

Working Paper No. 3

SME Development in Pakistan

Analyzing the Constraints to Growth

Faisal Bari
Ali Cheema
Ehsan-ul-Haque

Asian Development Bank

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Foreword

Pakistan's Country Strategy and Program (2002–06) stresses the need to accelerate pro-poor growth in the country, and emphasizes the key role of small and medium enterprises (SMEs) in this regard. The role of SMEs in generating employment is particularly crucial in ensuring that the fruits of growth are more equitably distributed. SMEs in the manufacturing sector also account for a significant share of manufactured exports. The need for a more thorough assessment of the obstacles to SME growth has been obvious for some time. The Asian Development Bank (ADB) supports research in this area to identify issues and challenges for the SME sector that can be addressed by providing assistance for policy and regulatory reforms, capacity development, SME financing, and business support services. An ADB-assisted SME Sector Development Program that supports the efforts of the Government of Pakistan and the private sector in these areas is currently under implementation.

This paper examines the key constraints faced by the SME sector in Pakistan, including lack of access to credit, excessive government regulation, an arbitrary and exploitative tax administration system, a weak technological base, and the lack of business support services. It also provides a set of concrete strategic recommendations to address such constraints in order to promote SME growth for greater income generation and employment creation.

Given the importance of the topic, ADB's Pakistan Resident Mission (PRM) feels that it would be useful to circulate this paper among a wide audience. We hope that this publication will not only contribute to the debate on this key issue in Pakistan, but also prove valuable to our development partners in policymaking and implementation, as well as to a wide range of stakeholders interested in growth and employment issues in general.

Kunio Senga
Director General
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Preface

ADB's assistance to Pakistan in the last 3 years has averaged about \$907 million. This high level of assistance reflects ADB's strong support for the Government's economic policy and commitment to poverty reduction in the country. Pakistan has largely achieved macroeconomic stability, with macroeconomic fundamentals currently better than at any time in the past decade. Growth in the manufacturing sector, in particular, has been very impressive over the last 3 years, and this has translated into record growth in exports.

Under the Country Strategy and Program Update for the fiscal year (FY) 2006, endorsed by the ADB Board in September 2004, ADB has supported the Government's emphasis on achieving higher sustained growth. In this regard, ADB has placed a major focus on promoting the role of the private sector as a driver of increased investment, higher growth, and greater employment generation in the country. Within the private sector, support for SMEs is crucial not only to promote growth in manufacturing, but also to generate more employment, which, in turn, can have significant impact on poverty reduction. This paper, the third in PRM's Working Paper Series, examines some of the issues faced by the SME sector, and analyzes the constraints within which this important sector operates.

Dr. Faisal Bari, Dr. Ali Cheema, and Dr. Ehsan-ul-Haque of the Lahore University of Management Sciences were commissioned by ADB to prepare this paper. The study was supervised by Dr. Naved Hamid, Senior Economic Advisor, PRM. It was edited and prepared for publication by Maheen Pracha and the cover was designed by Cecilia Caparas at ADB Headquarters. We hope that this paper will contribute meaningfully to the ongoing debate on SME development in the country.

Peter L. Fedon
Country Director
ADB Pakistan Resident Mission

Authors' Acknowledgments

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Abbreviations

| | | |
|-------|---|---|
| ADB | — | Asian Development Bank |
| ADR | — | alternative dispute resolution |
| FI | — | financial institution |
| FY | — | fiscal year |
| GDP | — | gross domestic product |
| GFCF | — | gross fixed capital formation |
| GNI | — | gross national income |
| GST | — | general sales tax |
| HR | — | human resources |
| ILO | — | International Labour Organization |
| IMF | — | International Monetary Fund |
| IPR | — | intellectual property rights |
| IT | — | information technology |
| KESC | — | Karachi Electric Supply Corporation |
| kWh | — | kilowatt-hour |
| LSM | — | large-scale manufacturing |
| LUMS | — | Lahore University of Management Sciences |
| ME | — | medium enterprise |
| MW | — | megawatt |
| NEPRA | — | National Electricity and Power Regulatory Authority |
| NPL | — | nonperforming loan |
| NSS | — | national savings scheme |
| NTDC | — | National Transmission and Distribution Company |
| OECD | — | Organization for Economic Cooperation and Development |
| PRM | — | Pakistan Resident Mission |
| SBP | — | State Bank of Pakistan |
| SE | — | small enterprise |
| SME | — | small or medium enterprise |
| SMEDA | — | Small and Medium Enterprise Development Authority |
| TAFTA | — | Task Force on Reform of Tax Administration |
| WAPDA | — | Water and Power Development Authority |

NOTES

Currency Equivalents (as of 1 September 2005)

| | | |
|---------------|---|--------------------------|
| Currency Unit | — | Pakistan rupee (PRe/PRs) |
| PRe/PRs1.00 | = | \$0.0168 |
| \$1.00 | = | PRe/PRs59.68 |

The fiscal year (FY) of the Government of Pakistan ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends. For example, FY2002 begins on 1 July 2001 and ends on 30 June 2002. All year figures without the prefix "FY" refer to calendar years, unless otherwise stated.

In this paper, "\$" refers to US dollars.

The analysis in this paper is up to date until December 2003, which is when the study was completed.

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Summary

The Government of Pakistan's commitment to liberalization and structural adjustment policies over the last decade and a half is a major policy break in the country's economic evolution. However, evidence suggests that this shift in policy, which produced growth dividends in other South Asian economies, failed to bring with it the expected growth dividend in Pakistan. From being the fastest grower in South Asia, Pakistan became the slowest-growing economy in this region during the last decade (Bari and Cheema 2002).¹ Large-scale manufacturing (LSM) has recovered significantly in the last couple of years, but there are still concerns about its sustainability, spread, and robustness. Small- and medium-scale industry have not made a corresponding recovery yet. The pronounced slowdown in growth in the manufacturing, retail, and wholesale sectors, in particular, is largely explained by the fact that their growth rate of gross fixed capital formation (GFCF) has halved. The trend slowdown in the GFCF growth rate is equally apparent in small- and large-scale enterprises. This suggests that the sustainable, robust, and widespread revival of investment and output growth are policy imperatives that the Government needs to address with great urgency.

The sustainable, robust, and widespread revival of investment and output growth are urgent policy imperatives.

This study takes up these concerns by providing a broad, strategic direction for a growth and investment revival strategy for the industrial sector, based on a rigorous analysis of the factors constraining firm-level growth and investment in Pakistan. The study places special emphasis on removing the constraints on small and medium enterprise (SME) growth and investment. The *Pakistan Economic Survey 2001–02* justifies this emphasis on the following grounds: first, SMEs contribute significantly to Pakistan's economy in terms of both value-added (30%) and employment (80%);² second, the growth potential of labor-using SMEs needs to be maximized; they are likely to proliferate in line with comparative advantage in the liberal and open economy the Government is committed to.

¹ F. Bari and A. Cheema. 2002. Towards a Common Investment Strategy for South Asia. In *Agendas for Economic Cooperation in South Asia*. Edited by Rehman Sobhan. 2004. Bangladesh: South Asia Centre for Policy Studies.

² Government of Pakistan. 2002. *Pakistan Economic Survey 2001–02*. Islamabad: Ministry of Finance.

The SME sector's trend rate of growth of output has fallen since liberalization and structural adjustment policies were adopted.

As the first two sections of this paper show, the SME sector is far from fulfilling its growth potential at present. The sector's trend rate of growth of output and GFCF has fallen below what it was in the 1980s since liberalization and structural adjustment policies were adopted in the 1990s. Even more worrying is the lack of structural change, measured by the inertia in the structure of value-added and the size distribution of firms in the SME sector during the last two decades. Clearly, second-generation reforms need to specifically address the policy objectives of growth and investment revival.

The study uses a survey of firms to ascertain, in as quantitative a way as possible, the costs associated with firm-level growth and investment, with a special emphasis on SMEs. In particular, it identifies and analyzes the policy, regulatory, and market constraints on firm-level growth and investment in Pakistan. This analysis sets a roadmap for policies and institutional interventions, which, it is hoped, will help create an environment that is conducive to the growth of output and investment.

The Methodology

The study's survey was carried out between August 2001 and January 2002. A qualitative methodology was used to rank macro- and micro-constraints on firm-level investment and growth in Pakistan. Using a qualitative survey instrument, 60 firms were sampled to ascertain what they viewed as major obstacles to their investment and growth. The variables in the survey instrument were derived from a review of policies and the relevant theoretical and empirical literature. The survey asked entrepreneurs to rank each constraint variable using scores on a scale of 1 (least important) to 5 (severe). Detailed interviews were used to balance the strengths and weaknesses of the qualitative survey approach.

The survey data was used to rank the 'binding' constraints that currently inhibit firm-level investment and growth in Pakistan. Binding constraints were defined as constraints that obtained an average score of 3.5 and above (an above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5). Unlike other studies, the dual-weighting procedure of defining binding constraints allowed greater precision and clarity in results.

Given the limitations of time and resources, the sample chosen for the survey was restricted to the manufacturing and retail sectors because of their significant contribution to Pakistan's gross domestic product (GDP) growth slowdown during the last decade. Within manufacturing, the study focused on foods and beverages, garments and made-ups, and light engineering for three reasons: (i) their importance in manufacturing, employment, and value-added; (ii) the differences in capital intensity in these sectors; and (iii) the different sources of demand facing these sectors.

Finally, the sample included a mix of SMEs and large firms since the objective was to identify constraints that were size-specific.

The Findings

The findings reported in this study help achieve three objectives. First, they help corroborate or reject existing hypotheses of the constraints on SME growth and investment in Pakistan. Second, they highlight new constraint areas that have not been given due importance in the literature. Third, they help separate binding constraints that are specific to SMEs.

The key findings of the study are described below:

- (i) Credit rationing in Pakistan's formal sector credit market emerges as a major constraint on firm growth. However, credit rationing is an SME-specific constraint that is not binding on large firms. In turn, credit rationing is a consequence of constraints on both supply and demand. Supply-side constraints arise because of weak and poorly enforced creditor rights; because of the high per-unit cost of SME lending; and because of SMEs' weak reputation and financial systems. Demand-side constraints arise because loan disbursement procedures are excessively time consuming, and because the collateral requirements prescribed by the State Bank of Pakistan's (SBP's) Prudential Regulations, raise the cost of access to credit for SMEs. The findings suggest that credit rationing constrains SME growth and investment by increasing both the cost and risk of growth and investment.
- (ii) SMEs' demand for formal sector finance is inhibited by the high cost of credit and lease financing. The high cost of credit is, among other factors, a consequence of the high cost of funds that arises because of the high-risk fee returns offered under national savings schemes (NSSs) in 2002. The high cost of credit is also an outcome of the drag of the banking sector's nonperforming loan (NPL) portfolio. With regard to leasing, its high cost is a consequence of the intermediation costs that arise when leasing companies are small. High leasing costs are also a product of the high cost of funds confronting leasing companies with low credit rating.
- (iii) The cost of firm growth in Pakistan is increasing significantly because of the high compliance costs of fiscal and nonfiscal regulations. High compliance costs arise because these regulations involve direct contact between officials and firms; grant excessive discretion to officials; tend to entail complex nontransparent rules; and give rise to a significant corruption burden. The cost of corruption for firms is exacerbated by excessive delays in dispute resolution. High compliance costs are also the result of proliferating regulations and regulatory

Credit rationing in Pakistan's formal sector credit market emerges as a major constraint on firm growth.

Regulatory costs are heavily biased against SMEs that have entered their expansion phase.

agencies. The cascading nature of the tariff structure raises the cost of firm-level growth. An important new finding of this study is that regulatory costs are heavily biased against SMEs that have entered their expansion phase; this sets a strong incentive for firms to remain small.

- (iv) The evidence shows that poor infrastructure, particularly in the power sector, increases the cost of growth for firms of all sizes. Poor power provision entails high costs, poor quality of service, lack of reliability, and corruption in obtaining supplies. This reflects the failure of state-owned utility providers to deliver, and is reflected in high levels of line theft and opaque, politically negotiated power tariff rates that significantly distort the growth potential of SMEs.
- (v) Low levels of skill, training, and education among workers and management raise the cost of firm growth. This is a consequence of the poor quality of education and training offered in Pakistan. An important factor explaining this is the regulatory structure of education. Given the poor quality of public sector education, regulatory checks enforced by the public sector are ill-designed and ineffectively enforced upon public and private institutions. This allows the entry and existence of low-quality providers that allow the average standard of education to fall to the lowest common denominator. Furthermore, the human capital constraint is exacerbated by the lack of investment in training by firms, in particular, by SMEs. Their inability to appropriate the returns on investment and enforce contracts deters SMEs from investing in managerial and worker training.
- (vi) Market transaction costs and inefficient contract repudiation constrain the growth and risk-taking ability of firms in Pakistan. An outcome of high market transaction costs is weak linkages with high-quality intermediate goods and raw material suppliers. This is a consequence of poor 'trust' networks and an inefficient judicial system enforcing contracts. In particular, high market transaction costs and inefficient formal contract enforcement inhibit the development of SME clusters and subcontracting networks, imposing high inventory costs and, perhaps, forcing SMEs into suboptimal diversification. This is an important insight, which suggests that designing the right regulatory framework within which to execute and enforce contracts is as important for SME growth as the traditional emphasis on reducing state control and regulation.

Conclusions and Recommendations

The study concludes with a set of broad, strategic recommendations on stimulating the growth of SMEs in Pakistan. These recommendations are grounded in the analysis conducted in the main body of the paper and are organized at two levels. First, the study provides detailed recommendations concerning SME-specific binding constraints, including financial sector constraints, judicial constraints, and fiscal and regulatory constraints. Second, it recommends measures to overcome constraints that are generic across firm size, that is, infrastructure and HR (human resource) constraints. The findings suggest that lowering these constraints would have a significant positive impact on the growth of SMEs in Pakistan. A summary of the more important recommendations of the study is given below.

Poorly enforced creditor rights seriously hinder SME lending.

Financial Constraints

Improving SMEs' Access to Credit

Recommendations regarding financial sector constraints include:

- (i) Revisiting collateral requirements;
- (ii) Strengthening creditor rights and their enforcement;
- (iii) Initiating credit registries and improving credit reporting;
- (iv) Simplifying lending procedures and processes.

The first three components aim to remove credit market constraints on the supply side. The first component stresses the need to develop a system that makes it efficacious for financial institutions (FIs) to accept movable property as collateral. This is particularly important for increasing SMEs' access to credit as they are more likely to be able to post movable property as collateral. Analysis suggests that banks are reluctant to accept movable property as collateral because it is difficult to monitor and because of weak judicial enforcement. Pakistan's secured transactions regime needs to be reformed to better enforce the repossession and sale of movable property. The issue here is not a poorly designed legal framework—this is adequately provided—but poor judicial enforcement. The objective of this reform must be to design methods that shift the bulk of the work of repossessing and selling collateral, away from the courts.

The second component underlines the need to strengthen the enforcement of creditor rights. This set of recommendations aims to improve the efficiency of the supply side of the credit market. The analysis of constraints suggests that poorly enforced creditor rights seriously hinder SME lending. Again, the issue is not a design weakness in legal framework but ineffectual judicial enforcement. The Financial Institutions

(Recovery of Finances) Ordinance 2001 addresses, to some extent, the issue of inefficient judicial enforcement of creditor rights. It provides for the right of foreclosure and sale of mortgaged property with or without court intervention, as well as the transfer of cases to execution. Relying on international evidence, the success of this change in the law depends on the existence of well designed complementary laws and institutions. The recommendations stress the need to analyze and rectify, if necessary, complementary laws and systems, which include the legal determination of insolvency and the system of financial information disclosure.

The third component aims to improve supply-side efficiency in the credit market by providing a mechanism to expand SMEs' access to credit based on reputation, as summarized in debtors' payment histories of securing funds from impersonal lenders. Improving reliable information flows through credit registries can especially increase access to credit for rationed segments like SMEs. The absence of credit registries in Pakistan signals the existence of a 'missing market' for information on debtor behavior, whose creation needs to be stimulated through government action. The study's detailed recommendations provide strategic direction to the design and objectives of these institutions. This component of recommendations also points out the weaknesses in the SBP's credit reporting system. The existing system is not fully automated, capturing only limited information on large corporate loans. The process of credit reporting needs to be automated; moreover, a framework is needed to increase the role played by private sector credit information providers and to extend reporting coverage to include SMEs.

Finally, lending procedures and processes should be simplified to stimulate the demand for credit by SMEs. FIs stand in urgent need of technical assistance on best practices in reengineering processes and procedures in order to enhance SMEs' access to credit. The study recommends the dissemination of information technology (IT) and credit scoring systems, which are powerful tools in making credit disbursement processes and loan management more efficient.

Reducing Financial Costs

The high cost of finance emerges as a major constraint on the growth of SMEs. The Government needs to gradually dismantle the NSS, which is based on administered interest rates, and move toward market-based rates. An efficient wholesale and retail market for government securities will bring down the cost of borrowing for FIs, minimize the Government's borrowing costs, and help develop an effective yield curve for pricing private debt securities.

The absence of credit registries in Pakistan signals the existence of a 'missing market' for information on debtor behavior.

The study's findings also suggest that the tax rates of all FIs, irrespective of the activities they engage in, should be equalized over the long term. These changes in the taxation regime will provide incentive to consolidate nonbanking sectors, such as leasing, and allow nonbank FIs to achieve better credit ratings by exploiting efficient scales. This will lower the cost of funds for nonbank FIs and lower the cost of financing for SMEs.

Judicial Constraints

Inefficient contract repudiation is a major constraint on the growth of SMEs. An important cause of this is the weak judicial enforcement of commercial agreements. This suggests that reform measures are needed to improve the efficiency of commercial courts. These measures include:

- (i) Increased accountability of judges;
- (ii) Efficient judicial incentives and rewards;
- (iii) Formation of specialized courts;
- (iv) Alternative dispute resolution (ADR).

Evidence from developing countries suggests that monitoring judicial performance and revealing this information publicly is strongly correlated with increased judicial effort (World Bank 2002).³ Information disclosure appears to reduce delays because judges care about their reputation. This suggests that reform measures should increase the flow of information on judicial performance. However, information creation by itself is not sufficient to improve judicial efficiency. This step must be buttressed by measures that use information on judicial performance to create performance-based rewards. In addition, the judiciary should be adequately compensated through increased salaries. Improving judicial compensation is important as evidence reveals that the real compensation of judges has deteriorated considerably over the years.

There is also a case for encouraging the establishment of judicial watch projects or nongovernment organizations. Such projects should be manned by retired judges, legal professionals, academics, or other relevant private sector professionals. Their objective should be to rate judges in terms of their knowledge of the law and their conduct of proceedings. This will create greater judicial transparency and accountability, and go a long way in improving judicial efficiency. The World Bank (2002) reports that a similar initiative in the Philippines was extremely successful in creating judicial accountability and efficiency (footnote 3).

Monitoring judicial performance and revealing this information publicly is strongly correlated with increased judicial effort.

³ World Bank. 2002. *World Development Report, Building Institutions for Markets*. New York: Oxford University Press.

Pakistan's fiscal and regulatory procedures create a high-transaction-cost investment climate, which hampers the growth of SMEs.

Strengthening small cause courts will help increase judicial efficiency when dealing with SMEs. International evidence suggests that well-functioning small claims courts are among the most successful of all judicial reforms. The main benefit of these courts is that they simplify procedure by cutting across the standard civil court procedure. This tends to have a positive impact on efficiency because complicated procedures reduce the scope for accountability and increase corrupt officials' ability to obtain bribes. Furthermore, by specializing around the size of the claim, these courts will improve SMEs' access to efficient judicial enforcement; this will go a long way in lowering the cost of growth for these firms.

Finally, the study recommends the formation of formal ADR mechanisms. Again, international evidence implies that ADR helps to speed up the process of justice. Currently, apart from the family courts, there are no formal ADR mechanisms in place in Pakistan. Recent studies also show that informal dispute resolution arrangements, such as the *panchayat* (an informal council at the village or local level constituted to resolve disputes), are ineffective and not considered the most desirable forums for dispensing justice (SSTA 3640-PAK).⁴ This suggests that there is considerable scope for improving judicial efficiency by creating ADR mechanisms in the formal justice system.

Fiscal and Regulatory Constraints

Pakistan's fiscal and regulatory procedures create a high-transaction-cost investment climate, which particularly hampers the growth of SMEs. The reform of fiscal procedures and regulatory climate must be an important focus of any SME development program. The study supports the idea of reengineering fiscal processes as suggested by the Government's Taskforce for Reform of Tax Administration (TAFTA). However, a major lacuna in the current tax administration system is the dysfunctional audit procedure, which stifles the growth of medium-size firms. Audit reform needs to have two components: standardization of the audit instrument and investment in taxpayer education.

There is an urgent need to reduce the compliance cost associated with the general sales tax (GST) export refund procedure. The procedure needs to be rules-based and transparent. The best solution is to move toward an exception-based system, where exceptions to the severity of assessment are made on the basis of an automated risk assessment system based on predetermined validity checks. The suggested system would be rules-based and transparent, setting incentives for compliance by rewarding the more compliant exporters. This would substantially reduce the transaction costs of growth for SMEs.

⁴ Small-Scale Technical Assistance 3640-PAK: Supporting Access to Justice under the Local Government Plan, 25 April 2001.

The number of regulations and regulatory government departments confronting business in Pakistan must be reduced. This will lower the burden of compliance for SMEs and discourage firms from remaining small and growing laterally. The Deregulation Commission set up by the Government is already in the process of conducting this exercise. The study recommends that this exercise use a four-pronged approach. First, the multiplicity and overlapping jurisdiction of state agencies needs to be reduced. Second, unnecessary laws and regulations need to be rescinded, and the agencies regulating these laws, either wound up or merged. Third, in critical regulatory areas, the law needs to be revised to reflect current market realities, such as the existence of contract labor and the requirements of a flexible labor market operating within a globalized trade environment. Even here, the number of regulators needs to be reduced. Fourth, where the market is capable of delivering key services, government departments providing these services should be wound up.

Infrastructure constraints can be eased through privatization, unbundling, and competition.

Infrastructure Constraints

Infrastructure-related binding constraints can be eased through a judicious policy of privatization, unbundling, and competition in the infrastructure sector. The success of this policy depends on the Government's ability to establish strong, independent, and suitably equipped sector-specific regulators. This will require significant investments in capacity building. These regulators will then be responsible for the creation, entrenchment, and maintenance of a transparent, predictable, and fair regulatory structure

In the case of power supply, active competition at the generation and distribution levels will have to be introduced before there are significant efficiency gains over the current state. Furthermore, the Government will need to equip the National Electricity and Power Regulatory Authority (NEPRA) with the human and technology resources required to adequately regulate the power sector.

Human Resource Constraints

In the case of general management training, the key constraints to overcome are imperfections in the credit market and weak contract enforcement mechanisms that raise the transaction costs of long-term contracting (recommendations for these areas were discussed earlier).

The concept of sector-specific 'incubators' could be explored as a form of sector-specific vocational training. Sponsored by the Government, an incubator could take 15 to 20 firms from a particular sector under its wing for 2 to 3 years. It would provide these firms with credit, access to technology, vocational and managerial training, and specific consulting, thus chaperoning them through the initial stages of development. After

*Firms emerging
successfully from
these incubators
will set standards
for the sector.*

the initial period, the services provided by the incubator could be transferred to the relevant industry organization and disseminated among targeted and nontargeted firms. If successful, firms emerging from the incubators will set the standards for the sector. This approach may be particularly relevant to geographically concentrated clusters in light engineering in Sialkot, Gujrat, and Gujranwala.

These incubators must be carefully designed to increase their probability of success. They will need access to finance and an active core team of consultants, trainers, and managers equipped with the requisite skills. Incubators also need to target sectors with strong industry organizations. The continued success of the sector depends crucially on the ability of the industry organization to continue the work of the incubator once the period of intervention has ended.

1 Introduction

The underlying aim of this study is to provide background analysis for the Asian Development Bank's (ADB's) private sector strategy in Pakistan. An important objective of this strategy is to promote policies and institutional interventions that will help stimulate investment and growth among Pakistani industries, particularly in the small and medium enterprise (SME) sector. This focus on SMEs as the future conduit for growth and investment is consistent with the Government of Pakistan's recent policy emphasis on the sector. In the *Pakistan Economic Survey 2001-02*, the Government declared the SME sector to be one of the four major drivers of growth. The *Survey* reported that, "...the foundation of industrialization could not be established without an efficient network of SMEs" (footnote 2).

Pakistan's current economic environment creates structural problems for SMEs.

The Government justifies its focus on SMEs on the following grounds:

- (i) SMEs foster an entrepreneurial culture and make the economy more resilient to global economic fluctuations;
- (ii) They dominate the fastest growing export subsectors in the fiscal year (FY) 2002, specifically the cotton weaving, textile, and surgical equipment sectors;
- (iii) They are an important vehicle for poverty reduction;
- (iv) They make a significant contribution to the Pakistani economy in terms of value-added (30%) and employment in the industrial sector (80%) (footnote 2).

Both the Government and ADB recognize that Pakistan's current economic environment creates structural problems for SMEs, seriously undermining the sector's growth potential. The main aim of this study is to identify the binding constraints on firm-level growth and investment in Pakistan, with particular emphasis on SMEs.⁵ The study uses a survey of firms to ascertain quantitatively the costs and problems associated with firm-level growth and investment. A rigorous analysis of the constraints

⁵ 'Binding' constraints are defined in Appendix 1.

on firm-level growth will help in the design of policies and institutional interventions aimed at creating an economic environment that is conducive to private sector enterprise growth.

The private sector's investment response to liberalization and structural adjustment has been extremely muted.

This paper is divided into four sections. The remaining portion of this section presents an overview of Pakistan's growth performance since the onset of structural adjustment and policy liberalization during the 1990s—a period marked by a trend slowdown in gross domestic product (GDP) growth.⁶ Section 2 reviews the literature on the constraints on SME growth and assesses the inherent potential of SMEs as a conduit for growth. The hypotheses examined in the literature review informed the design of the study's firm-level survey. Section 3 stratifies the results by firm size and category, and establishes whether the constraints identified in Section 3 apply across firm size or are specific to the growth of SMEs. The contribution of government policies, regulations, and market distortions in generating these constraints is also analyzed here. Finally, Section 4 presents a set of broad, strategic recommendations, which, it is hoped, will help steer the future direction of ADB's private sector strategy.

Appendix 1 describes the survey methodology; Appendixes 2, 3, and 4 tabulate constraint rankings provided by sample firms; Appendix 5 reviews the relevant theoretical literature on firm growth and investment; and Appendix 6 constructs an identity for the percentage change in GDP.

1.1 The Context

Since the early 1990s, Pakistan has been signatory to the macro-stabilization and structural adjustment programs of the International Monetary Fund (IMF) and the World Bank. The Government committed itself to such programs in order to lower macro-instability, remove the distortions prevalent in the trade and production structures, and increase the economy's growth potential. Evidence suggests that since the onset of the 1990s, Pakistan has experienced one of the slowest periods of growth in its economic history (Table 1). This has been accompanied by a significant slowdown in the rate of growth of gross fixed capital formation (GFCF), a phenomenon equally pronounced in the public and private sectors. This implies that the private sector's response to liberalization and structural adjustment, particularly its investment response, has been extremely muted. Clearly, much more needs to be done to stimulate growth in Pakistan's private sector economy.

⁶ For further details, see A. Zaidi. 1999. *Issues in Pakistan's Economy*. Oxford: Oxford University Press.

Table 1: Pakistan's Key Annual Economic Growth Rates

| Period | GDP (Constant Factor Cost) (%) | GFCF (%) | Private Sector GFCF (%) | Public Sector GFCF (%) |
|-------------|--------------------------------|----------|-------------------------|------------------------|
| FY1971–1980 | 4.84 | 13.18 | 5.29 | 8.89 |
| FY1981–1990 | 6.10 | 8.24 | 10.12 | 5.79 |
| FY1991–2000 | 4.60 | 0.64 | 2.32 | (1.52) |
| FY1991–1995 | 4.90 | 4.57 | 5.22 | 5.60 |
| FY1996–2000 | 3.90 | (3.29) | (0.57) | (8.64) |

FY = fiscal year, GDP = gross domestic product, GFCF = gross fixed capital formation.

Sources: Government of Pakistan. 1985. *Pakistan Economic Survey 1984–85*. Islamabad: Ministry of Finance; and Government of Pakistan. 2000. *Pakistan Economic Survey 1999–00*. Islamabad: Ministry of Finance.

1.2 An Analysis of Sectoral Slowdown

Given the wider context, it is important to ascertain the sectors responsible for the slowdown in Pakistan's GDP growth since the 1990s. This will help identify the sectors most in need of policy attention. Appendix 6 shows that an economy's GDP growth rate is simply the weighted average of the growth rates of each of its constituent economic sectors, where each sector is weighted by its base-year share of output in total GDP. Decomposing this identity separates each sector's contribution to the growth slowdown in Pakistan. The results of this exercise are presented in Table 2.

Table 2 shows that the growth slowdown between the two periods under study is generic across sectors; the only exception is the transport and storage sector. More importantly, it shows that the slowdown in GDP growth for the period FY1991–2000 is largely accounted for by the fact that the growth rates of the manufacturing, retail, and wholesale sectors halved over these two periods. The importance of this finding is put into perspective in column 1, which estimates what Pakistan's GDP growth rate would have been for the period FY1991–2000 if the manufacturing, retail, and wholesale sectors had maintained their FY1981–1990 trend rate of growth, holding all else equal. The estimates suggest that average annual GDP growth during FY1991–2000 would have maintained the trend rate achieved in the earlier period.

The estimates in column 2 highlight the importance of this finding by showing what Pakistan's GDP growth rate would have been for the period FY1991–2000 if agriculture had maintained its FY1981–1990 trend rate of growth, holding all else equal. Column 2 shows that GDP growth during the 1990s would still have been lower than what it was in the preceding period, had there been no change in the trend rate of growth in the manufacturing, retail, and wholesale sectors. Clearly, the worsening of growth in these sectors has been a major factor responsible for the growth

The worsening of growth in the manufacturing, retail, and wholesale sectors has been a major factor responsible for the growth slowdown of the 1990s.

slowdown in Pakistan during the 1990s. Any strategy for growth revival must aim to stimulate growth in these sectors of the economy. This is why the study analyzes the constraints on firm-level growth in the manufacturing and retail sectors in particular.⁷

Table 2: Sectoral Contribution to GDP Growth

| Sector | Weighted Growth Rates of Each Sector (% Change in Period) | | | |
|--|---|----------------------|---------------------------------------|---------------------------------------|
| | FY1981–1990 | FY1991–2000 | FY1991–2000 | FY1991–2000 |
| | (Base Year = FY1981) | (Base Year = FY1991) | (Base Year = FY1991) (1) ^a | (Base Year = FY1991) (2) ^b |
| A. Major Economic Sectors^c | | | | |
| Agriculture | 15.43 | 11.05 | 11.05 | 15.40 |
| Manufacturing | 16.78 | 8.42 | 16.78 | 8.42 |
| Wholesale and Retail | 14.60 | 6.33 | 14.60 | 6.33 |
| B. Other Economic Sectors | | | | |
| Mining and Quarrying | 0.59 | 0.14 | 0.14 | 0.14 |
| Construction | 2.77 | 0.88 | 0.88 | 0.88 |
| Electricity and Gas | 3.80 | 2.26 | 2.26 | 2.26 |
| Transport and Storage | (8.70) | 6.04 | 6.04 | 6.04 |
| Finance and Insurance | 1.98 | 1.06 | 1.06 | 1.06 |
| Ownership of Residence | 5.27 | 3.66 | 3.66 | 3.66 |
| Public Administration | 5.01 | 2.42 | 2.42 | 2.42 |
| Other Services | 6.45 | 6.74 | 6.74 | 6.74 |
| GDP Growth (at Factor Cost) (A + B) | 63.99 | 48.04 | 65.64 | 53.29 |

FY = fiscal year, GDP = gross domestic product.

