



The informal economy in developing countries: measurement issues and economic challenges

François Roubaud (IRD-DIAL)

*UNU-WIDER Seminar
Helsinki, 25 September 2019*



Motivations

Employment is the main source of income of (poor) people in developing countries, labour is their main asset

- **Better understand the labour market** (Characteristics of jobs, insertion into the labour market according to individual characteristics, working conditions, etc.)

A focus on the informal sector and informal employment

- **Position and role of the informal sector/employment in the economy?**

Numerous research questions in debate:

- Working in the informal economy: choice (exit) or constraint (exclusion) ?
- Subsistence or dynamic economy ?
- Integrated or marginal sector into the economy ?
- Structural change: Informality corresponds to a transition between the traditional to the modern economy or is it here to stay?

- **Share and determinants of informal employment?**

Research options

➤ **NSOs (+ Research Institutes): institutionalization, sustainability**

➤ **5 Pillars to bridge knowledge gaps**

- Research in statistics (methodological issues)
- Research in economics (and social sciences)
- Policies
- Democratic debate (information)
- Training

➤ **Tools**

- Quantitative (surveys, modeling): major
- Qualitative (individual, collaboration): minor

3

Concepts, Measures & Data

Many different definitions used by researchers (popular economy, underground economy, unregistered, unobserved, informal, illegal economy, in the open sun, moonlighting, etc.) -> **Generalized confusion**

Heterogeneity of the informal economy and variety of factors for being informal

→ **Three main approaches (components):**

- **Dualist:** subsistence economy; insufficient demand for employment of the modern sector; should disappear with development (ILO, 1972).

- **Structuralist:** subordinate economy; sub-contracting by multinationals; cost reduction with globalization (Castells et al., 1989).

- **Legalist (liberal):** micro-entrepreneurs trying to escape public regulations and choosing to work in the informal sector (De Soto, 1986).

4

Concepts, Measures & Data

International recommendations (statistics): ILO 1993, 2003 & 2013 ; OECD 2002 ; UNSD, SNA 1993 & 2008)

Three components of non-observed economy (OECD, 2003)

Informal economy : partially/totally by-passing public regulations; its activities are not necessarily carried out with the deliberate intention of avoiding payment of taxes or social security contributions. [direct approach: surveys]

Underground economy: intentionally by-passing public regulations (under-declaration) by registered (big) firms [indirect approach: audits, demand of money...]

Illegal economy: illegal production (goods or services: drugs, etc.) [indirect approach: technical coefficients]

5

Concepts, Measures & Data

Three different components of the Non Observed Economy

	Informal sector	Underground economy	Illegal economy
Example	Own-employment	Black-market	Drugs
Size of enterprises	Micro	Large	?
Attitude towards the State	(by-passing) Unvoluntarily	(by-passing) Voluntarily	(by-passing) Voluntarily
Measurement	Direct surveys	Indirect approach (demand of money, fiscal audits)	Indirect approach (technical coefficient)
National accounts integration	Household sub-sector	Branch/sector estimations	Products re-estimation

Source: Based on Roubaud (1994)

6

Concepts, Measures & Data

Definition of the informal economy (ILO, 1993 & 2003)

Informal sector: *all private unincorporated enterprises that produce at least some of their goods and services for sale or barter, are not registered (no business licence) and are engaged in non-agricultural activities (or without written accounts, etc.)*

Informal employment: *employment with no protection (social insurance; written contract, wage slip, etc.)*

Informal economy = informal sector + informal employment

7

Concepts, Measures & Data

Conceptual Framework: Informal Employment

Production units by type	Jobs by status in employment								
	Own-account workers		Employers		Contributing family workers	Employees		Members of producers' cooperatives	
	Informal	Formal	Informal	Formal	Informal	Informal	Formal	Informal	Formal
Formal sector enterprises					1	2			
Informal sector enterprises ^(a)	3		4		5	6	7	8	
Households ^(b)	9					10			

(a) As defined by the Fifteenth International Conference of Labour Statisticians (excluding households employing paid domestic workers).

(b) Households producing goods exclusively for their own final use and households employing paid domestic workers.

Note: Cells shaded in dark grey refer to jobs, which, by definition, do not exist in the type of production unit in question. Cells shaded in light grey refer to formal jobs. Un-shaded cells represent the various types of informal jobs.

Informal employment: Cells 1 to 6 and 8 to 10.

Employment in the informal sector: Cells 3 to 8.

Informal employment outside the informal sector: Cells 1, 2, 9 and 10.

Concepts, Measures & Data

The challenge of measuring the informal economy → *ad hoc* survey

Mixed (household/enterprise) surveys (1-2 surveys; ILO, 2013; 1st Mexico: EPSI, 1988; ENEI, 1990; ENAMIN, 1992-to date)

Extension: 1-2-3 surveys (already conducted in more than 30 developing countries):

3 nested surveys

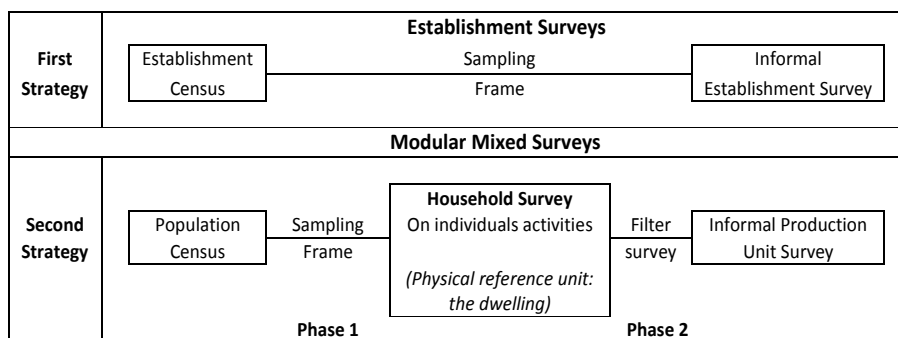
Monitoring:

- labour markets
- informal sector (informal firms); supply side
- private consumption/expenditure (formal/informal); demand side

9

The mixed (household/enterprise) approach (1-2 surveys) versus the “classical” approach

Two alternative sampling strategies for measuring the informal sector



Source: Roubaud and Sérurier (1991).

