

## EDITORIAL

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This issue of DIALOGUE is primarily devoted to the presentation of the main results of a study of poverty in West Africa. A more complete summary of the study may be found on our Web site: [www.dial.prd.fr](http://www.dial.prd.fr). This study was co-ordinated by Dial for the World Bank, and was financed by French and Dutch trust funds with this organisation. The following institutions took part in the exercise: Afristat (Bamako), Institut National des Statistiques de Côte d'Ivoire (Abidjan), Ecole Nationale Supérieure de Statistique et d'Economie Appliquée (Abidjan), and the Direction de la Prévision et de la Statistique (Dakar).

The study demonstrates the strong increase in urban poverty recorded in Côte d'Ivoire, Mali and Senegal since the 1980s, whatever the chosen indicator. Furthermore, it identifies several factors correlated with poverty in the three countries (all else being equal), whether positively (such as household size), or negatively (level of education). According to the surveys analysed, the renewal of growth following CFA franc devaluation has had a limited impact on the evolution of urban poverty. In addition, the study allows a more precise appreciation of the quality of surveys in the target countries, and can serve as a basis for recommendations that may be applied to surveys in other African countries with a view to establishing a coherent and reliable framework for monitoring the evolution of poverty. Such efforts would appear indispensable to the success of anti-poverty strategies currently being promoted by the donor community.

This is followed by a review of eight theses presented by post-graduate researchers at DIAL during 2000 and the first semester of 2001. This high number bears witness to DIAL's active policy of welcoming young researchers. The diversity of the chosen research topics is a reflection of our research programme, with subjects ranging from the links between inequality and development, and between trade liberalisation and factor remuneration, to employment, education, fiscal policy and agriculture.

Twenty-six readers replied to the questionnaire included in our previous issue. Although this was a relatively small response, the answers nevertheless provided us with precious information about your appreciation of our publication. Most readers scan DIALOGUE from cover to cover and consider it to be of the right length. They find it either satisfactory or very satisfactory in terms of quality. Nearly all respondents expect the publication to inform them of what is happening at DIAL, as well as dealing with topics in development economics. The majority would prefer to see several condensed subjects (rather than one detailed theme), particularly concerning progress in research into our discipline. In response, DIALOGUE will henceforth include summaries of conference presentations, field missions and research work being undertaken by DIAL's researchers and statisticians.

Our research team was further strengthened in the first six months of this year with the arrival of two researchers from the IRD (Flore Gubert and Anne-Sophie Robilliard), an additional statistician from INSEE (Michel Kagan) and a research technician from IRD (Loïc Le Pezenec). Javier Herrera's posting to Peru, within the ambit of the CIPRE research unit, allowed the take-off of a research project looking into labour market mobility in that country.

## Urban poverty dynamics in West Africa over a long period

Many surveys have been carried out in the last twenty years in sub-Saharan Africa, designed to measure certain aspects of poverty. However, apart from a few countries, little effort has been made to analyse the results systematically in order to assess the evolution of poverty and the distribution of income and consumption, or to compare the situations in the different countries in this respect. The following presents the main results of a comparative study aimed at measuring and analysing urban poverty dynamics in West Africa (Côte d'Ivoire, Mali and Senegal) since the 1980s, using data obtained from household surveys.

### Poverty: a multi-dimensional phenomenon

In compliance with the most recent methods (cf. the World Bank's "World Development Report 2000"), the study adopts three approaches to poverty measurement. Firstly, income poverty is assessed on the basis of household consumption figures as declared in the surveys. Secondly, deficiencies in the quality of life measure poverty in terms of living conditions, particularly with respect to housing and access to public services. Finally, a third type of poverty concerns lack of education and nutritional resources.

Income poverty in towns in Côte d'Ivoire, Mali and Senegal, defined using thresholds of \$1 or \$2 per person per day (measured in 1985 prices, with purchasing power parity conversions), was particularly widespread at the end of the 1990s. Around 1995, over a third of the population of the three countries' capitals had less than \$2 per day to live on. The incidence of extreme poverty (less than \$1) was especially high in Bamako, where 22% of the population was affected. The situation was even worse in secondary towns. Also, income poverty is becoming increasingly urban, firstly due to the mechanical effect of urbanisation, and secondly because of the reduction in income differentials between urban and rural areas. In Abidjan, where the average consumption per capita was twice as high as the national average in 1985 (measured by the national accounts), it was only 50% higher in 1995. In parallel, the secondary towns attained the national average in 1995.

In Mali, the ratio of average consumption in Bamako compared to the national average fell from 3 to 2.2 between 1989 and 1996.

A large number of urban households are also excluded from decent housing conditions and equipment. In Côte d'Ivoire and Senegal, over a third of urban households have no electricity, the figure rising to 80% in Bamako.

