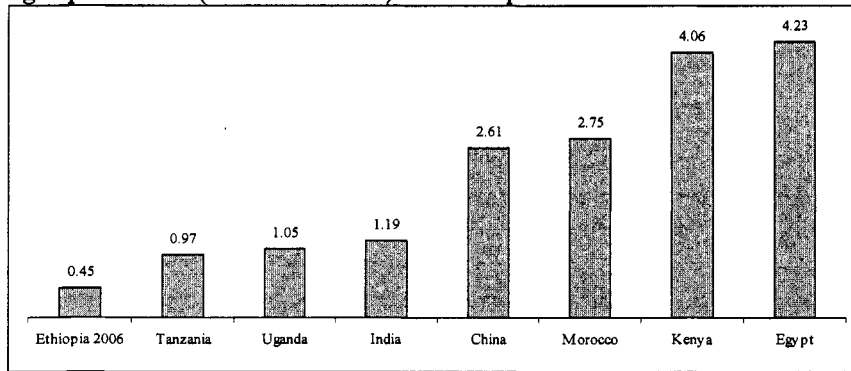
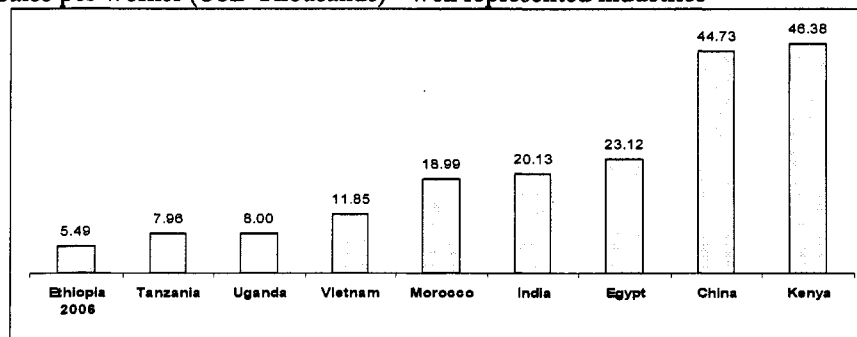
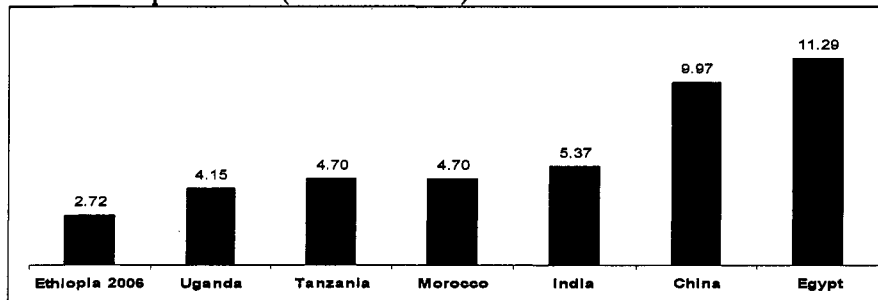


Figure 11 Sales per Worker (USD Thousands) - Well represented industries



Low labor productivity in Ethiopian industry is a reflection of undercapitalization and low total factor productivity. Part of the reason that Ethiopian factory workers are less productive than their counterparts elsewhere is that Ethiopian factory floors are not as well equipped. For example, the value of equipment and machinery per worker for the 2006 survey sample averaged about USD 2,700, lower than the low-income country group average by about 30% and lower than the SSA average by about 50%. However, it is also clear from the data that labor productivity would still be significantly lower than that in comparators even if Ethiopian industries were as capital intensive as in those countries. In other words, total factor productivity (TFP) is significantly lower in Ethiopia than in comparator countries as a result of some combination of lower workforce skills and greater technical inefficiencies at the factory level and beyond.

Figure 12 Fixed Assets per Worker (thousands USD)



To illustrate, we compare in Figure 13, Figure 14, and Figure 15 aggregate TFP between Ethiopia and selected countries for three industries of significant presence in the country, namely, garments, food and wood work and furniture. All indices are obtained as PICS sample industry average TFP, but expressed relative to the average for upper middle income economies, which is normalized to 100.

While the relative position of Ethiopia's index varies by industry, it is safe to say that the overall aggregate TFP is lower in Ethiopian manufacturing industries than it is in other countries, SSA and other low-income country included. Figure 13 and Figure 14 show this pattern for garments and food industries. Figure 15 shows that the wood work and furniture industry departs from that pattern, aggregate TFP index being higher for Ethiopia than the averages for SSA and low-income countries.

Figure 13 Average TFP - Garment Sector

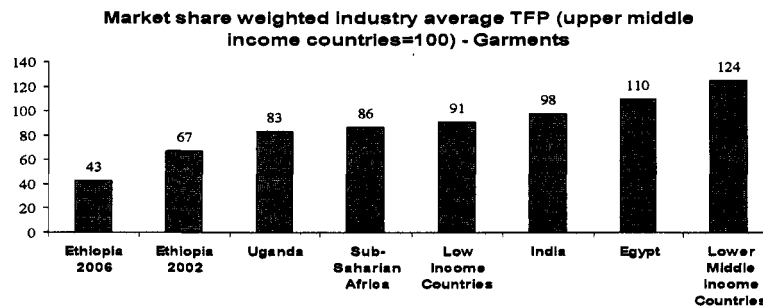


Figure 14 Average TFP - Food Sector

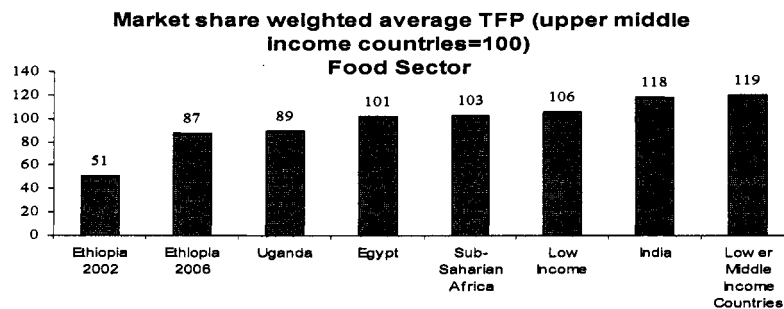
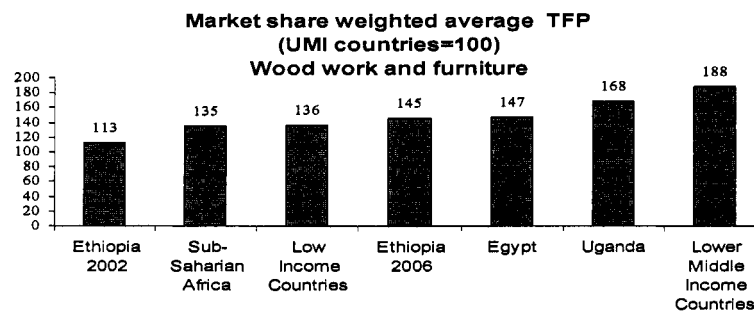


Figure 15 Weighted Average TFP - Wood and Furniture



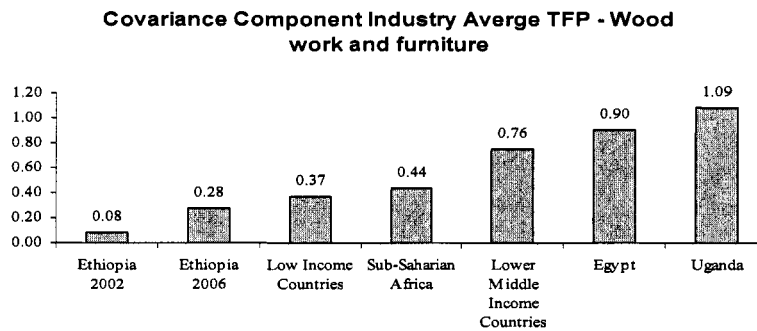
By definition, anything that increases the allocative efficiency of an industry also increases the industry's aggregate TFP.¹¹ The increase in allocative efficiency itself might be brought about via

¹¹ As an industry average the aggregate TFP index is computed as a weighted mean of the TFP of the individual enterprises constituting the industry sample, with enterprise market shares as weights. Let a_t be the weighted average of (log) TFP of a given industry in year t , and let a_{it} , be the log TFP of enterprises constituting the industry with respective market shares, s_{it} , where i indexes enterprises. Then a_t can be written as

reduction in entry barriers, which in turn could increase the net business turnover rate. It could also occur through a reallocation of market share from less productive enterprises to more productive ones among incumbents. Either of these would subject incumbents to greater competitive pressure, which often also means greater incentives for them to invest in product and process innovation in order to expand or to protect market shares. Policies that promote allocative efficiency thus also tend to enhance within-enterprise productivity growth. It is nonetheless useful to treat allocative efficiency gains and within-firm efficiency gains as distinct sources of aggregate productivity growth.

One reason aggregate TFP is lower in Ethiopian industries than in the comparators we have chosen is that within-enterprise TFP is lower in Ethiopia. A second is that Ethiopian industries have lower allocative efficiency. Although the correlation between within-enterprise productivity and enterprise market share has grown stronger in recent years, allocative efficiency gains are not yet as important a source of aggregate productivity growth as they are in comparators. This is best illustrated by the case of the wood work and furniture industry.

Figure 16 Covariance Component TFP - Wood and Furniture

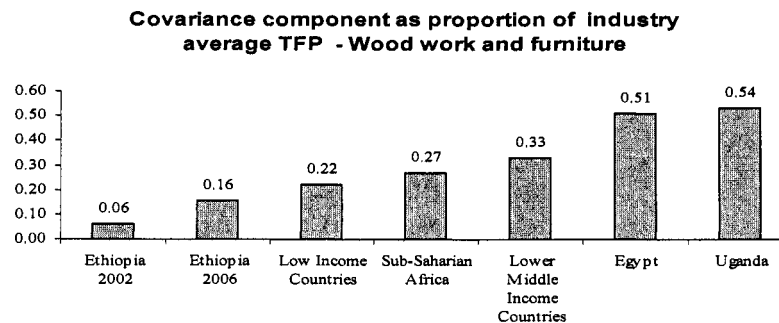


For this industry aggregate TFP is in fact higher in Ethiopia than it is in low-income countries more generally (Figure 15 Weighted Average TFP - Wood and Furniture). However, for the same industry, allocative efficiency is lower in Ethiopia. That aggregate TFP is higher in Ethiopia is therefore entirely due to the higher within-enterprise TFP of Ethiopian firms. The relative magnitude of allocative efficiency in other Ethiopian industries is quite similar to that of the wood work and furniture industry. Only that within-enterprise TFP also happens to be lower in Ethiopia than in comparators in the other cases.

$$a_t = \bar{a}_t + \sum_{i=1}^{N_t} (s_{it} - \bar{s}_t)(a_{it} - \bar{a}_t)$$
, where letters with upper bars represent unweighted industry means of

variables. In other words, aggregate industry level TFP is the sum of the (unweighted) average of enterprise level TFP and the sample covariance between enterprise TFP and enterprise market share. A positive covariance term implies that more productive firms have higher market shares. Considering changes over time, this means that it is not necessary that \bar{a}_t increases for aggregate industry productivity to grow. The index a_t can increase even in the absence of significant changes in \bar{a}_t , as a result of the reallocation of market share in favor of more productive firms. The more competitive is an industry the stronger is the correlation between market share and within-firm TFP and, in that sense, the greater is the role of allocative efficiency as one of two source of aggregate productivity growth, the other being growth in within-enterprise TFP captured by the un-weighted mean TFP, \bar{a}_t .

Figure 17 Covariance Component as Share of Average TFP - Wood and Furniture



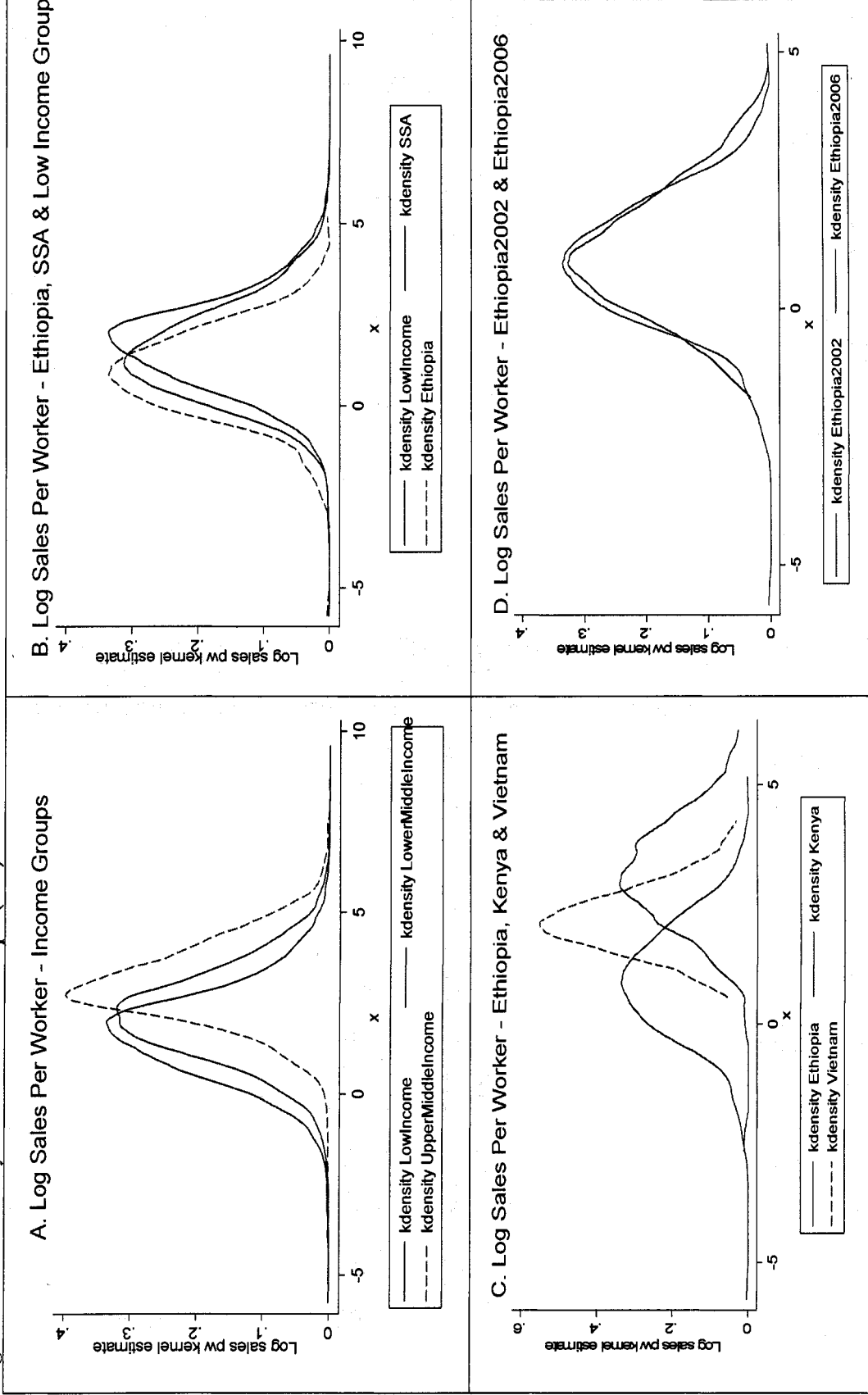
Further evidence of the conclusion about the relative allocative inefficiency of Ethiopian industry can also be drawn from a comparison of kernel estimates of the density underlying the sample of the 2006 Ethiopia Enterprise Survey with estimates for various comparators. Such a comparison is given in panels A to H of Figure 18, which show estimates of labor productivity rather than of TFP so as to maximize the number of observation used in the density estimation.

The more competitive is an industry in the allocative efficiency sense, the less tolerant is it of less productive firms, which tend to be driven out of the market by more productive incumbents or fresh entries. The spread of productivity around the population mean is therefore smaller in more competitive industries. Thus we see in Panel A of Figure 10, that, not only is average labor productivity higher in upper middle income economies than it is, say, in low-income economies, but also, the population of firms in upper middle income economies is distributed around its mean more tightly. This is very much consistent with the view that industries are typically more competitive in those economies than they are in low income economies. Comparing low income economies with lower middle income economies instead, we see again that average labor productivity is higher in the latter and, more importantly in the present context, more tightly spread around its mean.

Panel B plots the density of the Ethiopian sample together with the densities for low-income economies and Sub-Saharan Africa. We see from it that Ethiopia's average labor productivity is lower than that of either group of comparators, but its spread around the mean is not significantly different from the others. The spread of the Ethiopia sample does exceed those of samples from rapidly globalizing economies such as Vietnam. Panel C brings densities of the Ethiopian and Vietnamese samples with those of the Kenyan sample, showing that Ethiopia's labor productivity is lower than the averages for Kenya and Vietnam. The panel also shows that Ethiopian industries are far less competitive than Vietnam's in the allocative efficiency sense. They are no less competitive than Kenya's, however, although Kenya's average labor productivity is far higher.

Panel D compares the densities for the 2002 and the 2006 Ethiopia survey samples, showing a small allocative efficiency gain between the two waves.

Figure 18 Kernel Density Estimates for ICA Sample (A-D)

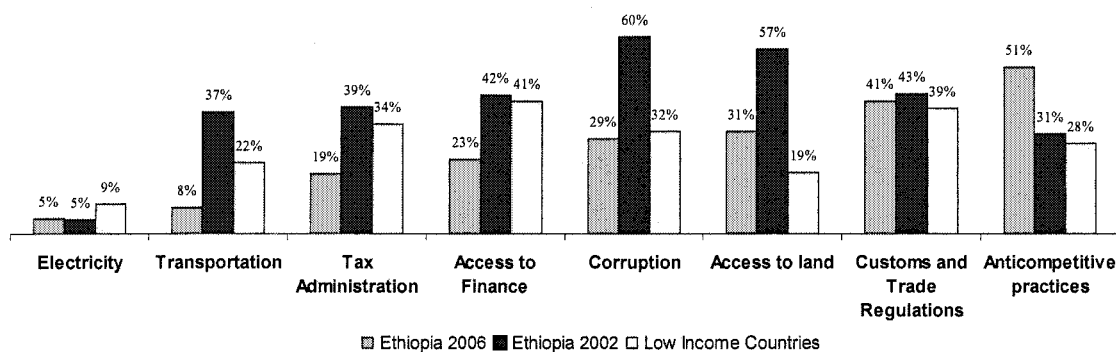


Source: Ethiopian Investment Climate Survey I and II, as well as surveys for Kenya and Vietnam.

2.3 The role of the business environment

Perceptions of the severity of almost all business obstacles in Ethiopia have improved over the past four to five years. So much so that the rate of complaint among the respondents of 2006 Investment Climate Survey is significantly lower than the low-income cross country average with respect to almost all institutional factors. This reverses the comparison that the 2002 Ethiopia rates bore in the cross-country sample (Figure 19).¹² Changes in some indicators suggest that domestic product markets have become markedly more competitive. Those in others reflect improvement in the allocation of key resources, particularly of land and credit. A host of governance variables have also changed for the better including notably corruption, taxation and macroeconomic stability. In this section we will describe the implications of these improvements for economic performance, arguing that the changes have helped make Ethiopian industry more productive and more competitive internationally.

Figure 19 Percent rating factor as obstacle to business operations (all industries)



Source: Ethiopian Investment Climate Survey II

A corollary of this is that further investment climate reforms should pay off in even more productivity gains. For, in spite of its recent improvement, the perceptions of Ethiopia's business environment is not supported by some of the actual data (Figure 19). The section is based on econometric analyses of returns of the 2002 and 2006 waves of the Ethiopia Enterprise Survey and of the latest cross-country PICS dataset.¹³ It also draws on the broader empirical literature on the role of institutions in economic performance.¹⁴

¹² Figure 19 compares the proportion of managers who rated particular institutional factors as major or severe obstacles to the operations or growth of their respective businesses in the 2006 Ethiopia PICS with the corresponding proportion for the 2002 survey using the cross-country sample average for all low income economies as a reference point.

¹³ The underlying econometric analyses are reported in Appendices C and D.

¹⁴ The analysis is confined to two measure of economic performance, namely, aggregate (industry) productivity and its rate of growth. We will also make active use of the distinction we have already made between two transmission channels of the effect of each factor on the level or growth rate of aggregate productivity: that is, its effect on the level or growth rate of within-enterprise productivity; and its influence on allocative efficiency via its impacts on business turnover (i.e. net entry rates) and on the growth of surviving incumbents (i.e. on their investment and job creation rates).

Some of our survey evidence of these effects is based on identification from cross-sectional variation in the full cross-country PICS dataset. Some derives from variation within the Ethiopia PICS dataset, which has a two-point panel of observations of business environment variables for each sample point along with a five-year panel of observations of enterprise productivity and growth. This gives us some degree of control over

2.3.1. Product market competition and productivity growth

Factors that impede new entry generally hold down aggregate industry productivity growth.

The reason is that lower net entry rates often amount to exogenous protection of the combined market share of incumbent businesses. Current market shares can also be protected by factors reducing the relative growth rates of smaller or younger businesses. In turn, greater exogenous protection of the existing distribution market shares among incumbents means a less competitive industry, in which the incentive for innovation is lower and, consequently, the pace of productivity growth is also smaller. The later proposition is supported by the broader empirical literature on the subject, and also by analyses of the Ethiopia PICS data. In the broader literature, measured TFP is generally higher where enterprise market share is larger, but the rate of TFP growth also falls as market shares increase. This holds up within the Ethiopia PICS data as well. Here, an enterprise's TFP would be 38% higher than that of a rival with half of its market share, but a doubling of the firm's market share also reduces the rate of growth of TFP by 5 percentage points per year.

Direct barriers to entry – licensing, permits, registration, and trade protection – have reduced as a policy issue. Of the various 'obstacles to growth' that respondents of World Bank Enterprise Surveys are routinely asked to rate (Figure 11) barriers to entry that may serve as instruments of protection for incumbent producers including licensing and permit requirements, and also trade protection via import tariffs and customs regulation. Permit or license requirements were rated as significant obstacles to business expansion by some 14% of respondents of the 2002 survey. At the time the incidence of complaints against entry regulation was substantially greater among younger and smaller businesses. It is therefore quite likely that the requirements protected existing market shares then. By the 2006 survey, however, the proportion of those complaining had fallen to under 7%. The incidence of complaints was also now more or less evenly spread across the size and age groups of firms.

Perceptions of customs and trade regulation have also improved, as perceived by survey respondents, but remain an important problem. Some forty percent of respondents of the 2002 Ethiopia survey had regarded this form of regulation as a significant constraint to their expansion. By this we mean that they rated customs and trade regulation as moderate, major or severe obstacle to the growth or operations of their businesses.¹⁵ This was the same as the average complaint rate in other low income developing countries (see Figure 19). It is therefore a mark of significant liberalization of domestic markets that the complaint rate in the 2006 Ethiopia survey was less than this by more than 10 percentage points. At the same time, a complaint rate of 30 percent is rather high, and points to a potential reform area of significant importance. Moreover, added to the rates of complaint against labor regulation and the regulation of entry, it makes the proportion of businesses reporting to be held back by regulation substantial.

Once size and age differences are taken into account, there is relatively little variation in the incidence of complaints against problems of regulation. As a result, the potential productivity effects of the problems cannot be estimated by comparing performances across the Ethiopia sample alone. This does not of course mean that there would not be any gains from further regulatory reforms. On the contrary, there are at least two reasons as to why improvements in this area could have productivity payoffs. First, although a smaller proportion of businesses complained of the problems in 2006 than did during the 2002 Ethiopia survey, key proxies for the cost of regulation to businesses in fact increased between the surveys. For example, senior management spent more of their time dealing

unobserved fixed (and possibly idiosyncratic) effects in performance, which is necessary for the evaluation of the influence of business environment.

¹⁵ Through out this section, we understand an enterprise to be reporting to be constrained by a business environment factor in this same sense unless we state otherwise.

with regulation in 2006 than did in 2002. The average frequency of labor inspection visits, a reasonable proxy for the cost of labor regulation to business, likewise went up.

Understandably survey respondents think of competition from the informal sector as something of an adversity. However, the data also suggest that the apparent increase, between the surveys, in the same competition may in fact have increased aggregate productivity. Table 2 shows the ordinary least squares regression of Herfindahl indices of city-industry cells of the full cross-country sample on rates of complaints against, among others, competition from informal producers. On the assumption that the sample indices are unbiased estimates of the concentration indices of the underlying population formal firms, the table suggest that there is an inverse correlation between competition from informal firms and the concentration of formal industry. This should be interpreted in the light of empirical evidence in the literature that productivity growth rates tend to be higher in less concentrated industries. Further, comparisons within the Ethiopian sample show that enterprises that complain of too much competition from the informal sector are in fact some 20% more productive. The growth rate of labor productivity in formal businesses is therefore positively correlated with competition from the informal sector.

Table 2 Ratings of regulation and competitive pressure as factors in business growth

Panel A: Regulation	Percent of respondents constrained by					
	Entry regulation		Labor regulation		customs/trade regulation	
	2006	2002	2006	2002	2006	2002
Smaller businesses (<50 workers) :						
Younger (< 10 years)	5.7	16.3	2.9	8.4	12.3	33.0
Older	7.5	11.4	1.9	3.2	32.6	34.1
Larger businesses:						
Younger	4.8	16.0	21.0	30.8	22.6	42.3
Older	5.9	12.5	13.7	34.7	36.3	61.3
All businesses:	6.6	14.2	6.1	13.0	28.6	38.9
Panel B: Competition and regulation sector						
	Competition from the informal sector		Regulation in general			
	2006	2002	2006	2002		
Smaller businesses (<50 workers) :						
Younger (< 10 years)	73.6	41.5	18.9	41.1		
Older	80.2	39.8	37.0	41.3		
Larger businesses:						
Younger	50.0	42.3	41.9	53.8		
Older	50.0	52.1	46.1	70.7		
All businesses:	67.6	42.9	35.9	47.2		

2.3.2 Productivity and the functioning of key factor markets

Like entry regulation and the regulation of trade, problems of access to finance, access to land, skill shortages, or even bottlenecks in physical infrastructure can provide powerful protection to existing market shares, especially if they affect younger or smaller businesses disproportionately as they generally do. There were considerable improvements in all of these areas potential growth bottlenecks between the 2002 and 2006 enterprise surveys. One indication of this is that the proportion of businesses reporting to have been held back by at least one of the four fell substantially. In this section we argue that this could only have increased the allocative efficiency of domestic industry and, through this, aggregate industrial productivity. The complaint rate remained too high nevertheless, suggesting even more productivity payoffs from further improvements. We shall now consider the four areas in turn.

2.3.2 (a) Access to land

Some 56 percent of respondents of the 2006 survey indicated that their growth was significantly hampered by lack of access to land – a modest drop from 2002 but still a very significant concern. These concerns exist despite efforts to make land available. It is also significant that the problem is more pronounced for smaller or younger businesses. Confining ourselves to those that have been in business for 10 years or longer, the proportion of those complaining of the problem is twice as large among those employing 50 workers or less than it is among larger producers. Since the market share of a business normally increases with its employment size this pattern links the land issue to allocative efficiency as source aggregate productivity growth. For it means that lack of access to land alone can undermine the capacity of up and coming businesses to increase their market share if and when they prove to be more productive than bigger or more established players. Beyond being younger or smaller than the rest of the industry, those who complain also tend to rely more on rented property. On the other hand, those who report to 'own' part or all of their business premises are less likely to consider access to land as a constraint to business operations. A more direct piece of evidence that those who complain are constrained by shortage of space in meeting growing demand for their products is that, on average, they operate on fewer square meters of space per employee than otherwise comparable unconstrained firms.

Firms that report being constrained by access to land appear to grow 43% slower, with lower fixed investment and employment rates. Even more telling is the inverse correlation between managers' ratings of access to land as a constraint and a variety of measures of business performance within the Ethiopia PICS dataset. Controlling for a wide range of business characteristics, including line and scale of operations, business experience, location, year of observation, other aspects of business environment, and a host of unobserved factors, enterprises reporting to be constrained by access to land grow 43 % slower. This is partly because their annual fixed investment rate and annual job-creation rates are each about 40% smaller. It is also in part because their productivity growth rate is smaller by some 8 percentage points.

This last effect links lack of access to land to the second source of aggregate productivity growth, which is the growth of within-firm productivity through innovation, learning or internal economies of scale. The effect reinforces the loss in aggregate productivity due to the allocative efficiency losses implied by the lower investment and job creation rates of land constrained enterprises. It is likely that at least some of the land-constrained are potentially more productive than some of the unconstrained. That they invest and hire at a smaller rate, as our estimation suggests, means then that aggregate productivity would be smaller within each industry due to land shortages even if the shortages did not affect within-enterprise productivity directly.

2.3.2 (b) Access to finance

Sixty percent of respondents of the Survey report to be constrained by access to finance. There is considerable empirical evidence that business investment decisions are normally made subject to financing constraints in developing as well as in developed economies. Often credit is rationed in favor of larger and more established businesses even under the most advanced of financial systems because of the informational asymmetry inherent in lending transactions. It is almost impossible that lenders know all they need to know about all borrowers. One consequence of this is that, in condition of tight money, lenders often find it less profitable to raise interest rates than to ration credit at the going rates. As a result, investment rates could fall short of what they would be if everyone could borrow at the market clearing rate as much as they needed to finance viable projects. It is not therefore entirely surprising that problems of access to finance were cited as significant obstacles to business growth by large proportions of respondents in both waves of the

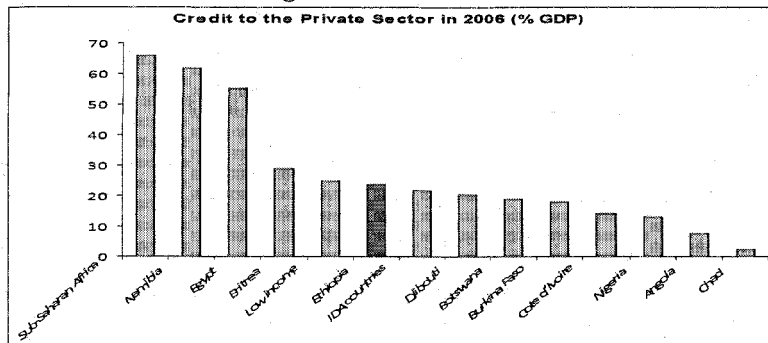
Ethiopia Enterprise Survey. At the same time, informational asymmetry and other potential sources of credit rationing are more severe or prevalent in countries like Ethiopia, where many aspects of the financial system are clearly underdeveloped. This should create space for potential allocative efficiency gains and within firm productivity growth through financial sector reforms aimed at addressing the informational disadvantages particularly of small businesses in credit markets.

Table 3 Selected Business Environment Indicators: Small vs. Large firms

Panel A: Access to finance and to infrastructure								
	Access to Finance				Infrastructure			
	% with bank overdraft		Collateral as % of principal of last loan		Annual sales loss due to power outages (%)		Days delayed in getting power connection	
	2006	2002	2006	2002	2006	2002	2006	2002
Smaller businesses (<50 workers) :								
Younger (< 10 years)	18.1	15.8	182.1	138.1	2.6	5.4	23.0	126.6
Older	27.6	16.1	214.4	131.5	2.4	4.9	24.0	148.8
Larger businesses:								
Younger	65.6	76.9	157.9	118.4	2.6	5.1	86.7	103.7
Older	72.5	76.6	170.8	130.1	2.6	4.9	30.9	34.0
All businesses:	40.1	30.7	185.4	132.8	2.5	5.0	38.1	115.8
Panel B: Regulation								
	Labor inspection days per year		Days for customs clearance (imports)		Management time dealing with regulation (%)			
	2006	2002	2006	2002	2006	2002	2006	2002
	2006	2002	2006	2002	2006	2002	2006	2002
Smaller businesses (<50 workers) :								
Younger (< 10 years)	2.2	0.4	14.7	12.9	4.2	2.8		
Older	2.7	0.4	11.4	12.6	3.8	3.4		
Larger businesses:								
Younger	2.5	3.8	11.9	7.7	4.7	2.2		
Older	2.5	2.2	16.9	18.2	4.6	2.8		
All businesses:	2.5	0.9	14.1	14.6	4.1	2.9		
Panel C: Governance indicators								
	Tax inspections per year		Bribes as % of revenue		Sales lost to crime (%)		Cost of security as % of revenue	
	2006	2002	2006	2006	2002	2006	2002	
	2006	2002	2006	2006	2002	2006	2002	
Smaller businesses (<50 workers) :								
Younger (< 10 years)	6.3	8.0	1.3	1.6	1.1	1.0	0.8	
Older	1.7	12.5	0.7	5.5	0.8	1.4	0.3	
Larger businesses:								
Younger	2.2	16.8	0.1	0.4	0.4	0.7	0.9	
Older	2.2	9.2	0.3	1.0	0.4	1.4	0.7	
All businesses:	3.2	10.1	0.7	4.0	0.9	1.2	0.5	

The GoE believes that the lack of entrepreneurial capacity of businesses, the lack of good business track records, lack of vision/innovation and inability to produce good business plans or feasibility studies are also part of the problem. But the banking sector has actually been highly profitable, with the Commercial Bank of Ethiopia recently reporting record profits, and the smaller private banks routinely reporting return on equity of greater than 30% for several years. Rather than a lack of good lending opportunities, a host of structural issues appear to constrain the sector's performance. The depth (broad money as % of GDP) of Ethiopia's financial sector declined continuously from 43 percent of GDP in 2003 to 39 percent in 2006 contrary to the general trend in low income countries. Domestic credit to the private sector (% of GDP) grew modestly from 20.3% in 2003 to 24% in 2006, but in sub-Saharan Africa, credit to the private sector grew 10 percentage points within a similar period.

Figure 20 Credit to GDP

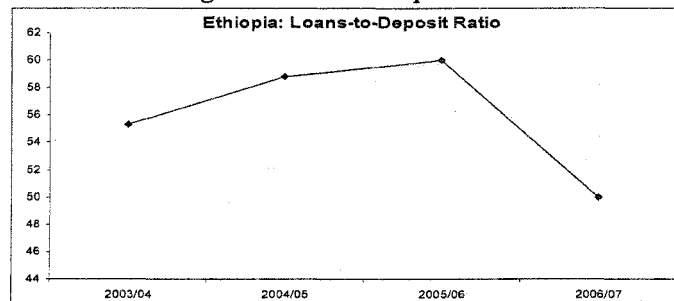


Source: World Development Indicators, World Bank.

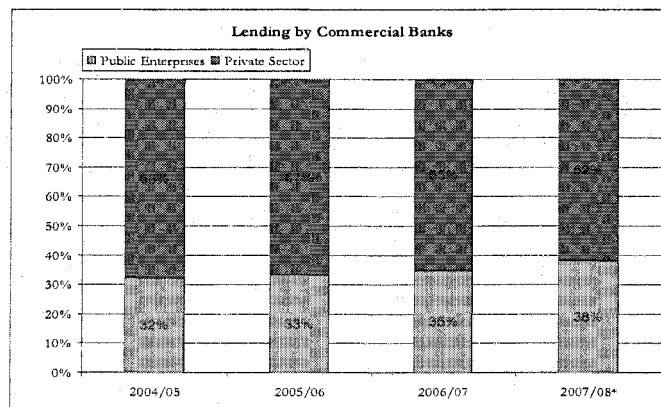
The financial sector is dominated by banks hence the mobilization of resources for enterprises hinges primarily on the banking sector. The importance of private commercial banks has grown in recent years, but even so the government-owned Commercial Bank of Ethiopia (CBE) still accounts for nearly two-thirds of banking system assets (IMF, 2007). This degree of concentration, together with the significant role of the public sector in the system hampers the development of a competitive financial sector and access to finance for private sector development.

There is excessive liquidity in the banking system - banks' loans-to-deposits ratio fell from 55.3% in 2003/04 to 50% in 2006/07. Whilst commercial banks' lending to public enterprises is expanding; there is a slowdown in lending to the private sector – from 68% of total lending in 2003/04 to 62% in 2007/08.

Figure 21 Loan-to-deposit ratio



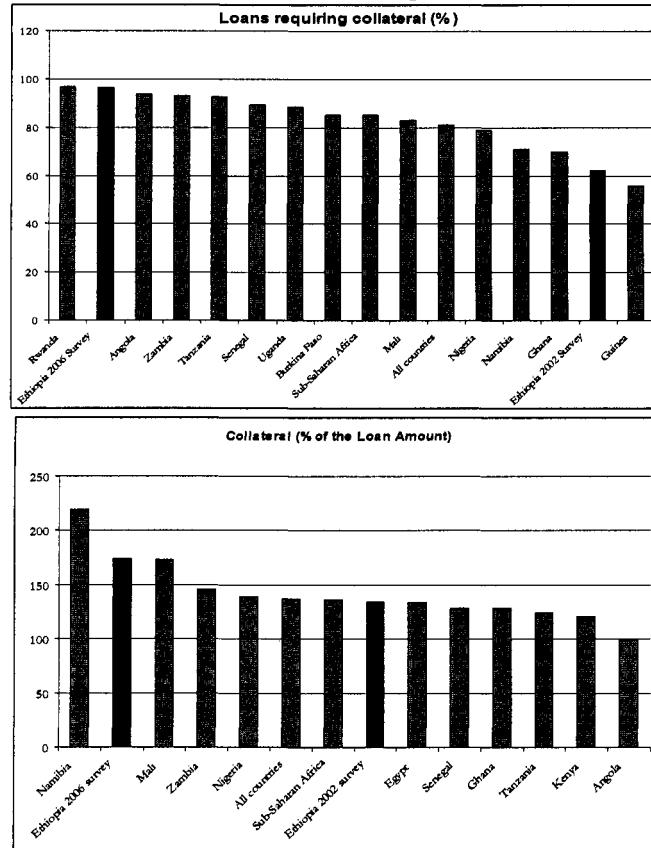
Source: IMF



Source: IMF. * represents estimates.

According to the 2006 ICA survey, over 96% of loans to enterprises is collateralized – a significant increase over the figure of 62% reported in the 2002 survey. Furthermore, the value of collateral (% of loan amount) has risen substantially from 133% in 2002 to 173% in the 2006 survey, and is one of the highest rates in the developing world.

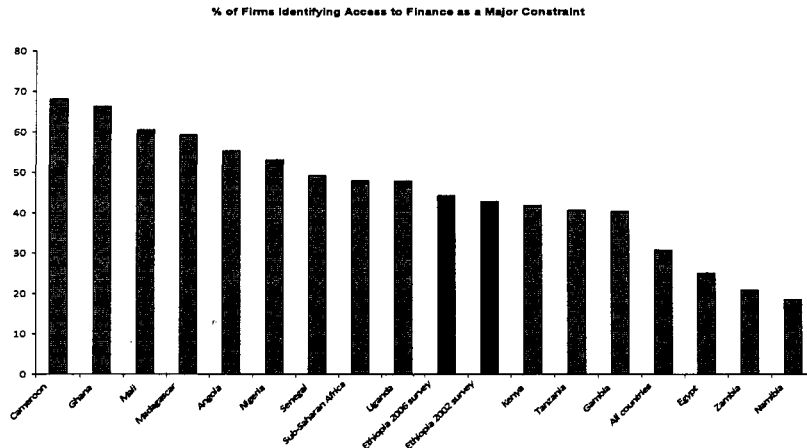
Figure 22 Collateral Requirements



Source: World Bank Enterprise Survey

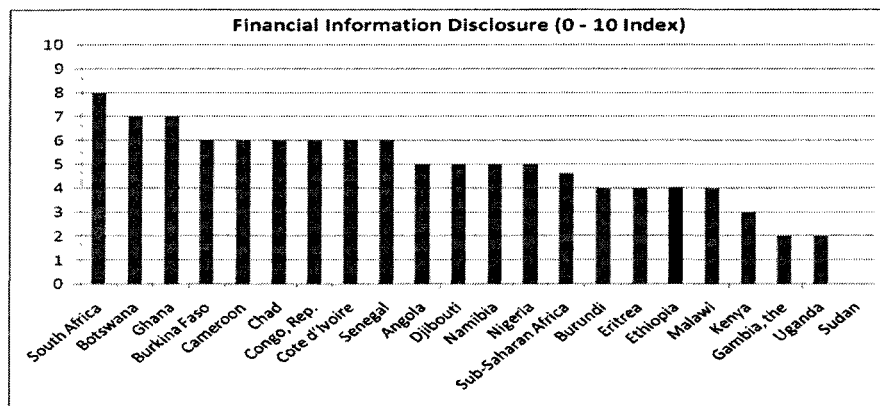
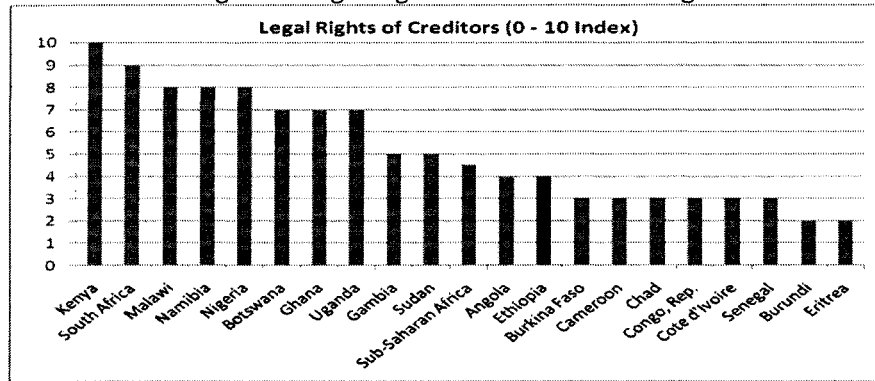
Access to finance is a major constraint to the activities of **44%** of **formal sector** enterprises (**48%, including the informal sector**) surveyed in 2006 – the second most important constraint in the set of general constraints to firms' operations. Firms' perception of access to finance as a constraint has **slightly worsened** since the 2002 ICA survey (**42.8%**), as can be anticipated given the deterioration in the credit environment. In spite of this, the perception of access to finance as a major obstacle to the growth of Ethiopian firms is lower than regional (sub-Saharan Africa) averages.