Note: If the sampling frames (censuses of population or establishments) are unavailable or not up to date, the two methods may be applied from primary units selected from an area-sampling frame.

10

Comparison of the two methods: the case of Vietnam (1)

Comparison between the LFS-HB&IS and the AHBS, National Level, 2007 & 2009

		2007			2009		
		LFS-HB&IS	AHBS	Coverage/ bias	LFS, HB&IS	AHBS	Coverage/ bias
No. of HBs	IHB	8,284,038	-	-	8,411,680	-	-
	FHB	1,861,123	-	-	1,877,401	-	-
	Total HB	10,145,161	3,748,138	36.9%	10,289,081	3,986,071	38.7%
No. of Jobs	IHB	12,302,844	-	-	13,143,789	-	-
	FHB	3,712,533	-	-	3,935,964	-	-
	Total HB	16,015,377	6,593,867	41.2%	17,079,753	7,161,007	41.9%
Turnover (Total)	IHB	729,608	-	-	1,157,836	-	-
	FHB	780,857	-	-	738,775	-	-
Billion VND	Total HB	1,611,628	672,087	41.7%	1,919,888	949,013	49.4%

Source: Cling et al. (2010).

Note: IHB: Informal Household Businesses; FHB: Formal Household Businesses.

- A massive underestimation (+ selection bias)

11

Comparison of the two methods: the case of Vietnam (2)

Value Added: National Accounts vs LFS-HB&IS, 2009

2009	GSO			Coverage	LFS		
	HB	IHB	FHB		IHB	FHB	Coverage
Accommodation	40,612	34,076	25,092	68.6%	22,925	13,684	110.9%
Construction	38,853	44,418	2,533	82.8%	58,810	2,091	63.8%
Manufacturing	49,107	61,108	19,566	60.9%	45,790	25,284	69.1%
Other service	7,334	11,690	6,259	40.9%	11,092	4,040	48.5%
Transportation, communication	18,316	22,430	13,966	50.3%	20,761	12,753	54.7%
Wholesale retail trade	74,805	142,736	101,624	30.6%	71,300	50,740	61.3%
Other branches	10,513	15,390	1,570	62.0%	14,572	4,864	54.1%
Real estate	46,683	3,932	2,181	763%	2,992	1,250	110.8%
Total	286,223	335,781	172,792	56.3%	248,242	114,705	78.9%
Total (without Real Estate)	239,540	331,849	170,611	47.7%	245,250	113,455	66.8%

Source: Cling et al. (2010).

Note: IHB: Informal Household Businesses; FHB: Formal Household Businesses.

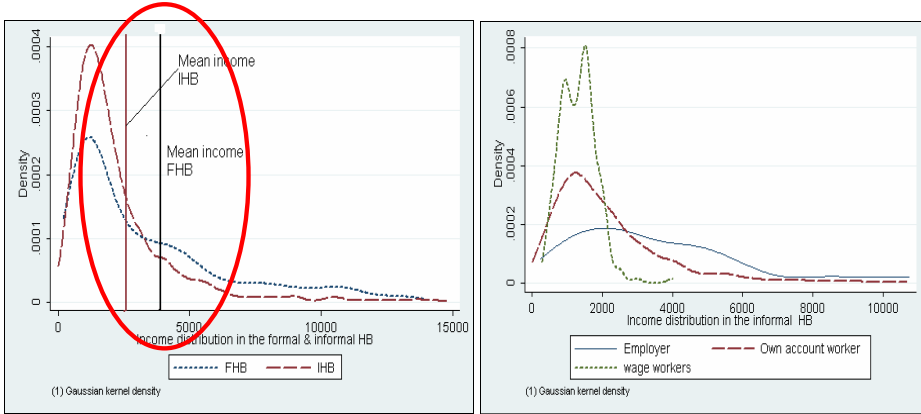
- A massive underestimation (GDP)

12

Does it make a difference?

Formal Household Businesses vs Informal Household Businesses (Vietnam, 2007)

Figure 1: Income distribution in the informal sector

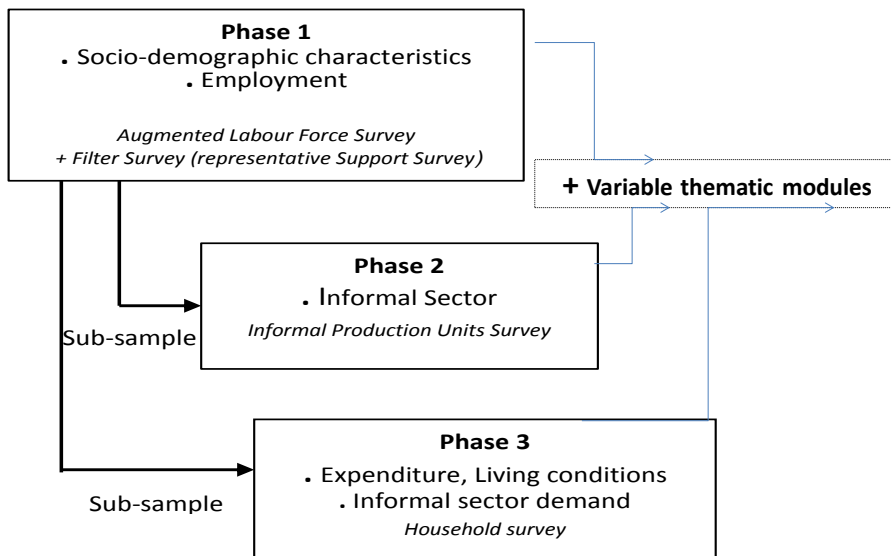


Source: HB&IS survey, Hanoi (2007), GSO-ISS / IRD-DIAL.