In Senegal, nearly half of urban households do not have direct access to water, like two-thirds of urban households in Côte d'Ivoire and three-quarters in Bamako. In all cases, less than 20% of households have flush toilets. This is one of the factors contributing to the particularly high infant mortality rates.

The living conditions of urban households in the Côte d'Ivoire also partially deteriorated during the same period (1985-93), albeit more slowly than living standards studied from an income-based approach. This was also the case for secondary towns in Senegal, from 1992 to 1997. On the other hand, connections to water and electricity supplies improved in Dakar from 1992 to 1997, in Bamako from 1989 to 1996, and since 1993 in all towns in Côte d'Ivoire. A parallel can be drawn between this recent progress and efforts made in terms of public investments. However, such progress only concerns a limited share of the poor in income terms<sup>1</sup>, albeit that the correlation between the two forms of poverty is far from perfect.

The level of education of urban populations is still very low. Over a third of the adult population in Abidjan and nearly half that in Bamako have never been to school. In 1996, 38% of the population of Dakar were illiterate. In the three capitals, a third of the children between the ages of 6 and 15 do not go to school.

In Abidjan, the percentage of children in full-time education increased significantly and regularly over fifteen years, as 70% of children from 6 to 15 went to school in 1998, compared with only half in 1985. However, this trend is not confirmed in the secondary towns in Côte d'Ivoire, with rates of schooling remaining practically unchanged between 1985 and 1998. Due to a shortage of public investments in this period, there was an increasing gap between the capital and the rest of the country, in terms of the quantity and quality of school infrastructures, and falling incomes also encouraged a certain number of households to shorten their children's schooling.

The nutritional situation of children under 5 deteriorated everywhere until 1995. For example, the incidence of insufficient weight (weight for age) tripled in Abidjan between 1985 and 1993, doubled in the secondary towns, and also doubled in Bamako between 1987 and 1995. It can be assumed that this indicator reacts more rapidly to decreases in income than those of schooling or housing conditions.

<sup>1</sup> For instance, in 1998 nearly 60% of urban households in Côte d'Ivoire, outside the capital and identified as poor in monetary terms, also suffered poor living conditions. In Abidjan, the rate stood at less than 50%.

### **The urban poor: large families lacking human capital**

In line with the usual approach in terms of poverty profiles, applying econometric estimates to survey data helped establish correlations between the risk of poverty and a certain number of socio-demographic variables: household size; age, gender and level of education of the head of the household.

The three capitals studied have very different demographic structures. The largest families are to be found in Dakar and Bamako, in part due to polygamy, whereas families tend to be smaller in Abidjan as there are fewer cases of polygamy and more nuclear families. In Dakar and Bamako, households have an average of about 8 members, including 5 children, whereas the average is only 6 members and around 3 children in Abidjan.

Given that extended families can benefit from economies of scale and that children's needs are not as great as those of adults, comparisons of poverty based on per capita consumption and poverty lines of \$1 or \$2 per day are likely to overestimate the situation in Bamako and Dakar, compared with Abidjan. A robust method of sequential dominance was applied, eliminating the arbitrary nature of calculating equivalent units of consumption and fixing single poverty lines. This method makes it possible to state unambiguously that the population of Abidjan is the richest of the three towns studied, followed by Dakar and then Bamako.

In the three countries, it appears that the large urban families, and amongst them those with the largest number of children or elderly people, have lower per capita consumption rates and are therefore more exposed to the risk of poverty.

For example, poor households in Dakar have at least 2 more people than non-poor households. Over 60% of poor individuals belong to households with 10 or more people in Abidjan. In Côte d'Ivoire, econometric analyses demonstrate that the number of children is negatively related to households' per capita consumption levels.

However, the effect is degressive with the increase in the number of children and is less marked for older children. The number of adults is also inversely related to households' per capita consumption. It should be noted that the impact of an additional adult is more ambiguous than that of a child: on the one hand, an extra adult increases the household's potential earning capacity, but on the other, it increases its needs. Another phenomenon typical of the African family environment is the fact that relatively rich households often welcome members of less well-off neighbouring families, bringing down the living standards of the receiving household. At the other

extreme, single parent families have lower average living standards than nuclear or extended families.

Apart from household size, the level of education of the members of working age, particularly the head of the household and his/her spouse, proves in all cases to be a factor that protects against poverty. This protection is offered from primary schooling upwards, whatever the type of employment (formal or informal, managerial or unskilled work). For example, average per capita consumption rates are from 19.7% to 31.2% higher for urban households in Côte d'Ivoire whose head was educated to primary level than in households where the head has no schooling. Secondary or higher education has an even greater impact, with an increase in per capita consumption ranging from 56.6% to 80.2%.