Figure 23 Access to Finance as a Constraint - African Peers



Generally, the poor functioning of credit markets can be linked to institutional bottlenecks related to the environment in which credit providers operate. Credit information is inadequate: information on clients' creditworthiness is only available at the public credit information unit at the National Bank of Ethiopia (NBE) and is limited to 0.1% of adult population, whereas regional average in sub-Saharan Africa is 2.5% of population (Doing Business Indicators 2009). Legal rights of creditors are weak (below regional average) and the judicial process for the recovery of debts by banks and financial institutions is cumbersome, discouraging financial institutions from servicing the enterprise sector, especially SMEs. The lack of disclosure of financial statements by enterprises restricts the ability of financial institutions to effectively appraise applications for credit.

Figure 24 Legal Rights and Disclosure Ratings



Firms rely on formal financial institutions more for working capital than they do for capital expenditures. This seems to explain that the correlation between access to finance and business fixed investment rates is rather weak within the Ethiopia PICS dataset. Access to finance does influence net job creation rates in the same dataset, though, that rate being 44 percent lower for constrained firms than it is for others. Again this is controlling for many factors, including industry effects, market experience, the time of observation, exposure to other business obstacles and unobserved heterogeneity. Subject to the same controls, average TFP is lower by about 20% for those reporting to be constrained by access to finance (Table 4).

2.3.2 (c) Access to Infrastructure

Infrastructure bottlenecks and skill shortages figure prominently as constraints to growth in both waves of the Ethiopia PICS. Unlike problems of access to land and access to finance, however, their effects seems to be felt more by larger businesses while there is no consistent age profile in their ratings as obstacles to growth (Table 5). Their effect on allocative efficiency might not therefore be as strong as that of access to land or access to finance.¹⁶ There is strong evidence, though, in the PICS data, that skill shortage reduces significantly the level as well as growth rate of within-firm productivity. Comparisons within the Ethiopia PICS sample show that, all else given, the average TFP growth rate of businesses reporting to be constrained by skill shortage is 8 percentage points lower than that of unconstrained firms (Table 4).

Table 4 Estimated performance improvement premiums of enterprises growth constrained by business environment factors

Performance indicator	% premium vis-à-vis unconstrained enterprises of businesses self reportedly constrained by				
	Access to land	Access to finance	Problems of tax admin	Skill shortages	Competition from informal firms
Sales growth rate	-43.1		-52.1		
90% Confidence interval (=+/-)	30.0		41.0		
Fixed investment rate	-59.5				69.0
90% Confidence interval (=+/-)	50.0				50.0
Net job creation rate	-0.41	-44.0	-32.2		-48.0
90% Confidence interval (=+/-)	39.0	34.0	33.7		42.0
TFP growth rate	-7.1			8.1	
90% Confidence interval (=+/-)	6.0			7.0	
Level of TFP		-21.1			23.1
90% Confidence interval (=+/-)		21.0			21.0

¹⁶ There is indeed no evidence within the Ethiopian sample that either of these two variables affects the transmission channels of changes in allocative efficiency, namely, business investment and net job creation at the enterprise level.

Table 5 Factor Markets vs. Infrastructure as Constraints to Growth

Panel A. Factor Market Functioning								
	Per cent of respondents constrained by							
	Access to land		Access to finance		High cost of finance		Skill shortages	
	2006	2002	2006	2002	2006	2002	2006	2002
Smaller businesses (<50 workers) :								
Younger (< 10 years)	52.9	73.4	67.0	57.4	43.0	48.7	20.8	17.0
Older	67.8	69.7	61.1	57.8	42.9	60.0	9.1	9.7
Larger businesses:								
Younger	32.3	41.7	54.8	68.0	47.5	84.0	24.2	30.8
Older	34.3	27.6	54.0	56.2	42.0	65.7	36.3	29.3
All businesses:								
	55.7	63.2	60.1	58.0	43.3	57.8	17.4	17.9

Panel B. Physical infrastructure								
	Per cent of respondents constrained by							
	Power shortage		Poor transport		Poor telecom		Poor infrastructure	
	2006	2002	2006	2002	2006	2002	2006	2002
Smaller businesses (<50 workers) :								
Younger (< 10 years)	41.5	64.5	20.8	26.5	7.5	31.9	51.9	72.6
Older	34.4	65.9	24.3	18.5	16.3	23.8	49.4	69.0
Larger businesses:								
Younger	43.5	61.5	29.0	46.2	21.0	26.9	56.5	69.2
Older	41.2	61.3	35.3	48.6	16.7	33.3	55.9	74.3
All businesses:								
	37.8	64.2	26.0	29.3	15.1	29.4	51.7	71.6

Business managers' complaints about poor infrastructure primarily reflect concern with problems of power shortage, poor transport, or poor telecom connectivity of business locations (Table 5). Things have greatly improved in this area since the 2002 Ethiopia enterprise survey. The improvement is also reflected in changes in indicators of very specific infrastructure bottlenecks. For example, the time it took a new business establishment to get connected to the public power grid dropped from an average of nearly 116 days in 2002 to 38 in 2006. Businesses' estimates of losses due to power interruption in 2006 were also about half of what they were in 2002. Significant as these improvements are, the indicators for 2006 still are not good enough by international standards, which is probably why the proportion of those reporting to be constrained by infrastructure was still well over 50 per cent. Reported losses of sales due to power outages at a rate of 2.5% a year, and 7-week delay in getting connected to power are simply too high by the standards of comparable economies, as is a 7 week wait for new power connections.

2.3.5 Governance and productivity

We include under the heading of governance institutional factors relating to the security of property rights, the enforcement of private contracts, the maintenance of law and order, and the stability or predictability of the fiscal and macro-economic environment of business decisions. Table 6 (Governance as Constraints to Growth) suggests that these are all areas of concern for significant sections of the business community. Easily the most complained about governance issue as read from the table is tax administration. Here too, things have improved substantially compared to what was captured in the 2002 survey, when three respondents in four identified problems of tax admin as a significant obstacle to the expansion of their businesses. The complaints rate dropped to 47 percent by 2006, which, however, is still way above the average for low income countries. Many of those who report to be constrained by tax admin problems also complain about high taxes, for which the complaints rate is in fact higher (see Table 6). Respondents see the two issues as distinct problems nonetheless.

Table 6 Governance as Constraints to GrowthPanel A. Tax admin, law and order,
and corruption

	Percent of respondents constrained by					
	Problems of tax administration		Crime and violence		Corruption	
	2006	2002	2006	2002	2006	2002
Smaller businesses (<50 workers) :						
Younger (< 10 years)	47.6	73.2	17.0	21.8	49.0	51.3
Older	47.8	81.0	28.8	17.6	40.8	56.8
Larger businesses:						
Younger	50.0	72.0	21.0	30.8	30.0	65.4
Older	39.2	66.7	14.0	16.0	36.0	35.1
All businesses	46.5	74.3	23.5	20.1	40.3	51.0

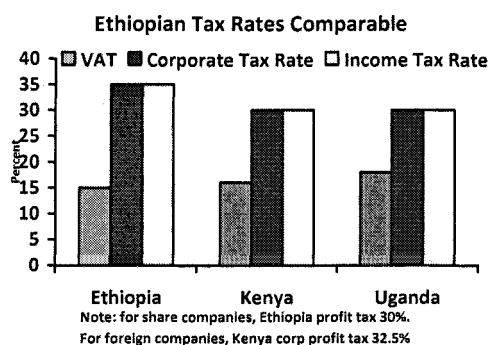
Panel B. Taxes and Macroeconomic
stability

	Percent of respondents constrained by			
	High taxes		Macroeconomic instability	
	2006	2002	2006	2002
Smaller businesses (<50 workers) :				
Younger (< 10 years)	61.9	85.9	58.3	63.2
Older	60.4	85.7	58.5	59.3
Larger businesses:				
Younger	54.8	88.0	59.0	64.0
Older	50.0	86.5	65.7	64.0

2.3.6 Problems of tax administration

Businesses reporting to be held back by problems of tax admin grow, on average, 52% slower – their annual job creation rates are lower by about a third Both sets of estimates control for business line, time and location effects, length of business experience, exposure to a host of other business environment variables, and unobserved heterogeneity. The effects on hiring rates eventually translate to allocative efficiency losses, and hence to reduction in the growth of aggregate industrial productivity. As in the case of those arising from problems of access to land and access to finance, the allocative efficiency losses involved here are magnified by the fact that the problems of tax administration too affect smaller and younger business more than others.

It is important to recognize that the issue is with administration of taxes, rather than with tax rates. Ethiopia's tax rates are comparable or favorable to other countries in the region.

Figure 25 Comparison of Regional Tax Rates

A series of reforms has taken place. Reforms in Customs include the merger of three independent bodies: the Ministry of Revenues, Customs and Revenue Authorities into one organization: Revenue and Customs Authority (RCA). These reforms were part of the Ministry's internal Business Process

Review (BPR) process which used the British system of managing customs and revenue matters as its benchmark. RCA state that, in terms of customs services, they now have dedicated, one-stop service delivery structures separately for import and exports, instructions and guidelines/manuals for transistors and businesses. These changes are now being fully introduced and it is hoped that service delivery will be significantly improved. On the Inland Revenue front, Standard, Integrated Government Tax Administration System (SIGTAS) has been introduced and more offices are being established in Addis Ababa for the convenience of tax payers. Tax payment is done as declared and simple assessment is done after payment. Tax clearance has been streamlined and takes much less time. The time to reimburse Withholding Tax has been reduced from about 3 months to 15 days.

The 2006 survey sought to directly probe into the underlying concerns by asking about specific tax admin issues including dispute resolution, uncertainty of tax schedules, and the availability and dissemination of information about them. **The most important subject of complaint is the uncertainty and dispute surrounding tax assessments.** A reasonable proxy for the incidence of disputes is the frequency of tax inspection visits to business premises. During the 2002 survey, this averaged 10 per year for the full sample, which is very high. Even higher was the average for younger businesses. The overall average came down sharply to 3 inspections a year by 2006, but remained quite high for younger businesses, for which the average was 6.3. The contrast between the responses of those reporting to be constrained by the problems of tax admin in general and those of unconstrained businesses is quite instructive (Table 7). Sixty percent those of reporting to be constrained by tax admin were dissatisfied with the appeals mechanism for tax disputes as opposed to only 18% of the unconstrained who felt the same.

Table 7 Aspects of Tax Admin Complained about by ICS Respondents

Problems of tax admin complained about	Reportedly constrained by tax admin		Unconstrained by tax admin.		All survey respondents	
	% complaining	Obs.	% complaining	Obs.	% complaining	Obs.
(1) Availability information on tax liability	56.4	225	14.6	247	34.5	472
(2) Completion of tax forms	33.2	223	3.2	247	17.4	470
(3) Keeping up with changes in rule and tax schedules	65.3	225	25.0	248	44.1	473
(4) High tax penalty	60.9	225	20.6	247	39.7	472
(5) Problems with appeals mechanism for tax disputes	59.9	217	17.8	242	37.6	459

2.3.7 Corruption and other aspects of governance

About 40% of respondents of the 2006 survey reported that they were constrained by corruption. This was down by 10 percentage point from the complaints rate of the 2002 survey, but, again, evidently high and on a par with the average for low income economies. Not surprisingly, being constrained by problems of tax administration is significantly correlated with a more general aspect of governance, namely, control of corruption. Businesses reporting to be constrained by tax administration are also more likely to report being constrained by corruption. Just like problems of access to land, access to finance and tax admin, the problem of corruption affects smaller and younger businesses more than it does larger or longer established players. The complaint rate is significantly higher for younger or smaller enterprises as is the share of revenue paid out as bribes to government officials. One would therefore expect corruption to reduce allocative efficiency in the same way as problems access to land and tax administration do.

Chief among the dimensions of governance that are rated as significant obstacles to growth are high taxes, political instability, policy uncertainty, and crime and violence. The complaint rate against high taxes has fallen substantially from 85% in the 2002 survey to just under 60% 2006 (Table 6). The later figure is of course still high. The complaint rate is also higher among smaller and younger businesses, which again could have adverse implication for allocative efficiency. There is difficulty in identifying the effects of other dimensions of governance variables within the PICS dataset. This does not of course mean that the effects do not exist in reality. All it means is that we

need better data than those currently available in order to reliably estimate the effects. In the mean time respondent subjective evaluation provide useful indicators of their importance.

Macroeconomic stability is a subject of complaint on the part of the majority of respondents of the Ethiopia PICS, the complaint rate remaining largely unchanged between the 2002 and 2006 waves. Though the complaint rate is not near that about high taxes, tax admin, or corruption, crime and violence has also been of significant concern for a sizeable segment of the business community (Table 6).

2.4 Conclusion

Some important gains in competitiveness notwithstanding, Ethiopian industry is nonetheless very much isolated from the global economy to the detriment of its growth prospects, which isolation could be reduced significantly through productivity gains from further investment climate reforms. We draw these conclusions based primarily on analyses of a panel dataset from two-wave World Bank enterprise surveys of Ethiopia as well as the full cross-country PICS dataset. The cross-country PICS dataset is basically cross-sectional. The Ethiopian dataset, while longitudinal, has only two time series points on business environment variables (2002 and 2006). These data limitations have to be born in mind in using the findings reported in the chapter as the basis for policy discussions. In particular, the limitations mean that the effects of key governance variables such as corruption, business tax rates, political stability, crime and violence cannot be reliably estimated based on the data we have analyzed here.

We think that the PICS dataset enables us to reliably assess the effects of five key business environment variables on aggregate industrial productivity via two channels, namely, intra-industry allocative efficiency and the level or growth rates of within-enterprise productivity. The variables are

- Access to land for business premises
- Access to external finance
- The hassle and uncertainty arising from problems of tax admin
- Infrastructural bottlenecks,
- Skill shortages

Shortage of land, financial constraints, and problems of tax admin all affect younger and smaller enterprises more than larger and longer established businesses, and have consequently been a significant factor in protecting existing market shares. Allocative efficiency losses of each of these factors stem from their implications to the size or age profiles of rates of fixed investment and net job creation. In addition, land shortages have reduced the pace of within-enterprise productivity growth rates while more financially constrained businesses have lower levels of TFP.

Though not as pronounced as the effects of problems of access to land and of external financing, skill shortages and infrastructure bottlenecks have also been significant drags on industrial productivity. This has primarily been through the effect both have had on within-enterprise average TFP. There is also some evidence in the cross-country PICS dataset that poor infrastructure makes local industry more concentrated and hence less competitive than it could be, with all the implication this has for aggregate productivity growth both via allocative efficiency losses and through within-enterprise productivity growth.

Our estimates suggest that large productivity payoffs are likely from further improvements in any of these, and even more probably from a program inclusive of all of them. All five areas figure prominently in managers ratings of business climate factors as obstacles to business growth and business operations.

Chapter 3: The Productivity Challenge: Markets and Trust

Oilseed exporters are facing a great challenge in the quality of their export products. Suppliers allegedly mix stones with the oilseeds after they roast the rocks to ensure likeness to oilseeds. Elias Genete, Board Director of Ethiopian Peas, Oilseeds and Spices Association (EPOS.A) told Capital that roasted stones account for roughly 25 kg out of every 100 kg. This costs exporters not only in terms of higher price for a lesser quality product, but more importantly, it can even drive them out of business. Capital, January 16, 2008

“His reasons are as two grains of wheat hid in two barrels of chaff; you shall seek all day ere you find them, and when you have them they are not worth the search.” Bassiano, in Shakespeare’s Merchant of Venice

3.1 Rationale for focusing on institutions

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 an impersonal exchange over broader distances. 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, as in the oilseed example above, 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. Wide spread contractual 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.¹⁷

Institutions, or rules of exchange, emerge over time to reduce the cost or mitigate the risk of transactions.¹⁸ Institutions are an important – although not the sole – determinant of transactions

¹⁷ *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

¹⁸ This chapter results from two background papers, one by Professor Marcel Fafchamps of Oxford, with support from Rowena Chiu, and the other from Dr. Gebrehiwot Ageba of the Ethiopian Development Research Institute (EDRI).

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)¹⁹ 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.” 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 failure.

Infrastructure and institutions go hand in hand in reducing transactions costs. Physical infrastructures such as roads and telecommunication networks play a crucial role in reducing transactions costs. Too often, however, 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 Ethiopia can in principle facilitate commerce, so that people can deliver product safely over distances by negotiating an order and delivering them to 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 (Fafchamps and Minten, 2004). The internet is an excellent illustration. The rise of e-commerce 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 UPS-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.

Because transaction costs and institutions are so important to development, additional questions were added to the survey to better understand the investment climate in Ethiopia. Unfortunately, the dynamism of institutional development is not as well understood in developing countries as we would like. In this chapter, we investigate what form market institutions take in Ethiopia and how they affect the way firms operate. The purpose of this chapter is to assist Ethiopian stakeholders in government, private sector and civil society in achieving this objective. In the first half of the chapter, we seek to interpret survey results with a view to understanding transaction costs. In the second half, we examine the formal and informal institutions that underpin market performance.

3.2 How do firms Contract?

3.2.1 Finding business partners

Finding a new business partner, or “search” costs, can be particularly costly to new businesses. The three most common ways through which firms may establish contact with new suppliers are business acquaintance, being approached/contacted by the supplier, and direct contact

¹⁹ Rodrick, Dani, 2003. ed. *In search of prosperity: analytical narratives on economic growth*. Princeton, NJ, Princeton University Press.

by firms themselves in that order. There is difference in the relative importance of the different contact methods across firms (see Table 8). For large firms, the three most important contacting methods are 'being approached by suppliers', 'through tender/advertisement' and 'through business acquaintance' in that order while for small businesses contact 'through business acquaintances', 'through family/friends' and 'direct contact by the firm itself' (in that order) are the main ones. On the other hand, the three main methods that medium enterprises resort to are business acquaintance, direct contact by supplier and public tender/advertisement in that order. In terms of ownership, as may be expected, public tender/advertisement is the single most important method used by state owned enterprises whereas private firms depend on contact business acquaintances, direct contact by supplier and direct contact by firm itself in that order.

Table 8 How firms make contact with new suppliers

Most important way of contact	Size				Ownership	
	% of all firms	% of small firms	% of med. firms	% of large firms	% of SOEs	% of Private
Through business acquaintance	28.1	33.5	22.5	16.7	9.1	30.8
Supplier does the contact	19.8	17.6	22.5	25.9	20.5	19.7
Direct contact by firm	15.3	18.1	10.0	9.2		17.1
Through family/friends	12.8	18.1	6.3	1.9		14.6
Through tender/advertisement	7.2	1.4	17.5	24.1	56.8	2.9
Through agent/broker	3.9	4.5	2.5	3.7		4.4
Trade fair/exhibition	3.6	1.4	5.0	9.2	4.5	3.5
Internet search	2.2	1.4	3.8	3.7		2.5
Through gov't agency	1.7	-	6.3	1.7	6.8	

Firms to rely more on firsthand knowledge of a supplier to be confident to do business with (see Table 9). About 32 per cent cited 'personal knowledge of/acquaintance with' as their single most important source of confidence for them to do business with a new supplier, suggesting that the trust is low. As may be expected, its importance differs by firm size, ownership type and owner's gender. In terms of size, the per cent of firms citing this is particularly high for small firms (43 per cent) relative to medium firms (15 per cent) and large firms (11 per cent). Quality of supplies and corresponding prices are more important considerations in the case of medium and large firms. Factors like written agreements and nationality/ethnicity are less important.

Personal knowledge/acquaintance and quality & price of supplies are the key considerations for private firms while for state owned enterprises it is quality & price of supplies and the suppliers' reputation that matter most. In terms of gender, personal knowledge/acquaintance and quality of supplies & inputs are the two most important sources of confidence in a new supplier for both male and female owned business.

Table 9 Sources of confidence in new supplier

Most important source of confidence in a new supplier	All firms (%)	Gender		Size			Ownership	
		F	M	% of (small firms)	% of (medium firms)	% of (large firms)	% of SOEs	% of Private
Personal knowledge/ acquaint.	32.0	27.3	39.8	43.0	15.0	11.1	6.8	35.6
Quality of supplies & price	29.5	38.6	24.9	22.2	47.5	35.2	36.4	28.6
Reputation of supplier	10.3	9.1	6.8	6.3	10.0	27.8	25.0	8.3
Lives in same city as me	8.1	5.7	9.5	10.0	5.0	5.6	4.5	8.6
Written agreement	4.7	-	5.9	4.1	7.5	1.9	9.1	4.1
Timely delivery	4.2	5.7	3.2	4.5	1.3	7.4	4.5	4.1
From my ethn. group/tribe	2.9	5.7	-	3.6	1.3	1.9		3.2

Relationships tend to be very long-term. Nearly 90% of firms reported having a relatively long relationship (averaging 5 years) with their respective primary suppliers of main inputs. It is striking that quite a sizeable proportion (more than 56 per cent) depend on own search/research followed by ‘other business persons with similar products’ as a distant second. Advertisement, intermediaries/brokers and trade fair/exhibition have limited role as sources of information (see Table 10). There is variation in the relative importance of the various sources across firms by size and ownership. For example, the proportion of firms that depend on own search as source of information is higher for medium firms compared to small and large firms; public tender process as a means of getting information on suppliers assumes greater importance in case of large firms (while small firms, not surprisingly, hardly use this). Split by ownership, own search is the most important source for both state owned and private firms alike. However, public tender/advertisement constitutes the second important source for state-owned enterprises whereas private firms depend on ‘other business persons with similar products’.

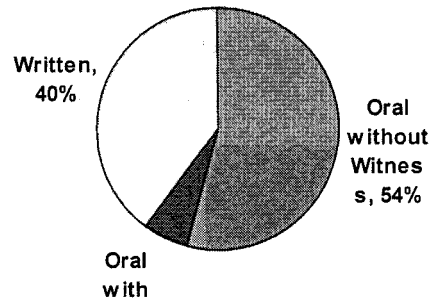
Table 10 Distribution of firms by main source of information they depend on about new suppliers

Main source of information	By size				By ownership	
	% of all firms	% of small	% of medium	% of large	% of SOEs	% of Private
Own search/research	56.4	55.7	61.3	53.7	52.3	56.8
Other business persons with similar products	13.4	15.8	8.9	9.3		14.9
Other suppliers or customers	7.5	8.1	3.8	11.1		8.3
Family/friends	5.9	8.1	3.8	-		6.7
Business agents/intermediaries/brokers	5.3	6.8	2.5	3.7		5.7
Tender/advert.	3.3	0.9	6.3	14.8	31.8	
Gov't agency	1.4	-	5.0	1.9	4.5	1.0
Suppliers themselves contact us	1.4	1.4	1.3	1.9		1.3
Business association	2.5	0.9	6.3	1.9		

3.2.2 Reaching agreements

A high share of contracts is oral, particularly among smaller firms. We can see that written contracts were used (to varying degrees) by about 55% of firms. Interestingly, about 42 per cent of these are small firms, while medium and large firms account for 33 per cent and 24 per cent respectively. However, transactions based on less formal/unwritten contracts are common among manufacturing firms: Close to 46 of the sample firms received their customer’s orders in non-written form (orally with or without witness) of which 87 per cent are small enterprises (engaging 5 to 49 persons) while 72 per cent are sole proprietorship. In fact, more than 55 per cent of the firms reported that customers’ orders placed *orally without witness* accounted for at least 50 per cent of their sales during 2004/05 (for 100 per cent in 41 per cent of the cases). Similarly, 54 per cent made at least half of their supply purchase orders orally without witness (83 per cent of which bought their entire supplies using such arrangement).

Figure 26 What Percentage of Purchase Orders Were Oral & Written? (Manufacturing)



3.2.3 Breaking agreements

Beyond the ICA, there have been some preliminary indications that lack of contract discipline in Ethiopia, as evidenced by poor contract performance in the form of delays in supply delivery, unreliable quality of supply (requiring costly complete inspection of supply), delay or failure of payment (requiring costly payment collection), etc. is a major problem. The Micro and Small Enterprises Survey (EDRI, 2003) indicates that contract non-compliance is common among MSE operators. Results of the Ethiopia Firm Survey (World Bank/EDRI, 2002) indicate that the same is true for Medium and Large Scale enterprises. Data from a recent baseline study on the Marketing Channels and Practices of Manufacturing Firms and Importers in Ethiopia shows that quite a large number of firms and importers reported experiencing conflicts with their channel members²⁰.

Many firms admitted to failures to perform in accordance with contracts including failure to deliver on time, to deliver product of the agreed or expected quality, and delay in payment for products sold on credit or supplies purchased on credit or even never paying. In the current survey, firms were asked a series of contract performance-related questions including failure to deliver goods/inputs on the agreed time or of the required quality/standard²¹, failure to receive payments for credit sales at the agreed date, and to make timely payment for inputs/supplies purchased on credit.

Nearly two-thirds of survey respondents experienced payment problems and delays. Respondent manufacturers were also asked whether they ever pay their suppliers late. Manufacturers who receive supplier credit declared paying 11% of their supplies late, a figure that is comparable to that for payments to respondent firms. Surveyed service firms were asked similar questions. Service firms that receive credit from suppliers declared paying 9% of their supplies late, a figure that is again comparable to that of manufactures. But the proportion of late payment is higher on the selling side: for respondents who grant credit to customers, late payment affects 25% of total sales on average. This probably reflects the fact that most surveyed service firms are trading enterprises, many of which deal directly with consumers. In a poor country such as Ethiopia, it is to be expected that customers will occasionally find it difficult to pay for their consumption purchases on time.

The incidence of contractual nonperformance (in the form of failure to deliver on time, or to deliver product/input of the agreed quality/standard, or to pay for credit purchases at the

²⁰ between the producer's own/direct channels and their intermediaries, between producers and wholesalers, producers and retailers, wholesalers and retailers, or between different wholesalers, or between retailers.

²¹ The specific definitions of failure to deliver on time and inadequate quality/standard of goods/inputs were left to respondents.

agreed date) is relatively high²². 44 firms admitted to cases of contracts in which they failed to deliver on time that led to cancellation of their sales. Of these, about 89 per cent are non-exporting firms indicating that such contractual breach is less common among exporting firms. The relative magnitude of cancelled sales is also significant: For 38 per cent of the firms, the cancelled sales amount to 10 to 40 per cent of their total sales during the year. Again the magnitude of such sales as per cent of total sales is higher for non-exporting firms (averaging 11 per cent compared to just 3 per cent for exporting firms). The former result looks somewhat contrary to expectations: one would have expected timely delivery to be more difficult for exporting firms given various sources of possible delays including customs clearing, the physical distance involved between the point of departure and the export-destination (delays in transportation), etc. However, the high cost/difficulty of canceling a sales contract for exports once it has left the port of exit may be part of the explanation: seller may find ways of compensating the affected buyer for the late delivery: Both parties to the contract may realize that it is “beneficial to work things out” (Biggsten et al 1998) rather than take drastic actions that affect their relationship. Alternatively, it may well be that the high potential cost that such cancellation involves imposes discipline on exporting firms to strictly observe delivery time.

57 firms reported that products they sold were returned (in some cases amounting to as much as 25 per cent of their sales) due to inadequate quality/standard (of which 93 per cent are non-exporting and 58 per cent are male owned firms). 124 firms reported not receiving timely payment (in part or in full) for their sales on credit. Of these, more than 90 per cent are domestic owned and 86 per cent are private. That most cases of problems of delay in payment for sales on credit involve firms with no state ownership and with no foreign ownership is somewhat consistent with expectations: firms with foreign ownership or state ownership may be expected to face less problem of contractual breach as they may be better connected, hence screen clients and suppliers with relative ease (Bigsten, et al, 1999). Similarly, a very large proportion (91 per cent) of these are non-exporting firms: Failure to pay at the agreed date is less common among exporting firms, probably because they work through letter of credit arrangements which involves automatic payment upon presentation of shipment documents in accordance with the L/C (Bigsten, et al 1999). The amount involved averaged 20 per cent of their credit sales: In fact, for about 65 per cent of these firms, the credit sales on which they faced repayment problems accounted for 20-75 per cent of sales.

Nearly 80% of firms (of which 92 per cent are private) reported that a good part of their credit sales, averaging 10 per cent, (10-75 per cent in 41 per cent of the cases) never got paid. Further more, 104 firms indicated that during the same year they had to return inputs/supplies purchased due to inadequate quality/standard. For many of them, the problem appears serious as it represents a significant proportion of their purchase of inputs/supplies: in 41 per cent of them, the cancelled/returned input/supply purchases amount to 10-50 per cent of their total purchases during the year (the mean being 9.4 per cent). Default in input supply of such frequency and magnitude is bound to have material effect on production activities or force them to resort to strategies such as ‘over-ordering, ordering early, build up precautionary stocks or securing supplies from other sources’, all of which are costly. Trade credit (i.e. selling on credit to customers) normally serves as an important sales promoting mechanism. However, the presence of wide spread default by credit-customers and difficulty of payment collection seem to have precluded its use, forcing firms to depend on cash sales. To the extent that sales-on-credit promotes sales, not offering such credit means lost sales.

The above figures on the degree and nature of contractual breaches/underperformance are, in fact, likely to represent an underestimation of the problem of contractual nonperformance

²² Note that expected standards of contractual performance may differ depending on whether firms are operating in high risk or low risk environment.

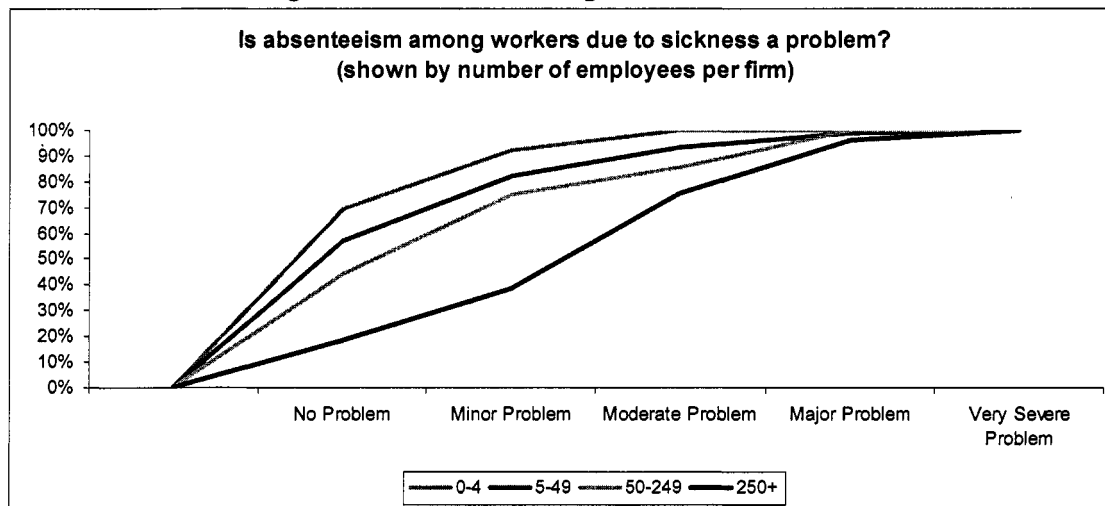
because in some of the cases we only captured what affected parties considered as serious failures in the sense that they triggered ultimate action(s) in the form of cancellation of the sales contracts, returning the substandard product or returning the inputs/supplies purchased. There are likely to be contractual noncompliance that have not led to such actions for a number of reasons including realization on the part of the affected parties of the presence of exogenous factors that prevent compliance with contractual obligations. The questionnaire was not designed to capture these. Nevertheless, the figures, taken together, seem to suggest that the problem of lack of contract discipline among firms in Ethiopia is wide spread and has persisted. Other studies had, directly or indirectly, pointed to the wide spread presence of such problems: For example, the Micro and Small Enterprises Survey (EDRI, 2003) indicates that contract non-compliance is common among MSE operators. Results of the Ethiopia Firm Survey (World Bank/EDRI, 2002) indicate that the same is true for Medium and Large Scale enterprises. Data from a recent baseline study on the Marketing Channels and Practices of Manufacturing Firms and Importers in Ethiopia shows that quite a large number of firms and importers reported experiencing conflicts with their channel members²³.

3.2.4 Other forms of commitment failure

So far, we have discussed contract non-performance in transactions involving the sale of finished products and the purchase of raw materials. 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. We expect working conditions to be worse in small firms so the incidence of sickness should, if anything, be higher among their workers. The need to care for relatives should not, in contrast, be affected by work conditions and hence by firm size.

As illustrated in Figure 27, survey results show that absenteeism is perceived as a much more significant problem by large firms: the overwhelming majority of small firms find absenteeism not to be a problem at all.

Figure 27 Absenteeism among workers due to sickness



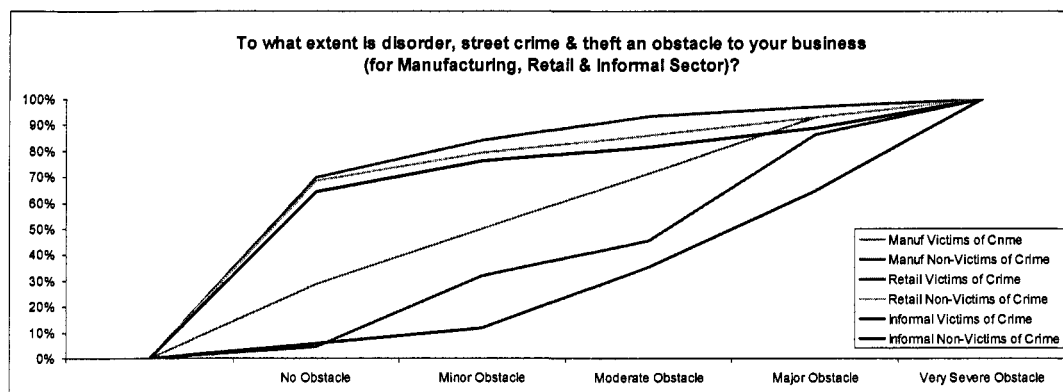
Crime is not a major obstacle. Respondents to the three surveys were asked to list up to three most important obstacles to the development of their business. Crime was listed by 2% of

²³ between the producer's own/direct channels and their intermediaries, between producers and wholesalers, producers and retailers, wholesalers and retailers, or between different wholesalers, or between retailers.

manufacturers, 8% of services and 11% of microenterprises – way behind access to land which, for comparison purposes, was mentioned by 26%, 39% and 64% of manufacturers, services and microenterprises, respectively, and behind access to financing which was mentioned by 36%, 34% and 64% of manufacturers, services, and microenterprises, respectively.

However, a number of surveyed firms – 8% of surveyed manufacturers, 18% of surveyed service firms, and 13% of informal firms – suffered from theft in the year preceding the survey. Losses vary greatly across victims: while a small minority victims (around 20%) report losses larger than 1% of annual revenues, the median loss is small – 0.2% for both manufacturers and service firms, slightly larger for microenterprises. More specific questions were also asked in the three surveys about crime as an obstacle to business. While the majority perception is that crime is not a serious obstacle to business in Ethiopia, results also show that – perhaps not surprisingly – victims of theft in all three surveys hold strongly different views. This is illustrated in Figure 28.

Figure 28 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 100%. The Figure shows six curves – two for each survey, one for victims of theft and one for non-victims. When a curve lies beneath another, it means that respondents judge crime a more serious obstacle to business. The Figure shows unambiguously that, in all three surveys, theft victims are much more negative in their views about crime.

The service sector survey collected some information about the incidence of counterfeiting, another form of criminal activity that affects firm profitability. Around 40% of respondents found counterfeiting to be a fairly or very important way for informal firms to gain a competitive advantage in respondents' main area of business. Efforts by local artisans to copy imported products often results in lower quality consumer goods. This issue relates more generally to the relative absence of brand name recognition in Ethiopia, and the difficulty for local producers to establish a reputation for quality through branded products that are protected from local imitation.

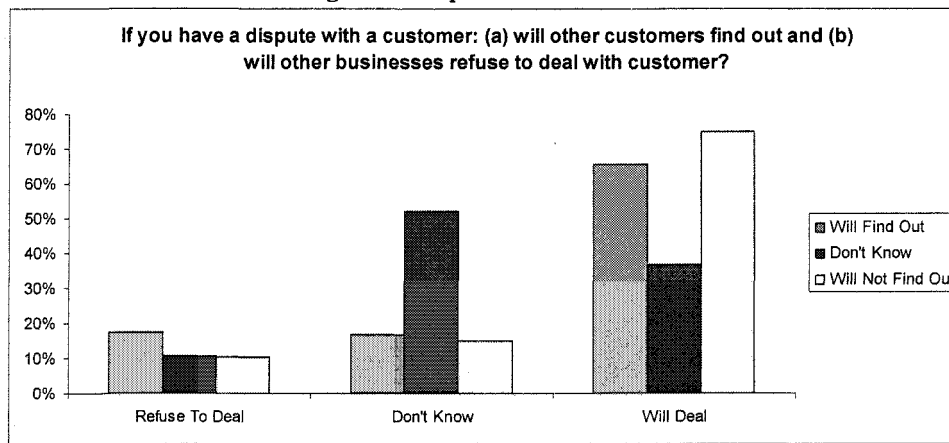
3.3 Risk Prevention and Avoidance

Reputational sanctions appear weak. We also asked how they normally react to customers that have dealt unfairly with other businesses and the reactions they expect from other businesses towards customers that have been unfair to them. Specifically, we asked (a) whether firms normally refuse to deal with a *customer* that has dealt unfairly with other businesses; (b) whether other businesses will refuse to deal with a *customer* that has dealt unfairly with them; and (c) whether other businesses

refuse to deal with a *supplier* that has dealt unfairly with them. The responses are somewhat surprising. Most (73 per cent) of the firms reported that they do not normally refuse to do business with customers that they know have been unfair to others: This is the case for both private and state-owned firms as well as for firms of all sizes alike. About 65 per cent do not think that other businesses will refuse to deal with such customers either; this is the case across all firm sizes. The results seem to suggest that firms do not attach importance to the track record of potential customers/suppliers in their business dealings; there is no sanction against such misbehavior by refusing to deal with them. Firms may opt for an intermediate approach such as continue doing business while exercising caution so as not to be exposed to a similar situation.

We also find that expectations regarding reputational sanctions and beliefs regarding information sharing are only weakly related: as shown in Figure 29, respondents who think information about breach will circulate do not necessarily think that other firms will refuse to deal with past cheaters.

Figure 29 Reputational Sanctions



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 behaviour is essential. In Ethiopia today, no formal institution – such as a well established credit reference bureau – appears to serve that purpose.

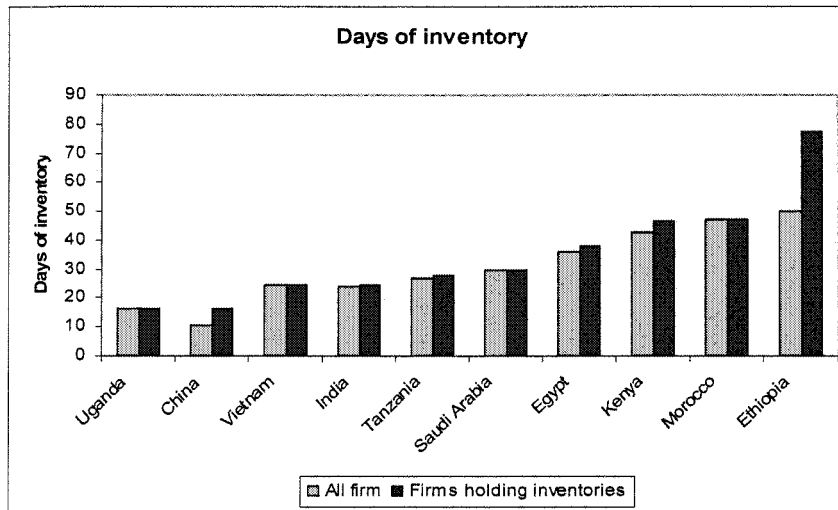
Surveyed firms avoid problems by protecting themselves against the risk of theft and contract non-performance. We have seen that losses from theft are small. Similarly, contractual breach appears relatively infrequent, with the possible exception of late and non-payment. Yet, we have also seen that legal and reputational sanctions are weak. What then explains the relatively low incidence of malfeasance? The answer is: prevention.

3.4.1 Hedging through Inventory and Avoiding Trade Credit

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. Results from the

surveys indicate that, by comparison with other African countries, Ethiopian manufacturers hold large inventories (see Figure 30): surveyed manufacturing firms hold on average 50 days of stock of raw materials while surveyed microenterprises hold 15 days on inventories. These inventories immobilize valuable working capital and are a symptom of serious stocking-out concerns among manufacturers and artisans alike. These findings are consistent with the fact that many manufacturing activities in Ethiopia rely at least in part on imported inputs. As we have seen, delays in import deliveries are long and common. A reduction in congestion and delays at the port would reduce the need for inventories, thereby freeing capital for more productive investment.

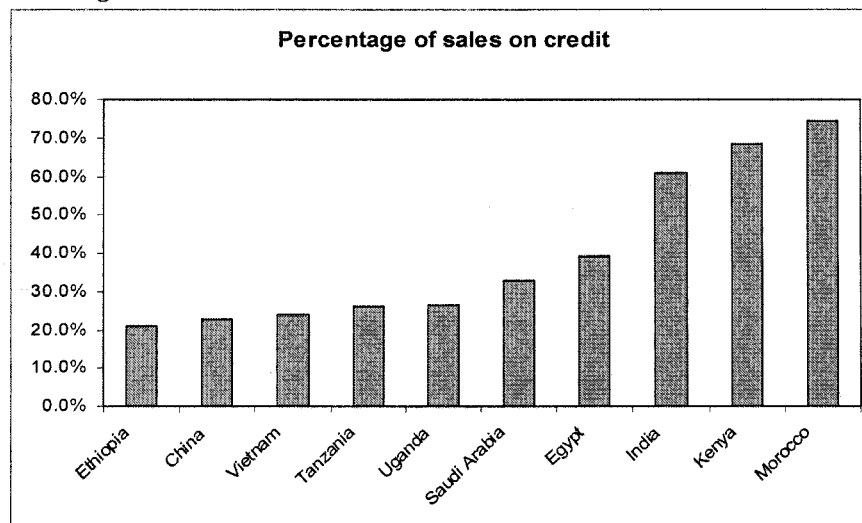
Figure 30 Days of Inventory on Hand - Ethiopia vs. Comparators



Firm can also protect themselves from contractual non-performance by investing in alternative sources of supply. This is what many surveyed firms do with respect to power outages: 26% of manufacturers and 29% of service firms have their own generator or share a generator with another firm. Firms with a generator source on average 8% of their electricity from generators. Ownership of a generator is a luxury that can only be afforded by large firms: only one microenterprise in our sample of 126 owns a generator.

