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INFORMAL SECTOR AND REGULATIONS IN ECUADOR AND JAMAICA

by

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RÉSUMÉ

Ce document technique présente les résultats d'une enquête menée en Équateur et à la Jamaïque sur les micro-entreprises. L'objectif était de comprendre les relations entre les réglementations institutionnelles et légales de ces pays, le degré d'application de ces dispositions par les entreprises et l'impact de cette application sur leurs performances (en particulier sur leur croissance). Cette recherche complétait les publications d'études de cas sur l'application des réglementations.

Le document technique se propose d'abord d'analyser les caractéristiques des micro-entreprises étudiées et leurs types d'insertion dans les marchés des produits et des facteurs. Il décrit ensuite les différences observées dans les structures de réglementation des deux pays et explique les différences de degré dans l'application de la loi par les petites entreprises. La dernière partie du document détermine statistiquement l'importance relative des facteurs qui influencent l'enregistrement des entreprises et recense leurs effets sur la croissance des micro-entreprises.

Le processus initial d'enregistrement et l'intégration des entreprises dans la structure institutionnelle qui en résulte n'est perçu dans aucun des deux pays comme un contrainte majeure, tant pour le démarrage que pour les opérations courantes. Le cadre réglementaire de ces deux pays est assez différent : l'Équateur est plus exigeant à l'égard des firmes et ses procédures administratives sont plus complexes, entraînant davantage de perte de temps. Néanmoins, le degré d'application des règlements en Équateur est systématiquement plus élevé qu'à la Jamaïque ; ceci est interprété comme l'effet des récompenses économiques positives obtenues par les entreprises enregistrées, particulièrement sous forme de croissance et d'un accès plus aisé aux facteurs de production.

SUMMARY

This paper presents the results of a survey of micro-enterprises undertaken in Ecuador and Jamaica. The purpose was to understand the relationships between these countries' institutional and legal regulations, the degree of compliance by firms and the impact of compliance on their performance (particularly growth). This enquiry was complemented with case studies of issues related to compliance with regulations.

Initially, the paper sets out to analyse the characteristics of the micro-enterprises surveyed and their type of insertion into product and factor markets. Afterwards, it describes the differences observed in the regulatory frameworks of the two countries, and explains the differences in the degree of compliance with the law on the part of small firms. The final part of the paper determines statistically the relative importance of the factors that influence firm registration and identifies their effects on the growth of micro-enterprises.

The initial process of registration and the subsequent integration of firms into the institutional framework is not perceived in either country as a major constraint for start-up or for current operations. The two countries are rather different in terms of their regulatory environment: Ecuador is more demanding on firms and its administrative procedures are more complex and time-consuming. Nonetheless, the degree of compliance in Ecuador is systematically higher than in Jamaica; this is interpreted as the effect of the positive economic rewards obtained by registered firms, particularly in the form of growth and easier access to productive factors.

PREFACE

This study of micro-enterprises in Ecuador and Jamaica forms part of the research project on the relations between the informal sector and the authorities and political power. The project was directed by Christian Morrisson in the context of the Development Centre's 1990-92 research programme and this document is the last of a series wherein the results of seven case studies were published.

Micro-enterprises play an ever increasing role in developing countries as a result of rapid urban population growth and the limited employment capacity of large enterprises. However, the activity of micro-enterprises can be imperilled by regulations and taxes, particularly if the state seeks to control all economic activity. It is no accident that Latin American economists were the first to ask whether the regulatory framework might not be an obstacle to the indispensable development of micro-enterprises. Indeed, the region has experienced exceptional urban growth, while governments have multiplied the number of regulations governing them. Hence the specific interest of this analysis which takes together two case studies — Ecuador and Jamaica — constructed in each country on the basis of a poll of 300 micro-enterprises and supported by a more restricted survey of some thirty enterprises as a control measure.

We are grateful to the authors of this study who have used their extensive experience of the subject to produce a particularly instructive comparison. In spite of what may have been anticipated, the fact that the regulatory environment in Ecuador is more restrictive than in Jamaica has not limited the development of legally registered micro-enterprises. This higher level of registration could be explained by the specific advantages which it confers. It is clear that an analysis such as that presented in these pages will be of great interest to officials in that its empirical base nourishes fresh thinking on the relationship between micro-enterprises and the regulatory framework in which they operate.

Jean Bonvin
OECD Development Centre
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INTRODUCTION

THE INFORMAL SECTOR FROM AN INSTITUTIONAL PERSPECTIVE¹

The notion that the informal sector operates outside the regulatory framework was already incorporated in the pioneer ILO study of Kenya published in 1972, but the focus there was placed on the concept of the "working poor", since the poor were mainly found not to be unemployed but rather to be occupying low-productivity, low-paid jobs. It was clear at that time that regulations were not observed. Even in the earlier work of Hart (1970) there is some mixing of illegal and informal activities. This aspect was not developed further except for the relation between growth of informal activity and government harassment: on the basis of street markets it was claimed that those activities, which were able to perform well in an antagonistic environment, could benefit from benign neglect.

During the second half of the last decade, several analysts came to consider regulations as the key to understanding informal activity and to formulating policy proposals. For some, such as Feige (1990), it is the relation of the informal sector to the regulatory framework that characterises "the new institutional approach to economic development". Two main lines can be distinguished within this approach. The first is based on the observation that the informal sector operates outside the law because of inadequate legislation and inefficient bureaucracy. Regulations and government are then identified as the main barrier to informal sector development (De Soto, 1986). A second interpretation agrees that operating outside the regulatory system is a main characteristic of informal activity, but sees this as the result of the need for decentralising production and labour processes. The search for flexibility and the need to diminish labour costs leads to by-passing regulations, which reduce flexibility and are costly in financial terms. Internally, the decentralisation of production and its effects on work arrangements provide a functional response to the need to increase profit margins by diminishing or avoiding trade union power and by allowing the cost of demand fluctuations to be transferred outside the firm. New technology makes this process technically feasible. In this interpretation, then, the main causes are related to the organisation of production (Portes, Castells and Benton, 1989).

Although these interpretations both view the informal sector as operating beyond regulation, their diagnoses differ and hence so do their policy prescriptions. Another work (Tokman, 1992) has explored the validity of the conceptual identification of informal activity and illegality, and examined the importance of the barrier presented by the regulatory framework, both in becoming legal and in operating within the legal framework. Four main conclusions were reached. First, the informal sector operates between underground activity and legality. In doing so, informal producers obtain access to what they consider important, while minimising the risks associated with illegality. Second, regulations contain various elements. Some could hamper the development of the informal sector, but others are justified by concern for the good of the community. Third, a particularly sensitive issue is the application of labour regulations, which was found to be a crucial factor in determining the financial viability or non-viability of an informal enterprise. For some of these regulations, observance increased with the size of the micro-enterprise, but others, particularly social security

affiliation, are seen as a major obstacle even for the larger informal units. The policy issue is whether to adopt a two-tier system of labour legislation — the ILO (1991) objects to this — or to accept some degree of non-compliance. The latter has been *de facto* the route followed in most cases. A fourth conclusion is that country situations differ. In some countries, like Bolivia and Chile, financial and time costs are not high; in others, like Guatemala and Mexico, both are significant. This is indeed related to the inadequacy of legislation and the inefficiency of the bureaucracy, but they in turn depend on several factors that affect not only informal enterprises but also the country as a whole. History, cultural characteristics, political and administrative organisation seem to play an important role.

There has thus been progress in the study of operating outside of regulations, but many issues require more in-depth research. In particular, it is important to enquire about the degree to which micro-enterprises are affected by regulations touching the different spheres of business start-up, as well as those affecting firms' capacity for expansion. We also need research about whether country differences matter and why. These are the main objectives of the OECD project for which PREALC undertook two country studies in Latin America and the Caribbean. The selected countries were Ecuador and Jamaica.

The two countries are clearly different in many respects. Ecuador is an Indian-Spanish country, with marked regional differences and a tradition of manual and handicraft work. The informal sector (including self-employed, unremunerated family members, workers and owners of establishments with fewer than five employees and domestic servants) accounts for 45 per cent of the non-agricultural labour force. This figure locates Ecuador in the upper range for Latin America, with countries that have a similar historical and ethnic background, like Mexico and Guatemala. Manufacturing industry contributes with 21 per cent of informal employment; this figure is also in the upper range for Latin America. By contrast, Jamaica is an Afro-British country, of small size, where tourism, trade and services predominate. The informal sector employs around 35 per cent of the non-agricultural labour force, which means that Jamaica is in the lower range of Latin American countries, with Argentina, Costa Rica and Venezuela. The percentage of informal employment in manufacturing is among the lowest: less than 15 per cent, as compared to the 20-25 per cent range found in most Latin American countries.

These different historical and political settings should result in regulatory systems that differ as to the number and complexity of laws and administrative procedures, as well as in the degree of compliance obtained. Ecuador, following the prevailing institutional tradition in Latin America, could be expected to have a complex system of regulations — numerous general rules plus special regimes to protect particular groups — which in turn requires the administrative involvement of several governmental units. In Jamaica, given the British influence, both in the law and in the structure of the public administration, one would expect a simpler and more general set of regulations. One would then hypothesise that regulations were better enforced in Jamaica than in Ecuador, although *a priori* the degree of compliance within each country should not vary according to firm size, sector or location, because they relate more to internal production characteristics for a given regulatory framework. Finally, one could also hypothesise about the effect of these different country situations on

informal sector growth. If promotional regimes are well conceived and effectively implemented, one would expect the Ecuadoran regulatory environment to be more conducive to informal sector growth than the one prevailing in Jamaica. If, on the contrary, they are ill-designed and difficult to apply, the Jamaican regulatory environment could prove better for promoting growth.

These issues will be examined in this paper, on the basis of two surveys of small and micro-enterprises undertaken in Ecuador and Jamaica. The study in Ecuador was done by Roberto Roggiero, Gustavo Rodríguez, Claude de Miras and Pablo Andrade of the Centro de Investigación de los Movimientos Sociales del Ecuador (CEDIME). In Jamaica, the Statistical Institute selected the sample, carried out the field work and produced the data. The report was written by Patricia Anderson of the University of the West Indies².

