

# EDITORIAL

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For an Africa undergoing rapid urbanisation, sustained long-term growth necessarily involves the development of the industrial sector - development that has eluded the continent up to now. In fact, the economic crisis of recent years has even led certain observers to assert that Africa today suffers from a veritable phenomenon of deindustrialisation. Past failures bear witness to the existence of structural constraints in the development of African enterprises. This issue of Dialogue is devoted to two themes that are often advanced in debates over these obstacles. The first concerns the difficulties encountered by a number of small enterprises in growing beyond a certain size and the apparent scarcity of medium-sized industrial firms in developing countries. The second theme is finance and the difficulties many African enterprises encounter in obtaining credit from the banking sector in order to grow, even in cases where these banks find themselves with excess liquidity.

The following two articles present the results of work carried out at DIAL in the context of research for doctoral dissertations. These dissertations have been brilliantly brought to fruition: both Anne Joseph and Sarah Marniesse were awarded their doctorates in economics at the University of Paris-I in early 1998 ; in addition, both dissertations were awarded the highest honour by their respective examining committees – a tradition among doctoral candidates at DIAL.

Finally, we are pleased to inform our readers that DIAL's institutional sponsors renewed the mandate of the Scientific Interest Group (Groupement d'Interet Scientifique, GIS) as of the beginning of this year. On this occasion the INSEE (the French National Institute for Statistics and Economic Studies) -which had heretofore only been an invited member of the GIS's Steering Committee- became a full-fledged member of the Group. We are honoured by this mark of confidence.

<b>THE DYNAMICS OF MICROENTERPRISES IN THE THIRD WORLD</b>	<b>p. 2</b>
<b>THE RATIONING OF CREDIT IN DEVELOPING COUNTRIES</b>	<b>p. 5</b>

## THE DYNAMICS OF MICROENTERPRISES IN THE THIRD WORLD

### ***I. The dynamics of microenterprises and employment creation***

For the past twenty years, the economies of many developing countries in Africa and Latin America have been characterised, to varying degrees, by an increase in urban unemployment and poverty. Since the early 1980s these countries in crisis have witnessed a 10% to 20% decline in salaried employment in the modern sector. At the same time, the absorptive capacity of the agricultural sector proved to be limited, while the supply of labour continued to grow at a rapid pace. In this context, the socio-economic importance of the informal sector increased. Microenterprises, which were long ignored, found themselves in the forefront owing to their ability to create employment ; as a result, they have become the subjects of numerous studies.

Institutionally speaking, this new vogue has been manifest in the implementation of numerous support programmes for the creation or development of microenterprises (e.g., microcredit, training, support structures). The potential for employment creation by microenterprises remains poorly understood, however. Studies on the subject are relatively recent and the theoretical arguments insufficiently developed. The empirical data is fragmentary and rarely allows for dynamic analyses.

This article summarises research<sup>1</sup> on the dynamics of microenterprises in different developing regions (North, West, and Southern Africa; and Latin America).

<sup>1</sup> Sarah Marniesse, *Dynamique des microentreprises dans les pays en développement: approche descriptive et analytique sur échantillons constants* (Thèse de doctorat, Université de Paris-I, 1998)

The first aim of this research is to measure the capacity for survival and growth of microenterprises. Secondly, it tries to isolate factors that may promote the survival of small units of production and employment creation. Thirdly, and more generally, the research brings new and relevant empirical data to the theoretical debate and suggests ways in which more appropriate economic policies may be drawn up in order to promote these microenterprises.

### ***II. Theoretical approach of firm dynamics***

In economic theory, the demand for an additional unit of labour is directly dependent on the relationship between its marginal productivity and marginal cost. Technological analyses "à la Marshall" develop the idea that growth of firms is explained by realised economies of scale. The trend thus leads to the configuration "one market, one firm". The subsequent analysis of organisation costs developed by Coase (1937), however, advanced the hypothesis of diseconomies of scale in the management costs of firms. This leads to the assumption that firms have an optimal size. Increase in size and technical improvements initially boost factor productivity up to a point beyond which marginal productivity becomes inferior to marginal cost. This dynamic of firms naturally depends on external conditions of activity. This issue is dealt with in industrial economics, which relates performances of firms to their environment (socio-economic characteristics, or of supply and demand). Finally, the evolutionary theory tries to describe the trajectories of firms based on an ensemble of these factors: technological and organisational constraints, operating conditions of different markets, but also characteristics of the entrepreneur, upon

which the capacity of the firm to adapt to its environment depends.