The age of heads of household is not always a simple explanatory factor for living standards. Its impact in Côte d'Ivoire is to a great extent due to the fact that it has become far more difficult for younger generations to enter the job market. In Bamako, with a given family composition and education, heads of household aged under 30 appear to be more exposed to poverty than their elders. In Dakar, to the contrary, with a given family composition, education and type of employment, heads of household aged under 35 are no more exposed to poverty than heads of household of 35 to 55 years old; however, older households appear to be better protected.

Poverty is not systematically related to women: the gender impact of the head of household varies depending on the geographical zone and the periods studied.

### **Does growth reduce poverty?**

There is a close relationship between the rise in urban poverty during this period and the mediocre macro-economic performances recorded from the 1980s until the mid 1990s. Nevertheless, the recovery of economic growth and the rise in GDP per capita observed in all three countries after devaluation of the CFA franc in 1994 had only a limited impact on poverty as measured by the surveys.

In the period from 1985 to 1994, all three countries suffered a major decrease in GDP per capita. This trend is confirmed by the drop in levels of per capita consumption calculated using the surveys, although analysis of the findings reveals many inconsistencies between them, demonstrating the limits of time-related analysis of evolutions in living standards based on surveys of varying quality and using different methodologies. As seen above, this period of recession left a heavy burden in terms of income poverty.

Financial constraints and adjustment programmes brought drastic reductions in investment budgets

that also touched the other forms of poverty (housing conditions, schooling, health). From 1994 onwards, the devaluation of the CFA franc, acceleration of structural reforms, international aid contributions and favourable price trends for the countries' main exports all contributed to a return to growth in GDP per capita. Nonetheless, current trends, particularly in Côte d'Ivoire, show that this growth remains fragile in more than one respect. Also, the impact of the improved economic situation on urban households' living conditions is far from clear.

This is partly due to the quality of the surveys and also to the choice of the period covered by the surveys, as not enough time has passed since the change in economic situation. However, even though a slight downward inflexion can be observed in the poverty rate in all cases as of 1994, its magnitude is insufficient to make the incidence of poverty fall significantly below the rates observed before devaluation.

Hence, the robust sequential dominance analysis reveals that income poverty increased between 1993 and 1998 in urban areas of Côte d'Ivoire, and particularly in Abidjan. However, there appears to have been progress in living conditions during the period from 1993-1998, even though this improvement only meant a return to levels observed in the mid 1980s. As of 1993, the strong recovery in investments appears to have contributed to a tangible improvement in the households' living conditions. For the other two countries, the period for which analyses are available ends in 1996, meaning that it is difficult to assess the impact of the economic recovery.

Both before and after the economic recovery of 1995-1998, all categories of urban households in Côte d'Ivoire were affected in practically the same way by income fluctuations. Econometric analysis shows that the main determinants of per capita consumption (size and composition of household, education of head and spouse, type of employment of head), have stable effects on this consumption over time, and therefore on the risk of income poverty<sup>2</sup>.

This phenomenon is confirmed by the relative stability of inequalities in per capita consumption over time, i.e. the lack of dominance in the Lorenz curves for the different years. Inequalities hardly changed at all in Abidjan and in the other towns in Côte d'Ivoire between 1980 and 1998, with the Gini index remaining at around 0.38. Similarly, in

Dakar, the Gini index was at the same rate in 1991 and 1996, approximately 0.40.

A closer analysis of the evolution of the distribution of consumption in Côte d'Ivoire for the period from 1985 to 1998 shows that the decline in living standards affected middle class and poorer households alike. The impact of the economic recovery observed as of 1995 is more differentiated in Abidjan than in the provincial towns: between 1995 and 1998, living standards in the capital improved for the classes in the highest quartile of consumption, i.e. the richest people, whereas the situation of the poorest only improved very slightly; on the other hand, the recovery changed nothing in terms of the distribution of income for households living in secondary urban centres.

### **Report on the International Seminar on Poverty in Madagascar**

**Antananarivo, February 2001**

An international seminar on the theme "Poverty in Madagascar: Current situation, explanatory factors and policies for reduction" was held in Antananarivo from 5 to 7 February 2001. The event was organised by DIAL/CIPRE (research unit of IRD) in Paris, the MADIO project based at the National Institute of Statistics in Madagascar, and RESAL, the European Union food security network, in partnership with the Technical Unit for Poverty Reduction Strategy attached to the Madagascan government.

Poverty reduction strategies are now at the core of international institutions' approaches to public aid for development. However, this new focus leads to two major problems in the field. First, there is still a lack of knowledge concerning poverty, particularly in the region where it is the most acute, sub-Saharan Africa. Second, the players who should be defining and implementing the policies on a national level are ill-prepared for this exercise.