^a Column 1 estimates what the growth rate would have been over the period FY1991–2000 if the manufacturing, and wholesale and retail sectors had continued to grow at their FY1981–1990 trend rate, with no change in the growth rates of any of the other sectors.

^b Column 2 estimates what the growth rate would have been over the period FY1991–2000 if the agriculture sector had continued to grow at its FY1981–1990 trend rate, with no change in the growth rates of any of the other sectors.

^c Major economic sectors are those that account for the bulk of GDP in the base year for each period under study.

Source: Authors' estimates.

⁷ This also takes into account cost and time constraints.

Another advantage of concentrating on the growth revival of the manufacturing, wholesale, and retail sectors is that the three are closely linked. Table 3 shows the strong positive correlation that exists between the annual growth rates of these sectors. This correlation does not, however, reflect the effect of a strong correlation between GDP growth rates and the growth rates of these sectors. This is partly explained by the reliance of Pakistan's manufacturing growth on domestic demand, which can only be effectively tapped through a well-functioning wholesale and retail sector. Estimates of the sources of growth show that even after liberalization during the 1990s, over 60% of manufacturing growth could be explained by the growth of domestic demand.

Table 3: Correlation Matrix for Sectoral Annual Growth Rates in FY1981–2000

| Sector | Manufacturing | Retail and Wholesale | Agriculture | GDP |
|----------------------|---------------|----------------------|-------------|------|
| Manufacturing | 1.00 | | | |
| Retail and Wholesale | 0.98 | 1.00 | | |
| Agriculture | (0.21) | (0.40) | 1.00 | |
| GDP | 0.04 | 0.10 | 0.71 | 1.00 |

FY = fiscal year, GDP = gross domestic product.

Source: Authors' estimates based on: Government of Pakistan. *Pakistan Economic Survey*. Various issues. Islamabad: Ministry of Finance.

Equally important is the slowdown in both the large- and small-scale manufacturing sectors (Table 4). Again, this slowdown matches the slowdown in the rate of growth of GFCF. Clearly, the growth rate of the small-scale sector has fallen below its 1980s' trend growth rate since the onset of policy liberalization and structural adjustment. This suggests that the sector is growing at less than its potential rate. Analyzing the constraints on SME growth is especially important because, as a labor-using sector, it was expected to grow in line with comparative advantage post-liberalization and opening up. This discussion reinforces the earlier conclusion that the structural adjustment and liberalization policies of the 1990s have not done enough to ensure that Pakistan's private sector revived in the way expected. These findings, along with the policy importance accorded to SMEs, provide a strong reason to study the constraints on SME growth.

The SME sector was expected to grow in line with comparative advantage post-liberalization and opening up.

Table 4: Key Manufacturing Growth Rates in Pakistan

| Period | Large-Scale Industry | | Small-Scale Industry | |
|-------------|--------------------------------|------------------------------|---|------------------------------|
| | Output Growth (% per Annum) | GFCF Growth (% per Annum) | Output Growth ^a (% per Annum) | GFCF Growth (% per Annum) |
| FY1971–1980 | 4.84 | (2.28) | 4.40 ^b | 5.50 |
| FY1981–1990 | 8.16 | 8.15 | 4.70 ^c | 10.50 |
| FY1991–2000 | 3.60 | (5.02) | 2.60 ^d | 7.20 |

FY = fiscal year, GFCF = gross fixed capital formation,
SME = small or medium enterprise.

^a Output growth rates for the SME sector are based on the revised estimates in Z. Mahmood. 1999. *Growth Potential of Small and Medium Industries in Pakistan*. Research Report No. 169. Islamabad: Pakistan Institute of Development Economics.

^b The estimate period is FY1977 to FY1984.

^c The estimate period is FY1984 to FY1988.

^d The estimate period is FY1988 to FY1997.

Sources: Government of Pakistan. 1985. *Pakistan Economic Survey 1984 – 85*. Islamabad: Ministry of Finance; Government of Pakistan. 2000. *Pakistan Economic Survey 1999–00*. Islamabad: Ministry of Finance; and N. Majid, Arshad Zaman Associates, A. R. Kemal, M. Irfan, M. Mahmood, and G. Chaudhry. 2000. *Pakistan: Employment, Output and Productivity*. Issues in Development Discussion Paper No. 33. Geneva: International Labour Organization.

1.3 A Summing-Up

Pakistan's experience with macro-stabilization and structural adjustment appears to be in line with that of many other developing countries that have pursued similar policies. Their experience reveals that such programs do not lead automatically to the resumption of growth, let alone ensure the transition onto a higher growth path.⁸ The recent experience of transition economies has shown that price stabilization and opening up may not be enough to achieve a rise in the trend rates of investment and growth. Recognizing this evidence, policy emphasis has shifted to pinpointing complementary policies that will lead an economy from stabilization to growth.⁹ The policy debate today focuses on reforms

Macro-stabilization and structural adjustment do not lead automatically to the resumption of growth.

⁸ See: P. Balakrishnan. 1997. The Fiscal Deficit in Macroeconomic Perspective. In *Public Finance: Policy Issues for India*. Edited by Sudipto Mundle. Oxford: Oxford University Press; P. Collier and J. W. Gunning. 1999. Explaining African Economic Performance. *Journal of Economic Literature* 37 (March): 64–111; R. Dornbusch. 1991. Policies to Move from Stabilization to Growth. In *Proceedings of the World Bank Annual Conference on Development Economics 1990*. Washington, DC: World Bank; R. Reinikka and J. Svensson. 1999. *How Inadequate Provision of Public Infrastructure and Services Affects Private Investment*. Policy Research Working Paper No. 2262. Washington, DC: World Bank; and L. Taylor. 1991. *Varieties of Stabilization Experience: Towards Sensible Macroeconomics in the Third World*. Oxford: Clarendon Press.

⁹ See: Dornbusch 1991 (footnote 8); and D. Rodrik. 1992. The Limits of Trade Policy Reform in Developing Countries. *Journal of Economic Perspectives* 6 (1): 87–105.

to create and strengthen the 'institutional structure' needed to stimulate investment in economies attempting to develop 'markets' as an incentive structure.¹⁰

This is the challenge that faces policymakers in Pakistan today. It is necessary to design an institutional structure that will stimulate firm and industry growth while remaining compatible with an open market economy. The evidence presented in this section suggests that Pakistan's existing economic environment is far from reviving growth. A broader reform agenda is clearly required, one specifically designed to remove the constraints on enterprise growth not only at the macro-level but also at the micro-level.

An institutional structure is needed that will stimulate firm and industry growth while remaining compatible with an open market economy.

¹⁰ See: A. Brunetti, G. Kisunko, and B. Weder. 1997. Institutional Obstacles for Doing Business: Data Description and Methodology of a Worldwide Private Sector Survey. In *World Development Report 1997*. Washington, DC: World Bank; A. Brunetti and B. Weder. 2000. *Investment and Institutional Uncertainty*. Technical Paper No. 4. Washington, DC: World Bank; J. S. Hellman, G. Jones, D. Kaufmann, and M. Schankerman. 2000a. *Measuring Governance, Corruption and State Capture*. Washington, DC: European Bank for Reconstruction and Development and World Bank; J. S. Hellman, G. Jones, D. Kaufmann, and M. Schankerman. 2000b. *Seize the State, Seize the Day: State Capture, Corruption and Influence in Transition*. Policy Research Working Paper No. 2444. Washington, DC: European Bank for Reconstruction and Development and World Bank; and World Bank. 2002. *Pakistan: Towards a Private Sector Strategy*. World Bank, Islamabad.

2 SMEs: Potential for and Constraints on Growth

This section has two aims. First, it reviews the literature on structural transformation and growth in order to establish the role played by SMEs as a conduit for economic development. This helps to understand the inherent potential of SMEs as drivers of growth, particularly in the Pakistani context. Second, the section reviews the literature to highlight the constraints on SME growth in Pakistan. This review provided essential background information for the pilot interviews and survey design (Appendix 1) carried out under this study.

2.1 The Role of SMEs in the Structural Transition from Low- to Middle-Income Levels

It is important to highlight the role played by SMEs in the transformation of economies from low- to middle-income levels because there are significant structural differences between the two. The exercise is particularly relevant to Pakistan as a country at the threshold of achieving middle-income status. This section helps to contextualize the potential of SMEs in stimulating structural change during the process of economic development.

Within this larger debate on change, the study focuses on the role played by SMEs in stimulating structural transformation in the industrial sector. This is important because the literature on structural change suggests that apart from oil-exporting economies, most countries have depended on their industrial sectors to achieve high levels of GDP per capita.¹¹ This generalization holds even after controlling for differences in initial endowments and level of agricultural development. For very advanced countries, the percentage share of manufacturing in GDP declines and the services sector becomes more important, but there are almost no examples of countries that have reached that level without going

Most countries have depended on their industrial sectors to achieve high levels of GDP per capita.

¹¹ See Moshe Syrquin. 1989. Patterns of Structural Change. In *Handbook of Development Economics*. Vol. I, edited by H. Chenery and T. N. Srinivasan. Amsterdam: North-Holland.

through a phase in which manufacturing became the most important sector of the economy.

As economies approach middle-income levels, micro- and SEs grow, and new medium-size and large firms enter the industrial sector.

Before analyzing the role played by SMEs in structural transformation, this section sketches the process of transformation identified by the literature. Low-income countries tend to have a high dependence on agriculture and the exploitation of natural resources.¹² A significantly large percentage of their GDP is contributed by these sectors, which also employ a major portion of the work force (for most low-income countries, agriculture contributes the largest share to output and provides employment to the majority of the workforce). As opposed to this, industry contributes a small percentage of GDP at this level of development (in general, for low-income countries with a per capita income of less than \$500), and is composed of a few large firms and a large number of micro- and small enterprises (SEs).

The services sector is relatively large but underdeveloped, and consists predominantly of single entrepreneur micro- and SEs. With development and industrial growth, agriculture sheds labor and its contribution to GDP falls in percentage terms. At the same time, there is growth in the services sector, which includes all trading and retailing activities. As the economy approaches high middle-income status, the contribution of agriculture as a percentage of GDP becomes quite small as does its share in employment. The services sector, as a whole, becomes the largest sector, but the literature strongly suggests that it is manufacturing with its dynamic growth potential that has been the 'engine of growth' responsible for this transition.¹³ Snodgrass and Biggs's (1996) exhaustive study on SMEs reveals interesting patterns in this regard. It shows that, in low-income countries, it is the micro- and SEs that dominate the industrial sector (footnote 13). This is illustrated in Figure 1.

As economies approach middle-income levels, medium-size firms come into their own alongside large firms, which dominate the more basic and heavier industries (Figure 1). This phase of development also witnesses a significant increase in plant and firm size as micro- and SEs grow, and new medium-size and large firms enter the industrial sector. The evidence on enlargement of scale persists even after controlling for the variation in capital-labor ratios across industries (footnote 13). An important factor stimulating structural change from low- to middle-income levels appears to be the growth in size and scale of SMEs. This

¹² The *World Development Report* (World Bank 2002, footnote 3) uses gross national income (GNI) per capita to classify low-income economies in 2000 as those with a GNI per capita of \$755 or less.

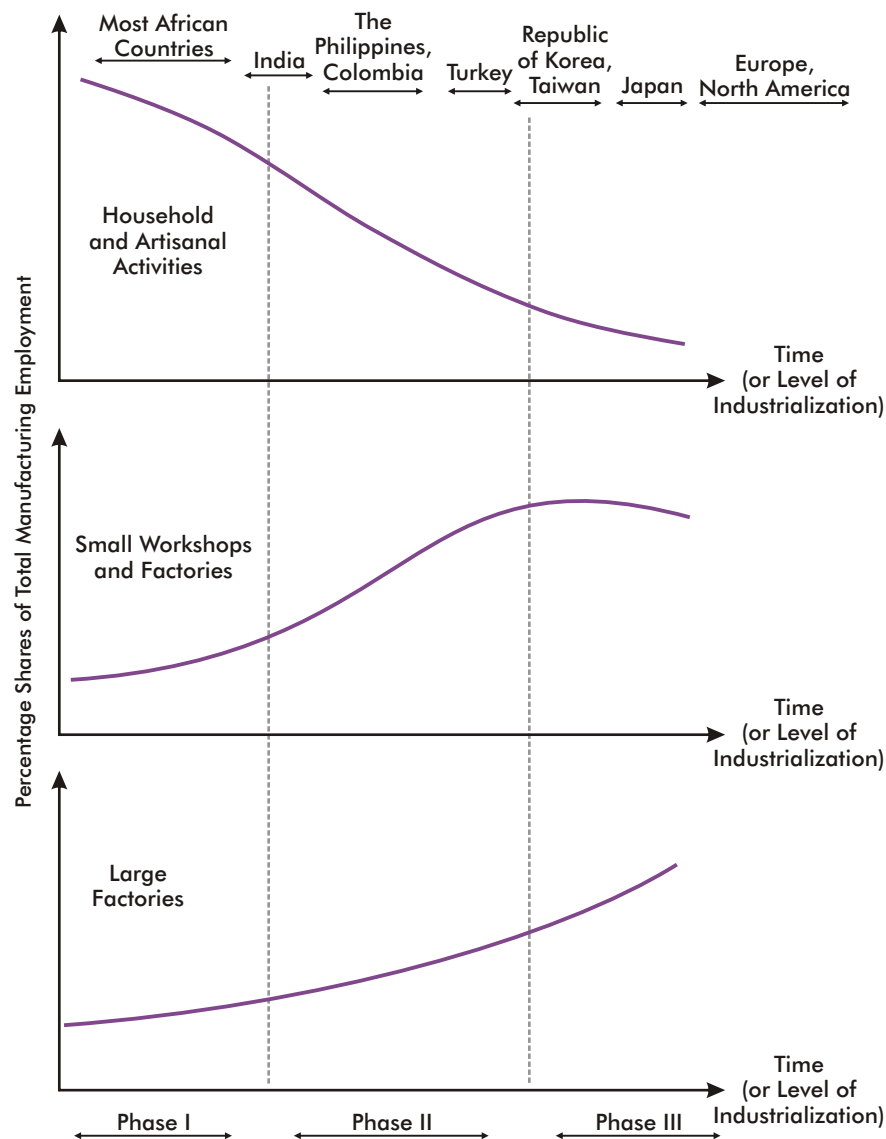
¹³ See D. R. Snodgrass and T. Biggs. 1996. *Industrialization and the Small Firm: Patterns and Policies*. San Francisco: International Center for Economic Growth and Harvard Institute for International Development.

transformation occurs because firms are able to exploit economies of scale and scope and move down their learning curves.

Beyond this point, the literature finds a positive correlation between firm scale and the rising per capita income of economies (Figure 1). The findings on structural change reveal that the percentage importance of SMEs in an economy's industrial structure goes up initially at low levels of development, peaks at the middle- and high middle-income level, and then declines as the economy continues to develop.

An important factor stimulating structural change from low- to middle-income levels appears to be the growth in size and scale of SMEs.

Figure 1: Changes in the Size Structure of Industry over Time



Source: D. R. Snodgrass and T. Biggs. 1996. *Industrialization and the Small Firm: Patterns and Policies*. San Francisco: International Center for Economic Growth and Harvard Institute for International Development.

This suggests that SMEs play a vital role in the structural transformation from low- to middle-income status. They provide employment and output in the early and middle stages of structural transformation, and facilitate the transition itself. This does not lessen the importance of large-scale enterprises in the transition. Figure 1 shows that the percentage importance of SMEs in industrial employment increases much more rapidly than large enterprises for middle-income countries. This evidence suggests that, at best, SMEs act as catalysts of change, and at the very least, as enablers of structural change that is triggered by large-scale enterprises. From an empirical point of view, it is important to note that there have been almost no successful transitions in which the SME sector has not played an important role (footnote 13).

2.2 SMEs as Drivers of Growth

While the previous section clearly illustrates the importance of SMEs as a conduit for structural change, the literature is far more ambiguous about the role they play in stimulating growth in low-income economies.¹⁴ The main argument in favor of SMEs is that their allocative efficiency is higher from a social point of view because they face lower wages and higher capital costs than large enterprises, and because this better reflects the social cost of labor and capital. For this argument to hold, it needs to show that SMEs use all factors of production (and not only labor, which almost always has a social opportunity cost) more efficiently than large-scale firms.

The main argument in favor of SMEs is that their allocative efficiency is higher than large enterprises, and this better reflects the social cost of labor and capital.

Supporting evidence is, at best, ambiguous. It suggests that large-scale firms not only have a higher output per worker but also a significantly higher total factor productivity (footnote 13). Although this result is sensitive to technological indivisibilities in different industries, the literature does not presume that SMEs in those industries where technology is divisible are more efficient than large-scale firms. The efficiency of SMEs is explained better by factors other than size, such as the type of industry they operate in or the type of technology used in a particular sector.

Apart from the static context described above, the literature also takes dynamic analyses into account. First, it is argued that SMEs constitute "...a seedbed or nursery which is an essential part of the forest of firms whose component trees are decaying as well as growing" (Little, Mazumdar, and Page 1987; footnote 14). Second, sectors dominated by SMEs are better able to exploit dynamic economies of scale.

¹⁴ For exhaustive reviews, see I. M. D. Little, D. Mazumdar, and J. M. Page, Jr. 1987. *Small Manufacturing Enterprises: A Comparative Analysis of India and Other Economies*. Oxford: Oxford University Press/World Bank Publications; and Snodgrass and Biggs 1996 (footnote 13).

SMEs allow a large number of entrepreneurs and the self-employed to survive, but there is little evidence to show that the number of entrepreneurs is a sufficient or necessary condition for growth. Snodgrass and Biggs (1996) argue that the literature shows little conclusive evidence to suggest that a large number of SMEs allows a significant number of entrepreneurs to enter an industry and develop into larger firms (footnote 13). In fact, the literature points out more failures than successes in this regard.

However, there is considerable evidence to show that sectors dominated by SMEs are better able to exploit 'dynamic' gains through learning that is widely dispersed, both geographically and in terms of the number of firms. The literature suggests that sectors dominated by SMEs tend to generate higher levels of competition and mobility than others. This produces higher turnover among firms, given the ease of entry and exit in these sectors, in turn, forcing higher levels of learning among firms.¹⁵ This occurs through two mechanisms. First, the discipline imposed by competition forces firms to innovate faster in order to survive; however, this effect is sensitive to the level of technological development in a sector. Second, easy entry into the population of firms allows greater experimentation, which increases the probability of a firm developing or adopting better organizational and technological traits.¹⁶

SMEs in Taiwan have exploited dynamic gains more successfully than in other countries and consequently their role has been more important and innovative (Box 1).

Sectors dominated by SMEs tend to generate higher levels of competition and mobility.

¹⁵ For recent evidence on the link between competition and productivity growth in developing countries, see J. R. Tybout, and M. J. Roberts. 1996. *Industrial Evolution in Developing Countries: Micro Patterns of Turnover, Productivity and Market Structure*. New York: Oxford University Press; and J. R. Tybout. 1998. *Manufacturing Firms in Developing Countries: How Well Do They Do and Why?* Policy Research Working Paper No. 1965. Washington, DC: World Bank.

¹⁶ For developed country evidence on this issue, see Stephen J. Nickell. 1996. Competition and Corporate Performance. *Journal of Political Economy* 104 (4): 724–746.

Box 1: Taiwan: Exploiting Dynamic Gains by Promoting SMEs

The Economist (1998) singled out Taiwan as Asia's top performer in terms of virtually every measure of economic performance.^a The country's economic resilience is evident in its performance since the East Asian financial crisis. In 1998, the country's economy grew by 4.9% per annum while Singapore—the only other East Asian economy to record positive growth—grew by a meager 1.5% (footnote a). In fact, Taiwan has been one of the fastest growing economies in Asia since the 1950s, with an average per capita GDP growth rate of about 6.0% per year (footnote a). One reason for this dynamic growth path has been the contribution of Taiwan's SME sector. In contrast to the structure of most other Asian economies that are dominated by large public and private enterprises,^b SMEs comprise 98.5% of Taiwan's industrial structure, and account for 75.0–80.0% of all employment and 47.0% of the total economy.^c

The literature gives many reasons for why SMEs engendered technological change and innovation in Taiwan's industrial structure. Their flexibility allowed them to adapt to changing market conditions and exploit economies of specialization by pursuing a niche market strategy. This, in turn, helped SMEs to focus on their core competencies and encouraged the development of a cluster of local subcontractors. The large number of SMEs and their small size made them less likely to undertake redistributive collective action, lowering rent-seeking costs in the economy. It also meant that Taiwanese industry remained highly competitive and exploited the benefits of competition. This externality ensured the widespread diffusion of technology and was an important factor triggering economic growth in Taiwan. One consequence of this growth pattern was that Taiwanese SMEs held a disproportionately large share in exports compared to other countries at similar levels of development.

According to Levy (1986), the main reason for the prevalence of SMEs in Taiwan is the structure of the Chinese family system.^d He argues that the long tradition of interlinked family- and clan-oriented small businesses significantly lowered the costs and risks of contracting and marketing, and improved the availability of finance for SMEs in Taiwan. This allowed them to pool critical resources for growth at much lower transaction costs than larger-scale firms could.

Finally, the role of the state was critical in ensuring the mushroom growth of SMEs in Taiwan. The Taiwanese government created a policy environment favoring the development of SMEs. Fiscal discipline allowed investments in human capital and infrastructure. Low tariff barriers, export promotion policies, and low entry barriers exposed domestic industry to competition. SMEs were ensured access to credit, information, technical/managerial training, and the benefits of technology that the state invested in. Although the literature suggests that SME entrepreneurs felt that the policy environment was not sufficiently 'neutral' toward them, their complaints were far more muted than in other countries.

^a The Economist. 1998. In Praise of Paranoia: A Survey of Taiwan. 5 November.

^b Although the average firm size increased in Taiwan and in other countries, the absolute number of firms grew much faster in Taiwan throughout the process of industrialization.

^c See B. R. Scott. 2000. Taiwan: 'Only the Paranoid Survive'. Case No. 9-700-039. Harvard University, Cambridge, Mass.

^d B. Levy. 1986. *Prospects and Perils for Small and Medium Enterprises in Outward-Oriented Industrial Expansion: Lessons from Korea and Taiwan*. Environmental Economics and Policy Analysis Discussion Paper. Cambridge, Mass.: Harvard Institute for International Development.

There appears to be great potential for exploiting 'dynamic gains' through SMEs. However, the very process of generating these dynamic gains through SMEs also increases the size of the average firm in the economy as the more innovative firms move down their learning curves and force inefficient firms to exit. This skews the size distribution of firms in favor of medium-size and large firms. This gale of 'creative destruction'¹⁷ may explain why firm size and scale increases as low-income economies approach middle-income levels. This does not detract from the role played by large-enterprises, however. Although SMEs are important potential conduits for structural transformation, technological learning, and growth, not all economies have been able to harness this potential by creating supportive policies and institutions. Pakistan is one example of this, as discussed in the following section.

The aggregated data reveals that SMEs play a very small role in Pakistan's current manufacturing structure.

2.3 The Performance of SMEs in Pakistan

The evidence clearly shows that the growth performance of SMEs in Pakistan has been far from exceptional. Table 1 showed that SME growth rates have not outstripped those of the large-scale manufacturing (LSM) sector in 2 decades; in fact, appearing significantly lower in the 1980s. More importantly, the data in Section 1 suggests that even by FY2002, the SME sector, like the LSM sector, had failed to respond positively to the economy's deregulation and liberalization during the 1990s. Since then, both sectors have recorded lower rates of growth than their trend rates during the 1980s.

What is even more worrying is the lack of any structural change in the SME sector during the last 2 decades and particularly since the 1990s. This is equally true of the LSM sector. These findings are corroborated by the fact that there is been very little change in the size distribution of firms in both sectors (Table 5).¹⁸ In fact, Table 5 suggests the prevalence of a dual industrial structure dominated by a large number of micro-enterprises (employing 15 persons) on the one hand, and a considerable proportion of very large enterprises (employing more than 500 workers) on the other. The aggregated data reveals that SMEs (employing 999 workers) play a very small role in Pakistan's current manufacturing structure. This suggests that the potential of these enterprises remains largely untapped.¹⁹

¹⁷ As pointed out in J. Schumpeter. 1987. *Capitalism, Socialism and Democracy*. London: Unwin.

¹⁸ A similar exercise could not be conducted for the retail sector since no large data sets giving this information were available.

¹⁹ This inference should be viewed cautiously: it could well be a consequence of poorly designed sampling frames employed by the industrial census and survey data sets in Pakistan.

Table 5: Distribution of Employment by Firm Size in Manufacturing Sector

| No. of Employees | Large-Scale Manufacturing Firms | | Small or Medium Enterprises | |
|------------------|---------------------------------|---------------|-----------------------------|---------------|
| | FY1996 (%) | FY1988 (%) | FY1997 (%) | FY1988 (%) |
| 1–5 | | | 86.00 | 83.00 |
| 6–9 | | | 14.00 | 17.00 |
| 9–99 | 16.55 | 18.14 | | |
| 100–499 | 30.43 | 26.11 | | |
| 500 and < | 53.02 | 55.75 | | |
| Total | 100.00 | 100.00 | 100.00 | 100.00 |

FY = fiscal year.

Sources: Government of Pakistan. 1988. *Census of Manufacturing Industries 1987–88*. Islamabad: Federal Bureau of Statistics; Government of Pakistan. 1996. *Census of Manufacturing Industries 1995–96*. Islamabad: Federal Bureau of Statistics; Government of Pakistan. 1988. *Survey of Small and Household Manufacturing Industries 1987–88*. Islamabad: Federal Bureau of Statistics; and Government of Pakistan. 1997. *Survey of Small and Household Manufacturing Industries 1996–97*. Islamabad: Federal Bureau of Statistics.

Apart from this, the structure of value-added in both the SME and LSM sectors has not changed significantly since the 1980s (Table 6). Both sectors have been dominated by major subsectors since the 1980s. The *Pakistan Economic Survey 2001–02* (footnote 2) concedes that SME exports tend to dominate the low value-added sectors that rely on traditional technologies and suffer from low productivity.²⁰

This evidence clearly shows SMEs in Pakistan currently operate at below their potential level. As a low-income economy, Pakistan should be able to exploit this potential effectively. The next section analyzes the literature explaining why this has not happened.

The structure of value-added in both the SME and LSM sectors has not changed significantly since the 1980s.

²⁰ Also, see A. Cheema. 2000. *A Policy Report on the Structure of Tariffs and Related SROs in Pakistan, 1999–2000*. ADB, Islamabad.

Table 6: Contribution of Dominant Subsectors to Manufacturing Value-Added (As a Percentage of Value-Added)

| Large-Scale Manufacturing Sector | | | Small or Medium Enterprises | | |
|-----------------------------------|--------------|--------------|-----------------------------|--------------|--------------|
| Subsector | FY1996 (%) | FY1988 (%) | Subsector | FY1997 (%) | FY1988 (%) |
| Textiles | 22.31 | 17.35 | Cotton Weaving | 11.16 | 13.19 |
| Food and Beverages | 15.19 | 15.95 | Silk and Art Silk | 6.96 | 5.11 |
| Electrical Machinery and Supplies | 7.67 | 3.27 | Jewelry | 5.95 | 7.65 |
| Industrial Chemicals | 8.53 | 6.98 | Wooden Furniture | 6.18 | 5.96 |
| Nonmetallic Mineral Products | 7.15 | 7.69 | Leather Footwear | 3.65 | 4.11 |
| Tobacco | 6.18 | 10.08 | Structural Products | 5.08 | 3.26 |
| Total | 67.03 | 61.32 | Total | 38.98 | 39.00 |
| All Industries | 100.00 | 100.00 | All Industries | 100.00 | 100.00 |

FY = fiscal year.

Sources: Government of Pakistan. 1988. *Census of Manufacturing Industries 1987–88*. Islamabad: Federal Bureau of Statistics; Government of Pakistan. 1996. *Census of Manufacturing Industries 1995–96*. Islamabad: Federal Bureau of Statistics; Government of Pakistan. 1988. *Survey of Small and Household Manufacturing Industries 1987–88*. Islamabad: Federal Bureau of Statistics; and Government of Pakistan. 1997. *Survey of Small and Household Manufacturing Industries 1996–97*. Islamabad: Federal Bureau of Statistics.

2.4 Constraints on SME Growth in Pakistan: A Literature Review

The literature identifies the state-led models of industrialization followed during the 1960s, 1970s, and 1980s as a major factor constraining the growth of SMEs.²¹ There are several ways in which industrialization discriminated against SMEs during the time.

First, trade was regulated in a way that allowed large firms to obtain import licenses, official exchange rates for imports, and tariff rebates more easily than small firms. The anti-export bias induced by import substitution strategies also discriminated against the labor-

Import substitution strategies also discriminated against the labor-intensive SMEs.

²¹ See: A. R. Kemal. 1993. Why do Small Firms Fail to Graduate to Medium and Large Firms in Pakistan. *Pakistan Development Review* 32 (4):1249–1257; N. Majid, Arshad Zaman Associates, A. R. Kemal, M. Irfan, M. Mahmood, and G. Chaudhry. 2000. *Pakistan: Employment, Output and Productivity*. Issues in Development Discussion Paper No. 33. Geneva: International Labour Organization (ILO); Small and Medium Enterprise Development Authority (SMEDA). 2001. *Creating a Policy Environment Conducive to Employment Growth within the MSMEs in Pakistan*. ILO, SMEDA, and Government of Pakistan, Geneva; and M. A. Roomi and S. T. Hussain. 1998. *SMEs in Pakistan: A Survey of Their Problems and Prospects*. Konrad Adenauer Foundation Working Paper Series. Lahore University of Management Sciences (LUMS), Lahore.

Pakistan's underdeveloped physical and social infrastructure creates a binding constraint on SME growth.

intensive SMEs. Moreover, small firms were denied access to most investment incentives because of high rent-seeking costs.

Second, financial sector interventions also discriminated against SMEs.²² Selective credit controls in conjunction with controlled interest rates prevented banks from compensating for the higher cost of small loans by charging more. As a result, smaller clients were allocated limited credit, allowing large firms to grow at the expense of small firms.

Third, the problems of dealing with government regulations and tax authorities weighed more heavily on smaller firms in the shape of higher compliance costs, i.e., the fixed costs of complying with import/export and tax regulations, labor market regulations, and licensing and price controls.²³

Fourth, Pakistan's underdeveloped physical and social infrastructure creates a binding constraint on SME growth. SMEs rely heavily on inefficiently provided state infrastructure, and cannot afford the fixed cost of developing any alternatives. Similarly, inadequate investment in human capital hampers SME growth because of the scarcity of skilled workers, managers, and entrepreneurs.²⁴

Lastly, the market failure inherent in adopting technology in developing countries arguably constrains SMEs from moving onto a more dynamic growth path.²⁵ However, Kemal (1993) points out that technological indivisibilities and economies of scale cannot explain the low growth of SMEs in Pakistan. His estimates suggest that most Pakistani industries in which SMEs exist, face constant returns to scale, implying

²² See: S. M. Ali and N. Sipra. 1998. The Financial Practices of Small and Medium Enterprises in Pakistan. Konrad Adenauer Foundation Working Paper Series. LUMS, Lahore; Kemal 1993 (footnote 21); A. R. Kemal. 2000. Financing the Small and Medium Business and Industry in Pakistan. *Journal of The Institute of Bankers Pakistan*. 66 (June): 23–34; B. A. Khan. 1997. Credit Analysis for Small and Medium Enterprises. Konrad Adenauer Foundation Working Paper Series. LUMS, Lahore; M. Nishat. 2000. Financing Small and Medium Enterprises in Pakistan: Problems and Suggested Solutions. *Journal of The Institute of Bankers Pakistan*, 66 (March): 31–52; Roomi and Hussain 1998 (footnote 21); SMEDA 2001 (footnote 21); and World Bank. 2001. Pakistan: SME Policy Note. World Bank, Islamabad.