The fear of contract non-performance also affects the way firms deal with each other, including substantially reducing sales on credit. 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 Ethiopia. Trade credit is surprisingly rare. Only 48% of surveyed manufacturers and 37% of surveyed service firms receive credit from input suppliers. Of their total annual purchases, manufacturers state that 73% are paid upon delivery; only 17% are purchased on credit, the remainder being paid for *before* delivery. Very similar numbers of 71% payment upon delivery and 13% purchases on credit are reported by service firms. For microenterprises, the figures are 83% cash and 13% on credit. We also find very little variation by firm size, suggesting that even large firms do not receive the amount of trade credit that is customary in neighbouring African countries.

Figure 31 Percentages of sales on Credit



Similar figures obtain on the customer side: the average manufacturer sells 68% of its annual sales with payment upon delivery and 11% with payment before delivery. Only 21% of the total sales are made on credit. Figures for service firms are 69% cash and 25% on credit. Microenterprises report 75% cash sales and 15% credit sales, the rest being paid before delivery.

Compared to other parts of sub-Saharan Africa, these figures are low. They cannot be explained by the high cost of credit: survey results show that firms pay, on average, an 8% interest on their bank borrowing. They also cannot be explained by unusually tight credit conditions. Surveyed firms, as in any survey of this type anywhere in the world, complain about lack of finance. But many surveyed firms have bank overdrafts and receive bank finance: 38% of surveyed manufacturers have a bank overdraft facility and 46% have a line of credit or loan. Only 46% do not receive any bank finance. Very similar figures obtain for service firms. Finally, we find that although large firms are much more likely to receive bank finance, they are not more likely to grant credit to their customers.

Our interpretation of these findings is 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.

3.4.2 Paying for security services

Regarding theft, the surveys show that nearly all surveyed firms incur expenses for security equipment and personnel. This is true for 91% of manufacturers, 94% of service firms, and 70% of informal firms. The larger the firm, the more likely it is to incur security expenditures. Best estimates based in survey results suggest that the average manufacturer spends 0.6% of annual revenues on security-related expenses. The equivalent number for service firms is 0.8%. Estimates for informal firms are of the same order of magnitude. These numbers may appear small, but the reader must keep in mind that they are calculated with respect to total revenue, not profit. If we were to assume that operating surplus represents 20% of total sales, it would mean that, other things being equal, security related expenditures reduce operating surplus by 3 to 4%.

3.4.3 Market Supporting Institutions

Some solace can be found in the existence of market support institutions in the form of certification agencies. Many firms – 43% of manufacturers and 55% of service firms – have externally audited accounts. The proportion is much higher among large firms, however: nearly all large firms have audited accounts but only a fifth of the small firms. Not all firms are current, however: 13% of manufacturers and 15% of service firms can only produce audited accounts that are at least one year out of date. A small number of surveyed firms (15 manufacturers out of 360 and 5 service firms out of 124) have an ISO certification. These tend to be larger firms. In addition, 24% of surveyed manufacturers state having received at least one visit by a quality standard agency in the year preceding the survey. Some firms received multiple visits, possibly because they did not satisfy the required quality standard.

3.4.4 Business Networks

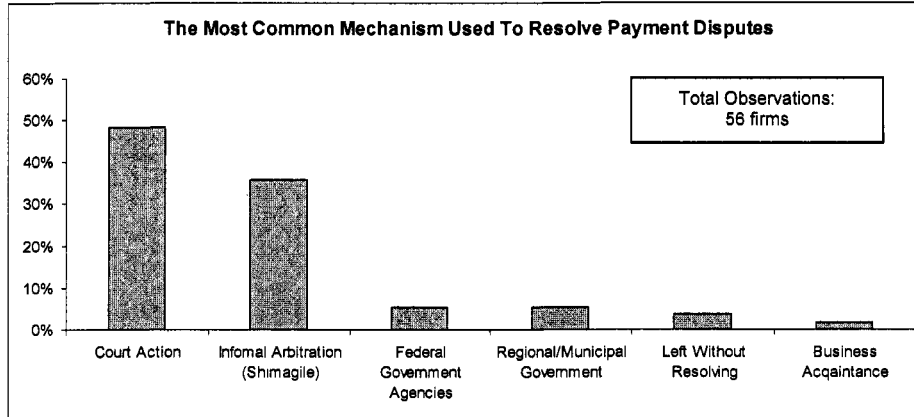
In situations in which the risk of opportunistic behaviour is high, it is customary for firms and their owners to turn to informal business networks as channels for information and contract enforcement. Ethiopia is no different. Business networks often play a role in helping firms identify reliable suppliers, 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 find new suppliers. Some 35% of them stated seeking assistance from business acquaintances and from friends and relatives. The equivalent proportion among service firms is 31%. Other respondents rely on their own research – possibly because they lack the necessary contacts. Next respondents were asked how they make contact with new suppliers. 46% of manufacturers and 50% of service firms responded that contact is established through business acquaintances; the main fallback option being direct contact.

The surveys recorded information on the prevalence of business associations. Membership in business association is extremely common among surveyed firms: 74% of manufacturers and 81% of service firms belong to a chamber of commerce. In addition, 39% of manufacturers and 22% of service firms belong to a business association. 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 majority of even the smallest categories of surveyed manufacturers and service firms belong to a chamber of commerce. In contrast, membership in business associations is mostly prevalent among large firms.

3.4 The Role of Legal and Informal Institutions

What role do legal institutions play in deterring opportunistic behaviour? We first discuss legal institutions such as the police and courts and then review the evidence regarding informal contract enforcement mechanisms. The surveys collected extensive evidence on the use of courts to resolve payment disputes. 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: 15% among surveyed manufacturers, 19% among service firms, and 10% among microenterprises. As shown in Figure 3, a large proportion of these disputes are resolved through court action. The rest are handled through a variety of mechanisms, the most important of which is informal arbitration (See Figure 32).

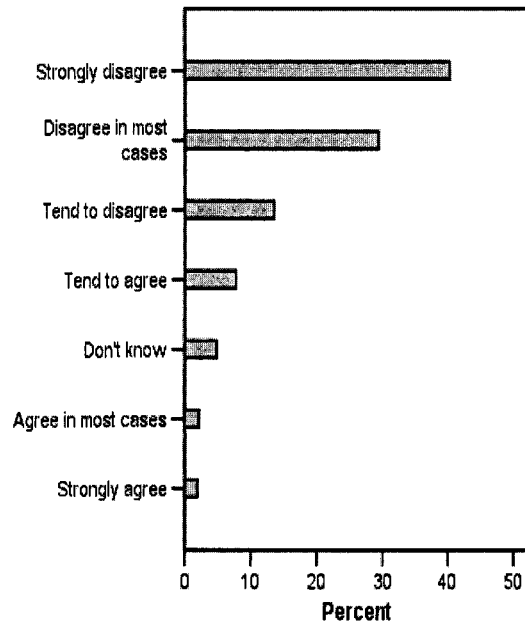
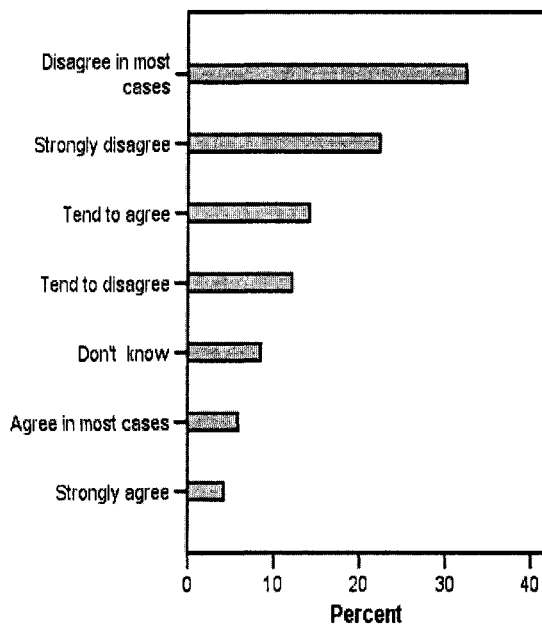
Figure 32 Most Common Mechanism Used To Resolve Payment Disputes? (Manufacturing)



A very small number of surveyed firms ever went to court to resolve payment disputes: 25 of the 360 manufacturers, 8 of the 124 service firms, and 4 of the 126 microenterprises. Most of those who went to court won their court case (19 out of 25 for manufacturers and 7 of the 8 service firms). But it takes considerable time for a court decision to be taken – the median is over one year. Obtaining a judgement is not everything: the judge’s decision also has to be enforced. Of the 33 manufacturers and service firms that went to court, only 21 saw the judgement implemented. The median time for the judgement to be enforced is 6 weeks, but some cases take much longer.

Survey respondents were asked about their opinion regarding courts. Responses vary according to whether or not respondents used the courts, but in general, firms disagreed with the statement “is the court system fair, impartial and uncorrupted” and also disagreed with that the court system is quick.

Figure 33 Is the court system fair, impartial & uncorrupted? Figure 34 Is the court system quick?



If courts are not the primary contract enforcement mechanism for commercial contracts in Ethiopia, 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.

In an economy where courts play little role 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. On average, manufacturing and service firms have been dealing with their suppliers for 6.5 years and 8 years, respectively. The length of repeated business is shorter for informal firms – 2.5 years on average – but, as we will see, informal firms are much more engaged in cash-and-carry transactions where, as we have seen, the risk of contractual breach is much lower.

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 Ethiopia as well, we examine the data for evidence that the ethnic composition of surveyed businesses differs from that of the surrounding population.

3.5 Conclusions

Market transactions in Ethiopia 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. Finally we find little evidence of ethnic bias in business formation, except in the Oromo region where ethnic Oromos account for a rather small proportion of entrepreneurs in spite of representing the bulk of the population in the region. Why this is the case is unclear.

Although surveyed firms are generally satisfied with existing legal institutions, this is primarily because they seldom use them. In contrast, the few firms that have used courts in the past find them a major obstacle to business. 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. 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 behaviour primarily through prevention and risk avoidance. Firms hire guards to protect themselves against thieves. They purchase generators to protect themselves against power outages.

They build large inventories to mitigate the risk of lost sales due to a lack of supplies.. 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.

Formal legal institutions have not fully recovered from years of neglect. We suspect that in Ethiopia 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 any direct evidence of this, given the large role that the government retains in the economy and particularly the manufacturing sector, 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.

There are many problems that need to be solved for transactions costs to be reduced and Ethiopian 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
- Financial instruments, such as the letter of credit, that protect sellers against non-payment in international transactions
- 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.

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 Ethiopia today, and to document some of the effects that imperfect institutions have on firm behaviour. 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.

Chapter 4: Creating a Level Playing Field

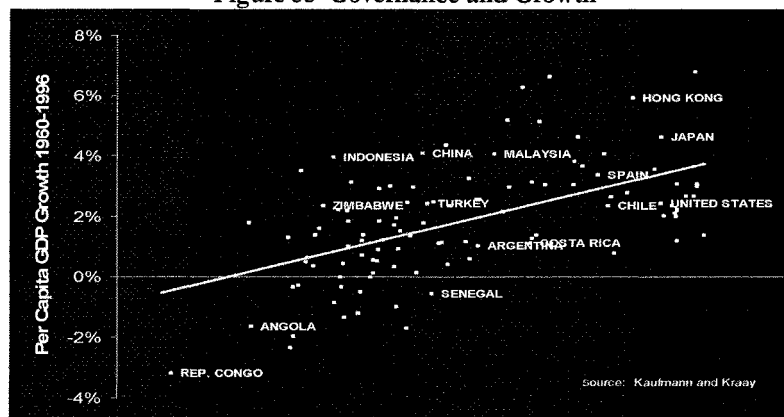
4.1 Background and Rationale

4.1.1 Governance and Growth

Good governance sustains growth by making the rules of markets fair and predictable. Governments with credibility and capability can better implement economic policies and enforce the economic “rules of the game”. Clear rules create fair competition, the basic mechanism through which the private sector produces productivity and efficiency gains.

Both weak governance and lack of competition can constrain economic growth and poverty alleviation. The clear consensus on governance²⁴ yields one clear result – good governance strongly relates to economic prosperity. Kaufmann and Kraay (2002) demonstrate that key governance conditions -- including corruption, regulation and the rule of law -- are strongly associated with economic growth (figure 1).²⁵ They argue that the empirical relationship is causal because, while better governance is strongly associated more rapid income growth, countries with higher incomes do not necessarily have better governance. Cross-country analysis of enterprise surveys shows a significant negative association between firm-level sales growth and the perceived level of corruption, and between firm-level investment and corruption.²⁶

Figure 35 Governance and Growth



Competition is also closely associated with growth. A recent OECD literature review found that the evidence supported three mechanisms of this connection: “*Competition has pervasive and long-lasting effects on economic performance by affecting economic actors’ incentive structure, by encouraging their innovative activities, and by selecting more efficient ones from less efficient ones over time.*”²⁷ The privatization literature has long noted that competition brings efficiency gains to both publicly-owned and privately-owned organizations.²⁸ Conversely, the OECD literature review further notes that the empirical literature contains no support for the claim that market concentration is associated with innovation. Only

²⁴ Daniel Kaufmann, “Debunking Myths on Governance” Goodman Lecture, University of Toronto, February 2005).

²⁵ Kaufmann and Kraay, *Growth without Governance*, *Economia*, Volume III, Number 1 (Fall 2002)

²⁶ See Batra, Geeta; D.Kaufmann and Andrew Stone, *Investment Climates Around the World* (Washington, World Bank, 2003)

²⁷ Sanghoon Ahn *Competition, Innovation and Productivity Growth: A Review of Theory and Evidence* (Economics Department Working Papers No. 317, Organisation for Economic Co-operation and Development, January 17, 2002.

²⁸ See John D. Donahue, *The Privatization Decision: Public Ends, Private Means* (1989: Basic Books)

competition creates the incentives and dynamics driving innovation and productivity growth. There is broad empirical evidence that policy and regulatory changes which enhance competition “(e.g., regulatory reforms in different sectors, increased openness to global competition, introduction of competition into not-for-profit sectors etc.) bring “productivity gains, consumer welfare gains and long-run economic growth.” However, the author cautions that consumers and producers may take a long time to adjust to increased competition and “fully experience efficiency gains.”²⁹

A key mechanism of the efficiency gains of competition is the life cycle of firms in competitive product markets: “Analyses based on micro data show that firm dynamics (i.e., birth and death, growth and decline of individual firms) is an important component of innovation and aggregate productivity growth.” However, this growth through dynamic efficiency gains requires competitive factor markets as well, to “reallocate labor and capital of shrinking/exiting firms to entering/growing firms.”³⁰ Competition is critical to the allocative efficiency story of Chapter 2.

4.1.2 Weighing Market and Government Failures

Thus, while competition is associated with economic growth, innovation, productivity growth and higher consumer welfare, proponents of state intervention point to the prevalence of market failures which prevent such benefits from accruing. They tend to see market failures as pervasive and government failures as remediable by creating appropriate social values in the guardians of public goods.³¹ Information failure, weak and absent markets, and other failures are seen to justify an enlarged role for the state. Monopolized public distribution networks are thus seen as preferable to private ones, especially in agriculture, where private markets can be poorly developed and the distributional consequences of private oligopoly for poor farmers can be severe. Those more skeptical of Government involvement would point to the high potential for public monopolies to behave much like private ones in capturing rents.

Between proponents of market-led and state-led growth there is considerable ground for strategies that seek to leverage the dynamism of competitive markets, while applying well-designed public interventions to address market failures. Many features of policies pursued by governments which aim to act as “developmental states,” including Ethiopia with Agricultural Development-Led Industrialization, could be attained within a context of building and supporting competitive markets. ADLI argues the case for facilitated inputs to farmers, agricultural extension and credit. But many of these services (e.g. agricultural extension, input provision, credit provision) can be carried out by markets. Delivering services to rural clients, where population and income density may be below what might attract commercial provision, may ultimately require targeted subsidies. A range of mechanisms have been tested around the world for delivering to such customers in a way that preserves the benefits of competition. A mixed strategy of a capable government encouraging domestic producers through a regulatory role, services and subsidies, combined with the benefits of competitive markets, seems to offer a middle ground that speaks to the concerns of both perspectives.

The focus of the remainder of this chapter is on the empirical findings about the state of governance and competition in Ethiopia. It asks, first, is there evidence of the social capital and good behavior required to sustain a heavy role of government in the economy? In this regard the

²⁹ Sanhoon Ahn, *Op Cit.*

³⁰ Sanghoon Ahn, *Ibid.*

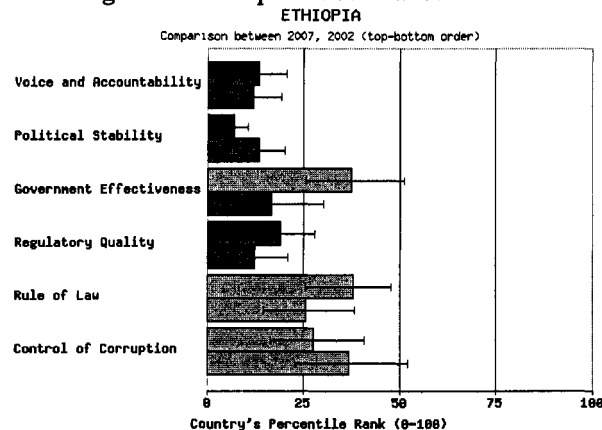
³¹ The Prime Minister’s recent draft papers on the development state, while not referring specifically to Ethiopia, explains that government-created rent does not necessarily have to be socially wasteful. Rather, he explains that state is capable of improving markets by addressing market failures, which are seen as pervasive, afflicting all input markets (capital, land, labor and technology) and product markets.

answer is mixed, with both positive and negative signs. And second, is the economy benefiting from healthy competition? In this regard, the view of the formal private sector is that the current system is unfair, with both informal competitors and favored state and endowment-owned firms competing from an advantaged position.

4.2 Governance and Level Playing Field in Ethiopia

Ethiopia's performance in international governance rankings is mixed. International ratings place Ethiopia close to or above average with regard to control of corruption and rule of law, but well below the norms for both its income category of countries and the Sub-Saharan African average in terms of voice and accountability, government effectiveness, regulatory quality and political stability/ freedom from violence. The 2007 Ibrahim Index on Agrican Governance 2007 ranks Ethiopia 27th out of 48 countries, with strong scores for safety and security, and relatively lower scores for Rule of Law, Transparency and Corruption (48.7). The 2006 Transparency International Corruption Perceptions Index, rates Ethiopia as tied for 130th out of 163 rated countries, tied with such countries as Central African Republic, Papua New Guinea, Indonesia and Zimbabwe.

Figure 36 Ethiopia's Governance Indicators



Source: Kaufmann D., A. Kraay, and M. Mastruzzi 2008: Governance Matters VII: Governance Indicators for 1996-2007
 Note: The governance indicators presented here aggregate the views on the quality of governance provided by a large number of enterprise, citizen and expert survey respondents in industrial and developing countries. These data are gathered from a number of survey institutes, think tanks, non-governmental organizations, and international organizations. The aggregate indicators do not reflect the official views of the World Bank, its Executive Directors, or the countries they represent. The MGI are not used by the World Bank Group to allocate resources or for any other official purpose.

Yet from the perspective of enterprises surveyed, corruption *per se* is not a leading constraint. Among manufacturing firms it has dropped from the 6th leading constraint in the 2002 survey to the 12th leading one in 2006. Other indicators suggest that petty corruption does not beleaguer most firms. On average, manufacturing firms report paying an average of less than 1% of sales in informal payments to officials, report that only 4% of meetings with officials involve requests for or expectations of payments, and report that requests for payments are relatively rare in requesting approvals or connections to services. The responses for the services and microenterprise sectors are quite similar. In terms of procurement, again the rate of corruption appears quite low. When asked, over 85% of respondents reported that no informal payment is required to officials in order to obtain a contract with the Government. Overall, the estimate of the value of a payment that would be required to obtain such a contract is only 1.3% of contract value for manufacturing firms and 1.5% for service firms.

4.2.1 Openness – transparency and predictability

Ethiopia's governance challenges take other forms – including a suboptimal level of transparency in policy formulation. Observers of modern Ethiopia note that economic decision-making continues to occur outside the formal political institutions of cabinet and legislature (Abbink, 2006, 174). Possibly a legacy of the very closed decisionmaking under the Derg regime, there is a perception that the most valuable information is not made public, and those with privileged access to inside information therefore have an economic advantage. This again leads to suspicion among many private sector operators that they face an unfair competitive environment. More specifically, there is an impression that endowment- and state-owned enterprises benefit from privileged access to policy-makers and resources and are consequently able to compete on unfair terms.³² These perceptions are both supported and refuted by the empirical evidence of the enterprise survey. On the one hand, there is an indication that many businesses do have channels of communication with Government bodies at some level (see Table 11), which is not what one would expect from a closed regime. On the other hand, it is clear that state-owned firms appear to participate more frequently.

Table 11 Level of Policy Consultation with Government

Has this establishment participated, directly or through its representative body, in policy discussions with the local, regional or federal government bodies? (% of participation)			
	Small	Medium	Large
Non-SOEs	64.41%	57.38%	64.71%
SOEs	n.a.	92.31%	74.19%

There has been some experience with open public-private dialogue. In 2003-4 Prime Minister Zenawi asked foreign investors to submit examples of unfair competition (SIDA p. 15) and the Ethiopian and Addis Ababa Chambers of commerce have engaged fitfully with the government on policy matters.³³ Recently, the Prime Minister has held regular structured consultations with key exporting sectors, and is reviving the public-private dialogue forum process.

Fewer than 40% of surveyed firms viewed officials' interpretation of regulations affecting their business as consistent and predictable. Exporters face less uncertainty than those producing for the domestic market, and large firms feel the uncertainty slightly less than their small and medium counterparts. But the overall picture is one of great policy uncertainty.

4.2.2 Privatization

Since 1992, Ethiopia has been undertaking reforms to transform the structure of the economy from public- to private sector-led. During the last 12 years including 2006/07(1994/95-2006/07) a total of 247 public enterprises, with a combined sales value of Birr 3.37 billion have been privatized.³⁴ The Government revitalized its framework in 2004 through a Privatization Action Plan which introduced new modes of divestiture including leasing and management contracts. The reforms included:

³² Anti-competitive and informal practices were ranked as the number one investment climate constraint by formal manufacturing firms. This constraint appears to be composed of two distinct elements: firms with party-affiliation or Government ownership competing on unequal grounds; and a vast informal economy providing low-cost advantages to many of its operators. As informal competition is discussed in a separate chapter, the remainder of this chapter explores unfair competition by explicitly advantage firms – those affiliated with the dominant political party and those with partial or complete state ownership.

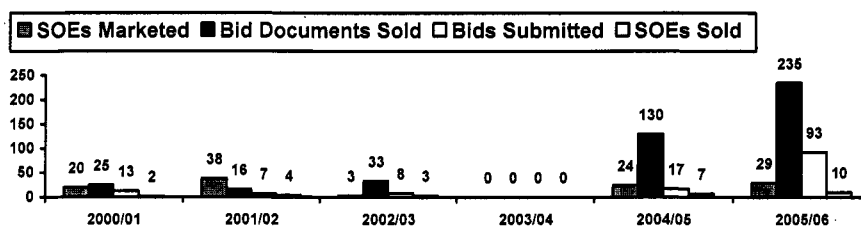
³³ The first face to face meeting between Prime Minister Meles and representatives of the Addis Ababa Chamber of Commerce took place in 2002.

³⁴ PASDEP Annual Progress Report 2006/2007, MOFED

- The merger of the Privatization Agency and Public Enterprises Supervising Agency to form Privatization and Public Enterprises Supervising Agency (PPESA);
- Use of market based valuation methods to guide pricing of the companies;
- A deferred payment scheme to encourage local participation in the program;
- Land titles are prepared (where there were none) and made available during the preparation of the enterprises for sale and are transferred to the buyer;
- Implementation of retrenchment using the special provision in the recently proclaimed labor law which allows early retirement for privatized companies³⁵.
- PPESA management is now authorized to negotiate³⁶ with interested buyers after two non-responsive tenders.
- Buyers need only pay 35 percent of equity value, with the balance paid over five years.

A sharp increase in the number of bid documents took place in 2004/05 and 2005/06 following the introduction of these reforms (Figure 37). In the 2007-08 fiscal year privatization has slowed. Many important companies will remain state-owned. Ethiopia has not opted for wholesale privatization on the Central and Eastern European model, despite the fact that the shift to a market economy occurred nearly the same time. In Ethiopia, all of the large utilities such as telecommunications, electricity distribution, the national airline, the largest banks are currently and will remain state owned under the Government's policy.

Figure 37 Progress in Privatization



Source: PPESA.

Furthermore, while privatization has increased its pace, it hasn't kept pace with new SOE creation in some years. The authorities continue to develop new enterprises, even while privatizing others. The net number of large- to medium-sized enterprises in Ethiopia has actually increased from 119 in 2001/02 to 154 in 2004/05. In 2004/05 private manufacturing output overtook SOE output. The SOE share of the output of Medium- to Large manufacturers has declined from 58% in 2000/2001 to 51% in 2004/05 (Central Statistics Authority).

4.2.3 Is the playing field level? Evidence from Enterprise Surveys

Do endowment- and state-owned firms enjoy any competitive advantages over private firms? The enterprise survey can tell us little about endowment-owned firms, because there were only eight in the survey. But on a descriptive level, the differences are at least suggestive of a very different business environment. One striking difference between these firms and the rest of the sample is their evaluation of leading constraints. While private firms identify the anti-competitive or informal practice of others as their leading constraint, endowment-owned firms did not identify it as either a serious constraint. Nor did tax rates, the third-leading constraint for non-affiliated firms, concern the endowment-owned firms. Access to land, the fifth leading constraint for non-affiliated firms, also

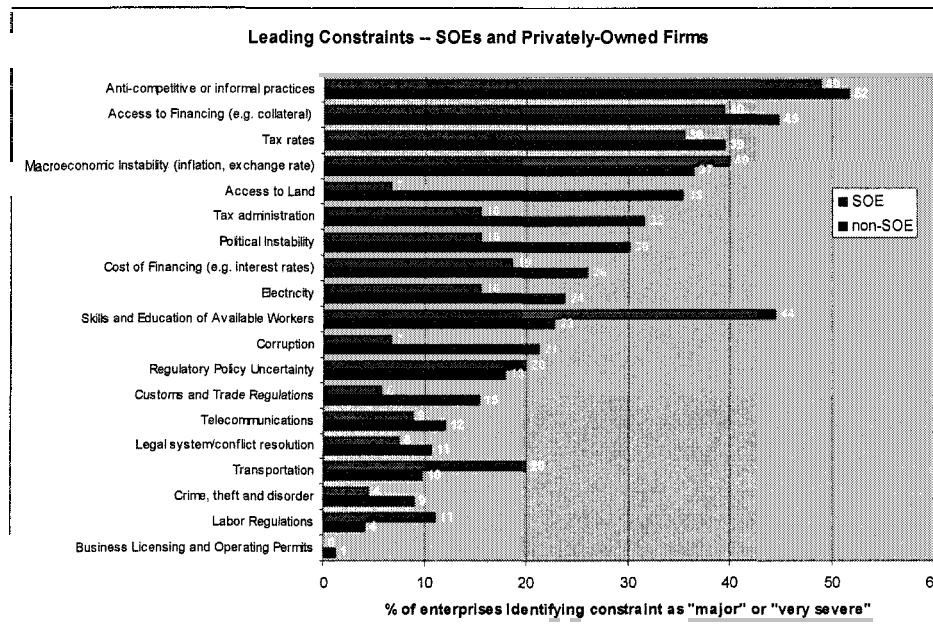
³⁵ Early voluntary retrenchment for a 45-year old, with 20 years working experience allowed for privatization.

³⁶ PPESA also publishes a notice announcing receipt of a proposal and asking for other expressions of interest.

was not among the serious concerns of endowment-owned firms. However, the small group of endowment-owned firms were much more likely to identify access to finance, skills and education of workers, and customs and trade regulations as constraining.

The manufacturing sample included a much larger component of enterprises with substantial state-ownership (45 firms).³⁷ Two thirds of these firms are large, while one third are medium-sized. The differences in responses between SOEs and privately-owned firms is noteworthy (See Figure 38). First, SOEs in the sample face less competition. 11% of SOEs faced no competitors, compared to only 2% of privately-owned firms. 38% of SOEs faced 5 or fewer competitors, compared to 20% of privately-owned firms. Nonetheless, SOEs are almost equally as likely to be concerned with unfair or informal competition as are privately-owned firms.

Figure 38 State vs Private Sector Perceptions of Investment Climate



SOEs are far less likely to identify themselves as seriously constrained by tax administration, customs and trade regulations, political instability, cost of finance, and corruption. Conversely, they are much more likely to identify themselves as constrained by worker skills and availability.

Looking at other responses gives substance to a number of dimensions in which SOEs are advantaged, and at least one in which they are more constrained. SOEs are not constrained by land access, as they own their land. Whereas access to land is among the most serious constraints facing the private sector, only 7% of SOEs identify access to land as a serious constraint. Of those firms that considered access to land a 'major' or 'severe' obstacle, almost a third blamed the 'bureaucratic burden' of acquiring it, while a similar proportion pointed to the cost of leases. SOEs are much more likely to own the land they occupy. Nearly all SOEs own the land they occupy. The rate for non-SOEs is lower, with roughly half of medium-sized firms and just over 80% of large firms owning the land they occupy. SOEs are far more likely than non-SOEs to have gotten their land directly from Government or "inherited" it from the outset of their business.³⁸

³⁷ By contrast, only 1% of service firms and no micro-enterprises were state-owned.

³⁸ This may be in part a legacy issue reflecting the policies of earlier times, rather than an indication of current discrimination in the allocation of land.

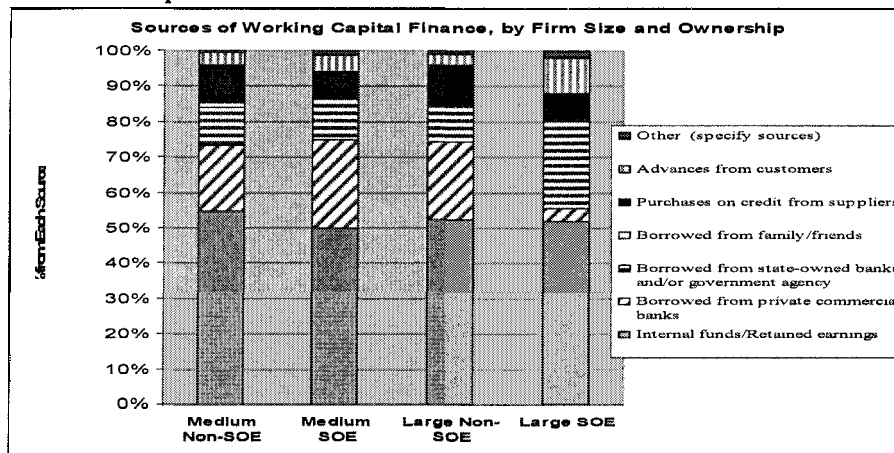
SOEs are more likely to access public markets. Medium-sized SOEs do three times as much of their domestic business with government (or SOEs) as medium-sized non-SOEs and large SOEs do twice as much domestic business with government as large non-SOEs (see Table 12). This is consistent with qualitative evidence of discrimination in the public procurement process. The World Bank's 2002 Country Procurement Assessment Report, for instance, found that endowment-owned firms were 'reported to enjoy preferential treatment in bids' for government contracts.³⁹ At the same time, SOEs are more likely to be engaged in export activity (which is understandable if some have exclusive marketing privileges for exported commodities or processed goods).

Table 12: Destination of Establishment's Domestic Sales

	Small	Medium		Large	
	Non-SOE	Non-SOE	SOE	Non-SOE	SOE
Traders/Merchant intermediaries %	22.50	51.11	33.35	45.89	43.94
Government or government agencies (including state-owned enterprises)?	12.74	11.06	37.31	15.11	30.01
This establishment's parent company or affiliated subsidiaries?	0.34	0.09	0.00	0.28	0.32
Private firms (non-affiliated)?	5.63	11.14	12.86	21.28	11.28
Individuals (non-family and friends)	50.53	23.38	13.00	17.00	10.09
Individuals (relatives/family and friends)	5.26	0.05	0.36	0.11	0.00

State enterprises are advantaged in their access to public sources of finance. Overall, private manufacturing firms are no more likely than SOEs to consider access to finance a constraint on their operations (roughly 45 percent report it as a 'major' or 'severe' constraint compared to 40 percent of SOEs). The collateral requirements they face are also similar, both in terms of type and amount, though a higher proportion of private firms cite lack of collateral as the reason for not seeking a loan (20 percent as opposed to 3 percent). There is no significant difference between private firms and SOEs in either the term of or the interest charged on their most recent loan. The main difference has to do with sources of finance. Large SOEs are more likely than large non-SOEs to obtain working capital financing from state-owned banks or Government agencies. They also receive more advances from customers (who are more likely to be SOEs or Government agencies).

Figure 39 Sources of Capital: SOE vs. Private



³⁹ "Government related companies still dominate the private sector thus reducing competition, hampering private sector development and encouraging inefficiency and corruption." World Bank, Ethiopia: Country Procurement Assessment Report. Volume I: Findings and Recommendations (June 28, 2002)

State enterprises do not deal with corruption as much as private firms. It appears from several indicators that SOEs are less likely to experience (or engage in) corruption of public officials than are private enterprises. Their reported frequency of informal payments is slightly lower, and the reported amount of informal/unofficial payments to officials is essentially zero, whether in regulatory contexts or that of public procurement from them. The 2002 Procurement Assessment Report also found that private non-affiliated firms had to make unofficial payments to officials just to have their bids for public contracts considered.

Countering these apparent advantages, SOEs do appear, by virtue of public ownership, large size or prominence, to be more formal and this may bring some burdens. For example, SOEs indicate that they report a higher average percentage of their sales for tax purposes (Table 13). And SOEs are far more likely to have a unionized labor force: they report on average that 93% of their workforce is unionized, versus 9% of the workforce in non-SOEs.

Table 13 Percent of sales reported for tax purposes

Non-SOE	77.71
SOE	89.38

By virtue of their size, activities, production methods, or hiring policies, SOEs appear to depend on a more highly educated labor force. As such, they are more constrained by the availability of skilled workers and managers. SOE managers are far more likely to have a university degree or graduate education – 91% of SOE managers in the sample have at least a university degree, compared to 24% of non-SOEs. Their skilled workers on average have more years of education (figure 4). SOEs are also more likely to train their workforce: 62% report conducting in-house training versus 21% of private firms. On balance, it is clear that being state owned offers several advantages in the marketplace. There are also, of course, burdens on operational autonomy that this report does not explore. This report does not suggest a policy of systematically favoring state-linked firms. It appears that these differences are a result of (a) legacies of past policies that have not been corrected yet; (b) protected markets for a limited number of SOEs which are a result of policy.

4.2.4 Endowment-Owned Enterprises

The existence of endowment-owned firms is among the more controversial aspects of the investment climate.⁴⁰ Since 1997, Ethiopia has allowed foundations which are controlled by political parties to own enterprises that compete with the private sector (see Box 3 Endowment-Owned). The endowments helped to establish industries in neglected regions when Ethiopia was not at all attractive to investors. Some projects may not have received funding without the role of the endowments, given the absence of formal sources of funding. However, as the private sector grows and is in a position to contest all business areas operated by endowments, the early rationale for endowment-owned businesses has eroded

While the number of endowment-owned enterprises is limited, some are in strategic sectors. This perception is magnified in sectors where endowment-owned firms have had dominant market positions. Cement was for many years produced by a duopoly: one state-owned firm and one endowment-owned.⁴¹ While ex-factory prices were kept below market prices, there is a thriving

⁴⁰ During the war against the *Derg*, there developed a large number of opposition organizations which acquired substantial financial assets and property (World Bank, 1998, 7). After the war, these assets were placed under the management of foundations, or 'endowments' to provide support to the families of those who had died during the fighting; and to 'kick-start key sectors of economic development' through the establishment of commercial enterprises (SIDA, 2002, 55).

⁴¹ *Ethiopia: Value Chain Analysis*, World Bank 2006

secondary market in cement that is fuelled by those who have the ability to purchase cement at the ex-factory price (World Bank 2006d).

In large part, the issue is one of perceptions of the credibility of Ethiopia's commitment to a level playing field. As in any country in early stages of developing the legal and regulatory foundations of a market system, the role of the state is crucial in establishing the terms of access to land, foreign exchange and capital, and procurement processes. Even if not a proven reality, the perception of a conflict of interest is sufficient to weaken the confidence of private investors in the policy environment. The perception at question is sufficiently widespread that it exists in most commercial guides on Ethiopia's business environment.⁴² Investment may be suppressed if entrepreneurs do not believe that they will be able to capture the gains from investment due to unfair competition or if property rights are insecure (Hausmann, Rodrik, Velasco 2005). A recent article has suggested that "A culture of state ownership and management still dominates government thinking, which has yet to embrace fully free-market reforms in many areas of the economy."⁴³ The burden of proof in countering this perception is on policymakers.

Box 3 Endowment-Owned Holding Companies

The phenomenon of holding companies controlled and endowed by political parties, has been a controversial feature of the Ethiopian investment climate since the mid-1990s. There are several endowments that operate multiple businesses in Ethiopia, each having the objective of regenerating the region to which they belong through income-generating and employment-creation activities.

- EFFORT, established in 1993-95, focused on the rehabilitation of Tigray;
- Endeavor/ENWEK, for rehabilitation of Amhara regions;
- Dinsho focused on rehabilitation of Oromia Region,
- Wondo Trading, for rehabilitation of SNNPR.

EFFORT is by far the largest in terms of assets, number of subsidiaries, sectoral coverage and its national orientation (as opposed to other endowments which remain regional entities). EFFORT maintains a website with limited information on thirteen wholly-owned enterprises with initial capital of around 1.5 billion birr. ENDEAVOR also owns some large firms, notably Dashen Beer, Ambasel Trading, and Tikur Abay Transport.

Performance. Some of the endowment firms have been very successful. In the financial sector, a bank partially-owned by an endowment currently has the highest return on equity among private banks, and the microfinance institution partly owned by an endowment has grown to one of the largest in Africa. However, the endowment-owned firms are by no means uniformly profitable. Rather, many of the firms appear to suffer from the types of inefficiencies typical associated with state-owned enterprises, including non-commercial objectives that weaken commercial sustainability. Other firms, such as in tourism, were clearly unsuccessful.

Source: World Bank: Country Economic Memorandum (2007)

⁴² According to the SIDA *Country Economic Report 2004*. "From the point of view of efficient competition, as indicated by the experience from the transport sector and revealed in the surveys about the business climate mentioned above, the close relation between TPLF and the present Ethiopian government easily creates doubts about the equal treatment of EFFORT-companies and other non-party-related private companies. As there is no efficient and working commercial legislation, these doubts, well founded or not, easily create problems concerning the government's legitimacy and the credibility of its private sector policies."

⁴³ (2007) *Ethiopia: High Growth Africa Research Bulletin: Economic, Financial and Technical Series 44 (1)*, 17250.A-17250.C.

4.3 Policy Reforms to Promote Competition

4.3.1 Competition Policy

As part of its strategy to foster broad based and sustainable private sector led economic growth and poverty reduction, the Government has recognized the need to have an effective competition law-policy framework. The aim of this policy is to maintain and encourage competition in the domestic economy in order to promote economic efficiency, competitiveness, and consumer welfare. Additionally, the policy aims at ensuring a level playing field between all firms, eliminating or lowering unnecessary regulatory and other policy-based barriers to entry; preventing anticompetitive and monopolistic business practices; and broadening the opportunities for new Ethiopian investors and entrepreneurs to participate in their own economy by increasing accountability and transparency in government-business relations.

In April 2003 the GOE enacted the Trade Practices Proclamation (TPP). It contains articles against collusive behavior (such as agreements between competing firms to fix prices, allocate markets or customers and bid-rigging), and abuse of market position by dominant firms (such as predatory pricing and market foreclosure). It also has measures against various types of other unfair trade practices (such as misleading advertising and tied selling). Established in 2004, the Commission investigates cases involving unfair trade practices and passes verdicts to be approved by the Ministry of Trade and Industry. Chaired by a former minister of Justice, the Commission is composed of Chief Economic Advisor to the Prime Minister; Governor of the National Bank of Ethiopia (NBE); and the Director General of the Quality and Standards Authority of Ethiopia.

The Proclamation suffered from a number of gaps that the authorities have moved to amend. It has no provisions relevant for reviewing of public policy impediments to competition and regulatory reform. It has no specific provisions against mergers and acquisitions that may increase market power of existing large firms --this is particularly relevant for the government's privatization program if creation of new monopolies is to be prevented.

Moreover, SOEs and other government entities are exempted from the purview of the Proclamation. There is a risk that large SOEs and endowment-owned firms – some already noted for their anticompetitive business practices – would attempt to further entrench their market position during the transition period, and thus the GOE needs to be particularly active in enforcing the Proclamation, address areas where its provisions may be inadequate, build its institutional capacity and promote competition through a wide information dissemination program in order to foster compliance with the new law.