In this context, the international seminar organised in the capital of Madagascar was aimed at examining the current state of knowledge on the subject, at making this information available to the different players involved in drawing up and monitoring policies, and thereby making a precious contribution to the debate on strategies to be implemented in the future. For the most part, the papers dealt with the case of Madagascar, but a certain number of contributions on other countries or regions helped put Madagascar's specific case into perspective.

By bringing together national and international researchers, actors in development, representatives from civil society, the public sector and the donor organisations, the seminar was a valuable forum for discussion and exchange. The debates gave rise to operational recommendations to be included in the final version of the Poverty Reduction Strategy Paper (PRSP). The seminar was in fact a very good example of the participatory process involved in drafting PRSPs. At a time when a large number of countries are engaged in similar processes, it can serve as an example at an international level.

Comprehensive documents on the seminar can be found on the DIAL web site <http://www.dial.prd.fr/>

<sup>2</sup> In technical terms, the estimated coefficients of these variables are not statistically different from one year of the survey to another. Only the constant of the econometric equations presents a downward trend.

### Abstracts of theses presented in 2000-2001

**Arlène Alpha: Forestry and economic policy: the case of Côte d'Ivoire**

University Paris I Panthéon-Sorbonne

Directed by J-M Boussard. January 2000

This thesis analyses the role of economic policies regarding forestry and agriculture and their impact on the mechanisms of tropical deforestation linked to the conversion of forests to agriculture. It highlights the complexity of the deforestation process, which appears historically to be designed and at the heart of the practices of the various actors in forestry, particularly the State and small farm workers. Standard economic literature, which sees deforestation as the result of deficiencies in markets and economic policies, is compared with a historical analysis of deforestation in Côte d'Ivoire, at macro and micro-economic levels. The country's experience in public policies on forestry helps draw interesting conclusions. Numerous empirical studies on plantation agriculture, together with field observations in three forest regions (East, Centre-West and South-West), help understand the behaviour of small farmers. The case study in Côte d'Ivoire reveals that economic incentives from the market and public policies constantly interfere with other more political, sociological and agro-economic determinants. Forestry management policies, which exclude rural populations from appropriating and exploiting the forests, change these people's relations to the forest to at least the same extent as agricultural development policies. Our recommendations for forestry management favour a new role for the public sector. Economic instruments such as secured property rights and property tax are considered in a system in which access to forests is regulated in a number of different ways. Agricultural policies that encourage access to production factors other than the forest can also contribute towards forest management.

**Anne-Sophie Robilliard: Three tools for studying a poor agricultural economy; microeconometrics, computable general equilibrium model and microsimulations applied to Madagascar.**

University Paris I Panthéon-Sorbonne

Directed by K. Schubert. February 2000

The main aim of this thesis is to gain a better understanding of a poor agricultural economy by applying a certain number of tools to real data. The analysis of rice production systems using data obtained in surveys from rural observatories, within the framework of the MADIO project,

highlights the key importance of taking into account behaviour on both the supply and the demand side in order to understand the behaviour of Malagasy farming households. The use of a computable general equilibrium model shows that the structure of these models makes it difficult to introduce the results of microeconomic theory to the behaviour of farming households, particularly the interdependence of production and consumption behaviour, due to the use of the concept of "representative agent".

This last point was one of the main reasons for developing a general equilibrium microsimulation model applied to Madagascar. This microsimulation model presents two innovative features: first, the modelling of behaviour in the allocation of working hours at a microeconomic level; second, accounting for certain general equilibrium effects through the endogenous establishment of prices and factors. The results of simulations confirm that the approach contributes to analysing the impact of different growth shocks on inequalities and poverty. Breaking down the ex ante/ex post results showed that general equilibrium mechanisms can have a major redistributive effect, whereas the comparison of two poverty indicators – one built on the hypothesis of fixed variance of the distribution of intra-group income, the other calculated using the results of the model – and the breaking down of changes in an indicator of income inequalities, shows that these hypotheses can bias the results of analyses of the impact of positive or negative growth shocks.

**Florence Arestoff: The relative efficiency of public and private education. A microeconomic application to the case of Madagascar.**

University Paris X Nanterre

Directed by P. Hugon. June 2000

The crisis suffered by Madagascar since the 1980s has led to drastic cuts in public spending on education. With the deterioration of the main education indicators, the middle classes and sometimes the poorer classes are turning to private education. This thesis analyses whether Malagasy households' choice of sending their children to private schools was justified by the latter being more efficient. The econometric analyses first demonstrate the importance of the social milieu in the choice of school establishment. Once this selection bias is corrected, it was observed that students going to private schools obtained better

results than those in public schools. At the same time, the economic crisis is responsible for the relative increase in the length of unemployment on leaving school for former pupils in public education. However, if the labour market is assumed to be competitive, no distinction can be made in salaries paid to former pupils of public or private schools. This is no longer the case if a segmented labour market hypothesis is adopted taking into account the formal and informal sectors.

