Which Institutions Constrain Economic Growth in Egypt the Most ? *

Ahmed Galal**

ملخص

ما هى أكثر المؤسسات إعاقة للنشاط الاقتصادى فى مصر ؟

على الرغم من التحسن الذى طرأ على الحوافز المقدمة لكل من القطاعين العام والخاص، كجزء من برنامج التحرير الاقتصادى الذى بدأ تنفيذه فى مصر منذ أوائل التسعينيات إلا أن معدلات النمو الحقيقية لم تستجب لهذا التعديل، وظلت ثابتة عند مستويات متواضعة . وترجع هذه الدراسة هذه الظاهرة إلى سببين رئيسين : **الأول** هوعدم الثقة أو عدم التيقن من استمرار الحكومة فى سياسة التحرير، بينما يرتبط **الثانى** بارتفاع تكلفة الإجراءات المرتبطة بالاستثمار فى مصر . ويجد هذان السببان جذورهما - كما توضح الدراسة في مجموعة من العوامل من أهمها تعدد وتعقد الإجراءات والقوانين، ضعف آليات إبرام وتنفيذ العقود، والتشكك فى مدى التزام الحكومة بالاستمرار فى مسيرة الإصلاح والتحرير .

وللتأكد من التفسير الذى قدمته الورقة لظاهرة تواضع معدلات النمو الحقيقية من ناحية، ولتحديد أهم المعوقات المؤسسية من ناحية أخرى، اعتمدت الدراسة على عينة عشوائية تضم خمسا واربعين منشأة فى قطاعات صناعية مختلفة : الأغذية والمنسوجات والهندسية . وبتحليل نتائج هذا المسح العشوائى أمكن ترتيب المعوقات من الأكثر إلى الأقل تقييدا كما يلى : عدم التيقن من استمرار سياسة الحكومة، ضعف إدارة الضرائب، صعوبة الحصول على التمويل، صعوبة الحصول على المدخلات الوسيطة، تعقد قوانين وتشريعات العمل واخيراً مشاكل متعلقة بالطلب .

واتفاقا مع ما تقدم، انتهت الورقة إلى أن أية جهود تستهدف رفع معدلات الاستثمار، ومن ثم معدلات النمو، يجب أن ترتكز فى المقام الأول على زيادة وتأكيد درجة الثقة فى سياسة الحكومة .

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** Executive Director of Egyptian Center for Economic Studies

1. Introduction

There is Increasing recognition that both market and institutional reforms are necessary for private agents as producers to contribute positively to economic growth. The East Asian Miracle Report (World Bank, 1993) indicates that the fast-growing economies of that region not only got the prices "righter", but also found institutional mechanisms (such as deliberation councils) to enhance policy predictability. Microlevel studies (for example, Galal and Nauriyal, 1996 Levy and Spiller, eds., 1995) also suggest that credible commitment to reform is critical for inducing private investment.

The logic dictating the necessity of combining economic and institutional reforms is both simple and compelling. The behavior of entrepreneurs depends not only on the incentive structure provided by markets but also on the incentive structure provided by institutions. Consider the following example. An entrepreneur is considering whether to invest in country A or country B. The countries offer two projects identical in all respects (including size, technology, input and output prices, market size), but differ in their institutional environments. Unlike country A, the behavior of the government in country B (say with respect to taxes) is unpredictable; disputes (for example, over tariff basing) are not settled fairly, and the costs of satisfying or avoiding certain regulations are high. Other things being equal, the entrepreneur will invest in country A rather than country B. Similar institutional variations across sectors within the same country can have a similar effect.

Given that institutions matter for private decisions, however, identifying which institutions matter and how they matter is not an easy task, for institutions are often defined broadly. For example, North (1991, p. 97) defines institutions as "the humanly devised constraints that structure political, economic, and social interactions. They consist of both informal

constraints (sanctions, taboos, customs, traditions, and codes of conduct), and formal rules and regulations (constitution, laws, property rights)". In other words, almost all aspects of the way society is organized have bearing on the decisions made by private entrepreneurs. Clearly, this view of institutions is too broad to tackle in the short run, a period during which such features of society as traditions are exogenous to policy makers.