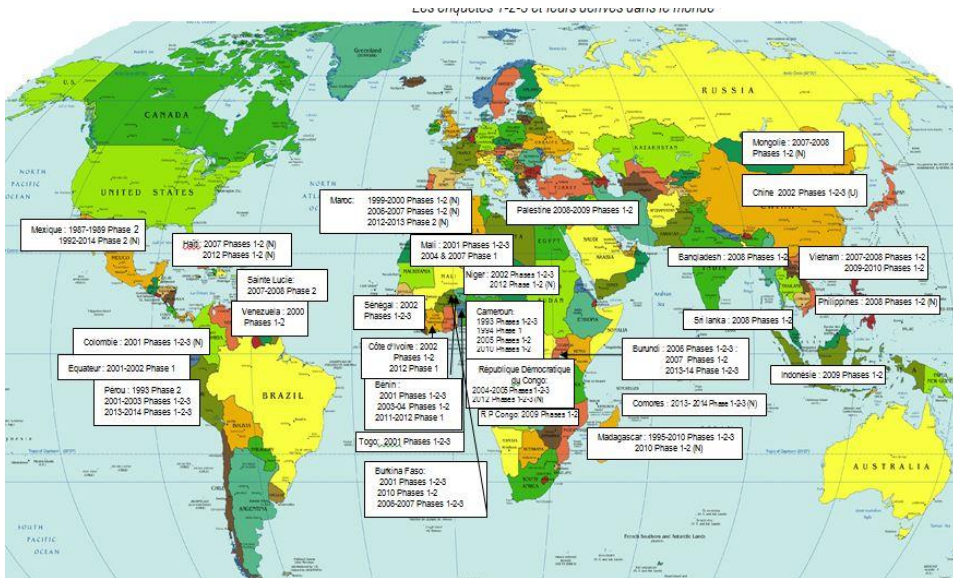
□ *Estimators of Means: an overestimation bias*

13

An augmented Mixed survey: the 1-2-3 Survey generic Scheme



1-2-3 Surveys and derivatives around the world (1987-2015)



15

Recent books on the labour market and the informal economy





Some research projects based on 1-2-3 surveys

Labour Market and informal economy in Sub-Saharan Africa (Roubaud et al., IRD-AFRISTAT, 2006-2010)

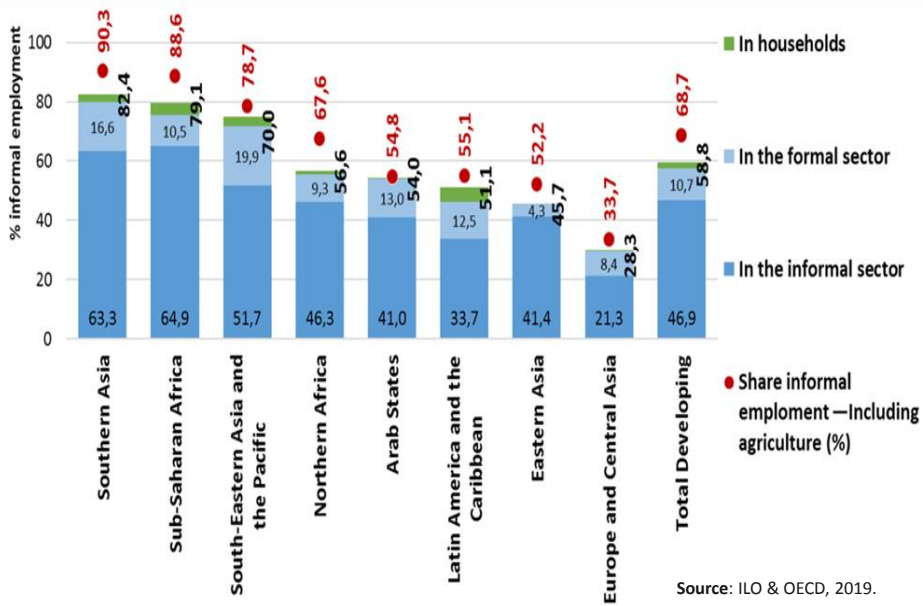
Unlocking potential: Tackling economic, institutional and social constraints of informal entrepreneurship in Sub-Saharan Africa (Grimm et al., World Bank, 2009-2012)

Informal sector in Vietnam (IRD-DIAL, 2007-2011)

Nopoor project (IRD-DIAL, EU, 2012-2017)

Informality and Vulnerability (OECD-ILO, 2016-2018)

Informal Employment by Component in the World (circa 2015)



Phase 1 Augmented LFS (Labour market) Selected examples

South Africa in perspective: informal sector jobs vs unemployment

Figure 3.5 Percentage share of self-employment in total employment in various sub-Saharan African countries, 2010-2015