In the informal sector, contrary to the above results, public education guarantees a higher income than private education. As professional experience is gained over the years, the difference in efficiency between public and private education becomes either inexistent, or tends to favour public education. This argument, together with external factors that education gives birth to in the society, justifies the need for State intervention in educational services. The thesis offers a model of the impact of public and private education on growth, highlighting the weight of government policies. The model shows that if parents are not very well educated, there is a risk that private education will lead the economy into a poverty trap, as human capital is reduced from generation to generation. On the contrary, in a public education system, the State could fix a sufficiently high tax rate to ensure good quality schooling and maintain the economy on a positive growth path.

**Diane Coury: From school to first employment: the weight of education and social background over a period of time in Antananarivo.**

Institut d'Etudes Politiques, Paris

Directed by F. Roubaud. November 2000

This thesis examines the conditions of access to a first job for young people from Antananarivo over a period of time. Madagascar has been in an involutive development process since the early 1970s, which has resulted in a significant deterioration of the economic environment and adversely affected the quality of available jobs. Young people entering the job market since the beginning of the 1980s have suffered harsher conditions than their elders. At present, they hold more unskilled, worse paid jobs, thus limiting the possibilities of enhancing the value of their diplomas in the short term. In this crisis context, the family acts as a safety net in protecting children from downward mobility. Students are now in the position where education is essential to guard against failure, but insufficient to improve their future economic situation. It is becoming increasingly important to belong to a good family,

rather than to have a high level of education. Since the early 1980s, there is evidence that social capital is being substituted for human capital. The labour market is no longer entirely a meritocracy: social origins have an influence, whether it be in the allocation of workers to different sectors or jobs, or in the levels of remuneration.

These findings give rise to two major problems. The first concerns the inefficiency of this sort of system, given that individuals are not necessarily put in the places where they would be the most productive. This mechanism is further intensified due to the segmented nature of the labour market. The second problem comes from society's tendency to "reproduce" itself and hence to reproduce social inequalities at the same time. The élite manage to maintain their positions in society and the poor remain in a state of critical misery. This closed society may be a factor that contributes to the blocking of economic development in Madagascar.

**Yvan Decreux: Trade liberalisation and factor remuneration. The case of Tunisia.**

University Paris I Panthéon-Sorbonne

Directed by C. Morrisson. January 2001

Over the past few years, Tunisia has undertaken to gradually lift certain tariff barriers that restricted its trade with the European Union. This thesis analyses the impact this decision should have on the remunerations of factors. The greater part of the analysis consists in a comparison of wages for different levels of qualifications. Having observed that reducing customs tariffs and bringing an end to autarchy are two fundamentally different measures, it begins by proposing an extension of Jones' model (1965) to demonstrate that the impact in terms of factor remuneration nonetheless pulls in the same direction. It then goes on to build applied general equilibrium models based on data gathered in Tunisia prior to the trade opening. To begin with, the hypothesis of perfect competition between national companies is adopted. The proposed models are given in two static versions corresponding to the short and long term and in a dynamic recursive version. The study highlights the importance of the elasticity of substitution between production factors. Having observed that qualified work and capital are generally considered highly complementary, and that in the case of Tunisia trade liberalisation is an incentive for investment, the study posits that this should mainly favour qualified labour. The impact of liberalisation is most felt in the short term and then gradually decreases over time. The case of a monopolistic framework with free entry of new or former competitors is next analysed. The

introduction of imperfect competition changes the results of the model significantly in terms of production, but has little effect on the remuneration of factors. The analysis of trade liberalisation in Tunisia shows the special relevance of applied modelling. A theoretical model, based on the observation that unskilled labour is more widespread in Tunisia than with its European partners, would come to the conclusion that opening would favour this kind of work, whereas the different models applied here come to the opposite conclusion.

**Denis Cogneau: Inequalities and development – Four econometric studies**

Ecole des Hautes Etudes en Sciences Sociales  
Directed by F. Bourguignon. March 2001

This thesis addresses different aspects of the relationship between economic development and the sharing out of resources. It proposes four econometric studies. The first examines the relationship between income inequalities and growth, on a country-based macroeconomic scale. It particularly focuses on the impact of choices of specification, method of estimation and the selection of samples, and concludes that there is no robust causality leading from income inequality to growth in product per capita.