Alternatively, the institutional relationship between firms and government can be viewed as a contract, where the government pledges certain rules of the game (call it regulation) and the agents respond to these rules (see, for example, Williamson, 1989).[1] This contract is incomplete by definition because it is difficult and costly to fully specify and foresee all eventualities.

As a result, success in motivating firms to invest and operate efficiently depends on whether or not the government adopts appropriate incentive schemes, ensures that contract enforcement is not too costly, and institutes safeguards to protect firms against the expropriation of property. Meeting these conditions is particularly critical where investment is specific, in the sense that its redeploymement to alternative uses by alternative users involves a sacrifice of productive value .

Translating this view of institutions into specific reforms requires answering two questions: first, how much regulation or deregulation of business is desirable ? Second, which regulation is most costly, and thus, worthy of policy makers expenditure of political capital? Neither is easy to answer. Defining optimal regulation empirically is complicated by the difficulty in measuring the costs and benefits of regulation. For the same reason, it is also difficult to rank the extent to which the regulatory constraints are binding.

There are of course cases where the benefits of regulation clearly outweight the costs. For example, the absence of regulation of weights and measures may lead to chaotic and costly market imperfections. Similarly,

the lack of regulation of health-threatening additives to food is also undesir able. Often, however, the net benefits of regulation are not clear. Of course there are benefits to be had, for example, from protecting child labor, standardization of inputs, and compliance with taxes. However, the government, and ultimately the taxpayers, incur costs in monitoring and enforcing the regulation, the entrepreneurs expend part of their time, effort, and money in complying with or circumventing the regulation, and society pays in foregone investment if risk-averse entrepreneurs sufficiently fear arbitrary changes in the rules of the game. These and other benefits and costs are difficult to fully identify, let alone measure.

To get around the problem, this paper relied on a survey of the views of the private sector to identify the most binding regulatory constraints. This approach has its limitations. Private entrepreneurs may exaggerate the costs of complying with or avoiding government regulation. They are likely to take their own costs into account, and ignore the benefits of regulation to society. And they may incur transaction costs that vary with the size of their firms. Notwithstanding these limitations, the survey approach still produces a reasonable ranking of the extent to which regulatory constraints are binding. This ranking can be used by policy makers to determine which areas to tackle first. Moreover, given the general perception that business is overregulated in the majority of developing countries, some deregulation is likely to generate net benefits to society.

In the remainder of the paper, Section II summarizes the broad changes in the incentive structure in Egypt resulting from the macroeconomic reforms begun in the early 1990s, as well as the corresponding performance of the economy. Section III elaborates the broad institutional constraints on the private sector in Egypt. Section IV presents a ranking of the most binding institutional constraints, using a random sample of 45 firms from three industries:food processing, textiles, and engineering. Section V offers some policy conclusions.

II. Macroeconomic Reforms, Incentives and Economic Perfomance

Until 1990, the incentive structure facing the private and public sectors in Egypt was highly distorted. The government attempted in 1974 to break away from decades of inward-looking public sector-led development strategy, but most students of the Egyptian economy note that the "Open Door Policy" only brought about partial liberalization of the economy, leaving the previous development strategy fundamentally in place (see, for example, Handoussa, 1995; Kheir El Din, El Baradei and El Sayed, 1989). The economy continued to be dominated by the public sector, price control of key goods and services, multiple and overvalued exchange rates, negative real interest rates, and excessive control over credit allocation and trade flows. During the period 1974-85, GDP grew at an impressive average annual rate of 8.5%, but the impetus for this growth was capital inflow from foreign assistance, borrowing, oil-related exports, workers remittances, tourism, the Suez Canal and direct foreign investment. Most of these flows are subject to dramatic fluctuation, which reduces their reliability to generate sustained economic growth.

The distorted incentive structure persisted through the 1980s, when the economy experienced a number of external shocks (declining oil prices and increased interest rates). Rather than adjusting the economy to these shocks, the government responded by drawing on external financing and by restricting imports. This approach proved counterproductive. The import restrictions, high tariffs, and overvalued exchange rate exacerbated the anti-export bias, thereby reducing foreign exchange earning from exports. The accumulation of foreign debt eroded the country`s creditworthiness. The continuing increase of public expenditure over revenue led to massive fiscal and current account deficits. Eventually, cuts in imports and investment considerably slowed the GDP growth rate, which averaged 2.5% in the late 1980s. At the same time, inflation accelerated from 12 percent in 1985 to about 20

percent in 1990. Economic reforms were unavoidable. The inability of the country to service its external debt provided the impetus for reform.