Models of firm dynamics are situated in these different theoretical frameworks. Gibrat's Law, which was the first attempt at a model, hypothesised that the different factors prone to influencing the growth of a firm are so numerous and have such varied effects that, in the end, the resulting trajectory is random. The rate of growth (of employment) is thus dependent neither on the size nor on the age of firms. Later models attempted to go beyond this "anti-model," which, it may be said, was contradicted by several empirical analyses. Singh and Whittington (1975) take as their point of departure the concept of optimal size, with the assumption that the more a firm approaches this size, the lower its growth rate will be; this results in an inverse relationship between the rate of growth, on the one hand, and the age and size of firms, on the other. For his part, Jovanovic (1982, 1989) advances the concept of "managerial capacities" that are characteristic of each firm, (which may be interpreted in terms of human capital of the entrepreneur and enterprise). These capacities, which are not perceptible at the beginning, are discovered in the course of the firm's activity and according to whether or not its results correspond to initial hopes. Certain firms (the least capable) disappear and others develop with a growth rate that diminishes with age, as well as with size when age is constant.

### ***III. The particular case of microenterprises in developing countries***

Fafchamps (1994) has proposed a theoretical framework that is consistent with observations carried out in developing countries and has shown the weak incentives

to growth by microenterprises. On the one hand, the operating conditions of microenterprises are such that they reduce production costs (e.g., non-wage labour, regulations

1998) ? What relationship can be observed between the rate of growth, size, and age of microenterprises in developing countries ? Do thresholds that are difficult to

(Guadeloupe), and the World Bank-CERDI (Abidjan). This type of analysis, based on constant samples (or analysed at different points in time), has not been widely used

### Methodology

1 - The survey. There are two major types of surveys that enable one to study the dynamics of microenterprises: retrospective studies at a specific point in time, involving the personal account of the entrepreneur in order to reconstitute the history of the enterprise, and longitudinal studies at different points in time, which take a sample of enterprises and follow their evolution over time. Though the second method has drawbacks (in particular, it is impossible to know what becomes of microenterprises which fall by the wayside), it is considerably more reliable in measuring the dynamic of microenterprises that are kept track of, because it is based on "observed" data and not on that which is "reconstituted" by the entrepreneur, who often does not have any bookkeeping.

### 2 - Data analysis

- The study of the disappearance of firms has used two types of models. A probit model, to explain the capacity for survival, and a time model to explain the age of the enterprise when it disappeared.

- The study of factors explaining the growth of firms used to be more complex, as it first had to rectify two types of bias: a bias of attrition due to the non-random disappearance of firms from the sample, and a bias of selection, due to the non-random refusal of firms to participate in the survey. The Heckman method (1976) was used. Probit models explaining the capacity to hire additional personnel or equations explaining the rate of growth or employment creation were later tested.

avoided), often by considerable amounts, which assures their survival alongside larger firms. On the other hand, one consequence of the increase in the size of the enterprise is a loss of flexibility -vis-à-vis fluctuations in demand, for example-, whereas the access of medium-sized firms to the instruments of management (such as banks credit) is often difficult.

Economies of scale will thus not be found in small-scale markets, dual or highly segmented. "Niches" enable microenterprises to operate efficiently at a small scale. According to this analysis, microenterprises, which draw a comparative advantage from their small size, therefore hardly have an interest in developing beyond a certain threshold ; this would explain the "missing middle" in the industrial sector of developing countries.

These theoretical considerations lead to pertinent questions for empirical studies: are microenterprises experiencing sustained growth in employment creation, as is implied in work done on Anglophone Africa (Lieholm and Mead

cross exist (which would confirm the possibility of a "missing middle," if one adds the hypothesis of a weak rate of creation of small and medium-sized enterprises) ? Finally, what factors specific to microenterprises in developing countries explain their propensity to survive and develop ?