²³ See Roomi and Hussain 1998 (footnote 21) and World Bank 2001 (footnote 22). For evidence from other developing countries, see Snodgrass and Biggs 1996 (footnote 13).

²⁴ Ali and Sipra 1998 (footnote 22), Kemal 1993 (footnote 21), Kemal 2000 (footnote 22), Khan 1997 (footnote 22), Nishat 2000 (footnote 22); Roomi and Hussain 1998 (footnote 21), SMEDA 2001 (footnote 21), and World Bank 2001 (footnote 22).

²⁵ See S. Z. Hassan, W. M. Khan, and K. A. Saeed. 1997. Technology Choice by SMEs in Pakistan. Konrad Adenauer Foundation Working Paper Series. LUMS, Lahore.

that in the existing structure, SME growth is not inhibited by technological barriers to entry (footnote 21).

These arguments are summarized by Roomi and Hussain (1998) (footnote 21):²⁶

- (i) Inadequate infrastructure;
- (ii) Financing barriers and disincentives;
- (iii) Adverse government policies;
- (iv) Shortage of skilled personnel;
- (v) Technological constraints and lack of innovation;
- (vi) Entrepreneurial handicap.

There is significant scope for enhancing growth and learning gains by promoting SMEs.

This review of the literature provides illuminating insights for policymakers in Pakistan. It suggests that, given Pakistan's level of development, there is significant scope for enhancing growth and learning gains by promoting SMEs. There is clearly a strong case for removing the existing constraints on the growth of SMEs in Pakistan.

²⁶ For other examples, see Kemal 1993 (footnote 21), Majid, et. al. 2000 (footnote 21), and World Bank 2001 (footnote 22).

3 Analyzing Binding Constraints on SME Growth and Investment

Using the data collected during the study, this section ranks the constraints on SME growth according to firm size. Two control groups were identified: the first comprising large firms in the manufacturing sector to highlight constraints specific to SMEs; the second, a group of micro-firms in the retail sector to identify constraints affecting retail firms that develop into SEs in their growth phase. The section also analyzes the policy, regulatory, and market-related factors that cause these constraint to emerge. This analysis provides a foundation for the policy recommendations that follow in Section 4.

In the manufacturing sector, credit-related problems clearly act as binding constraints on SMEs but not on large firms.

3.1 Financial Constraints

3.1.1 Survey Results

Respondents' scores show that credit market constraints, including the high cost of leasing and credit, act as binding constraints on firm-level growth (Appendix 1, Table A1.7). Tables A2.1 and A2.2 in Appendix 2 (manufacturing and exports) and Tables A3.1 and A3.2 in Appendix 3 (retail) stratify the study's results for financial constraints by firm size. Table A2.2 (Appendix 2) shows that in the manufacturing sector, credit-related problems clearly act as binding constraints on SMEs but not on large firms, thus reflecting size-specific constraints. For exporters, the lack of access to export finance emerges as a binding constraint (Table A2.2, Appendix 2). Tables A2.1 (Appendix 2) and A3.1 (Appendix 3) show that these constraints become less severe with size; they appear relatively more binding for small rather than medium-size manufacturers and exporters.²⁷ For the retail sector, Table A3.2 (Appendix 3) shows that although credit constraints are not binding for micro- or large retailers,

²⁷ These findings are echoed in G. Kibria. 1999. Engineering Industry in the Informal Sector. Quaid-i-Azam University and Friedrich Ebert Stiftung, Islamabad; K. Nadvi. 1990. Multiple Forms of Subcontracting Arrangements: Implications for the Growth of the Informal Manufacturing Sector. Paper presented at the Quaid-i-Azam University and Friedrich Ebert Stiftung National Workshop on the Informal Sector in Pakistan; and World Bank 2001 (footnote 22).

SMEs do not resort to the informal lending market for fixed investment financing.

they are for small retail firms. The main difficulties with credit are lack of access; collateral requirements of banks/ financial institutions (FIs); lack of connections with banks; delays in the loan process; and corruption in obtaining finance.

It is not only the lack of access to credit but also the high cost of finance that constrains SME growth. The high cost of leasing emerges as a binding constraint for SMEs in the manufacturing and export sectors; firms in the retail sample rarely resorted to lease financing (Table A3.3, Appendix 3) and so no inference was possible in this case. High interest rates were seen as a binding constraint by SMEs in all three sectors (Tables A2.2, Appendix 2; and A3.2, Appendix 3).

3.1.2 Sources of SME Finance and Problems

Access to Credit

Manufacturing and Export Sector

The study's survey reveals interesting patterns with respect to the financial structure of SMEs in Pakistan. Of the sample SMEs, most rely on self-financing or retained earnings (Table A2.3, Appendix 2). Among the pooled sample of SMEs, over 50% of fixed investment finance is self-financed and only about 6% comes from development FIs and commercial banks. Interviews suggest that initial investment tends to be self-financed while operations are largely financed by retained earnings (Table A2.3, Appendix 2).

In sharp contrast, large firms appear to rely quite heavily on commercial banks for both working capital and fixed investment finance. This reflects the pecking order theory of financial choices: the asymmetric flow of information between investors and entrepreneurs inclines firms to first finance investment through internal funds, then through debt, and finally through outside equity. What is interesting is that the pecking order theory is less applicable to large firms in Pakistan because they prefer and have easier access to credit. Explaining the relationship between firm type and choice of financial structure is an important area of future research.

Another interesting finding of the survey is that SMEs do not resort to the informal lending market for fixed investment financing (Table A2.3, Appendix 2).²⁸ Medium-size firms, however, rely on the informal

²⁸ SMEDA 2001 (footnote 21) reports a similar finding, based on its analysis of the *Survey of Small and Household Manufacturing Industries* for FY1997 (see Government of Pakistan. 1997. *Survey of Small and Household Manufacturing Industries (Summary Report) 1996–97*. Islamabad: Federal Bureau of Statistics). This finding is also confirmed by Ali and Sipra 1998 (footnote 22) and Kemal 1993 (footnote 21).

credit market for working capital finance despite the fact that there can be up to a 30% difference between informal and formal sector annual interest rates [(Small and Medium Enterprise Development Authority (SMEDA) 2001, footnote 21)].

The evidence above does not substantiate the hypothesis that SMEs are being rationed out of the formal sector credit market. After all, the results in Table A2.3 (Appendix 2) could be equally consistent with the observation that SMEs have a low demand for formal sector credit and may prefer to substitute their own or family savings for it. In fact, Ali and Sipra (1998) argue that this pattern of SME financing reflects their low demand for credit because the opportunity cost of equity financing from family and friends is lower, and because SMEs may be biased against credit financing on religious grounds (footnote 22). In order to substantiate the credit-rationing hypothesis, Table 7 shows the proportional access to formal sector credit by size and age for SMEs that have used formal sector credit.

Access to credit is strongly correlated with firm size.

It is evident from Table 7 that access to credit is strongly correlated with firm size.²⁹ This confirms the theory that small and medium-size firms are indeed being rationed out of the credit market, and that their lack of access to credit does not mean low demand for credit.³⁰

Table 7: Manufacturing and Export SMEs Using Formal-Sector Credit

| Size of Firm (No. of Employees) | Proportion of SMEs with Access to Formal Sector Credit (%) | | | | All Firms |
|------------------------------------|--|------|-------|---------|-----------|
| | 0–5 | 6–10 | 11–20 | 21 or < | |
| 0–10 | 0 | 0 | 0 | 0 | 0 |
| 11–49 | 0 | 35 | 0 | 0 | 29 |
| 50–99 | 100 | 67 | 75 | 15 | 50 |
| 100 or < | 100 | 75 | 75 | 83 | 80 |
| All Sizes | 50 | 67 | 64 | 50 | 59 |

SME = small or medium enterprise.

Source: Authors' estimates based on survey data.

²⁹ This is also corroborated by recent State Bank of Pakistan (SBP) Annual Reports (see Government of Pakistan. *State Bank of Pakistan Annual Reports*. Various issues. Karachi: SBP). These show that loans up to a size of PRs5,000,000 represent a very small proportion of the credit volume. Table 7, however, does not point to a strong correlation between access to credit and firm age.

³⁰ This finding is corroborated by World Bank 2001 (footnote 22), which finds that over 50% of its sample SMEs who had ever approached a bank, reported difficulties in obtaining credit. SMEDA 2001 (footnote 21) reports a similar finding.

The small loans that SMEs normally apply for create high per unit loan costs, making it uneconomical for banks to lend to SMEs.

The World Bank (2001) argues that the credit rationing of SMEs has as much to do with cumbersome procedure and collateral requirements, as it does with banks being risk averse (footnote 22). For the average SME, the procedure for obtaining credit is beset by delays. As described in Box 2, SMEDA (2001) reports significant delays in the loan approval process, which survey interviews suggest can take anything from 2 to 10 months (footnote 21).³¹ Credit access problems also arise because of the State Bank of Pakistan's (SBP's) Prudential Regulations, which limit the ability of banks to lend to SMEs on an unsecured basis (Khan 1997, footnote 22). The credit rationing effect of the SBP rules is exacerbated by the fact that SMEs do not have the necessary collateral to meet either the Regulations or the bank's own credit standards. In fact, SMEDA (2001) reports that the collateral requirements stipulated by FIs is even more stringent than that required by the SBP: FIs require collateral of up to 120–130% of the loan value (footnote 21).

Box 2: Financial Constraints on SMEs

A number of respondent SMEs said that they were required to provide fixed property as collateral because banks refused to accept movable and immovable assets other than land as collateral. In their case, the SMEs withdrew from the formal sector credit market altogether. Other applicants were forced to spend a lot of time negotiating with banks and following up the process. In some cases, even after providing the necessary collateral, feasibility studies, and financial statements, the process of loan approval took well over 6 months and was expedited only by the payment of bribes.

The high cost of lending to SMEs, poor lending expertise, and weakly enforced creditor rights (Table 8) reinforces the apprehension that lending institutions have toward SMEs. Levy (1993) finds similar results for Sri Lanka and Tanzania and argues that “these patterns are consistent with the finding that incentives for formal FIs to lend to SMEs are weak,” leading the former to make collateral requirements even more stringent.³²

The reluctance of lending institutions to lend to SMEs is explained by a number of factors. First, the small loans that SMEs normally apply for create high per unit loan costs for banks, making it uneconomical for them to lend to SMEs (Khan 1997, footnote 22). Second, SMEDA (2001) finds that SMEs suffer from a poor track record and weak financial accounting systems (footnote 21). This reinforces the banks' demand for adequate collateral. Third, poorly enforced creditor rights make banks risk averse

³¹ Ali and Sipra 1998 (footnote 22), Kemal 2000 (footnote 22), and Khan 1997 (footnote 22) report similar findings.

³² B. Levy. 1993. Obstacles to Developing Indigenous Small and Medium Enterprises: An Empirical Assessment. *World Bank Economic Review* 7 (1): 65–83. Banerjee and Duflo (2002) report a similar finding for India. See A. V. Banerjee and E. Duflo. 2002. Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program. Mimeo. Massachusetts Institute of Technology, Cambridge, Mass.

and strengthen the demand for collateral. In Pakistan, poor judicial enforcement rather than inadequate legal rules appear to affect creditor rights (Table 8). Especially important are delays in the collateral recovery process, which, interviews suggest, can take anything between 8 and 24 months. What banks perceive as 'adequate' collateral has to be immovable and of sufficiently high value to cover the risk of default. However, for SMEs, this almost defeats the purpose of 'borrowing' at all!

Table 8: Investor Protection in Asia and Latin America

| Country | Creditor Protection Index ^a | Judicial Enforcement Index ^b |
|-----------------|--|---|
| Pakistan | 4.0 | 4.3 |
| India | 4.0 | 6.1 |
| Sri Lanka | 3.0 | 5.0 |
| Malaysia | 4.0 | 7.7 |
| The Philippines | 0.0 | 4.1 |
| Indonesia | 4.0 | 4.4 |
| Thailand | 3.0 | 5.9 |
| Argentina | 1.0 | 5.6 |
| Brazil | 1.0 | 6.5 |
| Chile | 2.0 | 6.8 |
| Colombia | 0.0 | 5.7 |
| Mexico | 0.0 | 6.0 |

^a An index measuring how well the legal framework in that country protects secured creditors. It will equal 4.0 (best) when: (i) there are minimum restrictions, e.g., creditors' consent for firms to file reorganization; (ii) there is no automatic stay on collateral; (iii) debtor loses control of the firm during reorganization; and (iv) secured creditors are given priority during reorganization.

^b An index measuring the quality of judicial enforcement, ranging from 1 (worst) to 10 (best) and equal to the average of five subindexes measuring: (i) the efficiency of the judicial system; (ii) the rule of law; (iii) the incidence of corruption; (iv) the risk of expropriation; and (v) the risk of contract repudiation.

Sources: Rafael La Porta, L. S. Florencio, A. Shleifer, and R. W. Vishny. 1998. Law and Finance. *Journal of Political Economy* 106 (6): 1113–1155; and Rafael La Porta, L. S. Florencio, and A. Shleifer. 1999. Corporate Ownership Around the World. *Journal of Finance* 54 (2): 471–517.

Eventually, this limits SMEs' access to credit and their growth becomes strongly tied to fluctuations in retained earnings, which are highly correlated with macroeconomic fluctuations. With constant investment opportunities, it is precisely in times of declining internal finance that SMEs cannot obtain finance on the margin for capital spending projects. Furthermore, as SMEs face asymmetric information problems in credit markets, they are likely to need to pay a premium to obtain outside equity. Pakistani SMEs, which tend to be family-run businesses, disincline toward equity financing, where investors

SMEs' access to credit and their growth becomes strongly tied to fluctuations in retained earnings.

Medium-size and large firms have better access to the formal credit market than micro- and small firms.

participate in profits, ownership, and control.³³ Equity finance will not resolve the financial problems confronting SMEs in Pakistan's existing financial structure.

An exception to this is the possibility of mobilizing capital through 'trust' networks based on the *biradari* (clan) system. However, study interviews reveal that this pattern of raising capital is unimportant for sample respondents. These financing constraints, in turn, disproportionately increase the burden of 'risk' borne by the SME entrepreneur and his family. It is not surprising that recent studies in Pakistan have found a strong pro-cyclical relationship between the growth of the SME sector and the overall growth of the economy.³⁴

Retail Sector

The pooled sample of retail firms shows that 83% of investment finance comes from retained earnings and self-financing (Table A3.3, Appendix 3). Family/friends and formal-sector credit institutions contribute a meager 16% to SME finance. Similarly, 86% of the working capital needs of SMEs are met through retained earnings. As in the case of the manufacturing sector, informal credit markets are an unimportant source of finance among Pakistani SMEs. Table A3.3 (Appendix 3) shows that medium-size and large firms have better access to the formal credit market than micro- and small firms. In interviews, the smaller retailers interpret these patterns as evidence of their being rationed from the formal sector credit market (Box 3).³⁵

Box 3: Micro- and Small Retailers: A Description

Micro-enterprises in the retail sector tend to be small shops (specific or general purpose) owned by an individual and his/her siblings and employing one or two salespersons. SEs in this sector include retailers that have either become large general shops or have started multiple retail outlets (start of a chain). A single micro-enterprise started with family or personal savings, might not need access to formal credit markets, but once entrepreneurs expand their shop size, the need for access to the formal credit market becomes essential. At this stage, there is a quantum jump in the need to manage inventories, supply chains, and imports: this group finds credit markets to be a significant constraint. The constraint becomes nonbinding for medium-size and large retailers because of their access to collateral. Study interviews suggest that growth potential is highest among small retailers; it is among this group that credit market imperfections need to be corrected most. Given the problems associated with the cost of finance and collateral requirements, it is important to develop appropriate instruments to alleviate the credit constraints on small retailers and integrate these firms into the formal market.

³³ D. Linglebach. 2002. Feasibility Study for an SME Risk Capital Fund in Pakistan. Draft report. ADB, Islamabad.

³⁴ Social Development Policy Center. 2001. *Social Development in Pakistan*. Karachi: Oxford University Press. Snodgrass and Biggs 1996 (footnote 13) report similar findings for other developing countries.

³⁵ The retail sample is too small to obtain meaningful results for the correlation between firm age/size and access to credit. The study has relied on interview responses to capture a sense of these constraints.

Small retailers identify the following as binding constraints on their ability to grow: (i) the availability of credit; (ii) the procedural and collateral requirements of FIs; and (iii) the delays in obtaining finance. The constraints on SEs in the retail sector are, therefore, quite similar to the constraints identified by manufacturing sector SMEs.

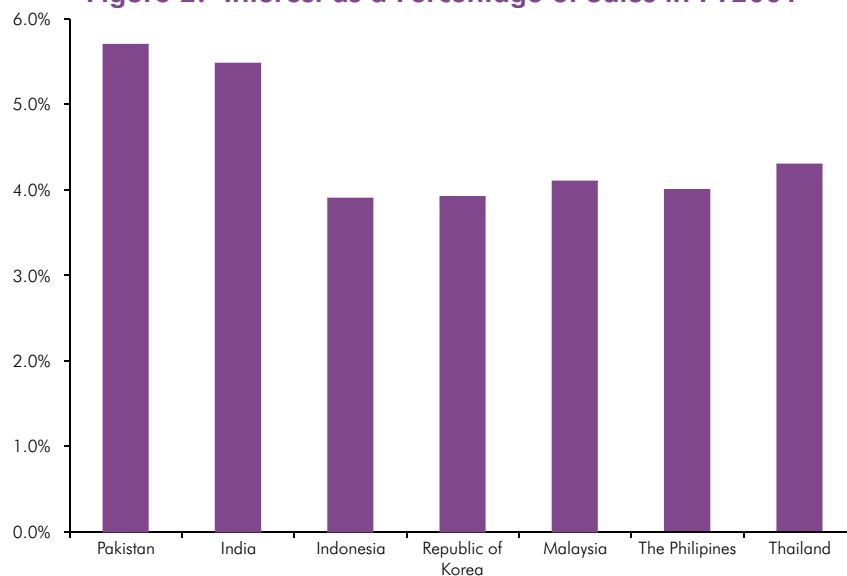
The Cost of Credit Financing

For SMEs, access to risk-sharing credit is also difficult because of its high costs (Tables A2.2, Appendix 2; and A3.2, Appendix 3). The interest rate spread of banks increased from 3% during the second half of the 1980s to around 8% by the turn of the millennium (footnote 2). This increase in spread can be traced to the drag of the banking sector's large nonperforming loan (NPL) portfolio, high overheads, and the imposition of advance income taxes.³⁶ Rising interest rates also reflect the consequences of high budget deficits.

Access to risk-sharing credit is difficult for SMEs because of its high costs.

The high cost of credit can also be attributed to the high 'risk free' returns that were offered on the national saving schemes (NSSs) as of FY2002, which raised the cost of borrowing for FIs. Despite the recent reduction in interest rates, interest costs in Pakistan remain one of the highest in the South and East Asian region and this creates major disincentives for investment (Figure 2).

Figure 2: Interest as a Percentage of Sales in FY2001



FY = fiscal year.

Sources: O. Goswami, S. Gantakolla, V. More, A. Mukherjee, and A. K. Avun. 2002. *Competitiveness of Indian Manufacturing, Results from a Firm Level Survey*. Washington, DC: World Bank; and Government of Pakistan. 1996. *Census of Manufacturing Industries 1995–96*. Islamabad: Federal Bureau of Statistics.

³⁶ IMF. 2001. *Pakistan: Income Tax Reform*. Washington, DC: IMF.

The Cost of Leasing

High leasing costs are only a constraint on medium-size and large firms because small firms rarely resort to lease financing.

Section 3.1.1 shows that the high cost of leasing is a binding constraint on firm-level growth. Table A2.1 (Appendix 2) shows that high leasing costs are only a constraint on medium-size and large firms. This is largely because small firms rarely resort to lease financing, which other studies attribute to high regulatory costs (SMEDA 2001, footnote 21). Very few of the sample retailers use lease finance, and the discussion here is confined to the manufacturing sector. In fact, among the sample of small firms, leasing accounts for only 2% of total fixed investment, while for medium-size firms, it represents up to 25% of total fixed investment. Secondary evidence suggests that medium enterprises (MEs) that could not obtain lease financing were barred by the high costs and SBP collateral regulations (SMEDA 2001, footnote 21). This helps explain the high average scores given to large down payments in the leasing sector data (Table A2.2, Appendix 2).

There are two reasons why the cost of leasing tends to be high in Pakistan. First, the cost of funds for leasing companies is much higher than the cost of funds for banks because of their (leasing companies') low credit rating (Table 9). The cost of funds for leasing companies averaged approximately 18% per annum between FY1990 and FY2001, which was significantly higher than the cost of funds for the banking sector. Second, the cost of intermediation tends to be high because most leasing companies are small. Liberal tax incentives for leasing, which have led to the proliferation of a large number of leasing companies, may be an important reason for their small size. In turn, the low tax rates applied to leasing allow these companies to function in spite of these inefficiencies. Inefficient leasing partially explains why the return on mark-up-based assets in this sector has remained high despite a fall in the cost of funds (Table 9).

Table 9: Spreads in the Leasing Industry

| Item | 1996 | 1997 | 1998 | 1999 | 2000 |
|------------------------------------|-------|-------|-------|-------|-------|
| Cost of Interest-Based Funds (%) | 18.51 | 18.25 | 18.01 | 16.73 | 17.24 |
| Return on Mark-Up-Based Assets (%) | 22.46 | 22.57 | 22.84 | 23.02 | 22.62 |
| Spread | 3.95 | 4.32 | 4.83 | 6.29 | 5.38 |
| Cost of Funds for Banks | 8.40 | 8.00 | 7.40 | 6.20 | 5.30 |

Notes: These figures, reported by the two largest leasing companies in Pakistan, are likely to have been overestimated because of scarce detailed data on the complex structure of leasing costs.

All years refer to calendar years.

Source: Khawar Khaliq, Saad Haleem, Maqsood Ahmed, and Mansoor Hussain. 1991. Pakistan Industrial Leasing Corporation: Management Control System. MBA thesis. Lahore University of Management Sciences, Lahore.

Exporters and Access to Export Finance

Section 3.1.1 also shows that lack of access to export finance is a binding constraint on exporters (Table A2.2, Appendix 2). A major lacuna in the export finance facility that places SMEs at a disadvantage is that the facility is available only against export letters of credit. This is a problem as SMEs tend to be indirect exporters (SMEDA 2001, footnote 21) and so, cannot avail the facility. Schemes like back-to-back inland letters of credit that could have made credit available to indirect exporters have not been successful. The study suggests that a major impediment for exporters is, again, their inability to post adequate collateral.

The poor performance of the financial and leasing sectors has raised the cost of credit and lease finance for Pakistani firms.

3.1.3 Financial Constraints: A Summing-Up

The analysis suggests that financial sector regulations—created partly as a response to the financial problems that banks in Pakistan faced in the 1990s—have constrained SMEs' access to credit markets. The poor performance of the financial and leasing sectors has raised the cost of credit and lease finance for Pakistani firms. These factors not only increase the cost of growth but also result in suboptimal risk sharing, which creates disincentives for growth and investment. When combined with a lack of access to equity markets (due to the existing regulatory structure in Pakistan) and weak 'trust' networks, this reinforces the financial constraints faced by SMEs.³⁷ This discussion reveals the need for reform in the financial sector to improve SMEs' access to credit.

3.2 Infrastructure Constraints

3.2.1 Survey Results

Table A1.7 (Appendix 1) shows that infrastructure-related problems are a key constraint on firm-level growth. The main constraints (Table A2.5, Appendix 2) faced by the manufacturing and export sector sample include:

- (i) The high cost, poor service-quality, and unreliable supply of power;
- (ii) An inefficient transport network that is unreliable and costly to use;
- (iii) Corrupt utilities.

Manufacturing sector SMEs also report that the high cost of backup power makes power delivery an even more binding constraint. However, when the study's power sector rankings are stratified by firm

³⁷ This observation is based on the study's interviews.

Infrastructure-related constraints are not size-specific and appear binding across firm size.

size, these constraints appear to apply equally across firm sizes (Tables A2.4 and A2.5, Appendix 2). This is not true for transport-related constraints, which are binding on medium and large enterprises. Infrastructure-related constraints, unlike financial constraints, are not size-specific and appear binding across firm size.

Infrastructure-related constraints are equally binding on the retail sector. High rates of power, poor delivery, and poor reliability are a serious concern for retailers. Within the retail sector, it is the micro- and small firms that are worst hit: given their size, the cost of setting up backup power is too high (Tables A3.4 and A3.5, Appendix 3), which makes investment in backup power uneconomical. Retailers have to pay 'commercial tariff rates' which are much higher than both residential and industrial tariff rates.³⁸ It is not only the unreliable supply of power but also its cost that emerge as a constraint on firm growth in the retail sector.

3.2.2 The Power and Transport Sectors: Structure and Supply

The power and transport sectors (apart from road transport) in Pakistan are largely state-controlled and highly concentrated. Together, the state-owned Water and Power Development Authority (WAPDA) and Karachi Electric Supply Corporation (KESC) control almost the entire electricity distribution and transmission market. WAPDA alone accounts for 55% of Pakistan's power generation capacity.³⁹ Similarly, government agencies dominate railways, airlines, and ports (World Bank 2002, footnote 10).

Evidence suggests that Pakistan's state-controlled and concentrated infrastructure is highly inefficient. The country's power transmission and distribution losses (including power theft) are extremely high by developing country standards (Table 10) and are the highest in South Asia.

³⁸ See the *Pakistan Economic Survey 2001–02* (footnote 2) for details on power tariffs. On average, a baseline consumer pays PRs1.34 per unit, while a commercial enterprise pays PRs6.48 per unit.

³⁹ The total installed capacity in Pakistan was 18,062 MW in FY2002, of which WAPDA owned 9,930 MW. The public sector controlled 12,410 MW or almost 69% of the total installed capacity (footnote 2).

Table 10: Power Generation and Distribution Losses in Asia

| Country | Power Generation and Distribution Loss (% of Output) |
|-----------------------------|---|
| Pakistan | 23.8 |
| India | 17.9 |
| Bangladesh | 15.1 |
| Sri Lanka | 17.4 |
| South Asia (Average) | 18.6 |
| Malaysia | 8.0 |
| Indonesia | 11.6 |
| Thailand | 8.7 |
| Singapore | 4.1 |
| East Asia (Average) | 8.1 |

Source: World Bank. 2001. *World Development Indicators*. CD-ROM. Washington, DC: World Bank.

Given this level of inefficiency, it is not surprising that energy costs in Pakistan are one of the highest in the world (Table 11).

Table 11: Retail Price of Industrial Power in 1998

| Country | Retail Price of Industrial Power (\$ per kWh) |
|-------------------|--|
| Pakistan | 0.09 |
| India | 0.07 |
| Republic of Korea | 0.06 |
| Taiwan | 0.06 |
| Mexico | 0.05 |
| Poland | 0.04 |
| USA | 0.04 |
| Canada | 0.04 |

kWh = kilowatt-hour.

Sources: O. Goswami, S. Gantakolla, V. More, A. Mukherjee, and A. K. Avun. 2002. *Competitiveness of Indian Manufacturing, Results from a Firm Level Survey*. Washington, DC: World Bank; and Water and Power Development Authority. *Annual Energy Report*. Various issues. Islamabad: Government of Pakistan.

These results put into perspective the common refrain among entrepreneurs that the high cost of energy dampens firm-level growth. In addition to power theft, and transmission and distribution losses, the high cost of energy is the result of cross-subsidized power tariffs. Political imperatives dictate that agricultural consumers and households pay relatively little for the power that they consume. Consumers also tend to collude with state departments to draw far more power than what they are actually billed for. A consequence of this structure is that the industrial and commercial sectors, especially medium-size and large firms, end up paying a very high price for the energy they consume. They also end up

The high cost of energy dampens firm-level growth.

bearing the large fixed costs of setting up private power generation capacity, which emerges as a major constraint on growth.

An inefficient, high-cost infrastructure is a binding constraint not only on SME growth but also on the growth of large-scale enterprises.

The main factors underlying these constraints are: (i) large line losses, and (ii) the opaque tariff structure. Pakistan's line losses are extremely high (more than 20% of transmitted power is lost)⁴⁰ for several reasons. Hydel generation is concentrated in the north of the country, while most of the consumption is in the south. This requires a longer grid and results in greater line losses. Line losses also arise because of ill-maintained and upgraded high-voltage transmission lines, as well as power theft. Poor incentives for employees to provide high-quality customer service results in frequent breakdowns, equipment downtime, and higher rates of equipment depreciation, all of which contribute to line losses.

Power sector inefficiencies in Pakistan are also caused by the prevailing opaque tariff structure. Existing power tariffs discriminate among users by customer type (domestic, commercial, industrial, or agricultural) and usage (tariffs increase sharply with usage). Opaque and distorted tariffs subsidize some groups at the expense of others and result in nonoptimal usage and inefficiencies. Farmers, domestic users (especially lifeline users) and subscribers in the Federally Administered Tribal Areas are subsidized at the cost of commercial and industrial users. This not only discourages commercial/industrial activity but also undermines WAPDA's sustainability.

Political imperatives drive WAPDA and KESC to impose the highest tariffs on these customers, even though industrial and commercial users (as heavy consumers of power) are low-cost customers. Distortions due to tariff opaqueness, cross subsidization and line losses increase information asymmetries between WAPDA and its regulator, making it more difficult to regulate utilities.

Similar inefficiencies also characterize Pakistan's transport system. The World Bank (2002) suggests that approximately 6% of GDP is lost because of transport inadequacies, especially due to inefficiencies and high costs (footnote 10). Although the existing research cannot establish the root of these inefficiencies, the study's findings suggest that an inefficient, high-cost infrastructure is a binding constraint not only on SME growth but also on the growth of large-scale enterprises. Respondents' scores imply that infrastructure-related constraints are equally binding on exporters and nonexporters, which seriously hinders the competitiveness of Pakistan's exports.

⁴⁰ See WAPDA. 2000. *Annual Energy Report 1999–2000*. Islamabad: Government of Pakistan. However, independent estimates calculate line losses to be about 30–35%.

3.3 Human Resource Constraints

3.3.1 Survey Results

Human resource (HR) constraints also appear binding on firm-level investment and growth (Table A1.7, Appendix 1), although different aspects of HR constrain different sizes of firm (Tables A2.6 and A2.7, Appendix 2). For small manufacturing and export firms, the constraint is manifested in the lack of trained middle management, and low levels of skill, education, and vocational training among workers.

As manufacturing firms expand, the lack of trained higher management and qualified technicians emerges as a binding constraint—a natural consequence of the increased need for professional management. Exporters are also constrained by the lack of qualified technicians, which translates into increased time costs associated with machinery breakdowns. These delays are an important obstacle to export competitiveness and stunt the growth potential of export firms.

Restratifying the manufacturing sector rankings by subsector (Appendix 4) reveals that the lack of skilled workers and vocational training constrain export- and technology-intensive subsectors, i.e., textiles and light engineering. This clearly suggests that, for SMEs wanting to compete in the export market and in technology-intensive subsectors, the lack of skilled and trained workers creates a severe growth-bottleneck.

The lack of trained middle management emerges as the only binding constraint for the pooled sample of retailers. When stratified by firm size, HR constraints appear binding for both small and large retailers. Table A3.7 (Appendix 3) shows that these firms find that workers and technicians are inadequately trained and have low levels of skill and education. The sample firms also face a significant shortage of middle management. Small retailers also find that the lack of family members to manage their business is a binding constraint, while large retailers consider the lack of higher management binding.