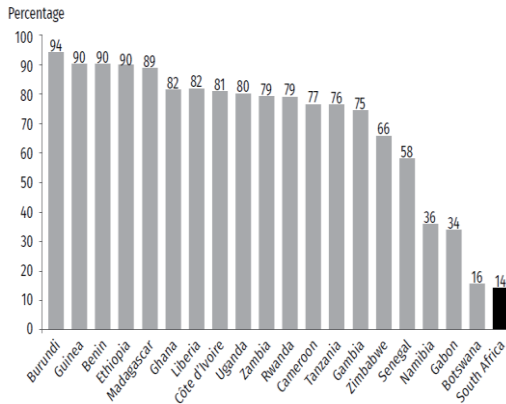
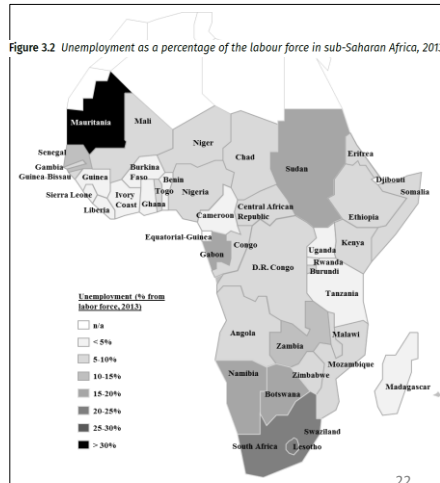


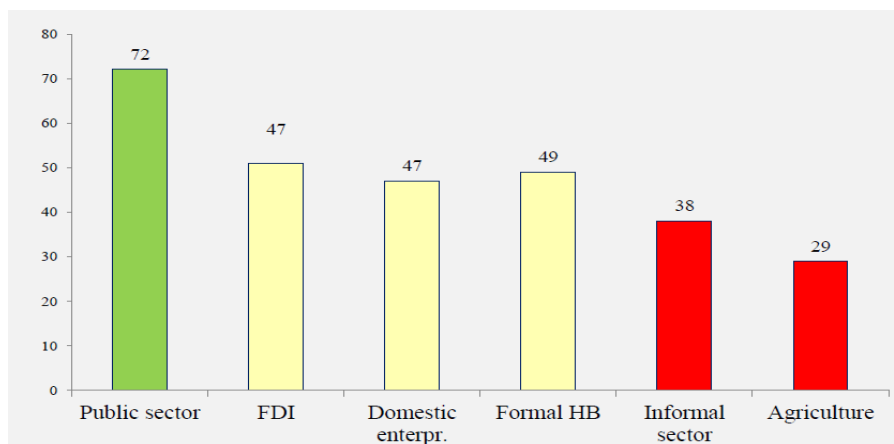
Figure 3.2 Unemployment as a percentage of the labour force in sub-Saharan Africa, 2013



Source: Grimm, Grabucker & Roubaud, 2018.

Phase 1
Augmented LFS
Informal jobs & Informal sector jobs (Labour demand/supply)

Job satisfaction by institutional sectors, Vietnam 2009
 (% of very satisfied+satisfied with their job)



Sources: Razafindrakoto, Roubaud & Wachsberger (2014) ²³

Phase 1
Augmented LFS
Informal jobs & Informal sector jobs (Labour demand/supply)

Share of informal employment by institutional sector, Vietnam 2007-2017

	Number (1,000)	Structure (%)	Institutional sector					Agriculture
			Public sector	FDI enterprise	Domestic enterprise	Formal HB	Informal sector	
2007	37,705	81.9	12.3	17.2	52.9	48.0	100	99.0
2009	38,288	80.5	12.6	12.9	48.0	51.6	100	98.6
2010	39,539	79.1	9.2	11.4	38.0	52.5	100	98.5
2017	41,861	78.0	9.6	7.1	29.0	51.2	99.7	99.2

Sources: Nghiem & Roubaud (2019)

Phase 2
Informal Sector (Supply side)
Informal production units (IPU) Survey

- Concentration of poverty
- Links production & consumption (micro level), improve National Accounts Aggregates
- Households' strategy / private initiative incentive
- Targeted Policies: Micro-finance, capacity building, access to markets, etc.

25

Phase 2
Informal Sector (Supply side)
Matched Employer-Employee Survey

MO 2. Demographic Characteristics of the Manpower							
	Name	Relationship	Sex	Age	School attendance	Apprenticeship	Longevity
1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

26

Phase 2

Informal Sector (Supply side)

Matched Employer-Employee Survey

MO 3. Characteristics of the employment						
Status	Stability	Type of contract	Recruitment	Nature of the Payment	Number of working hours within the last month of activity	Remuneration of the last month of activity (in thousand Fcfa)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
TOTAL →						

MO 4. Characteristics of allowances and bonuses						
End of year bonuses	Other bonuses	Paid leaves	Profit sharing	NSIF	Other	
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
MONTHLY TOTALS (in thousand Fcfa)						

Allowances and bonuses code (MO-4)
 1. Yes 2. No

Phase 2

Informal Sector (Supply side)

Elaborating the Accounts; prices; forward linkages

PV. PRODUCTION AND SALE								SPACE RESERVED FOR CODIFICATION																																			
PV 1. What was the total amount of your turn over for the last month of activity ?								_____ (In thousand of Fcfa)																																			
PV 2. PRODUCTS SOLD AFTER TRANSFORMATION								<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Product code (in thousand of Fcfa)</th> <th>Monthly value (in thousand of Fcfa)</th> <th>Destination</th> </tr> </thead> <tbody> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> <tr><td>_____</td><td>_____</td><td>_____</td></tr> </tbody> </table>			Product code (in thousand of Fcfa)	Monthly value (in thousand of Fcfa)	Destination	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____	_____
Product code (in thousand of Fcfa)	Monthly value (in thousand of Fcfa)	Destination																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
_____	_____	_____																																									
N°	Name of the product	Period	Unit	Quantity	Unit price (in FCFA)	Monthly value in FCFA	Destination																																				
1																																											
2																																											
3																																											
4																																											
5																																											
6																																											
O																																											
MONTHLY TOTAL																																											
PV 3. PRODUCT SOLD WITHOUT TRANSFORMATION																																											
N°	Name of the product	Period	Unit	Quantity	Unit price (in FCFA)	Monthly value in FCFA	Destination																																				
PV 4. SERVICES OFFERED																																											
N°	Name of the service	Period	Unit	Quantity	Unit price (in FCFA)	Monthly value in FCFA	Destination																																				