This study contains five sections. In Section I the methodology applied in the two surveys is explained. Section II presents an analysis of the micro-enterprises surveyed in terms of the following characteristics: size, sector, location and type of insertion into product (both inputs and outputs) and factor (both labour and capital) markets. Section III makes a comparative analysis of the legal framework for small businesses in Ecuador and Jamaica, and in Section IV the degree of compliance with regulations is analysed. The final section seeks statistically to determine the relative importance of factors influencing registration, as well as the effect of registration on the growth of micro-enterprises.

I. METHODOLOGY OF THE ECUADORAN AND JAMAICAN SURVEYS

This study was based on a general framework and survey questionnaire designed by the research programme on Governance and Entrepreneurship of the OECD Development Centre.

The methodological approach was to undertake a survey of 300 micro and small enterprises (having at most ten employees) in three economic sectors: the garment industry, food processing and equipment repair services. Thirty case studies were also projected, as further research into issues concerning the relationship between informal activities and the laws and regulations of Ecuador and Jamaica. In what follows, a short description is made for each country of the method followed, the sample frame and its characteristics.

Ecuador

Ecuador lies between Colombia and Peru on the Pacific Coast of South America. It has a population of almost 10 million and an economically active population of 3.5 million, of which 60 per cent is urban. The economy has grown during the last two years at an average rate of 2.6 per cent, and the gross national product per inhabitant is \$1 300. At the moment of the survey, the minimum wage was \$24.

No sample frame of small establishments was available for Ecuador, so different routes were followed in order to meet the requirements of the study, i.e. 300 enterprises in specific manufacturing sectors and of pre-determined size. In view of the traditional importance of guilds and of different programmes of support for micro-enterprises, it was assumed that these institutions might have lists of enterprises registered both with the guilds and with the support programmes. The lists indeed existed, but further fieldwork showed they were significantly outdated. A decision was then made to adopt a direct method of searching micro-enterprises. The cities were divided in sectors, in each of which a door-to-door search was done in order to find firms that fit the requirements of size and economic sector.

The criteria used were as follows. First, of the 300 questionnaires, one-third were applied to each economic sector chosen: garment industry, food preparation and equipment repair services. In each of these sub-sectors two activities were selected: in the garment industry, tailoring and apparel; in food processing, bakery and food as such; and in equipment repair services, garages and repair of electrical household goods. A second criterion referred to the geographical location of the enterprises. Half of them were selected in the capital, Quito, and the other half in two provincial towns, Cuenca and Ambato. Third, businesses chosen had to employ at most ten people, including the owner, although a small sample of firms employing more than ten people was selected as a control group. Finally, 10 per cent of the firms employing ten or fewer people were selected for case studies, and the results were used during the analysis of the data survey. Tables 1.1 and 1.2 show the composition of the sample by size, geographic location and economic sector.

It is very possible that the method of selection biased the sample towards establishment of the larger size, as indeed Table 1.2 suggests, showing a large number of firms in the 2-5 range of employment size. Apparently own-account firms are under-represented, particularly considering that the Jamaican distribution, based on a sample census conducted in 1990, includes a higher proportion of own-account firms. The reason for this may be that own-account enterprises are less visible, which would explain why the sample concentrates on firms that have workers and are located outside the home, as will be shown in Section III.

Table 1.1. **Ecuador: Number of firms surveyed by location and economic sector ^a**

City	Food	Garment	Repair Services	Total
Quito	45	45	45	135
Ambato	22	22	22	66
Cuenca	22	22	22	66
Total	89	89	89	267

Source: Survey data.

a It refers to establishments up to 10 employees. In the rest of the text it is always used the same size range unless establishment of more than 10 employees are explicitly included as a comparative test group.

Table 1.2. **Ecuador: Number of firms surveyed by location and employment size**

City	Own-account	2-5	6-10	+ 10	Total
Quito	16	104	15	15	150
Ambato	1	49	16	8	74
Cuenca	13	45	8	8	74
Total	30	198	39	31	298

Source: Survey data.

Jamaica

This Caribbean island has a population of 2.5 million, of whom 1.2 million are economically active. The economy has grown during the last two years at an average rate of 2.8 per cent, and the gross national product per inhabitant is the same as in Ecuador: \$1 300. At the moment of the survey the minimum wage was \$32.

The sample frame was compiled by the Statistical Institute (STATIN) on the basis of a sample census conducted between May and September 1990. In this exercise, a 20 per cent sample of enumeration districts from the Population Census was selected, and a complete enumeration was made of all non-agricultural business establishments. The national estimate for the number of these enterprises and the number of people they employ, broken down by firm size, is shown in Table 1.3. The sample frame did not produce enough establishments in the economic sectors selected³, so a fourth sector was included: furniture.

Given that it was decided to include four manufacturing sub-sectors in the survey, and that these different types of activity were not equally distributed by region or by employment size, the survey sample was divided fairly equally among sectors, but unequally among size groups and between urban and rural areas. The distribution of the sample by geographic location is shown in Table 1.4, which shows that 22.5 per cent of the interviews were drawn from the parishes of Kingston and St. Andrew, with 77.5 per cent coming from the rural parishes. Many of the latter would fall within towns in rural areas, and are not actually representative of deep rural areas. This is made clear in STATIN's report on the sample frame, which points out that 55.1 per cent of all of the listed businesses were in areas classified as urban.

In this sample, a third of garment manufacturing firms were located in Kingston and St. Andrew, in contrast to only 11.1 per cent of food-processing firms. This low representation of urban food-processing firms is related both to the inclusion of butchers on the list, as well as to the fact that the typical food-processing firm engaged in an activity such as canning or even baking tends to employ more than ten workers. Of enterprises engaged in furniture making, 19 per cent were in the urban parishes, while 25.8 per cent of equipment-repairing firms were found in this region.

Table 1.3. **Jamaica: Distribution of own-account and small businesses, 1990**

Business category	Number of business	Percent of total	Employment	Percent of total
Own-account	65 135	73.4	78 353	53.9
1-4 employee	19 311	21.8	45 611	30.2
5-9 employee	4 265	4.8	26 980	17.9
Total	88 713	100.0	150 944	100.0

Source: STATIN (1991).

Table 1.4. **Jamaica: Distribution of the sample by economic activity, geographic location and employment size**

Economic activity	Kingston & St. Andrew				Rural Parishes			
	Total	Own account	2-5 workers	6-10 workers	Total	Own account	2-5 workers	6-10 workers
Garment manufacture	19	10	6	3	38	27	9	2
Food processing	6	3	1	2	48	13	27	8
Furniture making	12	3	6	3	51	10	36	5
Equipment repair	17	5	10	2	49	9	34	6
Total	54	21	23	10	186	59	106	21

Source: Survey data.

II. PROFILE OF THE MICRO AND SMALL ENTERPRISES

The purpose of this section is to describe the economic and social characteristics of the firms surveyed in both countries. The analysis bears first on the personal features of the owners, and then on the relationships of the businesses with the factor and product markets.

Profile of the owners in the sample

The basic socio-demographic data of owners in Ecuador and Jamaica are shown in Tables 2.1, 2.2 and 2.3. By and large men dominate as entrepreneurs, although women entrepreneurs are a higher proportion in the Jamaican sample (20 per cent of all entrepreneurs) than in Ecuador (15 per cent). In general, women tend to be present in the garment manufacturing sector in both countries, but in Ecuador they are much more important in firms that have employees: they are basically owners of firms that employ (including themselves) between 2 and 5 people. On the contrary, in Jamaica women in the garment sector are mainly own-account workers, and this is also valid in the case of the food-processing industry. It is clear that the women entrepreneurs in the Ecuadoran sample belong to more important firms in terms of size than do their counterparts in Jamaica.

The data of Table 2.1 reveal that as firms grow in size, owners are older, and particularly that in larger businesses there are very few young owners. These data can be compared with Figure 1, which shows the relationship between the age of the owner and that of the firm. In both countries a very clear correlation is observed: the older the owner, the older the firm; this indicates a degree of stability, in the case of Jamaica, equated with higher levels of firm size. It should also be noted that in the Jamaican sample a certain number of older entrepreneurs are classified as own-account workers. This feature is also common in some Latin American countries where people save during a part of their working life in order to become independent workers later, establishing thus a pattern of occupational mobility and reaffirming the tendency of some people to seek independence as a goal in their careers.

This pattern is also clearly seen in Ecuador, by means of a different, and more complete, set of data that relate the actual occupations of owners by size of the firm to the occupational categories of their first job and of the one previous to their present position. Table 2.4 shows that most own-account workers started their careers as wage earners, as opposed to entrepreneurs of larger firms, a higher proportion of whom have always been owners. The table also suggests a route in the occupational career of those entrepreneurs who started in a different occupational position and that therefore followed an upward mobility pattern. Indeed, most of them began their careers as wage labourers, then became apprentices, and from there turned into owners of small firms.

Table 2.1. **Socio-demographic characteristics of entrepreneurs by size of firm**
(percentages)

	Ecuador			Jamaica		
	Size of the firm					
	1	2-5	6-10	1	2-5	6-10
Gender						
Male	79	86	85	64	88	94
Female	21	14	15	36	12	6
Age						
- 35	31	28	12	31	31	13
35-54	52	57	73	44	50	57
55 +	17	15	15	25	19	30
Education						
Primary	45	41	35	52	49	50
Secondary	41	44	27	35	39	13
Higher	14	15	38	13	12	37
Total	100	100	100	100	100	100

Source: Survey data.

Table 2.2. **Socio-demographic characteristics of entrepreneurs by economic activity**
(percentages)

	Ecuador			Jamaica			
	Garment	Food	Equipment	Garment	Food	Equipment	Furniture
Gender							
Male	79	76	99	43	78	96	80
Female	21	24	1	57	22	4	20
Age							
- 35	24	27	28	32	8	29	29
35-54	58	57	60	45	46	56	48
55 +	19	16	12	23	46	15	23
Education							
Primary	48	44	31	45	78	42	50
Secondary	36	31	56	45	13	32	35
Higher	16	24	13	10	9	26	15
Total	100	100	100	100	100	100	100

Source: Survey data.