Micro-retailers—which comprise single, small shops, use family labor, and hire one or two general-purpose helpers—do not find HR constraints to be binding (Table A3.7, Appendix 3). There is hardly any need for qualified technicians, management, or vocational skills, and since the entrepreneur is usually present in the shop, monitoring any hired help is not a problem. As retail operations become larger, more departmentalized, and geographically spread out, the lack of technicians, trained middle and higher management, and specialized and educated salespeople becomes a binding constraint. The need to install systems to monitor employees also becomes an important concern.

As manufacturing firms expand, the lack of trained higher management and qualified technicians emerges as a binding constraint.

3.3.2 The Quality and Quantity of Human Resources

There are important quantitative and qualitative issues in the area of HR in Pakistan. Some of the main issues that the entrepreneurs interviewed brought up were that:

- (i) Workers were not educated enough;
- (ii) Personnel were not adequately trained;
- (iii) Lower- and middle-level personnel lacked the requisite skills;
- (iv) Even where workers had degrees or certificates, the quality of training and education they had received was very poor;
- (v) There was a significant mismatch in the skills required by employers and the training offered by institutions.⁴¹

The seriousness of this is apparent in the fact that only 2.6% of Pakistan's population between the ages of 17 and 23 is enrolled in institutions of higher learning;⁴² this proportion is one of the lowest in the world. Since 1983, 18 universities and 9 degree-awarding institutions have been set up in the private sector, but this rapid growth has not eased the HR constraint (footnote 42).

Only 15% of students are enrolled in private universities (footnote 42), and so, the public sector still caters for the bulk of students. The quality of public sector education is a serious concern. While the lack of funding is an important issue, the quality of education offered is affected more severely by resource mismanagement; ineffective governance and management; poor HR (faculty) management programs; and politicization and bureaucratization (footnote 42). It is not surprising that the quality of the student body entering the workforce remains below the required standards of entrepreneurs.

Within the private sector, most of the growth has occurred in management and information technology (IT); there are few private engineering and general universities.⁴³ Most of these private institutions are market-driven, for-profit institutions. Their tuition fees are five to ten times that of public sector institutions, and so, they are rarely accessible for the poor and middle classes, which form the bulk of the SME workforce. Within the IT sector, however, significant profit possibilities have ensured that enough institutions have entered the market to allow a potential

There is a significant mismatch in the skills required by employers and the training offered by institutions.

⁴¹ This was reconfirmed in interviews with job-search and placement bureau personnel.

⁴² Higher education in Pakistan refers to all levels above Grade 12. The figures are based on 1996 data. Government of Pakistan. 2002. Report of the Task Force of Higher Education. Government of Pakistan, Islamabad.

⁴³ General universities offer programs in more than one faculty and area.

supply to match market demand.⁴⁴ Nevertheless, SME entrepreneurs reported that the quality of training available even in the IT sector remains a serious concern.

One reason for the low quality of education even in the private sector is the role of public sector institutions in regulating private institutions. Given the poor quality of public sector education, regulatory checks are carried out at a low level and rarely constrain private sector institutions. Private universities and degree-awarding institutions need only offer marginally better education than the public sector in order to thrive in this market. This is classic 'lemon': the average standard of education has regressed to the lowest common denominator, and thus, only poor-quality education is available. Although private education may be marginally better than public sector, it fails to address the HR quality constraint affecting SMEs.

Management training in the form of short courses and business school degrees or diplomas has grown significantly in the last decade and a half. This mushrooming has made a wide spectrum of quality available for labor-force entrants and employers to choose from. However, SMEs find the cost of training too high, and they are unable to offer sufficiently high salaries to trained personnel compared to larger firms (Kemal 1993, footnote 21).

If the expected returns on trained personnel were high enough, SMEs would only need to deal with the cash flow problem of financing the training to reap future benefits. Here, access to finance could be the only help required. However, the issue is more complex. SME entrepreneurs work in uncertain markets and under weak, nonenforceable contracts. They bear a high risk in training employees (in-house or otherwise) as this investment could be lost if labor is mobile or if the macro- or industry environment is unstable. Even though employers would benefit from a trained management cadre and technical workers, none resort to actually having their workers trained.

While there is no solution to macro- or industry uncertainty, and entrepreneurs bear this risk when they decide to invest in a developing country market, the problem of 'sunk' investment in management and technical training can be handled in different ways (Section 4).

One reason for the low quality of education even in the private sector is the role of public sector institutions in regulating private institutions.

⁴⁴ Government of Pakistan. 2002. IT Manpower Development: Policy and Action Plan. Punjab Information Technology Board Working Draft. Available: www.pitb.gov.pk

3.4 Macro- and Monetary Constraints

3.4.1 Survey Results

The literature hypothesizes that macro-instability is an important constraint on growth. The survey scores confirm this expectation: both medium-size and large manufacturers report inflation and exchange rate volatility to be binding constraints (Table A2.8, Appendix 2).⁴⁵ Inflation is a binding constraint on exporters and small and large retailers (Tables A3.8 and A3.9, Appendix 3). Exporters also report exchange rate volatility caused by unexpected devaluations to be a binding constraint on their growth.

3.4.2 An Analysis of Macro-Policy and Trends

Pakistan's weakening macro-indicators during the 1990s, especially its rising external and public debt, and deteriorating current-account deficits, created a strong expectation of rising inflation within the business community in FY2002. This expectation heightened uncertainty and risk for investors, even though Pakistan did not witness runaway inflation largely because its budget deficits were not monetized (footnote 6). Interviews with exporters suggest that the increase in exchange rate volatility in the latter part of the 1990s strengthened the expectation of an uncertain and high-risk macro-environment.⁴⁶ The rankings for this constraint clearly reveal entrepreneurs' need for a stable macro-environment, one that does not fuel price inflation and instability.

The rankings for macro- and monetary constraints reveal the need for a stable macro-environment that does not fuel price inflation and instability.

3.5 Fiscal and Regulatory Constraints

3.5.1 Survey Results

Table A1.7 (Appendix 1) shows that there are three areas of regulation that impose binding constraints on firm-level growth. These include: (i) taxation, (ii) trade policy and procedure, and (iii) law and order. It is not surprising that taxation emerges as a binding constraint given that the dominant source of state revenue has shifted from tariffs to income and sales tax, which directly affect a much larger proportion of the population. Together, the share of direct taxes and sales tax as a percentage of GDP has increased from 3.6% in FY1991 to 7.8% in FY2001. The share of

⁴⁵ The high cost of foreign exchange was also ranked as a binding constraint by the sampled firms. Since FY2002, however, the Pakistan rupee (PRs) has risen in value against the dollar (\$) and this variable is no longer likely to emerge as a binding constraint.

⁴⁶ The standard deviation of the annual exchange rate increased from 3.6 in the period FY1981–FY1995, to 8.6 in the period FY1997–FY2001 period, which corroborates respondents' perceptions.

residual indirect taxes fell from 7.2% in FY1991 to 3.7% in FY2001. Regulatory and fiscal constraints are binding for all three sectors sampled, i.e., manufacturing, export, and retail (Table A2.11, Appendix 2; and Table A3.11, Appendix 3). For exporters, the sales tax refund procedure emerges as an additional binding constraint (Table A1.7, Appendix 1).

An interesting finding is that licensing requirements and labor laws are not seen as binding growth-related constraints by the sample (Table A2.10, Appendix 2).⁴⁷ In fact, in the pilot phase of the survey, respondents made it clear that there were very few licensing requirements for retail and manufacturing. Questions relating to such requirements were then dropped from the survey. The study's finding on labor laws are in contrast to the World Bank-Gallup Survey (2001), which reports labor regulations to be a key constraint on firms' ability to grow (footnote 22). Given this discrepancy in results, the issue was investigated further through interviews and secondary sources. The interviews suggest that labor regulation is not effectively enforced and is not a binding constraint on firm growth for that reason, although respondents underlined the corruption and time costs that this regulation imposes.

This assessment is corroborated by SMEDA's (2001) survey of SMEs, which reveals two interesting findings that highlight the problem of enforcing Pakistan's labor regulations. First, it reports that 80% of its respondent SMEs did not provide their employees with written employment contracts (footnote 21). Second, it finds that 90% of the workers employed by these SMEs fall in the category of temporary and contractual labor—a class of labor that is not adequately protected by Pakistan's current labor regulations (footnote 21). This evidence suggests that SMES manage to evade these regulations, which, therefore, are not direct impediments to firm-level growth. However, in order to fully deal with this issue, the following section examines the corruption burden imposed by these regulations.

Labor regulation is not effectively enforced and is not a binding constraint on firm growth for that reason.

3.5.2 Decomposing the Fiscal and Regulatory Burden

Levy (1993) points out that, while assessing regulatory constraints, “it is useful to distinguish among three distinct burdens: fiscal, bureaucratic and threshold [sic]” (footnote 32). The fiscal burden is the tax that firms actually pay. The bureaucratic burden is the diversion of entrepreneurial effort from wealth-generating activities to deal with bureaucratic procedures. Finally, the “threshold burden is the discontinuity in the structure of costs that results when some fiscal or bureaucratic burden is imposed only on firms above a minimum size” (Levy 1993, footnote 32). These definitions are useful for policy analysis

⁴⁷ This finding holds even after stratifying the sample by size.

because they help to ascertain whether the problem lies in high tax rates, cumbersome regulatory procedures, or in their discontinuous application.

The Fiscal Burden

The fiscal burden of tax rates is perceived as a binding constraint by SMEs in the manufacturing and retail sectors.

Tables A2.11 (Appendix 2) and A3.11 (Appendix 3) show that the fiscal burden of tax rates is perceived as a binding constraint by the SME sample in the manufacturing and retail sectors.⁴⁸ An exception is the sales tax rate, which was given a much higher score by large manufacturing enterprises. High tax rates have perhaps been over-assessed as a constraint since our survey coincided with the Central Board of Revenue's tax survey drive, which brought most of the respondents into the tax net. In fact, the increase in tax rates shows a mixed picture. Tariff rates have fallen steadily (World Bank 2001)⁴⁹ but the associated reduction in the fiscal burden has been more than offset by the high statutory rate of sales tax.⁵⁰ IMF (1996) shows that the effective sales tax rate increased in the latter half of the 1990s as tax exemptions were phased out, but that income tax rates remained steady and are only slightly higher than the rates prevailing in other developing countries (Table 12).⁵¹ The fiscal burden alone cannot justify the high scores given to tax-related constraints by the SME sample.

Table 12: Highest Marginal Tax Rate in Selected Developing Countries

| Country | Corporate Tax Rate (%) | Individual Tax Rate (%) |
|----------------|-------------------------------|--------------------------------|
| Pakistan | 35 | 34 |
| India | 35 | 30 |
| Sri Lanka | 35 | 35 |
| Malaysia | 28 | 28 |
| Indonesia | 30 | 30 |
| Thailand | 30 | 30 |

Note: The table includes data on individual tax rates because it applies to noncorporate enterprises.

Sources: International Monetary Fund (IMF). 2001. *Pakistan: Income Tax Reform*. Washington, DC: IMF; and World Bank. 2001. *World Development Indicators*. CD-ROM. Washington, DC: World Bank.

⁴⁸ Micro-retailers do not find any of the tax-related constraints to be binding; it is clearly a binding constraint on small retailers, however (Table A3.11, Appendix 3).

⁴⁹ World Bank. 2001. *World Development Indicators*. CD-ROM. Washington, DC: World Bank.

⁵⁰ Cheema, et. al. 2001 show that, at 15%, Pakistan's GST is one of the highest in less-developed countries (see A. Cheema, S. M. A. Shah, F. Junaidi, and M. Akbar. 2001. *Study on Business Process Reengineering of the Sales Tax System in Pakistan*. Report of the Task Force on Reform of Tax Administration for the Central Board of Revenue, Government of Pakistan, Islamabad).

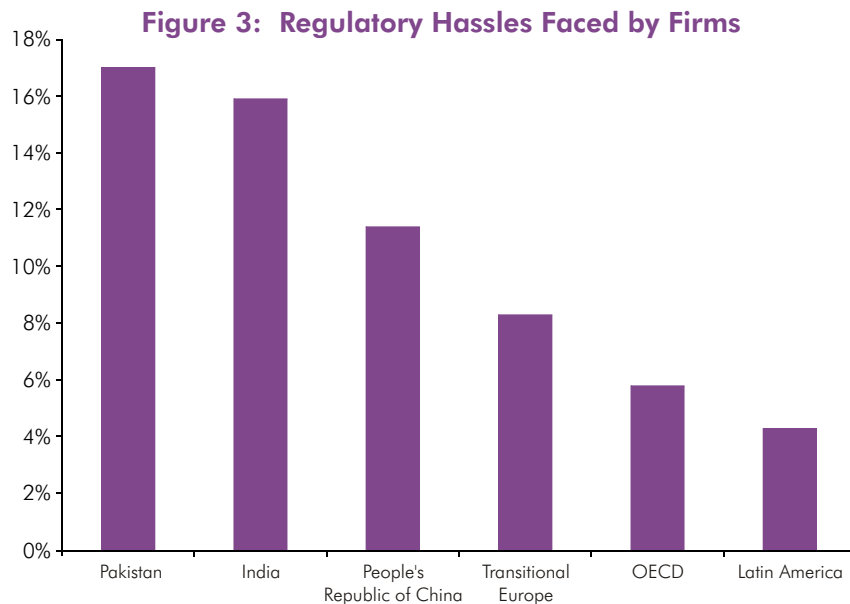
⁵¹ IMF. 1996. *Pakistan: Assessing and Improving the Revenue Performance of the Sales Tax*. Washington, DC: Fiscal Affairs Department, IMF.

Small and large retailers also find building/property tax rates and regulations to be a binding constraint (Table A3.11, Appendix 3), one that is peculiar to retail. These taxes come under local/provincial administration, and require separate paperwork from federal taxes. High property tax rates, high rates on transfers, building taxes, and the bureaucratic burden associated with official visits were identified as key constraints by retailers during the interviews.

The Bureaucratic Burden

Pakistani's tax administration and regulatory procedures clearly impose a significant bureaucratic burden on firm-level growth in all the sampled sectors (Tables A2.11, Appendix 2; and A3.11, Appendix 3). Figure 3 shows that management spends approximately 17% of its working time dealing with the regulatory and administrative burden. This compares poorly with Latin America, Organization for Economic Cooperation and Development (OECD) countries, transitional Europe, and People's Republic of China.

Pakistani's tax administration and regulatory procedures clearly impose a significant bureaucratic burden on firm-level growth.



OECD = Organization for Economic Cooperation and Development

Note: The figure illustrates the percentage of management time expended in dealing with government administration and regulation.

Sources: Authors' estimates based on survey data; and World Bank. 2000. *World Business Environment Survey*. Washington, DC: World Bank.

Tables A2.11 (Appendix 2) and A3.11 (Appendix 3) also show that the uncertainty related to tax policy adds considerably to the bureaucratic burden. A detailed analysis of the scores given to the bureaucratic burden suggests that binding constraints emerge in tax administration and the corruption among tax authorities and other government agencies.

The threshold burden associated with tax administration is low for small manufacturing firms, highest for MEs, and low again for large firms.

The Government's 2001 Task Force on Reform of Tax Administration (TAFTA) survey traces the tax administration burden to processes that entail face-to-face contact and allow government agents excessive discretion, and to a long, opaque dispute resolution process.⁵² Especially, important is the dysfunctional structure of audit in sales tax, which raises regulatory costs significantly for taxpayers. The regulatory costs of tax administration are further increased by complex laws and low education among taxpayers in Pakistan.

The high cost of Pakistan's existing nonfiscal regulatory structure is attributed to the large number of regulations. SMEDA (2001) has documented some 60 regulations that govern Pakistan's business climate (footnote 21). As in the case of tax administration, these regulations allow lower-level officers considerable discretion, resulting in high levels of corruption in both tax administration and regulation.

The Threshold Burden

Table A2.10 (Appendix 2) shows that the threshold burden associated with tax administration (i.e., the perception of administration constraints across firm size) is low for small manufacturing firms, highest for MEs, and low again for large firms. Table A3.10 (Appendix 3) shows that in the case of retail, micro-firms face a low threshold burden, which rises significantly for small firms, and then declines for large firms. SEs in manufacturing and micro-firms in retail are either exempt from these regulations or can evade them at low cost. This is especially true for micro-retailers as single shops can easily evade tax authorities. MEs in manufacturing and small firms in retail face a larger burden because they are more visible at this stage of growth and because the fixed cost of compliance does not vary with firm size.

These results are partly corroborated by SMEDA (2001), which finds the proportion of registered units and visits from tax authorities to be the highest for MEs in manufacturing (footnote 21). This is because there are registration exemptions based on turnover and income in the Sales Tax Act 1990 and Income Tax Ordinance 2001. The TAFTA survey also finds that medium-size firms have a higher probability of being audited than small and large firms (footnote 52). Finally, the cost of tax dispute resolution and the time it takes is also ranked as a higher-than-average constraint by medium-size firms in manufacturing (Table A2.10, Appendix 2) and small firms in retail (Table A3.11, Appendix 3). This shows that these firms face a relatively higher cost of operating in the formal sector as they no longer have the option of remaining outside the net.

⁵² Government of Pakistan. 2001. Reform of Tax Administration in Pakistan. Available: www.cbr.gov.pk

A similar threshold effect reveals itself in 'corruption related to taxes' and 'corruption related to other government agencies' (Tables A2.10, Appendix 2; and A3.10, Appendix 3), where again micro-retailers give low rankings, showing how strong the threshold effect is. The high scores given to 'corruption in the tax departments' are corroborated by the TAFTA survey, which ranks tax collection agencies (Box 4) and the police as among the most corrupt government agencies (footnote 52). Many of the reasons given for the observed threshold burden of tax administration apply here as well.

Box 4: Corruption in Pakistan's Tax System

The TAFTA survey^o uncovered interesting examples illustrating the harsh tax assessment and audit that prevails in Pakistan:

In one case, a husband and wife, both doctors, were asked to submit their income and expenditure statements. Wanting to ensure that their submission was consistent with requirements, they had their statements audited by a reputable auditor. In spite of this, their supporting documents were 'misplaced' twice as a deliberate hint that they should collude with the tax collectors. Finally, their income tax assessment arrived—at ten times the actual sum and accompanied by a notice.

As one interviewee remarked, "This system of multiple checks exists to extort money from businesses. They [the tax authorities] do not trust their own employees, for which we pay the price. There is a sales tax audit, a vigilance audit, an anti-corruption audit, a regional team's audit, and finally a central audit. They all visit our factories constantly and waste our time. Their only interest is in money."

^o Government of Pakistan. 2002. Report of the Task Force of Higher Education. Government of Pakistan, Islamabad.

A number of factors explain why 'corruption by other government agencies' is seen as a binding constraint and why it may be particularly severe for medium-size manufacturers and small retailers (Boxes 4 and 5). As pointed out above, SMEDA (2001) has documented 60 regulations that currently bind the operation of SMEs in Pakistan (footnote 21).

Interviews suggest that frequent inspections by various government officials (especially from the labor, social welfare, and pension departments) not only wastes valuable management time but entails considerable 'corruption costs'. Respondents made it clear that the issue was not one of compliance with the regulations per se, it was the time and pecuniary costs involved in organizing corruption (Box 6).⁵³

Frequent inspections by government officials not only wastes valuable management time but entails considerable 'corruption costs'.

⁵³ A similar finding is reported by World Bank 2001 (footnote 22).

Box 5: Pervasive Regulations

Entrepreneurs named a wide range of departments that exact bribes from them. Officials from the tax departments, utility providers, FIs, labor welfare ministries, and local authorities all fall in this gambit. These results are discussed in Section 3.5.2, but some stories illustrate particularly well the range of regulations and powers that are misused to exact bribes. These examples highlight the need to revisit these regulations and either streamline them or remove them.

A large manufacturer of confectionery reported that he was paying a certain sum a month to the local director of the department of civil defense. The director had threatened that he had legal authority to visit the factory every day, and force the entire labor force to spend two hours in parade and receiving emergency training for civil defense. He gave the confectionery entrepreneur the choice of stopping “your work for two hours, 3 to 4 days a week” or “pay[ing] this reasonable sum every month to avoid this cost.” The confectionery manufacturer chose to take up this very ‘reasonable’ offer, saying, “The director was a reasonable man. He set the amount low enough that it was not worth my while to seek legal recourse, and too much trouble to disrupt my business. Now, at the beginning of every month, he comes by to take his money and some confectionery. The food department people do the same.”

All firms have identified government regulations as one of the most important impediments to their growth, and even named the various departments and laws that create these problems (Section 3.5.2). Most of these regulations need to be reevaluated to phase out those that are unnecessary and restructure important ones to limit the scope for bribery.

When people do not pay such bribes, their transaction costs can be significantly higher. One manufacturer in light engineering mentioned: “I have cases pending in court against the local and municipal government, the sanitation department, the water department, WAPDA, various tax authorities, the labor department, and many others. My lawyer is certainly kept busy. Who in their right mind would invest in this country?”

Box 6: Time Costs

The time involved in negotiating with officials over the size of a bribe and mode of payment is a serious constraint on most entrepreneurs. SMEs complained of the money costs and the time costs of corruption; larger firms simply complained of the hassle in terms of lost time in negotiating with so many government departments. Many even suggested that they would not mind paying a monthly fixed amount equivalent to the current payment, as a single deposit in a bank account, as long as they were guaranteed that no government official would visit them subsequently.

One garments exporter from Karachi said, “These negotiations can take up to 10% of my time in a working day. I can make a lot more in that time. My opportunity cost is very high. The total payment in bribes is small compared to total turnover and what I could make in that time. If they could tell me where to deposit this money every month, and guarantee that they will not bother me individually, I would happily take the option.” Clearly, entrepreneurs look for second-best here. Ideally, the impediment would cease, but if this is not possible, streamlining the process would be preferable to a chaotic one from the perspective of the entrepreneur. However, a streamlined process is not recommended as policy because it would have negative long-term implications for the rule of law, the writ of the government, and the aim of eliminating bribery altogether. Nonetheless, the self-interest of entrepreneurs makes the streamlined process a strong contender as a ‘system’.

The threshold effect of corruption (Tables A2.10, Appendix 2; and A3.10, Appendix 3) is partly explained by the fixed-cost effect mentioned earlier, and partly by the graft maximization strategies that government inspectors employ. The SMEDA (2001) survey shows that the frequent inspections carried out by labor, old-age benefit, and social security agencies are biased against MEs (footnote 21). This may well reflect the attitude of the officials who are clearly attempting to maximize their bribe per unit of effort by pursuing a minimum threshold level of the bribe. The threshold burden imposed by tax administration and 'other' government regulations discourages firms from growing.

The Fiscal and Regulatory Burden: A Summing-Up

The discussion above clearly shows that it is the administrative and corruption costs of regulation and taxation rather than the fiscal burden or tax rate, that emerge as binding constraints on firm growth. The threshold burden of tax administration and other regulations is biased against MEs in manufacturing and small firms in retail, and gives firms an incentive to remain small.

3.5.3 Tariffs

Table A1.7 (Appendix 1) shows that high tariffs on the import of raw material and intermediate goods are seen as a binding constraint by the manufacturing firm sample. Table A2.11 (Appendix 2) shows that this applies only to SMEs and not large firms, which may reflect size-specific exemptions in the tariff structure. Table A3.11 (Appendix 3) shows that high tariffs on the import of raw material are a binding constraint on small but not large retailers. It also shows that small and large retailers see reductions in the import tariffs on final goods as a binding constraint. These results reflect the findings of other studies that the tariffs on final goods in many industrial sectors are smaller than those on intermediate and raw material.⁵⁴ In fact, Lahiri and Nasim's (2001) estimates suggest that rationalizing the tariff structure would not only stimulate the industrial sector without undermining public good provision, it may also reduce smuggling (footnote 54). It is important for tariff policy to ensure that this constraint is removed, and that the tariffs on inputs and outputs do not cause cascading for SMEs.

Small and large retailers see reductions in the import tariffs on final goods as a binding constraint.

⁵⁴ See: S. Lahiri, J. Ghani, and A. Nasim. 2000. Optimal Second-best Tariffs on an Intermediate Input with Particular Reference to Pakistan. *Journal of Development Economics* 61 (2): 393–416; and S. Lahiri and A. Nasim. 2001. Commercial Policy in Pakistan: A Theoretical and Empirical Analysis. Paper presented at the Public Finance and Development Conference, Cornell University, Ithaca, September 7–9.

The dysfunctional sales tax refund system and its compliance costs entail a step function, increasing for medium-size exporters and then falling for large exporters.

3.5.4 Export Regulations

Medium-size exporters are prone to many adverse export regulations (Tables A2.12 and A2.13, Appendix 2). The customs duty drawback and sales tax refund procedures impose severe financial costs on medium-size exporters (Box 7). The duty drawback system is currently being modernized in line with ADB's Trade, Export Promotion, and Industry project in order to reduce the costs for SMEs. However, the sales tax refund system remains dysfunctional and its compliance costs entail a step function, increasing for medium-size exporters and then falling for large exporters. This may reflect the high fixed costs of creating a managerial pool that ensures compliance with refunds at a low cost. For large firms, dealing with the sales tax refund procedure has become a specialized managerial function, and some firms even hold a position for General Manager Sales Tax! (Cheema, et. al. 2001, footnote 50).

Box 7: Regulatory Constraints on Exporters

"I cannot compete with other countries in export markets, even though my product is of world-class quality, because I cannot guarantee the time of delivery for my products. I have lost orders for automotive parts from Australia and Japan after they agreed that the quality of my product was good enough, because I could not guarantee that my shipment would reach them by such and such date. I told them I could guarantee that my shipment would be with the Karachi port authorities and Customs by a specific date, but I could not guarantee when they would allow shipment. This is clearly not good enough for them. They do not care whether it is my fault or the fault of the Customs Department. They want their shipment on time. How can I guarantee that with the current system in place? Sometimes customs officials release shipments on time, sometimes they do not, and the same is true of the port authorities."

This issue of delivery came up more than once during the study. It concerns the efficiency of the transport system and the regulatory mechanism that monitors exports from Pakistan. In industries where delivery on time is important, such as industries using Just-In-Time and edibles, a loose export system imposes significant costs on producers and on the country in terms of lost opportunities for business and growth.

"We export edibles from here. If our product does not reach its destination by a specific date, it is returned by our buyers, and we are forced into long litigation with the carriers, port authorities, and others involved in shipping, to ascribe blame and demand compensation. But, of course, the buyers do not stand for this for long. We have lost buyers because they have tired of this unpredictability and found better suppliers in other countries. Our product is good, but this lack of logistical support and procedural inefficiency is very costly to us."

3.5.5 Law and Order

All law and order variables are seen as binding constraints by the pooled SME sample (Table A1.7, Appendix 1), but when the results are stratified by size, no clear patterns emerge (Tables A2.14, Appendix 2; and A3.12, Appendix 3). This problem was explored further by restratifying the sample scores by region (Table A4.1, Appendix 4). The table clearly shows that the law and order constraints found in the sample are related to

Karachi's political problems. In areas outside Karachi, law and order is a moderate constraint on a firm's decision to invest and grow.

Law and order problems weaken property rights and as a result, investors' decision to invest. These problems are clearly linked to law enforcement and the criminal justice system, but the results suggest that the issue is complicated by regional politics. The increase in crime and violence in Karachi is largely a consequence of political conflict. This aspect of the law and order constraint dominates the study's results. Given the political nature of this issue, this paper does not pursue it any further, but the nexus of political conflict, law and order deterioration, and investment incentives is an important area of future research.

Law and order problems weaken property rights and as a result, investors' decision to invest.

3.6 Market Constraints

3.6.1 Survey Results

Tables A2.17 (Appendix 2) and A3.15 (Appendix 3) show that high market transaction costs, inefficient contract repudiation, and distorted competition create binding constraints on the growth of manufacturing and retail firms (Box 8) in Pakistan. The results show that firm growth is as affected by inefficient markets as it is by the high costs of state control and regulation.

Box 8: The Specifics of Retail Growth

Adding product lines to a retail shop and extending the shop's premises is a very different kind of growth from moving to other locations and opening more shops. The study's retail sample shows growth of the first kind; there are substantial market-related difficulties in managing growth of the second kind. Expansion in the shape of more shops is a discrete process involving significant fixed costs. Shops are expensive to acquire and furnish. Presence at more than one location requires the owner to hire middle and higher management who can be trusted with the task of looking after the business. Logistics such as inventory management and the movement of goods among locations and across time, have to be carefully managed. The entrepreneur's reliance on markets and long-term contracting increases manifold with the number of shops. Given the problems associated with long-term contracting, it is not surprising that few firms opt for geographical expansion. In most cases, if there is more than one sibling involved in a family-run business, or if the number of family members has increased by marriage, only then will a family consider increasing the number of retail outlets.

3.6.2 Market Transaction Costs

Market transaction cost variables and their scores are given in Table A2.16 (Appendix 2). These variables capture the costs of obtaining high-quality suppliers and goods and services. Some of the variables also reflect the cost of dependency on short-term spot market relationships. The results indicate that market transaction costs create binding constraints on firm growth, which is evident from the high scores given to most market transaction cost variables (Tables A2.17, Appendix 2; and

A3.15, Appendix 3). However, in the manufacturing sector sample, increases in firm size exacerbate the problem of purchasing high-quality raw material, intermediate goods, and spare parts (Table A2.16, Appendix 2). There is no clear pattern in the retail sector sample (Table A3.15, Appendix 3).

These costs of growth are particularly binding for the sample of exporters (Table A2.17, Appendix 2). Interviews suggest that these costs arise for two reasons. First, firms' demand for high-quality inputs increases significantly as they enter their growth phase. Second, the 'lack of a network' of reliable suppliers creates high transaction costs for firms in their expansion phase. This suggests that 'trust networks' are in short supply and when the scale of expansion increases, so does the cost of quality control. One consequence of poor supplier networks is the increase in inventory costs for manufacturing assemblers and suppliers. Ghani's (1997) study of Pakistan's automobile industry shows that, because of poor supplier networks, inventory levels of about 40 days for suppliers and 80 days for assemblers are far higher than international standards. For instance, inventory levels in Japan range between 0.2 and 1.5 days, while in Europe, they stand at 16.3 days.⁵⁵ Equally poor is the frequency of deliveries: about once every 10 days in Pakistan versus eight times a day in Japan. Clearly, high market transaction costs seriously hinder firm-level growth in Pakistan.

Firms' demand for high-quality inputs increases significantly as they enter their growth phase.

'Network effects' are an important area of concern in the modern industrial organization and game theoretical literature. The lack of a network of reliable suppliers, buyers, and service providers can have 'lock-in effects' for firms and industries. Network effects arise because of a divergence between the private benefits to firms and the social benefits to society. All firms may be interested in a reliable network of service providers and input suppliers, but no firm is likely to be large enough to furnish sufficient demand for the market to provide high-quality input suppliers. In fact, every firm has an incentive to 'free-ride' on others and avoid investing in the creation of quality. This is a classic result of under-investment in these areas.⁵⁶

3.6.3 Inefficient Contract Repudiation

Inefficient contract repudiation is a binding constraint on small and medium-size firm growth (Tables A2.17, Appendix 2; and A3.15, Appendix 3). An interesting result of the survey is that the cost of contract enforcement falls with size for manufacturing firms. This effect is captured by the high scores given to the variable 'speed and cost of resolution of

⁵⁵ J. A. Ghani. 1997. Automobile Deletion Policy: An Analysis. Centre for Management and Economic Research Working Paper. LUMS, Lahore.

⁵⁶ D. Ray. 1998. *Development Economics*. New Jersey: Princeton University Press.

commercial disputes' (Tables A2.16, Appendix 2). One explanation for this may be that there are economies of scale in investing in informal enforcement networks. It could also reflect the fact that 'repeated play' between parties becomes possible with increased size, which is a substitute for contract enforcement.