Phase 2
Informal Sector (Supply side)
Corruption, fines

	D 5a1. Did you have any contact with state agents from the following institutions in the exercise of your activity within the pas 12 months ? 1. Yes 2. No	D 5a2. If yes which type ?	D 5a3. How this contact has ended? (settlement)	D 5b. In total what is the amount of gifts and fines that you paid for your production unit to these state agents during the past 12 months? (In thousand of VND)	
				D 5b1 "gifts" or fine without receipt	D 5b2 fines with receipt
1	Local administration	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Police	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Taxes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Customs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Price / Market control	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TOTAL				<input type="checkbox"/>	<input type="checkbox"/>

Type of contact code (D5a2):

1. Related to the premises
2. Related to taxes and licence
3. Related to products used/sold
4. Related to the prices
5. Related to other rule/regulation
6. Other _____ (Specify)

Settlement due to the contact code (D 5a3):

1. Payment of a fine (with receipt)
2. Payment of a "gift" or amicable settlement or fine without receipt
3. Payment of a fine and a gift
4. In compliance with the law without any payment
5. No settlement on the reason of the contact
6. Other (specify)

Source: Lavallée & Roubaud (JDS, 2018)

31

Phase 2
Informal Sector (Supply side)
Selected examples

Characteristics of the informal sector firms: The « Gold » number
(Peru: 1.6, ENAHO; South Africa: 1.5, SESE 2013)

	Vietnam		Cameroon		Madagascar	WAEMU
	Hanoi	HCMC	Douala	Yaoundé	Antananarivo	7 cities
Job type and weekly hours						
Self-employment (%)	72.7	70.7	69.5	72.1	69.5	73.6
Rate of wage-earners (%)	15.3	16.9	10.9	16.8	16.4	13.6
Weekly working hours (average)	49.3	52.1	44.4	48.8	41.0	46.1
Characteristics of IHBs						
Average size of IHBs	1.4	1.5	1.5	1.6	1.5	1.5
IHB without premises	39.9	37.2	52.4	47.9	32.9	47.3
Income						
Average monthly income	133	121	100	135	46	128
Median monthly income	84	77	55	92	17	36

Phase 2
Informal Sector (Supply side)
Selected examples

Main destination and origin of products
(% of total value)

	Vietnam		Cameroon		Madagascar	WAEMU
	Hanoi	HCMC	Douala	Yaoundé	Antananarivo	7 cities
Destination of production						
Formal sector	5.8	3.0	6.4	3.2	9.7	7.5
Informal sector	19.5	20.7	25.0	20.3	18.6	16.5
Households	74.7	76.3	68.6	76.5	72.4	75.3
Exports	0	0	-	-	1.3	0.8
Origin of intermediate consumption						
Formal sector	24.5	14.0	24.0	35.0	46.6	10.3
Informal sector	73.8	82.8	75.8	63.6	49.8	82.7
Other (public, etc.)	1.7	2.3	0.2	0.5	1.7	6.9

Sources: Cling et al., 2010. 33

Phase 2
Informal Sector (Supply side)
Selected examples

Trends in the main aggregates for the informal sector, Madagascar 2012-2015:
the issue of prices

	2012	2012	2015	Trend 2015/2012	
	(MGF billions 2012)	(MGF billions 2015)	(MGF billions 2015)	Nominal	Real*
Capital	199	356	596	+199.5%	+67.4%
Turnover	1 309	2 352	3 004	+129.5%	+27.7%
Production	721	1 291	1 769	+145.4%	+37.0%
Added value	405	706	1 139	+181.2%	+61.3%

Note: In order to deflate the aggregates by value, specific indices of sale, production and added value prices were drawn up for the informal sector. Capital was valued at production price, unless specific information was available.

Sources : 1-2-3 surveys, phase 2, INSTAT ; authors' calculations.

Phase 3
Income/expenditure
Living conditions
Informal sector (Demand side)
Household survey

- Traditional indicators for monetary poverty
- In-depth monitoring of households living standards
- Informal sector demand: which households consumes which product in which sector?

➤ **Elaborate SAM, CGEM**

35

Phase 3
Income/expenditure - Living conditions
Informal sector (Demand side)

Module number	Primary unit number	Household number	DAILY PURCHASES OF PRODUCT AND/OR SERVICE FOR THE CONSUMPTION OF THE HOUSEHOLD ;						DATE	
[] [] []	[] [] [] []	[] [] []	GIFTS GIVEN AND RECEIVED IN CASH						Day	Month
LINE Number	What have you effectively paid ?		What quantity of ... (PRODUCTS, SERVICE) ... have been purchased this day ?		Unit	What is the total expenditure ?	Place of purchase	Main reason for purchase	Country of production	
	Precise description of the product or service purchased	PRODUCT COD To be reported each evening after having checked the questionnaire	QUANTITY PAID	UNIT PRICE						
	[0_1_1]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []
[0_1_2]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[0_1_3]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[0_1_4]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[0_1_5]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[0_1_6]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[0_1_7]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[0_1_8]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[0_1_9]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[1_1_0]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[1_1_1]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[1_1_2]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[1_1_3]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[1_1_4]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
[1_1_5]	[] [] [] []	[] [] [] []	[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	
TOTAL →			[] [] [] []	[] [] [] []	[] []	[] [] [] [] [] [] [] [] [] []	[] []	[] []	[] []	