Table 2.3. **Ecuador and Jamaica: distribution of the sample by economic activity, employment size and gender**

Economic activity	Firms owned by males				Firms owned by females			
	Total	Own account	2-5 workers	6-10 workers	Total	Own account	2-5 workers	6-10 workers
Jamaica								
Garment manufacture	24	15	6	3	32	22	9	1
Food processing	43	9	25	9	11	7	3	1
Furniture making	62	13	41	8	1	-	1	-
Equipment repair	63	14	41	8	3	-	3	-
Total	192	51	113	28	47	29	16	2
Ecuador								
Garment manufacture	63	15	40	8	26	7	15	4
Food processing	53	1	44	8	36	-	25	11
Equipment repair	77	7	64	6	12	-	10	2
Total	193	23	148	22	74	7	50	17

Source: Survey data.

FIGURE 1

RELATIONSHIP BETWEEN THE AGE OF THE OWNER AND THAT OF THE ENTERPRISE

Source: Survey data.

The Ecuadorian micro-entrepreneur is better educated than the Jamaican, and in both countries owners of larger firms have had more education than those of micro-enterprises. It is noteworthy that almost half of own-account workers in both countries barely have primary education, a fact which probably is an obstacle not only to full compliance with laws and regulations but also to increasing the productivity levels of the business. If the samples are representative, this is clearly a policy area which should be further explored, particularly when one examines the case of Jamaica: in food preparation — a sector where stringent health standards must be met — almost all entrepreneurs have only primary education, probably because owners of micro-enterprises in this sector are much older than those in the other sectors.

Labour

The characteristics of the labour force of micro-enterprises were investigated in both countries. Women are more present in the labour force of Ecuador than in Jamaica, in contrast to the proportions observed among entrepreneurs, but in both countries the proportion of women is larger in labour than in the ownership of firms (Table 2.5). This is essentially the result of their higher proportion in wage labour, concentrated in the larger firms and, as expected, in the garment and, to a lesser extent, the food-processing industries. Women are under-represented in Jamaican micro-enterprises compared to their participation rate in the total labour force, which is 45 per cent. In Ecuador, the proportion of women in the sample is the same as that in the national labour force.

Another feature of labour in micro-enterprises, at least in the case of Ecuador, is the strong presence of young people, so much so that 51 per cent of those employed there are 24 years old or younger. At the national level the same age group represents only half of that proportion, i.e. 26 per cent of the total labour force. Clearly, working in a small firm is an entry position into the labour force, and young people find in micro-enterprises an early opportunity to work. Thus from the point of view of human resources these firms provide on-the-job training for people starting their occupational careers.

The data of Table 2.6 indicate that Ecuadoran firms employ more people than Jamaican ones, not only as wage earners but also, significantly, as unpaid family labour, a category particularly important in food processing. Apprentices in Ecuador concentrate in the repair services, while in Jamaica they are mostly in this same sector and in furniture making. Overall, wage employment, excluding the owner, seems to be slightly more important in Jamaica (78 per cent of total employment in small firms surveyed) than in Ecuador (72 per cent).

Table 2.4 Ecuador: occupational history of the owners of firms, by size

	SIZE OF THE FIRM					SIZE OF THE FIRM (percentages)				
	1	2-5	6-10	+10	Total	1	2-5	6-10	+10	Total
LAST OCCUPATION										
Government employee	1	7	-	2	10	3	4	-	6	3
Owner/employer	1	2	2	-	5	3	1	5	-	2
Wage labourer	17	65	7	10	99	57	33	18	31	33
Own-account	-	16	3	2	21	-	8	8	6	7
Non-paid family member	-	10	1	1	12	-	5	3	3	4
Apprentice	8	59	8	3	78	27	30	20	10	26
The same	3	38	18	14	73	10	19	46	44	25
TOTAL	30	197	39	32	298	100	100	100	100	100
FIRST OCCUPATION										
Government employee	-	5	2	1	8	-	2	5	3	3
Owner/employer	2	7	2	-	11	6	4	5	-	4
Wage labourer	18	88	14	12	132	60	45	36	38	44
Own-account	2	23	3	2	30	7	12	8	6	10
Non-paid family member	-	5	-	1	6	-	2	-	3	2
Apprentice	5	31	-	2	38	17	16	-	6	13
The same	3	38	18	14	73	10	19	46	44	24
TOTAL	30	197	39	32	298	100	100	100	100	100

Source: Survey data.

Table 2.5. Distribution of the labour force according to size of the firm and gender
(percentages)

	Ecuador			Jamaica		
	Size of the firm					
	Total	2-5	6-10	Total	2-5	6-10
Male	63	65	54	77	83	69
Female	37	35	46	23	17	31

Source: Data survey.

Table 2.6. **Distribution of number of workers according to occupational category and economic activity**

Economic activity	Occupational category					
	Employer ^a	Own account ^a	Wage earner	Apprentice	Unpaid family	Total
Ecuador						
Food processing	97	1	183	16	56	353
Garment manufacture	71	24	151	15	21	282
Repair services	94	12	122	60	3	291
Total	262	37	456	91	80	926
Jamaica						
Food processing	36	16	96	1	14	163
Garment manufacture	18	37	76	3	2	136
Repair services	55	14	111	30	13	223
Furniture making	49	13	99	42	2	205
Total	158	80	382	76	31	727

Source: Survey data.

a Includes partners when applicable. In the case of Jamaica there is at least one non-response.

Finally, the structure of the labour force in terms of occupational categories shows in both countries that in smaller firms there are more unpaid family members and apprentices. In Ecuador, these categories are on average more important than in Jamaica, particularly the family members. Family relationships were specifically analysed in that country, and it was found that one-third of the labour force in all micro-enterprises had family ties with the owner. Moreover, in firms with only one employee there was a 50 per cent chance that the employee was a member of the owner's family; in the garment industry, also for firms with one employee, there was a 71 per cent chance.

Firm origin and building site

At this small level of operation the overwhelming majority of firms have their origin in the personal initiative of the present owner of the business: in both countries, around 90 per cent of the firms were started from scratch, and the larger firms show a higher percentage of inheritance or purchase of the business.

In Jamaica most of the firms operated from homes or premises that were also family residences, particularly in the case of garment manufacturing and furniture making; only about 30 per cent of the enterprises in the sample were located in a commercial building. The information for Ecuador is not strictly comparable, but in the sample 60 per cent of firms were operating outside the owner's home (but not necessarily in a commercial building) and, as expected, the smaller the firm, the higher the percentage that used a home as premises for industrial and commercial activities.

Small firms are therefore essentially a personal and family affair, and this feature is also reflected in the origins of the funds used to initiate the business (see Table 2.7). In both countries most of the entrepreneurs used their own money or that of their families and friends to start their activities, and very few had access to or used credit. More entrepreneurs used formal credit in Ecuador than in Jamaica, and this must be related to the Ecuadoran tradition of savings co-operatives, to which many people belong. As expected, as firms grow in size, personal sources of funding decrease while formal credit is used more often.

In Jamaica, the limited role played by lending agencies should be set against the proportion of entrepreneurs who stated that they had tried to obtain a start-up loan from this source. Only 20 per cent of them had tried to obtain formal credit (10 per cent got it); among those that had not applied, about half said they did not need or like to borrow and almost 40 per cent could not meet the formal requirements for obtaining such funds (knowledge of procedures, collateral, etc.).

Insertion in the product and input markets

Inter-relationships between the micro/small enterprise and the larger establishments seem to be more developed in the case of Ecuador (see Table 2.8). Indeed, buying from wholesalers and producers reflects a more advanced degree of linkage than buying from retailers or asking the clients themselves to provide the inputs for the production of goods included in the survey. Almost a third of the firms buy wholesale in both countries. In Jamaica the stronger linkages with industry and customers suggest that entrepreneurs produce under a putting-out or made-to-order system. These last relationships can be beneficial for the entrepreneur, insofar as when the customer supplies the inputs the owner does not have to put up the capital for raw materials and/or spare parts; they also probably reflect a lower stage of operation and integration with the rest of the economy. The case studies in Jamaica suggest that the lack of working capital was one of the problems the firms faced, both because of inadequate support from formal institutions, as will be seen further on, and because they were forced to give credit to customers without being able to enjoy the same benefit in relation to their suppliers.

As expected, the linkages vary with the size of the firm. In Ecuador, only 33 per cent of the own-account establishments bought their inputs from wholesalers and 66 per cent bought from retailers. At the other end of size scale (6 to 10 employees), 72 per cent bought from wholesalers and 25 per cent from retailers. This probably means that micro firms pay more for their inputs than small firms and therefore have higher costs of production. This tendency did not vary much from one economic sector to another.

Table 2.7. **Sources of initial capital utilised by small firms**
(percentages)

	Ecuador ^a			Jamaica		
	Own account	2-5	6-10	Own account	2-5	6-10
Own saving	62	61	50	66	64	61
Family/friends	8	11	8	20	15	10
Formal credit	25	18	35	2	11	15
Informal credit	3	5	4	2	2	5
Sold assets	3	4	2	1	4	7
Others	0	0	0	9	4	2

Source: Survey data.

^a Multiple answers were accepted.

Table 2.8. Sources of supply for small firms^a
(percentages)

	Ecuador	Jamaica
Wholesalers	35	38
Retailers	38	54
Industry	12	32
Customers	10	28
Farms/households	-	16
Others	5	5

Source: Survey data.

^a Multiple answers were accepted.

Most of the small firms, regardless of the economic sector to which they belong, pay for their supplies in cash, but there is a significant difference between the proportions in Ecuador and Jamaica (Table 2.9). In Ecuador almost 40 per cent of firms pay for their supplies with credit, while in Jamaica this proportion is much lower: 8 per cent. In both countries, nonetheless, it varies according to the size of the business, so much so that in Ecuador more than half of the larger firms pay with credit.

On the demand side, firms' relationship with the state was analysed, as well as its linkages with the private sector and with individuals. Table 2.10 shows that government contracts are not usual in either country, though the proportion of firms getting them is twice as high in Ecuador (19 per cent) as in Jamaica. These numbers vary by size of the firm and by economic activity: in both countries larger firms tend to get more contracts, and those in equipment-repair services also get more access

to them than firms in the other sectors. In Jamaica the explanations which firms provided for these small figures centred primarily on their lack of interest and information and their perception that they needed to have political connections in order to obtain such contracts. In Ecuador, lack of interest and information accounted for 75 per cent of the reasons given for not applying for government contracts.