### IV. Consecutive surveys to measure the dynamics of firms

These questions can only be investigated by studies specifically dedicated to the analysis of the dynamics of enterprises within diverse settings. To do this, field surveys have been carried out, using previous surveys as the point of departure; these have allowed for the gathering of dynamic data on several samples of microenterprises.

The survey was thus like a second trip, as it were, to microenterprises that had already been surveyed by the OECD (Tunis and Quito), UNDP-INSAE (Cotonou), Madio (Antananarivo), INSEE

to study the demography of firms and, until now, has not been used at all to apprehend the dynamics of microenterprises. This method offers the advantage of "bringing the samples alive" in looking at what became of microenterprises that had been surveyed several years earlier. The method is not based on retrospective responses, which are quite often approximate in the case of microentrepreneurs. The samples surveyed are representative of several developmental settings. Excluding Guadeloupe, per capita GDP varies from \$300 (Madagascar) to more than \$1800 (Ecuador). The survey was confined to studying microenterprises in the capital cities. The enterprises belong to traditional sectors (textiles, woodworking, mechanical repair, and food preparation). For comparative purposes, a sample of micro- and small enterprises has nonetheless been introduced in Madagascar.

### V. Results

A first observation stems from the heterogeneity of a segment of the microenterprises. Wide dis-

parities exist in the degree of informality, human or physical capital, the pro

portion of wage earners in the workforce, or the capacity to survive and develop.

Beyond this diversity, a first series of results may be noted concerning the survival of microenterprises :

- The rate of disappearance of the microenterprises surveyed is of the order of 10% per year. This varies, in particular, according to the immediate environment (e.g., rehabilitation of surrounding neighbourhoods, increase in rents). Microenterprises tend to mainly disappear at two periods in their life cycle, around five years and thirteen years: moments which may correspond, respectively, to a process of natural selection and to a crisis of growth.
- The smallest microenterprises are not the first to be eliminated in a process of "natural selection," despite what one may expect based on certain theories.
- The educational level of the microentrepreneur is positively correlated with the probability of survival of the microenterprise when the former does not have alternative professional options. On the other hand, a significant level of disappearance may be observed in the more industrialised countries, where the microenterprise is run by a young, highly educated entrepreneur who opts for formal salaried employment.

In regard to the growth of microenterprises, some notable results also emerge from the analysis:

- Ascendant mobility within enterprises of different categories, according to size, is higher than what may be expected from analyses that emphasise the weak incentives of microenterprises to grow. The hiring of additional workers was observed, over a three to four year period of study, in a third of the cases in Tunis and Quito, two-thirds in Cotonou, and three-quarters in Antananarivo. Employment creation by microenterprises arises not only from the creation of new enterprises (espe-

cially self-employment) but also from hiring by existing firms.

- A scenario of convergence toward an optimal size nonetheless emerges from the analysis. It seems very difficult for microenterprises to cross the threshold of ten employees, above all in situations where most of the labour force earns regular wages or where payroll taxes are obligatory. When the optimal size is surpassed, a return to this size is often observed following an unanticipated fall in demand. The existence of an optimal level of fixed costs in uncertain conditions seems to explain this result. Without being able to conclude that there is indeed a "missing middle" (for this, a study would have to be conducted on the entire industrial sector), it may, however, be observed that it is the capital-intensive microenterprises, or those proposing "modern" products (e.g., services to enterprises), which have the easiest time changing size. Microenterprises in the traditional sector can only develop; it seems, by changing their nature.
- Several factors have explained the trajectory of microenterprises :
  - Gibrat's Law is invalidated by the results obtained: the convergence that appears, which goes hand-in-hand with the growth of the wage-earning workforce, shows that the higher the rate of growth, the smaller is the enterprise.
  - If life cycles have been shown, they are above all cycles of skill acquisition and of the microentrepreneur's working life (slow development at the beginning, then rapid, then slower once again as retirement approaches, if the microentrepreneur is entitled to retirement benefits), and not cycles specific to the enterprise itself.
  - The regulatory framework is only an important obstacle for the development of microenterprises when it requires the regular payment of taxes at times when demand is volatile, or if taxes sharply increase labour costs while productivity remains low.