36

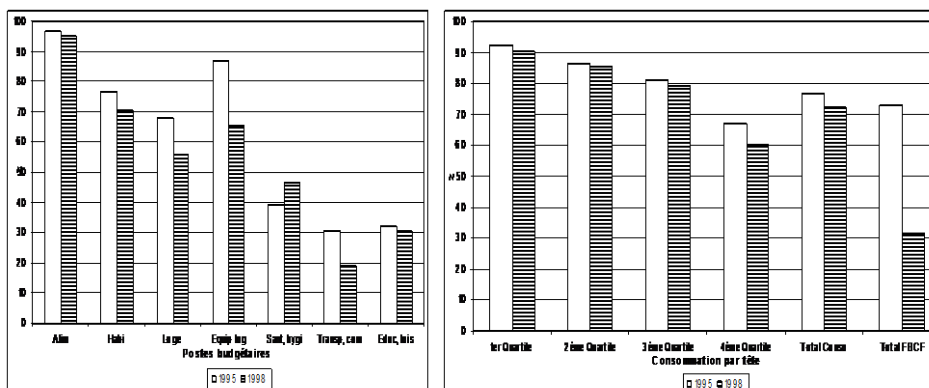
Phase 3
Income/expenditure - Living conditions
Informal sector (Demand side)

Share of informal sector expenditure by type of households, Madagascar
 (% of total Expenditures)

% of total expenditure in the informal sector	TYPE OF HOUSEHOLDS				
	1er Quartile	2 nd Quartile	3rd Quartile	4th Quartile	TOTAL
1.- Food	99,8	99,4	98,3	92,9	96,7
2.- Clothes	95,3	88,7	82,7	67,7	76,5
3.- Housing	86,3	76,0	69,0	59,0	67,9
4.- House equipment and maintenanc	98,9	94,3	79,7	86,2	86,7
5.- Health, personal care	49,0	47,1	47,5	33,8	39,5
6.- Transport, communication	16,8	19,4	24,2	33,4	30,5
7.- Education, spare time activities	48,1	45,4	34,9	26,4	31,8
TOTAL	92,2	86,3	81,3	66,8	76,5

Phase 3
Income/expenditure - Living conditions
Informal sector (Demand side)

Share of expenditure in the informal sector by functions and type of households, Madagascar
 (% of total Expenditures)



Innovations, extensions

Methodological Innovations

- Panel surveys
- *ad hoc* protocol for impact evaluation (Gubert et Roubaud, 2003 & 2011).

Extensions

- Farm Informal Sector
- Formal Household Businesses
- Micro-entreprises

Integration of the Informal Sector into the National Accounts

41

Studying the IS dynamics: why?

Preliminary comment : up to date, no one can say for any country:

*Did informal sector production increase or decrease over time?
(Which deflator?)*

Macro

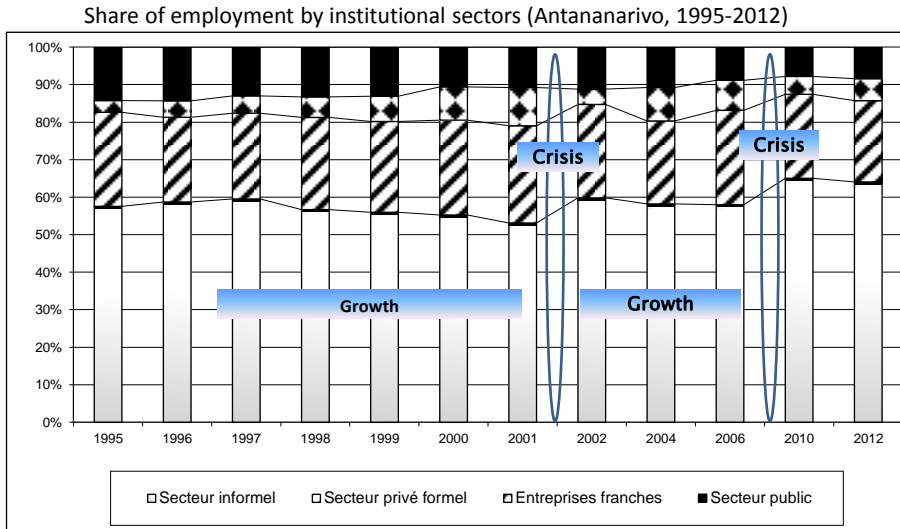
- **Informal Sector and economic dynamics: pro or contra-cyclical?** (*jobs, production, productivity*)
- **Monitoring & evaluation (policies, programmes, projects)**

Micro

- **Job transitions on the LM**
 - Are informal sector workers trapped in informality?
 - Are informal sector jobs a step to better jobs?
- **Earning dynamics (and formal/informal gap)**
 - Is there a monetary penalty to informal sector jobs?
 - Are some IS jobs better paid? If yes, which?
 - Does the formal / informal earning gap vary along the earnings distribution

Declination: IS heterogeneity

Macro dynamics (repeated cross sections) Informal sector: contra-cyclical (jobs)



Sources: Vaillant et al. (EJDR, 2014)

43

Micro dynamics (panel, retrospective - biographical)

The 1-2-3 Survey (Phase 1) Panel Data

The 1-2-3 Survey (Phase 2) Panel Data

Transition matrices (labour market states; Madagascar)

5,883 obs.