Table 2.9. **Forms of payment of firms to suppliers according to size^a**
(percentages)

	Ecuador				Jamaica			
	All	Own-account	2-5	6-10	All	Own-account	2-5	6-10
Cash/advance	61	80	67	47	87	90	89	74
Credit	39	20	33	53	8	4	8	21
Other	-	-	-	-	4	6	3	5

Source: Survey data.

^a Multiple answers were accepted.

Table 2.10. **Proportion of firms receiving government contracts by economic activity and size**
(percentages)

	Ecuador	Jamaica
Economic activity		
Garment manufacture	19	7
Food processing	13	4
Furniture making	-	9
Equipment repairs	25	12
Employment size		
Own-account	13	1
2-5	18	11
6-10	31	17
All firms	19	8

Source: Survey data.

The overwhelming majority of clients of micro-enterprises are individuals and local consumers, as is seen in Table 2.11. In both countries, as expected, the smaller the firm, the higher proportion of individuals. Larger micro-enterprises in Ecuador, particularly in the range of 6-10 employees, tend to establish stronger linkages with firms than in the case of Jamaica: about two-thirds of them sell their goods to established enterprises and not to individuals, which suggests that in

Ecuador the more developed informal sector is also more integrated into the economic structure as a supplier of goods and services to economic units. At the sectoral level, food-processing micro-enterprises, particularly in Ecuador, sell to a higher proportion of firms than the other sectors, even in the lower size strata.

These private individuals, who are the main clients of micro-enterprises in both countries, mainly pay cash for the goods and services they receive. Again, as in the case of payment to the suppliers, the extension of credit varies with size of the firm: smaller enterprises request mainly cash payment from their customers, though in Jamaica own-account workers receive cash in only 72 per cent of their sales. The rest give credit to their customers, which poses problems of working capital availability for many small firms. Indeed, while 12 per cent of own-account workers provide their customers with credit, only 4 per cent of them get credit from their suppliers, and this asymmetric credit relation surely occasions liquidity problems and cash shortages for the firms. One interesting feature in this sense is the opposite situation observed in Ecuador, where even though small firms obtain credit in their relations with suppliers of their inputs, they nonetheless require cash payment from their customers. As it was mentioned previously, on average 40 per cent of small firms pay their inputs with credit, but only 25 per cent give credit to their customers; so the mechanism of buying with credit and selling cash, which is seen above all in the larger firms, may result in some financial profit. Perhaps the difference between the two countries may be explained by the higher educational levels attained by entrepreneurs in Ecuador, which give them a better knowledge of accounting. Additionally, Ecuador being a Latin American country, inflation obliges owners of firms to establish certain behaviours that protect themselves against the erosion of their income, even though inflation has never been as high in Ecuador as in countries like Argentina, Bolivia or Chile, to name just a few.

Table 2.11. **Type of clients by size of enterprise**
(percentages)

Type of client	Size of the enterprise			
	Own account	2-5	6-10	+ 10
Ecuador^a				
Individuals	83	65	37	31
Retailer	6	13	22	23
Wholesaler	3	3	18	26
Manufacturers	0	3	6	2
Others	9	16	16	17
Jamaica^a				
Individuals	87	84	67	47
Retailer	8	9	13	31
Wholesaler	1	0	2	7
Manufacturer	1	1	2	0
Others	3	6	16	15

Source: Survey data.

^a Up to three options were accepted. In Jamaica it refers to the main client.

Relations with the banks and credit were also researched in the surveys. As we have seen, few entrepreneurs had started up their businesses with formal credit, but despite the lack of support given by commercial banks in the initial period, a larger proportion of owners went on to establish banking relations once their businesses were under way. As expected, the relationships vary with the size of the firm: the larger the firm, the more dealings it had with the banking system. In Jamaica, however, most credit relationships are not established, because of those that do have relationships (on average 45 per cent of firms), only 20 per cent get credit. Given these constraints in capital availability it is not at all surprising that one-fourth of all firms mention capital problems as the main issue they face today as economic units.

In Ecuador fewer firms have relationships with the banks: only one-third had contacts with these institutions in 1992 (in the garment industry the proportion is lower: only one-fourth of the firms); of those that had dealings with banks, only 10 per cent got credit. The study also shows a significant correlation between start-up credit and current use of credit, leading to the conclusion that those that had initial credit also have it now, i.e. the relations between a firm and a bank may be a structural feature in the history of the enterprise. More credit was available for the financing of equipment through the life of the firm (almost 20 per cent of the firms).

The surveys also investigated the problems encountered by the small firms in their relationships with the market, both as buyers and as sellers of goods and services. The results clearly suggest that the main sales problems of own-account firms are inadequate demand and lack of customers. In fact, 40 per cent of all firms in Jamaica reported that they could expand their output, and the same proportion of own-account workers said they lacked customers. In Ecuador own-account workers perceived a decline in demand (43 per cent) and an increase in competition (31 per cent); larger firms, on the contrary, apparently have a more stable demand for their products and face other problems. This is also seen in the case of Jamaica, where obstacles are related more to the supply side of the market, i.e. high cost of inputs in general. These difficulties were the principal obstacle mentioned by survey respondents, cited by almost 70 per cent of all firms in Jamaica when asked about the specific problems they encounter today.

If micro-enterprises in fact face stiff competition and a decline in the demand for their goods and services, the question of future viability of this scale of enterprise arises. Perhaps in the manufacturing sector own-account firms have little future, and their dilemma is that either they grow to become small businesses or they disappear in the short run; maybe the firms interviewed in the surveys of Ecuador and Jamaica are on their path to one of those destinies. This is perhaps the reason why own-account workers in the industrial sector in Latin America, and of course in developed countries as well, are decreasing as a share in total employment; this is valid even in a country like Ecuador where there is a strong tradition of artisans and craftsmen.

A further data analysis was carried out in the case of Jamaica on owners' subjective views concerning their future, and there was a striking relationship between the size of the firm and their outlook. When the entrepreneurs were asked whether they expected to remain in business, almost 40 per cent of own-account workers answered either no or that they were unsure, while only 17 per cent of those

entrepreneurs in firms employing more than ten people answered the same. Clearly, owners of larger firms have a more optimistic view of the future of their establishments. Nonetheless, having accepted this relationship, it is still noteworthy that 60 per cent of own-account workers feel optimistic about their future. Perhaps it is because they feel they can grow, even though the macroeconomic data suggest that as own-account workers in industry, their outlook is not very bright.

III. THE LEGAL FRAMEWORK FOR SMALL BUSINESSES IN ECUADOR AND JAMAICA

An analysis of the legal framework for the small enterprises of Ecuador and Jamaica shows two altogether different systems. In Ecuador there is an almost parallel system of regulations which applies to micro-enterprises classified as crafts. This system is operationally complicated and requires a series of administrative steps in different public agencies. In Jamaica, on the contrary, there is no special framework for micro-enterprises and the procedures for complying with the law are relatively simple.

The regulations that relate most closely to the operations of enterprises in both countries are those which specify the guidelines for business registration, taxation, conditions of production and work in terms of health and safety, and labour laws, including social security. Both countries have a wide variety of instruments concerning these areas. A common feature is that while in general these laws apply universally to all enterprises engaged in business, there are tax exemptions which benefit certain types of firms, and these exemptions are related to the different definition of firms in each country. In Ecuador, there is a significant difference between a craft and a common enterprise, while in Jamaica firms operated by individuals are considered to be distinct from companies.

In Ecuador there is a more complex set of definitions. A micro-enterprise has been defined in terms of employment — a firm is considered a micro-enterprise if no more than five workers are employed — but it has also been defined as a "popular economic unit" for the purpose of access to state support policies, such as those implemented by CONAUPE (Corporación Nacional de Apoyo a las Unidades Populares Económicas), UNEPROM (Unidad Ejecutora del Programa de Microempresas) and the Banco Nacional de Fomento. In this case the definition refers to capital (not more than 50 minimum wages of capital per employee) and type of ownership (collective ownership by its workers). The most important distinction applies to firms considered to be crafts, in which case they are defined as "workshops with a total capital of less than 360 minimum wages and not more than 12 workers plus 4 apprentices". There are three laws that regulate these activities: the Ley de Defensa del Artesano of 1953, the Ley de Fomento Artesanal of 1986 and the Ley de la Pequeña Industria of 1985; the main differences between the crafts laws deal with their more or less corporate character. Indeed, the first law is strongly corporate and exclusive, while the second has a more democratic character and accepts more people as craftsmen; the third refers exclusively to small industries.

The crafts give priority access to state credit instruments and tax exemptions, they allow for differential labour conditions, but at the same time they require from the workers and/or owners certain qualifications as craftsmen. Additionally, those who seek to benefit from the law are required to belong to a guild, crafts union or association of craftsmen.

In Jamaica, the typical micro-enterprise will not be considered a company, since a company is defined as a firm that has a place of business, is a limited liability company and operates under a business name which does not consist of the true surnames of the operators. The legal requirements for operation and the tax obligations are different for companies and persons engaged in business.

Business registration

This is an essential step — the first one — in the legalisation of the enterprises of both countries. In Ecuador firms can be classified as enterprises (including micro) or crafts, and the legal requirements for registration vary in each case. If it is a craft, the firm has to register in the Taxpayers Registry (Registro Unico de Contribuyentes), get the acceptance of a government agency that deals with crafts activities (the Dirección Nacional de Artesanía or the Junta Nacional de Defensa del Artesano — an autonomous institution created by the Defensa del Artesano) and obtain a permit from the municipality (free). In contrast, a common enterprise — including a micro — need only comply with the first and third steps, but it has to pay for the permit.

In the case of craftsmen who want to benefit from the Ley de Defensa del Artesano, their condition has to be certified, and this requires having worked at least three years as an apprentice and four years as a worker, passed an exam of general culture and submitted a short dissertation. The other law requires that, in the case of autonomous craftsmen, the Dirección Nacional de Artesanía evaluate the workshop they possess and certify that they are affiliated with a guild. Thus, if the firm wants to benefit from the laws that protect crafts activities, the registration requirements are higher than for common enterprises.

In Jamaica firms follow different routes of registration depending on their nature. The minimum level of registration for a small business is Business Enterprise registration, done through the Revenue Board of the Ministry of Finance. The law requires registration for all persons engaged in business, as well as all companies, partnerships, sole proprietors, government departments and organisations engaged in business activity. For the typical micro-enterprise, which is likely to be operated by a sole proprietor, business registration requires that an income tax number and a national insurance number be furnished. Each enterprise is assigned a business enterprise number (BENO). This number becomes a requirement for successive stages of formalisation, such as the application for a tax compliance certificate or registration for the general consumption tax (GCT). Other levels of business registration include registration as a company with the Registrar of Companies, on the basis of which a Business Name Registration Certificate is obtained.