The cost of contract enforcement does not decrease with size for retail firms (Table A3.15, Appendix 3). This may reflect the small sample size or could be due to the different nature of contracts that concern manufacturing and retail firms (the data does not distinguish between the two). Interestingly, the high time-cost of seeking legal recourse appears as binding a constraint on small manufacturers as it is for medium enterprises. In the retail sector, it is binding on small and large firms (Table A2.16, Appendix 2). This suggests that the growth of small firms in particular, is constrained by the lack of access to effective informal and formal enforcement mechanisms, which increases the cost of contract enforcement.

Interviews suggest that the high cost of contract repudiation increases the cost of firm growth in two ways. First, it increases the risk of undertaking larger orders and contracts. Second, it forces firms to bear uncorrelated fixed costs, causing them to diversify into related activities where they do not have a comparative advantage (Box 9).

The growth of small firms is constrained by the lack of access to effective informal and formal enforcement mechanisms.

Box 9: Asset Specificity among Medium-Size Suppliers

A light-engineering manufacturer of automotive parts mentioned that he could not find high-quality suppliers of intermediate goods, and resorted to their production himself any time he needed a nongeneric product. He was aware that this had slowed his growth and made it less profitable as it forced him into specialized markets for which he lacked the expertise. It also increased his set-up time for fulfilling orders, and lowered his international competitiveness.

The issue here is of weak linkages and expertise in the vendor and subcontracting industry. SMEs are too small for full-time manufacturers to enter the intermediate goods market and produce goods specifically for them. They are also too small to take up this production themselves as they cannot produce at the minimum efficient scale.

This concern arose in other contexts also. A food manufacturer mentioned that he had started *ghee* (clarified butter) production because he could not get a high-quality manufacturer to produce it for him. The high-quality firms in the business were too large to concern themselves with a small food manufacturer; the small firms were too small and could not guarantee the quality and quantity he required; there were no middle-level firms.

A relatively large manufacturer and retailer of garments had a similar problem. He was forced to set up his own tailoring units—although he had neither the expertise nor desire to do so—because he could not find high-quality tailoring outfits to tailor his brand for him. The small outfits had too much quality variance and could not guarantee delivery on time. The large ones were not interested in the small orders the retailer wanted to place. The manufacturer could not 'build' a long-term relationship with one supplier because of contract enforcement issues.

These examples suggest that the lack of access to high-quality suppliers of intermediate goods is a common problem, and more pronounced for medium-size firms.

*Domestic industry
needs a 'level
playing field' if it is
to grow.*

Hassan, et. al. (1997) find that the enforcement of contracts is a major cause of the underdeveloped subcontracting in Pakistan (footnote 25). Their findings show that this and uncertain demand make subcontractors reluctant to adopt specialized technologies. As a result, firms have to forgo the benefits of specialization, which either lowers their growth or, as pointed out earlier, forces them into suboptimal diversification. These factors are an important reason for Pakistan's low level of technological innovation (footnote 33).

3.6.4 Distorted Competition

Competition from smuggled goods and unregistered companies is also a severe constraint on firm-level growth (Table A2.17, Appendix 2). In the manufacturing sector, competition from unregistered producers is a constraint across firm size, while competition from smuggled goods is more of a binding constraint on SMEs (Table A2.16, Appendix 2). This may reflect the greater volatility that SMEs face because of their narrower margins. In the retail sector, small and large firms face competition from counterfeit goods (Table A3.15, Appendix 3), which reduces profits on innovation (for manufacturer-retailers) and hinders the development of retailing as a specialized field (Box 10). These results clearly show that domestic industry needs a 'level playing field' if it is to grow.

The World Bank (2002) suggests that intellectual property rights (IPRs) are a double-edged sword in developing countries (footnote 3). Where strong IPR regimes facilitate the dissemination of technology through enforceable contracts, weak IPRs facilitate it through the dissemination of knowledge. East Asian countries started with weak IPR regimes in the initial stages of their development. As the capacity for legal/judicial enforceability increased, these countries developed stronger IPR regimes. The growth of local technology and brands also encourages this move. Interviews with Pakistani entrepreneurs suggest that growing firms trying to establish their brand names want stronger IPR regimes while small manufacturers and micro-retailers oppose the idea.

Box 10: Market Issues: Reputation, Brand Name, and Specialization

A number of small/medium-size and large retailers, trying to develop brand names, mentioned that they had had significant problems in finding reliable, high-quality suppliers of consumer goods. Micro-retailers did not have this problem since they rarely wanted to invest in quality by establishing a brand name. On the other hand, a number of brand producers mentioned that they had faced serious problems in marketing and selling their products through the existing network of medium-size and large retailers.

Garment retailers complained that their suppliers could not assure quality, quantity, deliveries on time, or products that were specialized enough. A food product retailer complained of a similar problem: he had had to integrate backward into producing some of the intermediate goods he required, as there were no 'high-quality' suppliers for these ingredients.

Many producers complained that when they had tried to sell their branded products through established retailers, they had compromised their reputations because of retailers' negligence. A baked foods producer mentioned that the retailers who provided her shelf space never took care to see that her products remained fresh, that customers were assured of a 'money-back guarantee' as she wished, or that her products were well displayed. A producer of garments and a producer of high-quality bed-linen mentioned the same problem. These are examples of a party wishing to establish a brand name, but finding that their reputation depends on a second party that does not share in the gains or losses accruing from that reputation; in other words, there is a 'reputation externality' that does not benefit the second party.

Producers also faced competition from 'counterfeit' goods. Several manufacturers complained that after making 'sunk' investments in research and product development, they would find their product copied, sometimes even under their own 'brand name' and tag, in less than six weeks. This is a result of weakly enforced property rights.

In either case, the result is the same: nonoptimal expansion or constraints on growth. Retailing as a specialized activity involving a brand name is a relatively new concept in Pakistan. Chain stores are still rare, and even they resort to local procurement unless owned by a 'producer'. The relative lack of development in this field has serious growth implications for the economy in terms of optimal expansion paths, brand development, and national and international marketing.

3.7 Conclusion

This section concludes the analysis by summarizing the constraints that inhibit the growth of SMEs in Pakistan's retail and manufacturing sectors (Table 13). It also analyses the policy, procedural, regulatory, and market-related factors that are responsible for generating these constraints. This achieves three objectives. First, it corroborates or rejects the hypotheses of SME growth that have been put forth so far in the literature (although, given the small size of the sample used, these inferences need to be treated with caution). Second, it highlights new constraint areas that have not been given due importance in the literature. Third, it helps separate those constraints that are specifically binding for SMEs from others that hinder the growth of the retail and manufacturing sectors in general.

3.7.1 Corroborating or Rejecting Existing Hypotheses

The results show that Pakistan's existing labor and entry regulation, and licensing requirements are not binding constraints on the growth of manufacturing or retail sector SMEs. However, the findings support the hypotheses that identify the following factors as constraints on SME growth in Pakistan:

- (i) Formal sector credit rationing;
- (ii) The high cost of lease and credit financing;
- (iii) Low levels of skill, education, and training among the labor force;
- (iv) The high compliance costs of fiscal and nonfiscal regulation;
- (v) A cascading tariff structure; competition from smuggled and counterfeit goods;
- (vi) The high cost and poor delivery of infrastructure.

An important contribution of this study is that it confirms these hypotheses for the manufacturing *and* retail sectors, and describes the mechanisms that generate these constraints in the first place. This exercise is important because it provides useful information on which to base policy reforms.

3.7.2 Identifying New Areas of Constraint

The study contributes significantly to the literature by identifying new constraints that hamper SME growth. These include high market transaction costs and inefficient contract repudiation: constraints on the growth of SMEs and their ability to take risks, which apply to the retail and manufacturing sectors. This is an important insight because it suggests that the right regulatory framework for executing and enforcing contracts is as important for SME growth as the traditional emphasis on reducing state-control and regulation.

The study also shows that the existing regulations, both fiscal and non-fiscal, create not only high compliance costs but also significant corruption costs associated with regulatory and fiscal procedures. More importantly, the study suggests that these costs are highly biased against SMEs that have entered their expansion phase (i.e., medium-size firms in the manufacturing sector and small firms in the retail sector). Such costs also set strong incentives for firms to remain small. These new findings must be considered carefully in policy design.

High compliance and corruption costs are highly biased against SMEs that have entered their expansion phase.

3.7.3 Identifying SME-Specific Constraints

An important aim of any SME revival policy should be to eliminate those constraints that reduce the growth potential of this sector specifically. This is important if only to level the playing field for the SME and LSM sectors. The findings presented in this section identify the constraints that particularly inhibit the growth of SMEs. The lack of access to credit, for instance, is a binding constraint that hinders not only their growth potential but also their risk taking. There is also the threshold burden of compliance and corruption costs associated with the existing fiscal and regulatory framework: this is particularly binding for MEs in their expansion phase. Finally, high market transaction costs and inefficient formal contract enforcement inhibit the development of SME clusters and subcontracting networks, thus imposing high inventory costs on SMEs and even forcing them to diversify suboptimally.

Removing these constraints should be an essential goal of government policy, which already has the stated objective of stimulating growth in the SME sector. Apart from these variables, an inefficient power and transport infrastructure and poor-quality human capital constrain the growth of SMEs and large firms. Eliminating these binding constraints would propel the growth potential of the SME sector in Pakistan. Detailed recommendations for resolving specific constraint areas are given in Section 4.

High market transaction costs and inefficient formal contract enforcement inhibit the development of SME clusters, even forcing them to diversify sub-optimally.

Table 13: Summary of Binding Constraints on Firm Growth and Investment

| Binding Constraints Identified by Respondents | Manufacturing Firms | | | | Retail Firms | | | Factors Underlying Constraints |
|---|---------------------|-------|-------------|-------|--------------|-------|-------|---|
| | Exporters | Small | Medium-Size | Large | Micro- | Small | Large | |
| Financial Constraints | | | | | | | | |
| Credit | | | | | | | | SBP's Prudential Regulations |
| Lack of access to credit | ✓ | ✓ | ✓ | | | | ✓ | FIs' loan disbursement procedures |
| Stringent collateral requirements | | ✓ | ✓ | | | | ✓ | High per-unit cost of SME lending |
| Lack of connections with credit agencies | | ✓ | ✓ | | | | | SMEs' poor reputations and weak systems |
| Procedural delays in loan disbursement | | ✓ | ✓ | | | | ✓ | Weak creditor rights |
| Corrupt systems for obtaining finance | | ✓ | ✓ | | | | | Long loan recovery procedure |
| High cost of credit ^a | | | | | | | | Drag of banking sector's NPL portfolio High overheads |
| High interest rates | ✓ | ✓ | ✓ | ✓ | | | ✓ | High budget deficits High risk-free NSS returns |
| Leasing | | | | | | | | |
| High cost of leasing | ✓ | | ✓ | ✓ | | | | SBP's collateral regulations High cost of funds because of leasing companies' low credit ratings |
| Large down payments | ✓ | | ✓ | ✓ | | | | High intermediation costs because of leasing companies' small size |
| Export Finance | | | | | | | | SBP's collateral regulations |
| Lack of access to export finance | ✓ | | | | | | | Disbursement against export letters of credit |

Continued on next page

FI = financial institution, NPL = nonperforming loan, NSS = national savings scheme, SBP = State Bank of Pakistan, SME = small or medium enterprise.

^a Calculations made in 2002.

Source: Authors' analysis.

Table....Continued

| Binding Constraints Identified by Respondents | Manufacturing Firms | | | | Retail Firms | | | Factors Underlying Constraints |
|--|---------------------|-------|-------------|-------|--------------|-------|-------|---|
| | Exporters | Small | Medium-Size | Large | Micro- | Small | Large | |
| Infrastructure Constraints | | | | | | | | |
| Power | | | | | | | | |
| High rates | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Inefficiencies because of concentrated state ownership |
| Poor service quality | ✓ | ✓ | ✓ | ✓ | | | | Opaque tariff structure |
| Unreliable supply | ✓ | ✓ | ✓ | ✓ | | | | |
| Corrupt utilities | ✓ | ✓ | ✓ | ✓ | | | | |
| High cost of backup power | ✓ | ✓ | ✓ | | | ✓ | ✓ | |
| Transport^b | | | | | | | | |
| High rates | | ✓ | ✓ | | | | | |
| Unreliable network | ✓ | ✓ | ✓ | ✓ | | | | |
| Poor service quality | ✓ | ✓ | ✓ | | | | | |
| Poor availability | ✓ | ✓ | ✓ | ✓ | | | | |
| Human Resource Constraints | | | | | | | | |
| Workforce with low levels of skill and education | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Low enrolment in higher education |
| Inadequate vocational training | ✓ | | ✓ | ✓ | | ✓ | | Poor-quality public and private education/training |
| Lack of trained middle management | | ✓ | | | | ✓ | ✓ | Lack of financing and mismanagement of public sector education/training |
| Lack of trained higher management | ✓ | | | ✓ | | | ✓ | 'Sunk' investments in training not protected |
| Lack of qualified technicians | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Lack of support for defraying coordination and initial costs |
| Macro- and Monetary Constraints | | | | | | | | |
| High cost of foreign exchange | ✓ | | ✓ | ✓ | | | | Rising budget deficits Deteriorating current accounts |
| Exchange rate volatility | ✓ | | ✓ | ✓ | | | | Escalating external debt |
| Inflation | | ✓ | ✓ | | | ✓ | ✓ | |

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^b Given the lack of research in this area, it is unclear which factors are responsible for the inefficiency in this sector.

Table.....Continued

| Binding Constraints Identified by Respondents | Manufacturing Firms | | | | Retail Firms | | | Factors Underlying Constraints |
|---|---------------------|-------|-------------|-------|--------------|-------|-------|--|
| | Exporters | Small | Medium-Size | Large | Micro- | Small | Large | |
| Fiscal and Regulatory Constraints | | | | | | | | |
| Taxation | | | | | | | | |
| High rates of income tax | | | ✓ | | | ✓ | ✓ | Procedures that allow excessive official discretion |
| High rate of sales tax | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Corruption |
| Tedious procedures for submitting income tax statements | ✓ | | ✓ | ✓ | | | | Opaque and lengthy dispute resolution |
| Tedious procedures for submitting sales tax statements | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Dysfunctional audit procedure |
| Income and sales tax policy uncertainty | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Complex laws |
| Speed and cost of resolving tax disputes | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Low taxpayer education |
| Regulation | | | | | | | | |
| Corruption among associated government agencies | ✓ | ✓ | ✓ | ✓ | | ✓ | | Too many regulations Opaque and discretionary procedures |
| Tariffs | | | | | | | | |
| High tariff rates on imports of raw material | ✓ | | ✓ | | | ✓ | | Cascading tariff structure |
| High tariff rates on imports of intermediate goods | | ✓ | ✓ | | | | | |
| Unpredictable changes in tariffs | ✓ | ✓ | ✓ | | | | | |
| Reductions in tariffs of final goods | | | | | | ✓ | ✓ | |
| Export Regulation | | | | | | | | |
| Cost of delay in obtaining duty drawback | ✓ | | | | | | | Procedures that promote direct contact and allow excessive official discretion |
| Cost of delay in obtaining sales tax refunds | ✓ | | | | | | | Corruption |
| Uncertainty of sales tax refunds | ✓ | | | | | | | |

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Table....Continued

| Binding Constraints Identified by Respondents | Manufacturing Firms | | | | Retail Firms | | | Factors Underlying Constraints |
|--|---------------------|-------|-------------|-------|--------------|-------|-------|--|
| | Exporters | Small | Medium-Size | Large | Micro- | Small | Large | |
| Law and Order | | | | | | | | |
| Sectarian strife | | ✓ | ✓ | | | | | Inefficient and corrupt law enforcement |
| Ethnic strife | | | | | | | | Ineffective criminal justice system |
| Crime and theft | ✓ | ✓ | ✓ | ✓ | | ✓ | ✓ | Political unrest |
| Law and Order | | | | | | | | |
| Market Transaction Costs | | | | | | | | |
| Lack of high-quality suppliers | ✓ | ✓ | ✓ | ✓ | | | | Low-trust environment |
| Lack of high-quality raw materials | ✓ | | ✓ | ✓ | | ✓ | | Inefficient contract repudiation |
| Lack of high-quality intermediate goods | ✓ | | ✓ | ✓ | | | | |
| High cost of spare parts | | ✓ | ✓ | | | ✓ | ✓ | |
| Repudiation of Contracts | | | | | | | | |
| Slow pace and high cost of commercial dispute resolution | | ✓ | ✓ | | | ✓ | ✓ | Delays and inefficiency of commercial courts |
| Inefficient legal recourse to contract violation | ✓ | ✓ | ✓ | | | | ✓ | |
| Distorted Competition | | | | | | | | |
| Competition from smuggled goods | | ✓ | ✓ | | | | | High tariffs leading to smuggling |
| Competition from unregistered goods | | ✓ | ✓ | ✓ | | | | Undocumented economy |
| Competition from counterfeit goods | | | | | | ✓ | ✓ | Weak intellectual property rights |

4 Recommendations

This section recommends a number of policy and institutional interventions to overcome the specific constraints on SME growth identified in Section 3. Sections 4.1 to 4.3 focus on binding constraints that are specific to SMEs, i.e., financial sector constraints, market constraints, and fiscal and regulatory constraints. Sections 4.4 and 4.5 concern binding constraints on the general development of the manufacturing and retail sectors, i.e., infrastructure and HR constraints. The study does not, however, provide any recommendations to overcome the macro- and law and order constraints identified in Section 3, since this is beyond its scope.

The 'financial rationing' of SMEs is an important regulatory and market failure that needs to be addressed.

4.1 Financing

As shown in Section 3, poor access to credit hinders the growth of SMEs and their ability to take risks. Specifically, the following constraints apply to manufacturing sector SMEs and small retail firms:

- (i) Stringent collateral requirements specified by the SBP's Prudential Regulations;
- (ii) Procedural delays in obtaining loans;
- (iii) Poorly enforced creditor rights;
- (iv) High perceived risk and poor reputation of SMEs.

Informal markets rely on a small number of participants to function efficiently, which limits the pool of resources that can be invested by its users (footnote 3). This suggests that the 'financial rationing' of SMEs is an important regulatory and market failure that needs to be addressed by policymakers and donor institutions. The following sections suggest measures to improve SMEs' access to formal credit markets and to lower the cost of credit and leasing. These reforms are largely consistent with market incentives and do not rely on state subsidization; they are also likely to improve SMEs' access to export finance.

4.1.1 Improving Access to Formal Credit Markets

Revisiting Collateral Requirements

In Pakistan, enforcement problems and information constraints make it difficult for FIs to accept movable property as collateral, although the SBP's Prudential Regulations recognize it as such. Banks consider movable property to be risky collateral because it is difficult to monitor the existence of pledges and hypothecated property. This affects SMEs in particular: unlike large enterprises, SMEs are less likely to have immovable property to offer as collateral to secure loans from creditors. The risks associated with movable property are exacerbated by weak judicial enforcement. International evidence indicates that relying on the power of judicial enforcement weakens access to credit if movable property is to be used as collateral.⁵⁷ Even in developed countries, courts often take very long to dispose of cases, increasing collection time and cost, and making it less feasible for movable property to serve effectively as collateral for credit.

Measures that simplify documentation, processing requirements, and FIs' credit disbursement procedures will lower the costs of accessing credit for SMEs.

Policy interventions cannot do much to lower the monitoring costs of tracking movable collateral. Reducing such costs is only possible through capacity building in FIs. However, Pakistan's secured transactions regime needs to be reformed to enforce the repossession and sale of movable property more effectively. Such reforms should shift the bulk of the work of repossessing and selling collateral, out of the courts. The World Bank (2002) lists many successful examples from developing and developed countries where creditor-controlled repossession and sale of movable collateral has proved more effective than judicially administered repossession and sale (footnote 3). This reform should be an important component of Pakistan's SME development program since it will help lower the risks and costs associated with using movable property as collateral.

Simplifying Lending Procedures

Measures that simplify documentation, processing requirements, and FIs' credit disbursement procedures will lower the costs of accessing credit for SMEs. Reengineering procedures will improve the efficiency and availability of credit. Much of this intervention is beyond the scope of policy and falls under private business strategies. Nonetheless, there is a strong argument for providing technical assistance to FIs to implement best practices in reengineering procedures to enhance SMEs' access to credit. This intervention is justified if its social benefits outweigh any private benefits: the social benefit of enhancing SMEs' access to credit is not appropriate by domestic FIs. Furthermore, in 2002, the high levels of

⁵⁷ ADB. 2001. *SME Development Program Sri Lanka, Report and Recommendations*. Manila: ADB.

concentration in the banking sector appeared to create a disincentive to adopt process reforms. This additional market failure also justifies the intervention.

IT and credit scoring are powerful tools for making credit disbursement procedures and loan management more efficient. Credit scoring software makes procedures less time consuming and helps banks reduce the administrative cost of smaller loans. Evidence suggests that well developed loan scoring methods can reduce loan-processing time to a few days for SME loans (footnote 57). Another benefit of credit scoring software is that it makes loan disbursement policies consistent across banks. Credit scoring technology also makes loan disbursement less discretionary, and thus, improves the quality of loan portfolios through better-informed audits. To make this recommendation operational, integrated computer systems should be developed to integrate credit scoring into the existing credit management systems.

The current Prudential Regulations also need to be reviewed and modified to provide overall guidelines for sound risk-management, while allowing FIs to develop their own products and lending procedures. A formal legal analysis of the Prudential Regulations is beyond the scope of this study, but interviews with bankers and lawyers indicate that the current regulations focus too heavily on micro-management, stifling innovation in FIs' lending strategies. Modifying the Prudential Regulations would simplify procedural requirements for collateral-based lending, and allow FIs to experiment with cash flow lending. International experience suggests that a rigorous cash-flow-based approach supported by strong incentives and support systems is more favorable to SMEs.

A rigorous cash-flow-based approach supported by strong incentives and support systems is more favorable to SMEs.

Enforcing Creditor Rights

There is already a legal framework for strengthening creditor rights in Pakistan. The Government promulgated a new recovery law, the Financial Institutions (Recovery of Finances) Ordinance in 2001, vide Ordinance No. XLVI of 2001. This provides adequately for the recovery of 'stuck' loans by allowing the right to foreclosure and the sale of mortgaged property. Moreover, specialized banking courts have been established to allow more regular hearings and expedite judgments. The pecuniary jurisdiction of these courts has been enhanced from PRs30 million to PRs50 million. Cases involving larger sums are decided by the High Courts.

However, as pointed out in Section 3, it is not the inadequacy of the legal framework as much as inefficient judicial enforcement that affects creditor rights (Table 8). Although courts have improved their processing of banking cases and awarding decrees, poorly executed court decisions continue to be a problem. The process can take from 8 months to a year. The enforcement of foreclosure decrees still takes very long, creating considerable costs for banks and weakening creditor rights.

By providing reliable information, registries can improve credit access for financially rationed sectors such as SMEs.

The Financial Institutions Ordinance 2001 addresses the issue of inefficient judicial enforcement to some degree. It provides for the right to foreclosure and the sale of mortgaged property with or without the intervention of the courts, as well as the transfer of cases to execution. International evidence indicates that automatic legal triggers allowing creditors to initiate bankruptcy without legal recourse are effective only in the presence of well designed complementary institutions (footnote 3).

The triggers that initiate this process need to be well defined; even when they are, they are seldom effective unless the criteria for insolvency are efficiently specified (footnote 3). The system will not work well unless a firm's accounts, audited or otherwise, reveal its financial health accurately. Analyzing the efficacy of insolvency definitions and conditions is beyond the scope of this study, but future policy reforms should analyze and modify, if necessary, these complementary institutions and their fit with the existing legal triggers specified in the Financial Institutions Ordinance 2001.

The efficacy of financial information disclosure can be improved by introducing a rating mechanism for auditor firms. Although information disclosure has improved with the SBP's decision to approve a panel of auditing firms for FIs, the integrity of the information in audited financial statements is still a cause for concern. Nonetheless, the SBP's decision is a positive step and should now be more widely adopted across Pakistan. It should also be supplemented by a broader rating system for auditor firms, based on quantitative and qualitative criteria such as the number of qualified personnel and professional support staff, and firms' experience. Firms should be prequalified to audit companies of different size, based on these rankings.

Credit Registries and Credit Reporting

Credit registries expand firms' access to credit by helping them secure funds from impersonal lenders on the basis of their reputations, as summarized in debtors' payment histories. By providing reliable information, registries can improve credit access particularly for financially rationed sectors such as SMEs. Established in 1989, the SBP's Credit Information Bureau is responsible for credit reporting. Prudential Regulation XVIII requires FIs to give due weight to the borrowers' credit reports provided them by the Credit Information Bureau.

However, the Credit Information Bureau is not a specialized credit registry and, even though credit-reporting is its main function, it is fraught with weaknesses. The existing system is not fully automated, relying on paper-based input-output mechanisms. More importantly, the system is limited and captures information only on large corporate loans greater than PRs500,000.

It is essential to establish a specialized credit registry and to improve the existing credit-reporting system. The current technical platform should be enhanced to ensure users of secure online connections that improve the efficiency of the system. SBP policy may need to be revisited to define a comprehensive framework to improve the role of private sector credit information providers and rating agencies. This is important because it will strengthen the credit-reporting structure by making it more competitive. Finally, regulations should be strengthened to extend reporting coverage to small and medium-size borrowers.

The 'missing market' associated with credit registries can initially be created through a semi-public credit registry represented by the SBP, Securities Exchange Commission of Pakistan, and private sector FIs. The design of such an organization is beyond the scope of this study but there are good reasons for financial regulators to lead this initiative. Under the present conditions, it may be difficult to establish the reputation of a private registry, which will lower the returns on this activity and make it less attractive to the private sector. FIs and their debtors may also be reluctant to share information with private registries, given the low levels of trust that persist in Pakistan's business sector. Most importantly, the demand for SMEs' credit histories will be low because of credit rationing, making it difficult for credit registries to market information on a segment that is in greatest need of credit. These arguments suggest that, given the missing market, the Government should finance the initial setup costs of the credit registry, which will then be able to generate considerable social returns.

By strengthening credit markets, registries will help lower the risks of lending to SMEs.

Clearly, a body that has statutory support is better placed to kick-start this market, as it will be able to make the flow of information to the registry a mandatory requirement. The key objective of such an organization must be to generate a complete history of any borrower's credit behavior. Its role should not be restricted to providing a 'negative list' or current defaulter information in order to comply with the Prudential Regulations. In fact, international evidence suggests that public registries often end up concentrating on these functions (footnote 3). Privacy laws will need to be reformulated. By strengthening credit markets, registries will help lower the risks of lending to SMEs. They will also have a broader impact on the efficient functioning of the credit market.

4.1.2 Reducing Credit Costs

The Government should gradually dismantle the NSS, a system based on administered interest rates, and move toward market-based rates instead. Since NSS instruments are retail securities and a major source of government funding, in principle, their returns need to be kept at a level below that applicable to wholesale government securities. An

Changes in the taxation regime would lower the cost of funds for nonbank FIs and the cost of financing for SMEs.

efficient wholesale and retail market for government securities would not only minimize the Government's borrowing costs but also help develop an effective yield curve for pricing private debt securities. The Government has already taken positive steps in this direction in its budget for FY2003.

The Government should also help private banks engage in long-term financing for both large firms and SMEs. When undertaking long-term lending, private banks bear an inflation risk as well as a credit risk; they have little information and no control over the former. This inhibits the development of a private long-term credit market. Realigning incentives to help banks bear the credit risk while the Government bears the inflation risk will help address this market failure. If banks that provide long-term loans can obtain an equivalent-duration loan from the SBP (at a lower interest rate that reflects the credit risk), they will bear the default risk and have stronger incentive to monitor firms. This will shift the burden of an inflation risk onto the Government, which is better able to ascertain the risk. If properly instituted, this mechanism will stimulate the development of a private long-term lending market and lower the average lending rate, thus benefiting all segments of industry including SMEs.⁵⁸

4.1.3 Consolidating and Rationalizing Taxes on Financial Institutions

The tax rates levied on all FIs, irrespective of the activities that they engage in, should be equalized over the long term. Since this could take some time to implement, tax rates in the medium term should be uniform for specific activities. For example, leasing should be taxed at the same rate whether it is carried out by commercial banks, leasing companies, or *modarabas* (mortgage finance companies). These changes in the taxation regime would provide incentive for the consolidation of nonbanking sectors such as leasing, and allow nonbank FIs to achieve better credit ratings by exploiting efficient scales. In turn, this would lower the cost of funds for nonbank FIs and the cost of financing for SMEs.

To help develop a vibrant leasing and banking industry, the Government should actively support closures, consolidation, and mergers rather than keeping all enterprises alive but unable to withstand competition. Raising the minimum capital requirements for banks, for example, will force the banking sector to restructure itself. However, the prevailing taxation structure fails to provide adequate incentive for mergers and acquisitions. New entities are not allowed to carry forward their tax losses and set them off against their taxable profits. Such

⁵⁸ For a theoretical justification of this mechanism, see F. Hellmann, K. Murdock, and J. Stiglitz. 1996. Deposit Mobilization and Financial Restraint. In *Financial Development and Economic Growth: Theory and Experiences from Developing Economies*. Edited by N. Hermes and R. Lensink. London: Routledge.

disincentives need to be removed in order to reduce market segmentation, and improve the health of FIs and the stability of the financial system.

4.2 Dispute Resolution

High transaction costs have a number of negative consequences: they raise firms' inventory costs; force suboptimal diversification upon SMEs; and increase inter-firm delivery times. These factors, in turn, reduce the competitiveness of Pakistani firms in general, and SMEs in particular. Most of these problems can be attributed to a low-trust social environment and pervasive information asymmetries. Policies to lower these transaction costs are hard to conceptualize; many of the contributing factors need to be resolved through private initiatives and strategies.

High transaction costs reduce the competitiveness of Pakistani firms in general and SMEs in particular.

The findings also suggest that inefficient contract repudiation (the result of poorly enforced commercial agreements) is a key constraint on the growth of small and medium-size manufacturers and small retailers. Commercial disputes in Pakistan are governed by an agreement under the Contract Act 1882, and can only be adjudicated by civil courts. Civil courts enjoy both plenary and an unlimited pecuniary jurisdiction over such disputes. Constant procedural delays and judicial corruption feed into each other and slow down disposal rates. This increases delays in dispute resolution, a process that can often take years.

These inefficiencies give individuals an incentive to seek returns through extra-economic coercion (by threatening property rights) and enables them to capture short-term payoffs by breaking agreements. Weakened property rights and contract enforcement compounds the low trust that prevails in Pakistan's markets and increases their inefficiencies. Recommendations for resolving this issue are given below.

4.2.1 Strengthening Commercial Dispute Resolution

Measures to improve the judicial efficiency of commercial courts vary widely across developed and developing countries (Botero, Florencio, La Porta, Shleifer, and Volokh 2002). The following key themes run through successful initiatives and provide important guidelines for judicial reform in Pakistan:⁵⁹

- (i) The increased accountability of judges;
- (ii) Efficient judicial incentives;
- (iii) The formation of specialized courts;
- (iv) ADR.

⁵⁹ This section draws heavily on J. Botero, et. al. 2002. Judicial Reform. Background paper for *World Development Report 2002*. World Bank, Washington, DC; and World Bank 2002 (footnote 3).

*Accountability and Judicial Incentives*⁶⁰

Institutional design must alter judges' incentives to make them more accountable and efficient. Developing country evidence suggests that monitoring judicial performance and revealing this information publicly are strongly correlated with increased judicial effort (footnote 3). Generating accurate statistics appears to reduce judicial delays because judges are concerned about their reputations.