Recent Changes in the Macroeconomic Incentive Structure

The year 1990 saw the beginning of significant improvement in the macroeconomic incentive structure. Key reforms included marked reduction in public expenditure to ensure price stability and leave more room for private investment (*see Table I*) . The fiscal deficit was reduced from 18 percent of GDP in 1990 to an estimated 2.5 percent in 1994. Growth rates of money supply declined. In parallel, financial liberalization was pursued by removing the ceiling on nominal interest rates, phasing out administrative credit allocation, and using treasury bill auctions to manage liquidity . Foreign exchange control were abolished and the exchange rate was unified.

Simultaneously, foreign trade was liberalized by removing all quantitativ restrictions on imports (except for those pertainig to the Multi Fiber Arrangement) and reducing and rationalizing import tariffs. The maximum tariff was reduced from 160 percent in 1988 to 70 percent in 1994.

Table 1. The Egyptian Economy, Selected Economic Variables, 1989-94
(Percent of GDP unless indicated otherwise)

	1989	1990	1991	1992	1993	1994[1]
Budget deficit	-18.1	-18.4	-17.2	- 5.2	-4.1	-2.5
Current account balance (exc. official grants)	-4.1	-6.8	-0.4	9.9	0.7	-1.7
External debt (US$ bil.)	50.9	48.4	38.4	41.7	42.0	42.4
Money supply (growth rate of M2)	17.4	19.7	27.5	14.3	16.4	11.3
Inflation (%)	16.7	17.5	22.4	19.4	10.4	8.2
Nominal exchange rate (L.E./US$)	1.94	2.61	3.01	3.32	3.33	3.37
Real effective exchange rate (1992=100)	95.7	110.4	106.4	100.0	91.8	87.5
% change (- sign = appreciation)	-1.2	15.4	-3.6	-6.0	-8.2	-4.7
Nominal interest rate (3 month TBs)	----	----	19.0	19.0	16.3	13.0
Real interest rate (Treasury bills, %)	----	----	-2.8	-3.0	5.3	4.5
Maximum tariff rate on imports (%)	160.0	----	----	80.0	80.0	50.0
Top marginal tax rate (%)	65.0	65.0	65.0	65.0	48.0	48.0

---Not available.
1/ Estimated.
Sources: World Bank (1995a).

The average tariff fell from 31 percent in 1988 to 28 percent in 1994. A global income tax law was also passed in December 1993, according to which the marginal tax rate was reduced from 65 to 48 percent. The new law exempts corporate dividends to avoid double taxation, and lowers the corporate tax rate to 42 percent, and even further (34 percent) for manufacturing. Finally, prices of tradable goods were liberalized, while those of nontradable goods were revised upward. Given that domestic selling prices of both types of goods were lower than market values in the majority of cases, the lifting of price controls on industrial goods and the upward revision of the prices of, for example, railway services, electricity, and natural gas, all meant higher domestic prices and better signals for resource allocation.

As a result of tight fiscal and monetary policies, inflation declined from 20 percent in 1990 to an estimated 8 percent in 1994. After a 35-percent devaluation of the pound against the US dollar, the nominal exchange rate was kept relatively stable within a narrow band by means of active monetary policy. The current account deficit, excluding official transfers, declined from 6.8 percent of GDP in 1990 to an estimated 1.7 percent in 1994. International reserves increased to about $14 billion (14 months of merchandise imports) in 1993, thanks to a significant inflow of private capital. The success of the stabilization program was helped by the debt forgiveness Egypt received in the wake of the Gulf War, the result of which was a decline in total external debt, from $51 billion in 1990 to about $42 billion in 1994.

Beyond stabilizing the economy, these reforms reduced the crowding out effect of government borrowing, aligned the key prices better with the scarcity of resources, and reduced the anti-export bias. Although further reforms are still needed, at issue is whether or not the improved incentive structure has induced the economy to grow, exports to flourish, and the private sector to expand.