Taxation policy

As can be seen from the summary table below, the same type of taxes apply in the two countries, but Ecuador provides more generous exceptions to persons, crafts and firms that are under a certain level of size or income.

Type of tax	Ecuador	Jamaica
Personal income tax	Exemption below annual income \$2 600 for all firms. 60 per cent discount on income derived from profits of crafts, if reinvested.	Exemption below annual income \$640 for all firms.
Business tax	Equal for all firms.	Equal for all firms.
Value added tax	Exemption for all products made and sold by craftsmen.	Exemption for firms with gross turnover of less than \$550, but registration mandatory.

Conditions of production and of work

Conditions of production and of work are regulated in both countries, but with different emphasis. In both, the laws concerning hygienic conditions in food production are important. These regulations concern the sanitation of the place where food is produced, the hygienic conditions of the food handlers themselves and the quality control of products; in the case of Ecuador, quality control is extended to other areas of industry, particularly clothing.

In Jamaica, the Food Inspectorate Division (within the Bureau of Standards in the Ministry of Industry and Commerce) has the responsibility for monitoring the production of all processed food. Certification by the Bureau of Standards is essential for firms seeking to export their products; it involves a stringent set of tests in the case of certain prescribed foods. Firms are charged for these tests and site visits. More generally, the Public Health Department of the Ministry of Health is responsible for the inspections and routine checks of food-manufacturing establishments and restaurants, carried out under the provisions of the Public Health Law. Inspectors are empowered to prosecute in the event that the law is not observed.

A third ministry (labour) is also involved in the control of safety, health and welfare provisions, which are laid out in the Factories Act. No distinctions are made by size of the firms, so all must comply equally with the law, including enterprises engaged in repairs, which are also classified as factories for this purpose. The provisions of the Act detail the safety precautions to be implemented with regard to machinery, electrical apparatus, fire; and the health and welfare conditions referring to suitable sanitary conveniences, space, lighting, etc.

Labour regulations

In both countries labour regulations are applied to all establishments regardless of their size that employ workers, although in Ecuador the laws and regulations for crafts are different from the ones that apply to other firms, including micro-enterprises. Regulations are relatively similar in the two countries, and in general conform to those prevailing in Latin America generally. They essentially concern the minimum wages, working hours, contributions to social security and, in the case of Jamaica, protection against arbitrary dismissal (specified in the Termination and Redundancy Payments section of the Employment Act).

It is interesting to note that in Ecuador craftsmen receive special treatment as to labour obligations, particularly when they are high in the hierarchy, such as the case of the master of the workshop (*maestro de taller*). When the master hires workers he is obliged to pay a minimum wage of \$30, plus the contribution to social security, which amounts to 20.2 per cent of the minimum wage (10.85 per cent to be paid by him and 9.35 per cent by the worker). The minimum wage which applies to crafts is 25 per cent higher than the minimum wage paid by other firms (including micro-enterprises), but crafts enjoy exemptions from other related costs such as compensatory wage bonuses, two additional wages every year and other social costs, which in the case of a regular firm amount to 43 per cent of the real wage paid to the workers. Thus it is clear that for a small entrepreneur it is convenient to be classified as a craftsman, since as a general rule he is not forced to comply with the regulations that the labour law specifies for other employers.

The national minimum wage was established in Jamaica in 1974 and has been upgraded at regular intervals over the period in order to offset some of the loss of purchasing power due to rapid inflation. For our purposes the most recent increase took effect on July 1992, establishing a minimum wage level that is twice the one which applies to workers of crafts in Ecuador, and is the same for all categories of workers. The Minimum Wage Law specifies also hourly rates of pay, overtime rates, as well as a weekly rest day so that employers are not at liberty to extract extra hours of work for a fixed sum.

The Employment Act provides minimum standards for giving notice of termination of employment, and allows the payment of wages in lieu of notice. Where employment is terminated because of redundancy, the Act sets out a schedule for compensatory payments.

Whereas the above regulations are the particular responsibility of the Department of Labour, social security provisions for workers are part of the National Insurance Scheme (NIS). This is a contributory scheme under which employers are required to deduct NIS payments for all workers. The monthly deduction for NIS is only 2.5 per cent of the monthly wage, up to a ceiling of J\$ 1 256; hence the monthly deduction from workers' pay cannot exceed J\$ 31.40 (\$1.4), which is a notably small amount compared to the deductions in Ecuador, especially considering that the minimum wage in Ecuador is half that in Jamaica. This deduction from the worker's pay is matched by a contribution from the employers, as are the deductions made for the National Housing Trust (NHT) programme. NHT contributions are higher; they amount to 2 per cent of gross emolument from workers and 3 per cent from employers.

General remarks

The legal framework in Ecuador consists of a set of rules that on the one hand regulate the activities of micro-enterprises and on the other benefit their activities *vis-à-vis* larger enterprises. In Jamaica the benefits are essentially limited to certain tax exemptions. The rest of the regulations that apply to micro-enterprises are basically the same as those in force for other firms. In Ecuador, on the contrary, there are special laws to promote development of micro-enterprises in general and of crafts in particular; these laws afford a certain degree of economic protection by decreasing micro-enterprises' costs of operation, therefore improving their capacity to compete with other firms.

These protective measures usually entail more regulations and administrative procedures than the ones common firms have to deal with in the same country, or similar enterprises in countries where there are no special promotion regimes, as in Jamaica. In effect, in a comparative regional perspective, Ecuador stands high among Latin American countries in terms of both cost of registration and time devoted to getting it (Tokman, 1991). In the industrial sector, it takes between 180 and 240 working days to get registered, compared with 30-45 days in Bolivia and Brazil, which represent the lowest echelon in the rating. Furthermore, registration in Ecuador requires 39 administrative steps (the highest number in the region); 34 of them are required in order for a micro-enterprise to be classified as a craft, and thus get access to the benefits the special laws provide. In terms of cost, it has been estimated that the registration of an industrial firm can cost almost 25 per cent of the annual profits of these firms.

The analysis made in Ecuador suggests that it may be useful to distinguish, on the one hand, the nature and number of laws and rules that must be followed, and on the other the capacity and will of the state to enforce these laws. While the number of regulations in Ecuador is indeed large, the state is somewhat absent in their application, perhaps guided by the knowledge that the capability of these micro-enterprises to pay and to follow every law is limited.

IV. COMPLIANCE WITH REGULATIONS

The previous section pointed out some differences between the legal frameworks of Ecuador and Jamaica. Ecuador has a set of rules which apply specifically to the micro-enterprises classified as crafts, with the purpose of promoting and benefiting their activities. On the contrary, in Jamaica the law in general is applicable to all firms, though again there are some particular instruments designed to benefit small-scale business, such as tax exemptions. This section analyses the degree to which these laws are complied with, and at the same time it examines the relation between compliance and various characteristics of the micro-enterprises.

The first step: Legal existence of the firm

In order to establish itself as a business or an economic activity, a firm must be registered. This means that in Ecuador it must get a RUC (Taxpayers Registry) and in Jamaica a BENO. The degree of compliance with this first step is significantly different in the two countries (see Table 4.1).

The degree of registration is much higher in Ecuador than in Jamaica, and as expected it is higher in the capital than in other cities. In Jamaica, however, it is uniformly low, regardless of the geographic location of the firms. In both countries the proportion of firms registered varies with the size of the establishment: as expected, larger enterprises register more frequently than small ones, particularly in Jamaica where for own-account workers registration is practically non-existent.

Table 4.1. **FIRMS WITH BUSINESS REGISTRATION ACCORDING TO SIZE AND LOCATION**
(percentages)

Size and location	Registered firms	
	Ecuador	Jamaica
Size ^a		
Own-account	50	4
2-5	65	26
6-10	79	60
Average	69	23
Location		
Capital ^b	75	25
Rest ^c	45	22

Source: Survey data.

a Number of workers, including the employer.

b In Ecuador it refers to Quito and in Jamaica to Kingston and St. Andrews.

c In Ecuador it refers to Cuenca and Ambato and in Jamaica to rural parishes.

Registration also varies with the economic activity of the firm: in both countries firms in more visible activities (service repairs and food establishments) register more often than firms in activities that can be carried out inside the home (garment industry and furniture making). Moreover, data on gross monthly sales of firms in Jamaica indicate that firms with higher sales register more often than those in the lower strata. Finally, data on Ecuador show that firms that have existed for a longer period of time have a higher proportion of registration: firms more than 20 years old are registered in 86 per cent of the cases, while only half of those recently founded (1990-92) are registered.

One reason for the greater compliance with registration requirements in Ecuador may be found in the fact that registration is the first step in a chain of requirements which can in the end bring economic advantages to the small firms. Indeed, it may be recalled that in Ecuador, in order to qualify as subjects of the promotion laws that are directed towards the activities of craftsmen, firms have to follow certain procedures if they want to be classified as crafts, and business registration (RUC) is the first stage in this process. Legalising the firm is thus linked to economic benefits, and not only to potential higher costs in the form of taxes and/or labour-related expenses, as may be the case in Jamaica.

This seems particularly true when the reasons for compliance or non-compliance with existing regulations are brought forward. In general, small producers in Ecuador have high degrees of compliance with regulations because the high costs involved come *pari passu* with benefits, and not — and this is important — because state control of compliance is strict. In effect, for those firms that do not comply with tax regulations the most important single fact that explains evasion is that there is no control and/or that sanctions are light, so it is not worth their while to pay taxes. There is practically no mention of the objective fact that, as noted in the previous section, in Ecuador it is difficult, costly and time-consuming to be legal. On the contrary, in Jamaica the "no enforcement" reason is scarcely mentioned, while among firms that did not comply with labour regulations, the overwhelming majority referred to bureaucratic obstacles.

To sum up, the degree of compliance with regulations is apparently linked to potential benefits to be obtained through the adoption of a legal status for the firm, regardless of the costs involved in the process. On the other hand, lack of compliance is mainly related to the absence of these benefits, plus the difficulty in acquiring that status in terms of time, trouble, complexity and costs. These issues are discussed below.