An important problem confronting judicial reform is the difficulty in measuring judicial effort. Information on comparative judicial effort is noisy because of the evidentiary and legal details that are specific to each case. Evidence from Colombia and Guatemala suggests that even reporting noisy statistics over time reduces judicial delays since judges are anxious to preserve their reputations (Neubaur, Lipetz, Luskin, and Ryan 1981).⁶¹ Introducing a system of individual calendars, where a single judge follows a case from beginning to end, would help ensure judicial efficiency to some degree. Problems on a case, such as excessive delays, could then be uniquely traced to a judge.

The creation of information creation in itself is not enough to improve judicial efficiency. The information must be used to create performance-based rewards and promotions that provide high-powered incentive for the judiciary to align society's need for judicial efficiency with the private benefits of greater judicial effort. The remuneration that judges are entitled to, should also be increased. Naqvi (2002) shows that judicial remuneration has fallen in real terms in the last 50 years.⁶² Reforms also need to ensure that the price of litigation reflects a willingness to pay for it. Bottlenecks in the courts can be reduced by imposing court costs to discourage pointless litigation; the pace of processing cases can be improved by imposing a levy on each adjournment sought.

An important step would be to establish judicial watch projects or nongovernment organizations for this purpose manned by retired judges, legal professionals, academics, and private sector professionals. Such organizations could rate judges on the basis of their legal knowledge and conduct of proceedings. This would create greater judicial transparency and accountability, thus improving judicial efficiency. The World Bank (2002) reports that a similar initiative in the Philippines successfully engendered judicial accountability and efficiency (footnote 3).

Organizations such as judicial watch projects could rate judges on the basis of their legal knowledge and conduct of proceedings.

⁶⁰ Many of these recommendations are relevant to tax adjudication in general.

⁶¹ David Neubauer, et. al. 1981. *Managing the Pace of Justice: An Evaluation of LEAA's Court Delay Reduction Programs*. Washington, DC: US Department of Justice.

⁶² Feisal Hussain Naqvi. 2002. *The Asia Foundation-ADB Judicial Independence Project, Country Study: Pakistan*. Islamabad: ADB.

Specialized Courts

Specialized courts would be able to pool specialized resources and circumvent inefficient standard procedures. Pakistan's banking courts, for instance, are a successful example of the benefits of a specialized court. Interviews with bankers suggest that the new banking court structure ensures significantly speedier judgments relative to the standard lower courts.

The crucial question for this study is how a specialized court structure would increase judicial efficiency for SMEs. Evidence suggests that small claims courts are among the most successful judicial reforms; the World Bank (2002) provides many examples of this, including in Brazil and Hong Kong (footnote 3). In the People's Republic of China, for example, it takes only 4 weeks from filing a case to its first hearing in the Small Claims Tribunal. The main benefit of these courts, as in banking courts, is that they cut across the standard civil court procedures. Simplified procedures have a positive impact on efficiency because they increase accountability and inhibit corruption.

By specializing around the size of a claim, these courts also improve SMEs' access to efficient judicial enforcement. Although small cause courts exist in Pakistan, they operate according to the standard procedures of the civil court system, which, as pointed out earlier, are fraught with delays. Reform efforts should reengineer such court processes in order to reduce case processing time and encourage SMEs to avail them.

Courts specializing around the size of a claim would improve SMEs' access to efficient judicial enforcement.

Alternative Dispute Resolution

In countries with ineffective judicial systems, ADR is often an effective substitute for formal commercial law procedures. ADR mechanisms can be set up by private parties or by the government, and can also be incorporated into specialized courts. In fact, the World Bank (2002) suggests that many successful specialized courts incorporate ADR mechanisms (footnote 10). Recent studies (footnote 62) also show that informal dispute resolution, such as through a *panchayat*, is an ineffective and undesirable forum for dispensing justice in Pakistan.

This suggests that there is considerable scope for increasing judicial efficiency through ADR mechanisms in the formal justice system. Although the exact structure of such mechanisms is beyond the scope of this study, assessing their feasibility should be an important part of judicial reform and any SME development program in Pakistan.⁶³

⁶³ Naqvi 2002 (footnote 62) points out that the question of how ADR can be best introduced into Pakistan's legal system is part of a comprehensive study being carried out by ADB and the Asia Foundation.

4.3 Taxation and Regulation

The following sections recommend measures that would lower the costs of fiscal and regulatory constraints for SMEs.

4.3.1 Tax Administration and Tariff Reform

Restructuring the tax administration is one of the Government's major reform commitments. A taskforce was constituted for this purpose, which provided detailed recommendations in its report published in May 2001. Based on this document, and on comments from the IMF and World Bank, a restructuring plan was drawn up by the Central Board of Revenue. This plan will be made operational with World Bank support. The study's recommendations relevant to SMEs are drawn from this plan.

In addition to these recommendations, the current structure of local and provincial taxation need to be consolidated and rationalized, in particular property tax, which, according to the retail sample, is a major constraint on firm growth. A detailed review of this structure is beyond the scope of this paper, but the study strongly recommends a detailed analysis of the problems inherent in Pakistan's property tax administration and rates structure.

Reforming Procedures, Audit Systems, and Taxpayer Education

The taskforce on tax administration has suggested that processes be (i) reengineered to reduce face-to-face contact between taxpayers and tax officials; and (ii) streamlined to limit officials' discretionary powers (footnote 52). In line with the taskforce report, the Government has taken the important step of changing Pakistan's income tax system from direct assessment to a system based on universal self-assessment backed by selective audit. Pakistan's income tax reform and its general sales tax (GST) system, which is already based on self-assessment, have created administrative systems that lessen official discretion considerably, at least at the level of assessment and payment. These systems will lower the cost of compliance for Pakistan's taxpayers and, by minimizing official discretion and face-to-face contact, reduce corruption costs.

However, an efficient self-assessment system depends on a well-structured audit procedure that does not burden the taxpayer. A major lacuna in the current tax administration system is the dysfunctional audit procedure, which, according to the study's findings, stifles the growth of medium-size firms in particular. The prevailing system is nonstandardized and allows officers in charge of this function to act at their discretion. The need for an efficient audit function also relates to the new income tax structure, which mirrors the prevailing GST

An efficient self-assessment system depends on a well-structured audit procedure that does not burden the taxpayer.

administration, and is based on universal self-assessment backed by a selective audit procedure.

Reforms should focus on standardizing the audit instrument in order to reduce official discretion and ensure greater transparency in execution. Developing well-defined work programs and checklists not only for different types of audit, but also for key sectors, is one response to the audit constraint. A risk-assessment instrument is needed to systemize the steps of an audit in each risk area. This form of standardization will reduce the scope for misuse and corruption.

Finally, the information required for each type of audit needs to be disseminated among taxpayers as part of a taxpayer education program. This will ensure greater transparency and lower the costs of compliance and corruption significantly. The dissemination of audit compliance information is especially important for SMEs since they tend to lack knowledge of tax payment procedures and laws. In the case of GST with its sophisticated computer database, it is possible to identify common errors found in returns and audit for particular categories of taxpayers; these errors can then be communicated to them in order to lower compliance costs. These reforms will lower the compliance costs of the tax system by improving taxpayer information and education.

In order to reduce compliance costs for large taxpayers, the Central Board of Revenue has piloted a Large Taxpayer Unit, which will be a one-window operation for the administration of sales and income tax. A similar unit needs to be piloted for small taxpayers in order to lower compliance costs for small retailers and medium-size manufacturers. Since the major expansion in the tax net is expected to come from inducting these enterprises, it is important that tax administration changes are broad-based.

Fiscal Export Procedures

The findings suggest that there is an urgent need to reduce the compliance costs of GST export refund and customs duty drawback procedures. Delays in payments to small and medium-size exporters seriously undermine the competitiveness of Pakistan's export sector. Both procedures need to be rules-based and transparent. One area of concern is tax collectors' tendency to circumvent well-structured legislative provisions and rules at negligible cost to themselves. Given this incentive structure and its inherent corruption and extortion effects, refund and drawback processes need to be reengineered to eliminate face-to-face contact between taxpayers and tax collectors.

The best solution is an exception-based system of assessment where exceptions are made through an automated risk-assessment system based on predetermined validity checks. This system would ensure that

Refund and drawback processes need to be reengineered to eliminate face-to-face contact between taxpayers and tax collectors.

compliant exporters have fast-track access while noncompliant exporters face the threat of assessment. This system will strengthen the incentive for compliance. These reforms will also shift the prevailing refund and drawback processes from the direct assessment approach to one of self-assessment. Customs duty drawback, which need to be implemented urgently.

Tariffs

The study's findings underscore the need to rationalize the Pakistan's cascading tariff structure. This can be done by reducing, if not completely withdrawing, import duties on raw materials and intermediate goods. Such an intervention would eliminate the complex classification of disputes, make the duty drawback regime for exporters largely redundant, and facilitate the import-based production of exports in the face of more intense international competition. Reforming the tariff structure would also reduce smuggling, which otherwise distorts the efficient functioning of markets in Pakistan.

4.3.2 Reducing the Threshold Burden

Section 3 shows that there is considerable inconsistency in the application of compliance and corruption costs across firm size. In manufacturing, compliance and corruption costs appear to be considerably higher for MEs than for small and large firms. Similarly, small retail firms face a considerably higher compliance and corruption burden than micro- and large retailers. How wide should coverage be?

The Government's priority should be to reduce taxes and the associated bureaucratic burden on medium and large enterprises.

A common argument is that there should be universal coverage in order to eliminate the threshold burden. However, this would merely transform the threshold burden from one that inhibits expansion to one that stifles entry, thus distorting competition equally. Another argument in favor of universal coverage is that it would broaden the revenue base, permit lower tax rates, and provide incentives for firm growth. Again, the problem is that any new fiscal burden brings with it a corresponding bureaucratic burden that will raise the cost of growth for small firms, i.e., the very firms that an SME promotion policy should target.

This suggests that the Government's priority should be to reduce taxes and the associated bureaucratic burden on medium and large enterprises, thereby shrinking the disincentive to operate in the formal sector and to grow. However, to sustain revenue at existing levels, this reduction needs to be accompanied by a broadening of the tax net. This can be done by extending the tax administration and regulatory net to include unregistered enterprises. One way of doing this would be to improve the capacity of cross audit in sales tax, with an IT-based cross-collectorate connectivity. Equally important is the development of inter-tax

administration connectivity, helping to detect enterprises that are registered with one tax department but not the other. These reforms will also level the playing field for registered and unregistered enterprises.

4.3.3 Deregulation

There is an urgent need to reduce the number of regulations and regulatory government departments confronting business in Pakistan. This will lower the burden of compliance for SMEs in Pakistan and remove the incentive for firms to remain small and grow laterally instead.

The Government's Deregulation Commission is in the process of conducting this exercise. The study recommends a four-pronged approach to this. First, multiple state agencies with overlapping jurisdiction need to be reduced. Second, unnecessary laws and regulations need to be rescinded and the agencies regulating these laws, either wound up or merged. Third, in critical regulatory areas, the law needs to be revised to reflect current market realities, such as the existence of contract labor and the requirements of a flexible labor market operating within a globalized trade environment. Even here, the number of regulators should be reduced. Fourth, where the market has the ability to deliver key services, government departments providing these services should be wound up.

Reducing the number of regulations will lower the burden of compliance for SMEs and remove the incentive for firms to remain small.

4.4 Infrastructure

The binding constraints that arise in the power infrastructure are: (i) high tariffs, (ii) poor quality of service and unreliability, and (iii) the high cost of backup power for small and medium-size firms. The third constraint is important only because of the inefficiencies that plague power utilities in Pakistan. If WAPDA and KESC were able to provide electricity efficiently and reliably, there would be far less need for backup power. The Government has already initiated a number of policy reforms to address the factors that underlie these constraints, i.e., large line losses and an opaque tariff structure. These include:

- (i) The imminent privatization of KESC;
- (ii) The consolidation of WAPDA's generation capacity under three generation companies;
- (iii) The division and organization of distribution under eight distribution companies;
- (iv) High-voltage transmission has been organized under the National Transmission and Distribution Company (NTDC);⁶⁴

⁶⁴ These companies have already been established, but substantial work is still needed on legal issues and the distribution of assets and liabilities.

- (v) The National Electric Power Regulatory Authority (NEPRA) has been established to safeguard the interests of consumers.

The Government's aim is to scale down and integrate WAPDA's Power Wing with the NTDC, if the NTDC itself cannot be privatized, and to privatize the generation and distribution companies as soon as possible. The Government expects the private generation and distribution of power to substantially reduce the bottlenecks identified above.

Developing country evidence suggests that infrastructure privatization is not a simple matter (footnote 3). While privatization generally improves performance, there have been a significant number of failures. Successful and efficient privatization should reflect the following features. First, it requires the unbundling of services and the introduction of competition. Second, and equally importantly, the success of infrastructure privatization depends on the Government's ability to create an autonomous, sector-specific, and specialized regulatory authority that can safeguard the consumers' interests. Given the lack of trained HR in developing countries, the creation of empowered regulators has been the biggest hurdle in privatizing infrastructure efficiently. Unbundling, which is an important prerequisite for efficient privatization, increases the level of sophistication required of a regulator, making the task of regulation even more difficult.

In order to maximize the gains from infrastructure privatization, the Government must invest sufficiently in capacity building at NEPRA.

The Government's medium-term policy is committed to both privatization and unbundling, although KESC is being privatized as a vertically integrated concern. However, the current structure of power supply remains state-run and uncompetitive. WAPDA owns the generation companies, which do not compete with the independent power producers; it also owns the distribution companies, which do not compete with each other because their territories are geographically delimited.

International evidence on infrastructure privatization suggests that Pakistan's current structure of power supply will produce only limited efficiency gains in the absence of: (i) a strong regulator to look after the public interest, and (ii) active competition at the generation and distribution levels. The success of infrastructure privatization in Pakistan depends on the Government's ability to enforce its commitment to unbundling and competition. In order to maximize the gains from infrastructure privatization, the Government must invest sufficiently in capacity building at NEPRA. In particular, it should equip NEPRA with the human and technology infrastructure required to regulate the power sector.

4.5 Human Resource

The main HR constraints identified in Section 3 are: (i) the lack of education and low levels of skill among middle management and workers, and (ii) the poor quality of vocational training available for management and workers. Issues related to low literacy levels and higher education enrolment rates are not discussed here since they do not relate specifically to SMEs.

The poor quality of available HR and training persists because of the inability of SMEs to protect their investment in HR. SMEs that require access to generic training, as is the case in management, are constrained by imperfections in the credit market and the high transaction costs that weaken the incentive to invest in managerial training. These problems can be addressed by making the credit market for training loans more efficient and by facilitating contract enforcement. Once a large enough pool of qualified managers is available, investments in firm-specific learning will be protected automatically.

Sector-specific vocational training is a different issue. Here, even if the efficiency of the student-loan market is improved, a high-quality supplier of training might not enter the market unless there is sufficient demand for that training. This demand can only be created if the entrepreneurs of a sector demand that training for their employees in the aggregate. Sector-specific training requires organizing and coordinating a sufficient number of entrepreneurs to generate this demand.

One solution to this is to create sector-specific 'incubators', which has been successfully experimented with in many countries.⁶⁵ This approach furthers the idea of sponsoring initial investments in HR. Government-sponsored sector-specific incubators are set up to take 15 to 20 SMEs under their wing for 2 to 3 years. Over this period, the incubator provides these firms with credit, access to technology, vocational and management training, and extensive consulting facilities. The incubator effectively chaperones SMEs during their initial growth stage. After the chaperoning period is over, the rights to provide these services are transferred to the relevant industry organization, which disseminates these services to targeted and nontargeted firms. If successful, the firms emerging from the incubator set high-quality examples for other firms in the sector to emulate. The incubator approach coordinates technology acquisition and HR training.

Once a large enough pool of qualified managers is available, investments in firm-specific learning will be protected automatically.

⁶⁵ R. Lalkaka. 1997. *Lessons from International Experience for the Promotion of Business Incubation Systems in Emerging Economies*. Vienna: United Nations Industrial Development Organization.

The establishment of such incubators could be very useful for SME industrial clusters in Sialkot, Gujrat, and Gujranwala. Geographical concentration and larger learning economies would facilitate the development of incubators, and reduce the time required for firms to become competitive and grow. Incubators could also help nontargeted firms by offering consulting services, vocational training, and technology.

Incubators need to target sectors with strong industry organizations to prove successful.

To increase the probability of success, incubators need to be carefully designed, requiring skilled incubator experts, an active core team of consultants, trainers, and managers, and access to finance. Incubators need to target sectors with strong industry organizations to prove successful. The health of the sector will depend on the ability of these organizations to take over the incubator after the intervention period. Some countries have even experimented with housing incubators in universities and research institutions rather than in the public sector, to increase their flexibility and make them more responsive to industry needs. Although difficult to design, successfully implemented incubators have shown encouraging results for SME growth and development in Poland, Turkey, the Czech Republic, People's Republic of China, and Mexico (footnote 65).

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APPENDIXES

APPENDIX 1: SURVEY METHODOLOGY, SAMPLING, AND PRELIMINARY RESULTS

Survey Methodology

This study used a qualitative survey methodology to generate a ranking of macro- and micro-constraints on firm-level investment and growth in Pakistan. These rankings were then used to identify binding constraints on firm-level investment and growth; particular emphasis was placed on analyzing the constraints on growth that face small and medium enterprises (SMEs). Constraints were ranked on the basis of information collated through (i) a qualitative survey instrument used to learn what firms viewed as major constraints on enterprise investment and growth, and (ii) detailed interviews for insight into firm-level perceptions of the constraints on growth.

The qualitative survey was carried out between August 2001 and January 2002. The survey instrument employed in this study is consistent with instruments used by researchers who have conducted similar inquiries in other countries.¹ One advantage of this survey is that it analyzes constraints at a level of detail that is not found in other studies (on Pakistani firms) that have used a similar methodology.² In addition, this study attempts to capture local constraints as opposed to the generic constraints usually surveyed in other studies. For example, the study divided export constraints into constraints related to the sales tax export refund procedure and those related to the duty drawback procedure, both of which emerge as major constraints in the Pakistani environment. Similarly, fiscal constraints were broken down into constraints that arise from the rates of different taxes, the compliance costs associated with different taxes, and the policy uncertainty related to different taxes. When examining infrastructure constraints, the study considers not only tariff rates, but also the reliability of service, quality

¹ B. Levy. 1991. Transaction Costs, the Size of Firms and Industrial Policy: Lessons from a Comparative Study of the Footwear Industry in Korea and Taiwan. *Journal of Development Economics* 34 (1-2): 151–178; M. Schankerman. 1992. Shackles or Shillings? Constraints to Kenyan Private Sector Development. Mimeo. World Bank, Washington, DC; M. Schiffer and B. Weder. 2000. *Firm Size and the Business Environment: Worldwide Survey Results*. International Finance Corporation Discussion Paper No. 43. Washington, DC: World Bank; W. F. Steel and L. M. Webster. 1991. *Small Enterprises under Adjustment in Ghana*. Technical Paper No. 138. Washington, DC: World Bank; A. Stone. 1992. *Listening to Firms, How to Use Firm Level Surveys to Assess Constraints on Private Sector Development*. Policy Research Working Paper No. 923. Washington, DC: World Bank; and A. Stone, B. Levy, and R. Paredes. 1996. Transaction Costs and Economic Development. In *Empirical Studies in Institutional Change*. Edited by L. J. Alston, T. Eggertson, and D. C. North. Cambridge: Cambridge University Press;

² Small and Medium Enterprise Development Authority (SMEDA). 2001. Creating a Policy Environment Conducive to Employment Growth within the MSMEs in Pakistan. International Labour Organization (ILO), SMEDA, and Government of Pakistan, Geneva; and World Bank. 2001. Pakistan: SME Policy Note. World Bank, Islamabad.

of repair/billing service, and the cost of backup arrangements. Finally, the study defines binding constraints more rigorously than others might.

The survey instrument was buttressed by an open-ended approach³ to the pilot survey and interviews. This approach was used to finetune sections and specific questions, and to add other factors specific to the local environment that had not been identified in other surveys. The survey instrument asked entrepreneurs to rank each constraint on a scale of 1 (least important) to 5 (severe) according to its degree of severity. Respondents were encouraged to score across the full 1–5 range, and special care was taken to ensure that there was at least some dispersion in their responses. Each firm was surveyed in a single sitting, either by one or two primary researchers, or by one primary researcher and a research associate, usually in conjunction with high-level managers or entrepreneurs. For all firms surveyed, both the primary researcher and research associate carefully recorded respondents' answers to ensure accuracy.

Entrepreneurs were interviewed at length on their perception of constraints, to balance the strengths and weaknesses of the qualitative survey approach. Many of the examples and insights acquired through these interviews are documented in the main paper as text boxes and clarifying evidence. Such information helps to give a sense of how these constraints are manifested in real-life obstacles and frustrations for businesses.

The survey grouped the constraints on expansion identified by respondents into seven categories:

- (i) Financial constraints;
- (ii) Regulatory constraints;
- (iii) Infrastructure constraints;
- (iv) Macro-policy constraints;
- (v) Human resource constraints;
- (vi) Technology constraints;
- (vii) Market constraints.⁴

The variables selected for the survey were derived from a review of policies and the relevant theoretical (Appendix 5) and empirical literature (Section 2). These variables correspond quite closely to those used by other studies following a similar survey methodology⁵ although, as pointed out earlier, the level of detail employed by this survey is much greater.

The decision to use a qualitative methodology reflects the lack of large quantitative data sets on the manufacturing and retail sectors in Pakistan. The most recent Census of Manufacturing Industries and the latest Survey of Small and Manufacturing Industries are dated, and do not contain data that is essential to

³ For an in-depth discussion on this survey methodology, see Stone 1992 (footnote 1).

⁴ Market constraints are those that emerge because of bilateral and arms-length interaction between firms. They include constraints related to market information, distorted competition, enforcement of contracts, and intellectual property rights. They are known as market constraints because they are an outcome of commercial interaction. However, such constraints may reflect market transaction costs as well as costs arising from distortions in the legal and regulatory structure. The authors would like to thank Ijaz Nabi for highlighting this point.

⁵ World Bank 2001 (footnote 2).

this analysis.⁶ Furthermore, given the exercises conducted by the Central Board of Revenue and the National Accountability Bureau in 2002, it was not possible to collect reliable quantitative data using a survey instrument. These were additional reasons to use a qualitative survey instrument that did not require businesspersons to reveal quantitative information that might be sensitive in their opinion and which they might be reluctant to share. Another attraction of the qualitative survey is that it allows questions on factors that are hard to quantify.

A disadvantage of research based on interviews is that it is time consuming and requires substantial resources. In order to contain research costs, a number of compromises were necessary. First, the sample size was kept small. Second, since the indicators generated are largely qualitative, they lend themselves to cross tabulation rather than rigorous quantitative hypotheses testing. Third, the geographical spread of the survey had to be kept to a manageable level. Inferences from the data set, therefore, need to be made with these compromises in mind.

Selection of Sample Sectors

Given limited time and resources as mentioned above, the survey focused on a narrow group of sectors. In order to make the study representative, the survey concentrated on sectors and sub-sectors that account for the bulk of nonagricultural employment and productive capacity. Table A1.1 shows that together the retail and manufacturing sectors account for approximately 67% of total nonagricultural establishments and approximately 45% of total nonagricultural employment.

Table A1.1: Sector Share in Nonagricultural Employment and Establishments

| Sector | Establishments (%) | Employment (%) |
|---------------|--------------------|----------------|
| Retail | 42.5 | 20.0 |
| Manufacturing | 15.0 | 26.0 |

Source: Government of Pakistan. 1988. *Census of Establishments*. Islamabad: Federal Bureau of Statistics.

The study focused on these sectors given their importance in nonagricultural activity. In line with similar studies, the manufacturing sector was also chosen for study because of its potential to generate dynamic economies of scale. Unlike in other studies, the retail sector is paid equal attention because of its importance in Pakistan's nonagricultural economy. Furthermore, both retail and manufacturing are dominated by micro- and small-scale firms (Table A1.2), giving additional cause to study these sectors. Finally, their contribution to the slowdown in Pakistan's gross domestic product (GDP) growth in the last decade is also an important reason to study these sectors (Section 1).

⁶ See: Government of Pakistan. 1996. *Census of Manufacturing Industries 1995–96*. Islamabad: Federal Bureau of Statistics; and Government of Pakistan. 1997. *Survey of Small and Household Manufacturing Industries 1996–97*. Islamabad: Federal Bureau of Statistics. The only integrated survey of small, medium, and large enterprises is the *Census of Establishments*, which was last conducted in 1988 (see Government of Pakistan. 1988. *Census of Establishments*. Islamabad: Federal Bureau of Statistics).

Table A1.2: Sector Breakup of Employment by Firm Size

| Firm Size | Retail (%) | Manufacturing (%) |
|--------------------------|------------|-------------------|
| Micro (0–9 Workers) | 99.73 | 91.00 |
| Small (10–49 Workers) | 0.12 | 8.00 |
| Medium (50–99 Workers) | 0.09 | 0.46 |
| Large (100 or < Workers) | 0.06 | 0.54 |
| Total | 100.00 | 100.00 |

Source: Government of Pakistan. 1988. *Census of Establishments*. Islamabad: Federal Bureau of Statistics.

Within manufacturing, the study concentrates on foods and beverages, garments and made-ups, and light engineering. These subsectors account for over 50% of manufacturing employment and value-added in both the SME and large-scale sectors (Table A1.3).

Table A1.3: Sector Share in Manufacturing Employment and Value-Added

| Sector | SME Sector | | LSM Sector | |
|----------------------|----------------|-----------------|----------------|-----------------|
| | Employment (%) | Value-Added (%) | Employment (%) | Value-Added (%) |
| Foods and Beverages | 9.2 | 12.0 | 14.7 | 16.8 |
| Garments and Apparel | 40.2 | 30.2 | 41.0 | 23.5 |
| Light Engineering | 16.8 | 18.6 | 10.8 | 13.7 |

LSM = large-scale manufacturing (sector), SME = small and medium enterprise (sector).

Note: These figures represent sector share as a percentage of total employment and value-added in that sector.

Sources: For data on LSM enterprises: Government of Pakistan. 1996. *Census of Manufacturing Industries 1995–96*. Islamabad: Federal Bureau of Statistics; for data on SMEs: Government of Pakistan. 1997. *Survey of Small and Household Manufacturing Industries 1996–97*. Islamabad: Federal Bureau of Statistics.

These sectors capture a balanced mix of activities: the garments sector is largely export-oriented, the foods sector is driven by domestic demand, and the light engineering sector is technology-intensive (SMEDA 2001, footnote 2). The sectors also display a good mix of capital intensity (Table A1.4). Finally, since the aim was to analyze the constraints on firm-level growth and investment, the sectors selected were those that showed average and above-average growth rates relative to all manufacturing growth during the 1990s (Table A1.4).

Table A1.4: Capital Intensity and Value-Added Growth Rate in Selected Sectors

| Sector | Value-Added Growth Rate (FY1988–FY1997) (% per Annum) | Capital-Labor Ratio (PRs) |
|----------------------|---|---------------------------------|
| All Manufacturing | 20.0 | 255,020 |
| Foods and Beverages | 19.9 | 317,580 |
| Garments and Apparel | 25.3 | 97,099 |
| Light Engineering | 30.8 | 247,686 |

FY = fiscal year.

Sources: Government of Pakistan. 1996. *Census of Manufacturing Industries 1995–96*. Islamabad: Federal Bureau of Statistics; Government of Pakistan. 1988. *Survey of Small and Household Manufacturing Industries 1987–88*. Islamabad: Federal Bureau of Statistics; and Government of Pakistan. 1997. *Survey of Small and Household Manufacturing Industries 1996–97*. Islamabad: Federal Bureau of Statistics.

Sampling

The firms identified for the survey were done so based on convenience sampling. Since the aim was to analyze the constraints on firm-level growth and investment, the identity of these firms was not important as long as they were representative. Keeping this in mind, the study attempts to ensure significant variation in the sample (discussed below). This approach, however, tends to bias the results and this needs to be kept in mind when interpreting them. The sample firms, although 'representative', do not reflect the density distribution of firms exactly. However, this was not important for the study. The aim was not to test a quantitative hypothesis, but to generate a richer understanding of how the constraints on SME growth become operational. Another bias in the sample is that it consists only of 'surviving firms' since bankrupted entrepreneurs who had closed down their operations could not be interviewed. Two firms in the sample had recently undergone extensive restructuring. One had had its loans rescheduled by formal-sector credit institutions, while the other had received a major equity injection a few months before the interview. The lack of access to such people makes them harder to interview, but here too the methodology followed standard practice for such studies.

The sample consisted of 54 usable questionnaires, of which 39 of were from the manufacturing sector and 15 from the retail sector. The manufacturing sample was over-enumerated to allow the manufacturing subsectors chosen for analysis to be reasonably represented. The sectoral composition of the manufacturing sample included 18 firms from the foods and beverage sector, 12 from the garments sector, and 9 from the light engineering sector.

The next task was to stratify the sample by size given the study's emphasis on analyzing the constraints on growth faced by SMEs. There is great variation in the definition used to classify SMEs in the policy and empirical literature. Much of the literature uses an employment-based definition, and the definition use here is consistent with this. Snodgrass and Biggs (1996) point out that employment-based definitions are easier to make operational than asset- or turnover-based definitions.⁷ This is because firms

⁷ D. R. Snodgrass and T. Biggs. 1996. *Industrialization and the Small Firm: Patterns and Policies*. San Francisco: International Center for Economic Growth and Harvard Institute for International Development.

are often reluctant to share data on turnover or assets, but usually not as apprehensive about revealing the number of people they employ. This is even more important in contexts like Pakistan's where for tax or regulatory reasons firms are reluctant to reveal correct financial data.

There is considerable agreement in the literature that enterprises employing 100 or more workers should be considered large, and enterprises employing less than 5 workers should be considered micro-firms. However, many sources disagree on the classification of firms employing between 5 and 100 workers. For the manufacturing sector in this case, the study used a definition of size that has been employed by the more comprehensive local and international studies.⁸ In order to stratify data by firm size, the following definitions of size were used, based on the total number of workers:

- (i) Small, 10–49 workers;
- (ii) Medium-size, 50–99 workers;
- (iii) Large, 100 or more workers.

For the retail sector, the classification of firms was based on observed differences in their organization and the characteristics of the sector. The pilot survey revealed two important pieces of information that informed the sampling approach vis-à-vis the retail sector. First, the retail sector was dominated by micro-enterprises (Table A1.2), and so these were especially enumerated in the retail sample. Second, there appeared to be little difference in the organizational characteristics of retailers employing between 50 or more workers. There were, however, considerable organizational, technological, and managerial differences between medium-size and large retailers (employing between 50 or more persons), small retailers (employing between 10 and 49 persons), and micro-retailers (employing between 1 and 9 persons).

The pilot survey also revealed that on one end of the spectrum were micro-retail outlets (shops owned by individuals or families, and usually employing a small pool of workers), and at the other end, medium-size and large general-purpose shops with multiple retail outlets or that were part of a chain. The middle tier comprised small retailers who had begun to expand, but were still in their early stages of growth. Medium-size and large retailers used different organizational and management systems from micro- and small retailers, such as maintaining proper books of accounts and inventory management. There were also significant differences in the systems employed by small and micro-retailers, but little difference in the organizational and management systems used by medium-size and large retailers. Given these observations, enterprises employing 49 or more workers were accorded a single category:

- (i) Micro, 1–9 workers;
- (ii) Small, 10–49 workers;
- (iii) Medium-size and large, 49 or more workers.

⁸ See: I. M. D. Little, D. Mazumdar, and J. M. Page, Jr. 1987. *Small Manufacturing Enterprises: A Comparative Analysis of India and Other Economies*. World Bank Publications. Oxford: Oxford University Press; Z. Mahmood. 1999. *Growth Potential of Small and Medium Industries in Pakistan*. Research Report No. 169. Islamabad: Pakistan Institute of Development Economics; M. Nishat. 2000. Financing Small and Medium Enterprises in Pakistan: Problems and Suggested Solutions. *Journal of The Institute of Bankers Pakistan*, 66 (March): 31–52; and Snodgrass and Biggs 1996 (footnote 7). The definition employed in this paper is consistent with the definition of size used by the Census of Establishments in both India and Pakistan.