- Technology used at the outset, which is measured by the choice of sector of activity and capital invested, is a determining factor in the trajectory of microenterprises. It may be noted, in effect, that the growth of employment is particularly pronounced if the microenterprise is involved in certain sectors of activity and operates with highly productive capital. The microenterprise may thus offer competitive goods and respond to a wider demand.

## VI. Conclusion

These results confirm the capacities of microenterprises to survive and develop, and thus their potential for creating employment, thanks to a mode of operation enabling them to adapt to situations often characterised by risk. Their structure of flexible costs (e.g., few wage-earning employees, general avoidance of regulations) allows microenterprises to offer low priced products while minimising the risk of bankruptcy.

Growth may be envisaged if it takes place with market expansion, which guarantees competitiveness. This growth is favoured by factors such as the human capital of the entrepreneur and flexibility of management, as well as by external factors such as the dynamics of demand.

But growth is necessarily accompanied by a loss of flexibility (the larger the number of non-wage-earning labourers, the more difficult it is to supervise them; and the enterprise becomes more visible, making it harder to avoid regulations). Therefore, beyond a certain threshold microenterprises become less efficient and thus stagnate or change their nature in order to regain competitiveness.

In certain cases the enterprises are able to abandon their traditional mode of operation, thanks to a change in positioning or in technology. Most of the time this can only occur when the enterprise reorients itself toward more profitable markets (exports, services for enterprises, etc.).

## THE RATIONING OF CREDIT IN DEVELOPING COUNTRIES

The financial crisis that has afflicted numerous African countries has received less attention from the media than that recently experienced by South-east Asia. The consequences of this crisis for African economies are no less drastic, however. In particular, one immediate consequence is that banks often voluntarily limit their involvement in the financing of the economy. Though the reticence of the banks might be explained, at the moment the crisis breaks out, by a lack of liquidity, there are other reasons for their reluctance. This phenomenon persists in numerous African countries, notably Francophone, even though the banking system there finds itself with excess liquidity. The explanation thus lies elsewhere. The study of how banking systems operate in two African countries, Cameroon and Madagascar, may allow for a better understanding of the behaviour of banks on the continent<sup>2</sup>.

### ***I. The banking sector in Cameroon and Madagascar***

Madagascar has progressively opened up its economy since 1987. The principal measures adopted to revive growth concern investment incentives, along with the creation of preferential regimes and the establishment of an interbank market for hard currency. The balance sheet for this liberalisation policy has not been as positive as had been hoped, due mainly to the country's political instability and the hesitation of successive governments to implement agreed measures. Owing to this movement toward economic liberalisation, the Malagasy banking system has effected its own reforms and should continue in this direction. It is, at the present time, characterised by a distinct duality. Public banks, which are in the process of being privatised, are experiencing important liquidity problems, while private banks apparently have an excess of liquidity. In this situation, the rather complex objective of monetary policy is to use the available surplus of banks possessing

excess liquidity without, however, penalising the others.

Cameroon, which was a model of growth until 1985, has subsequently descended into an economic crisis. Though this may have been offset by the collapse in the terms of trade and depreciation of the dollar, it also brought to light the fact that the Cameroonian model did not rest on a solid foundation. Neither the adjustment policies implemented from 1987 on, nor the devaluation of the CFA franc in 1994 enabled the country to recover its past economic dynamism. The economic crisis of 1986-87 began as a financial crisis; this had been transformed into a veritable loss of confidence by depositors, who became aware of the insolvability of banks. In order to avoid a collapse of the banking system, various reforms were led to fruition in the late 1980s: most banks were restructured and a surveillance organism was set up. Furthermore, monetary policy was totally modified. Whereas the previous objective had been to direct investment toward sectors designated by the Central Bank, the new policy sought to mobilise national savings, which was regarded as an indispensable precondition for investment. These reforms have, unfortunately, not yielded the hoped-for results. The Debt Collection Corporation (*Société pour le Recouvrement des Créances*), which was created to insure the repayment of bad debts, seems ineffective and several banks have failed since the first wave of restructuring. Moreover, there have been delays in the establishment of the Central African Stock Exchange (BVMAC) and the Central African Economic and Monetary Community (CEMAC).