Labour laws

The surveys analysed compliance with labour laws in relation to three variables: size of the business in terms of volume of employment, geographical location and sector of economic activity. The results are summarised in Tables 4.2, 4.3 and 4.4.

Of all labour regulations, the minimum wage law is the one most followed in both countries, though once again with significant differences in the degree of

compliance: while in Ecuador almost all firms comply with the law regardless of their size, in Jamaica fewer than half do so and there is a higher degree of compliance in the larger firms. This may partly be due to the fact that the minimum wage for crafts in Ecuador is extremely low and therefore easy to comply with. In the rest of the labour laws there is an observed relationship between the degree of compliance and the size of the business, and this relationship is much stronger in Jamaica because the differences observed by size are larger. The case studies in Jamaica also showed that payment arrangements are quite flexible. In some firms the main criteria for determining remuneration were the worker's qualifications and the profits of the business, and on average the weekly rate was above the minimum wage. In other firms, less formalised, the contract between employer and worker was usually verbal, with employees being paid by the task, and in relation to qualifications. Moreover, in one such firm, if business was slow and no work was done that week, the workers received no pay, though there were non-monetary compensations such as the permission to use the firm's equipment for personal jobs, time for training and others.

National insurance contributions, which are very important for the welfare of the workers, are by and large evaded in small enterprises, and data obtained from the case studies undertaken in both countries strongly suggest that workers themselves also oppose this payment, since it entails, theoretically at least, a decrease in their take-home pay. In a case study in Jamaica a small entrepreneur said that he had brought in the NIS official to talk with the workers and explain the benefits in order to gain their acceptance. Usually, however, given the low level of wages paid in many of these small firms, workers will resist any type of salary deductions, and this was a reason also found in the Ecuadoran survey.

In Jamaica some laws are scarcely acknowledged, as for example in the case of employment termination pay. Less than a fifth of all firms with workers said that they were obliged to provide redundancy payments; the garment-making firms and larger enterprises were the most likely to follow the law.

The hypothesis that there should be an association between the geographical location of the firms and their degree of compliance of regulations seems to be confirmed in Jamaica but not in Ecuador, where the cities surveyed outside of the capital (Cuenca and Ambato) are both provincial towns with strong economic activity.

Equally, no strong association was found between the type of industry and the degree of compliance with labour laws. The only exception is the case of furniture in Jamaica, where compliance seems generally and consistently low. In the rest of the sectors, in both countries, degrees of compliance vary from sector to sector but with no clear pattern.

Finally, in Ecuador, a clear association was found between the level of compliance with labour regulations and the number of years the firm had been in existence: the older the firm, the greater the chance of its acting according to the law (see Table 4.4).

Table 4.2. **Compliance with labour laws according to size of the firm and geographical location**
(percentages)

Laws	Ecuador				Jamaica			
	Size		Location		Size		Location	
	2-5	6-10	Capital	Rest	2-5	6-10	Capital	Rest
Occupational safety	n.a.	n.a.	n.a.	n.a.	32	59	55	32
Minimum wage	91	91	95	88	40	52	58	38
Maximum working hours	39	69	49	50	24	55	45	26
Vacation leave	n.a.	n.a.	n.a.	n.a.	21	52	40	23
Sick leave	n.a.	n.a.	n.a.	n.a.	36	55	58	34
Redundancy pay	n.a.	n.a.	n.a.	n.a.	8	28	13	11
National insurance	24	54	32	38	11	44	31	15
National Housing Trust	n.a.	n.a.	n.a.	n.a.	7	46	24	13
Education trust	n.a.	n.a.	n.a.	n.a.	7	49	24	14

Source: Survey data.
n.a. Not available and/or applicable.

Table 4.3. **Compliance with labour laws according to economic activity**
(percentages)

Laws	Ecuador			Jamaica			
	Garment Manufacturing	Food Processing	Equipment Repairs	Garment Manufacturing	Food Processing	Equipment Repairs	Furniture
Occupational safety	n.a.	n.a.	n.a.	36	42	42	29
Minimum wage	91	84	91	63	44	43	32
Maximum working hours	21	77	44	53	19	33	27
Vacation leave	n.a.	n.a.	n.a.	40	27	31	17
Sick leave	n.a.	n.a.	n.a.	53	41	30	42
Redundancy pay	n.a.	n.a.	n.a.	21	6	19	9
National insurance	42	42	19	31	17	18	14
National Housing Trust	n.a.	n.a.	n.a.	21	19	12	13
Education trust	n.a.	n.a.	n.a.	21	22	12	12

Source: Survey data.
n.a. Not available and/or applicable.

Table 4.4. **Ecuador: Compliance with labour regulations and years in operation of the business^a**
(percentages)

	Before 1969	Since 70-79	Since 80-84	Since 85-89	Since 90-92
Comply	39	33	30	18	14
Do not comply	61	67	70	82	86

Source: Survey data.

a Refers to firms that comply with the three labour regulations researched: minimum wage, social security and overtime pay.

The results of the table bring forward another issue: legalising a firm is not a one-stage action, but rather a process in which firms may start illegal, or with the minimum registration level, and progressively incorporate additional steps in the degree to which they follow the laws and regulations that apply to businesses. This is only natural if one considers that firms along their path to growth progressively establish relations with the organised sector, which usually requires the compliance of certain regulations. As the Jamaican study suggests, for example, when entrepreneurs are required to obtain a tax compliance certificate in order to import or to export, they find they cannot avoid the full battery of labour regulations. Thus the system of regulations is interlocking once the firm starts to develop: it becomes increasingly difficult to comply with certain laws and regulations while totally avoiding others. The degree of compliance with the different regulations usually develops by stages and in parallel with other firms, and the relationship between the firms and the legal framework is therefore a dynamic component of their development.

The reasons for not complying with the labour and social security laws can be appreciated in Table 4.5 for both Ecuador and Jamaica. While in Ecuador many owners argue that the type of workers they employ exempt the firm from complying with labour and social security laws, in Jamaica they tend more to cite complex and expensive procedures as reasons for avoiding these regulations. By economic sectors no significant differences were observed, except in the case of health regulations in the food-processing industry, where most firms said they complied and/or were subject of control, as will be seen below.

Conditions of production and of work

These regulations basically concern health regulations in Jamaica, and health regulations plus product and prices control in Ecuador. As expected, the degree of compliance varies with the sector of economic activity because health regulations affect principally the food-processing industry. In Jamaica, compliance with rules for the Food Handler's Permit is rather high (90 per cent of firms); there was little variation by size or location. However, the responsibility for compliance may fall primarily on the worker, who often takes the initiative in obtaining certification in order to compete more effectively for employment. In other words, having a permit may well be essential for the labour force in the food-processing industry, and this could partly explain the high

degree of compliance found. Nonetheless, the general sanitation requirements of the establishments present an altogether different picture in Jamaica. Indeed, while small food-producing firms located in urban areas had good sanitation standards and were regularly inspected and monitored by public health inspectors from the Ministry of Health, firms in rural parishes were often found in the case studies to be well below the standards.

Table 4.5 **Reasons why firms do not comply with labour and social security regulations^a**
(percentages)

	Size of enterprise	
	Up to 5	6-10
Jamaica		
Procedures too complex	11	0
Too much time and trouble	32	20
Too costly	11	0
Not producing continuously	21	20
No enforcement	10	40
Government use of funds not clear	13	20
Others	2	0
Ecuador		
Labour relation exempts firm	44	30
Too costly	6	13
Workers refuse	7	16
Lack of information	5	3
Procedures too complex	3	1
New worker/activity	17	16
Others	18	21

Source: Survey data.

^a Opinions in Jamaica include health regulations as well. In Ecuador questions concerning these regulations referred to knowledge of their existence and not to compliance.

In Ecuador, half of the firms followed health regulations, which referred essentially to the hygienic conditions of the establishment, particularly in the case of food processing where a high proportion of them are regulated. Very low levels of regulation were found in the garment industry, and the few rules that existed referred mainly to the quality of the products sold.

Tax regulations

While in Ecuador questions related to the compliance with tax regulations were introduced directly in the questionnaire of the survey, in Jamaica it was felt that this methodology would not lead to adequate results. Therefore, for Jamaica the issue was tackled only in the case studies and the results are of a qualitative nature.

The Jamaican data suggest that business registration does not necessarily lead to compliance with tax regulations. On the contrary, it is the level of physical visibility of the firm and its economic integration with the modern organised sector that

tend to push small business operators to comply with tax requirements. These relationships with the larger establishments and/or government agencies usually derive from buying inputs, selling products, and gaining access to loans and contracts, among the most usually mentioned relationships. Unfortunately, there are no quantitative data as in Ecuador.

In Ecuador compliance with tax laws is relatively high and compares favourably with the other laws. Table 4.6 presents data on compliance with various types of taxes according to the size of the firm. One should take into account that, partly owing to the special regulations that apply to crafts, a variable percentage of firms are exempt from tax payment. In the case of income tax, on average one-fifth of the establishments are not liable to pay. One-third of them are exempt from VAT payment, but the municipal tax is more generalised: only 6 per cent of small establishments do not have to pay it.

Tax payment corresponds closely with the size of the firm, though from Table 4.6 it is obvious that the breakpoint occurs between firms employing up to five people and larger firms. The higher stratum of small enterprises behaves basically the same as larger firms.

Table 4.6 **Ecuador: compliance with tax regulations according to size of the firm and economic activity^a**
(percentages)

Type of tax	Number of workers			Economic activity		
	Own-account	2-5	6-10	Garment manufacture	Repair services	Food processing
Income tax	45	78	94	66	83	80
VAT	37	54	81	49	61	58
Municipal tax	28	77	89	58	77	87

Source: Data survey.

a The percentages are calculated over the total of firms liable to pay taxes. It therefore excludes those that have a tax exemption, and the percentage in the table refers to firms that pay.

When the analysis incorporates the geographical location of firms and its relationship with the degree to which the taxation laws are followed, no clear association is observed; when the economic sector of the firms is considered, however, there is a tendency for garment establishments to pay fewer taxes than the rest, a tendency that presumably is facilitated by the fact that these firms can operate inside a house and therefore are less visible than those in the food or equipment repair industries.

Finally, it can also be established in the case of taxes that older firms tend to pay more than those that have been recently created, strengthening the idea mentioned above that as time goes by firms tend to comply more with every aspect of the regulations they should follow.