Economic Performance

The simple answer is no. GDP grew at an annual rate of 1.4 percent between 1989-94.This modest growth was more than wiped out by population growth, leading to a decline in per capita GDP at an average annual rate of 0.7 percent during the same period (see Table 2). Simultaneously, unemployment has risen, reaching some 10 percent in 1994. Total fixed investment in constant prices remained fairly stagnant, and could only be expected to pick up somewhat in 1994. More disappointing perhaps is the trend in merchandise exports, which declined, especially in the last two years.

Table 2. Selected Economic Indicators, 1989-94
(Percent of GDP unless indicated otherwise)

	1989	1990	1991	1992	1993	1994[1]	Average (1989-94)
Real GDP growth rate (%)	3.0	2.4	2.1	0.3	0.5	2.0	1.4
Real GDP per capita growth rate (%)	0.0	-0.6	-0.4	-1.4	-1.7	0.0	-0.7
Inflation (%)	16.7	17.5	22.4	19.4	10.4	8.2	15.8
Unemployment (% of labor force)	7.0	7.6	8.4	9.2	10.1	9.8	8.7
Investment (constant 1992 LE bil.)	24.5	24.2	23.1	20.8	21.0	22.6	22.7
Investment (% growth rate)	0.0	-0.9	-4.6	-9.8	1.5	4.5	-1.6
Merchandise exports (US$ bil,1992=100)	3.0	3.1	3.7	3.6	3.5	3.2	3.9
Exports growth rate (%, 1992 prices)	-17.8	5.1	19.7	-2.4	-2.9	-10.2	-1.4

1/ Estimated.
Sources: World Bank (1995a).

Why have growth, investment and exports been so sluggish? One possible answer that stabilization measures typically lead to a recession initially, followed by recovery. This has been the experience of other

countries, as illustrated in Table 3, and Egypt should be no exception. Accordingly, one might conclude that the economy is likely to recover soon.

Table 3. Comparison between Egypt and Three Successful Reformers
(Percent of GDP unless indicated otherwise)

Country	GDP growth (%)	Inflation (%)	Fiscal balance (%)	Unemploy-ment	Current account balance	Direct foreign investment	Gross domestic investment
Egypt							
before (1985-89)	3.6	18.9	-21.4	--	-7.0	0.5	23.2
during (1990-94)	1.5	15.6	-9.3	9.0	0.3	0.7	20.0
Argentina							
before (1975-90)	0.2	569.3	-8.7	5.5	-2.3	0.9	21.5
during (1991-93)	7.9	69.1	-0.9	7.7	-3.1	1.9	16.9
Chile							
before (1971-74)	0.8	240.3	-14.7	5.4	-5.5	-3.1	14.0
during (1975-88)	3.1	67.8	-3.1	15.8	-7.6	0.9	15.5
after (1982-93)	7.1	18.6	0.6	6.1	-2.4	1.5	21.4
Thailand							
before (1975-83)	6.8	8.5	-5.4	1.3	-5.4	0 5	26.0
during (1984-87)	6.4	1.9	-6.4	3.7	-2.5	0.6	27.3
after (1988-93)	11.3	4.8	0.6	4.1	-5.9	1.9	37.6

-- Not available
Source: World Bank (1995a).

While the above conclusion is valid in part, two factors suggest that the expected recovery may not be sustainable in the long run. First, Egypt has yet to undertake significant reforms to restructure the real side of the economy, especially in the areas of public enterprise, education, and health (as noted, for example, by Shihata, forthcoming; World Bank, 1995a). Second, Egypt has yet to undertake notable reform of its institutions to make them more compatible with a more dynamic market and private sector-oriented economy.

III. Institutions and Economic Performance

There is increasing support for the view that institutional reforms are critical for economic growth. North (1990, p. 54), for example, asserts that

"the inability of societies to develop effective, low cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World..". This is because insecure property and contractual rights discourage investment, and thereby economic growth. This assertion is supported by a number of empirical

studies. For example, Knack and Keefer (forthcoming) find that property

rights (measured by such variables as evaluations of contract enforceability, the rule of law, and risk of expropriation) have a significant impact on investment and growth.(2)

Country case studies (for example, World Bank, 1993; World Ba (1995b.) suggest that countries where macroeconomic reforms have been successful in bringing about sustainable economic growth have also deregulated economic activity, strengthened contract enforcement, and built a reputation for making credible commitment against arbitrary policy reversal. The question is: how does Egypt fare on these accounts?