Whatever the differences in their respective situations, the banks of each of these countries are little involved in investment finance. At the level of bank assets, the same observation may be made: economic credit is diminishing, bad debts are high, and those commitments made are essentially short-term. This observation leads one to ask if the extent of banking reforms, in both Cameroon and Madagascar, are sufficient in order for banks to involve themselves in the financing of the economy.

### ***II. Credit rationing in Cameroon and Madagascar***

Analyses confirm the link between the financial difficulties encountered by industry and the weak involvement by the banking sector in Cameroon and Madagascar. In Cameroon, the industrial survey for the 1990-91 fiscal year shows that 70% of enterprises with more than twenty employees, and which needed credit to finance their investments, had a hard time obtaining it. Some 27% of them cited the cost of credit as the reason for this difficulty, whereas 43% mentioned hesitation by banks to lend them money. For the 1994 fiscal year in Madagascar, 64% of industrial enterprises with over twenty employees had the same problems obtaining credit: 26% cited the cost of credit as the principal cause, 27% mentioned the behaviour of banks, and 11% referred to other reasons.

Cameroonian bankers cited two groups of reasons in order to justify their lack of commitment to financing economic activity, in particular small and medium-sized enterprises of local origin.

In the first place, the supply capacity of the banking system is inferior to the level of resources collected due to the amount of bad debt<sup>3</sup>.

In addition, banks cannot reallocate all the liquidity collected as, on the one hand, they must respect prudential ratios and, on the other hand, the Central Bank only assents to refinance highly credit-worthy clients. On its own, this factor cannot, however, explain everything since, even if it is taken into account, the commitments made by the banks are often inferior to their supply capacity.

The second series of reasons advanced by Cameroonian bankers is larger in scope, also being applicable elsewhere in the Franc Zone, to Madagascar, and to numerous other developing countries. Cameroonian banks refuse to lend because they lack information to evaluate the risk involved, or because they consider the projects too risky. The risk envisaged is default on the part of

<sup>2</sup> Anne Joseph, *Le rationnement du crédit dans les pays en développement : Le cas du Cameroun et de Madagascar* (Thèse de doctorat, Université de Paris-I, 1998).

<sup>3</sup> In 1995, bad debts represented an average of 32% of the amount of bank portfolios. The situation in 1997 worsened, as this proportion rose to 36%.

the borrower. This risk is examined as the realisation of one of two eventualities. The first, an "unfavourable situation", concerns the possibility that the project being financed does not yield the expected results. The second consists of uncooperative behaviour by the borrower.

The unfavourable situation encompasses three categories of risk: the technical risk specific to the project, poor anticipation of demand, and the occurrence of a purely random event. In general, it is considered that the borrower knows the technical risks the project runs but does not disclose all the information to the bank. The latter is, on the other hand, in a better position to correctly forecast the demand given the experience it has already acquired with other clients. As for random risk, its very nature is such that neither the borrower nor the bank can predict it. Uncooperative behaviour by the borrower may in turn have two distinct causes. In the first place, it is not certain that he will make the necessary effort to bring his project - once financed- to fruition (moral hazard *ex ante*). Furthermore, it is not sure that he will reimburse the bank even if his revenues are sufficient (moral hazard *ex post*).

Because they lack information to evaluate these different risks, or because they deem them too high, banks decide not to lend -in other words, they ration credit<sup>4</sup>.