The second study builds a new semi-parametric estimator of the effect of parental income on children's schooling. In the case of Madagascar, if we take into account the fact that the processes of income formation and decisions on schooling are simultaneous, this effect must be significantly revised upwards. The third study presents an analysis of the position of the urban informal sector in the dynamics of the economy of Cameroon. Original survey data, a theoretical partial equilibrium study and an applied general equilibrium model lead to the conclusion that production and employment in the informal sector are contra-cyclical, whereas real per capita income is not very sensitive to the economic situation. The fourth study presents a micro-macro model applied to the labour market in a developing town, and its application in the case of the capital of Madagascar, Antananarivo. This model recognises the great heterogeneity of remunerations, preferences and employment opportunities for individuals, even within closely defined categories. The econometric estimates confirm the dual structure of the labour market, and favour rejection of the idea that minimum wage legislation is the main cause of rationing of modern employment. Historical simulations of the model are also used to

isolate the main shocks that affected the urban economy between 1995 and 1999.

**Sophie Dedise: Household monetary savings in developing countries. The case of Peru.**

University Paris I Panthéon-Sorbonne  
Directed by C. Morrisson. May 2001

This thesis analyses, for urban households in Peru, the determinants and the interaction of three smoothing mechanisms for consumption: formal savings, informal savings (loans granted by the households) and private inter-household transfers. A special focus is put on the level of the different sources of risk, particularly risks regarding income. The first finding is that formal savings are a self-insurance mechanism, whereas informal savings and inter-household transfers are informal mechanisms of collective insurance that help make up for the inadequacies of the official credit and insurance markets. An econometric analysis shows that bank savings are the privilege of the richest households. On the contrary, informal savings, that are not only an investment but also a collective insurance mechanism, concern a far wider section of the population from the rich down to those whose living standards are close to the poverty level. For inter-household transfers, once the variable expressing cash constraints is made endogenous to the model, private transfers seem particularly to concern constrained households. It was also observed that certain categories of people find it harder than others to "smooth out" consumption. The determinants are not only economic but also socio-demographic: married households and extended households are in a better position to guarantee their members against various risks than single parent households with a female head and above all than cohabitant households, often comprised of poor immigrants working in the informal sector.

In terms of public policy, the study shows that interventions targeted on certain members of the community alone could be counter-productive as they break the informal risk-sharing agreement based on a group. It would seem preferable to use strategies aimed at groups rather than individuals.

**Jean-François Gautier: Fiscal reform and tax evasion; an optimal tax for "unicorns".**

University Paris IX Dauphine  
Directed by M. Raffinot. June 2001

The debt crisis, followed by market liberalisation, has forced developing countries to reform their tax systems. However, the development of tax systems based on domestic markets is confronted with high levels of evasion. This thesis examines the

following problem: How can internal tax revenues be optimised whilst taking into account the interactions with the habits of evasion? After a summary of the theory on the subject, the thesis develops a "theoretical-empirical" analysis of the interaction between tax reform and evasion. Surveys on companies in Madagascar show that there is substantial tax evasion. An econometric analysis also determines the impact of tax on the probability of a company being formal or informal. Finally, the study describes how fraud increases the distortions arising from tax. Hence, it would appear necessary to reduce tax evasion, particularly by taxing the informal sector. However, this raises not only technical problems but also ones of fairness. As the real income of the micro-enterprises is unknown, tax would be based on potential revenues. Although this type of tax has advantages in theory (incentive to high productivity, redistributive effect), its introduction is limited by the difficulty in estimating a production function. Two optimal tax models are developed and applied to an economy with two sectors, formal and informal. Intuitive rules for optimal tax systems can be obtained by solving these models. The empirical application of these models, either using data from a household consumption survey for the partial equilibrium or using a computable general equilibrium model, serves to estimate an "optimal" tax system for Madagascar. The tax rates for informal sector goods and services are generally low. Taxing the informal sector is therefore extremely anti-redistributive. Finally, the overall results highlight several advantages of VAT: it offers a fairly simple way of taxing informal production via intermediary consumption; it then offers an advantage to formal enterprises which are able to deduct this tax; finally, it is an incentive for informal units to register.

**Call for contributions for the international seminar: "Corruption and Development: Current situation, explanatory factors and policies for reduction"**

**Antananarivo, December 2001**

The Ministry of Justice for Madagascar, the DIAL/IRD research group, the local section of Transparency International, in partnership with other Malagasy institutions from civil society, are co-organising an international seminar on the theme of corruption. The two-day event will take place **in Antananarivo in the first fortnight of December 2001** (the exact date will be announced before this summer). The seminar is designed to bring together people who wish to make a contribution to our reflections on the subject of corruption (academics, researchers, administrations, donors, field players, projects, NGOs and civil society).