As will be illustrated below, the Egyptian economy is overregulated, contract enforcement is relatively weak and costly, and investors view government commitment to reform to be less credible than in other countries. Overregulation of inputs (labor, capital, other inputs), outputs (especially exports) and tax administration, together with uncertainty about policy predictability and weak enforcement of contracts, increase the transaction costs of investment and operation of firms.

Overregulation

Although it is difficult to establish a bench mark against which to measure excessive regulation, examination of various regulations in Egypt

suggests that the economy is overregulated. Consider the example of tax administration.[3]

Procedurally, commercial and industrial entities are required to file a tax declaration within 30 days from the date of the general assembly meeting. Failure to submit such a declaration on time results in a penalty of 20

percent of due taxes, which can be reduced by half in cases where a compromise is reached between the declarer and the Tax Authority without referring the matter to the Appeals Committee. The Tax Authority has the

right to examine tax declarations for a period of five years. Inspecting officers examine all returns. If the tax officers do not approve due taxes, the

taxpayer can object within a period of one month to the Appeals Committee. The latter consists of three officials from the Tax Authority and two members appointed by the taxpayer. Decisions by the committee are made by majority voting, but are not final. Each party has the right to dispute the Committee's judgment before the primary court within 30 days of its announcement, whatever the amount of the dispute may be. Disputes over taxes are known to take years to settle, and the number of cases pending court resolution is increasing.

Tax regulation in Egypt is too costly. It leaves tax inspectors with too much discretion; it induces disputes over taxes; and it relies on principles that are too costly to administer. The criteria for tax assessment are ambiguous at times, which leads tax officers and taxpayers to extreme initial

bargaining positions. Since agreements are seldom reached, a large number of cases remain pending court resolutions for years. Tax officers receive bonuses on the basis of collected taxes, which may lead them to overestimate due taxes. Finally, tax collection is based on the principle of auditing all taxpayers, a practice which is seldom followed in other countries.

Enforcement of Contracts

Settlement of disputes, for example over taxes, may not be too costly if the court system is impartial, consistent, and efficient. Otherwise, contract enforcement among exchanging parties or between firms and government can be very costly. The latter situation seems to be the case in Egypt.

According to a World Bank study (1995c), the perception of businesspeople, lawyers, and judges of the administration of justice in Egypt is that the system is simply too slow, expensive, and uncertain In 1993 / 94, the clearance rate of commercial cases was only 36 percent, compared with 80 percent in japan, and 88 percent in Belgium. Moreover, the situation seems to have deteriorated over time. The average length of commercial cases tripled from about two years in the early 1970s to more than six years in the early 1990s (Fathi, 1988). There is about one pending case for every three Egyptians.

Commitment

Finally, since firms invest today and recover their money tomorrow, fear of arbitrary policy reversal in the future is critical. This fear is reduced where : (1) the government exhibits a history of maintaining consistent policies; (2) there are internal restraints on policy reversal (such as laws or constitutional restrictions, checks and balances among the different branches of government); and (3) the government is bound by international restraints (such as treaties, or aid conditionality).

On these three accounts, Egypt scores modestly compared with successful reformers. The Institutional Investors Country Credit Ratings in 1995 ranks Egypt significantly below Thailand, Chile, and to a lesser extent, Argentina (*see Table 4*). The ranking for Egypt has improved somewhat in the 1990s as economic reforms proceeded, but at no time has this ranking been comparable to that of Chile or Thailand.

Table 4. Institutional Investor's Country Credit Ratings

Country	1980	1984	1988	1992	1995
Egypt	34.9	32.7	23.1	26.8	32.9
Argentina	64.3	23.2	23.2	26.2	38.9
Chile	54.9	26.4	28.9	45.9	55.6
Thailand		53.4	56.0	61.3	63.5

Sources: Institutional Investor's Country Credit Ratings, *The Economist*, various issues.