The reasons for not paying taxes in Ecuador do not significantly differ according to the economic activity or the city in which the firm operates. There is nonetheless a difference according to size, as seen in Table 4.7, because among own-account workers the lack of information on the need to pay different taxes seems to be the main reason for non-compliance. On the contrary, in the next size bracket (two to five workers) the absence of the state is the main reason for tax evasion. The reason "no control" in fact is a synthesis of both "few inspections and light sanctions" and "have not been required to pay taxes". Thus, the weak presence of the state refers to lack of control and light punishment.

Between underground activity and legality

The analysis made about the degree of compliance in the three regulatory spheres — business registration, labour and taxes — indicates that informal activity can hardly be defined by completely underground operation, but neither can it be considered fully legal, since only some of the enterprises register and comply with all legal obligations. The prevailing situation seems to be a grey zone between underground operation and legality, complying with some regulations but not all of them. As a result, enterprises can profit from opportunities that might be opened by registration in terms of visibility or access to factor markets and/or can reduce the probability of sanctions.

Table 4.7. **Ecuador: Reasons for not complying with tax regulations**

	Size			Economic activity		
	Own-account	2-5	6-10 ^a	Garment manufacture	Repair services	Food processing
Income tax						
Lack of information	42	29	0	33	25	33
No control	42	50	50	52	50	40
Others	17	21	50	14	25	27
Value added tax						
Lack of information	67	47	60	44	57	52
No control	17	45	40	44	38	37
Others	17	9	0	11	5	11
Municipal tax						
Lack of information	61	14	25	35	26	8
No control	22	56	50	47	47	42
Others	17	30	25	18	26	50

Source: Survey data.

a They refer to 11 cases.

To verify this hypothesis, the survey data for Ecuador⁴ were classified into three categories. The first refers to underground activities and includes all enterprises that did not comply with any legal obligation. At the other extreme, those enterprises recording complete compliance were grouped as fully legal. An intermediate grey zone was also defined between underground and legality. The regulatory requirements considered were: (1) business registration (RUC number), (2) social security and working hours and (3) payment of patent royalties and VAT.

Table 4.8 shows that the prevailing form of operation for the surveyed micro-enterprises in Ecuador is a grey zone where some but not all legal requirements are met. It also shows that to identify underground operation with informal activity is misleading, since only one-third of the enterprises operate in that condition. Registration for labour and fiscal purposes proceeds gradually, being common particularly for smaller enterprises, to start with the regulation area which is perceived as more useful. As argued before, for the larger enterprises the set of regulations becomes interlocking because of the increased complexity of the firm's relationships with organised markets. These enterprises are found within the 14 per cent registered as fully legal in the table.

Table 4.8

Country	Underground	Grey zone	Fully legal	Total
Ecuador	28	58	14	100.0
Mexico	27	55	18	100.0

Sources: Ecuador, survey data. Mexico, Tokman (1992).

The finding that informal activities fall predominantly in the grey zone supports a similar conclusion based on the case of Mexico, also included in the table. In addition, there is partial evidence which supports this conclusion. In Bolivia, for instance, 49 per cent of informal units were registered in the RUC but only 19 per cent of them actually paid their taxes. Case studies undertaken in a previous work also show that micro-enterprises are usually halfway in terms of legality, since they get a trading licence when it corresponds to a producer licence, but is more difficult to obtain; or they operate partly underground and partly in complete legality, like most backyard operations (Tokman, 1992).

V. REGULATIONS: CAUSES AND EFFECTS

Factors determining compliance

As shown in the previous section, several factors influence the degree of compliance. The sector, the type of production and the size of the micro-enterprise usually imply different needs in terms of visibility. For instance, manufacturing garments at home at clients' request is entirely different from producing and selling even the same type of good in a larger establishment for the public in general. The former activity can be performed underground, while the second needs to be visible and hence finds it more difficult to by-pass legal obligations. The size and sector of activity are also related to cost-absorption capacity. The larger the establishment, the greater will be the need for compliance, but so will the ability to pay the financial costs involved in compliance. Sectors can offer diverse returns and hence different payment capacities.

Another factor to consider is location of the micro-enterprise. If located in a larger city, generally the capital, the micro-enterprise can expect closer governmental surveillance, given the degree of governmental centralisation prevailing in Latin America. Finally, the personal characteristics of the owners of micro-enterprises (sex and education) can also determine attitudes regarding compliance.

To determine statistically the influence of each factor, we applied a logit framework to the data for Ecuador and Jamaica separately and then for the two combined⁵. The results are shown in Table 5.1.

Sector did not appear to be a significant factor in determining compliance since all the coefficients were statistically insignificant for the combined data and for each country alone. If anything, in the case of Jamaica, the analysis suggests that micro-enterprises producing furniture have a lower probability of registration (between 15 and 19 per cent), than those producing food or garments or repairing equipment. Size, on the other hand, is a significant factor. The smaller the micro-enterprise, the lower the probability of being registered. According to the combined results, a one-person establishment is 91.8 per cent less likely to register than a similar enterprise employing more than ten people; the individual country figures are 72.3 per cent for Jamaica and 41.4 per cent for Ecuador. The probability increases with size. All the coefficients in this case were statistically significant.

Location was also a significant factor when the combined data were considered, since micro-enterprises located in the main cities have a probability of registration 13.8 per cent higher than those located in secondary towns. When each country is taken by itself, the coefficient obtained is not statistically significant. The same happens with the coefficients estimated for the personal characteristics of the owner of a micro-enterprise. Neither sex nor education proved statistically significant in explaining different behaviours in relation to compliance.

In the results obtained for two African cities, with the same methodology (Joumard, Liedholm and Mead, 1992), both location and size are identified as important factors influencing compliance. Sector of operation and sex of entrepreneur played a statistically significant role in Africa but not in Latin America, and education of the entrepreneur proved insignificant in both regions.

The previous analysis shows the importance of the characteristics of micro-enterprises in explaining different degrees of compliance; in particular, visibility and capacity to pay were identified as statistically significant. In addition, it is necessary to consider whether the regulatory system is friendly or antagonistic. The former situation will encourage compliance, while the latter will promote evasion. A friendly regulatory system would have few legal requirements, permitting easy and rapid compliance, while a system characterised by multiple and often contradictory regulations, requiring mountains of paper and numerous administrative steps, will surely discourage compliance.

The perception of the government's capacity to enforce regulations can also be an important factor. The regulatory environment, including the government's capacity of enforcement, varies according to country. This was clearly shown by the logit analysis. The combined data indicate that country differences matter and that a micro-enterprise in Ecuador is 37.5 per cent more likely to register than one in Jamaica. For Africa, country differences were not found to be statistically significant (Joumard, Liedholm and Mead, 1992).

Although the coefficient estimated corroborates the importance of country differences, in our study it goes against *a priori* expectations. Jamaica has a more friendly regulatory environment than Ecuador, where regulations are many and their processing requires around 59 administrative steps⁶. In spite of this, the data show higher compliance in Ecuador. As argued in the previous section, this denotes that the benefits attached to the regulatory framework are also important in determining compliance behaviour. In the case of Ecuador, an antagonistic regulatory environment, when evaluated in terms of its complexity and cost, becomes attractive for the micro-entrepreneur, since the promotional regime ensures exemptions from tax and labour obligations, which can result in permanent larger profits. Investing time and money to comply is a rational behaviour for the micro-entrepreneur, since it increases his long-run return, while in Jamaica the lower initial cost does not necessarily lead (or is not perceived as leading) to higher profits. The question remains, however, whether even in the case of Ecuador the cost of compliance could not be reduced by better regulatory designing and easier administrative processing. This is clearly the case, since there are two laws for the promotion of artisans, which duplicate each other in many respects and account for the majority of the required administrative steps. An increase in the efficiency of the system is therefore needed and feasible, but, in comparison to Jamaica, the system can still probably be more costly (because of its higher complexity) and yet be perceived, as the data for Ecuador suggest, as more attractive for the micro-entrepreneur and hence generating a higher degree of compliance.

Table 5.1. Logit analysis of determinants of registration

	Coefficient	T-stat.	Partial derivative	Coefficient	T-stat.	Partial derivative	Coefficient	T-stat.	Partial derivative
c	2.677	3.988*		1.624	1.874		3.050	1.699	
SUBSECTOR									
Food	0.068	0.224					0.964	1.785	0.150
Equipment	0.302	0.993	0.075	0.207	0.510		1.057	2.150*	0.164
Garment				-0.372	-0.993	-0.071	1.245	1.925**	0.194
SIZE									
Own account	-3.701	-5.816*	-0.918	-2.181	-2.485*	-0.414	-4.643	-5.044*	-0.723
2-5	-2.375	-4.015*	-0.589	-1.566	-1.935**	-0.297	-1.887	-2.698*	-0.294
6-10	-1.418	-2.172*	-0.352	-1.830	-0.900	-0.157	-0.423	-0.542	
LOCATION									
In the capital	0.558	2.320*	0.138	0.469	1.575	0.089	0.150	0.346	
SEX OF ENTREPRENEUR									
Male	0.328	1.035	0.081	0.622	1.521	0.118	-0.444	-0.811	-0.069
EDUCATION OF ENTREPRENEUR									
Primary	-0.048	-0.132		0.326	0.759	0.062	-2.821	-1.702	-0.439
Secondary	-0.193	-0.536		-0.136	-0.321		-2.825	-1.704	-0.440
Higher							-2.273	-1.270	-0.354
COUNTRY									
Jamaica	-1.513	-6.098*							

Log likelihood	-235.21966	-138.96354	-105.49470
Cases with REGISTRATION = yes	239	174	80
Cases with REGISTRATION = no	206	73	190
Total number of cases	445	247	270

* significant at 98%

** significant at 95%

Perception of regulations as constraints

In the Jamaican survey questions were asked to explore the perception of micro-entrepreneurs about regulations as a constraint to start-up or to current operation of their business. The answers, presented in Tables 5.2 and 5.3, clearly suggest that although the majority of the entrepreneurs (around 70 per cent) report specific problems at start-up, legal and bureaucratic problems were perceived as not important. They are located at the bottom of the table and far behind capital and credit availability, which was the most important constraint (mentioned by 40 per cent), followed at a distance by the difficulties of finding a location and a building.