The Competition Policy Framework is being revised. The The Ministry of Trade and Industry (MoTI) has set up a legal task force, drawn from the private and public sector, with the responsibility to revise the Trade Practice Proclamation (TPP) No. 329/2003, dated 17 April 2003 and present the draft amended law to the government. The task force has drafted the revised legislation and a workshop has been held for consultations with the relevant stakeholders, drawn from the government, private sector, and academia. The revised legislation is going to address the following issues:

- Reform of the institutional arrangement of the of the Trade Practice Investigation Commission as well as its Secretariat, ensuring its independence;
- Legal power to conduct investigations related to the Proclamation on its own initiative;
- Lack of clarity of the provisions of the Proclamation regarding settlement of damages; power of regional states with respect to implementation of the law; appeals on rulings; and legal costs;

- Limit, either minimum or maximum, on the number of members of the TPIC;
- Bundling of competition and non-competition law provisions;
- Need to clarify the provisions of the law with respect to the prohibition of collusion, vertical collusion, and abuse of dominance; and
- Inclusion of the rule of “de minimis” in the law to deal with competition cases that have an appreciable effect on the market and merger control. This fact is not discussed in the report, so it needs to be included.

4.3.2 Removing barriers to entry

Many sectors are reserved either for government firms, domestic investors or Ethiopian nationals – as the table below shows. According to a 2006 UNCTAD ranking of 50 countries worldwide, the Ethiopian government placed more restrictions on foreign investors in service industries than any other except the Philippines (UNCTAD, 2006). Meanwhile privatization has not gone beyond small retail shops, hotels and mid-scale manufacturing. State-owned enterprises dominate the economic landscape. All the utilities – in telecoms, rail transport, electricity and air travel – are public monopolies. The financial sector is largely controlled by three state-owned banks, which in 2004 together accounted for two thirds of branches and three quarters of total capital (World Bank, 2006, 24), while the manufacturing sector is dominated by about 150 public enterprises which produce more than 90 percent of value added (SIDA, 2002, 54).

Table 14 Restrictions on foreign investment & ownership, 2004

<i>Restriction</i>	<i>Sector</i>
Reserved for the government	Postal services except courier services Transmission & supply of electrical energy Domestic air transport using large aircraft (>20 passengers)
Reserved for domestic investors	<i>Trade-related:</i> Export of agricultural products not produced by the investor Import (excluding of bitumen & petroleum) Retail & wholesale services (excluding of petroleum) <i>Other:</i> Bakeries Barber shops, beauty salons Building maintenance and vehicle repair Car hire and taxi services Commercial road transport Construction companies Customs clearance Grinding mills Hotels (excluding star-designated), motels, pensions, coffee shops, bars, night clubs, restaurants (excluding specialized restaurants) Museums, theatres and cinemas Printing Sawmills and timber processing Tanning of hides up to crust level
Reserved for Ethiopian nationals	Banking, insurance, micro-credit & saving Broadcasting Domestic air transport using small aircraft (<20 passengers)

Source: UNCTAD, 2004, 66.

There are also a number of regulatory factors that may hinder the formal entry of new businesses. The World Bank’s Doing Business ratings for Ethiopia are particularly poor with regard to the costs

of business startup. Minimum capital requirements amount to more than 10 times per capita annual income, compared to just over a third among OECD countries. However, this has declined from 19 times per capita income in 2003. Ethiopia had streamlined important aspects of business registration and performs adequately on other measures such as the time and number of procedures involved.

4.3.3 Competition with the informal sector

The ICA suggested an increased concern with competition from the informal sector. In focus groups, this response was explained both as “unfair competition” and competition from illegally-traded products including smuggled product, unregistered traders and formal firms. A particularly interesting response was that the concern over informal firms is a response to the introduction of the value-added tax. While the tax was being introduced, many firms that adopted VAT felt at a disadvantage to firms that avoided taxes by operating informally. The question of informality is dealt with in Chapter 7 and in the Rural Investment Climate Assessment.

4.4 Conclusions

This chapter began from the premise that good governance and competition are central to sustained economic growth. A number of governance issues were explored in the Chapter, which were related to issues of preference, rather than issues of corruption. Endowment- and State-owned firms confront an investment climate that is substantially different from that faced by private enterprises, which may partially explain the fact that they appear to have greater access to policymakers, government as a market, and the state-owned part of the financial sector. The investment climate limits or distorts competition a number of ways, including through directed credit, industrial policy, state firms, and barriers to entry. Ethiopia has approved a competition law to regulate anti-competitive practices, but this regime was not used to address the significant questions of competition with state and endowment-owned firms.

Privatization, if accompanied by greater competition, can help increase productivity. In fact, the strongest rationale for privatization is in fact that it can enhance competition. Privatization and removal of administrative barriers has accelerated, which will clearly increase the degree of competition in the economy and remove some of the more serious complaints about the investment climate in 2002. In particular, the accelerated privatization of industrial firms that compete directly with the private sector will help create competition. Administrative barriers have been reduced and streamlined, but many sectors remain off-limits to private or foreign investors.

Investment climate reforms have helped, but the cumulative impact of these sources of preference will continue to create uncertainty about economic governance and detract from the credibility of the Government’s reforms. Many of the questions concerning the fairness of competition in Ethiopia concern competition with firms linked to the public sector. The cumulative impact of large numbers of state-owned enterprises (including monopoly infrastructure providers), reserved sectors, activist industrial policy, and endowment-owned enterprises creates a degree of uncertainty. Because they are such a controversial feature of the investment climate, a shift in policy toward endowment firms offers a low-cost, high-impact way to establish policy credibility and investor confidence, ultimately increasing investment.

Chapter 5: The Challenges of Inclusion and Diversification⁴⁴

5.1 Pro-poor growth and inclusion

As we argued in Chapter 1, an inclusive private sector is necessary both for efficiency and sustainability reasons. One definition of pro-poor growth is growth without increases in income inequality. Broad policies that support growth, such as sound macroeconomic policies, secure property rights, openness to trade and a favorable investment climate are those most closely associated with poverty reduction. However, many episodes of growth increase income inequality at least in the short run, in large part due to the centralized nature of many growth episodes, in which labor moves to more productive activities but is not linked to rural poverty. While the literature is not fully conclusive, a number of studies suggest that growth that is inequitably distributed on geographic or ethnic lines may also contribute to political tensions or conflict (see Sen (1992), Easterly and Levine (1997) and Collier (1998)) that of course makes such growth unsustainable.

Given the frequent incidence of growth that enhances inequality, a broad-based growth agenda implies two challenges: to diversify industries to offer a wider range of alternatives for higher-productivity activity, and geographical diversification of industrial activity allow private activity to flourish in other parts of the country.

5.2 Diversifying Industry

The Government's Industrial Development Strategy, prepared in 2002/2003, operationalized the "Industrialization" aspects of ADLI and the rational for focus on selected sectors. It placed the "developmental capitalist" at the center of industrial development. It called for (a) elimination of obstacles to the growth of investors, both foreign and domestic; (b) provision of adequate support to enable entrepreneurs to compete globally; (c) determination that industrial development should leverage abundant factors; and that industrial strategy should follow and support agricultural development. The strategy identifies supporting factors including a stable macroeconomic environment, transparency, infrastructure an efficient financial sector. The industrial strategy called for a strong state role to correct market failures. It specifically identifies strategic sectors for provision of direct support: *textiles and clothing, meat and leather, agroprocessing, construction and SMEs*. More recently, *floriculture* was added to the list.

Industrial strategy as practiced in Ethiopia principally works by changing the terms by which sectors obtain land and capital. Access to subsidized long-term capital through the Development Bank of Ethiopia and expedited access to inexpensive land are the most salient mechanisms. Some progress has also been made in correcting market, information and coordination failures for these industries. The government has established public-private consultation on problems facing the sector at times led by the Prime Minister, and establishment of technical training and development centers, such as the Leather and Leather Products Training Institute (LLPTI).

Recently, the Government has begun to explore cluster development, in which industries work together to solve common problems that pose an obstacle to collective growth and, over time, develop social capital essential to market functioning. This is a step in the right direction, in that cluster development involves inter-firm dynamics, competition and innovation. Donors play an important role in industrial policy by supporting a number of sectors with technical assistance such as

⁴⁴ This chapter was prepared for background material prepared by Tilahun Temesgen and Menbere Taye Tesfa.

value chain analysis, capacity building, and exposure to foreign markets.⁴⁵ It is important that these donor efforts be subject to a common monitoring and evaluation framework.

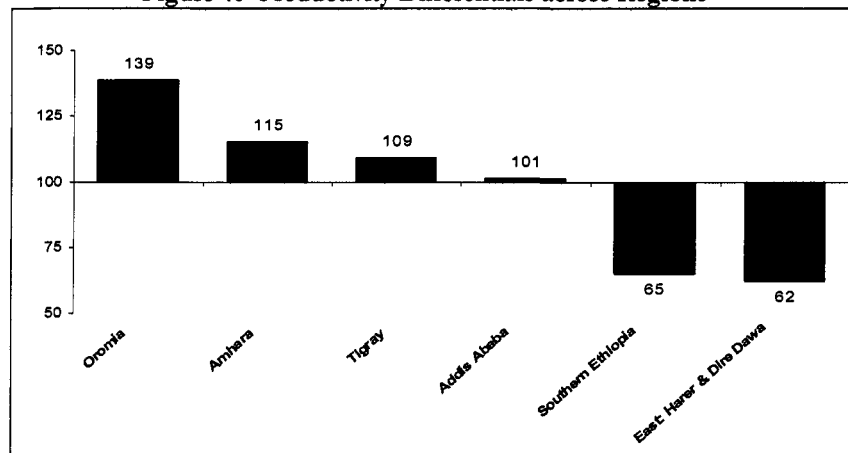
Is this structure likely to succeed? This question was broadly debated at a conference to discuss the investment climate survey results. As Prof. Charles Sabel contributed, modern industrial policy has moved away from static definitions of targeted sectors and activities and precise packages to stimulate them.⁴⁶ Rather, new industrial policy takes for granted that precise goals or the means for achieving provisional goals cannot be specified in advance, and moves toward “bootstrapping institutions.” These are institutions that, given a broad goal, and embark on a continuous process of problem solving, monitoring, exiting and connecting to solutions through public-private partnerships. Modern industrial policy seeks a dynamic form of efficiency. Professor Sabel did not challenge Ethiopia’s choice of sector, but noted that donor efforts had listed countless problems within the chosen sectors, and had come up with countless actions to address those problems, but no program seemed to have a credible monitoring and correcting mechanism.⁴⁷

5.3 Regional Differences

As discussed in Chapter 1, the investment climate is made up of location-specific factors that shape the incentives facing investors. A country with diverse, location-specific economic endowments, geography, history, culture, land availability, ecology and human resources cannot be well-served with a “one size fits all” treatment of the investment climate, since the location-specific factors vary across the country. As such, the goal in promoting inclusive private sector development is to identify policy impediments that may arise from location-specific factors. This chapter seeks to identify how the investment climate varies by geography, sector and firm size.

The 2009 World Development Report argued powerfully that forces of agglomeration would dictate some geographic concentration of economic activity over time as part of the process of economic growth. That said, there is scope for agglomeration in regions outside of Addis Ababa. This chapter seeks to identify obstacles to private investment in a set of second-tier cities. **Productivity differences across regions are striking** – with firms in Oromia some 139% of the Ethiopian average, and East Harar / Dire Dawa operating at 62% of the national average of value added per worker. This reflects both industry endowment and differences in the investment climate.

Figure 40 Productivity Differentials across Regions



⁴⁵ DAG Private Sector Development and Trade Technical Working Group, *Joint Donor Strategy* (forthcoming)

⁴⁶ Reconfiguring Industrial Policy, Ricardo Hausmann, Dani Rodrik, and Charles F. Sabel, August 31, 2007

⁴⁷ Dialogue between Prof. Charles Sabel and Prime Minister Meles Zenawi, Investment Climate Conference

We find that there is very significant variation in the perceived investment climate constraints between establishments in different regions of the country. For example, in terms of corruption, it is seen as a significant problem in Southern Ethiopia Region (a major or severe obstacle to 48%) of establishments, followed by the Amhara region (36%) rated it as major to severe obstacle to their businesses; while in Oromia and Eastern region (Harar and Dire Dawa), corruption is not seen as a major business constraint. On the other hand, a look at the issues of 'access to finance' indicate that 61% of respondents in the Southern region, followed by 50% of the sampled establishments in Addis rate it as major to severe business obstacle.

Table 15 Regional Variation in Investment Climate Priorities

Region	First Rank Obstacle/s	Second Rank Obstacle/s	Third Rank Obstacle/s	Fourth Rank Obstacle/s	Fifth Rank Obstacle/s
Addis	Competition from informal Sector (50.9%)	Access to Finance (45.0%)	Tax Rate (42.1%)	Macroeconomic conditions (40.4%)	Political Instability (30.4%)
Amhara	Access to Land (69.0%)	Tax Rates (61.9%)	Competition from informal Sector (57.1%)	Macroeconomic conditions (42.9%)	Access to Finance (38.1%)
Tigray	Competition from informal Sector (43.9%)	Access to Finance (41.5%), Tax Rates (41.5%)	Tax Administration (36.6%), Political Instability (36.6%)	Access to Land (26.8%)	Macroeconomic conditions (24.4%), Electricity (24.4%), Cost of Finance (24.4%)
East: Harar & Dire Dawa	Competition from informal Sector (63.4%)	Macroeconomic conditions (39.0%)	Access to Finance (19.5%), Access to Land (19.5%), Tax Administration (19.5%), Cost of Finance (19.5%)	Political Instability (17.1%), Skills of workers (17.1%), Electricity (17.1%)	Tax Rates (14.6%)
Southern Ethiopia	Access to Finance (61.3%)	Competition from informal Sector (54.8%)	Corruption (48.4%)	Access to Land (45.2%), Tax Administration (45.2%)	Econ Policy Uncertainty (41.9%)
Oromia	Competition from informal Sector (35.3%)	Access to Finance (29.4%)	Tax Rates (23.5%), Political Instability (23.5%)	Macroeconomic conditions (17.6%), Tax Administration (17.6%), Electricity (17.6%), Econ Policy Uncertainty (17.6%), Transportation (17.6%)	Skills of workers (11.8%)
All Ethiopia	Competition from informal Sector (51.1%)	Access to Finance (40.8%)	Tax Rates (38.9%)	Macroeconomic conditions (35.8%)	Access to Land (31.4%)

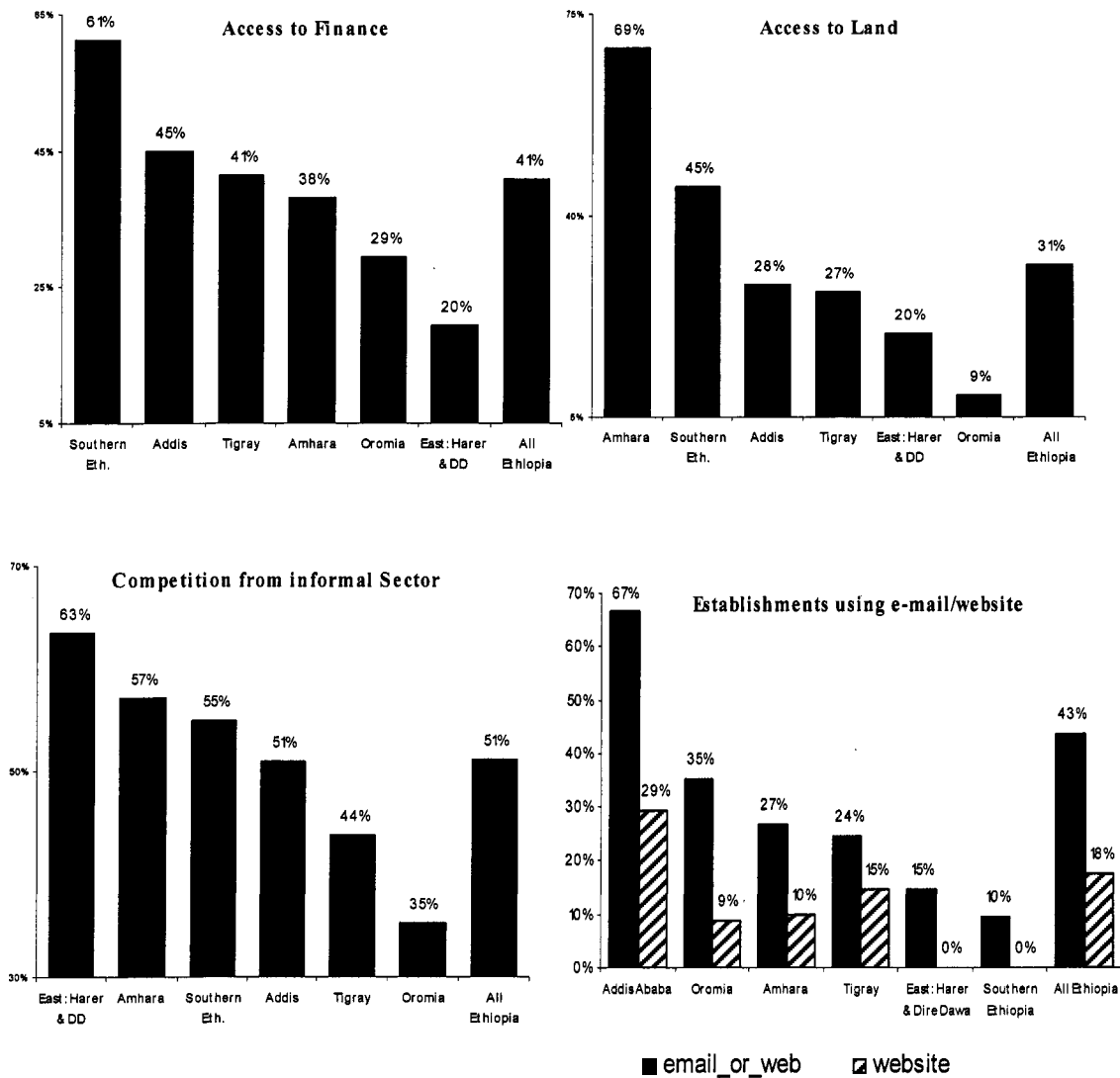
Source: Source: Ethiopian Investment Climate Survey II, 2006.

In Addis Ababa, constraints ranked major to severe are: unfair competition / competition from informal Sector (identified by 50.9% of respondents), Access to Finance (45.0%), Tax Rate (42.1%), Macroeconomic conditions (40.4%), and Political Instability (30.4%); while for the Amhara region entrepreneurs, the five major constraints are Access to Land (69.0%), Tax Rates (61.9%), Competition from informal Sector (57.1%), Macroeconomic conditions (42.9%), and Access to Finance (38.1%). The rest of the regions seem to also have a different set and rankings of major obstacles. See Table 15 for the five major obstacles for each region.

We find substantial differences in the severity of constraints across regions. Access to finance is most severe in Awassa and Addis Ababa, whereas Access to Land is a severe constraint in Amhara.

Unfair competition / competition from the informal sector is particularly constraining for Harar/Dire Dawa and Amhara. Only Addis Ababa and Oromia appeared to make significant headway in using email or websites.

Figure 41 Regional Differences in Severity of Constraints



To better understand these differences, regional consultations were conducted through workshops at the major regional urban centers: Awassa, Harar, Mekelle, Nazareth and Bahar Dar. The consultations focused on the findings of the ICA survey in terms of the severity of constraints on a national level and the same issue on a regional level. The most important findings of the regional survey pertain to the causes to the constraints and possible solutions to them. The number of participants at each of the workshops ranged between 20 and 30. Representatives were invited from city chambers in each region comprising of businessmen, financial sector, infrastructure service providers and bureau heads from finance, tax authority and investment. The discussions focused on:

- a. The views of the participants with regard to the severity ranking of the constraints on a national level,
- b. The views of the participants on the severity of the constraints on a regional level,
- c. The causes of the top 5 constraints in the region, and
- d. Recommended solutions to the constraints.

5.3.1 Southern Nations and Nationalities (SNNP) – Awassa

The discussion in SNNP focused extensively on the role of corruption in the investment climate – a sharp difference from all other regions. The participants stated corruption to be cross cutting in all areas aggravating the situation. Corruption affects access to finance, access to land and tax administration. Corruption is also a major cause for the distortions in competition. As a result, the overall view was that corruption can even be ranked as the most serious impediment to bettering the investment climate.

Access to Finance was also seen as a substantial impediment. The major causes to the lack of access to finance are corruption, lack of banking skills, low level of awareness on the part of businessmen in preparing business plans, tendency to favor priority sectors (leather, textiles/garments, and horticulture) and very high collateral (1:3) demanded. Moreover, access to long term finance is almost none-existent as a result of most banks being commercial and not venturing to lend long term. Banks are mostly over cautious in avoiding risks thus preferring high collateral and short term loans. Banks are also quite reluctant to lend to new borrowers.

Lack of Level Playing Field / unfair competition is a significant constraint. Unfair competition is caused by the predominance business activities by unregistered (informal) businesses in the region. Preferences for cooperatives and unions, endowment-owned and state owned enterprises also contribute to the lack of level playing field in that order.

Access to Land is a serious constraint because of the high lease rate, inconsistency of supply through the auction system, lack of transparency because of corruption and ethnic favoritism and heavy bureaucratic burden. While favored groups can get land within 3 days, it can take others from 8 months to 2 years. Moreover, the availability of land is limited due to a good proportion of the region being inaccessible in terms of infrastructure. The increasing demand for land due to investors from other regions, the high density of the population in the SNNP, has also contributed to highly inflated lease rates.

Suggested Solutions

Table 16 Suggested Reforms: Awassa Consultation

Constraint	Suggested Solution
Access to Finance	<ul style="list-style-type: none"> • Closer supervision on banks by Government, • Continuous dialogue between banks and private sector, • Deregulation of the interest rates, • National Bank (Central Bank) should consider reducing the reserve limit for private commercial banks, and • Introduction of modern banking systems particularly for the Commercial Bank of Ethiopia
Unfair Competition	<ul style="list-style-type: none"> • Raising awareness of private sector operators and investors, • Promote business opportunities and provide incentives to innovate, and • Educate stakeholders, particularly the civil service that the private sector is a

	partner for development and economic growth.
Access to Land	<ul style="list-style-type: none"> • Public-private dialogue, • Raising the awareness and knowledge of civil servants about the law pertaining to administering land lease, • Improve governance through assigning qualified personnel in key public service providing offices, and • Strengthen private sector institutions for better dialogue with government for improving quality of services.
Tax Administration	<ul style="list-style-type: none"> • As most of the problems related to tax administration relate to VAT, the suggested solution was to apply the tax on all businesses (instead of those with annual turnover of ETB 500,000) and reduce the rate from 15% to 10%.

5.3.2 Harar / Dire Dawa

According to the workshop findings in Harar, the severity ranking of the constraints is closely similar to the findings of the ICA II survey except in the case of macroeconomic conditions, which was not among the top five. The ranking of the constraints was unfair competition, tax administration, lack of access to finance, lack of access to land and water supply.

Competition from the Informal Sector is by far the most serious complaint. The single most important factor contributing to this problem was contraband trade accounting to about 85% of the merchandize trade according to the workshop participants. This type of trade involved not only imports of inexpensive East Asian manufactures, but also export trade as it often took the form of barter trade. Significant quantities of merchandize are illicitly imported in exchange for equally significant numbers of live animals, hides and skins and 'Chat' and coffee over the Somali border.

Contraband sugar and cooking oil sells below the cost of production. Sugar is available at Birr 4 per kilogram imported contraband while the price of the national product is Birr 10 per kilogram. Low quality of local products, high import tax rate and weak governance/service delivery are other factors contributing to the wide spread contraband trade in addition to the fact that the market in and around Harar and the whole region has a long border with Somalia.

Competition from SOEs and endowment-owned companies was not seen as a serious constraint in Harar, while there was some concern with competition from cooperatives and unions organized by the government.

Tax Administration. Value added tax (VAT) and the assessment of taxable profit cause tax administration to be the second most serious constraint. The application of VAT on businesses with annual turnover of Birr 500,000 and over and not on those below that threshold is distorting the market rendering the former to weaker positions. The newly introduced surtax of 10% has worsened the uncompetitiveness of the formal businesses as compared to the contraband trade. Moreover, the private sector does not pursue the right way of appeal when tax assessment is high because of the long time it takes and the possible corruption involved. Lack of knowledge on the part of tax assessors also contributes to the problem.

Access to Finance. In Harar and Tigray, the issue of access to finance was more pervasive than in other regions. In addition to issues shared by other regions (bureaucracy, demand for high collateral and the undervaluation of collateral assets and the weak knowledge of the private sector for preparing good business plans and proper financial statements) many were not satisfied with the lending products offered by the commercial banks.

Access to Land. Access to land is caused because of low supply as a result of weak administration and population density, nonexistent land certification affecting the land market and delays in project implementation causing land hoarding and speculation.

Table 17 Suggested Reform -Harar / Dire Dawa Consultation

Constraint	Suggested Solution
Unfair Competition	<ul style="list-style-type: none"> • Stronger government control on both contraband imports and exports with clear accountability on responsible bodies, • Closer collaboration between public and private stakeholders, • Improving the quality and supply of locally produced basic goods, and • Encouraging patriotism – promoting the ‘Made in Ethiopia’ brand.
Tax Administration	<ul style="list-style-type: none"> • Raising knowledge/awareness of private sector operators and investors on tax rates and method of assessment, and • Train civil servants on proper tax assessment and administration.
Access to Finance	<ul style="list-style-type: none"> • Training for the private sector on the preparation of good business plans, • Introduce better banking skills and remove bureaucracy, • Establish proper mechanisms for estimation of collateral values, and • Introduce new financial products.
Access to Land	<ul style="list-style-type: none"> • Public-private dialogue, • Streamline land supply in relation to effective investment plans, and • Educate private sector actors to produce good/realistic business plans for accessing land.

5.3.3 Tigray/Mekele

Access to Finance. Weak access to finance is caused by high collateral demand, low capacity of private banks to compete with state owned banks and lack of transparency in the lending policies of banks. Furthermore, banks are more concerned about minimizing risks than the overall economic development impact of credit. Moreover, banks show preference to SOEs in the provision of credit.

Unfair competition concerns in Tigray include monopolistic suppliers, unlicensed firms, government-established cooperatives and endowment-owned firms. Unfair competition is caused by many unlicensed wholesalers who bring merchandize to the urban centers and distribute them on door-to-door basis. These traders do not pay any taxes on their profits or in the form of value added tax (VAT). Such trade is linked to local NGOs who provide the illicit traders free services like transport and storage. Other practices that cause unfair competition are monopolistic suppliers, cooperatives and unions established by local government authorities, state owned enterprises and endowment-owned enterprises.

Tax Rate and tax administration. This constraint is a direct result of municipalities charging additional taxes outside the ones approved by the Bureau of Finance. Other causes include inconsistent procedures by tax regulators. To the participants, administration problems appeared to be a result of low level of education of the tax administrators, favoritism to endowment-owned companies and lack of knowledge of tax laws on the part of tax payers.

Participants were concerned about corruption. The concern over corruption is caused due to lack of clarity in the separation of state and party roles which undermines governance. Furthermore,

loose trade registration practices, low level of remuneration to civil servants and connections some businesses have to government authorities aggravate the severity of the constraint.

Table 18 Suggested Reforms - Mekelle / Tigray Consultation

Constraint	Suggested Solution
Access to Finance	<ul style="list-style-type: none"> • Introduce inter-bank loans to enable private banks, • Increase the threshold for loan approval at regional level, • Encourage MFIs to serve urban SMEs at affordable interest rate, • Introduce easy, clear and transparent procedures to process loans, • Financial sector reform, and • Encourage more private banks introduce more competition
Unfair Competition	<ul style="list-style-type: none"> • Clear and fair competition policy, • Establish an independent organization working with the chamber system to watch against anti-competitive practices
Tax Administration	<ul style="list-style-type: none"> • The rules and systems of taxation should be more transparent, equitable, • Simplify tax payment systems (through banks, for example), • Remove committee work form tax assessment responsibilities, and • More training for tax assessors and collectors.
Corruption	<ul style="list-style-type: none"> • Creating effective and transparent administration system, • Removing impartiality for coops, unions and others

5.3.4 Oromia/Nazareth

The Oromia workshop brought out some major issues not addressed by the ICA II survey that participants thought affected private sector development and investment. These issues include:

- Justice administration – assignment of qualified lawyers/judges,
- Management of the economy – weak civil service capacity, and
- Weak and unfair public administration, unequal treatment in the rule of law.

With those outlying conditions, the participants endorsed the ranking of the severity of the constraints at national level similar to that of the survey results except stating that tax rate and tax administration have the same weight with the view that high tax rates lead to difficult tax administration processes. On regional basis, the ranking of the constraints slightly varies from the survey findings. The details are presented below.

ICA Survey Result	Workshop Findings
1. Competition from the informal sector	1. Competition from the informal sector,
2. Access to finance	2 Access to finance
3. Tax rate and political instability	3 Tax rate and tax administration
4. Macroeconomic conditions, tax administration, electricity, economic policy uncertainty and transport	4 Political instability
5. Skills of workers	5 Access to land.

The participants reported that the underlying causes of the above constraints are as follows:

- **Unfair competition** is caused by favors to SOEs, endowment-owned companies, unions and cooperatives and illicit traders in that order.

- **Access to Finance.** Poor corporate governance weakens the effectiveness of the banking system. This problem is aggravated because of the lack of good banking knowledge and best practices which foreign banks practice. Moreover, private banks lack adequate liquidity to create more contestability in the financial market.
- **Tax Rate and Tax Administration.** Low capacity in tax assessment, lack of trust on the private sector and the recently introduced surtax explain the constraint of high tax rates and poor tax administration.
- **Access to Land.** Lack of capacity/knowledge to carry out land lease administration, lack of transparency and corruption make access to land difficult.

Table 19 Suggested Solutions - Oromia

Constraints	Suggested Solutions
1. Competition from the informal sector	<ul style="list-style-type: none"> • Introduce effective control mechanisms, tackle the root-cause of illicit trade, • Put in place proper quality standards and their enforcement mechanism, and • Introduce good governance.
2. Access to finance	<ul style="list-style-type: none"> • Improve corporate governance in the banking system, • Introduce modern banking system and improve the skill levels of the staff.
3. Tax rate and tax administration	<ul style="list-style-type: none"> • Expand tax base and reduce tax rate, • Assign qualified staff for tax assessment and collection, • Introduce effective public-private dialogue system, and • Educate the private sector on tax laws.
3. Political instability	<ul style="list-style-type: none"> • Introduce good governance, • Assign professionals in key government posts, • Clearly put in place systems for transparent and accountable service delivery in government
4. Access to land.	<ul style="list-style-type: none"> • Educate the civil servants on the need to allocate land legally to enhance investment and development, • Put in place clear and transparent laws and monitor their strict application, and • Introduce good governance.

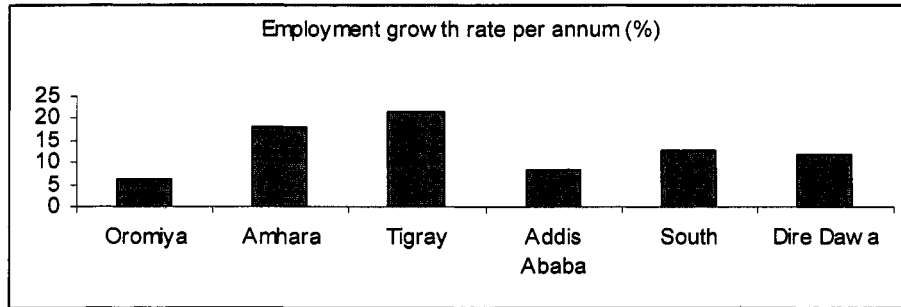
5.4 Differences in employment

The rate of employment growth for firms surveyed in both rounds suggests that Amhara and Tigray based firms had the most employment growth. We analyze employment growth⁴⁸ in the manufacturing sector using panel data from 2002 and 2006 surveys. Due to lack of information on seasonal and temporary employees, we focus only on permanent employees. Out of 190 firms covered by the survey, between 170 and 188 firms with full information are considered. Three

⁴⁸ Definitions: Employment creation is defined as the number of employees in 2005 (round 2006) minus the number of employees in 2001(round 2002) divided by four years that elapsed. Compared to employment growth, this indicator is expected to measure the job creation capacity of different firms since it measures the number of jobs created independently of the initial level of employment. Employment growth rate is computed as the log of the number of employees in 2005 (round 2006)- log of the number of employees in 2001(round 2002), divided by four. Percentage point change in the share of female employees measure the difference between the percentage of female employment in 2001 and 2005.

indicators are used to examine the trend in employment in the panel data: new jobs created (employment creation), employment growth, and female employment

Figure 42 Number Employment growth rate between 2002 and 2006 by region



5.5 Conclusions

The broad overview of this chapter suggests the need for deeper analysis of the economic geography, institutions and endowments of specific regions of Ethiopia, as has been provided for Amhara (World Bank, 2007). One important conclusion that comes out of this chapter is that there are significant variations in terms of the Investment Climate perceptions of the business community between the various establishment characteristics such as size, export orientation, size as well as location. This calls for a more in depth analysis of such differences, particularly between the regions, in order to identify potentially region specific policies and priority areas of reform.

Chapter 6 Unlocking the Power of Women

6.1 Introduction

Evidence indicates that a positive correlation exists between economic growth and gender equality. Specifically, participation of women in employment and self-employment is often crucial for poverty reduction and can contribute to economic growth.⁴⁹ Despite few would disagree that a strong and dynamic female entrepreneurship sector is a positive element for a country's sustainable growth, we still observe large differences in participation rates of men and women in entrepreneurial activities. Out of the 31 African countries analyzed in Bardasi, Blackden, and Guzman (2007),⁵⁰ the percentage of entrepreneurs who are women is less than 20 percent in 17 countries (55 percent of the sample) and less than 10 percent in 8 countries (26 percent of the sample). Enhancing the entrepreneurial ability of women by removing investment constraints and other barriers may help African countries to use their 'hidden growth reserves' more effectively.

Ethiopia has made progress in empowering women by establishing the Ministry Women's Affairs, formulation of women's development programs and removing legal barriers to women.

This chapter suggests the existence of specific constraints faced by women in accessing entrepreneurship. This chapter will show that Ethiopian women entrepreneurs tend to operate in partnership (privately held limited companies, partnership, joint ventures, shared companies and the like), rather than in sole entrepreneurship, much more often than men. While men and women entrepreneurs are often in agreement in defining the severity of several business constraints, there are also significant differences in their perceptions about specific obstacles they face. For example, access to land is a major constraint for both male and female entrepreneurs. However, female entrepreneurs, especially those operating as sole entrepreneurs, are more likely to face severe constraints than their male counterparts in general, as well as than their female counterparts in partnership enterprises. We use data from the PICS⁵¹ from 2006 and 2002 to investigate these issues.

6.2 Characteristics of female entrepreneurs

6.2.1 Share in ownership

The share of women entrepreneurs in the survey compares favorably to other African countries and is growing. As it is the case in most African countries, female entrepreneurs represent in Ethiopia the minority of all entrepreneurs. Women-owned enterprises constitute only 29 percent of the total sampled enterprises.⁵² The results presented by Bardasi, Blackden and

⁴⁹ For an overview of studies exploring the links between gender equality, poverty, and economic growth see the World Bank, 2007.

⁵⁰ Bardasi, E., Blackden, C. M., and Guzman, J. C. (2007), "Gender, Entrepreneurship and Competitiveness in Africa", in World Economic Forum, World Bank, and Africa Development Bank, *The Africa Competitiveness Report 2007*, Geneva: The World Economic Forum.

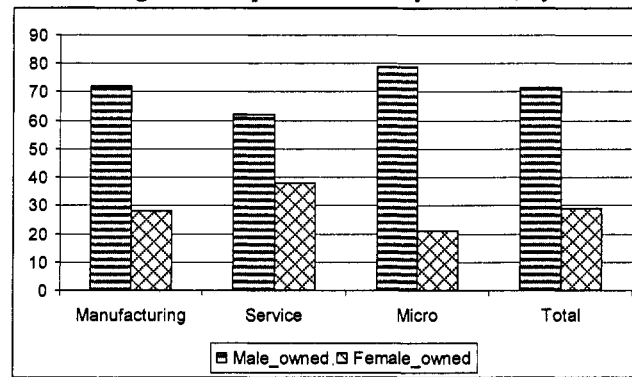
⁵¹ The World Bank's Enterprise Surveys were earlier termed the "Investment Climate Surveys." For more information on Enterprise Surveys, see <http://www.enterprisesurveys.org/>.

⁵² The sample we used for our analysis does not include state-owned enterprises (because the sex of the entrepreneur cannot be determined in any meaningful way) and foreign-owned enterprises (because we believe that foreign entrepreneurs may be too different from domestic entrepreneurs to be meaningfully compared). The sample used in our analysis includes 525 domestic firms owned by physical persons.

Guzman (2007) indicate that Ethiopia 2006 ranks very close to Namibia and Uganda in the share of entrepreneurs who are female, and behind only to Burkina-Faso, Burundi, Cameroon, Mozambique, Botswana, and Cape Verde, out of 31 countries. Moreover, 29 percent of female entrepreneurs are a substantially higher percentage than in 2002, when only 11 percent of manufacturing enterprises were owned by women (although the sample design may explain part of this result).⁵³

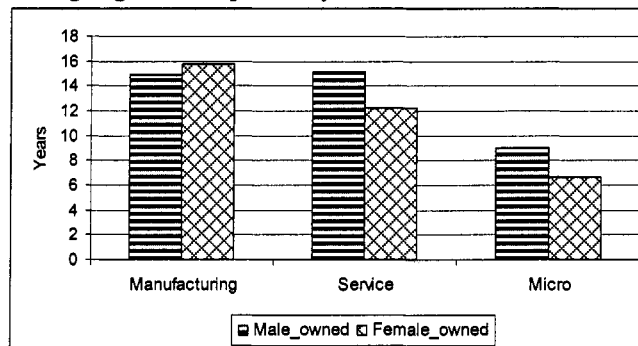
As shown in Figure 43, women tend to concentrate in the service sector (38 percent of all enterprises), while they are clearly under-represented as owners of micro-enterprises (21 percent). The low percentage of micro-enterprises owned by women is unexpected—it is usually assumed that women own and manage relatively small businesses with respect to men. The share of women in small sized business is expected to be relatively high due to low entry barriers, time requirement, and small profit margin in the micro sectors (Verheul and Thurik, 2000).

Figure 43 Percentage of enterprises owned by women, by industrial sector



Recently, an increase of female-owned enterprises is confirmed by the younger age of female-owned enterprises in the services and micro-enterprise sector. While manufacturing firms owned by women tend to be slightly older than those owned by men, firms in the services and retail sector and micro-enterprises owned by women are about 3 years younger (Figure 44).

Figure 44 Average age of enterprises, by sector and sex of the business owner



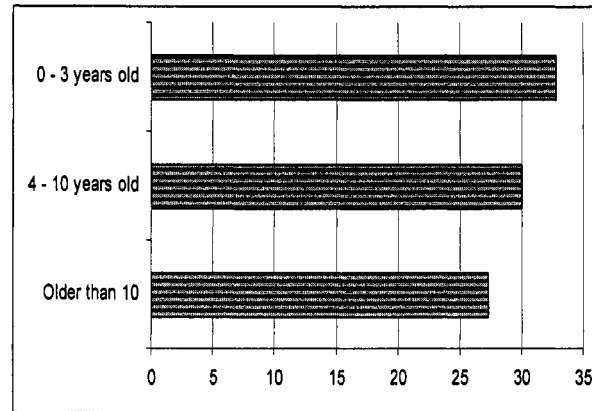
Note: State-owned and foreign-owned enterprises are excluded from the sample.
Source: Ethiopia Enterprise Survey 2006

Similarly, an analysis of the enterprises by age cohort shows an increasing trend in female ownership. Figure 45 shows the percentage of women entrepreneurs among groups of firms of

⁵³ In 2002 only manufacturing enterprises were included in the Survey.

different age. Among most recently established enterprises (aged 3 years or less) women represent about 32 percent of the 'new entrepreneurs'. This compares with less than 27 percent of women entrepreneurs of firms older than 10 years and 29 percent for firms 4 to 10 years old.

Figure 45 Percentage of enterprises owned by women, by age cohort of the enterprise (years)

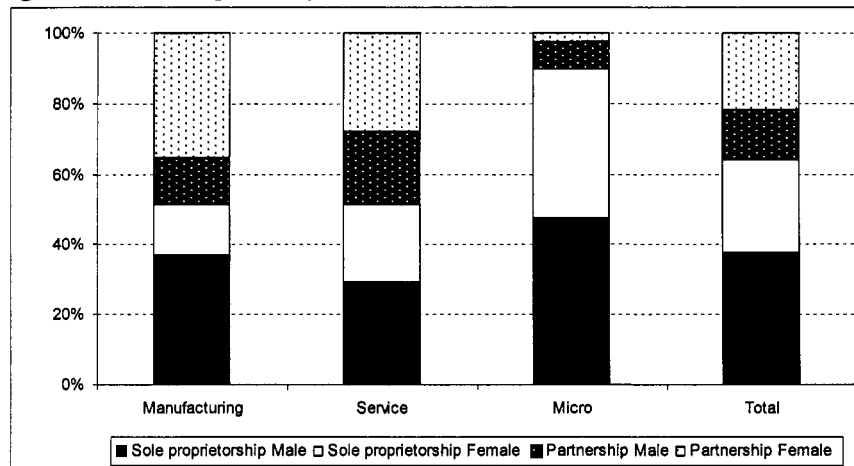


Note: State-owned and foreign-owned enterprises are excluded from the sample.
Source: Ethiopia Enterprise Survey 2006

6.2.2 Legal status

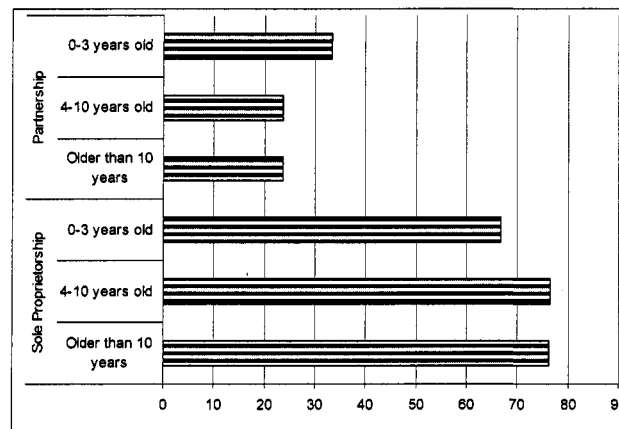
There are large variations in the composition of the enterprises by legal status depending on the sector where the enterprise operates (See Figure 46). We compare partnership enterprises with sole proprietorships, and notice that among partnerships, women-owned firms make up 51 percent of manufacturing and as much as 54 percent in the service and retail sectors. However, women are never more than 20 percent of all sole proprietorship business owners (20 percent in the micro-enterprises, 18 percent in services and retail, and 13.5 percent in manufacturing).