Unlike Argentina, Chile (after Pinochet), and Thailand, the executive branch in Egypt has considerable influence over policy formulation. It rules by a majority in parliament and exerts significant influence over other branches of government. As a result, policies can be changed without much opposition. External restraints do not seem to curb policy reversal. Foreign aid has generally been tied to political rather than economic conditionality. Though Egypt signed a GATT agreement, it is only bound to the less restrictive provisions reserved for lower-income countries.

Uncertainty can be reduced somewhat if the government and the private sector have a productive dialogue through such organizations as business associations. But business associations in Egypt are only effective to a limited extent. They are largely controlled by the government, or dominated by large firms.

Overall then, important reforms on the institutional front lie ahead if Egypt is to fully reap the benefits of maroeonomic reforms. But which deregulation is likely to bring about bigger impact? This question is taken up next.

IV. Ranking and Pattern of Institutional Constraints: Survey Results

To identify the most binding regulatory constraints on private firms, we conducted a survey of a sample of 45 firms in manufacturing. The sample

was selected randomly from three industries (15 each): food processing, textiles and engineering. The questionnaire itself (given in appendix) was structured such that, first, it covers the regulatory constraints on the firm's inputs and output, and second, it captures the firm's perception of the state of economic activity (measured by demand for their output) and uncertainty (arising from economic and non-economic factors). Interviews were conducted personally at each firm in the sample. The profile of the sample is given in Table 5.

As expected, smaller firms have a much lower capital/labor ratio than larger firms (representing 16 percent on average); they hardly export; and their initial debt/equity ratio is much lower than that of larger firms.

Table 5. Sample Profile

	Food Processing		Textile		Engineering	
	Small	*Large*	*Small*	*Large*	*Small*	*Large*
1. No. of Firms	8	6	8	7	9	6
2. Fixed Assets (000 LE/firm)	182	28,355	69	5,599	458	18,733
3. No. of exporting firms	0	5	0	5	2	3
4. Initial debt/eq. ratio (%)	15	51	0	15	10	26
5. Capital labor ratio (LE 000/worker)	11	89	4	48		1547

Small firms refer arbitrarily to entities with an average of 10 employees or less.
Source: Survey.

Overall Ranking of Constraints

Questionnaire returns indicate that firms rank the most binding constraints to be policy uncertainty, tax administration, access to finance, and availability of material inputs, in that order. Labor regulation and demand were ranked least binding (see Table 6). The fact that policy uncertainty is the most binding constraint is consistent with the analysis of the previous section. Interviews with firms revealed that labor regulation is

not as binding as the laws suggest because firms were able to disregard labor regulation for hiring and firing, for example, by accepting to pay relatively insignificant penalties for violations, renewing contracts annually, or obligating workers to sign undated resignations along with their employment contracts at the time of recruitment.

Another broad finding is that the ranking of the institutional constraints is very similar across industries. To be sure, the severity of an individual constraint varies by industry, but the relative ranking is essentially the same. Thus, policy uncertainty, for example, is ranked the most binding constraint in the food processing and engineering industries, and second in the textile industry. Similarly, labor regulation and demand are ranked as the least binding constraints across all three industries. Economy-wide institutional reform is key to better performance.

Table 6. Ranking of Institutional Constraints by Sector

Constraint	Food Processing		Textiles		Engineering		Average	
	Score	*Rank*	*Score*	*Rank*	*Score*	*Rank*	*Score*	*Rank*
Policy Uncert.	0.85	1	0.72	2	0.74	2	0.78	1
Taxes	0.55	2	0.82	1	0.66	3	0.67	2
Finance	0.51	3	0.54	4	0.78	1	0.60	3
Material Inputs	0.43	4	0.58	3	0.47	4	0.49	4
Labor	0.18	6	0.37	6	0.32	5	0.30	5
Demand	0.31	5	0.39	5	0.18	6	0.29	6

The figures are normalized to a scale of zero to 1, where zero means that the constraint is not binding at all, and 1 means that the constraint is prohibitive.
Source: Survey.