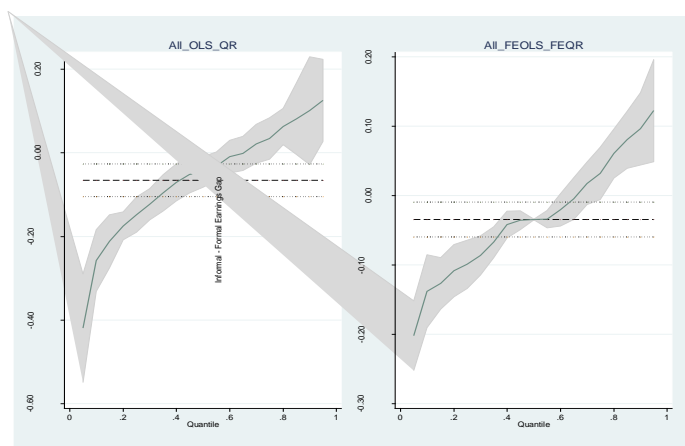
2000	2001				Total
	Not Working	FS Wage Workers	IS Wage Workers	Self-employed	
Not Working	72.2	9.6	4.6	13.6	100
Formal Sector Wage Worker	8.6	79.0	5.4	7.0	100
Informal Sector Wage Worker	15.1	26.0	30.2	28.7	100
Self-employed Worker	16.6	10.0	7.7	65.7	100
Total	32.9	32.1	7.6	27.4	100

2002	2004				Total
	Not Working	FS Wage Workers	IS Wage Workers	Self-employed	
Not Working	64.4	14.3	3.6	17.7	100
Formal Sector Wage Worker	9.4	73.9	6.5	10.2	100
Informal Sector Wage Worker	16.9	24.6	30.0	28.5	100
Self-employed Worker	16.0	11.4	7.5	65.1	100
Total	30.9	29.8	7.8	31.5	100

Sources: Nordman, Rakotomanana & Roubaud (WD, 2016)

45

Who suffers the penalty: Informal vs. Formal Sectors workers



- At the aggregate level, not accounting for firm size, a huge gap of about 20%, divided by two when we control for unobserved heterogeneity (physical capital; unobserved individual ability or social networks?)
- Controlling for firm size, the “purged size gap” is low (OLS: -6%; FE: n.s.)
- Decreasing gap along the earnings distribution: no systematic penalty for informal sector jobs
 - intra sectoral heterogeneity to be investigated

Micro dynamics of the informal firms

The 1-2-3 Survey (Phase 2) Panel Data (Vietnam, 2007-2009)

High mortality rate. 14% in Hanoi and 19% in HCMC.

+ not found (if they stopped activity → 21% in Hanoi & 30% in HCMC)

The bigger the HBs are, the less vulnerable they are.

or HBs which manage to survive can increase their size.

Mortality rate , 2007-2009

in %	Hanoi		Ho Chi Minh City	
	Stop activity	No info	Stop activity	No info
Economic activity				
Manufacturing	13.1	5.7	26.1	12.6
Trade	12.5	4.4	18.8	9.8
Services	17.1	9.2	20.0	11.5
Total IHB	14.7	6.8	21.0	11.2
Total FHB	12.4	8.4	13.9	9.5
Total	14.2	7.1	19.2	10.7

Sources: Demenet, Razafindrakoto & Roubaud (WD, 2016)

47

Micro dynamics of the informal firms

The 1-2-3 Survey (Phase 2) Panel Data (Vietnam, 2007-2014)

At the micro level:

Huge attrition rate over 7 years (59% in HN, 70% in HCMC) in spite of tracking...

	2007	2009	2014	Attrition (total) 2007-2014	Attrition (per year) 2007-2014
Hanoi	1,310	1,013	531	59%	13.8%
HCMC	1,333	1,026	401	70%	18.7%
Total	2,643	2,039	932	65%	16.1%

Sources: HB&ISS 2007-2014, authors' calculations

48

Micro dynamics of the informal firms

The 1-2-3 Survey (Phase 2) Panel Data (Vietnam, 2007-2009)

At the micro level:

High mortality rate (14% in HN, 19% in HCMC)...

... And important transitions between formal/informal sectors corresponding to an informalization process

Economic activity (2007)	Formalisation rate		Informalisation rate	
	Hanoi	HCMC	Hanoi	HCMC
Industry	4.5	9.5	25.4	9.0
Trade	10.9	12.9	26.1	10.6
Services	7.7	8.5	47.3	26.1
Total HBs	8.3	10.2	31.1	15.3

Sources: Demenet, Razafindrakoto & Roubaud (WD, 2016)

49

Micro dynamics of the informal firms

ENAH Survey (Integrated 1-2-3) Panel Data (Peru, 2002-2010)

Evolution of failure, creation and survival rates of IPUs 2002-2010 (%)

	Average 2002/ 2010	2003/ 2002	2004/ 2003	2005/ 2004	2006/ 2005	2008/ 2007	2009/ 2008	2010/ 2009
Mortality rate	35.4%	31.0%	34.8%	39.5%	37.9%	35.9%	36.1%	35.2%
Creation rate	38.0%	40.8%	37.9%	40.7%	40.4%	36.9%	37.3%	36.8%
Survival rate	64.6%	69.0%	65.2%	60.5%	62.1%	64.1%	63.9%	64.8%

Source: ENAHO 2002-2010, INEI ; authors' calculations.

Note: The data is missing for 2007/2006 because of a new survey design implying a total renovation of the panel.

Sources: Herrera & Hidalgo (*The Informal Economy in Developing Countries*, 2014)