These results suggest that women may face important barriers in owning enterprises in sole proprietorship—perhaps because of lack of networks, poor access to finance to start a business, or other factors such as gender-specific differences in propensity to risk, social expectations about gender roles, family trade-offs and time constraints. At the same time, these barriers may be easily overcome by a woman participating in a partnership enterprise (which she may have started with other partners, or inherited, or entered as a family business member). It may be the case that a partnership enterprise offers easier access to credit (because of its legal status and because men partners can overcome any gender-specific obstacle that may exist), ‘dilutes’ the direct, personal risk of the woman, and provides easier solutions to combine work and family life. Further research would be required to verify these hypotheses. These results also help explain the unexpected finding of the relatively small percentage of female entrepreneurs in the micro-enterprise sector. If important obstacles exist for women who want to start a business (even a small one) as sole proprietorship business owners, in a sector where the predominant legal type is sole entrepreneurship mostly men will be found—and this is exactly what we observe in the micro-sector.

Figure 46 Legal status of enterprises, by sector and sex of the business owner

Note: State-owned and foreign-owned enterprises are excluded from the sample. 'Partnership' enterprises include private limited, partnership, share company, joint venture and privately held limited association. The sample includes 185 partnerships and 340 sole proprietorships. Source: Ethiopia Enterprise Survey 2006

No increasing trend in the percentage of women in sole proprietorship businesses is detected in recent years. Figure 5 replicates Figure 3 after dividing the firms by their legal status. Among recently created firms the percentage of women is higher (on the rise) with respect to older firms for partnership enterprises, but this is not the case for sole proprietorship enterprises—if anything the percentage of women among younger firms is lower than among older firms.

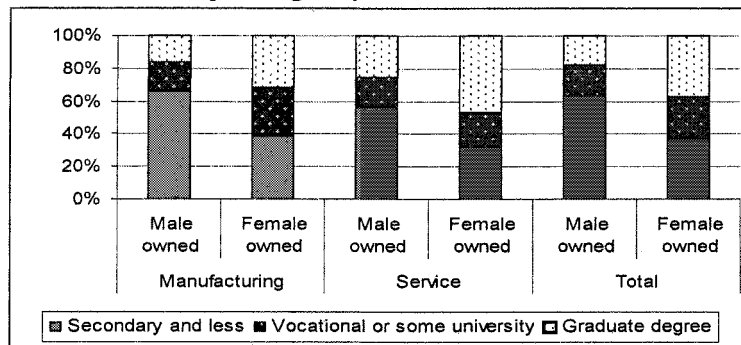
Figure 47 Percentage of enterprises owned by women, by legal status and age cohort of the enterprise (years)

Note: State-owned and foreign-owned enterprises are excluded from the sample. Source: Ethiopia Enterprise Survey 2006

6.2.3 Experience and education

Managers in female-owned enterprises are better educated than in male-owned enterprises— see Figure 48. Overall, 37 percent of managers in female-owned businesses have a graduate degree compared to only 18 percent in male-owned businesses. At the other extreme, 64 percent of managers in male-owned businesses have only a secondary education level (or lower) compared to 37 percent in female-owned businesses.

Figure 48 Education level of the top manager, by sector and sex of the business owner



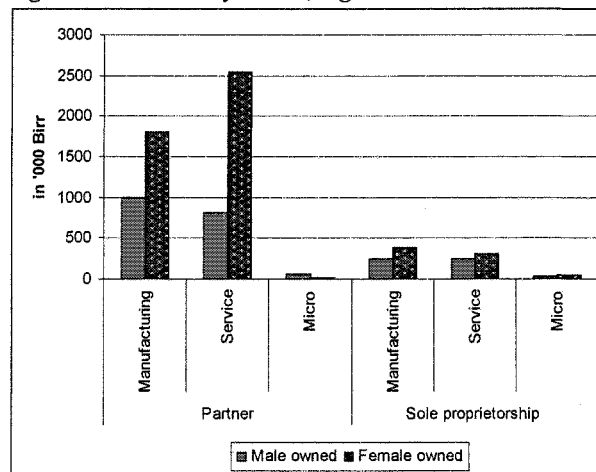
6.2.4 Size

Contrary to our expectations, female owned enterprises have a significantly larger size (measured by the number of employees) at start-up than male owned enterprises. This is true in almost all sectors except in the micro sector. Interestingly, the gap in size does not decrease in time and it still exists at the time of the survey. Table 20 shows the mean and the median number of permanent workers at start-up and at the time of the survey for female- and male-owned enterprises, by sector. Both statistics indicate that female-owned enterprises tend to start-up larger in size and to grow faster than male-owned enterprises. Overall, the average number of employees at start-up and at the time of the survey was 24 and 54 for female-owned enterprises compared to 13 and 20 for male-owned enterprises. The larger size at the time of the survey is even more remarkable considering that female-owned enterprises are younger on average.

Table 20 Mean and median number of employees at start-up and at the time of the survey, by sector and sex of the business owner

Ownership		Startup			Current		
		Manufact.	Service	Micro	Manufact.	Service	Micro
Mean	Male owned	20.5	5.3	2.5	30.3	13.4	3.2
	Female owned	36.6	12.1	3.4	82.9	28.6	2.9
Median	Male owned	5.0	3.0	2.0	11.0	6.5	2.0
	Female owned	15.0	7.0	2.5	35.0	21.0	3.0

Female-owned enterprises also have larger revenues than male-owned enterprises, in all sectors but the micro sector, where the difference is not statistically significant. In the case of manufacturing and service sectors, however, the difference in revenue between the two groups of entrepreneurs is substantial. This difference can be partly explained by difference in the number of employees, the legal status of the firm and other factors Figure 49 presents the revenue by legal status and sex of the business owner. As the figure shows, the difference by sex persists even after controlling for the legal status of the firm—this difference being more pronounced in the case of partnership enterprises.

Figure 49 Average total revenue by sector, legal status and sex of the business owner

6.3 Gender differences in investment climate constraints

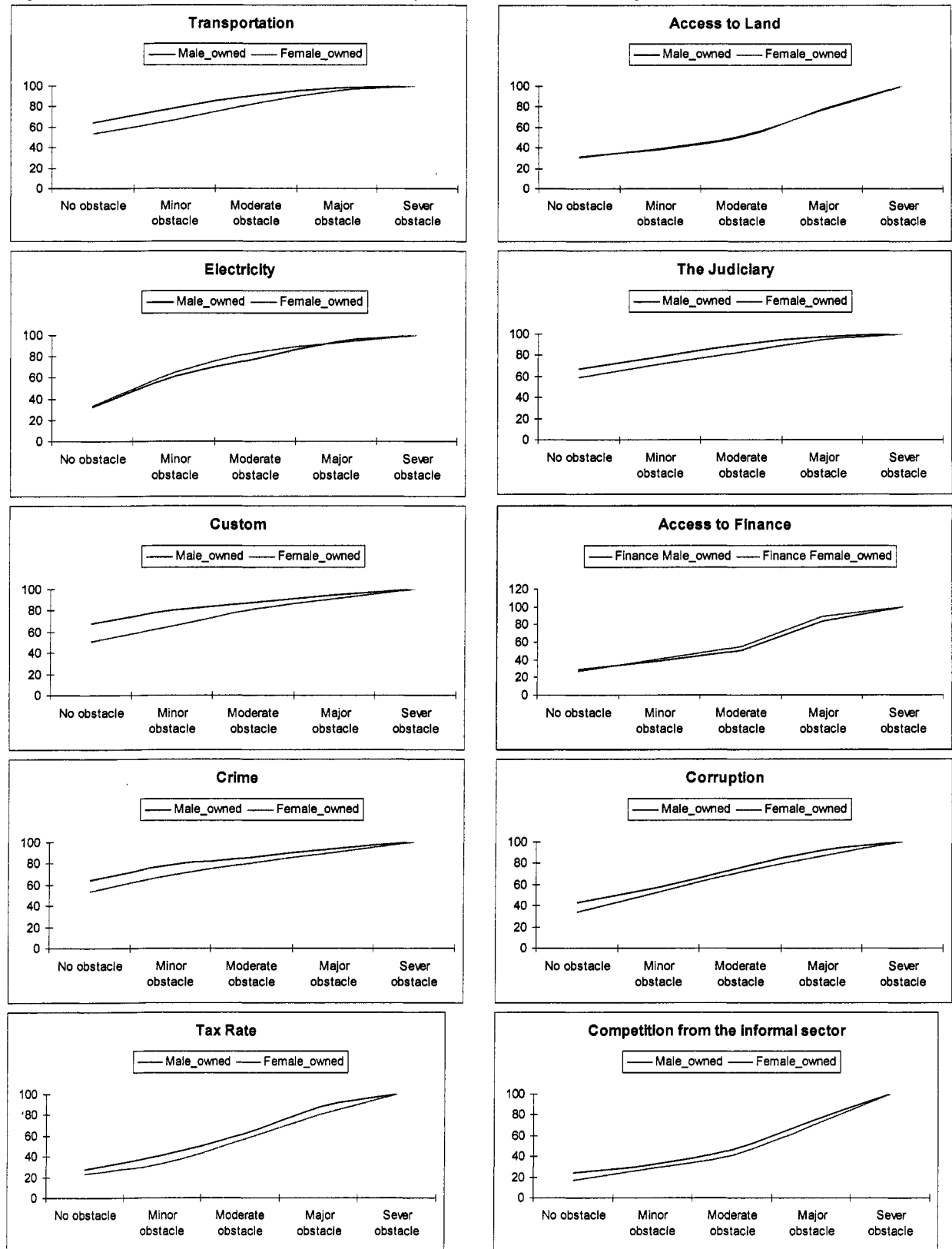
The descriptive analysis presented in the previous section suggests that women are likely to face substantial obstacles to start-up a business. Women entrepreneurs are few, and rather than running their firms in sole proprietorship they mostly concentrate in partnership enterprises. Moreover, they are substantially more educated than their male counterparts, a sign that they may undergo a more severe selection process.

In this section, we analyze constraints that women and men entrepreneurs face once they are in business. There may be reasons to believe that, even if they overcame the first hurdle to start up their enterprise, women and men entrepreneurs face different investment climate constraints. Some of the reasons may be the same that prevented many women to become entrepreneurs in the first place—for example, difficulties in accessing credit because of lack of collaterals or distrust of investment institutions toward women. Other reasons may be more specific to entrepreneurs' day-to-day operations, such as greater difficulties of women in dealing with business-related institutions (custom officers, tax administration, judicial system, etc.).

6.3.1 Intensity of constraints

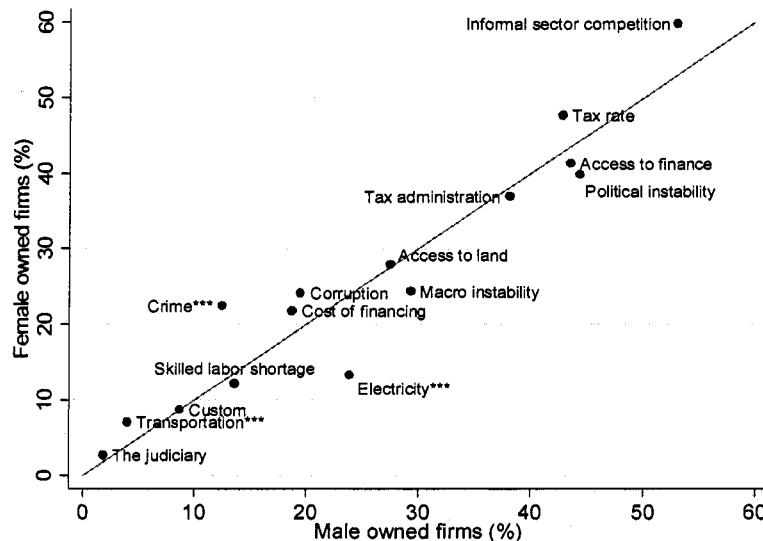
We first analyzed the differences between female and male entrepreneurs with respect to their opinion about the severity of specific business constraints. Figure 50 shows the cumulative percentage of entrepreneurs that declared specific constraints as 'no obstacle', 'minor obstacle', 'moderate obstacle', 'major obstacle' or 'severe obstacle' for the operation and growth of their business, separately for men and women. A low intercept (corresponding to a small percentage of entrepreneurs judging the obstacle as non-existent) indicates that the obstacle is on average more relevant than others (at least in the bottom end of the distribution); similarly, a curve increasing at an increasing rate (a convex curve) indicates a comparatively more severe obstacle (that is, a higher percentage of entrepreneurs judging that obstacle as very severe). This implies that whenever the cumulative curve corresponding to female entrepreneurs lies below the curve corresponding to male entrepreneurs, female entrepreneurs are worse off with respect to their male counterparts in the way they are affected by that constraint.

Figure 50 Cumulative distribution of the intensity of selected constraints, by sex of the business owner



Some constraints appear to affect female entrepreneurs substantially more severely than they affect male entrepreneurs. In particular, transportation, custom and trade regulations, crime, corruption, and tax rate are more serious obstacles for female compared to male entrepreneurs. The predicted probabilities are estimated for a woman and a man at the mean of all other regressors, and plotted in Figure 51. Points above (below) the diagonal indicate that for that specific constraint the probability that a female entrepreneur perceives it as 'major' or 'very severe' is higher (lower).

Figure 51 Predicted probability that an entrepreneur perceives a constraint as 'major' or 'very severe'



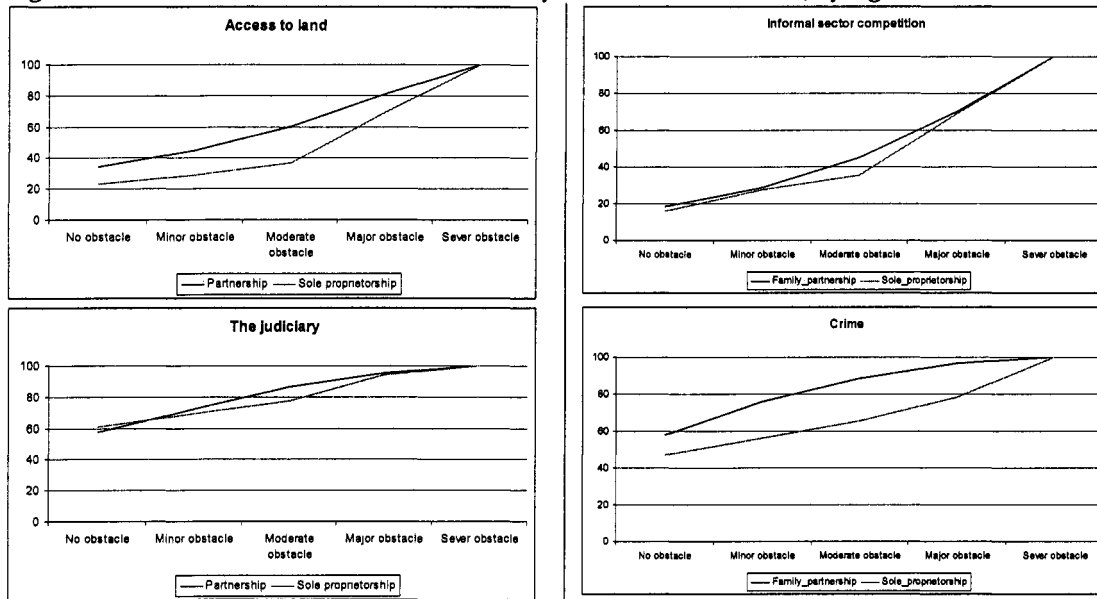
Predicted probabilities are evaluated for a stylized enterprise with average characteristics (all values of the explanatory variables are set to the mean). Controls include size, age, sector, legal status, and region of the enterprise, and experience of the top manager.

Interestingly, most constraints are not perceived differently by female and male entrepreneurs in a (statistically) significant way. So, for example, very few men and women consider the judiciary a major/very severe constraint. By contrast, both men and women have a very high probability of judging access to finance as a major/very severe constraint. There are a few exceptions. Women are significantly more likely than men to consider crime or informal sector competition as a constraint (a constraint that also men consider as major/very severe with high probability), although the difference is not statistically significant in this case. Electricity is instead a constraint that men are more likely than women to perceive as a severe one.

6.3.2 Intensity of constraints by legal status

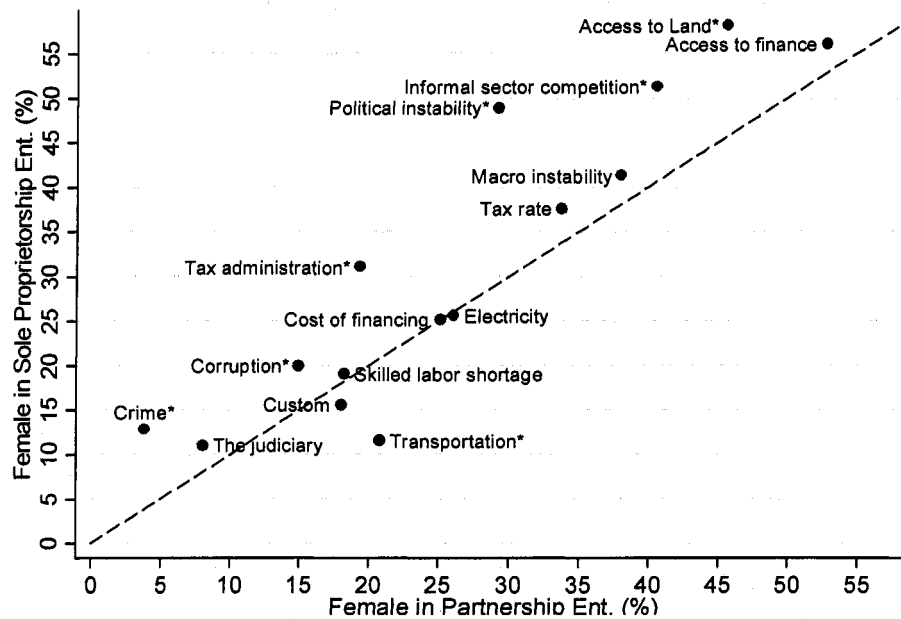
We have previously shown that there are substantial differences in the legal form female-and male-owned enterprises are organized. The proportion of women operating in sole proprietorship is small compared to their proportion in partnership-type of enterprises. This may indicate that, women entrepreneurs in sole proprietorship are more likely to face more and stronger obstacles than women running their enterprises in partnership. To assess the role of the firm's legal status in shaping investment climate constraints for women entrepreneurs we performed an analysis similar to what we have just presented on the sample of women entrepreneurs divided between sole proprietorship and partnership business owners. Figure 52 presents the cumulative distribution of the intensity of selected constraints by legal status of women entrepreneurs. As the intercept, slope and the vertical difference between the two lines clearly indicate, women entrepreneurs in sole proprietorships perceive land, the judiciary, crime and informal competition as more serious constraints.

Figure 52 Cumulative distribution of the intensity of selected constraints, by legal status



We also examined the difference in the predicted probability of women entrepreneurs in sole proprietorship and partnership enterprises in declaring a constraint as major/very sever by controlling for size, age, sector, location (region) of the enterprise and experience of the top manager. The results are presented in Figure 53.

Figure 53 Predicted probability that a female entrepreneur perceives a constraint as ‘major’ or ‘severe’



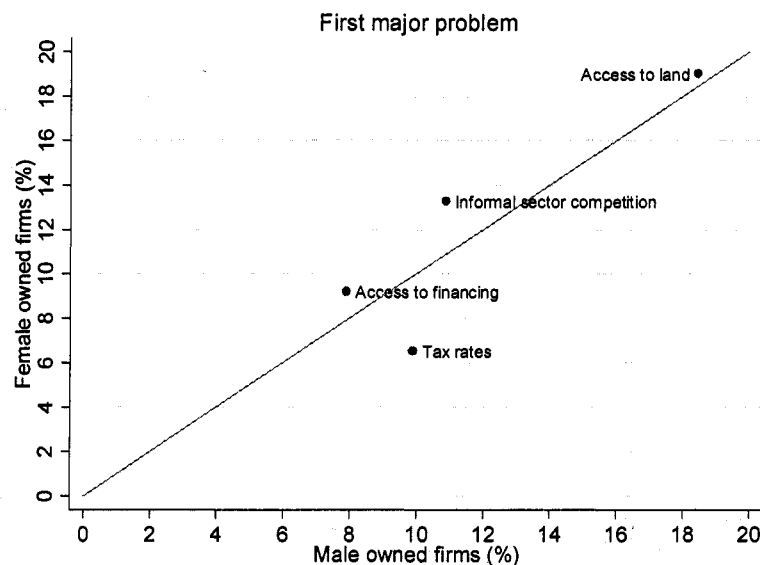
Predicted probabilities are evaluated for a stylized enterprise with average characteristics (all values of the explanatory variables are set to the mean). Controls include size, age, sector, and region of the enterprise, and experience of the top manager.

Quite strikingly, female entrepreneurs in sole proprietorship have higher probabilities of judging almost all constraints as ‘major’ or ‘very severe’ (only exceptions are transportation, skilled labor shortage and custom). This confirms that the investment climate is more adverse to female entrepreneurs in sole proprietorship than to female in partnership enterprises, which explains why we observe very few women entrepreneurs in sole proprietorship enterprises.

6.3.3 Ranking of constraints

Finally, we examined the constraints identified by entrepreneurs as their ‘first major constraint’. The advantage of focusing on the single constraint that each entrepreneur considers to be the biggest one is obvious—it allows us to identify the constraints that are more binding. On the other hand, the ‘biggest constraint’ can be extremely severe for one entrepreneur and not that severe for another one—that is, it does not define a level of intensity. With this caveat in mind, we run a probit regression for the probability of identifying a constraint as the biggest one, controlling for size, age, legal status, sector, and region of the enterprise and experience of the top manager. Access to land, access to finance, competition from the informal sector, electricity, tax rate, tax administration, and corruption are mentioned as the first most important problem by at least 3 percent of the enterprises. We analyzed those constraints that are considered as the ‘biggest one’ by at least 5 percent of the sample—that is access to land, access to finance, competition from the informal sector, and tax rate. Figure 54 shows the probability of an entrepreneur to identify a specific constraint as the first major problem. Access to land is the first most important obstacle in doing business, although there is no (statistically) significant difference between female (19.0 percent predicted probability) and male (18.5 percent) entrepreneurs.

Figure 54 Predicted probability that an entrepreneur perceives a constraint as their ‘first biggest constraint’, by sex of the business owner



Predicted probabilities are evaluated for a stylized enterprise with average characteristics (all values of the explanatory variables are set to the mean). Controls include size, age, sector, legal status, and region of the enterprise, and experience of the top manager.

A few caveats hold. First, only manufacturing enterprises are included in the panel, so these results cannot be generalized to services and smaller firms. Second, the sample size is small—this for example, does not allow us to control for characteristics other than the sex of the entrepreneurs, and

we know that male and female entrepreneurs also differ with respect to the size of their enterprises, the legal status, and so on. Third, the panel only includes firms that were still in operation in 2006. Some of the firms that were interviewed in 2002 but are not in the panel may be out of business in 2006 or may have moved and we have no way of controlling for this selection process.

1. Do the constraints affect female- and male-owned enterprises differently?

So far we have examined the difference in the perception of female and male entrepreneurs in identifying various constraints that affect the operation and growth of their businesses. In this section, we examine if different investment constraints affect the performance of female and male owned firms differently. It is hypothesized that some of the constraints may affect the performance of women entrepreneurs disproportionately. However, the effects of some constraints on the performance of women entrepreneurs might not be fully isolated since we are dealing with selected women who have probably confronted and overcome greater entry barriers in the first place. The results should be interpreted with appropriate caution.

The productivity of female-owned enterprises tends to be lower than of male-owned firms, even after controlling for a vector of enterprise characteristics and the investment climate constraints. Among the available indicators, we used productivity as a performance indicator. Following Escribano and Guasch (2005) productivity is defined as the impact of all other factors on total revenue (sales) after controlling for the contribution of labor, capital, and intermediate inputs. To take into account the heterogeneity of the labor force in terms of education and experience, we used total labor costs as a measure of labor⁵⁴. Capital was measured by annual depreciation of fixed asset. Electricity, communication, water, fuel, raw material, and transport were taken as intermediate inputs. More than 15 investment climate constraints were considered and various business level variables such as age and legal status of the business, experience of the top manager⁵⁵, usage of e-mail, and sector (manufacturing, service, and micro) were used as control variables. We also controlled for geographical variations through the inclusion of six regional dummies. We used Cobb-Douglas and translog production technologies to estimate productivity. To measure the gender-specific impact of investment constraints, each constraint was interacted with a dummy for gender.

Table 21 presents coefficients of the variables and their robust standard errors. The third and the fourth columns of the table reports the Cobb-Douglas and the translog single equation estimated results, respectively. Both models give more or less similar results. The manufacturing sector has better performance than the service sector and businesses that use email services have higher productivity, *ceteris paribus*. The dummy for the gender of the entrepreneur has a negative coefficient, although only in the one-step Cobb-Douglas regression this coefficient is statistically significant. This result does not have an unambiguous interpretation. There may be characteristics we are not able to control for in the regressions, which are associated with female entrepreneurship and have a negative effect on productivity. Or there may be adverse selection into entrepreneurship for women—although we may have expected a positive effect, given the higher entry barriers that women are likely to face.⁵⁶

⁵⁴ The results, however, remain stable when number of workers is used instead of labor cost.

⁵⁵ Information on the education level of the top manager is not available for the micro sector.

⁵⁶ Another possible interpretation could be that, even when women's perceptions of investment constraints is similar to men's perceptions, women *de facto* suffer of higher constraints (perhaps they complain less because they have lower expectations).

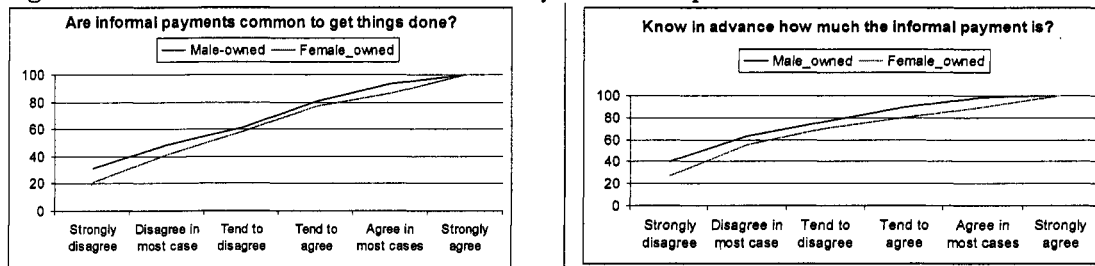
Table 21 Impact of investment constraints on productivity of business by gender

Variable		Single equation		Two-step Solow	
		Dep. var: ln value added		Dep. var: residual	
		C-D	Translog	C-D	Translog
Main inputs	Ln labor (L)	0.599*** (0.079)	0.488*** (0.182)		
	L ²		0.046 (0.037)		
	Ln Capital (K)	0.279*** (0.049)	0.543*** (0.169)		
	K ²		0.022 (0.016)		
	L*K		-0.018* (0.010)		
Firm specific characteristics	Ln age of the firm	+	+	+	+
	Service	+***	+***	+***	+***
	Micro	+	***	**	**
	Manufacturing (reference)				
	Legal status (1 partner)	+	+	+	+
	Ln experience of the top manager	-	-	-	-
	E-mail (1 if used & 0 otherwise)	+	+	+	+
Sex of the business owner	Female owner	-3.38** (1.884)	-4.27 (3.290)	-4.71 (3.157)	-4.37
Regional dummies	Tigray (Reference)				
	Amhara region	+	+	-	+
	Oromia region	+	+	+	+
	Dire Dawa region	**	***	***	**
	South region	+	+	-	+
	Addis Ababa	-	-	-	-
	Female owner	**	-	-	-
Investment constraints	Transport	-	-	-	-
	a) Infrastructure				
	Transport* female owner	***	**	**	**
	Access to land	*	**	-	**
	Access to land * female owner	***	**	***	**
	Electricity	-	-	-	-
Electricity* female owner	**	**	**	**	
b) Corruption, crime & red tape	Corruption	-	-	-	-
	Corruption* female owner	***	**	**	**
	Crime	+	+	+	+
	Crime* female owner	***	*	**	*
	Tax administration	***	**	*	**
	Tax administration* female owner	***	***	***	***
	Tax rate	+	+	+	+
Tax rate* female owner	***	+	+	+	
c) Instability	Macro instability	+	+	+	+
	Macro instability* female owner	***	**	**	**
	Political instability	-	-	-	+
	Political instability* female owner	**	**	**	**
d) Finance	Access to finance	**	+	+	+
	Access to finance* female owner	***	***	***	***
	Cost of finance	+	+	+	+
	Cost of finance* female owner	**	**	**	**
	Constant	-	+	-	-
Observations	437	437	437	437	
R-squared	0.736	0.737	0.166	0.156	

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

Most of the investment constraint variables have negative effect on the productivity of businesses and the interaction coefficients reveal that in most of the cases women entrepreneurs are worse off. For the sake of presentation, the eleven constraints are divided into four groups as infrastructure, corruption, instability, and finance. The infrastructural constraints do not appear to have a bigger impact on female-owned businesses compared to their male counterparts. However, most constraints included in the other three groups negatively and disproportionately affect the performance of female entrepreneurs compared to males. Though corruption doesn't have a statistically significant impact on the productivity of businesses, it has a statistically significant negative impact on the productivity of female entrepreneurs. This is confirmed by Figure 55 which shows the cumulative percentage of female and male entrepreneurs answering to two corruption-related questions. Compared to men, fewer female entrepreneurs strongly disagree, disagree in most cases, or tend to disagree about the existence of informal payments or gifts to get things done with regard to customs, taxes, licenses, and regulations.

Figure 55 Cumulative distribution of the intensity of two corruption-related constraints



Similarly, crime has a negative and statistically significant impact on the performance of female-owned businesses compared to their male counterparts. The survey results reveal that despite female entrepreneurs spent nearly double of the amount spent by male entrepreneurs on security, 15.3 percent of them experienced theft or robbery compared to 9.8 percent of male owned businesses. However, constraints related to tax rate and tax administration do not have negative impact on the performance of women entrepreneurs. Most of these results are consistent with the perception of female entrepreneurs that we documented in the previous section.

For female entrepreneurs, constraints related to macro economic instability have a bigger negative impact on productivity than constraints related to political instability. Due to the lack of informal and formal networks, female entrepreneurs may not be able to predict changes in interest rate, exchange rate, price of oil, and other key macro economic variables. As a result, they may not have enough time to adjust their production, sale, purchase and other decisions compared to male entrepreneurs. For instance, in female owned businesses 4.9 percent of senior management's time was spent dealing with requirements imposed by government regulations compared to 3.6 percent in male owned businesses. Finance related constraints also emerge as more of a women's problem than men's. The performance of female entrepreneurs is highly (negatively) affected by access to and costs of finance. Poor access to finance is a serious gender-specific obstacle⁵⁷.

The robustness of our results was assessed by estimating productivity using the two-step Solow's procedure. We used both Cobb-Douglas and translog production functions—the results are presented in the last two columns of the table. Most of the results are similar to those obtained through the single equation model thus indicating the robustness of our results.

⁵⁷ However, we couldn't find statistically significant differences between male and female entrepreneurs in finance indicators such as percentage of loan application rejected, percentage of working and fixed capital financed by bank & own resources, etc., though the loan rate and the collateral values are higher for women.

2. Conclusions

The percentage of women entrepreneurs in Ethiopia is increasing—in 2006 a little bit less than one third of all enterprises included in the Enterprise Survey were owned by women, a percentage similar to (or even higher than) the one observed in other Sub-Saharan African countries. The concentration of female entrepreneurs in the service sector was not an unexpected result. On the other hand, the above-average size of female-owned businesses and the prevalence of female entrepreneurship among firms owned in partnership were surprising findings.

The constraints related to macro economic instability, finance-related constraints, and crime affect the performance of female entrepreneurs more (in a negative way) than of men entrepreneurs. Even when they are not perceived as more severe by women than by men, some investment climate constraints produce more severe consequences on the productivity of female-owned enterprises than of men's. Moreover, even after controlling for the differential effect of investment climate constraints for men and women, we found that women-owned businesses tend to be less productive than male-owned business, possibly indicating the existence of other obstacles.

The relevance of the legal form as a correlate to female entrepreneurship suggests the existence of substantial entry barriers for women into entrepreneurship. In absence of any information about the origin of the enterprise, we can speculate that the women entrepreneurs observed in the Enterprise Survey may have been more likely to join or inherit established enterprises from relatives and family members or decide to start (bigger) businesses in partnership with other entrepreneurs rather than (smaller) businesses in sole proprietorship. Owning a firm in sole proprietorship implies higher exposure to risk (the entrepreneur faces the firm's liabilities with her personal capital, not just with the portion of capital she invested in the firm). Moreover, a sole proprietorship is typically owned and managed by just one person who does business in her own name. A substantially lower share of women in sole proprietorship enterprises may be explained by higher difficulties that women face in obtaining loans from banks to start their own business or, more broadly, in accessing capital without the support of a partner.

An important caveat: the Enterprise Survey dataset includes essentially formal enterprises that hire permanent workers. Informal enterprises are not surveyed. Informal entrepreneurs and self-employed—a much bigger group with respect to formal entrepreneurs, and one in which women dominate—have characteristics that differ substantially with respect to those of formal enterprises. For example, a recent ILO report on growth-oriented women entrepreneurs (Stevenson and St-Onge, 2005), which revisits the findings from a 1997 Survey by the Ethiopian Central Statistical Authority (CSA) on medium and small enterprises (MSEs), shows that micro-enterprises in Ethiopia represent about 99.4 percent of all enterprises, have an average capital of Birr 3,528, a yearly production value of Birr 2,300 and an average number of workers of 1.5, including the owner.⁵⁸ The women entrepreneurs in the (mainly) informal sector surveyed by the CSA and described in the ILO report are quite different from the portrait of women entrepreneurs arising from the Enterprise Survey. The former are women who are pushed into the micro-enterprises sector because they do not have other employment alternatives and rely on microfinance loans to set up very small businesses. On the other hand, the women business owners included in the Enterprise Survey fall under what the CSA report describes as other 'profiles' of women entrepreneurs—women who have higher education, better economic circumstances, and better access to financial and other resources, although they may still be suffering from inadequate access to credit and other constraints.

⁵⁸ Micro-enterprises are defined as enterprises with a paid-up capital of less than Birr 20,000 or with a number of workers up to 10, including the owner and the family members working with him/her.

The dichotomy between the formal and informal sector is important to keep in mind, not just for the interpretation of the results presented in this chapter, but also for our understanding of the opportunities open to women entrepreneurs. While women who are formal entrepreneurs may be doing relatively well with respect to men, this does not represent the reality of all women in business, but just of a minority of them. It may be that women who run informal businesses are much more disadvantaged with respect to both men and formal women entrepreneurs. Moreover, as soon as we acknowledge the existence of various degrees of (in)formality, the question arises of whether women's firms can grow, become formal, and diversify their activities, and which obstacles exist to this evolution—assuming that women operating in the informal and formal segment are not too dissimilar for the transition to be implausible.

Women appear to disproportionately suffer from certain investment climate constraints. Control for several entrepreneur- and firm-specific observable characteristics women entrepreneurs do not perceive most constraints as more severe than men do, in a statistically significant way. This is an encouraging sign. However, the absence of differences between men and women in the perception of the investment climate constraints does not necessarily mean that women are 'doing well'. It may instead indicate that both men and women entrepreneurs face substantial problems with their business. This is certainly the case for constraints such as access to finance, tax rate, competition from the informal sector, and political instability, constraints that 40 to 60 percent of entrepreneurs, irrespective of their sex, consider to be 'major' or 'very severe'.

Chapter 7: Addressing the Challenge of Formalization⁵⁹

7.1 Introduction

Over time, the poverty challenge in Ethiopia has shifted from a question of rural development to a question of rural and urban job creation – a question of creating shared growth. Had the ADLI theory worked, as it eventually might, rural productivity gains may have limited purely labor flows and created a mix of labor and capital flows, and those flows of labor and capital would have been to support growing agriculturally-linked industries. With private formal employment absorbing limited amounts of labor relative to the size of the labor force and little evidence that the productivity of agriculture⁶⁰ is creating new industrial investment linked to agriculture or in any way limiting the flow of labor out of agriculture, the broader question is to identify and remove barriers to expansion of sustainable employment, as well as barriers to productivity gains that may raise wages. The informal microenterprise sector plays a key role.

Little is known about the informal sector, despite its significant growth and increasing size. Therefore, one important contribution of this chapter is to fill this information gap, by examining basic characteristics, constraints and performance of the informal sector. Developing policy imperatives, initially to aid the informal sector and then ultimately to encourage it toward formalization, may in itself remove both a barrier to sustainable employment and to productivity gains. For it is evident from numbers below that the informal sector is fast-growing and so currently a significant creator of jobs, *in spite of* facing significant constraints. Therefore, if some of these constraints were lifted, informal sector could be an even more productive and sustainable generator of jobs, enabling Ethiopia to close some of the poverty gaps.

It is important to consider the informal sector, because it is the fastest growing part of private sector. For every 1% GDP growth, formal employment is growing by 0.5%, while informal employment is growing by nearly 5%. In terms of aggregate growth, between 1999 and 2005, informal employment grew by 144% compared to 16% in the formal sector. This implies a 1:8 growth ratio, where for every job created in the formal sector, eight jobs are created in the informal sector as well (Ahmed 2007). A rough picture of aggregate employment dynamics is provided by the latest investment climate surveys that ask firms about the level of their staff in 2005 & 2003. Among manufacturing firms, the largest increase was registered by firms in wood and metal industries with a median increase in the number of employees of 24% compared to the 2003 level, followed by the textile/garment industry (20%). In the service sector, a 25% increase (median) was registered in the retail sector, followed by a 20% increase in the wholesale sector. These tentative results compare favorably with the findings of the previous ICA that reported a zero median employment change between 1998-99 and 2000-01, albeit median employment change remains at zero among interviewed informal sector firms. Where employment dynamics are positive, they appear to be associated with smaller and younger firms (established after 1995), suggesting that the accelerated growth is in the informal sector.

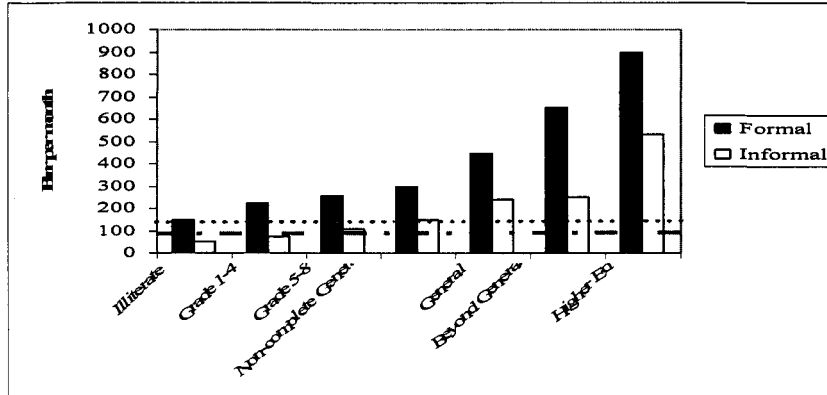
It is important to consider the informal sector, because despite this growth, prevailing wages are low and working conditions weak. Thus many of those employed remain below the poverty line. Therefore, in order to achieve equitable and sustainable development and reduce poverty, it is imperative to prioritize the development of industries that provide enhanced

⁵⁹ From a background paper by Rowena Chiu, Young Professional, World Bank

⁶⁰ The evidence that the productivity of agriculture has increased is mixed. There is clearly an increase in agricultural output in Ethiopia over the past several years, in part due to favorable weather and increased area under cultivation, but evidence to suggest increases in yield per unit of labor or land are mixed.

employment opportunities for the poor (Otsuka 2007). It is necessary to increase productivity in the informal sector in order to increase wages and improve working conditions. Moreover, as the main source of employment in urban areas, the sector will not be able to generate long-term sustained poverty reduction, unless productivity and wages rise significantly. Figure 56 below provides a reminder of the type of livelihoods to be found in the sector: even workers with some years of education could be considered as working poor, if they are working in the informal sector.

Figure 56: Average Monthly Earnings Relative to the Poverty Line (2005)



Source: LFS 2005, own calculations and World Bank (2005a)

Note: The dashed line indicates the lower (Birr 110); the dotted the upper poverty line (Birr 163). These are unweighted averages from World Bank (2005a)

Whilst this chapter is intended to make a start in addressing the information gap with regards to the informal sector it is by no means comprehensive and only whets the appetite for further investigation. To illustrate this, it is worth noting that the data that we analyze in this chapter comes from a very limited survey: the microenterprise survey, the third in the series of urban surveys, which covers 126 firms that are small in size (namely, 88% of them have less than 5 permanent employees). Thus, we have bolstered our argument and further justified our investigation of the informal sector, by drawing parallels with Loening, Rijkers and Soderbom's paper, *Non-Farm Microenterprise Performance and the Investment Climate* (2008)⁶¹ which investigates the constraints on non-farm enterprises. Many parallels can be drawn between their survey sample of non-farm enterprises and the informal enterprises surveyed within this chapter. For example, the informal firms surveyed under both studies had the following shared characteristics: many firms were family-run and small enterprises, with high participation yet low profitability; many managers had low education and were young; the market was predominantly localized and yet potentially fast-growing, despite constraints. Finally, of course, our survey covered informal or small firms (88% of the firms surveyed employed less than 5 people). Similarly, in Loening et al's paper, 94% are unregistered and 95% employed less than 5 people.