Severity of Institutional Constraints Between Industries

The severity of institutional constraints varies by industry (see Table 6). For example, tax regulations are more binding in the textile and engineering industries than in the food processing industry. In part, this is because many food processing firms enjoy temporary tax holidays, and thus do not have

the experience of dealing with tax administration. Table 6 also indicates that while financing is more problematic for firms in the engineering industry, firms in the textile industry suffer the most from labor regulation and availability of intermediate inputs. The problems of labor regulations are felt more acutely by firms in the textile industry because they are more labor intensive than the other industries. Shortage of material inputs in the same sector (for weaving and ready-made garments) is due primarily to the domination of state owned enterprises in the ginning and spinning activities (discussed below).

Severity of Institutional Constraints and Size of Firms

The severity of institutional constraints also varies with the size of firms. As can be seen from Table 7, the smaller the firm, the more binding the constraint. This pattern is more apparent with respect to certain constraints, most notably tax administration, and access to finance and intermediate inputs. Labor regulation is an exception, where smaller firms find it less binding across industries. This is due primarily to the weaker enforcement of labor regulation where firms employ less than 10 workers.

Table 7. Ranking of Institutional Constraints by Size of Firm

Constraint	Small Firms		Large Firms		Average	
	Score	Ranking	Score	Ranking	Score	Ranking
1. Policy Uncertainty	0.77	2	0.78	1	0.77	1
2. Taxes	0.78	1	0.67	2	0.73	2
3. Finance	0.68	3	0.60	3	0.65	3
4. Material Inputs	0.58	4	0.49	4	0.54	4
5. Labor	0.25	6	0.30	5	0.27	6
6 Demand	0.39	5	0.29	6	0.34	5
Average	0.58		0.52		0.55	

The figures are normalized to a scale of zero to 1, where zero means that the constraint is not binding at all, and 1 means that the constraint is prohibitive.
Source: Survey.

The fact that smaller firms have greater difficulty accessing credit compared with larger firms is not surprising. There is ample evidence worldwide to support the hypothesis that lending to smaller firms entails greater risk of default and cost of processing. Consequently, banks rationally engage in lending more to larger than to smaller firms.

Variations across industries with respect to the problems encountered in obtaining intermediate inputs are probably industry specific. To find out, the survey included questions to identify the nature of the problem with respect to the price, quantity, quality or delivery time of intermediate inputs. The results, given in Table 8, suggest that firms in the textile industry suffer the most, whereas firms in the food industry suffer the least. Why? One explanation is that private firms in the garment industry get their yarn fabric from state owned enterprises. Given that state owned enterprises enjoy a monopoly position in the ginning, spinning and weaving markets, and they sell the leftover to the private sector after meeting their export targets, it is not surprising that downstream private firms suffer. In contrast, firms in the food industry are either self-sufficient (i.e. chicken farms) or have access to multiple suppliers in the private and public sectors. Thus, most of them do not have the problems encountered by the firms in the other industries.

Table 8. Constraints in Securing Intermediate Inputs by Industry

	Food Processing	Textiles	Engineering	Average
Quantity	0.02	0.43	0.08	0.17
Price	0.30	0.57	0.25	0.37
Quality	0.00	0.57	0.00	0.19
Time delivery	0.17	0.57	0.25	0.33

The figures are normalized to a scale of zero to 1, where zero means that the constraint is not binding at all, and 1 means that the constraint is prohibitive.
Source: Survey.

national and industry levels) to institutional reform is desirable.

.V. Conclusions and Policy Implications

The upshot of the analysis is that the incentive structure in Egypt has improved in recent years. The macroeconomic reform program begun in the early 1990s aligned the exchange and interest rates closer to market values, increased competition through trade and price liberalization, and reduced the inflationary pressure and crowding out of the private sector, by cutting the fiscal deficit. Further reforms on the macroeconomic front are needed to correct the distortions accumulated from decades of inward-looking policies. Reforms on the institutional front lag further behind. The economy is

saddled with excessive regulation, weak enforcement of contracts, and policy uncertainty. Without deregulating the economy further, enhancing the enforcement of contracts, and strengthening Egypt's credible commitment to reforms, macroeconomic reforms alone are not likely to bring about sustainable long term economic growth.

Firms see policy uncertainty as the most binding constraint, followed by tax administration as the next most binding constraint. This ranking suggests that the payoff from institutional reforms is likely to be higher if efforts are focused on reducing policy uncertainty, followed by reforms to rationalize tax administration. In addition, the survey results show that the severity of the constraints varies between industries, suggesting that attention should also be given to industry- specific problems; in some cases, more competition and privatization could be the best solutions.