The seminar aims to cover a wide range of work done on the issue of corruption, from academic studies (economic, sociological or anthropological) on the situation and corruption dynamics in Madagascar (present state and explanatory factors), to operational approaches to the fight against corruption (past actions, assessment, prospects), and also covering contributions made by different players from civil society who are concerned by the issue or who work in this field. The seminar will present 4 types of contributions: general studies (research), institutional strategies (Madagascan authorities, donor organisations), project assessment and opinions of organisations from civil society.

*Any persons or institutions that would like to present a contribution to the seminar are kindly invited to contact the organisers by sending their proposals to the seminar organisation committee at the following addresses (clearly marked: "Organisation Committee, Seminar on Corruption").*

For residents of Madagascar:

- André ROGER, Ministère de la Justice,  
Antananarivo 101, Madagascar;  
Tel : 22-624-65;  
Email : [minjust.roger@simicro.mg](mailto:minjust.roger@simicro.mg)

For non-residents of Madagascar:

- DIAL, 4 rue d'Enghien, 75010, Paris, France  
Tel : 01-53-24-14-50 ; Fax : 01-53-24-14-51 ;  
Email : [dial@dial.prd.fr](mailto:dial@dial.prd.fr)

Closing date for proposals: **30 June 2001**.

Closing date for final contributions (maximum 15 pages): **15 September 2001**

Communications must be written in French.

### Missions and conference interventions, first semester 2001

**Rémi Bardon** carried out a mission to Gaborone from 15 to 30 January, at the Botswana Statistics Office (CSO).

**Jean-Pierre Cling** took part in a seminar organised by the World Bank and the European Policy Centre on "Trade and Poverty" in Brussels on 6 March. He was rapporteur at the OECD World Forum on "The social, environmental and competition dimensions of trade policies" in Paris on 8-9 March. He also took part in a mission with **François Roubaud** to the World Bank in Washington and to the UNDP in New York from 9 to 12 April.

**Denis Cogneau** carried out a mission at the African Development Bank in Abidjan, on behalf of the OECD's Development Centre, as part of the "African Development Outlook Report" project (European Union / OECD / AfDB) from 22 to 26 April. He was invited to present his work at the Department of Econometrics at the University of Geneva on 3 and 4 May.

**Duncan James** carried out a mission to Cotonou, from 18 February to 3 March, designed to assist the LARES (*Laboratoire d'Analyse et d'Expertise Sociale*) in preparing a report on the competitiveness of Benin with regard to its neighbours.

**Michael Grimm** presented an article at the UNU/WIDER Development Conference on Growth and Poverty in Helsinki on 25-26 May, at the Applied Micro-Economics Meeting in Nancy on 7-8 June and at the Annual Conference of the European Society for Population Economics in Athens on 14-16 June. On 6 June he presented a paper to the German Council of Economic Analysis in Wiesbaden.

**Flore Gubert** presented an article at the CSAE seminar on Development Economics on 27 February in Oxford, and the GEMDEV-C3ED seminar on Sustainable Development in Paris on 8 June.

**Charlotte Guénard** took part in a training programme organised by IFRA in Nairobi from 19 May to 8 June, on the subject of the analysis of biographical surveys.

**Michel Kagan** went to Bamako with **François Roubaud** and **Constance Torelli** from 9 to 16 June for the launch of the 1-2-3 surveys programme (Employment, informal sector, consumption and poverty), to be carried out, in partnership with AFRISTAT, in seven UEMOA countries.

**Gaëlle Letilly** took part in the world conference on Free Zones, held on 6 and 7 June in London.

**Mohamed Ali Marouani** carried out a mission to Bamako from 10 to 19 April and took part in two workshops in London from 20 to 22 February and 26 and 27 April as part of the evaluation process for drafting PRSPs, coordinated by ODI. He also took part in a workshop in Cairo from 5 to 9 April on the Sources of Growth, organised by the World Bank's Economic Research Forum.

**Laure Pasquier** presented a communication at the meeting of the International Sociological Association, "Expanding Markets, Welfare State Retrenchment and their Impact on Social Stratification", from 26 to 28 April in Mannheim.

**Mireille Razafindrakoto** took part in the meeting in New York on 4 and 5 June launching the UNDP's forthcoming Human Development Report to which DIAL is to contribute. With **François Roubaud**, she also presented a communication at the CREST/INSEE seminar on "Social Stratification" on 17 May, and a communication at the 4<sup>th</sup> Scientific Meeting of the Demographics Network of the *Agence Universitaire de la Francophonie* (network of French-speaking universities) at Louvain-la-Neuve, from 29 May to 1 June.