The stratification of this sample by size is as follows: 48% of the manufacturing sample consisted of micro-, small, and medium-size enterprises, while 80% of the retail sample consisted of micro- and small firms. Comparing Table A1.2 with Table A1.5 reveals that small, medium-size, and large enterprises in the manufacturing sector were over-enumerated, as were small and large enterprises in the retail sector. This choice is deliberate and reflects an attempt to analyze the constraints on growth by contrasting the constraints that face firms of different sizes.

Table A1.5: Sample Establishments by Size and Growth

| Firm Size | As Proportion of Total Establishment in Sample Sector | | As Proportion of Total Sample | |
|-----------|---|---------------|-------------------------------|-----------------------------|
| | Manufacturers (%) | Retailers (%) | Growth Rate Type (per Annum) | Growth Rate (per Annum) (%) |
| Micro | 2.6 | 60.0 | High (> 25%) | 31.48 |
| Small | 23.1 | 20.0 | Medium (5–25%) | 37.04 |
| Medium | 23.1 | 0.0 | Low (< 5%) | 31.48 |
| Large | 51.3 | 20.0 | | |

Source: Survey data.

The pilot survey also revealed that constraint rankings differed significantly by size. Since the study was intended to highlight the constraints on growth that faced SMEs, a number of large firms were used as a control group to assess the constraints specific to the SME sector in the case of manufacturing and exports. For the retail sector sample, micro-firms were used as a control group to analyze the constraints affecting retailers in the process of growth and expansion. The questionnaires that were received from medium-size retailers could not be utilized, hence the comparisons drawn for the retail sector are between micro-, small, and large firms. Small retailers were the study's target group, since they are the sector's 'growing firms' and constraints on their growth, with respect to micro- and large firms, are important to understand.

Geographically, 18 of the 54 firms were located in Karachi and the rest in Lahore or Gujranwala. It was felt that the Karachi market was sufficiently distinct from that in Punjab to warrant adequate coverage in the selected sample. The results have justified the choice. Questions on law and order constraints elicited significantly different responses from the two regions. Although Karachi also faces a severe water shortage problem (the cost of water carted in by tankers is high, and the supply unreliable), it is a local problem and is not highlighted later in the paper.

Although most firms in the sample grew during the 1990s, there is considerable variation in their rates of growth. Care was taken to interview firms that showed high, medium, and slow rates of growth, to ensure that constraints facing each type were reflected in the data (Table A1.5). The profit picture is also mixed. Almost as many firms reported increasing profitability as did decreasing margins. Most firms in the data set invested in their business during the 1990s. These investments have now taken the form of new machinery, the expansion of buildings, and investment in creating new markets and new products.

All the firms in the data set had been registered for sales tax purposes, although a large number of acquired their registration after the recently conducted sales tax survey. The sample also reflects good coverage of firm-level legal structure (Table A1.6). Only public limited companies appear to have been under-represented in the sample, but this again reflects a deliberate choice given that SMEs hardly utilize this legal structure (SMEDA 2001, footnote 2).

Table A1.6: Legal Status of Sample Firms

| Legal Status of Firm | Retail Sector (%) | Manufacturing Sector (%) |
|-----------------------------|--------------------------|---------------------------------|
| Single Proprietorship | 54 | 13 |
| Partnership | 33 | 23 |
| Public Limited Company | 0 | 13 |
| Private Limited Company | 13 | 51 |

Note: These figures represent sector share as a percentage of the total number of firms in that category.

Source: Survey data.

An Overview of the Constraints and Preliminary Findings

Following other prominent studies that used a similar methodology (footnote 8), this study used those constraints listed earlier in the appendix to organize the analysis of data and present survey results. This developed a strong sense of the categories of constraint that are binding in the Pakistani context. The results given in Table A1.6 summarize respondents' rankings of individual constraints. The results of the survey analysis were averaged over the entire sample. Since the sample consisted of small, medium-size, and large firms, the results were presented in terms of size-specific constraints and binding constraints.

In the first step, binding constraints were defined as those constraints that were accorded an average score of 3.5 or above (above-average rank) by the 'pooled' sample of respondents, and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (according them a score of 3.5). A cut-off score of 3.5 was used because many respondents displayed a grave mistrust of the Government and as a result, were inclined to give relatively high scores to regulatory constraints a tendency that was clearly revealed during interviews. This dual-weighting procedure of defining 'binding constraints' allowed greater precision and clarity.⁹ When 4.0 was used as a cut-off point, only regulatory constraints remained binding. This confirmed the tendency revealed in the interviews, and the subsequent analysis made it possible to separate categories of constraints that should be the focus of policy and that warrant further investigation.

In the second step, the ranking of constraints were stratified by firm size in order to see whether the rankings based on the 'pooled' sample captured industry-level constraints or constraints specific to the SME sector (Section 3). This highlighted the specific constraints on growth that SMEs face. In the case of certain constraint categories, results for the manufacturing and export sector and the retail sector were presented and discussed separately. This stratification is justified by the vast difference in the two sectors' mode of operation and organization. In order to avoid repetition, the results for constraint categories where responses were similar across sectors were not presented separately. The results of this exercise are tabulated in Appendixes 2 and 3.

⁹ Most studies use only one method, either basing their findings on average scores (Stone, Levy, and Paredes 1996; footnote 1) or on the percentage of respondents who identify a category as a constraint (World Bank 2001, footnote 2). Relying on only one method tends to weaken the findings of these studies. Although using both methods makes the criterion for a 'binding constraint' very stringent, it is the better approach if policy recommendations are to emerge from the findings on constraints. The authors would like to thank Ijaz Nabi for pointing out this limitation of the standard methodology.

The following caveat needs to be kept in mind when interpreting these results. Entrepreneurs' perceptions of the impact of different constraints are an important but not a definitive source of information (Levy 1993).¹⁰ Given this, and in order to substantiate the study's results, they are buttressed by findings from secondary sources and analysis of complementary data sources where available and accessible.

Analysis of the Pooled Sample

Table A1.7 lists the binding constraints faced by the pooled sample. This makes it possible to identify broad categories of constraints for further investigation. Constraints that apply only to exporters or retailers are indicated as so.

The list generated by the survey corresponds quite closely to the list of problem areas identified by the World Bank (2001),¹¹ which include:

- (i) Regulatory and other government-related issues;
- (ii) Problems of finance;
- (iii) Infrastructure;
- (iv) Human resources;
- (v) Raw material;
- (vi) Technology barriers;
- (vii) Law and order;
- (viii) Marketing.

Nonetheless, there are important differences between this study's findings and those of the World Bank (2001) (footnote 2). Technology, both in terms of access to and availability of, and market constraints are not classified as *binding* by the study's sample respondents. The difference between these results and the World Bank's results can be explained by the choice of methodology used to identify *binding constraints*. The World Bank list is based purely on the percentage of respondents who identified an area as a constraint; no reference is made to the average score given to each constraint. A similar procedure when applied to the study data generates exactly the same list as the World Bank's. However, this procedure tends to over-represent binding constraints because it provides no basis for assessing how seriously an area constrains firm-level growth. Given this, the study followed the results generated by its own methodological classification of constraints.

¹⁰ B. Levy. 1993. Obstacles to Developing Indigenous Small and Medium Enterprises: An Empirical Assessment. *World Bank Economic Review* 7 (1): 65–83.

¹¹ Similar results were reported by Roomi and Hussain's (1998) comprehensive survey of the literature on SMEs in Pakistan, by Kemal's (1993) survey of SMEs in most large cities of Pakistan, and by Berry (1998). See: A. Berry. 1998. The Potential Role of the SME Sector in Pakistan in a World of Increasing International Trade, Part I. *Pakistan Development Review* 37 (4): 25–49; A. R. Kemal. 1993. Why do Small Firms Fail to Graduate to Medium and Large Firms in Pakistan. *Pakistan Development Review* 32 (4): 1249–1257; and M. A. Roomi and S. T. Hussain. 1998. SMEs in Pakistan: A Survey of Their Problems and Prospects. Konrad Adenauer Foundation Working Paper Series. Lahore University of Management Sciences (LUMS), Lahore.

Table A1.7: Binding Constraints in the Pooled Sample

| Financial constraints | Infrastructure constraints | Regulatory constraints | Human Resource constraints | Market constraints | Macro-constraints |
|---|-----------------------------------|---|--|--|---|
| Credit | Power | Taxation | Low-skilled and poorly educated workforce | Contract Enforcement | High cost of foreign exchange (not for exporters) |
| Lack of access to credit | Corrupt utilities | High rates | | Slow pace and high cost of commercial dispute resolution | Exchange rate volatility (exporters only) |
| Stringent collateral requirements | Transport | Tedious procedures for submitting tax statements | Inadequate vocational training | | |
| Lack of connections with credit agencies | | Speed and cost of resolving tax disputes | Lack of trained middle management | Inefficient legal recourse for contract violations | High interest rates |
| Procedural delays in loan disbursement | | Corruption | Lack of qualified technicians (exporters only) | Distorted Competition | Inflation/price uncertainty |
| Corrupt systems for obtaining finance | | Corruption among tax government agencies | | Competition from smuggled goods | |
| High interest rates | | Corruption among other government agencies | | Competition from unregistered companies' goods | |
| Leasing | | Trade Policy and Procedure | | Market Transaction Costs | |
| High cost | | Cost of delay in obtaining duty drawback/sales tax refunds (exporters only) | | Lack of high-quality suppliers (exporters only) | |
| Large down payments | | High tariff rates on imports of raw material and intermediate goods | | Lack of high-quality raw materials | |
| Export Finance | | Law and Order | | Lack of high-quality intermediate goods and components | |
| Lack of access to export finance (exporters only) | | | | | |

Source: Derived from constraint rankings given in Appendixes 2 and 3.


Detailed interviews revealed that SME owners did not consider access to or information on technology an insurmountable constraint on growth. For medium-size enterprises, access to the Internet and other cheap sources of information has eased the 'access and information' constraint. Interestingly, many entrepreneurs also stated that the Government of Pakistan, with its current structure, could do no better at identifying and disseminating technology. With regard to marketing, most SMEs argued that if other constraints were resolved, marketing was an activity they could carry out using their own resources. Kemal (1993), using a similar approach to this study, also does not find access to or availability of technology to be a major constraint (footnote 11). Given these responses, it was decided that the remaining part of the study would focus only on constraint areas identified as binding by respondents themselves.

Table A1.7 shows that a combination of factors constrains firm-level growth. These include the availability of resources (in the shape of financial constraints, cost and quality of raw materials, human resources, and access to high-quality infrastructure); regulation; governance; macro-instability; contract enforcement; and distorted competition. Further analysis is required to detail the specific mechanisms through which these constraints emerge, as well as to corroborate their severity. This exercise has been conducted in Section 3, where these results are crosschecked against other complementary data sources and findings. Section 3 also presents results that are stratified by firm size in order to establish whether the constraints listed in Table A1.7 apply across firm size or are specific to the growth of SMEs.

APPENDIX 2: CONSTRAINTS RANKED BY SAMPLE MANUFACTURING SECTOR FIRMS

Table A2.1: Size-Specific Rankings of Financial Constraints

| Financial Constraints | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|--|-------------------|-------------|-------------------|-------------|
| Formal Sector Credit | | | | |
| Stringent Collateral Requirements | 4.4 | 4.8 | 4.1 | 3.1 |
| Need for Credit History | 3.1 | 3.2 | 3.1 | 2.3 |
| Lack of Connections with Credit Agencies | 3.8 | 4.2 | 3.4 | 1.8 |
| Procedural Delays in Loan Disbursement | 4.3 | 5.0 | 3.6 | 2.9 |
| Lack of Access to Credit | 3.8 | 4.3 | 3.6 | 2.7 |
| High Interest Rates | 3.5 | 3.1 | 4.0 | 4.3 |
| Corrupt Systems for Obtaining Finance | 3.8 | 3.9 | 3.7 | 1.3 |
| Internal Finance | | | | |
| Paucity of Retained Earnings for Growth | 4.3 | 4.5 | 3.9 | 2.1 |
| Leasing | | | | |
| High Cost | 4.0 | | 4.0 | 3.8 |
| Large Down Payments | 3.6 | 3.2 | 3.8 | 3.5 |
| Export Finance (for Exporters Only) | | | | |
| Collateral Requirements of Export Finance Scheme | 4.7 | 2.0 | 4.8 | 2.7 |
| Lack of Access to Export Finance | 4.3 | 1.0 | 4.0 | 2.5 |
| Cost of Export Finance | 3.3 | 1.0 | 3.3 | 4.4 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe). Firm size is ranked by constraint level.

Source: Survey data.

Table A2.2: Binding Financial Constraints

| Financial Constraints | Pooled SME Sample | Large Firms | Exporters |
|--|--------------------------|--------------------|------------------|
| Formal Sector Credit | | | |
| Stringent Collateral Requirements | 4.4 (53) | 3.1 (67) | 4.1 (42) |
| Lack of Connections with Credit Agencies | 3.8 (47) | 1.8 (27) | 2.1 (25) |
| Procedural Delays in Loan Disbursement | 4.3 (53) | 2.9 (53) | 3.9 (42) |
| Lack of Access to Credit | 3.8 (47) | 2.7 (47) | 3.9 (38) |
| High Interest Rates | 3.5 (65) | 4.3 (100) | 4.0 (71) |
| Corrupt Systems for Obtaining Finance | 3.8 (65) | 1.3 (0.05) | 1.8 (17) |
| Leasing | | | |
| High Cost | 4.0 (31) | 3.8 (33) | 3.8 (21) |
| Large Down Payments | 3.6 (32) | 3.5 (33) | 3.3 (17) |
| Export Finance (for Exporters Only) | | | |
| Lack of Access to Export Finance | 4.3 (32) | 2.5 (47) | 3.9 (46) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A2.3: Sources of Finance by Percentage of Investment Financed

| Financial Constraints | Pooled SME Sample (%) | Small Firms (%) | Medium-Size Firms (%) | Large Firms (%) |
|--|------------------------------|------------------------|------------------------------|------------------------|
| Sources of Fixed Investment | | | | |
| Retained Earnings | 19.3 | 12.5 | 30.7 | 32.1 |
| Commercial Banks | 6.1 | 9.4 | 7.1 | 20.3 |
| Development Financial Institutions | 0.0 | 0.0 | 0.0 | 0.0 |
| Leasing | 14.3 | 2.5 | 25.7 | 9.1 |
| Self-Financing | 55.7 | 67.5 | 36.4 | 34.4 |
| Local Moneylenders | 0.0 | 0.0 | 0.0 | 0.6 |
| Family/Friends | 4.6 | 8.1 | 0.0 | 3.2 |
| Trade Credit | 0.0 | 0.0 | 0.0 | 0.3 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Sources of Working Capital Investment | | | | |
| Retained Earnings | 62.9 | 66.3 | 56.4 | 40.9 |
| Commercial Banks | 11.8 | 5.0 | 26.4 | 40.9 |
| Development Financial Institutions | 0.0 | 0.0 | 0.0 | 0.0 |
| Leasing | | | | |
| Self-Financing | 18.9 | 26.9 | 2.1 | 8.8 |
| Local Moneylenders | 5.4 | 0.0 | 10.7 | 7.9 |
| Family/Friends | 1.1 | 1.9 | 4.3 | 0.0 |
| Trade Credit | 0.0 | 0.0 | 0.0 | 1.5 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

SME = small or medium enterprise.

Note: These findings are consistent with the findings of the World Bank (2001). Ali and Sipra (1998) report that in their sample of 35 SMEs located around Lahore, 'own funds' was the primary source of start-up capital, followed by borrowed funds from friends and relatives. In their sample, the informal credit market contributed a negligible amount to SME start-up capital. Kemal (1993) also reports that 15.50% of funds for the SMEs in his sample came from 'own savings'; 51.67% came from family savings; and only 0.01% from moneylenders. Kemal (1993) does not, however, make a distinction between start-up capital and expansion capital. This study's findings are more or less consistent with these results. See: S. M. Ali and N. Sipra. 1998. The Financial Practices of Small and Medium Enterprises in Pakistan. Konrad Adenauer Foundation Working Paper Series. Lahore University of Management Sciences (LUMS), Lahore; A. R. Kemal. 1993. Why do Small Firms Fail to Graduate to Medium and Large Firms in Pakistan. *Pakistan Development Review* 32 (4): 1249–1257; and World Bank. 2001. Pakistan: SME Policy Note. World Bank, Islamabad.

Source: Survey data.

Table A2.4: Size-Specific Rankings of Infrastructure Constraints

| Infrastructure Constraints | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|---|-------------------|-------------|-------------------|-------------|
| Unavailability of Land/Industrial Space | 2.3 | 2.6 | 2.3 | 2.2 |
| Power | | | | |
| Availability | 3.7 | 3.8 | 3.4 | 3.4 |
| High Rates | 4.1 | 4.1 | 3.9 | 4.3 |
| Unreliable Supply | 4.4 | 4.1 | 4.5 | 4.0 |
| Poor Quality of Service | 4.3 | 3.9 | 4.5 | 3.8 |
| High Cost of Backup Power | 3.3 | 3.6 | 3.4 | 3.6 |
| Corrupt Utilities | 4.0 | 3.7 | 4.1 | 3.3 |
| Telecommunications | | | | |
| Availability | 2.7 | 2.8 | 2.6 | 2.8 |
| High Rates | 3.6 | 3.3 | 3.3 | 3.1 |
| Unreliable Supply | 3.0 | 2.6 | 3.0 | 3.1 |
| Poor Quality of Service | 3.1 | 3.1 | 2.6 | 2.9 |
| Water | | | | |
| Availability | 3.7 | 2.9 | 4.4 | 3.1 |
| High Rates | 2.9 | 2.6 | 3.6 | 3.0 |
| Unreliable Supply | 3.6 | 2.9 | 4.1 | 3.4 |
| Poor Quality of Service | 3.4 | 3.0 | 3.6 | 3.3 |
| Sewerage and Sanitation | | | | |
| Availability | 2.7 | 2.5 | 3.0 | 3.1 |
| Unreliable Provision | 3.3 | 2.5 | 3.3 | 2.9 |
| Poor Quality of Service | 3.0 | 2.8 | 3.3 | 2.8 |
| Roads | | | | |
| Availability | 3.3 | 3.3 | 3.4 | 3.1 |
| Unreliable Provision | 3.6 | 3.1 | 4.0 | 3.4 |
| Poor Quality of Service | 3.7 | 3.0 | 3.9 | 3.5 |
| Logistical Transport | | | | |
| Availability | 4.2 | 3.8 | 4.4 | 4.0 |
| High Rates | 3.6 | 3.5 | 3.8 | 3.1 |
| Unreliable Provision | 3.9 | 3.5 | 4.3 | 3.4 |
| Poor Quality of Service | 3.8 | 3.7 | 3.9 | 3.1 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A2.5: Binding Infrastructure Constraints

| Infrastructure Constraints | Pooled SME Sample | Large Firms | Exporters |
|-----------------------------|-------------------|-------------|-----------|
| Power | | | |
| High Rates | 4.1 (82) | 4.3 (98) | 4.3 (96) |
| Unreliable Supply | 4.4 (76) | 4.0 (100) | 4.3 (96) |
| Poor Quality of Service | 4.3 (47) | 3.8 (73) | 3.4 (58) |
| High Cost of Backup Power | 3.6 (65) | 3.6 (80) | 3.4 (67) |
| Corrupt Utilities | 4.0 (76) | 3.3 (87) | 3.8 (88) |
| Logistical Transport | | | |
| Availability | 4.2 (88) | 4.0 (93) | 4.6 (96) |
| High Rates | 3.6 (65) | 3.1 (73) | 3.3 (67) |
| Unreliable Provision | 3.9 (82) | 3.4 (87) | 3.6 (79) |
| Poor Quality of Service | 3.8 (53) | 3.1 (53) | 3.8 (71) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A2.6: Size-Specific Rankings of Human Resource Constraints

| Human Resource Constraints ^a | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|---|-------------------|-------------|-------------------|-------------|
| Low-Skilled and Poorly Educated Workforce | 3.5 | 3.6 | 3.3 | 3.3 |
| Inadequate Vocational Training | 3.5 | 3.4 | 3.7 | 3.7 |
| Lack of Trained Middle Management | 3.6 | 3.8 | 3.2 | 3.2 |
| Lack of Trained Higher Management | 2.5 | 2.3 | 3.0 | 3.5 |
| Lack of Qualified Technicians | 3.5 | 3.4 | 3.7 | 3.8 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

^a The question concerning insufficient family members as a constraint on growth was dropped from the manufacturing data, since very few respondents answered this question.

Source: Survey data.

Table A2.7: Binding Human Resource Constraints

| Human Resource Constraints | Pooled SME Sample | Large Firms | Exporters |
|---|-------------------|-------------|-----------|
| Low-Skilled and Poorly Educated Workforce | 3.5 (65) | 3.3 (87) | 3.5 (75) |
| Inadequate Vocational Training | 3.5 (65) | 3.7 (93) | 3.9 (75) |
| Lack of Trained Middle Management | 3.6 (71) | 3.2 (80) | 3.3 (67) |
| Lack of Trained Higher Management | 2.5 (35) | 3.5 (80) | 3.4 (67) |
| Lack of Qualified Technicians | 3.5 (65) | 3.8 (87) | 3.9 (75) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A2.8: Size-Specific Rankings of Macro- and Monetary Constraints

| Macro- and Monetary Constraints ^a | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|--|-------------------|-------------|-------------------|-------------|
| High Cost of Foreign Exchange | 3.5 | 2.9 | 3.8 | 3.5 |
| Exchange Rate Volatility | 3.5 | 2.9 | 4.0 | 3.7 |
| Inflation | 3.7 | 3.4 | 3.6 | 3.1 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A2.9: Binding Macro- and Monetary Constraints

| Macro- and Monetary Constraints | Pooled SME Sample | Large Firms | Exporters |
|---------------------------------|-------------------|-------------|-----------|
| High Cost of Foreign Exchange | 3.5 (53) | 3.5 (80) | 3.5 (60) |
| Exchange Rate Volatility | 3.5 (47) | 3.7 (87) | 3.6 (71) |
| Inflation | 3.7 (82) | 3.1 (80) | 3.2 (75) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A2.10: Size-Specific Rankings of Regulatory Constraints

| Regulatory Constraints | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|--|-------------------|-------------|-------------------|-------------|
| Licenses | | | | |
| Export License Requirement | 2.1 | 1.0 | 2.5 | 1.4 |
| Import License Requirement | 2.5 | 1.7 | 3.3 | 1.3 |
| Cost of Acquiring Import License | 1.8 | 1.0 | 2.0 | 1.4 |
| Cost of Acquiring Export License | 2.2 | 1.7 | 2.3 | 1.3 |
| Taxation | | | | |
| High Rate of Federal Income Tax | 4.0 | 3.9 | 4.0 | 3.7 |
| Federal Income Tax Policy Uncertainty | 4.5 | 4.1 | 4.6 | 3.8 |
| Tedious Procedures for Submitting Income Tax Statements | 3.8 | 3.3 | 4.6 | 3.9 |
| High Rate of Federal Customs Tax | 3.5 | 2.2 | 4.5 | 3.1 |
| Federal Customs Tax Policy Uncertainty | 2.9 | 2.0 | 3.7 | 3.3 |
| Tedious Procedures for Submitting Customs Tax Statements | 3.1 | 2.3 | 3.7 | 3.5 |
| High Rate of Federal Sales Tax | 3.9 | 4.0 | 3.7 | 4.1 |
| Federal Sales Tax Policy Uncertainty | 4.2 | 4.3 | 4.0 | 3.9 |
| Tedious Procedures for Submitting Sales Tax Statements | 4.2 | 3.7 | 4.6 | 3.9 |
| Speed and Cost of Resolving Tax Disputes | 4.0 | 3.5 | 4.1 | 4.1 |
| Labor | | | | |
| Difficulty of Downsizing Workforce | 2.3 | 3.3 | 1.8 | 3.0 |
| Labor Union Actions | 3.8 | 5.0 | 2.2 | 3.3 |
| Price Controls | | | | |
| Reductions in Tariff on Import of Final Goods | 4.7 | 5.0 | 4.5 | 2.3 |
| High Tariff Rates for Import of Raw Material | 4.1 | 3.2 | 5.0 | 3.3 |
| High Tariff Rates for Import of Intermediate Goods | 3.8 | 3.6 | 3.8 | 3.1 |
| Unpredictable Changes in Tariff Rates | 3.8 | 3.5 | 4.0 | 3.3 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A2.11: Binding Regulatory Constraints

| Regulatory Constraints | Pooled SME Sample | Large Firms | Exporters |
|---|-------------------|-------------|-----------|
| Taxation | | | |
| High Rate of Federal Income Tax | 4.0 (82) | 3.1 (60) | 2.7 (50) |
| Federal Income Tax Policy Uncertainty | 4.5 (88) | 3.8 (87) | 3.8 (71) |
| Tedious Procedures for Submitting Income Tax Statements | 3.8 (71) | 3.9 (87) | 3.9 (71) |
| High Rate of Federal Sales Tax | 3.9 (71) | 4.1 (80) | 4.1 (67) |
| Federal Sales Tax Policy Uncertainty | 4.2 (76) | 3.9 (80) | 3.8 (63) |
| Tedious Procedures for Submitting Sales Tax Statements | 4.2 (71) | 3.9 (87) | 4.1 (75) |
| Speed and Cost of Resolving Tax Disputes | 4.0 (65) | 4.1 (87) | 4.1 (75) |
| Price Controls | | | |
| High Tariff Rates for Import of Raw Material | 4.1 (47) | 3.3 (53) | 4.0 (42) |
| High Tariff Rates for Import of Intermediate Goods | 3.8 (40) | 3.1 (60) | 3.3 (42) |
| Unpredictable Changes in Tariff Rates | 3.8 (65) | 3.3 (60) | 3.7 (50) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A2.12: Size-Specific Rankings of Regulatory Constraints for Exporters

| Regulatory Constraints for Exporters | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|---|-------------------|-------------|-------------------|-------------|
| Cost of Delay in Obtaining Duty Drawback | 4.0 | 2.0 | 5.0 | 3.5 |
| Uncertainty of Custom Duty Drawbacks | 3.5 | 2.0 | 4.0 | 3.1 |
| Uncertainty of Sales Tax Refunds | 4.4 | 2.0 | 4.6 | 3.7 |
| Cost of Delay in Obtaining Sales Tax Export Refunds | 4.4 | 2.0 | 4.6 | 3.7 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A2.13: Binding Regulatory Constraints for Exporters

| Regulatory Constraints for Exporters | Exporters |
|---|-----------|
| Cost of Delay in Obtaining Duty Drawback | 3.7 (56) |
| Uncertainty of Sales Tax Refunds | 4.0 (60) |
| Cost of Delay in Obtaining Sales Tax Export Refunds | 4.1 (62) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A2.14: Size-Specific Rankings of Law and Order Constraints

| Law and Order Constraints | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|---------------------------|-------------------|-------------|-------------------|-------------|
| Sectarian Strife | 3.8 | 3.7 | 3.8 | 3.1 |
| Ethnic Strife | 3.3 | 3.0 | 3.6 | 3.2 |
| Crime and Theft | 3.1 | 2.6 | 4.0 | 3.4 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A2.15: Binding Law and Order Constraints

| Law and Order Constraints | Pooled SME Sample | Large Firms | Exporters |
|----------------------------------|--------------------------|--------------------|------------------|
| Sectarian Strife | 3.8 (88) | 3.1 (80) | 3.2 (71) |
| Ethnic Strife | 3.3 (59) | 3.2 (67) | 3.4 (67) |
| Crime and Theft | 3.1 (53) | 3.4 (73) | 3.5 (67) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A2.16: Size-Specific Rankings of Market Constraints

| Market Constraints | Pooled SME Sample | Small Firms | Medium-Size Firms | Large Firms |
|--|--------------------------|--------------------|--------------------------|--------------------|
| Market Transaction Cost Variables | | | | |
| Lack of High-Quality Suppliers | 3.6 | 3.5 | 3.7 | 3.4 |
| Lack of High-Quality Raw Materials | 3.5 | 3.4 | 3.6 | 3.9 |
| Long-Term Relationships with Buyers not Established | 3.0 | 3.0 | 3.0 | 1.6 |
| Long-Term Relationships with Suppliers not Established | 2.7 | 2.5 | 2.8 | 1.7 |
| Customers' Unwillingness to Pay for Quality | 3.4 | 3.5 | 2.9 | |
| Lack of High-Quality Intermediate Goods | 3.4 | 3.3 | 3.5 | |
| High Cost of Spare Parts | 3.9 | 4.1 | 3.8 | 3.2 |
| Repayment of Suppliers' Credit on Time | 3.1 | 2.5 | 3.4 | 2.8 |
| Repudiation of Contracts | | | | |
| Slow Pace and High Cost of Commercial Dispute Resolution | 4.2 | 4.8 | 3.9 | 1.9 |
| Inefficient Legal Recourse for Contract Violations | 4.0 | 4.0 | 4.2 | 3.4 |
| Nature of Competition | | | | |
| Competition from Smuggled Goods | 3.8 | 4.1 | 3.6 | 2.4 |
| Competition from Counterfeit Goods | 3.1 | 2.4 | 3.4 | 3.1 |
| Competition from Unregistered Companies' Goods | 3.8 | 3.9 | 3.4 | 3.6 |

Highest  Second-Highest  Lowest 

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A2.17: Binding Market Constraints

| Market Constraints | Pooled SME Sample | Large Firms | Exporters |
|--|--------------------------|--------------------|------------------|
| Market Transaction Cost Variables | | | |
| Lack of High-Quality Suppliers | 3.6 (59) | 3.4 (93) | 3.5 (82) |
| Lack of High-Quality Raw Materials | 3.5 (50) | 3.9 (94) | 4.0 (92) |
| Lack of High-Quality Intermediate Goods | 3.4 (32) | 4.0 (59) | 3.8 (54) |
| High Cost of Spare Parts | 3.9 (59) | 3.2 (59) | 3.3 (55) |
| Repudiation of Contracts | | | |
| Slow Pace and High Cost of Commercial Dispute Resolution | 4.2 (41) | 1.9 (20) | 2.1 (20) |
| Inefficient Legal Recourse for Contract Violations | 4.0 (40) | 3.4 (47) | 3.5 (40) |
| Nature of Competition | | | |
| Competition from Smuggled Goods | 3.8 (53) | 2.4 (13) | |
| Competition from Unregistered Companies' Goods | 3.8 (59) | 3.6 (67) | 3.3 (50) |

SME = small or medium enterprise.

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents is indicated in parentheses.




Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

APPENDIX 3: CONSTRAINTS RANKED BY SAMPLE RETAIL SECTOR FIRMS

Table A3.1: Size-Specific Rankings of Financial Constraints

| Financial Constraints ^a | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|------------------------|-------------|-------------|-------------|
| Formal Sector Credit | | | | |
| Stringent Collateral Requirements | 3.8 | 3.5 | 5.0 | 3.0 |
| Need for Credit History | 3.3 | 3.5 | 5.0 | 1.0 |
| Lack of Connections with Credit Agencies | 2.3 | 3.5 | 1.0 | 1.0 |
| Procedural Delays in Loan Disbursement | 3.8 | 4.5 | 5.0 | 1.0 |
| Lack of Access to Credit | 3.5 | 4.0 | 5.0 | 1.0 |
| High Interest Rates | 3.0 | 3.0 | 4.0 | 4.0 |
| Corrupt Systems for Obtaining Finance | 2.8 | 2.8 | 5.0 | 1.0 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

^a Questions on leasing received a poor response from the retailer sample, and are not reported here.