When the answers are examined by sector, the situation does not change, although in the case of food processing — where health and hygiene requirements are more important — an increase is observed in the percentage of cases which mention legal and bureaucratic problems as a constraint at start-up. Yet, even in this case, credit availability was mentioned ten times more often as a constraint than legal-bureaucratic problems.

Table 5.2. **Jamaica: Proportion of firms reporting specific problems at start-up**
(percentages)

Main problems experienced by firm	All firms	Garment manufacturing	Food processing	Furniture making	Equipment repairs
Capital/credit problem	40.7	33.9	33.3	53.8	39.4
Difficulty with location	13.3	17.9	11.1	15.4	9.1
Problem with building	9.6	3.6	5.6	9.2	19.4
Getting a high-quality product	7.5	1.8	5.6	12.3	9.1
Insufficient demand	7.1	1.8	7.4	10.8	7.6
Problems finding skilled labour	5.4	8.9	1.9	7.7	3.0
Legal/bureaucratic problem	2.5	1.8	3.7	3.1	1.5
No problem	29.5	44.6	33.3	20.0	22.7

No major difference in relation to the general situation was found when the location of the enterprise was considered (see Tables 5.4 and 5.5). Jamaican firms located outside Kingston reported a higher concern for legal and bureaucratic problems at start-up, but this was still mentioned far less frequently than other constraints. An interesting result emerges when the size of the establishment is introduced, since the importance of regulations as a problem is practically nil for enterprises smaller than ten employees, while for around 10 per cent of those which started above that limit, it constituted a problem. Credit and capital availability was still the major constraint for 36.8 per cent of establishments in that size group.

Regulations are not perceived as important constraints for the operations of the micro-enterprises. The pre-test of the questionnaire failed to find significant answers to justify the explicit inclusion of this question, although the possibility was left open for the interviewee to give this response. No importance was allocated to this factor as a constraint at present. The majority identified high input costs (raw materials, electricity and fuel) as the most important constraint, followed by insufficient demand and further down by inflation and availability of raw materials and credit. The data by sectors does not alter the general results, but the availability of raw materials is perceived more often as a constraint in food processing and furniture making; while insufficient demand and market availability constitute a greater problem for garment producers and equipment repairs. When the size of the establishment is considered, it emerges that credit and capital availability problems increase their importance for enterprises with five to ten employees and insufficient demand is basically a problem for enterprises below five employees (including own-account firms).

Table 5.4. **Jamaica: Current problems reported by firms by economic activity**

Main problems experienced by firm	Proportion of firms reporting problems				
	All firms	Garment manufacturing	Food processing	Furniture making	Equipment repairs
Capital/credit problem	26.2	32.1	14.8	36.9	19.7
Insufficient demand	39.4	48.2	31.5	35.4	42.4
Availability of raw materials	27.0	26.8	48.1	44.6	30.3
High cost of raw materials	66.0	50.0	74.1	76.9	62.1
High utility and fuel costs	51.9	46.4	53.7	49.2	57.6
Inflation	27.4	225.0	40.7	18.5	27.3

Effect of registration on micro-enterprise growth

So far the evidence reviewed in this section suggests that the size, location and, to a lesser extent, sector are important factors in explaining differences in the degree of registration. In addition, we have seen that in Jamaica the process of registration is not perceived as a major constraint for micro-business start-up and much less for current operations. Finally, we have shown that the overall country situation matters, since compliance is systematically higher in Ecuador; this can be explained by a perceived potential positive effect on long-run returns, despite a more adverse regulatory environment.

In the present sub-section, we examine the evidence to ascertain whether the growth of the micro-enterprise is associated with registration. If registration were a constraint to access to credit and markets, as it is claimed by some authors (De Soto, 1986), one would expect registered firms to perform better in terms of growth. Other factors can also be associated with micro-enterprise growth. Some of these were identified by Liedholm and Mead (cited in Joumard, Liedholm and Mead, 1992), as follows: (1) the initial size of the enterprise (increases with growth); (2) the age of the enterprise (inverse with growth); (3) the location of the enterprise (rural enterprises grow more slowly); (4) the sector in which the enterprise operates; and (5) the sex of the entrepreneur (enterprises headed by women grow more slowly).

Using standard econometric multi-regression analyses we calculated the growth function of micro-enterprises for Jamaica and Ecuador combined. The overall significance of the equations was low, as can be observed in Table 5.6, but some of the coefficients were significant and all of them have the expected signs. When the combined data are used, it can be seen that sector is significant, since garment enterprises systematically grow more than similar enterprises in other sectors. The sex of the owner is also important, as enterprises headed by women are associated with slower growth. Both coefficients are statistically significant. As hypothesised, the initial size, the age of the enterprise and the location were inversely correlated with growth, although they were not statistically significant.

The registration variable was not significant⁷. There is then no statistical evidence that registered micro-enterprises grow more than unregistered ones. Registration does not seem to affect the capacity for growth even in the case of Ecuador, where it seems to be perceived so by the entrepreneurs. This finding is preliminary, however, because the t-coefficient is close to being significant (showing a weak, but positive relation between growth and registration) and in addition, growth has been defined in terms of employment rather than of output expansion⁸.

Table 5.6. **Growth and registration. Regression analysis**
(Ecuador and Jamaica combined)

Independent variables	Estimated coefficients	Standard deviation	T-statistic
Registration	.52740	.27972	1.885
Sectors			
Equipment repairs	-.75385	.31513	2.392*
Food processing	-.81632	.33626	2.428*
Location outside capital city	.03163	.26365	.120
Employment level at starting date	-.01091	.01284	.850
Age of the enterprise	-.02071	.01212	1.708
Female owner	-.71842	.36641	1.961**
Constant	1.18328	.41431	2.856*

Dependent variable: growth

Number of observations = 207

Multi-regression coefficient:

R = 0.2741

R² = 0.0752

F = 2.3108*

* Significant at 98%.

** Significant at 95%.

Although there is no overall robust evidence to support a positive correlation between growth and registration, further research should explore whether the promotional laws are conducive to easier access to productive resources and hence to faster growth. In the case of Ecuador, the survey allows us to ascertain whether those complying with the special laws had in fact preferential access to training, advisory services and credit, provided mainly by official institutions. The results, presented in Table 5.7, clearly suggest that registration under the promotional laws in Ecuador results in easier access to productive resources. In training and advisory services, 75 per cent of the enterprises that benefited were registered; on the other hand, the percentage of registered enterprises that received training and advisory services is the same as that recorded for non-registered enterprises. A similar situation is found in relation to credit: 71.3 per cent of those enterprises which received loans were registered, and the percentage of registered firms which obtained credits is 1.7 times higher than the percentage of non-registered enterprises in the same situation.

Table 5.7. Ecuador: Promotional regimes and access to resources

	Registered	Unregistered
Training and advisory services		
As percentage of total beneficiaries	75.0	25.0
As percentage of registered or unregistered	24.0	11.4
Credit		
As percentage of total beneficiaries	71.3	28.8
As percentage of registered or unregistered	65.1	37.4
Benefits of productive support		
None	9.5	21.4
Productivity gains	31.0	28.6
Marketing	4.8	14.3
Accounting	33.3	14.3
Others	21.4	21.4

Source: Survey data.

Did greater access to training, advisory services and credit lead to higher growth? To answer this question, a simple correlation was calculated between growth and registration under promotion laws in Ecuador. The coefficient was statistically significant and positive, although its magnitude was not high (0.121). This suggests that the statistical evidence supports the hypothesis that promotion laws in Ecuador afford greater growth possibilities for the covered enterprises. It must also be noted that, as pointed out before, measuring growth by employment expansion can underestimate effective growth. This becomes evident when the evaluation made by the recipients of official support (training, credit and advisory services) is examined. Very few of them (less than 10 per cent) found no benefit from the support, while 31 per cent recorded productivity increases and 33.3 per cent indicated the introduction or improvement of accounting as positive results. Both factors are associated with output growth, but this does not necessarily imply increases in employment.

To sum up, regulations are not perceived as a constraint to starting a micro-enterprise, nor do they seem to constitute an important problem for operation. However, the operational needs of the enterprises — particularly their needs in terms of visibility, capacity to pay and the entrepreneur's perception of potential benefits to be derived from registration — encourage compliance, regardless of the degree of enforcement. Although registration and progressive compliance with other regulations and taxes seem to be normally associated to the enterprise growth cycle, there is no statistical evidence that registration results in faster growth.

The exception seems to be the case of registration under promotional regimes, as in Ecuador. The partial evidence available suggests that, although costly and cumbersome, the Ecuadoran regulatory environment affords easier access to productive factors and to growth. This, in turn, can explain the higher degree of compliance in Ecuador despite the higher cost as compared with Jamaica. Contrary to previous findings (Tokman, 1992), which based on the cost side of the regulations argued against promotional regimes, the new evidence seems to indicate that when costs and benefits are considered, these regimes may result in a net gain for the micro-entrepreneur. This, of course, refers only to private or micro analysis, since a social evaluation should also consider the subsidy involved in granting tax exemptions and in softening labour obligations.

Two additional comments can be made. The first is that illegality is a weak variable for defining informal activity. On the contrary, grey zones predominate, and this is one consequence of the form of operation (determined by size, sector, location and labour organisation). Second, as enterprises do not seem to face a choice of all or nothing in terms of compliance with regulations, policy designers should look into the causes of the behaviour of entrepreneurs, who comply with certain regulations in certain cases, but in others opt for a different kind of semi-legal status.

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NOTES

1. This paper was prepared with the statistical co-operation of Christian Herrera.
2. Two reports were produced: *El funcionamiento de las microempresas y el marco institucional en el Ecuador* and *Out of the Shadows: The Institutional Framework and Small-Scale Manufacturing Enterprise in Jamaica*.
3. One reason for the failure to find enough establishments was the high mortality rate of firms: even though the sample frame was only two years old, 37 per cent of the 475 firms canvassed no longer existed.
4. Jamaica was not included because the Jamaican survey did not report on tax compliance.
5. We followed the methodology applied to Africa by Joumard, Liedholm and Mead (1992).
6. The largest number of administrative steps of any country in Latin America (Tokman, 1992).
7. This was also the case when the equations were estimated for each country separately.
8. The surveys did not ask about output growth. The same problem is present in the Africa study (Joumard, Liedholm and Mead, 1992).