**Anne-Sophie Robillard** presented a communication at the seminar organised by the DESG and the University of Nottingham from 5 to 8 April, at IFPRI and the World Bank in Washington in early May and at the Asian Development Forum organised by the World Bank in Bangkok, from 12 to 15 June, during a work session entitled "Vulnerability and Poverty". She also went to Djakarta for discussions with research groups and the Indonesian authorities.

Apart from the activities mentioned above, **François Roubaud** co-organised a conference with **Mireille Razafindrakoto**, "Poverty in Madagascar: Current situation, explanatory factors and policies for reduction" from 7 to 9 February (see report below), with participations from **Jean-Pierre Cling**, **Denis Cogneau**, **Charlotte Guénard**, **Javier Herrera** and **Constance Torelli**. He also presented his book on Madagascar to the public in Antananarivo on 10 February. He took part in a training programme for African executives on "Agricultural statistics in Africa", organised by CEFIL / INSEE in Libourne on 19 June. He also carried out a technical support mission for the MADIO II project in Madagascar from 27 June to 12 July.

### Working documents published, first semester 2001

*"Presentation of the demo-economic model developed by the Club du Sahel to analyse the development of local economies in West Africa. Hypotheses and initial analyses"*, Sandrine Mesplé-Somps, DT2001/01.

A presentation of the model for West African economies developed by Jean-Marie Cour of the Club du Sahel.

*"Optimal taxation and tax reforms in developing countries: A review of tropicalized literature"*, Jean-François Gautier, DT2001/02

A review of literature on the main concepts of optimal taxation, mainly focussed on indirect taxation that accounts for approximately 70% of tax revenues in developing countries.

*"Electoral democracy and institutional inertia in Madagascar"*, François Roubaud, DT 2001/03.

This study takes stock of ten year's experience of democracy in Madagascar, applying the concepts and instruments used in quantitative electoral sociology.

*"Land reform and electoral demagogy in Zimbabwe"*, Jean-Pierre Cling, DT2001/04.

This study examines the stakes and consequences of the different land reform policies carried out in Zimbabwe since its independence.

*"Household surveys and political elections in developing countries: the example of Madagascar"*, François Roubaud, DT2001/05.

This contribution presents the objectives, methodology and some of the results of original socio-political surveys carried out in Madagascar.

*"Statistics in aid of the MADIO project in Madagascar"*, Mireille Razafindrakoto and François Roubaud, DT2001/06.

A presentation of the MADIO project in Madagascar. Its original way of combining statistics, economic analysis and publication of results had a significant impact on the public debate.

*"The many facets of poverty in a developing country: the case of the capital of Madagascar"*, Mireille Razafindrakoto and François Roubaud, DT2001/07.

This study compares different approaches to poverty. The comparison was possible due to the rich database available for the Madagascan capital, and sheds a new light on the nature and scale of poverty there.

*"Obligated to stay young? Evolution of job insertion in three African capitals, Dakar, Yaoundé and Antananarivo"*, Mireille Razafindrakoto, François Roubaud and Philippe Antoine, DT2001/08.

Victims of the prolonged crisis rife in their countries, young people in three African capitals are obliged to postpone their entry into adult life.

*"Poverty dynamics in Peru, 1997-1999"*, Javier Herrera, DT2001/09.

This paper uses a wide range of tools to analyse the evolution of poverty in Peru, for a period during which the Peruvian economy was badly hit by the international financial crisis.

*"Poverty and recession in African and Malagasy metropolises: analytical elements "*, Mireille Razafindrakoto and François Roubaud, DT2001/10.

This analysis of several African capitals confirms the marked progression of poverty and the seriousness and complexity of the phenomenon, as no category of the population is free of it.

*"Labour market dynamics in the Antananarivo agglomeration from 1995 to 1999: Are households reaping the benefit of macro-economic growth?"*, Mireille Razafindrakoto and François Roubaud, DT2001/11.

This analysis of the labour market and household living conditions confirms the economy's favourable trend for the inhabitants of Antananarivo. The ending of the informalisation process, the dynamism of the formal private sector and, above all, the substantial gains in the households' purchasing power, are all most encouraging signs.

*"Macro-economic adjustment, socio-demographic change and evolution in income distribution in Côte d'Ivoire. Analysis by microsimulation"*, Michael Grimm, DT2001/12.

This article proposes a micro-economic analysis of the evolution of inequalities in Côte d'Ivoire in the 1990s, in a view to identifying the simultaneous impact of four types of phenomenon on income distribution: changes in 1) rates of remuneration for observed and 2) non observed determinants of income, 3) patterns in job supply and 4) in the population's socio-demographic structure.

Director of publication: Jean-Pierre Cling  
 Editor: Laure Pasquier  
 Layout: Coryne Ajavon