Source: Survey data.

Table A3.2: Binding Financial Constraints

| Financial Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|-------------------------------|--------------------|--------------------|--------------------|
| Formal Sector Credit | | | | |
| Stringent Collateral Requirements | 3.8 (20) | 3.5 (11) | 5.0 (33) | 3.0 (33) |
| Need for Credit History | 3.3 (13) | 3.5 (11) | 5.0 (33) | 1.0 (0) |
| Lack of Connections with Credit Agencies | 2.3 (7) | 3.5 (11) | 1.0 (0) | 1.0 (0) |
| Procedural Delays in Loan Disbursement | 3.8 (20) | 4.5 (22) | 5.0 (33) | 1.0 (0) |
| Lack of Access to Credit | 3.5 (20) | 4.0 (22) | 5.0 (33) | 1.0 (0) |
| High Interest Rates | 3.0 (40) | 3.0 (67) | 4.0 (33) | 4.0 (67) |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents who ranked a particular constraint above 3.5 is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A3.3: Sources of Finance by Percentage of Investment Financed

| Financial Information | Pooled Retailer Sample (%) | Micro-Firms (%) | Small Firms (%) | Large Firms (%) |
|--|-----------------------------------|------------------------|------------------------|------------------------|
| Sources of Fixed Investment | | | | |
| Retained Earnings | 46.4 | 42.5 | 51.7 | 50.0 |
| Commercial Banks | 6.0 | 5.0 | 0.0 | 25.0 |
| Development Financial Institutions | 0.0 | 0.0 | 0.0 | 0.0 |
| Leasing | 2.3 | 1.3 | 0.0 | 12.5 |
| Self-Financing | 36.8 | 43.1 | 27.5 | 12.5 |
| Local Moneylenders | 0.7 | 1.3 | 0.0 | 0.0 |
| Family/Friends | 7.8 | 6.8 | 20.8 | 0.0 |
| Trade Credit | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |
| Sources of Working Capital Investment | | | | |
| Retained Earnings | 86.0 | 96.3 | 83.3 | 42.5 |
| Commercial Banks | 4.3 | 0.0 | 0.0 | 25.0 |
| Development Financial Institutions | 4.3 | 0.0 | 0.0 | 32.5 |
| Leasing | 0.0 | 0.0 | 0.0 | 0.0 |
| Self-Financing | 3.3 | 0.0 | 16.7 | 0.0 |
| Local Moneylenders | 0.0 | 0.0 | 0.0 | 0.0 |
| Family/Friends | 1.3 | 2.5 | 0.0 | 0.0 |
| Trade Credit | 0.8 | 1.2 | 0.0 | 0.0 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 |

Source: Survey data.

Table A3.4: Size-Specific Rankings of Infrastructure Constraints

| Infrastructure Constraints ^a | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|---|------------------------|-------------|-------------|-------------|
| Power | | | | |
| Availability | 3.3 | 3.1 | 5.0 | 3.0 |
| High Rates | 3.7 | 3.6 | 5.0 | 3.0 |
| Unreliable Supply | 3.2 | 3.3 | 4.7 | 1.5 |
| Poor Quality of Service | 3.3 | 3.3 | 5.0 | 2.0 |
| High Cost of Backup Power | 3.5 | 3.8 | 3.7 | 2.7 |
| Corrupt Utilities | 3.2 | 3.0 | 5.0 | 3.0 |
| Logistical Transport | | | | |
| Availability | 3.3 | 2.7 | 5.0 | 3.0 |
| High Rates | 3.0 | 3.0 | 5.0 | 2.0 |
| Unreliable Provision | 3.4 | 3.0 | 5.0 | 3.0 |
| Poor Quality of Service | 3.4 | 3.0 | 5.0 | 3.0 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

^a Questions on infrastructure components such as telecommunications, water, sewerage/sanitation, and roads received a poor response from the retailer sample, and are not reported here.

Source: Survey data.

Table A3.5: Binding Infrastructure Constraints

| Infrastructure Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|----------------------------|------------------------|-------------|-------------|-------------|
| Power | | | | |
| High Rates | 3.7 (73) | 3.6 (67) | 5.0 (33) | 3.0 (67) |
| High Cost of Backup Power | 3.5 (60) | 3.8 (44) | 3.7 (33) | 2.7 (67) |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).




The percentage of respondents who ranked a particular constraint above 3.5 is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A3.6: Size-Specific Rankings of Human Resource Constraints

| Human Resource Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|------------------------|-------------|-------------|-------------|
| Low-Skilled and Poorly Educated Workforce | 3.4 | 2.4 | 4.3 | 5.0 |
| Inadequate Vocational Training | 2.9 | 1.8 | 5.0 | 1.7 |
| Lack of Qualified Technicians | 2.8 | 1.7 | 5.0 | 5.0 |
| Lack of Trained Middle Management | 3.5 | 2.4 | 4.7 | 4.7 |
| Lack of Trained Higher Management | 3.2 | 2.7 | 3.0 | 4.3 |
| Insufficient Family Members to Manage Business | 2.5 | 1.9 | 4.0 | 3.0 |
| Theft by Management (Retail-Specific) | 2.3 | 1.0 | 3.3 | 3.3 |
| Theft by Employees (Retail-Specific) | 2.7 | 1.4 | 4.3 | 4.0 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A3.7: Binding Human Resource Constraints

| Human Resource Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|------------------------|-------------|-------------|-------------|
| Low-Skilled and Poorly Educated Workforce | 3.4 (67) | 2.4 (44) | 4.3 (33) | 5.0 (33) |
| Inadequate Vocational Training | 2.9 (47) | 1.8 (22) | 5.0 (67) | 1.7 (33) |
| Lack of Qualified Technicians | 2.8 (27) | 1.7 (11) | 5.0 (33) | 5.0 (67) |
| Lack of Trained Middle Management | 3.5 (60) | 2.4 (33) | 4.7 (33) | 4.7 (33) |
| Lack of Trained Higher Management | 3.2 (53) | 2.7 (33) | 3.0 (67) | 4.3 (33) |
| Insufficient Family Members to Manage Business | 2.5 (40) | 1.9 (22) | 4.0 (33) | 3.0 (33) |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents who ranked a particular constraint above 3.5 is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A3.8: Size-Specific Rankings of Macro- and Monetary Constraints

| Macro- and Monetary Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|---------------------------------|------------------------|-------------|-------------|-------------|
| High Cost of Foreign Exchange | 3.0 | 2.0 | 3.0 | 3.0 |
| Exchange Rate Volatility | 3.3 | 2.8 | 2.8 | 5.0 |
| Inflation | 3.4 | 3.4 | 4.0 | 4.0 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A3.9: Binding Macro- and Monetary Constraints

| Macro- and Monetary Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|---------------------------------|------------------------|-------------|-------------|-------------|
| Inflation | 3.4 (53) | 3.4 (89) | 4.0 (67) | 4.0 (67) |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents who ranked a particular constraint above 3.5 is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A3.10: Size-Specific Rankings of Regulatory Constraints

| Regulatory Constraints ^a | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|------------------------|-------------|-------------|-------------|
| Taxation | | | | |
| High Rate of Federal Income Tax | 3.4 | 2.5 | 4.0 | 5.0 |
| Federal Income Tax Policy Uncertainty | 3.5 | 3.3 | 3.3 | 4.3 |
| Tedious Procedures for Submitting Income Tax Statements | 3.6 | 2.6 | 3.3 | 5.0 |
| Corruption in Income Tax Assessment | 3.4 | 3.1 | 4.7 | 3.0 |
| High Rate of Federal Customs Tax | 3.7 | 2.3 | 5.0 | 4.7 |
| Federal Customs Tax Policy Uncertainty | 3.1 | 1.7 | 5.0 | 4.5 |
| Tedious Procedures for Submitting Customs Tax Statements | 3.7 | 3.0 | 5.0 | 4.0 |
| Corruption in Customs Procedures | 3.6 | 3.5 | 3.5 | 3.7 |
| High Rate of Federal Sales Tax | 3.1 | 1.0 | 4.5 | 5.0 |
| Federal Sales Tax Policy Uncertainty | 2.9 | 1.0 | 4.5 | 4.3 |
| Tedious Procedures for Submitting Sales Tax Statements | 3.1 | 1.0 | 5.0 | 4.7 |
| Corruption in Sales Tax Audit | 3.4 | 2.5 | 5.0 | 3.7 |
| Provincial Tax Regulations | 2.9 | 2.0 | 4.0 | 3.0 |
| Municipal Tax Regulations | 2.6 | 2.3 | 3.3 | 2.5 |
| Building and Property Tax Regulations | 3.6 | 3.1 | 4.7 | 4.0 |
| Speed and Cost of Resolving Tax Disputes | 3.0 | 1.9 | 5.0 | 4.5 |
| Price Controls | | | | |
| Price Controls on Inputs (Retail-Specific) | 2.3 | 0.0 | 1.5 | 5.0 |
| Price Controls on Outputs (Retail-Specific) | 3.0 | 0.0 | 4.0 | 2.5 |
| Reductions in Tariff on Import of Final Goods | 4.4 | 3.5 | 5.0 | 5.0 |
| High Tariff Rates for Import of Raw Material | 4.0 | 0.0 | 5.0 | 3.0 |
| Unpredictable Changes in Tariff Rates | 3.0 | 2.3 | 3.5 | 5.0 |
| Corruption | | | | |
| Corruption among Other Government Agencies | 3.6 | 3.0 | 5.0 | 3.0 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

^a Questions on labor regulations and licensing requirements received a poor response from the retailer sample, and are not reported here.

Source: Survey data.

Table A3.11: Binding Regulatory Constraints

| Regulatory Constraints ^a | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|-------------------------------|--------------------|--------------------|--------------------|
| Taxation | | | | |
| High Rate of Federal Income Tax | 3.4 (60) | 2.5 (44) | 4.0 (67) | 5.0 (33) |
| Federal Income Tax Policy Uncertainty | 3.5 (67) | 3.3 (56) | 3.3 (67) | 4.3 (33) |
| Corruption in Income Tax Assessment | 3.4 (67) | 3.1 (56) | 4.7 (33) | 3.0 (67) |
| High Rate of Federal Customs Tax | 3.7 (40) | 2.3 (22) | 5.0 (33) | 4.7 (33) |
| Tedious Procedures for Submitting Customs Tax Statements | 3.7 (33) | 3.0 (22) | 5.0 (33) | 4.0 (67) |
| Corruption in Customs Procedures | 3.6 (33) | 3.5 (11) | 3.5 (67) | 3.7 (67) |
| High Rate of Federal Sales Tax | 3.1 (33) | 1.0 (0) | 4.5 (67) | 5.0 (33) |
| Federal Sales Tax Policy Uncertainty | 2.9 (33) | 1.0 (0) | 4.5 (67) | 4.3 (33) |
| Tedious Procedures for Submitting Sales Tax Statements | 3.1 (33) | 1.0 (0) | 5.0 (67) | 4.7 (33) |
| Corruption in Sales Tax Audit | 3.4 (40) | 2.5 (22) | 5.0 (67) | 3.7 (67) |
| Building and Property Tax Regulations | 3.6 (67) | 3.1 (44) | 4.7 (33) | 4.0 (33) |
| Speed and Cost of Resolving Tax Disputes | 3.0 (47) | 1.9 (22) | 5.0 (33) | 4.5 (67) |
| Price Controls | | | | |
| Price Controls on Outputs (Retail-Specific) | 3.0 (13) | 0.0 (0) | 4.0 (33) | 2.5 (33) |
| Reductions in Tariff on Import of Final Goods | 4.4 (33) | 3.5 (22) | 5.0 (33) | 5.0 (67) |
| High Tariff Rates for Import of Raw Material | 4.0 (13) | 0.0 (0) | 5.0 (33) | 3.0 (33) |
| Corruption | | | | |
| Corruption among Other Government Agencies | 3.6 (47) | 3.0 (22) | 5.0 (33) | 3.0 (67) |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents who ranked a particular constraint above 3.5 is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

^a Questions on labor regulations and licensing requirements received a poor response from the retailer sample, and are not reported here.

Source: Survey data.

Table A3.12: Size-Specific Rankings of Law and Order Constraints

| Law and Order Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|---------------------------|------------------------|-------------|-------------|-------------|
| Sectarian Strife | 3.3 | 3.0 | 3.7 | 4.0 |
| Ethnic Strife | 3.2 | 3.0 | 3.7 | 3.3 |
| Crime and Theft | 3.4 | 2.9 | 4.7 | 3.7 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A3.13: Binding Law and Order Constraints

| Law and Order Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|---------------------------|------------------------|-------------|-------------|-------------|
| Sectarian Strife | 3.3 (73) | 3.0 (56) | 3.7 (33) | 4.0 (33) |
| Ethnic Strife | 3.2 (67) | 3.0 (56) | 3.7 (33) | 3.3 (67) |
| Crime and Theft | 3.4 (80) | 2.9 (67) | 4.7 (33) | 3.7 (33) |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).




The percentage of respondents who ranked a particular constraint above 3.5 is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

Table A3.14: Size-Specific Rankings of Market Constraints

| Market Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|------------------------|-------------|-------------|-------------|
| Market Transaction Cost Variables | | | | |
| Lack of High-Quality Suppliers | 2.9 | 2.8 | 4.0 | 3.0 |
| Lack of High-Quality Raw Materials | 3.4 | 3.0 | 5.0 | 3.0 |
| Long-Term Relationships with Buyers not Established | 2.0 | 1.5 | 2.3 | 3.0 |
| Long-Term Relationships with Suppliers not Established | 2.4 | 2.0 | 3.0 | 3.0 |
| Customers' Unwillingness to Pay for Quality | 3.2 | 3.0 | 3.7 | 4.0 |
| Repayment of Suppliers' Credit on Time | 2.9 | 2.5 | 4.0 | 4.0 |
| High Cost of Spare Parts | 3.6 | 3.0 | 4.0 | 4.5 |
| Repudiation of Contracts | | | | |
| Slow Pace and High Cost of Commercial Dispute Resolution | 3.1 | 1.7 | 3.5 | 4.3 |
| Inefficient Legal Recourse for Contract Violations | 3.8 | 3.3 | 3.0 | 5.0 |
| Nature of Competition | | | | |
| Competition from Smuggled Goods | 2.4 | 1.4 | 3.5 | 5.0 |
| Competition from Counterfeit Goods | 3.4 | 2.7 | 5.0 | 4.3 |
| Competition from Unregistered Companies' Goods | 3.1 | 1.7 | 3.0 | 5.0 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Firm size is ranked by constraint level.

Source: Survey data.

Table A3.15: Binding Market Constraints

| Market Constraints | Pooled Retailer Sample | Micro-Firms | Small Firms | Large Firms |
|--|------------------------|-------------|-------------|-------------|
| Market Transaction Cost Variables | | | | |
| Lack of High-Quality Raw Materials | 3.4 (27) | 3.0 (11) | 5.0 (33) | 3.0 (67) |
| High Cost of Spare Parts | 3.6 (33) | 3.0 (22) | 4.0 (33) | 4.5 (67) |
| Repudiation of Contracts | | | | |
| Slow Pace and High Cost of Commercial Dispute Resolution | 3.1 (40) | 1.7 (11) | 3.5 (67) | 4.3 (33) |
| Inefficient Legal Recourse for Contract Violations | 3.8 (33) | 3.3 (22) | 3.0 (33) | 5.0 (67) |
| Nature of Competition | | | | |
| Competition from Counterfeit Goods | 3.4 (47) | 2.7 (33) | 5.0 (33) | 4.3 (33) |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

The percentage of respondents who ranked a particular constraint above 3.5 is indicated in parentheses.

Binding constraints are defined as constraints ranked by an average score of 3.5 or above (above-average rank) and which over 30% (nearly one third) of the respondents ranked as an above-average constraint (a score of 3.5).

Source: Survey data.

APPENDIX 4: CONSTRAINTS RANKED BY REGION AND SECTOR

Table A4.1: Ranking of Law and Order Constraints by Region

| Law and Order Constraints | Lahore/Gujranwala | Karachi |
|----------------------------------|--------------------------|----------------|
| Sectarian Strife | 3.0 | 3.8 |
| Ethnic Strife | 2.9 | 3.7 |
| Crime and Theft | 3.2 | 3.7 |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Source: Survey data.

Table A4.2: Ranking of Infrastructure Constraints by Region




| Infrastructure Constraints | Lahore/Gujranwala | Karachi |
|-----------------------------------|--------------------------|----------------|
| Water | | |
| Availability | 2.7 | 4.4 |
| Rates | 2.5 | 3.2 |
| Reliability | 2.7 | 4.2 |
| Quality of Service | 3.0 | 3.8 |
| Sewerage and Sanitation | | |
| Availability | 2.8 | 3.2 |
| Reliability | 2.8 | 3.2 |
| Quality of Service | 2.8 | 3.3 |

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Source: Survey data.

Table A4.3: Ranking of Human Resource Constraints

| Human Resource Constraints | Light Engineering Sector | Foods Sector | Textiles Sector |
|---|--------------------------|--------------|-----------------|
| Low-Skilled and Poorly Educated Workforce | 4.3 | 2.8 | 3.8 |
| Inadequate Vocational Training | 3.7 | 3.2 | 3.9 |
| Lack of Qualified Technicians | 3.1 | 3.6 | 3.9 |
| Lack of Trained Middle Management | 4.1 | 2.6 | 3.8 |
| Lack of Higher Management | 2.7 | 2.8 | 3.3 |
| Theft by Management | 2.3 | 2.2 | 3.5 |
| Theft by Employees (Nonmanagement) | 2.6 | 2.9 | 3.5 |
| Lack of Family Members to Manage Business | 2.6 | 2.4 | 1.5 |

Highest  Second-Highest  Lowest 

Notes: Constraints are ranked as average scores on a scale of 1 (least important) to 5 (severe).

Source: Survey data.

APPENDIX 5: DETERMINANTS OF FIRM GROWTH AND INVESTMENT

This appendix briefly discusses the 'usual suspects' identified by theory as constraints on firm-level growth and investment decisions. This overview, along with the review of the Pakistan-specific literature in Section 2, aided the design of the initial questionnaire used to conduct the study's pilot survey. The appendix analyzes conventional explanations for slowdown in firm-level growth, and then reviews the theoretical hypotheses that explain constraints on firm-level growth in an environment of macro- and institutional uncertainty.

Constraints on Firm Growth and Investment: Conventional Explanations

Conventional explanations for why firms fail to grow and invest rely on the presence of either market or regulatory imperfections. The following factors are argued to impose severe constraints on firm-level growth:

- (i) Imperfections in the financial market;
- (ii) Imperfections in the labor and management market;
- (iii) Imperfections in the market for technology;
- (iv) Imperfections in the provision of infrastructure;
- (v) High regulatory costs because of high statutory tax rates or high compliance costs associated with state regulation;
- (vi) The predatory behavior of government agencies, resulting in high levels of corruption and extortion costs;
- (vii) Weak property rights.

The effect of each of these factors on firm-level growth is discussed in detail below.

Imperfections in the Financial Market

A standard explanation for why firms fail to grow relies on the theory of credit rationing.¹ Stiglitz and Weiss (1989) suggest that the asymmetric flow of information between banks and borrowers constrains banks from differentiating between low-risk and high-risk borrowers (adverse selection) (footnote 1). The high cost of individualized monitoring constrains banks from monitoring the risk-taking behavior of borrowers (moral hazard). Asymmetric information and high monitoring costs give banks an incentive to ration credit because increases in the lending rate do not adequately cover the high average default risk and can in fact reduce banks' expected return. According to this hypothesis, the lack of access to finance for working capital and new investment is a substantial constraint on firms' ability to carry out business and to expand beyond the limits of self-financing.²

Banerjee and Duflo (2002) suggest that credit rationing is a far more severe constraint on small and medium enterprises (SMEs) than on larger firms.³ This is because SMEs are more susceptible to macro-shocks and less able to offer adequate collateral for borrowing. Borrower information is also likely to be more restricted for SMEs. It is argued that the informal-sector credit market that becomes the main venue for lending to SMEs is usually monopolistic and tends to lend at exorbitant rates. This is also expected to have a negative effect on the rate of growth of investment. Alongside this, firms in developing countries face equity rationing because of a combination of asymmetric information and ill-protected investor rights.⁴

Imperfections in the Labor and Management Market

In developing economies, where the market for managers and skilled workers is underdeveloped, skills remain scarce and often act as a constraint on firm-level growth. In cost analysis, this constraint reveals itself in diseconomies of scale, but the real failure here is the lack of investment in education and in creating a pool of skilled managers and workers. Investment in education and skills training is a public good, which makes it difficult for large groups⁵ and SMEs (that are stifled by financial problems) to provide. In this scenario, it is likely that there will be an under-provision of investment in education/skills creation because of the inherent externalities of such a process.

¹ See: F. Hellmann, K. Murdock, and J. Stiglitz. 1996. Deposit Mobilization and Financial Restraint. In *Financial Development and Economic Growth: Theory and Experiences from Developing Economies*. Edited by N. Hermes and R. Lensink. London: Routledge; and Joseph Stiglitz and Andrew Weiss. 1981. Credit Rationing in Markets with Imperfect Information. *American Economic Review* 71 (3): 393–410.

² See: M. T. Hannan and G. R. Carroll. 1992. *Dynamics of Organizational Populations: Density, Legitimation, and Competition*. New York: Oxford University Press; J. B. Nugent and M. K. Nabli. 1989. The New Institutional Economics and its Applicability to Development. *World Development* 17 (September): 1333–1347; and J. B. Nugent and M. K. Nabli. 1992. Development of Financial Markets and the Size Distribution of Manufacturing Establishments: International Comparisons. *World Development* 20 (October): 1489–1500.

³ A. V. Banerjee and E. Duflo. 2002. Do Firms Want to Borrow More? Testing Credit Constraints Using a Directed Lending Program. Mimeo. Massachusetts Institute of Technology, Cambridge.

⁴ World Bank. 2002. *World Development Report Building Institutions for Markets*. New York: Oxford University Press.

⁵ Mancur Olson. 1965. *The Logic of Collective Action*. Cambridge, Mass.: Harvard University Press.

Imperfections in the Market for Technology

Access to technology is also seen as a major constraint on firm growth.⁶ The older literature identifies as the main problem, the presence of technological indivisibilities that result in monopoly power and weak incentive to invest in upgrading technology.⁷ The recent literature has shifted the emphasis to the imperfections in the market for technology acquisition that face firms in less developed countries. There are a number of reasons for these market imperfections. Technological investments lead to the creation of knowledge, which is characterized as a public good. As a result, there is every chance that firms in less developed countries will under-invest in technology acquisition.⁸ The risk and uncertainty involved in acquiring technology may also result in under-investment, especially if credit and insurance markets are imperfect.⁹ Again, there is a significant difference in the technology acquisition capability of SMEs and that of large firms because the former are likely to be far more severely credit-constrained.

Imperfections in the Provision of Infrastructure

Given that infrastructure is a public good characterized by the associated indivisibilities, it is difficult for private sector agents to provide key services such as power, telecommunications, and roads. While large private sector corporations may be able to bear the cost of establishing a private infrastructure, resource-starved SMEs and green-field entrants cannot do the same, since the large externalities in most infrastructure sectors make private provision costlier than public provision.

High Regulatory Costs

The literature offers three explanations for why firm growth is constrained by state-governance variables. First, entrepreneurs choose to remain small when statutory tax rates are high and other official regulations onerous.¹⁰ Second, the predatory behavior of government agencies seeking bribes from parties carrying out officially registered economic activity, may encourage firms to remain small.¹¹ Third, firms may choose not to grow in order to escape criminal extortion by mafias.¹²

⁶ See: Partha Dasgupta and Joseph E. Stiglitz. 1988. Learning-by-Doing, Market Structure and Industrial and Trade Policies. *Oxford Economic Papers* 40 (2): 246–68; Boyan Jovanovic. 1982. Selection and the Evolution of Industry. *Econometrica* 50 (3): 649–70; R. R. Nelson and S. Winter. 1982. *An Evolutionary Theory of Economic Change*. Cambridge, Mass.: Harvard University Press; and G. Steven Olley and Ariel Pakes. 1992. *The Dynamics of Productivity in the Telecommunications Equipment Industry*. National Bureau of Economic Research Working Paper No. 3977. Cambridge, Mass.: National Bureau of Economic Research.

⁷ K. J. Arrow. 1962. Economic Welfare and the Allocation of Resources for Invention. In *The Economics of Communication and Information*. Edited by D. M. Lambertson. 1996. Cheltenham: Edward Elgar Publishing.

⁸ See Joseph Stiglitz. 1996. Some Lessons from the East Asian Miracle. *World Bank Research Observer* 11 (2): 151–177. The argument for technology market imperfections is analogous to the one that explains labor market imperfections.

⁹ M. Fransman and K. King, eds. 1984. *Technological Capability in the Third World*. London: Macmillan Press.

¹⁰ Hernando de Soto. 1989. *The Other Path: The Invisible Revolution in the Third World*. New York: Harper & Row; and Friedrich Schneider and Dominik Enste. 1998. *Increasing Shadow Economies all Over the World: Fiction or Reality: A Survey of the Global Evidence of its Size and of its Impact from 1970 to 1995*. Institute for the Study of Labor (IZA) Discussion Paper No. 26. IZA: Bonn.

¹¹ See: D. Kaufmann. 1997. Corruption: The Facts. *Foreign Policy* (Summer): 114–131; Andrei Shleifer and Robert W. Vishny. 1993. Corruption. *Quarterly Journal of Economics* 108 (3): 599–617; and Andrei Shleifer. 1997. Government in Transition. *European Economic Review* 41(35): 385–410.

¹² T. Frye and E. Zhuravskaya. 1988. Private Protection and Public Goods: The Role of Regulation. Mimeo. Russian-European Centre for Economic Policy, Moscow.

Constraints on Investment under Macro-Stabilization: Conventional Explanations

There are a number of conventional explanations suggesting that stabilization programs lead to aggregate investment contraction. Aggregate demand contraction could reduce output. If the accelerator mechanism prevails, investment will decline with declining output. Initial reductions in output and investment could reduce future investment if expectations of recovery become pessimistic. The effects of a contractionary monetary policy on interest rates or credit rationing during stabilization would further lower investment. Finally, where there is 'crowding in', the reduction of the fiscal deficit is expected to reduce private investment directly.

These hypotheses reflect the proposed effects of macro-stabilization on the behavior of aggregate investment. Although a slowdown in aggregate investment largely reflects a slowdown in firm growth and investment, the aggregate slowdown may not affect all sectors equally. In this event, examining the effects of macro-stabilization at the firm level may produce mixed results.

A New Framework for Analyzing Firm-Level Investment Decisions

Pindyck and Dixit (1994) provide a wider framework for analyzing investment under uncertainty.¹³ Conventional theory assumes that firms invest and grow if the net present value of their investment is greater than zero. Pindyck and Dixit (1994) point out that the 'sunk-cost' nature of investment and the uncertainty of future rewards can profoundly affect a firm's decision to invest (footnote 13). Any firm with an opportunity to invest holds an 'option'; it has the right but not the obligation to invest. Irreversibility (give that sunk costs are involved) implies that downward adjustments in capital stock are more difficult than upward adjustments. In this scenario, the opportunity cost of investment is the option of waiting. Firms might delay or forego investments out of fear that the economic environment might change for the worse.

Recent empirical literature based on this framework suggests that both macro-policy instability and institutional instability can create severe disincentives for firm-level investment.¹⁴ Institutional instability refers to the fundamental uncertainties created by weak and uncertain property rights. This takes into account variables such as social unrest, political violence, theft, the perceived risk of expropriation, repudiation of contracts, and corruption. This literature also suggests that 'uncertainty' as a variable is expressed either through the volatility of an institutional framework (the number of changes in laws or rules) or the volatility of outcomes (volatility of macro-variables, loss of income because of social unrest, etc.). The hypotheses and causalities established in this literature are discussed below.

¹³ A. Pindyck and R. Dixit. 1994. *Investment under Uncertainty*. New Jersey: Princeton University Press.

¹⁴ See: Luis Servén. 1998. *Macroeconomic Uncertainty and Private Investment in LDCs: An Empirical Investigation*. Policy Research Working Paper No. 2035. Washington, DC: World Bank; and David Stasavage. 2000. *Private Investment and Political Uncertainty*. Development Economics Paper No. 25. London: Suntory and Toyota International Centres for Economics and Related Disciplines (STICERD), London School of Economics and Political Science.

Constraints Imposed by Macro-Policy Uncertainty

Macro-policy instability can lead to inflation volatility, creating uncertainty for investors about the profitability of potential projects. This can lower the demand for investment. In similar vein, exchange rate volatility and fluctuations in the terms of trade are other factors expected to create uncertainty. A large debt overhang that involves transfers to a country's creditors through large swings in taxes or aggregate demand in the future may dampen investment incentives. Frequent changes in government policy, whether actual or perceived, also reduce the incentive to invest. The logic of this argument is that if the private sector finds the stated intentions of government less than credible, it is likely to postpone investment given the possibility of being trapped in an irreversible but 'wrong' decision. Conversely, stability will have a negative impact on private investment to the extent that governments fail to make the needed changes in policy to boost investment.

Constraints Imposed by Institutional Uncertainty

The more violent a society or its political processes, the less secure its people and property. This instability usually spawns uncertainty, which in turn distorts investment decisions. Enforcement uncertainty may also affect investment incentives. This reflects another dimension of the relationship between the private sector and the state, i.e., the degree of confidence among private firms that their property and contractual rights will not be arbitrarily enforced. The discretionary behavior of the judiciary and bureaucracy is important in this context. Finally, every change in government is likely to be accompanied by policy changes that introduce an element of uncertainty into the institutional framework: the more unstable a government, the higher the institutional uncertainty.

APPENDIX 6: CALCULATION OF PERCENTAGE CHANGE IN GDP

This appendix develops a decomposition to show that the percentage change in gross domestic product (GDP) over a specific period is simply equal to the weighted growth of each of its constituent sectors in the same period, where the weight is each sector's base-year share in economy-wide output.

Assume an economy has only two sectors, O_1 and O_2 . The GDP of this fictitious economy will be:

$$O = O_1 + O_2 \quad (1)$$

The economy's rate of growth over the period 't', 't-1' will be:

$$\Delta O = (O_t - O_{t-1}) / O_{t-1} \quad (2)$$

Replacing the value of O from (1) in the numerator produces:

$$(O_{1t} + O_{2t}) - (O_{1t-1} - O_{2t-1}) / O_{t-1}$$

Rearranging this leads to:

$$\{(O_{1t} + O_{2t}) - (O_{1t-1} - O_{2t-1})\} / O_{t-1} \text{ or} \\ \{(O_{1t} - O_{1t-1}) / O_{t-1}\} + \{(O_{2t} - O_{2t-1}) / O_{t-1}\} \quad (3)$$

Multiplying and dividing the first term by O_{1t-1} and the second term by O_{2t-1} produces:

$$\{(O_{1t-1} / O_{t-1}) * (O_{1t} - O_{1t-1}) / O_{1t-1}\} + \{(O_{2t-1} / O_{t-1}) * (O_{2t} - O_{2t-1}) / O_{2t-1}\} \quad (4)$$

where the base-year weight of sector 'n' in total output is:

$$s_{bn} = O_{nt-1} / O_{t-1}, \quad n = 1, 2 \quad (5)$$

and sector 'n's rate of growth over the period t, t-1 is:

$$\Delta O_n = \{(O_{nt} - O_{nt-1}) / O_{nt-1}\}, \quad n = 1, 2 \quad (6)$$

Replacing the values of (5) and (6) into (4) leads to:

$$(s_{b1} * \Delta O_1) + (s_{b2} * \Delta O_2) = \Delta O$$

This shows that the percentage change in an economy's output over period t, t-1 is equal to the weighted growth of its constituent sectors in the same period.