Furthermore, even if the project seems feasible the banks may hesitate to commit themselves, as, in the event of default by the enterprise, they will be unable to collect on their debt. In Camer-

oon and Madagascar (and in many African countries) banks indeed have no means to enforce their credit contract. Recourse to contracting third parties -the judicial system- is ineffective. An analysis of the procedures at the disposal of creditors for debt collection, in the event an enterprise ceases repayment, bears out the reasons for the former's malfunctioning. In Cameroon, for example, the law is antiquated (going back to the nineteenth century) and unadapted to the current situation; moreover, the different parties, and the liquidators in particular, get around it. This evasion leads, in effect, to a pillaging of the enterprises' assets, which prevents their recovery and diminishes their value in the event of resale.

### **III. Could the rationing of credit be eased up ?**

The Cameroonian and Malgasy situations are hardly exceptional and are symptomatic of problems encountered by African enterprises in search of financing. The situation should, however, evolve in a positive manner in the coming years. One may indeed hope that the reform of the accounting plan for the Franc Zone countries will allow for an improvement in the information available to the banks. This reform has been progressively implemented within the framework of the Organisation for the Harmonisation of Business Law in the UEMOA states (OHADA)<sup>5</sup>.

In reducing the risk associated with the lack of information, OHADA should thereby encourage banks to lend to African enterprises. Furthermore, the reform of collection procedures, especially those of collective procedures within OHADA, should enable banks to collect on their debts in the event of default by the borrower. Finally, the OHADA will lead to the introduction of warning procedures, the training of specialised magistrates - thanks to the School for Magistrates-, and the establishment of a Common Court of Justice and Arbitration. With these measures, the banks should be able

to reduce losses engendered by the eventual default of the borrower.

In other respects, several ideas may be offered to help think about measures that could induce financial systems into better responding to requests for credit by enterprises. Though these ideas may be based on an analysis of the Cameroonian and Malagasy situations, they might also concern the majority of African countries.

In the first place, it seems desirable that African banks should give greater importance to their relations with their clientele. Only this type of relationship can enable banks to have regular access to the information they need in order to make decisions on loans. Secondly, there exists an important potential in Africa for the development of alternative sources of financing for bank credit. For example, risk capital and leasing companies, which have emerged with success in other developing regions, could play a greater role in Africa. Thirdly, the losses to banks in the event of bad loans should be reduced, in order to encourage their involvement in financing economic activities. In numerous countries, the creation of compensation funds has been a response to this problem. African experiences in this domain have, nonetheless, rarely met with success. It would thus seem necessary to identify the reasons for their failure before attempting new experiences.

Measures that are currently being implemented, along with those proposed here, should allow for at least a partial improvement in the situation and facilitate the financing of African enterprises. The same holds true for the restructuring of banking systems currently underway in a number of countries in the region. It is nonetheless important to keep in mind the limitations of these various actions. The confidence of banks -that of the whole of the financial system- essentially depends on the proper functioning of procedures and institutions. Only this can lead banking systems into committing themselves to financing enterprises and the economy as a whole. In this respect, it is illusory to hope that African financial systems will play a full role before the rule of law is established in the different countries of the region.

<sup>4</sup> In the case under consideration, enterprises seen as presenting too high a risk have different characteristics from those to whom credit is granted. The term rationing is used here in a different sense than in the economic literature, where it covers three different notions :

- The first case of rationing (pure rationing) is where prospective borrowers who are turned down possess the same characteristics as those who obtain credit. In this case, and contrary to neo-classical markets, the clearing of the market (adjustment between supply and demand) is reached through quantity, not through price adjustment. (Banks indeed fear that setting interest rates too high will negatively affect the risk of default by the borrower).

- The second case involves borrowers who obtain credit for an amount inferior to that requested, due to the positive relationship between the amount borrowed and difficulties in repayment.

- The third designates the situation of risky borrowers who cannot obtain credit at the prevailing interest rate because the bank would like to impose a surcharge on them due to their high risk status.

<sup>5</sup> The treaty creating the OHADA was signed on 17 October 1993. The OHADA is comprised of four institutions: the Council of Ministers, the Common Court of Justice and Arbitration, the Permanent Secretariat, and the Regional School for Magistrates. OHADA deals with the following domains: corporate law, commercial law, transportation law, retail law, bankruptcy law, arbitration law, accounting law, law of securities and of measures of execution, labour law, and all other matters the Council of Ministers decides to include.