The two questions considered in this chapter are (a) the determinants of productivity growth in the informal sector, and (b) whether formalization would contribute to growth. Firstly, within our data set, we found that access to finance and access to land are the two biggest constraints to productivity growth. If firms were to overcome barriers to formalization (e.g. bureaucracy, etc.) would they also overcome barriers to growth (e.g. lack of access to finance and land)? Secondly, we consider: assuming formalization does lead to growth, how can we encourage formalization and

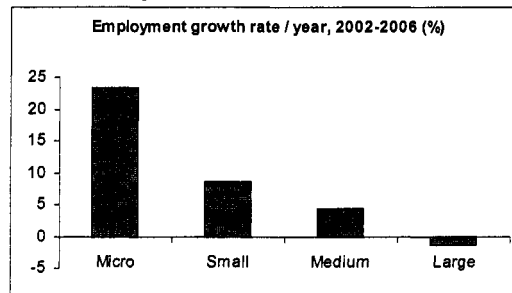
⁶¹ Acknowledgements are due to: Josef Loening, Bob Rijkers and Mans Soderbom, authors of *Non-Farm Microenterprise Performance and the Investment Climate: Evidence from Rural Ethiopia*, World Bank Policy Research Working Paper No 4577 (2008). The useful arguments contained there allow us to draw parallels between rural & urban informality.

thereby stimulate growth? Finally, we consider some appropriate policy recommendations. As we assess the current status of the informal sector, it is clear that many microenterprises are in 'survivalist' mode, i.e. just scrapping by with very low/non-existent profit margins. In spite of this, the informal sector still manages to create jobs faster than the formal sector. Therefore, what can policymakers do to increase ability of this sector to create more higher-paying jobs?

7.2 What Are The Productivity Constraints Facing Ethiopia's Informal Enterprises?

It is clear that, despite obvious constraints, Ethiopia's informal sector has experienced a substantial degree of growth and job creation in recent years. See Figure 57 which provides a description of the relative growth rate of the microenterprise sector relative to others. However, there still remain a number of prerequisites to faster and further growth: (a) the costs imposed on factor markets remain high (e.g. capital, labor, land); (b) revenue for further growth is hard to come by (e.g. access to loans or working capital); (c) risk caused by the behavior of officials resulting in unpredictability (e.g. asking for bribes/informal gifts, corruption and theft).

Figure 57 Employment Growth Rates - Panel Data



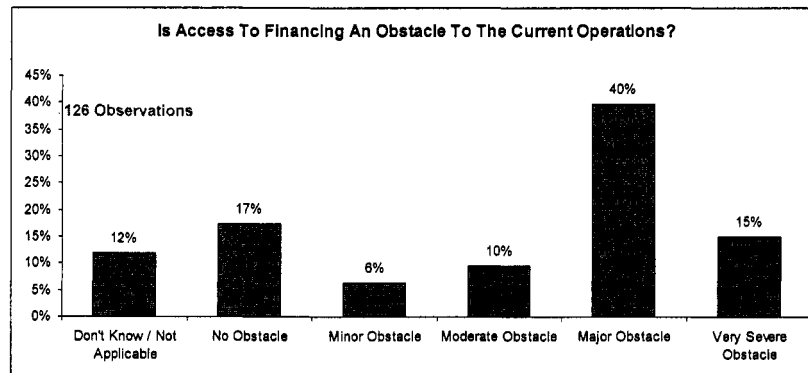
A similar pattern was observed among rural microenterprises. Loening et al found that the key constraints on microenterprises were identified as: 'access to finance, markets and transport' (p.4). Intuitively, it makes sense that access to markets and transportation is difficult for rural entrepreneurs, who may live in more remote areas, whereas access to land is difficult for urban entrepreneurs, who live in a more congested cityscape. But both sets of entrepreneurs expressed concern about lack of access to finance and investment.

The PICS revealed that the top two constraints are access to finance/investment and access to land. We will address these key concerns of access to finance/investment and access to land first, before turning our attention to other constraints, which are perceived to be less of an issue. The reason for covering both highlighted and non-highlighted issues is that access to finance and access to land are only the most important constraints, as seen from the point-of-view of the informal business owner (i.e. self-reported). There may be other constraints that the owners are less worried about, but in practice, prove to be a greater barrier to formalization or growth. In addition, business owners may also under-emphasize constraints around better access to market, improved courts, judiciary or legal system, improved market functions, etc. simply out of lack of experience: in other words, because they have never experienced the benefit of these.

Access to finance was ranked by 32% of informal business owners in their top three constraints, while 55% of informal business owners found access to finance either a major or very severe obstacle. Among the lucky ones who were able to apply for financing, a further 23% of borrowers also found the cost to be prohibitive. One interviewee said: 'Cashflow is my single biggest problem. On a bad day, I do not sell enough shoes and I cannot feed my family or pay my workers. It doesn't matter if I can make more money on another day'. Increased access to financing would

solve this difficulty, because it would allow the owner to meet two goals: (a) establish a pool of working capital, so that a slow period does not result in bankruptcy; and (b) permit investment, which could expand the business, both on the demand-side and supply-side.

Table 22 Access to Finance - informal sector



The long-term effect of increasing access to finance would lead to employment growth simply because if informal business owners had greater access to finance, they would immediately expand their operations. When asked during interviews: 'What is the first thing you would do if you had more access to money?' most informal business owners replied: 'I would employ more workers, expand my premises and therefore grow my business'. Without access to finance, most informal firms exist on a hand-to-mouth or 'survivalist' basis.

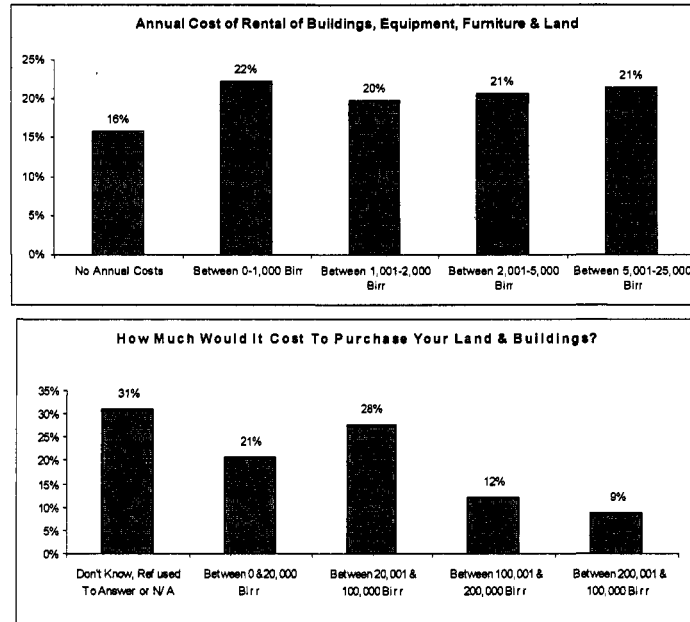
A similar effect was observed among rural microenterprises. In Loening et al's examination of credit constraints, they noted that one common argument in microeconomic literature on poverty traps is that a combination of high entry costs and poor access to credit prevent people from starting firms that would otherwise be profitable. In their survey, almost a quarter of firms sampled, attempted and succeeded in obtaining credit. Microfinance institutions rather than banks were critical. For the unlucky firms, who were unable to raise 100 Birr in a week for emergency needs, Loening et al found that they were hard-pressed to pay set-up costs and so were less likely to run enterprises than for households for whom liquidity was a less of a problem. However, note effect was small and statistically insignificant (p.12).

What is more evident is not that lack of access to finance is a barrier to start-up (Loening et al found that if other job opportunities were rare, managers would be driven to start their own enterprises regardless of start-up costs), but instead that it is a barrier to further investment. Thus, while firms may start-up, it is difficult to grow and sustain, due to the lack on ongoing investment. For example, age of firm and initial start-up are both strongly correlated with probability of investment (p.17). Poorer households (who cannot raise 100 Birr in a week for emergency needs) and smaller, younger firms are unlikely to invest (perhaps due to uncertain economic prospects). This would explain why informal firms in both surveys are small and subject to high churn (entry/exit) (Loening et al, p.6). The unstable financial environment is not conducive to long-term, sustainable growth. The discovery that microfinance institutions played a key role in providing sustainable finance to rural microenterprises supports our argument that they should be established for the urban informal sector also, in order to ease this first highest-ranked constraint of access to finance.

Access to land was the second highest-ranked constraint: 28% of informal business owners ranked access to land in their top three constraints. With regards to land ownership, 22% of informal business owners paid between 0 and 1,000 Birr to rent their land, but in contrast, it would take 21% up to 20,000 Birr in order to purchase their land (Figure 02b). Additionally, the qualitative

interview data shows that most informal business owners have not considered purchasing land, because they understand it to be beyond their financial means, but it would be top priority, if access to finance (or further investment) made it possible.

Figure 58: Lease & Purchase Costs for the Informal Sector



Increasing access to land would also lead to employment growth. Currently, many microenterprises we visited operated from a working family's back room. Many informal business owners spoke of their dream to buy the shack next door in order to double or triple their output of shoes manufactured per week. It is clear that these owners feel there is the capacity to pass on managerial and technical skills to more employees and that there was both demand and supply to expand their businesses.

What is interesting to note is that in the survey of rural microenterprises, business owners did not name land as a constraint (most informal enterprises are part of a larger agricultural enterprise, so land was not an issue), but rather markets and transportation. This is the constraint of access to land expressed in a different form: namely, in rural areas, access to roads and transportation becomes important. This would explain why 'profits and sales are significantly higher among enterprises located next to roads or strong transport options or enterprises located in rural towns, compared to firms in remote or semi-remote areas (Loening et al, p.15).

Challenges faced by the informal sector in other developing countries (electricity and infrastructure services and labor market paucity) seemed to be of less concern in the Ethiopian informal sector. With regards to electricity and the reliability of infrastructure services as a constraint: 56% of informal urban firms experienced power outages, but 27% of these only lasted an hour or two, and most firms reported that electricity was not a significant constraint. Loening et al also found that electricity was not 'significantly associated with sales' (p.15), but also found that electricity was 'inversely and significantly correlated with enterprise profits, which seems an anomaly' (also p.15). This could be because electricity is a particularly expensive commodity for rural enterprises. Either way, lack of electricity was not seen as a major obstacle.

With regards to labor, 95% of informal business owners said that labor regulations was no obstacle to them. This may relate to the point that Loening et al raised about lack of options. In their study, they observed that ‘even though running a certain type of non-farm enterprise results in very low points, many women have no other choice’ (p.6). Thus, participation is high, even though profits are low. This may also be true among the urban informal sector: in general, the low levels of education and poverty afford little alternative opportunity for workers in the informal sector. So, in the urban sector too, participation is high, but profitability is low.

In conclusion, even assuming that access to finance and access to land are indeed their biggest constraints; there is no causality or guarantee that lifting these constraints would lead to greater employment growth. There is an assumption that they may so, but increased access to finance and access to land must be delivered hand-in-hand with further managerial training. Otherwise, the more land and money falls into untrained hands, the more small business owners may be fall prey other constraints and difficulties, such as corruption, lack of investment, the mismanagement and squandering of assets, theft occurrences, wastage and so on.

Therefore, any policy recommendations that are followed must look to solve not only the constraint itself at surface level, but also dig below the surface to ascertain the socio-cultural constraints that surround each barrier and develop long-term solutions that address the root of the problem. For example, a short to mid-term solution would be to implement microfinance schemes to allow small business owners to borrow money to expand their operations, but a mid to long-term solution would be to teach them how to manage their investment and operations. Therefore, it is critical to ascertain whether formalization will lead to growth.

7.3 Would Formalization Lead To Growth?

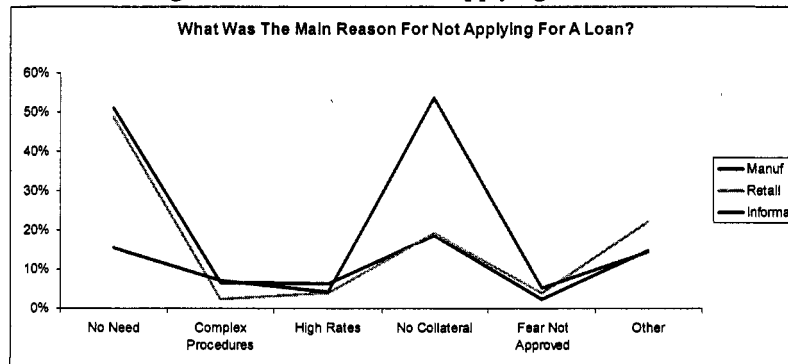
Much of the secondary literature on formalization tells us that informal firms face barriers to formalization in three ways: (a) cost to firm (in terms of money or time) spent in administration, discharging fees or meeting regulations; (b) corruption and the threat of theft (perceived or real) are the second barrier; and (c) social-cultural attitudes are the final deterrent. This latterly-mentioned socio-cultural barriers is keenly felt in clusters, where interdependence and trust are paramount. However, even if these barriers were to be reduced, would formalization lead to the benefits outlined below and ultimately to growth, productivity and wage increase?

The secondary literature also tells us that formalization classically results in four benefits: (a) better access to employment opportunities; (b) better access to finance; (c) better access to information; and (d) better access to infrastructure (e.g. land, roads, water, etc.) However, if Ethiopia’s informal firms were to formalize would this automatically lead to better access to finance or land? This depends on whether the data can show us that access to finance or land is *dependent* on formalization. There are four tests to link formalization and growth.

7.3.1 Formalization & Access to Finance

When interviewed about the primary reason a loan was rejected, the overwhelming majority of informal firms (54%) cited lack of collateral as the reason for loan failure. This contrasted with manufacturing and retail respondents, where only 19% cited lack of collateral as the main reason for loan failure. Therefore, it appears that access to finance and access to land may go hand-in-hand. It is difficult to establish one without the other. There is no evidence to suggest that a bank is more likely to lend to a firm that can prove registration or happens to be larger (i.e. formal). Loening et al found that using a dummy variable for whether land could be used as collateral at the local financial institution was statistically insignificant, in the case of rural firms, although they did find that ‘collateral required for about a third of all loans, though requirements vary’ (p.12)

Figure 59: Reasons for Not Applying for a Loan



There are 28 MFIs in Ethiopia, mobilizing total deposits of over 1 billion Birr and lending 2.74 billion Birr to 1.6 million clients. MFIs are increasingly playing a role in contributing to poverty reduction by providing loans to and mobilizing savings from the low income groups. The industry is dominated by four large MFIs.

7.3.2 Cost of Formalization

Whilst we are not directly able to quantify the costs of formalization for the average Ethiopian informal firm, we can draw some inferences from secondary literature, which would seem to indicate that costs of formalization are high, but benefits are hidden or non-accessible/existent for many low-level, survivalist firms in the informal sector. Informal firms in most developing economies face three classic sets of barriers to formalization in seven areas: (a) cumbersome administration (e.g. paperwork); (b) fees and financial regulations; (c) excessive regulation.

- (a) *Administration*: Administrative barriers are the bureaucratic requirements that flow from the enforcement and implementation of regulation, e.g. civil service incapacity, civil service inefficiency, inaccessibility, paperwork, etc. Administrative barriers have many sources: bureaucratic culture, lack of capacity, outmoded working practices. The data would appear to indicate that Ethiopia's informal business owners do not consider their administrative burdens to be excessively high, but there is – nonetheless – an unwillingness to take it on.
- (b) *Fees & Financial Requirements*: Barriers in this area are caused by regressive fees and tax regulation which penalizes smaller firms. For example, business registration and licensing fees are often set at a level that acts as a disincentive to firms to formalize. The data indicates that Ethiopia's informal business owners do not consider fees to be the problem (81% say no obstacle; 7% say minor obstacle; and 3% say moderate obstacle): 'The fee to register is not a problem, but I don't see the point in joining when there is no benefit to me & my business'
- (c) *Regulation*: Various studies have indicated that burdensome and costly government regulations are the most significant determinant of informality (Johnson, Kaufmann & Shliefer 1997 & Johnson, Kaufmann, McMillan & Woodruff 2000). Again, Ethiopia's informal business owners currently spend very little time 'dealing with requirements imposed by government regulations' (65% said they spent no time at all), but this might change if they were to formalize, so excessive regulation may well be another deterrent to formalization.

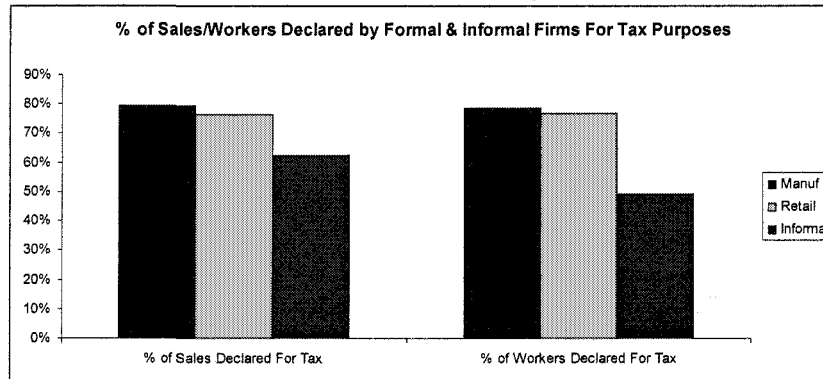
Will reducing costs relative to benefits increase formalization? The causality between dropping costs and increasing benefits and its direct impact on formalization is again difficult to prove. However, it is clear that in controlled environments in other developing countries, where costs have been lowered and benefits made more apparent, an increasing number of informal firms have

formalized, e.g. in Montenegro, where a program to reduce business registration burdens was implemented, a greater degree of formalization resulted and registered companies thus increased from 6,001 in 1999 to 21,724 in 2003 (USAID 2004).

Formalization & Societal Benefits. Despite unproven and unquantifiable benefits at a firm-level, what is clear is that formalization can also have public benefits:

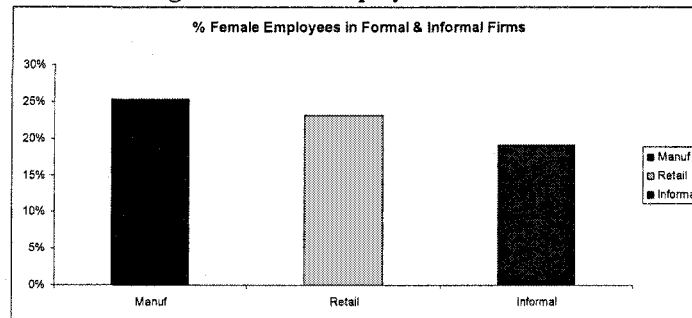
- (1) *Social Contract:* Formalization should also build investor confidence, reinforcing the social contract between citizens and their state and strengthen the reliability of agreements between firms. A large informal economy, such as in Ethiopia, may indicate a breakdown in the social contract between citizens and the state, e.g. when asked whether government officials interpreted consistently: 14% agreed, but 28% strongly disagreed.
- (2) *Tax Base:* Another public benefit of formalization, as already discussed, is the broadening of the tax base (potentially permitting lower taxes). Overall, broadening the tax base will impact both the formal sector and the state. Because of this, efforts to reduce the informal economy are likely to reduce poverty overall: improving infrastructure (if state reinvests the funds) and stimulating enterprise growth (as burden of tax on formal sector drops).

Figure 60: Percent of Sales/Workers Declared by Informal vs. Formal Firms



- (3) *Under-Represented:* Usually, a final benefit of formalization is the impact on the welfare of marginalized groups caught in the informal economy through confirming their rights to participate in market opportunities. However, it is worth noting that in fact in Ethiopia, women are not over-represented and are even under-represented: women employees equal 19% of informal workforce, compared to 23% in retail and 25% in manufacturing.

Figure 61 Percentage of Female Employees in Formal & Informal Firms



7.4 Increasing Formalization

In summary, formalization may bring with it a number of benefits to the firm (increased access to finance and land, as well as other benefits informal business owners have not considered and do not currently value, such as the protection of the court, judiciary and legal system) and a number of benefits to society (increased investor confidence, a stable taxation base and the tagging of under-represented groups). These benefits may lead to greater job creation and increased productivity.

7.4.1 Access to Markets

Support microfinance. The evidence shows that access to finance is the single biggest constraint for the informal business owner in Ethiopia. Ethiopia has a number of highly successful microfinance institutions, but the sector as a whole appears to have very limited reach particularly in the urban ICA sample. A more competitive, better capitalized sector drawing on better international practices would contribute to growth of the urban informal sector.

Use Trade Associations. Ethiopia's informal sector is large and very entrenched, it is important to consider longer term interventions, as changes in administration, culture and regulation take time. We have seen how kinship networks, which have grown up over generations are very influential in informal clusters such as Mercato. Therefore, it is important to emphasize that substitution for these informal networks cannot be developed overnight and must involve the participation of many parties.

Therefore, for any policy reform to succeed, those implementing must enlist the assistance of willing partners on every level. For example, (a) educate national government officials about the importance of informal sector; (b) enlist local governments to implement policy to reduce barriers; (c) support dialogue between government and informal enterprises through trade associations. To some extent this is beginning to take place, but requires formalization/support.

Working through already established informal networks, such as trade associations is particularly important in an environment like Ethiopia's informal sector, which is heavily reliant on informal mechanisms (such as kinship networks, proximity and trust), which have not only developed over generation and are entrenched, but also to a large extent substituted for the failure of formal institutions and markets.

The theory demonstrates that informality is a ceiling on enterprise growth, because it denies entrepreneurs access to key services (e.g. capital and land). It also denies them the ability to separate business and personal assets and therefore increases risks and inhibits business growth. We have established that informal firms are not formalizing due to a combination of not being able to overcome the barriers and not appreciating the benefits, due to lack of prerequisites.

Therefore, despite growing level of urbanization and strong output markets, investment climate **factor markets** (capital, labor, land) and **transaction costs** both at private/firm level (e.g. compliance with health & safety, labor laws, licensing/regulatory fees, etc.) and public/societal level (uncertain tax base) are causing the entrepreneurial response to this level of demand to be informal rather than formal. How then can we encourage these Ethiopian firms to formalize?

The answer lies in the improved investment climate, so that the informal sector can contribute both on a firm level (by improving access to capital, labor and land) and a societal level (by creating new jobs and generating tax revenue, which in turn improves access to public services, such as education and health, alleviates poverty and promotes economic growth.

Chapter 8: Conclusions and Recommendations

At the dawn of its third Millennium, Ethiopia's leaders and citizens share a desire to break from the deep poverty that has characterized it in the 20th Century. No one has stated this more clearly than the Prime Minister himself in his speech on the occasion of the Ethiopian Millennium:

After centuries of repeatedly aroused and dashed hopes, this generation of Ethiopians is turning a new page. A glorious new page, where poverty is a mere footnote in our glorious history, is being written with the sweat and the toil of millions of farmers and pastoralists, businessmen both small and big, and workers and the intelligencia... H.E. Meles Zenawi, September 12, 2007

The statement is notable not only for its historical ambition, but also for its embrace of the entrepreneur and of business as central to a new page of Ethiopian history. In recent years the World Bank has often enjoined others to see the "glass half full" in describing private sector development in Ethiopia, and the survey results seem to vindicate that view. Ethiopia has done very well in removing investment climate constraints. Across the board, firms perceive the policies, rules, incentives and institutions that govern investment to have been substantially improved, judging by remarkably improved responses to the same questions asked five years earlier. The Bank Group's annual Doing Business indicators now define Ethiopia as among sub-Saharan Africa's top ten. Ethiopia's policymakers deserve credit for undertaking the difficult work of reform that is clearly reflected in the 2006 results.

On the other hand, Ethiopia's leadership has set goals for itself which require more than seeing the glass half full. Ethiopia would like to end its status as among the least developed countries and would like the private sector contribute strongly toward an Ethiopian Renaissance. This is a much bigger glass. As such, the question we must ask is whether the investment climate, and the strategies and policies that create this investment climate, are sufficiently improved to enable Ethiopia to achieve its growth objectives. In this respect, we find that there remains a substantial agenda ahead.

For the private sector to assume the historical role that the leadership has asked of it the private sector will need to substantially raise productivity in order to grow, attract more investment and to succeed in globalization, second, to create a more inclusive private sector, and third, to address the problem of informality, which has become closely intertwined with the poverty problem facing modern Ethiopia.

We find that despite the substantially improved business environment, productivity remains very low, and the trajectory of improvement does not appear commensurate with the challenge. Ethiopian firms are constrained both by factors at the firm level, and factors that impact allocative efficiency. There does not appear to be a sufficiently strong dynamic through which the more productive firms are acquiring market share from the less productive and creating convergence toward better practices over time. If such a dynamic was sufficiently strong, aggregate productivity levels for Ethiopia as a whole would move toward the competitive frontier.

Why are Ethiopian firms not moving toward the frontier? The constraints that we investigated suggested that (a) some variables such as access to finance and access to land have the double impact of reducing firm-level productivity and protecting market share of underperforming incumbents; (b) many other constraints, such as tax administration, impact smaller firms more severely, thereby also reducing allocative efficiency. These factors also impact net job creation at the enterprise level. We estimate that net job creation is 34 percent smaller in enterprises complaining of lack of access to

land and 25 percent smaller in those complaining of problems of tax administration. Lack of access to land influences business growth rates through a third channel, namely, fixed business investment. We estimate that fixed investment is 53% lower in businesses complaining of lack of access to land.

Our investigation of markets and trust yielded the finding that firms appear to be concerned with risk, and in fact instances of default on contractual terms is significant. However, formal institutions, including courts and market-supporting institutions such as credit bureaus or certification standards, are used infrequently. Firms appear to hedge risk by purchase more than they need and build high inventory, they limit trade credit, and they focus on repeated deals with long-term partners. This mode of risk avoidance – hedging risk by continuing to deal with the same partners over long periods of time – also suggests a lack of flexibility which may also be contributing to the level of competition.

If we are concerned with moving firms toward a competitive frontier characterized by higher productivity levels, any policy that distorts competition is of concern. The chapter found that Ethiopia is making good progress on privatization, administrative barriers are coming down, and there wasn't substantial evidence that corruption is affecting competition. All of this will create a more competitive environment. We are more concerned, however, with three issues:

- There is a large array of sectors which are protected in some way from competition;
- There remains a large number of state-owned firms that perceive the investment climate very differently than private firms;
- There is a continued tolerance of political ownership of firms which, at a minimum, raises substantial concerns in the private sector about good governance.

Differences between state and private firms are in part a straightforward legacy issue. State firms are not constrained by land due to historical fact of having inherited land, rather than any active policy. But in several instances there is no adequate explanation including greater access to commercial bank debt, greater likelihood of being consulted about policy, lower constraints on a range of regulatory issues, and a much lower level of competition overall.

With respect to endowments, the Government argues that there is little evidence of unfair competition, but (a) there is great uncertainty about the role of endowment firms, (b) there are well publicized cases which appear to show unfair competition. This uncertainty may be enough to deter some private firms from taking risk of competing in segments where such firms exist.

To support Ethiopia's efforts to create a more inclusive private sector, we investigated differences in the investment climate by region, by firm size and by gender. There are substantial differences across Ethiopia, and this has contributed substantial differences in performance across regions. Investment climate reform is clearly a localized matter, and severe constraints experienced in one region may not be the same as other regions. The “meaning” of terms such as unfair competition or access to finance, and therefore the content of reforms to address them, varies by region.

There remains a gender gap in the private sector. The data are paradoxical. Across the board, women-owned firms appear larger, faster growing, and with more qualified management. What this suggests to us is not that women are inherently superior business owners (though we would not be surprised), but that the constraints are sufficiently high that only the most qualified and well-funded women are making a choice to become entrepreneurs.

To support Ethiopia's efforts to create a more formal private sector, there was little in the way of new surprises, except to note that the findings are basically aligned with those of the investigation of the

productivity chapters: formalization is a function of reducing the costs and increasing the benefits, among the most important being access to finance, land and markets.

The report focuses on eight thematic recommendations. The recommendations are not posed as specific solutions, but rather elements of a discussion to be had in public-private forum to address the range of issues required to realize the country's growth objectives.

1. Competition

If there was one word that could encompass the findings of the investment climate survey, that word would be “competition.” Ethiopia has done well in redefining its competitive frontier by reforming customs or trade facilitation, preventing corruption, streamlining regulation and a range of other reforms. New clusters and sectors are emerging in response. Administrative reform is necessary, but not sufficient condition to create a dynamic, growing economy. The second issue is about allocative efficiency – the ability of the investment climate to allocate resources within the frontier. The economy will grow, overall, if the scarce resources – capital, land, knowledge and labor – are invested in continuously more productive activities and to the most productive firms within a given sector. By growing the most productive firms and shifting resources away from less productive firms, the economy as a whole will be closer to the productivity frontier allowed by the investment climate. Productivity will be higher; firms will grow and employ more people at higher wages.

There is no silver bullet that will automatically increase allocative efficiency. Rather the problem appears to be the cumulative impact of two many aspects of the investment climate that limit competition. These factors include:

- Access to finance driven by policy or collateral, rather than productivity;
- Transactions between firms based on stable, long-term relationships, thereby limiting innovation and adoption of new relationships that may be more productive;
- Limited access to land; particularly for smaller firms and microenterprises;
- Industrial policy allocating resources to favored investments and activities, not necessarily the most productive;
- Endowment-owned firms creating uncertainty about the fairness of competition;
- State-owned firms dominating key sectors;
- Barriers to entry for substantial number of economic activities, limiting investment to state, domestic or joint-ventures with the state;
- Poor performance of the state telecommunications monopoly provider, thereby limiting the information flow so essential to market functioning.

Reform should focus on making markets work more effectively, rather than administrative alternatives to market failures. If administrative rules and public policy are perfectly aligned with the most productive use of land and capital, then there would be no problem. But one of the key reasons that countries – including Ethiopia – have moved away from administrative control of markets is because markets are dynamic, and internalize information. Administrative tools can simply not keep up with the rapid evolution of markets and opportunities. At the same time, market failures do exist, and institutions – as discussed extensively in Chapter 3 – are needed to support the effective functioning of markets.

- **The mechanisms for forcing weak firms out of the market, and salvaging their capital and land for more productive uses (such as foreclosure or bankruptcy) need to be strengthened.** The Competition Policy regime (Trade Practices Proclamation) needs to be reformed to address the legitimate concerns of the private sector in a fair way. Secured lending and bankruptcy legislation needs to be strengthened simultaneously.

- **More sectors need to be exposed to competition.** The authorities recently reformed a policy that opened travel-related services to competition. The list of reserved sectors should be continuously reviewed to identify such opportunities for reform.
- **Competition policy needs to be strengthened.** The authorities have already agreed on a reform strategy that will enable the Trade Practices Commission to take a more proactive role, particularly by moving toward a technical, rather than a political, list of commissioners, a strong secretariat and a clearer mandate to pursue unfair competition.

2. The imperative of better financial sector performance

Access to finance is a pervasive, deep and cross-cutting constraint. Only 14 percent of manufacturing, 17 percent of services firms and seven percent of informal firms had access to finance from commercial banks (see Annex I). For the informal firms surveyed, only 6 percent had access to finance from microfinance institutions.

Vibrant domestic investment depends on robust savings, and on a financial system able to intermediate these savings to the corporate sector and to allocate risk efficiently. Building and preserving a stable, efficient and inclusive financial system to foster economic development and reduce poverty is a goal on which all can easily agree. However, there are different strategies for doing so. A focal point of debate among proponents of different strategies is the role of government and the role of international capital.

Contrary to many other countries in the region, the Ethiopian authorities have chosen an activist perspective on financial sector development which is concerned with achieving results in areas where the private financial sector is not conspicuously successful: finance for agriculture and the rural economy, finance for micro- and small enterprises, finance for low-income households, and long term finance in general. Consequently, the financial sector is still dominated by large public financial institutions, notably, the nationally owned Commercial Bank of Ethiopia (CBE) and the Development Bank of Ethiopia (DBE). The combined share of the private banks is only 23.5 percent of banking assets. DBE is the predominant source of finance for strategic sectors of the economy. For projects that meet its criteria, DBE offers credit at tenors of five to ten years at an interest rate of around 7.5%, well below prevailing inflation rates upwards of 10%. This is structured as project financing for up to 70% of the value of the project, secured only by the project itself. Any market-oriented banking system would have difficulty delivering long-term credit at interest rates well below inflation on a sustainable basis.

The financial sector has grown in volume terms. The financial sector in Ethiopia mainly consists of the banking system, insurance companies and micro finance institutions. There are eleven banks operating in the country of which eight are private commercial banks. A total of seventeen additional bank branches have been opened during the fourth quarter of 2006/07, raising the total number of bank branches throughout the country to 487. Consequently, the ratio of bank branches to total population reached 158,372 which still shows that Ethiopia is one of the under banked countries in Sub-Saharan Africa. According to NBE, at the end of the fourth quarter of 2006/07, the total capital of the banking system reached 9.3 billion birr, indicating a quarterly growth of 30.2 percent. The share of private banks went down to 31.5 percent compared with 35.2 percent a year ago, largely reflecting the substantial rise in the paid-up capital of the Commercial Bank of Ethiopia.

Despite this growth, it is clear that the financial sector is not performing two critical functions well enough: intermediation and providing access to credit. Access to finance is having a deep impact on investment and growth, simply because the economy is starved of capital. Other things being equal, the average fixed investment rate would be more than 6 times higher, and the average business growth rate would be eight times higher in a regime where no one were constrained by access to finance compared to one where everyone were.

The persistent weaknesses in access to finance have long been attributed to the disappointing performance of publicly owned financial institutions, and the constrained policy environment. The government has responded by opening up the sector to private ownership of bank, albeit only local; selectively allowing foreign entry in leasing, and generally encouraging the transfer of foreign financial technology and know-how through advisory assistance and consultancy contracts. The National Bank of Ethiopia (NBE) is in the process of implementing a financial sector project that includes housing finance, leasing, and regulatory and supervisory strengthening. Together with development partners, new initiatives are emerging in the microfinance sector.

While these reforms have increased resource mobilization, they have not spurred an equivalent growth in financial sector intermediation nor have they encouraged rapid innovation in the sector's products and services. To the contrary, the Ethiopian financial system is characterized by extremely high liquidity, with products being limited to conventional banking services. Instead, a large share of banking system assets are held as cash, real estate or invested in government paper (treasury bills). Loan-to-deposit ratios are low for the state-owned banks, which have suffered very high non-performing loans in recent years. Term finance is unavailable from private banks, with much of the profit of private banks arising from trade finance. Where the government has made term finance available, for example, through DBE, it has done so through directed credit requiring 30 percent equity which many local investors cannot raise. Innovative financial instruments such as credit cards, checking and automobile financing are unavailable.

A gradual approach that allows consensus building and reevaluation on the reform path seems the most appropriate way forward for Ethiopia. A step by step approach that encourages private ownership and encourages market-based interest rate determination seems preferable over a shock therapy. This process would imply commercialization of the government-owned banks with a view to eventual minority participation of foreign stakeholders. It would involve drafting the necessary legislation and regulations to encourage new financial products, such as leasing and term finance, currently absent in the Ethiopian financial system. Most importantly, this would require a clear signal from the authorities that a path towards market-based financial intermediation with support by a "market-friendly government hand" has been taken. A gradual opening of subsectors where an increase in capital, technology and knowledge can have the most immediate leverage: institutional investors, equity and venture capital funds, and insurance.

The recently approved Financial Sector Capacity Building project will play a key role in building the regulatory capacity to increase dynamism. Cannot be capacity building alone – capacity building works only in the context of competition. The question is how to spur better decisions by the financial sector, and increase the rate of lending. Given the stable growth and very high profits of the financial sector, an increase in competition would appear to be warranted. The authorities have resisted granting foreign bank licenses, but this need not be the initial strategy.

Specific policy options include the following:

- **Adopting internationally recognized accounting and auditing standards** is an important step towards more transparency and accountability of both public and private financial institutions. It will help increase trust and confidence by both depositors and

borrowers into the banking system. Other relevant institutions for continuous improvement include registries of secured interests and credit reporting systems.

- **Opening up the non-bank financial sector:** As an exploratory measure, the government may consider opening up the non-bank financial sector, particularly, leasing and microfinance to foreign non-governmental agencies and private sector companies. There has been a tremendous amount of experience that has been gained by international institutions such as BRAC and Grameen from whom local entities could learn and whose innovative models and capital could be used to expand the outreach and improve the sustainability of their operations. The success of this measure could be used to assess the desirability of opening up the banking sector to foreign equity.
- **Strengthening the performance of domestic banks:** A more competitive sector will require a range of actions, including strengthening supervision capacity, greater autonomy and commercial performance of CBE, and the gradual removal of policy lending to more direct policy instruments.
- **Deepening the impact of microfinance.** Ethiopia has a vibrant microfinance sector, including several institutions that are among the world's largest. Opening up the microfinance sector to external capital may further strengthen its ability to reach the large informal sector – which the survey revealed is largely unbanked by any institution.
- **For local banks, management contracts and twinning arrangements may be useful.** Alternatively, the government may consider improving the performance of local banks by permitting them to acquire management contracts from any foreign firm. There are many foreign firms that specialize in this type of management contracts, e.g. ING Bank. The country would get the benefit of management expertise without ceding ownership rights and local board control over the decisions of the management firm. Firms in this type of contract may ultimately seek the opportunity to invest in the shares of the bank. Even if this does not happen, the contract could use the option of quasi equity and performance-related contracts to attract the best in the business.
- **Opening up the banking sector gradually to foreign equity shares.** In order to accelerate the rate of technology and human skills transfer, the government could consider opening up the banking sector to foreign equity with an explicit limitation on the percentage of shares that a foreign entity can hold. Such an approach would encourage foreign firms to invest in the infrastructure of the bank in which they have a stake, promote the introduction of new products and services, and encourage performance improvements without necessarily ceding the firms full operational ownership.

The benefits of a gradualist approach were demonstrated by China, as described in Box 4.

Box 4 China's Banking Sector Reforms**A Gradualist Approach**

The financial sector reforms in China have occurred in three stages. During the first stage (which began in 1978 and continued until 1992), the main goal was changing the mono-banking system into a plural-banking system consisting of a central bank and various kinds of financial institutions. From 1978 to 1984, the four state-owned specialized banks were reestablished or separated from the central bank – the Agricultural Bank of China, the Bank of China, the People's Construction Bank of China, and the Industrial and Commercial Bank of China. In 1986, the Bank of Communications was reestablished with several types of shareholders, later called Joint Stock Commercial Bank (JSCB). At the end of 1992, nine JSCBs had been established, and there were 12 insurance companies, 387 trust and investment companies, 87 securities companies, 29 finance companies, 11 leasing companies, 59,000 rural credit cooperatives, and 3,900 urban credit cooperatives in China. In addition, the market was opened to foreign banks on a limited basis. By the end of 1992, foreign banks had 98 branches/local subsidiaries and 302 representative offices, but their business area was strictly restricted to foreign funds until China joined the WTO.

During the second stage of reforms, which ran from 1993-97, market-oriented policies were widely introduced to enhance efficiency and governance of the financial sector. These include the establishment of an independent macro economic control mechanism by the central bank, the establishment of policy banks, the transformation of state-owned specialized banks to actual commercial banks, and the establishment of unified, open and competitive financial markets. One important restructuring action came in 1999, when the government transferred a substantial amount of nonperforming loans (NPLs) to asset management companies at book value. Meanwhile, after 2000, the banking sector was opened up to the private sector, and prior to that, there was only one private commercial bank opened as a pilot. Since then, the banking system reform has progressed favorably, supported by capital injection, tax exemptions, the introduction of foreign funds, market competition, the enhancement of disclosure rules and other key government policy changes.

Through these reforms, the major Chinese commercial banks have improved their capital and asset structures remarkably. Four of the five biggest commercial banks have changed their ownership structure and have successfully been listed on stock exchanges. Medium-sized nationwide commercial banks have also developed their business aggressively. In 1998, the NPL ratio in major commercial banks was estimated at 25-30%, and in Q1 2007, it declined to 7% of total loans. The M2 as a ratio of GDP increased from about 20% to over 160% in 2006. Based on confidence about the country's financial stability, in December 2006, China opened much of the banking sector to foreign banks by eliminating formerly strict restrictions on foreign banks' local currency business.

Despite these achievements, China's banking sector still faces many challenges. Compared to the world's leading banks, major Chinese banks are still weak in terms of asset quality, business profitability, and the diversification of their services. The government plans to continue to introduce market-oriented mechanisms in the financial sector. Commercial banks are required to improve corporate governance and to push grass-roots level reforms in local branches.

Source: Compiled by Douglas Zhihua Zeng from Okazaki, K., "Banking System Reform in China," Occasional Paper, Rand Corporation, 2007; Rodpiera, R., "Progress in China's Banking Sector Reform: Has Bank Behavior Changed?" IMF Working Paper, 2006; and Huang Y., T. Saich, and E. Steinfeld, ed., *Financial Sector Reform in China*, Harvard University Asia Center, 2005.

3. Reform Urban Land Policy

Ethiopia is the 14th largest country in the world in population, but also one of the least urbanized, with only 16% of population in urban settings in 2003. This reflects, in part, traditional livelihoods, but also a development policy that favored decentralized, rural over urban development. To catalyze private growth and take advantage of agglomeration economies, Ethiopia will need to build the infrastructure and land systems to support a more urbanized economy.

In 2005 a national Urban Land policy was approved by the Council of Ministers, building on the Urban Lands Lease Holding Proclamation 272/2002. Like many countries in the world, Ethiopia operates on a leasehold system. The Ministry of Works and Urban Development was established in 2005, and adopted a set of principles designed to improve urban land administration and to bring about economic use of land for development, and stabilize land prices. Among the more important reforms would be to enable an efficient land market. This would require (a) piloting and establishment of a land registration system including updated cadastre mapping; (b) increasing the efficiency of the leasehold regime by better managing the supply of new land and standardizing the process of acquisition, compensation and release of new land; (d) putting more tradable land on the market consistently, and (e) better managing the interface between Federal and local officials.