One final thought: many of the existing regulations were created with good intentions. Tax regulation was created to enhance tax collection and reduce tax evasion. The problem is that the current regulations do not seem to have achieved their intended objectives. Tax evasion is reportedly widespread. At the same time, scarce resources are being wasted to meet or circumvent these regulations. In a country as poor as Egypt, the resources spent on settling disputes, bribery, and foregone productivity cannot be afforded. Institutional reforms constitute the next step on the road to economic progress

Appendix

Questionnaire

1. OVERVIEW

1. Enterprise name:___

2. Year of foundation ___

3 Nature of activity:____

4. Company form:

___ sole proprietorship/partnership limited liability

___ joint stock

5. To which company law do you belong? Law No. ____

6. Number of employees:

___ at start up ___ at present

7. Value of fixed assets:

___ at start up ___ at present

8. What was the volume of sales in 199-- ?_____

What is the expected value for next year? ____

If there is a difference between the two years, what is the main reason?

9. What are your main sales items (express as percent of total sales)?

1. 3.

2. 4.

10. What is your estimated domestic market share? ____ (Percent)

I 1. Do you export any products?

Yes ___ (% of exports in total sales)

No ___

If yes, what are your main export items?

12. Is your production technology:

___ mostly by hand ___ mostly mechanized ___ mostly automated

13. Why have you selected this production technology?

___ labor regulations ___ availability of skilled labor

___ cheap finance ___ other (specify)

14. What was the ratio between debt and equity at start up of your business? (%)

II. PROCUREMENT

15. What are your major materials inputs?

1.

2.

3.

16. What are their main sources? (% of the total cost of material inputs)

_ imported

_ local products from private sector

_ local products form public sector

17. If imports constitute an important source of inputs, does their procurement constitute a problem?

18. If the answer to the above question is yes, which organizations are most problematic to deal with?

19. For local material inputs, how many sources are available for these inputs?

_____ private firms _____ public firms

20. Do you encounter problems in obtaining domestic inputs?

_ no

_ yes, in terms of quantity available

_ yes, in terms of price

_ yes, in terms of quality

_ yes, in rerms of time delivery

Please explain:

21. Is the price of any of your major inputs fixed by government?

__ no

__ yes; specify input and government agency

22. Can you obtain these inputs at the official price?

If not, how high is the market relative to the official price?

Input __ Percent of official to market price _

Input __ Percent of official to market price _

III.REGULATORY ENVIRONMENT

23. On a scale of I to 5, please rank the severity of each of the following obstacles:

	Minor	Moderate	Major
1. tax administration			
2. Iabor regulation.			
3. access to inputs			

4. access to finance

5. demand

6. policy uncertainty

7. other (specify)

24. For those obstacles which are major, please explain:

25. Which obstacle is most costly?

___ taxes ___ labor ___ material inputs ___ finance

26. For the most costly items, could you estimate the added cost due to these obstacles over the past year? (in percent of the cost of the item itself; with statement of how this percentage is arrived at)

Items	Estimated percent	Remarks

27. What recommendations would you make to relax the above binding constraints?

Items	Recommendations

Footnotes & References

1- In the language of the principal-agent literature, the problem is that the government (the principal) and private firms (the agents) have different objective functions , differential information (where the agents possess better information), and differential risk aversion (where the agents are more risk - averse). The principal's task is to devise an exante contract to motivate the agents to exert more effort, and to figure out a premium to be paid to the agents to compensate them for the added risk. These issues were elaborated first by Ross (1973) and stiglitz (1974), and recently reviewed by Sappington (1991).

2- Recent growth regressions used other proxies in testing the impact of institutions on growth, most frequently political stability and civil liberties (see, for example , Barro ,1991; Levine and Renelt, 1992; Kormendi and Meguire).

3- For a fuller description of different regulatory regimes in Egypt, see Integrated Development Consultants (1991).

4- This general point has also been made by Biblawi (1989) and Handoussa (1995).

5- The penalties for violating labor laws range between LE 10-20 (or US$ 3-10) per incidence.

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