Impact Evaluation and 1-2-3 Survey

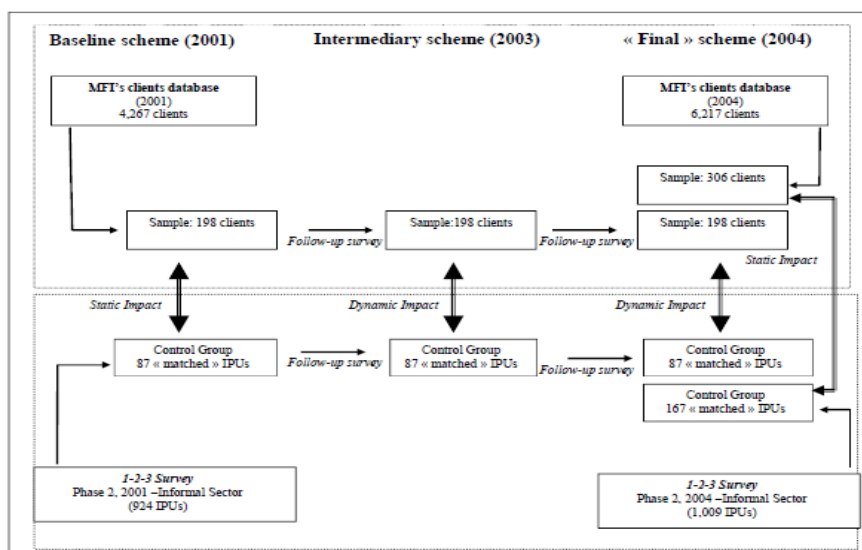
- The 1-2-3 survey can serve as a base to elaborate *ad hoc* protocols of impact evaluation:

- Whatever the method: RCT, quasi-experimental (double-difference, before/after, cross section matching, etc.)
- Identification of control group (always); of treated group (possible)...

- Advantages :

- Economies of scale and comparative advantage
- Institutionalisation, Public Good (NSO)
- Costs

Impact Evaluation: A quasi-experimental method MFI programme in Madagascar (2001-2004) articulate 1-2-3 surveys / client survey (P2)



Some guidelines for Policies

Cling, Razafindrakoto & Roubaud (ILO, 2014)

Three general objectives:

- 1- Favour formalisation of the informal sector
- 2- Support to informal sector (in particular women headed)
- 3- Promote universal social protection

Tradeoffs: assistance to the informal sector will reduce its formalisation

53

Policy Recommendations

The 10 commandements for policies towards the informal economy

☞ **Recognition, monitoring of the informal economy**

- 1 - Adoption of official definitions (ILO recommendations): policies, voice
- 2 - Measure and regular monitoring (surveys, integration into national accounts)
- 3 - Evaluation of the impact of policies

☞ **Transparency and simplification of bureaucracy**

- 4 - Simple rules for registration (the same for all informal enterprises)
- 5- Uniform tax rate for all informal enterprises (low tax rate)

☞ **Targeted policies**

- 6 - Financial institutions and micro-finance towards the informal sector
- 7 - Targeted training programmes (vocational training, business literacy...)
- 8 - Promotion of professional networks for the informal sector
- 9 - Extension of social protection scheme (universal coverage)
- 10 – Reduction of Informal employment in the Formal sector by associating stakeholders in the fixation of compulsaory contribution

Selective references

Statistics

International

ILO (2013), *Measuring Informality: A Statistical Manual on the Informal Sector and Informal Employment*, Geneva: ILO.

OECD/IMF/ILO/CIS STAT (2002), *Measuring the Non-Observed Economy - A Handbook*, OECD, Paris.

Authors

Balepa M., Roubaud F. (éds) (2009), *The informal sector and poverty in Africa: measurement instruments, analysis, and economic policy*, African Statistical Journal, Special issue, Vol. 9, November.

Brilleau A., Ouedraogo E., Roubaud F. (éds) (2005), *L'enquête 1-2-3 dans les pays de l'UEMOA: la consolidation d'une méthode*, Statéco No. 99, AFRISTAT-DIAL-INSEE, pp.15-170

Herrera J., Roubaud F., Suarez R. A. (Editores Científicos) (2004), *El sector informal en Colombia y demás países de la Comunidad Andina*, DANE, Bogota, Colombia, 217p.

Rakotomanana F., Ravelosoa R., Roubaud F. (2003), "The 1-2-3 survey of the informal sector and the satisfaction of household needs in the Antananarivo conurbation", *InterStat* No. 27, September, pp. 59-88.

55

Selective references

Economics

Books

Cling J.-P., Lagrée S., Razafindrakoto M., Roubaud F. (eds) (2014), *The Informal Economy in Developing Countries*, Routledge: London/New York, 332p.

De Vreyer P, Roubaud F. (eds) (2013), *Urban labor Markets in Sub-Saharan Africa*, Africa Forum Series, AFD/World Bank, Washington D.C: The World Bank, 408p.

Cling J.-P., Nguyễn Thị Thu Huyền, Nguyễn Hữu Chí, Phan T. Ngọc Trâm, Razafindrakoto M., Roubaud F. (2010), *The Informal Sector in Vietnam: A focus on Hanoi and Ho Chi Minh City*, Editions The Gioi, Hanoi, 247p.

Roubaud F. (1994), *La economía informal en México: de la esfera doméstica a la dinámica macroeconómica*, Fondo de Cultura Económica, México, 484p.

Papers

Lavallée E., Roubaud F. (2018), "Corruption in the informal sector: evidence from West Africa", *Journal of Development Studies* [DOI: [10.1080/00220388.2018.1438597](https://doi.org/10.1080/00220388.2018.1438597)]

Demenet A., Razafindrakoto M., Roubaud F. (2016), "Do Informal Businesses Gain From Registration and How? Panel Data Evidence from Vietnam", *World Development* 84:326-341.

Nordman C.J., Rakotomanana F., Roubaud F. (2016), "Formal versus Informal: a Panel Data Analysis of Earnings Gaps in Madagascar", *World Development* 86: 1-17.

Cling J.-P., Razafindrakoto M., Roubaud F. (2014), "Segmentation and informality in Vietnam: A Survey of Literature. Country case study on labour segmentation", Condition of Work and Employment Series, No 52, ILO: Geneva.

Vaillant J., Grimm M., Lay J., Roubaud F. (2014), "Informal Sector Dynamics In Times Of Fragile Growth: The Case Of Madagascar", *European Journal of Development Research*, 26(4): 437-455.

website: www.dial.prd.fr⁵⁶