4. Built institutions to create markets

A key finding of the paper is the low degree of evolution from informal, relational transactions to more formal, arms-length transactions in the private sector. Similarly, we find that there is a great deal of behavior that indicates a high perception of risk, and a low degree of trust both between firms and in institutions that may help reduce those risks.

The 2006 Value Chain Analysis found that the relative performance of floriculture is in part due to the shortness of its value chain, relying minimally on inter-firm trade in Ethiopia, and therefore not demanding of market supporting institutions.⁶² If the Ethiopian economy is eventually to evolve to more sophisticated, higher value products, it will depend on the combined efforts of many firms along a value chain working relatively efficiently. A dynamic private sector will require firms to be less reluctant to find new partners, enter into new business arrangements with potentially unfamiliar partners, and conduct business over much greater distances. Particularly given the nature of transaction behavior, this will require institutions that can create confidence in those new forms of exchange and investment, such as the Ethiopian commodity exchange, or credit information bureaus, improved accounting and auditing standards, quality and labor standards.

Questions of trust between firms, confidence in institutions, and a shift from informal to formal transactions will not happen overnight. But without investment in market supporting institutions, this transition will take considerably longer. For example, in many countries there is a desire for bank loan officers to switch from “name lending” (lending exclusively to well-known customers) to more objective standards, but until such institutions as a credit bureau exist, name lending will persist.

5. A Dynamic Industrial Policy

At its current stage of development, Ethiopia should focus on diversification of industry. Ethiopia’s industrial policy, emanating from ADLI, is rightly designed to address some persistent market failures, lower the cost of capital and land for investors in industries identified in the policy as those in which Ethiopia has a comparative advantage. It has created some meaningful successes,

⁶² World Bank, *Ethiopia Value Chain Analysis*, 2006.

notably in leather and cut flowers where the package of services offered by the government has been very attractive in attracting some world class firms. These successes have been far too limited.

The policy should therefore not limit Ethiopia's self-discovery process at the current stage.

At early stages of development, the empirical evidence indicates that the path of industrialization first involves diversification of the number of industries and activities pursued. Given the nascent stage of industrialization in Ethiopia, it indeed may be very early to lock into any static choices. Arguably, Ethiopia's comparative advantage are not necessarily natural resources but cultural and human capital as embedded in its art, music, jewelry and handicrafts— creating industries that may be as viable as leather, textiles or garments.

The recommendation of this paper is to move away from static “packages” and toward pragmatic, problem-solving institutions that, given a broad goal, embark on a continuous process of problem solving, monitoring, exiting and connecting to solutions through public-private partnerships. Industrial policy in this sense would focus not on a package of support, but on a problem-solving process. Innovation and self discovery are inherently dynamic processes characterized more by trial, error and adjustment, and the ability to search globally for appropriate solutions. Such a process would be supported by public-private dialogue, and staffed by small, highly qualified and semi-autonomous teams in close dialogue with private sector counterparts. To serve the diversification and inclusion agenda, such teams must over time be replicated in specific regions to address location-specific challenges. Such an approach would be supported by an exchange rate policy that is more conducive to export development, particularly given recent inflation.

To mitigate the risk of capture, such a framework would depend significantly on a strong and independent monitoring and evaluation framework to allow mid-course correction or discontinuing failing investments.

6. Leverage the Diaspora

Ethiopia enjoys a highly successful global Diaspora that has succeeded in competition in globalized markets. As such, the Diaspora can contribute significantly to a number of issues raised in the paper: firm-level productivity through better management, risk management, innovation, access to finance, and most importantly the introduction of new ideas. The Diaspora may be more effective in an environment characterized by weak market institutions. Because the Diaspora is “networked” both in Ethiopia and abroad, they may be able to overcome institutional and information gaps in ways that purely domestic or foreign investors cannot. For this reason, the Diaspora are leading many of the most important and innovative investments in Ethiopia.

A number of countries, such as India, China, Scotland, Ireland and Israel have used their Diaspora resources to powerful effect. These countries have built institutions to make it easier for the Diaspora to contribute.

A number of initiatives have emerged to support Diaspora investment in Ethiopia. The Ethiopian Ministry of Capacity Building is working on leveraging the Ethiopian Diaspora in the health and ICT sectors, including bringing Diaspora medical specialists to Ethiopia. The Ministry of Foreign Affairs (MoFA) has put in place a Directorate General (DG) to deal with Diaspora Affairs, supported by department to coordinate and facilitate investment and trade related issues; a research department on Diaspora investments, and a department to provide services such as relocation, family reunion, and property adjudication. The country has established an Ethiopian Origin ID card that entitles any Diaspora to the same treatment as Ethiopian citizens, including the right to invest in all sectors except the financial sector; and the right to import, tax-free, capital goods to start up investment projects on franco-valuta basis.

Box 5 Diaspora and Development: The Case of India

In today's increasingly integrated economy, Diaspora networks and international migration of skills are playing more and more important roles in countries' economic development, through contributions of capital, technology, international experiences, and greater access to the global market. This can be well demonstrated through the cases of China and India.

In China, the Diaspora contributed significantly to its economic development from capital at early stage to technology and know-how at late stages. From the early 19th century until 1949 there was considerable migration, mostly from coastal provinces to neighboring countries or regions. Since the open-door policy, more Chinese go abroad to study or work. There are an estimated 55 million Chinese in the Diaspora. The economic reforms since 1978 provided an opportunity, and the Government appealed to the overseas Chinese for both capital and technology as part of the country's new development campaign. Since China was at the early stages of development it thus offered overseas Chinese investors considerable profit opportunities in emerging industries. Cultural familiarity combined with the stable political environment, preferential policies and promises of reform induced many overseas Chinese to invest in small and medium-sized ventures. Investment by overseas Chinese not only accounts for the lion's share of total foreign investment in China (as high as 60-80 percent from 1983-1996), but also has a herd effect in inducing other investors to follow. Since late 1990s, more and more overseas Chinese scientists and engineers began to return back to work in science labs or set up high-tech companies in IT, alternative energies, bio-tech, and electronics. Many of these companies have gone public in the U.S. and Hong Kong. The presence of Chinese Diaspora also helped many multinationals to set up subsidiaries or R&D labs in China.

Similar to China, India also has a large and well-educated global Diaspora (about 20 million in 2001). According to the U.S. Census of 2000, the Indian American community now boasts 1.68 million people as compared to .81 million in 1990. The average per capita income is \$60,093 (compared to an average of \$38, 885), and 62% have some college education (compared to just over 20% for the U.S. population). They are represented in virtually all professions, including biotechnology, business, economics, finance, IT, journalism, management, medicine, and others. The Diaspora is also very entrepreneurial, and Indians have come to enjoy a dominant position in the U.S. IT industry: approximately 300,000 Indian-Americans work in Silicon Valley, account for more than 15% of US start-ups.

The launch of the economic reforms in India in 1991 opened up new business opportunities for the Diaspora particularly in high technology development. Many IT professionals rely heavily on strengths back home -- the huge pool of skilled computer experts and software professionals -- to sub-contract work to their country to origin, thus creating several virtuous cycles for the Indian IT sector and economy. As an example, in software and IT enabled services, investments of Diaspora are limited (about 3% of FDI), but their contribution is mostly in the form of knowledge linkages: with foreign markets, helping Indian firms to absorb technical and managerial knowledge. Building on India's strengthen as a location for low-cost and quality services, the initial impetus for outsourcing to India mostly comes from employees of Indian origin. The success of the Indian Diaspora has also attracted the attention of major MNCs to invest in India, which has now spread from IT to other sectors.

Source: Zeng, Douglas Zhihua, "How Technology and Innovation Drive Two Emerging Giants: China and India?" *International Studies Review*, Vol.7, No.1, April 2006.

In an encouraging sign, the Prime Minister has asked leading members of the Diaspora to organize a forum for policy input. The Diaspora Trade and Investment Center proposed by Addis Alemayehu and the Diaspora knowledge network proposed by Mesfin Ayenew are also important steps in the right direction.

7. Send Clear Signals

Over time the Government has sent increasingly strong signals that it supports the private sector's contribution to growth. These signals have been most clear in the case of sectors identified in the Government's industrial strategy, and export-generating sectors more broadly.

Perceptions clearly matter, as asset prices are ultimately a reflection of the perception of investors of their ability to extract value from an asset over time, and the confidence with which they are able to make such predictions. Yet perceptions and confidence, particularly of foreign investors, may take time to change. Uncertainty remains a key feature of the investment climate and impacts negative perceptions of the fairness of competition. In this light, the market signals generated by policy actions may either provide greater confidence in the reform path, or create reminders of the legacy of unfavorable policies. The Government is reforming the investment climate, and the data clearly indicate that the private sector has responded to these signals. On the other hand, the Government's stance toward endowment-owned firms, the slowdown in privatization, and the lack of recent progress on administrative reforms undermine the market signals that the government would like to send. A simple move to prove beyond doubt that endowment-owned firms operate at an arms-length from the government would send a very positive signal, as would a resumption of work on the administrative agenda, privatization and financial sector reform.

In addition to reforming the underlying content of policy as has been argued throughout the report, the Government may pay greater attention to developing consistent messages about the reform program. Signaling openness, through public-private dialogue and, signaling a willingness to address some of the long-standing issues would help the country realize the full productivity and investment gain from its past and future reforms.

8. Transform the dialogue

The issues and proposed solutions in this paper cannot be imposed from outside. Rather, reform must be anchored in careful deliberation amongst the public and private sectors in Ethiopia, including foreign stakeholders. In that light, a tolerance for dissenting views and alternatives to established policies is an essential ingredient to the reform. Several issues – including telecommunications, land, endowment-owned enterprises and to a lesser extent financial sector - are discussed within a narrow range of options, ignoring a more diverse menu of options. A recent report on the financial sector in which consultants suggested that the impact of liberalization would be positive for Ethiopia was changed at the behest of the authorities to promote messages that were not held by the team.⁶³ On the other hand, the private sector has often allowed political messages to enter into what is fundamentally a technical discussion. Furthermore, the dialogue has often been characterized by a lack of shared objectives and assumptions.

The proposed Public-Private Dialogue Forum has the potential to transform the dialogue into one that is productive both for the Government and firms that participate. For this, the private sector

⁶³ A review of the final report prepared by the team and the published final report indicates that a substantial share of the policy content supporting liberalization was changed. The government argues that the team went beyond its mandate.

should take a solution-oriented stance that focuses on realistic solutions that take into account the Government's objectives and assumptions, even if to challenge them. For its part, the Government may benefit from being more open about its goals, and its openness to a range of alternatives to policies that impact the private sector. New approaches to development economics and to industrial policy suggest that there are few absolute solutions that can be derived from one model – whether it is called a developmental state, Washington consensus or anything else. The goal is to understand what works and build on it, irrespective of its conceptual origins.

The approach taken in ADLI may ultimately work, in that productivity yields in agriculture may rise to the point that it catalyzes an industrial response, but is a very long-term prospect and there are few signs that it is working. Furthermore, as poverty gradually becomes an urban phenomenon, ADLI appears less relevant to new challenges. The report suggests broad suggestions to contribute to a domestic dialogue which may help address the problems raised in this report that are not addressed by ADLI.

The data suggest a need to rethink key policies that affect the performance of the private sector. When the current government came to power fourteen years ago, the central issue facing Ethiopia was that the bulk of the population existed on the precipice of survival, locked into rural livelihoods that offered no chance of growth or hope. Lacking education, infrastructure, seeds, credit or markets, most farmers persisted in producing the same crops at very low productivity levels. Through a program of building roads, moving toward universal primary education, and increasing service delivery, the government has made significant headway in rural development, and rural poverty levels have declined. A similarly robust effort is now needed to create a private sector that can reduce urban poverty which has actually increased, and contribute to national growth and development.

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Appendix I Standard Tables

Table 23: Description of Sample

Ethiopia - 2006/07							
Manufacturing - 360 observations							
Table 1: ICA Survey Sample Structure							
Firm Size (%)		Firm Activity (%)		City (%)		Government Ownership	
	Sample		Sample		Sample	Sample	
Small (<50)	65.56	garments	29.17	addis ababa	47.5	Non-Government	87.5
Medium (>=50&<250)	20.83	food	27.5	mekele	10	Government (>=10)	12.5
Large (>=250)	13.61	woodwork, furniture and metalwork	25.83	dire dawa	6.67		
Market Orientation (%)		leather & leather products	5	nazareth	6.67	Capacity Utilization	
	Sample	beverages	4.44	awasa	6.39	Sample	
Non-Exporter	91.39	textiles	2.5	bahir dar	5.56	Low Capacity <75	65.28
Exporter (>= 10% sales)	8.61	commercial farming & agri-business	1.11	gondar	5	High Capacity >=75	34.72
		others	1.11	harar	4.72		
Firm Ownership (%)		plastic products manufacturing	0.56	bishoftu	2.78	Foreign Ownership	
	Sample	non-metal products (glass, rubber, & ca	0.56	dilla	1.39	Sample	
sole proprietorship	50	Others	2.24	shashemen	0.83	Domestic	93.06
private held, limited company	38.33			adigrat	0.83	Foreign (>=10)	6.94
government owned	5.56			modjo	0.83		
partnership	2.22			adwa	0.56		
publicly listed company	1.11			wonji	0.28		
others	1.11						
joint venture	0.83						
Others	0.84						

Ethiopia - 2006/07							
Services - 124 observations							
Table 1: ICA Survey Sample Structure							
Firm Size (%)		Firm Activity (%)		City (%)		Government Ownership	
	Sample		Sample		Sample	Sample	
Small (<50)	86.29	retail services	51.61	addis ababa	58.06	Non-Government	98.39
Medium (>=50&<250)	12.1	wholesale services	36.29	gondar	0.81	Government (>=10)	1.61
Large (>=250)	1.61	repair shop	0.81	awasa	9.68		
Market Orientation (%)		consultancy/audit	0.81	bahir dar	5.65	Capacity Utilization	
	Sample	others	1.61	bishoftu	2.42	Sample	
Non-Exporter	93.55	college	0.81	dire dawa	4.03	Low Capacity <75	57.26
Exporter (>= 10% sales)	6.45	construction service	0.81	mekele	8.06	High Capacity >=75	42.74
		transport service (fuel service)	3.23	nazareth	8.87		
Firm Ownership (%)		it service (news agency)	2.42	harar	2.42	Foreign Ownership	
	Sample	real estate	0.81			Sample	
held, limited company	52.42	training service	0.81			Domestic	97.58
sole proprietorship	41.94					Foreign (>=10)	2.42
partnership	0.81						
government owned	2.42						
share company	2.42						

Ethiopia - 2006/07						
Informal - 126 Observations						
Table 1: ICA Survey Sample Structure						
Firm Size (%)		City (%)				
	Sample		Sample			
All Small Lower than 20 Employees		addis ababa	45.45			
		gondar	2.6			
		bahir dar	15.58			
Firm Ownership (%)		dire dawa	36.36			
	Sample					
private held, limited company	4.76					
sole proprietorship	90.48					
partnership	2.38					
small scale cooperatives	2.38					

Table 24: Globalization of Markets

Table 2: Globalization of Markets and Inputs										
Manufacturing	Ethiopia	Small	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
Percent of Sales:										
Sold Domestically	95	98	90	91	96	82	100	49	94	98
Exported Directly	4	2	9	8	3	14	0	45	5	2
Exported Indirectly	1	0	1	1	0	4	0	6	1	0
Percent of Inputs/Supplies										
Purchased from Domestic Sources	58	57	61	60	60	39	58	63	62	52
Table 2: Globalization of Markets and Inputs										
Services	Ethiopia	Small	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
Percent of Sales:										
Sold Domestically	96	96	96	88	96	100	100	40	96	96
Exported Directly	4	4	4	13	4	0	0	58	3	4
Exported Indirectly	0	0	0	0	0	0	0	3	0	0
Percent of Inputs/Supplies										
Purchased from Domestic Sources	45	45	41	65	46	4	42	60	52	35
Table 2: Globalization of Markets and Inputs										
Informal	Ethiopia									
Percent of Sales:										
Sold Domestically	100									
Exported Directly	0									
Exported Indirectly	0									
Percent of Inputs/Supplies										
Purchased from Domestic Sources	63									
Imported Directly	na									
Imported Indirectly	na									

Table 25 Constraints to the Firm

**Table 4: Respondents' Evaluation to General Constraints to operation
% of firms evaluating constraint as "major" or "very severe"**

Manufacturing										
	Ethiopia	Small	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
A. Telecommunications	12	8	21	12	10	28	12	13	12	11
B. Electricity	23	21	29	20	22	28	22	26	22	25
C. Transportation	11	8	12	27	11	16	10	23	11	10
D. Access to Land	32	38	24	14	33	12	32	26	32	31
E. Tax rates	39	40	40	31	39	36	40	23	40	36
F. Tax administration	30	32	31	14	30	24	30	20	31	27
G. Customs and Trade Regulations	14	12	16	16	13	25	13	22	18	8
H. Labor Regulations	5	3	3	18	5	12	5	10	5	6
I. Skills and Education of Available Workers	26	19	33	43	26	24	25	32	28	21
J. Business Licensing and Operating Permits	1	1	1	0	1	0	1	3	0	2
K. Access to Financing (e.g. collateral)	44	46	36	49	44	46	44	47	48	37
L. Cost of Financing (e.g. interest rates)	25	28	18	23	25	25	25	27	32	12
M. Regulatory Policy Uncertainty	18	19	14	23	17	29	19	14	20	15
N. Macroeconomic Instability (inflation, exchange rate)	37	38	32	41	37	38	38	29	38	36
O. Corruption	19	22	19	8	19	22	20	10	21	17
P. Crime, theft and disorder	8	9	5	8	9	0	9	6	7	10
Q. Anti-competitive or informal practices	51	57	43	39	52	44	54	23	54	47
R. Legal system/conflict resolution	10	9	14	11	9	26	10	15	11	10
S. Political Instability	28	30	28	22	29	17	28	33	27	31
T. Inadequately educated workforce	26	19	33	43	26	24	25	32	28	21
TAX ISSUES										
Availability of information on tax requirements	18	20	12	6	17	8	16	16	18	14
Completing tax forms/ filing	9	9	11	6	9	13	10	3	9	10
Keeping up with changes in rules and rates	22	25	16	6	22	12	22	13	22	20
Tax penalties	28	34	18	10	28	25	29	10	30	22
Appeals mechanisms for tax disputes	22	25	17	17	22	20	23	18	26	14

**Table 4: Respondents' Evaluation to General Constraints to operation
% of firms evaluating constraint as "major" or "very severe"**

Services										
	Ethiopia	Small	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
A. Telecommunications	25	24	33	0	25	33	26	13	23	28
B. Electricity	18	14	47	0	17	33	16	50	15	21
C. Transportation	14	13	20	0	14	0	13	25	15	11
D. Access to Land	50	47	73	0	49	67	49	63	50	49
E. Tax rates	43	47	20	0	43	33	45	13	48	38
F. Tax administration	27	29	20	0	27	33	28	13	28	26
G. Customs and Trade Regulations	26	25	33	0	24	67	27	14	31	19
H. Labor Regulations	1	1	0	0	1	0	1	0	0	2
I. Skills and Education of Available Workers	15	10	40	100	16	0	15	25	13	19
J. Business Licensing and Operating Permits	3	4	0	0	3	0	3	0	4	2
K. Access to Financing (e.g. collateral)	45	42	67	0	45	33	44	50	48	39
L. Cost of Financing (e.g. interest rates)	20	18	27	50	20	0	19	25	18	22
M. Regulatory Policy Uncertainty	25	23	38	0	25	0	25	13	25	24
N. Macroeconomic Instability (inflation, exchange rate)	36	35	47	0	37	0	36	38	33	40
O. Corruption	34	34	33	0	34	0	35	13	41	23
P. Crime, theft and disorder	21	20	33	0	21	33	19	50	20	23
Q. Anti-competitive or informal practices	74	79	45	na	73	100	74	60	76	71
R. Legal system/conflict resolution	21	16	57	0	21	33	21	25	26	14
S. Political Instability	37	38	33	0	36	60	37	38	41	31
T. Inadequately educated workforce	15	10	40	100	16	0	15	25	13	19
TAX ISSUES										
Availability of information on tax requirements	15	17	0	0	15	0	16	0	14	16
Completing tax forms/ filing	6	6	7	0	6	0	6	0	4	8
Keeping up with changes in rules and rates	25	27	13	0	25	33	25	25	27	23
Tax penalties	25	27	13	0	25	33	26	13	28	21
Appeals mechanisms for tax disputes	20	20	29	0	20	33	20	25	21	20

**Table 4: Respondents' Evaluation to General Constraints to operation
% of firms evaluating constraint as "major" or "very severe"**

Informal										
	Ethiopia									
A. Telecommunications	na									
B. Electricity	19									
C. Transportation	17									
D. Access to Land	77									
E. Tax rates	38									
F. Tax administration	24									
G. Customs and Trade Regulations	5									
H. Labor Regulations	0									
I. Skills and Education of Available Workers	na									
J. Business Licensing and Operating Permits	2									
K. Access to Financing (e.g. collateral)	62									
L. Cost of Financing (e.g. interest rates)	29									
M. Regulatory Policy Uncertainty	na									
N. Macroeconomic Instability (inflation, exchange rate)	32									
O. Corruption	23									
P. Crime, theft and disorder	25									
Q. Anti-competitive or informal practices	48									
R. Legal system/conflict resolution	11									
S. Political Instability	31									
T. Inadequately educated workforce	6									

Table 26: Infrastructure Indicators

Table 5: Infrastructure Indicators										
Manufacturing	Ethiopia	Small	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
	Have own generator (%)	26	17	33	57	23	60	23	48	20
% of production lost in shipment	0.7	0.8	0.3	0.2	0.6	0.8	0.7	0.0	0.6	0.7
No. of days to obtain a telephone connection	54	58	60	31	56	23	57	30	72	29
No. of days to obtain an electricity connection	41	26	45	104	41	55	40	53	35	52
No. of days to obtain a water connection	17	15	7	45	15	57	18	10	12	27

Table 5: Infrastructure Indicators										
Services	Ethiopia	Small	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
	Freq of power outages(TIMES last yr)	60	60	60	60	58	120	58	86	57
% of production lost due to power outages	2	1	3	.	2	0	2	2	2	1
Have own generator (%)	29	23	67	50	27	100	.	50	27	32
No. of days to obtain a telephone connection	61	61	59	.	45	293	59	105	24	107
No. of days to obtain an electricity connection	26	26	27	.	26	.	26	.	29	23
No. of days to obtain a water connection	18	19	17	.	18	.	18	.	15	22

Table 5: Infrastructure Indicators	
Informal	Ethiopia
Freq of power outages(TIMES last yr)	52
% of production lost due to power outages	3
Have own generator (%)	1
No. of days to obtain a telephone connection	58
No. of days to obtain an electricity connection	24
No. of days to obtain a water connection	87

Table 27 Sources of Finance

6: Sources of Finance										
Manufacturing	Ethiopia	Micro	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
	Share of working capital from:									
Internal funds/Retained earnings %	61	65	54	52	61	62	62	53	60	62
Borrowed from private commercial banks %	14	12	20	10	13	17	14	11	13	14
Borrowed from state-owned banks and/or government agency %	7	4	11	20	7	7	7	16	7	9
Borrowed from family/friends %	2	3	1	0	2	0	2	2	2	2
Borrowed from non-bank financial institutions (e.g. MFIs, credit coops, credit union, finance company) %	1	1	0	0	1	0	1	0	1	0
Purchases on credit from suppliers %	9	9	10	8	9	9	9	8	10	8
Advances from customers %	5	5	4	7	5	5	5	9	5	5
Borrowed from informal sources (e.g., moneylenders, IQubs, etc.) %	1	1	0	0	1	0	1	1	1	1
Other (specify sources) %	1	0	1	2	1	0	0	1	1	0
purchase of fixed assets was financed by:										
Internal funds/Retained earnings %	76	77	77	72	75	90	76	76	76	75
Issued new equity (additional shares) %	1	0	0	3	1	0	1	0	0	1
Borrowed from private commercial banks %	10	10	16	5	11	4	10	9	9	12
Borrowed from state-owned banks and/or government agency %	6	5	6	8	6	2	6	10	5	7
Borrowed from family/friends %	2	4	0	0	2	0	2	0	2	2
Borrowed from non-bank financial institutions (e.g. MFIs, credit coops, credit union, finance company) %	0	0	0	2	0	4	0	0	1	0
Purchases on credit from suppliers %	0	0	1	0	0	0	0	0	0	0
Advances from customers %	1	1	0	0	1	0	1	0	1	0
Borrowed from informal sources (e.g., moneylenders, IQubs, etc.) %	1	1	0	0	1	0	1	0	1	0
Other (specify sources) %	3	1	0	11	3	0	2	6	3	2
6: Sources of Finance										
Services	Ethiopia	Micro	Medium	Large	Domestic	Foreign-Invested	Non-Exporter	Exporter	Low Capacity	High Capacity
	Share of working capital from:									
Internal funds/Retained earnings %	61	63	46		62	17	62	41	65	56
Borrowed from private commercial banks %	17	17	19		16	43	16	29	14	20
Borrowed from state-owned banks and/or government agency %	6	4	12	45	6	14	5	13	6	6
Borrowed from family/friends %	1	1	1	0	1	3	1	1	0	3
Borrowed from non-bank financial institutions (e.g. MFIs, credit coops, credit union, finance company) %	1	1	0	0	1	0	1	0	1	0
Purchases on credit from suppliers %	8	8	8	0	8	0	9	0	7	9
Advances from customers %	4	3	11	3	4	10	4	16	3	6
Borrowed from informal sources (e.g., moneylenders, IQubs, etc.) %	1	1	0	0	1	0	1	0	2	0
Other (specify sources) %	1	1	3	0	1	12	1	0	1	1
purchase of fixed assets was financed by:										
Internal funds/Retained earnings %	86	85	90	75	86	73	88	62	82	89
Issued new equity (additional shares) %	0	0	0	0	0	0	0	1	0	0
Borrowed from private commercial banks %	7	9	3	0	8	0	5	30	10	5
Borrowed from state-owned banks and/or government agency %	3	1	7	25	2	27	4	0	2	5
Borrowed from family/friends %	0	0	0	0	0	0	0	1	0	0
Borrowed from non-bank financial institutions (e.g. MFIs, credit coops, credit union, finance company) %	0	0	0	0	0	0	0	0	0	0
Purchases on credit from suppliers %	1	2	0	0	2	0	1	6	2	1
Advances from customers %	0	0	0	0	0	0	0	0	0	0
Borrowed from informal sources (e.g., moneylenders, IQubs, etc.) %	1	1	0	0	1	0	1	0	2	0
Other (specify sources) %	1	2	0	0	1	0	1	0	2	0
6: Sources of Finance										
Informal	Ethiopia									
	Share of working capital from:									
a. Internal funds/Retained earnings	71									
b. Borrowed from private commercial banks	1									
c. Borrowed from state-owned banks and/or government agency	0									
d. Borrowed from MFIs	6									
e. Borrowed from family/friends	5									
f. Borrowed from other non-bank financial institutions (e.g. credit coops, credit union, finance company)	1									
g. Purchases on credit from suppliers	6									
h. Advances from customers	5									
i. Borrowed from informal sources (e.g., moneylenders, IQubs, etc)	5									
j. Other	0									
purchase of fixed assets was financed by:										
a. Internal funds/Retained earnings	71									
b. Issued new equity shares	0									
c. Issued new debt	0									
d. Borrowed from private commercial banks	3									
e. Borrowed from state-owned banks and/or government agency	0									
f. Borrowed from MFIs	6									
g. Borrowed from family/friends	5									
h. Borrowed from other non-bank financial institutions (e.g. Credit coops, credit union, finance company)	1									
i. Purchases on credit from suppliers	6									
j. Advances from customers	5									
k. Borrowed from informal sources (e.g., moneylenders, IQubs, etc)	5									
l. Other	0									

Table 28 Characteristics of Finance

Manufacturing	<i>Ethiopia</i>	<i>Micro</i>	<i>Medium</i>	<i>Large</i>	<i>Domestic</i>	<i>Foreign-Invested</i>	<i>Non-Exporter</i>	<i>Exporter</i>	<i>Low Capacity</i>	<i>High Capacity</i>
Share with overdraft or line of credit:	55	42	70	92	55	60	53	77	49	66
For the most recent loan or overdraft:										
Share that require collateral:	95	94	95	97	95	92	94	100	96	94
Average value of collateral required (as % of the loan):	195	208	160	206	199	141	201	154	191	200
Average interest rate on loan:	8	8	8	8	8	8	8	8	8	8
Average duration of the loan: (mns)	28	26	30	30	28	23	28	26	25	31

Table 7: Credits, Loans and Liabilities

Services	<i>Ethiopia</i>	<i>Micro</i>	<i>Medium</i>	<i>Large</i>	<i>Domestic</i>	<i>Foreign-Invested</i>	<i>Non-Exporter</i>	<i>Exporter</i>	<i>Low Capacity</i>	<i>High Capacity</i>
Share with overdraft or line of credit:	48	42	73	50	45	100	44	75	41	53
Share with a term loan from a bank or financial institution:	45	43	53	100	45	67	43	75	46	43
For the most recent loan or overdraft:										
Share that require collateral:	100	100	100	100	100	100	100	100	100	100
Average value of collateral required (as % of the loan):	157	166	119	100	159	100	162	114	170	138
Average interest rate on loan:	8	8	8	8	8	8	8	8	8	8
Average duration of the loan: (mns)	17	17	15	24	17	24	18	12	17	17

Table 7: Credits, Loans and Liabilities

Informal	
Share with a term loan from a bank or financial institution:	14
For the most recent loan or overdraft:	
Share that require collateral:	78
Average value of collateral required (as % of the loan):	130
Average interest rate on loan:	10
Average duration of the loan: (mns)	21

Table 29 Innovation

Table 8: Technology Indicators in International Comparison

Manufacturing	<i>Ethiopia</i>	<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>Domestic</i>	<i>Foreign-Invested</i>	<i>Non-Exporter</i>	<i>Exporter</i>	<i>Low Capacity</i>	<i>High Capacity</i>
% firms with ISOCertification	4	1	5	19	4	8	3	13	3	7
Form of Technology innovation										
(a) % Firms that developed a major new product line	33	29	40	40	32	42	32	39	29	41
(b) % Firms that introduced new technology that has substantially changed the way that the main product is produced	28	26	32	33	28	33	28	29	24	35
(c) % firms that agreed a new joint venture with foreign partner	23	18	26	41	22	40	20	52	24	21

Table 8: Technology Indicators in International Comparison

Services	<i>Ethiopia</i>	<i>Small</i>	<i>Medium</i>	<i>Large</i>	<i>Domestic</i>	<i>Foreign-Invested</i>	<i>Non-Exporter</i>	<i>Exporter</i>	<i>Low Capacity</i>	<i>High Capacity</i>
% firms with ISOCertification	4	4	7	0	4	0	4	0	4	4
Form of Technology innovation										
(a) % Firms that developed a major new product line	33	28	71	50	32	100	31	63	31	36
(c) % Firms that introduced new technology that has substantially changed the way that the main product is produced	29	25	47	100	29	33	28	38	24	38
(e) % firms that agreed a new joint venture with foreign partner	27	21	67	50	26	67	26	38	27	27

Appendix A: Description of the Data

This Investment Climate Assessment is based on two Productivity and Investment Climate Surveys conducted in Ethiopia, first in 2001/02 by the Ethiopian Development Research Institute (EDRI) with technical assistance from the World Bank. The second Productivity and Investment Climate Survey was conducted June-August 2006, with a short follow-up questionnaire on business networks completed in June 2007, also by EDRI. The 2006/07 survey is actually three combined urban surveys: a survey of 360 manufacturing enterprises; a survey of 124 enterprises in the trade and service sectors (hereafter 'service survey'); and a survey of 126 micro-enterprises. The surveys were undertaken at the same time by the same team of enumerators.

Figure 62 Survey Characteristics

Productivity & Investment Climate Survey 2001/2002	Productivity & Investment Climate Survey 2006/2007
<ul style="list-style-type: none"> • 427 firms, primarily manufacturing • Amhara, Oromiya, the Southern Nations, Nationalities and people (SNNP), Eastern and the Tigray regions. 	<ul style="list-style-type: none"> • 600 firms • 360 manufacturing (food and beverages, garment, furniture wood and metal) with more than 5 employees • 124 services enterprises • 126 informal sector enterprise defined as less than 5 employees • 212 manufacturers repeated from 2002

The questionnaires for the manufacturing and service surveys are almost identical. The questionnaire for the micro-enterprise survey is shorter and adapted to the simpler nature of informal enterprises, but otherwise collects much of the same information. The main difference between the three surveys is their sampling frame. The sampling frame for the manufacturing survey comes from the national manufacturing census and the 2002 Investment Climate Survey (ICS). The sampling frame for the service survey comes from national and municipal registries of service enterprises. The sampling frame for the informal survey was constructed by directly enumerating small-scale activities in key urban clusters of informal activities, such as the giant market of Addis Ababa

The manufacturing and services surveys concentrate on firms with at least 5 permanent employees. In practice, however a number of smaller firms (4% of the manufacturing sample and 12% of the service sample) are included in the sample. The bulk of surveyed firms are made of firms with 5 to 50 permanent employees (62% of the manufacturing survey, 74% of the service survey). Firms with 50 to 250 employees account for 21% of the manufacturing and service samples. Firms with more than 250 employees represent 14% of the manufacturing sample – but only 2% of the service sample. The size composition of both samples is typical of the manufacturing sectors in sub-Saharan African countries, with very few large firms and many small firms.

In terms of composition, the manufacturing survey focuses primarily on four sectors: food and beverages (121 firms); textile and garment (114 firms); furniture, wood and metal (94 firms); and leather and leather products (19 firms). The remaining 22 firms straddle a variety of other manufacturing sectors. The composition of the sample by and large reflects the nature of the manufacturing sector which, in Ethiopia, is concentrated in light manufactures (see Table 1). In terms of number of establishments, the manufacturing survey under-represents the food sector which is dominated by a large number of bakeries. But it over-represents the textile and garment sector which, in terms of employment, is the largest manufacturing employer in the country (see Table 2). The vast majority of the remaining firms come from the 2002 ICS sample which account for 58% of the total sample. ICS firms are slightly older than the actual population of firms in those

sectors which includes firms that have entered since 2002. This is partly compensated by the fact that young textile and garment firms were over-sampled. All in all, the manufacturing survey sample provides a reasonable base from which to study market institutions in Ethiopian manufacturing, even if it is not strictly representative of the current firm population.

In terms of regional composition, all three surveys focus on 14 towns and cities located in 7 regions. The capital city of Addis Ababa accounts for the bulk of the data, with 48% of the surveyed manufacturing firms, 58% of the surveyed service enterprises, and 45% of microenterprises.

The service sample is dominated by retail and wholesale enterprises, which constitute 52% and 36% of the sample, respectively. This composition is consistent with the predominance of trading activities in the service sector. The microenterprise survey focuses on firms that are small in size, with 88% of them having at most 5 permanent employees. The sample is extremely diverse in terms of sectoral composition. It is dominated by small-scale manufacturing and repair activities, which account for 66% of the surveyed firms. The other covered activities are retail and services. Given the sampling strategy, itinerant traders and services activities that do not have a fixed location are omitted from the survey. This means that the microenterprise survey focuses on the more established informal sector.

All three surveys are dominated by private firms. Publicly owned firms account for 11% of the manufacturing sample and 2% of the service sample. There are four public-private joint ventures in the manufacturing sample, all with foreign owners. Eight of the surveyed firms (5 manufacturing and 3 services) are endowment firms owned by political parties. The rest are divided between limited liability companies (34% in manufacturing, 53% in services, 7% in microenterprises) and unlimited liability enterprises (52% in manufacturing, 43% in services, and 93% in microenterprises).

Appendix B 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 Ethiopia Enterprise Surveys of 2002 and 2006. A good deal of it also relates to effects that could only be identified from cross-country variation in performance and business environment. This is the part of the evidence that we have summed up in Table 3 and Table 4 is drawn from analyses of the cross country World Bank Enterprise Dataset (PICS). The cross-country PICS dataset is also the basis for Figures 1 to 11 and the Kernel density estimates of sales per worker reported in Chapter 2. 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 well represented in Ethiopia and other low income and Sub Saharan African economies.

The cross-country PICS dataset includes data from 166 surveys conducted in 97 countries sometime between 1999 and 2006. The list of countries covered is given in Appendix Table B.1. In parts of the analysis we have used income groups of countries as comparators in describing economic performance and business environment in Ethiopia. We list countries of each group in Appendix Table B.2. All monetary figures from the dataset that we report and have used in regression analyses are in 2000 US dollars, which we have converted from local currencies using official exchange rates and GDP deflators.

Appendix Table B.1: List 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 and 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

Appendix Table B.2: 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 and 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 and Montenegro	
	Tajikistan	Sri Lanka	
	Tanzania	Swaziland	
	Uganda	Syrian Arab Republic	
	Uzbekistan	Thailand	
	Vietnam	Ukraine	
	Zambia		

Appendix C: GMM Estimation of Dynamic Growth, Fixed Investment and Productivity Equations

Much of this chapter has drawn on results of GMM estimation of dynamic business growth, fixed investment, net job creation and productivity growth equations, all on the 2002 and 2006 waves of the World Bank's Ethiopia Enterprise Survey, which we describe in Appendix A. Between them the estimated equations portray the role of an array of institutional (or business environmental) factors in the growth of manufacturing productivity in Ethiopia over the period spanned by the surveys. The most direct and natural interpretation of the estimated business growth equation is that it is a microcosm of its aggregate counterpart at the industry level or economy wide. Likewise, the other three equations should be viewed as the micro analogues of the constituent elements of aggregate output growth, namely, fixed investment, employment growth, and aggregate productivity growth.

In addition, we have highlighted in the chapter a direct link between business growth rates (or investment/ hiring rates at the enterprise level) and aggregate productivity growth (as distinct from aggregate output growth). The hallmark of this relatively new outlook is that, over and above their influence on the pace of output growth, institutional variables can directly influence the growth of aggregate productivity in an industry via one of two transmission channels. One of the channels is the growth rate of within-enterprise productivity, which a variable could influence via its impact on innovation, learning or internal economies of scale at the establishment level. The dynamic productivity equation we have estimated describes this channel without, however, identifying any of the three proximate sources of within-enterprise productivity growth. The dynamic investment and employment equations capture between them the second transmission channel of the effect an institutional factor on aggregate productivity growth. This channel is the impact of the factor on intra industry allocative efficiency via its influences on enterprise level fixed investment and net job creation across the productivity spectrum.

We discuss the measurement of allocative efficiency and its accounting relationship to aggregate productivity growth in Appendix E. Here we limit ourselves to underscoring the close association of the concept with heterogeneity in business growth rates, that is, in fixed investment and net hiring rates at the enterprise level. The basic idea here is that aggregate productivity can increase as a result of allocative efficiency gains, that is, via the reallocation of market shares to more productive enterprises, even if the productivity of the average enterprise did not change. However, it has also to be noted that reallocation of market shares along the productivity spectrum is possible only if businesses invest and grow at differential rates. A necessary condition for an institutional variable to generate allocative efficiency gains or losses is therefore that it influences investment and hiring rates at the enterprise level. It is also necessary that these influences vary across the productivity as well as demographic profiles of the population of enterprises constituting the industry. This is because initial market shares measure initial business size, and also generally increase with business age (or experience), while both these variables can predict current productivity only imperfectly.

Estimation of the sales growth equation

Details of our estimates of the effects of problems of access to land and tax admin on business growth as reported in Table 5 of the chapter are given in the first column of Appendix Table C.1. The later table reports on our results of the estimation of alternative specifications of a sales growth equation based on the panel data structure that Goddard, Wilson and Blandon (2002) propose as a framework for testing Gibrat's law, that is, the proposition the expected growth rate of a firm is independent of its initial size. Let y_{it} log annual sales of business i in year t . A specification of the DGP y_{it} nesting Gibrat's law is $\Delta y_{it} = \alpha_i + \delta_t + (\beta - 1)y_{it-1} + u_{it}$; $u_{it} = \rho u_{it-1} + v_{it}$ where α_i and δ_t are firm effects and time effects respectively, v_{it} is a zero-mean, error term distributed

iid normal with variance σ_v^2 ; ρ is a persistence parameter, and β is a ‘convergence’ parameter governing the relationship between the size of a firm and its growth rate. Gibrat’s law implies $\beta = 1$, in which case all firms grow at a uniform mean rate, and the variance and concentration of the size distribution increases over time. If $\beta < 1$, on the other hand, firm size is mean-reverting, smaller firms growing faster, and the variance of the distribution tends to an equilibrium value. For the purpose of estimation we have used the following re-parameterization of the process:

$$\Delta y_{it} = \alpha_{it}^* + \delta_t^* + (\beta - 1)y_{it-1} + \rho \Delta y_{it-1} + v_{it} \quad (1)$$

where $\alpha_{it}^* = \alpha_i(1 - \rho)$, $\delta_t^* = \delta_t - \rho\delta_{t-1}$, $v_{it} = v_{it} + \rho(1 - \beta)y_{it-2}$ so that $v_{it} = v_{it}$ under the null $\beta = 1$.

We bring institutional factors into this picture by assuming that they account for some of the unobserved individual firm and time effects subsumed under $\alpha_{it}^* + \delta_t^*$. As a way of identifying the potential effect of access to finance on $\alpha_{it}^* + \delta_t^*$ we augment equation (1) by including among the right hand side variables the lagged value of the cash flow ratio defined as the ratio of gross profits after tax to the book value of fixed assets. The rationale for this is that financial variables are key elements of some structural business investment equation. If the same variables do indeed explain any part of the observed variation in investment rates, one would expect then to enter output growth equations significantly as well.

We seek to assess the effects of other institutional factors on $\alpha_{it}^* + \delta_t^*$ by appending indicators thereof to equation (1), the justification again being that a factor’s potential as an argument of investment functions because of its influences on the user cost of capital or on the uncertainty should translate as an effect on business growth. Nearly all of the institutional variables that we have so appended to equation (1) are dichotomous variables each of which indicates whether or not the head of the business rated thought of a particular factor as being a constraint to the growth of the business. The variables were constructed from responses to the both 2002 and 2006 waves of the Ethiopia Enterprise Survey which asked respondents to rate a list of factors as obstacles to growth on a scale of 0 to 4 such that 0=no obstacle, 1= minor obstacle, 2=moderate obstacle, 3=Major obstacle, and 4=very sever obstacle. For our purpose, we deemed a business to be constrained by a factor if its ratings were 2, 3 or 4. It would otherwise be unconstrained provided that it management did actually rate the factor. The dichotomous variables “Skill shortage”, “access to finance”, “access to land”, and “informal sector competition”, “problems of tax admin” and “macroeconomic instability” in Tables C.1 through to C.4 were obtained by translating respondent rating in this way. The variable being constrained by “infrastructure” indicates whether or not a business reported to be constrained in the same sense by problems of transport, power supply or telecommunication. The variable for being constrained by “Entry/trade regulation” is a similar composite of being constrained by permit requirement, licensing or customs and trade regulation. In two cases, we have supplemented these by these variables by indicators of specific bottlenecks. This is most obviously the case with being constrained by access to finance, which we have supplemented, not only with the cash flow ratio, but also with a dichotomous variable indicating whether or not the business has an active bank credit line. A large number of respondents did not supply all the information for the calculation cash flow. As a way of making use of this very informative variable for those who provided without losing the information given by other firms we have replaced the cash flow variable by the overall mean, but having added a control dummy for data missing the cash flow variable. Like wise we have supplemented being constrained by “infrastructure” by a proxy for power shortages, which is the percentage output lost to power shortages as estimated by management.

Equation (1) cannot be consistently estimated by ordinary least squares since the lagged dependent is correlated with unobserved idiosyncratic effects. One way of addressing this problem is to use the

first difference GMM estimator of Arellano and Bond (1991), which eliminates the unobserved firm effects by first differencing and using appropriately lagged values of all endogenous variables as instruments. As long as the error term of the levels specification is serially uncorrelated, this provides consistent estimates once the firm effects are removed. However, the difference GMM estimator generally performs poorly with sales growth data which show a high degree of persistence. Blundell and Bond (1998) show that when such persistence is high enough, the first difference GMM estimator could be biased in small samples since lagged values provide weak instruments in that case. We have consequently used instead the system GMM estimator that Blundell and Bond (1998) introduced as a solution to this problem, and which involves the use of lagged differences of endogenous variables as additional instruments over and above those of the difference estimator.

A major problem with the Ethiopia Enterprise Survey data that potentially reduces the advantages of the system GMM estimator is that we have only two observations on each institutional variable made in two three-year intervals over the six year period covered by the 2002 and 2006 waves of the survey. We have sought to mitigate this problem by assuming that the value of an institutional variable for an enterprise during a survey year is the best predictor of the true value of the same indicator for the preceding two year for which production data were collected as part of the same survey. This obviously introduces measurement error. It also means that the effective number of natural instruments that we have for the institutional variables is quite limited. We have sought to address this problem by using city averages of all institutional indicators as additional instruments and also by controlling for location fixed effects by including location as well as industry dummies as part of each specification dummies for cities and states of location alongside time dummies and the age of a business as additional instruments. The validity of location means as instruments obviously assumes that location decisions are strictly exogenous or predetermined. While this would be a questionable assumption for large businesses, we think that it is a reasonable one for predominantly small scale operators covered by our data.

The full set of our estimation results is given in Table C.1, using t-2 and earlier lags in level and growth rates of sales and the cash flow ratio and t-1 and earlier lags in first differences of the same as instruments in addition to the extra instruments listed above. All estimates are one step system GMM with robust standard errors. We also report in each column Hansen's overidentification test and the Arellano-Bond test for AR(1) and AR(2) in first differences of errors, labeled as 'm1' and m2 respectively. Both sets of diagnostics suggest that our parameter estimates are consistent across all four columns. The main thing to take from the point of view of the theme of the chapter is that problems of access to land and problems of tax admin exert a powerful adverse influence on business growth rate controlling for initial size, initial growth, business age, a range of other observed institutional variables, and unobserved heterogeneity.

Estimation of the capital stock growth equation

We would have liked to estimate the effects of business environment in the context of a structural fixed investment equation. Unfortunately the number of observations on investment that we could recover from both of waves of the Ethiopia Enterprise Survey turned out to be too small. A reasonable number of respondents supplied data on fixed assets across the two waves, however. In order to take advantage of this information to shed light on our questions we estimated the error correction of specification of fixed assets growth that Bond et al. (2003) use as the basis for the reduced form investment equation that they estimate. The specification assumes profit maximizing production under a constant returns CES technology of elasticity of substitution parameter σ . Let y_{it} , be the log of annual sales as before, and k_{it} the log of the capital stock that the firm would like to maintain in the long run, that is, the firm's desired capital stock. Then $k_{it} = \delta_i + y_{it} - \alpha J_{it}$,

where J_{it} is the user cost of capital and δ_i is a firm specific parameter of production technology or product demand. The desired capital stock increases in current output but decreases in the user cost of capital and the elasticity of substitution of labor for capital, σ , and in the user cost of capital and, through it, in the cost of borrowing, the relative price of capital goods and the rate of depreciation. Because of the presence of adjustment costs the firm rarely attains the desired capital stock. The observed capital stock sometimes overshoots and sometime falls below the desired level. To arrive at an estimable error correction specification of the investment function Bond et al. (2003) assume that the observed capital stock is a fixed proportion of the desired stock. They also assume the observed capital stock follows a second order autoregressive distributed lag model so that

$k_{it} = \alpha_1 k_{it-1} + \alpha_2 k_{it-2} + b_0 y_{it} + b_1 y_{it-1} + b_2 y_{it-2} + \omega_{it}$, where ω_{it} is an error term incorporating the user cost term αJ_{it} and in δ_i . Taking the first difference and imposing the restriction that long run elasticity of capital with respect of output is unity leads to the error correction capital stock growth equation

$$\Delta k_{it} = \lambda_1 \Delta k_{it-1} + \lambda_2 \Delta y_{it} + \lambda_3 \Delta y_{it-1} - \lambda_4 (k_{it-2} - y_{it-2}) + c_t + u_i + \varepsilon_{it} \dots \quad (2)$$

where $\lambda_1 = \alpha_1 - 1$, $\lambda_2 = b_0$, $\lambda_3 = b_0 + b_1$, $\lambda_4 = 1 - \alpha_1 - \alpha_2$, and $c_t + u_i$ sums terms in δ_i and αJ_{it} and lags thereof, and ε_{it} is a zero mean error term orthogonal to all other right hand side variables.⁶⁴ The restriction of the unitary elasticity of capital stock with respect of output implies that $\lambda_4 > 0$ so that the coefficient of the error correction term $(k_{it-2} - y_{it-2})$ is negative, meaning that there would be positive investment whenever capital stock falls short of the desired level while excess capital stock would prompt the firm to sell off assets.

Equation (2) is what we estimate in lieu of a standard business investment equation. We have incorporated into it the same institutional variables that we have inserted in the sales growth equation (1), and on the same rationale. Equation (2) also poses the same identification problems as the sales growth equation and for the same reasons. Like the sales growth equation it cannot be estimated consistently by least squares because of the presence of a lagged dependent variable, a problem that cannot be solved by the difference GMM estimator when the fixed assets series is highly persistent. We have therefore estimated using one step system GMM. The full set of results is reported in Table C.2, where all variables are as defined in connection with Table C.1, and all columns include city and industry dummies. The basic instruments here are appropriate lags of growth rates of fixed assets, sales, and cash flow and first differences thereof and additional instruments include lags of institutional variables and city means of current values of the same variables.

Again the diagnostic tests suggest that our estimates are consistent across the four columns of Table C.2. The main thing to take from the table is already summed up in Table 5 of the chapter, which is that shortages of land for business premises are a major deterrent of business fixed investment, for which competition from the informal sector is apparently a spur rather than a deterrent.

Estimation of the employment growth equation

In Table C.3 we report one-step system GMM estimates of a dynamic employment growth (or net job creation) equation. One way of motivating the specification is to think of it as a business growth equation in the very same sense that equation (1) is one. That would provide the rationale for the inclusion of initial employment and initial employment growth as basic controls and of institutional constraints as the explanatory variables of primary interest. At the same time, it is clear from Table C.3 it is clear that we are estimating something more than a business growth equation. Because we

⁶⁴ The unitary elasticity restriction used in obtaining (2) is $(b_0 + b_1 + b_2)/(1 - \alpha_1 - \alpha_2) = 1$.

are controlling for initial employment growth as well as initial sales growth what we are capturing the effect of an institutional variable on net job creation given the growth rate of output, that is we are estimating in effect a reduced form dynamic conditional labor demand equation.

The variables we have included in Table C.3 are otherwise as defined in connection with Table C.1. The identification problems that arise from the estimating the employment growth equation are also identical to those posed by equation (1) and are addressed in the same way as before.

The basic instruments used in Table C.3 are appropriate lags of the growth rates of sales and employment, lags of the levels of employment and the cash flow ratio, and appropriate lags of first differences of all the above. Additional instruments are lags of institutional indicators and city means of current values of the same. As before, we include city and location dummies through out. The diagnostic tests suggest that our estimates are consistent across all columns. Again the main thing to take from the table is as summed up in Table 5 of the chapter. This includes that, controlling for the overall business growth rate, the net job creation rate is lower in businesses constrained by access to finance. It is also lower in businesses subject to land shortages as it is in those facing skill shortages. We also see from the table that job creation rates are lower in businesses complaining of competition from the informal sector. Since the rate of fixed investment is higher for those same businesses as read from Table C.2, this suggests that greater competition from the informal sector might be inducing more capital intensive business growth.

Estimation of a dynamic within-enterprise productivity growth equation

We have already noted that in spite of our emphasis on allocative efficiency gains as a source of aggregate productivity growth, both in the main chapter and in this appendix, such gains are only one of a pair, the other being the within-establishment productivity growth. Also as noted the latter are the immediate outcomes of innovation, learning and internal economies of scale at the level of the individual enterprise, all of which, in turn, could depend of the very same institutional factors that effect allocative efficiency gains via business investment and job creation rates. While we have no reliable data on innovation or learning activities, we can nonetheless relate some of the institutional variables we have used in estimating growth and investment equations of Tables C.1 to C.3, directly to enterprise productivity. This we do in Table C.4, where we estimate a first order autoregressive TFP equation augmented by the institutional regressors used in the growth equations. Part of the attraction of the autoregressive framework is that it enables us to analyze the determination of the level and growth rate of TFP all in one go as in Nickel (1996), by interact initial values of regressors with a continuous time variable. a_{it} be the log of enterprise TFP at time t , let Z_{it} the vector of our institutional indicators of which Z_{i0} is the vector of the initial values. The productivity equation we have estimated in Table C.4 is of the form

$$a_{it} = b a_{it-1} + \Gamma' Z_{it} + t * \Gamma_0' Z_{i0} + \omega_i + \omega_t + \mu_{it} \quad (3)$$

where b , Γ , and Γ_0 are constants, ω_i and ω_t are individual firm effects and firm effects and μ_{it} is zero mean and serially uncorrelated error term orthogonal to business environment indicators. Included in Z_{it} and Z_{i0} are measures of the business's market share and its initial value respectively, along with the institutional variables used in Tables C.1 through to C.3.

For the purpose of estimating equation (3) our observation of a_{it} are calculated based on consistent estimates of input elasticity coefficients again obtained from an industry by industry by system GMM estimation of a Cobb-Douglas production technology a la Blundell and Bond (2000). For each industry we have assumed that technology is given by $Y_{it} = A_{it} M_{it}^{\alpha_m} W_{it}^{\alpha_w} K_{it}^{\alpha_k}$, where Y_{it} is annual sales, A_{it} is TFP, M_{it} is intermediate inputs including materials and energy, W_{it} the annual wage bill

and K_{it} is the book value of machinery and equipment. We also assume that total factor productivity is composed a time effect a_t , a time invariant enterprise effect a_i , and error term u_{it} such that $a_{it} \equiv \ln A_{it} = a_t + a_i + u_{it}$. Finally we assume that the u_{it} itself is an AR(1) productivity shock such that $u_{it} = \rho u_{it-1} + v_{it}$, where v_{it} is also a zero-mean, constant variance, serially uncorrelated error term. Expressing inputs in per worker terms, and using lower case letters to denote log per capita transformations of inputs, a dynamic representation of the technology incorporating these assumptions is

$$\bar{y}_{it} = \rho \bar{y}_{it-1} + \alpha_m \bar{m}_{it} - \rho \alpha_m \bar{m}_{it-1} + \alpha^* n_{it} - \rho \alpha^* n_{it-1} + \alpha_w \bar{w}_{it} - \rho \alpha_w \bar{w}_{it-1} + \alpha_k \bar{k}_{it} - \rho \alpha_k \bar{k}_{it-1} + a_t^* + a_i^* + v_{it} \quad (4)$$

where $a_t^* = a_t - \rho a_{t-1}$; $a_i^* = a_i(1 - \rho)$; and $\alpha^* = 1 - \alpha_m - \alpha_w - \alpha_k$.

Equation (4) shows that in the presence of autoregressive productivity shocks, input elasticity parameters would not be consistently estimated by OLS regression of log output on log inputs. Least squares biases would further be compounded by the likely correlation of inputs with a_i . To address both problems we estimate parameters of (4) by system GMM as the basis for our calculation of a_{it} .

Going back to the equation (3), we note that it poses the same identification problems as the growth equations of Tables C.1 through to C.3, which we again address by using the system GMM estimator. The basic instruments now include appropriate lags of a_{it} and market share and of appropriate lags of first difference thereof. As before additional instruments include lags of institutional variables and city means of their current values. Here also we include location and industry dummies through out.

Here too all the diagnostic tests suggest consistent estimation across all columns of the table. A key result reported shown in the table and also reported and stressed in the main text is that while productivity higher in levels where market share is larger, the growth rate of TFP decreases with market share- a result also reported in the broader empirical literature. The positive association between market share and the level of TFP is consistent with the allocative efficiency notion that we have used so much in the main text. It is also consistent with the level of TFP in fact being higher in enterprises complaining of too much competition from the informal sector. The latter is one of the main findings of Table C.4 summed up in Table 5 of the main text, the others being that problems of access to land and skill shortages are both significant drags on the growth rate of within-enterprise productivity, while productivity is lower in businesses constrained by problems of access to finance.

Table C.1. Dynamic business growth equation: GMM-sys one-step estimates

	(1)	(2)	(3)	(4)
(Log sales) _{t-1}	-0.139 (3.09)**	-0.127 (3.19)**	-0.138 (2.83)**	-0.169 (3.40)**
Log(age _{t-1})	-0.177 (1.07)	-0.168 (1.00)	-0.206 (1.20)	-0.120 (0.64)
[Log (age _{t-1})] ²	0.033 (0.82)	0.031 (0.74)	0.042 (1.01)	0.022 (0.48)
(Sales growth rate) _{t-1}	-0.051 (1.39)	-0.051 (1.36)	-0.054 (1.47)	-0.050 (1.15)
(Cash flow ratio) _{t-1}	-0.035 (0.31)	-0.003 (0.03)		0.002 (0.01)
Has no cash flow data	0.174 (1.10)	0.183 (1.17)		0.189 (1.05)
Has bank credit line	0.932 (0.85)	1.053 (1.00)	0.878 (0.77)	-0.167 (0.14)
Output lost to power outages (%)				-0.015 (0.48)
<u>Constrained by:</u> infrastructure	0.077 (0.34)	0.105 (0.44)	0.081 (0.34)	
Skill shortages	-0.080 (0.33)	-0.075 (0.31)	-0.122 (0.48)	-0.086 (0.35)
Access to finance	0.064 (0.24)	0.081 (0.29)	0.053 (0.17)	-0.148 (0.47)
Access to land	-0.431 (2.38)*	-0.476 (2.61)**	-0.390 (2.04)*	-0.482 (1.66)
Informal sector competition	-0.043 (0.20)	-0.074 (0.39)	-0.051 (0.21)	0.018 (0.08)
Entry/trade regulation	0.106 (0.44)	0.094 (0.43)	0.201 (0.79)	
Problems of tax admin	-0.521 (2.11)*	-0.541 (2.30)*	-0.650 (2.30)*	-0.408 (1.92)
Macroeconomic instability	-0.110 (0.52)	-0.080 (0.39)	-0.181 (0.75)	0.017 (0.06)
Constant	1.341 (2.56)*	1.266 (2.46)*	1.533 (2.71)**	2.068 (3.30)**
Year dummies	Yes	Yes	Yes	Yes
Industry dummies	Yes	Yes	Yes	Yes
city dummies	Yes	Yes	Yes	Yes
Observations	804	804	804	727
Enterprises	436	436	436	409
Overidentification test:				
Chi-square	100.8	97.4	93.7	87.6
P-value	0.67	0.76	0.58	0.26
AR in first dif.error (z-stat): m1	-4.43	-4.39	-4.59	-4.05
m2	-0.92	-0.87	-1.13	-1.23

Dependent variable: annual growth rate of sales. Data: Ethiopia WBES 2002 and 2006. Robust z-statistics in parentheses

* significant at 5%; ** significant at 1%. Excluded instruments: lags (t-2 onwards) of growth rate of sales, sales and cash flow ratio; one step lagged first differences of the same; third lag of business constraint indicators; and city means of business constraint indicators. Assumed exogenous regressors: year, industry, and city of location.

Table C.2 Error correction model of capital stock growth: GMM-sys one-step estimates

	(1)	(2)	(3)	(4)
(Fixed assets growth rate) _{t-1}	-0.001 (0.01)	0.023 (0.36)	0.003 (0.04)	-0.012 (0.15)
(Sales growth rate) _t	0.332 (2.90)**	0.079 (0.63)	0.173 (1.56)	0.161 (1.45)
(Sales growth rate) _{t-1}	0.054 (0.86)	0.041 (0.70)	0.034 (0.49)	0.042 (0.59)
Log(Fixed assets/Sales) _{t-1}	-0.402 (5.09)**	-0.210 (2.50)*	-0.303 (3.83)**	-0.295 (3.64)**
Log (Age _{t-1})	0.052 (0.25)	0.336 (1.90)	0.127 (0.54)	0.122 (0.52)
[Log (Age _{t-1})] ²	-0.029 (0.60)	-0.087 (2.07)*	-0.054 (0.96)	-0.052 (0.92)
(Cash flow Ratio) _{t-1}	-0.266 (1.68)	-0.346 (1.46)		
No cash flow data	-0.684 (3.02)**			
Output lost to power outages (%)	-0.007 (0.37)	0.006 (0.27)	-0.005 (0.19)	-0.010 (0.46)
<u>Constrained by</u> : infrastructure				0.330 (1.00)
Skill shortages	-0.173 (0.58)	0.109 (0.50)	-0.082 (0.25)	-0.130 (0.38)
Access to finance			-0.056 (0.16)	
Access to land	-0.408 (1.70)	-0.595 (1.94)	-0.538 (1.75)	-0.593 (1.86)
Informal sector competition	0.690 (2.26)*	-0.049 (0.24)	0.965 (2.61)**	0.949 (2.44)*
Entry/trade regulation	-0.211 (0.77)	-0.136 (0.78)	-0.339 (1.08)	-0.395 (1.16)
Problems of tax admin	-0.237 (0.82)	-0.234 (1.06)	-0.131 (0.37)	-0.174 (0.47)
Macroeconomic stability	0.042 (0.14)	-0.091 (0.49)	-0.199 (0.51)	-0.162 (0.41)
Constant	0.281 (0.67)	-0.056 (0.14)	-0.374 (0.63)	-0.070 (0.14)
Observations	538	340	538	538
Enterprises	303	210	303	303
Overid test: Chi-square	75.2	51.9	64.5	68.5
P-value	0.50	0.96	0.46	0.33
AR in first dif.error (z-stat): m1	-3.73	-3.55	-3.72	-3.76
m2	0.55	-0.47	1.20	0.79

Dependent variable: annual growth rate of book value of machinery and equipment. Data: Ethiopia WBES 2002 and 2006.

* significant at 5%; ** significant at 1%. Robust standard errors in parentheses. Excluded instruments: lags of sales, growth rates of capital stock and sales and cash flow ratio at t-2 onwards; one step lagged first differences all the above; third lag of business constraint indicators, and city means of business constraint indicators. Exogenous regressors: year, industry, and city of location. All specifications include year, industry and city dummies as regressors.

Table C.3 Dynamic enterprise level employment growth equation: GMM-sys one-step estimates

	(1)	(2)	(3)	(4)
Log(Number of employees) _{t-1}	-0.160 (2.97)**	-0.188 (3.25)**	-0.220 (3.11)**	-0.206 (3.24)**
(Employment growth) _{t-1}	0.016 (0.58)	0.028 (0.89)	0.021 (0.56)	0.035 (0.98)
(Cash flow ratio) _{t-1}	-0.074 (0.81)	-0.102 (1.07)		
(Sales growth rate) _{t-1}	-0.002 (0.04)	0.015 (0.24)	-0.004 (0.06)	-0.002 (0.02)
No cash flow data	-0.087 (0.78)	-0.102 (0.90)	-0.079 (0.60)	-0.075 (0.57)
Has bank credit line	0.438 (0.69)	0.873 (1.24)	1.219 (1.46)	1.377 (1.82)
Constrained by:				
Infrastructure	-0.115 (0.61)	-0.233 (1.06)	-0.253 (0.99)	-0.221 (0.90)
Skill shortages	0.254 (1.29)	0.258 (1.23)	0.246 (0.87)	0.337 (1.18)
Access to finance		-0.394 (2.26)*	-0.474 (2.08)*	-0.444 (2.15)*
Access to land	-0.353 (1.83)	-0.352 (1.72)	-0.483 (1.88)	-0.414 (1.76)
Informal sector competition	-0.157 (0.94)	-0.139 (0.79)	-0.225 (1.11)	-0.317 (1.70)
Entry/trade regulation	-0.020 (0.13)	0.044 (0.28)	-0.132 (0.65)	-0.056 (0.32)
Problems of tax admin	-0.205 (1.38)	-0.216 (1.25)	-0.316 (1.38)	-0.323 (1.57)
Macroeconomic instability	-0.284 (1.70)	-0.209 (1.06)	-0.206 (0.80)	-0.156 (0.64)
Constant	1.591 (4.07)**	1.558 (3.57)**	1.787 (3.18)**	1.507 (3.55)**
Observations	831	831	831	831
Enterprises	456	456	456	456
Overidentification test:				
Chi-square	91.2	89.4	83.11	83.0
P-value	0.56	0.56	0.41	0.42
AR in first dif.error (z-stat)				
m ₁	-4.89	-4.54	-4.09	-4.25
m ₂	0.11	0.08	0.38	0.48

Dependent variable: annual growth rate of employment. Data: Ethiopia WBES 2002 and 2006.

Robust z-stats in parentheses. * significant at 5%; ** significant at 1%. Excluded instruments: lags of growth rates, sales, employment and cash flow at t-2 onwards; one step lagged first differences of the same; third lag of business constraint indicators; city means of business constraint indicators. Assumed exogenous regressors: year, industry, and city of location. All specifications include year, industry and city dummies as regressors.

Table C.4 Autoregressive TFP equation: GMM -sys one step estimate

	(1)	(2)	(3)	(4)	(5)
Log(TFP) _{t-1}	0.467 (5.09)**	0.523 (7.07)**	0.545 (7.71)**	0.480 (4.58)**	0.472 (4.52)**
Log (Age _{t-1})	-0.101 (0.81)	-0.068 (0.49)	-0.102 (0.71)	-0.172 (1.33)	-0.159 (1.27)
[Log (Age _{t-1})] ²	0.012 (0.44)	0.011 (0.35)	0.026 (0.86)	0.034 (1.13)	0.034 (1.06)
Market share	0.378 (3.84)**	0.391 (4.37)**	0.392 (5.11)**	0.396 (2.98)**	0.411 (3.27)**
Time interaction of initial market share	-0.050 (2.65)**	-0.053 (3.19)**	-0.065 (3.76)**	-0.049 (1.81)	-0.057 (2.23)*
<u>Constrained by:</u>					
Infrastructure	0.110 (0.97)	0.121 (1.04)	0.122 (1.03)	0.067 (0.36)	0.143 (0.78)
Skill shortages	-0.084 (0.70)	-0.145 (1.24)	-0.196 (1.73)	-0.273 (1.10)	-0.191 (0.75)
Access to finance	-0.275 (2.31)*	-0.211 (1.65)	-0.059 (0.45)	-0.164 (0.77)	-0.090 (0.38)
Access to land	-0.074 (0.43)	0.014 (0.08)	-0.015 (0.10)	-0.049 (0.27)	-0.077 (0.42)
Informal sector competition	0.236 (1.68)	0.231 (1.80)		0.167 (0.81)	0.211 (0.96)
Entry/trade regulation			0.065 (0.54)		-0.020 (0.11)
Problems of tax admin		0.131 (1.23)	0.033 (0.31)		
Macroeconomic instability		0.137 (1.09)	0.181 (1.39)		
<u>Time interaction of initially being constrained by:</u>					
Infrastructure		0.036 (0.80)	0.025 (0.57)	-0.057 (0.81)	-0.076 (0.85)
Skill shortages	-0.075 (1.81)	-0.081 (1.92)	-0.073 (1.73)	0.050 (0.57)	0.033 (0.44)
Access to finance		0.045 (0.92)	0.038 (0.96)		
Access to land	-0.057 (1.49)	-0.071 (1.81)	-0.064 (1.94)	-0.108 (1.69)	-0.131 (1.73)
Informal sector competition	0.045 (0.96)	0.040 (1.03)		0.002 (0.03)	-0.020 (0.22)
Entry/trade regulation			0.076 (1.40)		0.059 (0.75)
Problems of tax admin	-0.038 (0.90)	-0.012 (0.24)	-0.027 (0.57)	-0.135 (1.90)	-0.140 (2.11)*
Macroeconomic instability	0.008 (0.22)	-0.020 (0.46)	-0.013 (0.28)		

Cont'd

Table C.4 cont'd.	(1)	(2)	(3)	(4)	(5)
Observations	483	452	452	454	454
Enterprises	185	170	170	183	183
Overidentification test: Chi-square	78.7	81.2	79.6	50.7	48.5
P-value	0.36	0.27	0.20	0.77	0.78
AR in first dif.error (z-stat): m1	-3.68	-3.90	-3.87	-2.53	-2.33
m2	-1.12	-0.91	-0.93	0.34	0.31

Dependent variable: Log of estimates of revenue based TFP. Data: Ethiopia WBES 2002 and 2006.

Robust z-stats in parentheses. * significant at 5%; ** significant at 1%. Excluded instruments: lags of log TFP and market share at t-2 onwards; one step lagged first differences of the same; third lag of business constraint indicators; city means of business constraint indicators. Assumed exogenous regressors: year, industry, and city of location. All specifications include year, industry and city dummies as regressors.

Appendix D: Hausman-Taylor Estimates of Random Effects Specifications of Productivity and Growth

Table 3 of the chapter sums up results details of which are provided in Tables D.1, D.2, D.3 and D.4. In Table D.4. we report Hausman-Taylor estimates a random effects specification of enterprise TFP as a function of institutional indicators and business characteristics. The institutional variables are each defined as an indicator of whether the enterprise is constrained by a particular element of the business environment. Normally we should expect these variables to be endogenous to productivity as well as to enterprise growth. In the absence of any natural instruments in our data, we make the identifying assumption that the proportion of businesses that are constrained by a particular institutional factor is exogenous to the productivity and growth performance of any enterprise. The business characteristics that we use as controls in relating these to enterprise productivity or to growth initial business size, market share, and business age.

These too are typically endogenous. However, in the PICS dataset, we mostly observe each of them over time for up to three time period for each enterprise along with productivity and growth. We take advantage of these to instrument business characteristics by their within group means and by institutional indicators in a Hausman-Taylor estimation framework.

In Table D.1 we use the same framework to estimate an enterprise level TFP equation, where the left hand side variable is log TFP, itself computed from the data using industry by industry Levinsohn-Petin estimates of factor shares of three-factor Cobb-Douglas production technology. In Table D.2 we estimate a static sales growth equation. Tables D.3 and D.4 are report estimates of fixed assets growth and employment growth equations. If our identifying assumptions are correct, then the key result to take from Table D.1 is that access to finance, skill shortages and infrastructure explain a significant part of the cross-country variation in enterprise productivity in the PICS dataset. The main result in Table D.2 is that differences in access to finance and labor regulation explain a significant proportion of the cross-country variation in business growth rates. Table D.3 suggests this in part is stems from the role of the two variables in fixed investment. Table D.4 suggests that cross country differences in entry regulation are a factor in differences in net job creation rates.

Table D.1 Hausman-Taylor Estimates TFP Equation

	(1)	(2)	(3)	(4)	(5)	(6)
Business age	-0.046*	-0.047*	-0.048*	-0.048*	-0.045*	-0.048*
	(-2.947)	(-3.017)	(-2.873)	(-2.899)	(-2.956)	(-3.074)
Age Squared	-0.000	-0.000	-0.000	-0.000	-0.000	-0.000
	(-1.053)	(-1.032)	(-1.110)	(-1.115)	(-1.044)	(-0.867)
Market Share	3.265*	3.269*	3.255*	3.256*	3.270*	3.254*
	(8.955)	(8.981)	(8.847)	(8.844)	(9.064)	(9.263)
Log Tot. Employment	0.036***	0.036***	0.036***	0.036***	0.036***	0.036**
	(1.884)	(1.904)	(1.869)	(1.877)	(1.928)	(1.977)
proportion running generator	-0.196	-0.191	-1.040*	-1.044*	-0.171	-1.077*
	(-1.367)	(-1.323)	(-9.238)	(-9.314)	(-1.174)	(-11.665)
<u>Proportion constrained by:</u>						
access to land	-0.109	-0.092	-0.248	-0.230	-0.081	-0.155
	(-0.742)	(-0.621)	(-1.501)	(-1.368)	(-0.547)	(-1.041)
problems of tax admin	0.046	0.050			0.070	
	(0.341)	(0.365)			(0.505)	
entry/trade regulation	-0.002	0.012			-0.030	
	(-0.012)	(0.064)			(-0.166)	
labor regulation			0.099	0.074		
			(0.451)	(0.358)		
permit requirements			0.097	0.111		
			(0.335)	(0.396)		
skill shortage	-0.060	-0.063	-0.322**	-0.336**	-0.051	-0.264***
	(-0.404)	(-0.425)	(-2.220)	(-2.314)	(-0.349)	(-1.688)
access to finance	-0.391**	-0.384**	-0.491*	-0.487*	-0.417*	-0.498*
	(-2.387)	(-2.402)	(-3.283)	(-3.398)	(-2.595)	(-3.134)
competition from informal sector		0.093		0.175	0.099	0.120
		(0.775)		(1.364)	(0.820)	(1.060)
Corruption	0.103		0.091			
	(0.654)		(0.514)			
Constant	-1.400	-1.488	0.779	0.694	-1.283	3.092*
	(-0.551)	(-0.584)	(0.309)	(0.274)	(-0.510)	(5.237)
instituion*Ethiopia interactions	No	No	No	No	Yes	Yes
Industry Dummies	Yes	Yes	No	No	Yes	No
Location Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	21891	21891	21891	21891	21891	21893
Number of groups	11509	11509	11509	11509	11509	11510
Rho	0.872	0.872	0.878	0.878	0.872	0.878

Note: .01 - ***; .05 - **; .1 - *; Dependent variable is log TFP. Endogenous regressors: business age, age squared, market share, and total employment. Z-statistics in parentheses.

Data: World Bank Enterprise Surveys cross country set, but sample confined to textiles, leather, garments, food, beverages, electronics, food, wood and furniture

Table D.2: Hausman-Taylor Estimates a Random-Effects Model of Sales Growth

	(1)	(2)	(3)	(4)
(Log sales) _{t-1}	0.070** (1.999)	0.070** (1.999)	0.070** (1.999)	0.070** (1.999)
Business age	0.692** (2.188)	0.691** (2.207)	0.695** (2.226)	0.693** (2.238)
Age Squared	-0.009* (-16.157)	-0.009* (-16.163)	-0.009* (-16.156)	-0.009* (-16.160)
Market Share	6.552* (11.276)	6.552* (11.281)	6.552* (11.276)	6.552* (11.278)
output lost to outages (city mean)	0.286 (1.096)	0.298 (1.059)	0.318 (1.133)	0.314 (1.045)
<u>Proportion constrained by:</u>				
access to land	3.361 (0.685)	2.289 (0.477)	2.606 (0.523)	1.898 (0.396)
problems of tax admin	1.551 (0.364)	1.343 (0.320)	1.810 (0.417)	1.641 (0.382)
labor regulation	-12.296** (-2.199)	-10.459*** (-1.910)	-12.554** (-2.233)	-10.595*** (-1.916)
skill shortage	-4.465 (-0.994)	-4.363 (-0.940)	-4.146 (-0.909)	-4.216 (-0.893)
access to finance	-7.088*** (-1.669)	-7.659*** (-1.817)	-7.160 (-1.608)	-7.834*** (-1.757)
competition from informal sector	4.930 (1.258)	4.950 (1.265)	5.138 (1.290)	4.902 (1.239)
Constant	-3.603 (-0.542)	-7.509 (-0.489)	-8.005 (-0.521)	-7.408 (-0.492)
Institution*Ethiopia interactions	No	No	Yes	Yes
Industry Dummies	Yes	No	Yes	No
Location Dummies	Yes	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes	Yes
Time Dummies	Yes	Yes	Yes	Yes
Number of observations	15114	15114	15114	15114
Number of groups	9321	9321	9321	9321
Rho	0.953	0.953	0.953	0.953

Note: .01 - ***; .05 - **; .1 - *. Dependent variable is growth rate of sales.

Z-values in parentheses. Endogenous regressors: Log sales, market share, business age, age squared

Data: World Bank Enterprise Surveys cross country set, but sample confined to textiles, leather, garments, food, beverages, electronics, food, wood and furniture

Table D.3. Hausman-Taylor Estimates of a Random Effects Model of Fixed Assets Growth

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
(Log fixed assets) _{t-1}	0.145** (2.172)	0.145** (2.171)	0.145** (2.181)	0.175* (2.686)	0.174* (2.683)	0.175* (2.690)	0.174* (2.686)
Business age	0.594* (5.451)	0.594* (5.458)	0.605* (5.812)	0.516** (2.551)	0.548* (3.017)	0.522** (2.550)	0.548* (2.949)
Age Squared	-0.009* (-8.177)	-0.009* (-8.178)	-0.009* (-8.214)	-0.009* (-9.743)	-0.009* (-9.796)	-0.009* (-9.749)	-0.009* (-9.792)
Market Share	2.779* (2.907)	2.779* (2.908)	2.777* (2.921)	2.107*** (1.823)	2.107*** (1.835)	2.108*** (1.826)	2.108*** (1.835)
Proportion constrained by:							
infrastructure	-0.495 (-0.203)	-0.517 (-0.215)	0.312 (0.140)	3.895 (0.812)	4.951 (1.068)	4.069 (0.838)	5.107 (1.087)
access to land	-2.726 (-0.866)	-2.719 (-0.864)	-2.490 (-0.812)	4.093 (0.850)	3.285 (0.703)	3.057 (0.600)	2.767 (0.559)
problems of tax admin	-1.242 (-0.471)	-1.244 (-0.472)	-0.976 (-0.382)	1.823 (0.388)	1.479 (0.318)	2.163 (0.449)	1.926 (0.403)
labor regulation	-0.374 (-0.125)	-0.381 (-0.127)	-0.242 (-0.084)	-8.251 (-1.426)	-7.450 (-1.339)	-8.447 (-1.455)	-7.639 (-1.367)
skill shortage	-5.855** (-2.183)	-5.858** (-2.185)	-6.179** (-2.359)	-3.415 (-0.709)	-4.415 (-0.936)	-2.787 (-0.569)	-4.237 (-0.881)
permit requirements	0.607 (0.185)	0.651 (0.203)	1.574 (0.504)	-15.672** (-2.507)	-14.900** (-2.420)	-16.556* (-2.604)	-15.368** (-2.464)
regulation of trade	2.219 (0.832)	2.246 (0.860)	1.202 (0.535)				
macroeconomic instability	1.570 (0.620)	1.573 (0.621)	1.345 (0.547)				
access to finance	-2.040 (-0.892)	-2.036 (-0.891)	-2.420 (-1.080)	-5.995 (-1.337)	-6.383 (-1.456)	-5.712 (-1.232)	-6.378 (-1.408)
competition from informal sector	1.418 (0.564)	1.449 (0.588)	1.164 (0.484)	4.494 (1.054)	4.725 (1.127)	4.912 (1.134)	4.766 (1.115)
corruption	0.174 (0.060)						
Constant		-1.243 (-0.275)	-1.335 (-0.343)	1.191 (0.147)	0.665 (0.086)	0.829 (0.102)	0.646 (0.083)
Institutions*Ethiopia interaction						Yes (-0.181)	Yes (-0.118)
Industry Dummies	Yes	Yes	No	Yes	No	Yes	No
Location Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	3143	3143	3143	13507	13507	13507	13507
Number of groups	2010	2010	2010	8486	8486	8486	8486
Rho	0.991	0.991	0.991	0.998	0.998	0.998	0.998

Dependent variable: growth rate of fixed assets. Z-values in parentheses. Engogenous regressors: Log fixed assets_{t-1}, business age, age squared and market share.

Data: World Bank Enterprise Surveys cross country set, but sample confined to textiles, leather, garments, food, beverages, electronics, food, wood and furniture

Note: .01 - ***; .05 - **; .1 - *. Dependent variable is growth rate of sales.

Appendix E: Olley-Pakes Productivity Decomposition Table

Figures 6a through to 6c, 7, 8, and 9 are based on an Olley-Pakes cross-sectional decomposition (Olley and Pakes, 1996) that we fully report in Table E.1 below. The TFP estimates are calculated from the PICS dataset described in Appendix B, by using Levinson-Petrin estimates of factor shares of a three-factor Cobb-Douglas technology of production (Levinsohn and Petrin, 2003). The decomposition formula is described in the main text of the chapter. In the Table, the symbol a_t stands for the market share weighted TFP. The term 'unweighted' designates the unweighted average TFP, while "cov" stands for the covariance component of the decomposition. "Prop" expresses the covariance component as a proportion a_t .

Table E.1. Olley - Pakes Decomposition of TFP (excluding micro firms)

		Textiles	Leather	Garments	Food	Electronic s	Wood and furniture
Sub-Saharan Africa	a_t	1.99	2.30	1.94	2.47	4.83	1.61
	unweighted	1.79	2.14	1.62	1.77	3.82	1.19
	seccomp	0.19	0.16	0.32	0.69	1.01	0.42
	prop	0.10	0.07	0.17	0.28	0.21	0.26
Low Income	a_t	2.11	2.62	2.07	2.55	2.60	1.61
	unweighted	1.79	2.38	1.90	1.97	1.99	1.26
	seccomp	0.32	0.23	0.18	0.58	0.61	0.35
	prop	0.15	0.09	0.09	0.23	0.23	0.22
Lower Middle Income	a_t	2.29	3.46	2.81	2.88	3.81	2.27
	unweighted	1.74	2.37	2.01	2.28	2.90	1.51
	seccomp	0.55	1.09	0.80	0.60	0.90	0.76
	prop	0.24	0.31	0.28	0.21	0.24	0.33
Upper Middle Income	a_t	2.10	3.60	2.22	2.43	2.56	1.19
	unweighted	1.90	2.27	1.97	2.09	2.49	1.11
	seccomp	0.20	1.33	0.25	0.34	0.07	0.08
	prop	0.09	0.37	0.11	0.14	0.03	0.07
Ethiopia 2002	a_t	1.34	2.07	1.50	1.23		1.24
	unweighted	1.36	2.04	1.48	1.03		1.17
	seccomp	-0.02	0.03	0.02	0.20		0.07
	prop	-0.02	0.01	0.01	0.16		0.06
Ethiopia 2006	a_t	2.85	2.43	0.97	2.17		1.71
	unweighted	2.52	2.39	1.00	1.95		1.47
	seccomp	0.33	0.03	-0.03	0.22		0.24
	prop	0.12	0.01	-0.03	0.10		0.14
India	a_t	2.30	3.41	2.37	2.81	2.74	
	unweighted	1.96	2.70	2.03	2.22	2.01	
	seccomp	0.34	0.72	0.34	0.59	0.73	
	prop	0.15	0.21	0.14	0.21	0.27	
China	a_t	2.25	3.54	3.61	3.90	4.06	
	unweighted	1.98	2.88	2.66	3.28	2.97	
	seccomp	0.27	0.66	0.96	0.62	1.08	
	prop	0.12	0.19	0.27	0.16	0.27	
Egypt	a_t	1.65	1.70	2.46	2.49	1.35	1.77
	unweighted	1.18	1.54	1.17	1.66	1.34	0.87
	seccomp	0.47	0.16	1.29	0.83	0.01	0.90
	prop	0.28	0.09	0.52	0.33	0.00	0.51
Uganda	a_t	1.80	2.30	1.88	2.13		2.03
	unweighted	1.35	2.08	1.38	1.36		0.94
	seccomp	0.45	0.21	0.49	0.77		1.09
	prop	0.25	0.09	0.26	0.36		0.54
Morocco	a_t	1.70	2.33	1.82	2.24	2.24	0.36
	unweighted	1.51	1.87	1.52	2.07	1.85	0.36
	seccomp	0.19	0.46	0.30	0.16	0.40	0.00
	prop	0.11	0.20	0.16	0.07	0.18	0.00
Tanzania	a_t	0.97	3.24	2.83	2.64		2.50
	unweighted	0.99	3.24	1.72	2.27		1.69
	seccomp	-0.02	0.00	1.11	0.37		0.82
	prop	-0.02	0.00	0.39	0.14		0.33