Social security coverage and informal workers in Tunisia

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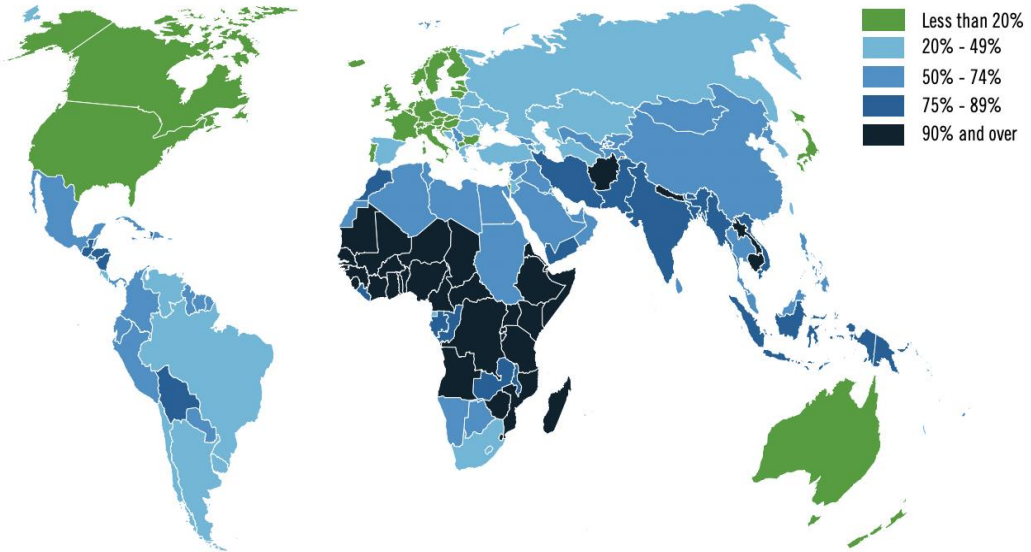
National Dialogue on the Social Protection System in Tunisia

Tunis, January 24-25, 2022

Introduction

- **Two billion** of the world's employed population work informally representing **61.2%** of global employment.
- Informality is critical in the MENA region :

68,6% of total employment



Source: ILO, 2018.

Informal employment

All workers of the informal sector (unregistered firms) and informal workers outside the informal sector (own-account workers and employees not contributing to social security schemes).

Source of the picture:
https://www.ictd.ac/blog/informal-work-auto-entrepreneurship-laws-maghreb-tunisia-learn-morocco/

Social protection in Tunisia

- Many challenges are present in Tunisia’s current social protection system, in terms of access and the efficacy of the systems.
- The CNSS, CNRPS and CNAM have experienced funding shortfalls that limit the access and quality of coverage they can provide.
- Social protection schemes are tied to employment, a large part of workers and their families are excluded.

Outline

01 Informal workers and social protection coverage overview of the situation in Tunisia

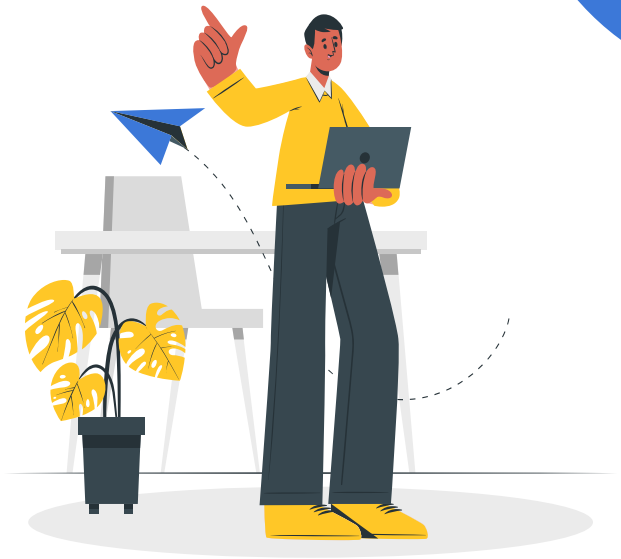
02 Data analysis (factors contributing to informality)

03 Data analysis (factors affecting the transition to formality).

04 Proposals for the extension of social protection

Coverage

- **50.2%** of Tunisians are covered by at least one social protection benefit
- **45.3%** are affiliated with the health protection scheme
- The social protection benefit with the highest coverage rate is **old-age benefits** at **85.4%** coverage



Source: INS, 2019

Informality

- **44.8%** of Tunisia's workforce is informal
- The informal employment includes mainly men, at **49.5%**, compared to **31.9%** for women.
- The phenomenon is concentrated among **young people**: **60% of men** and **83% of women** in informal employment **under 40 years** of age.
- The agriculture and fisheries sectors occupy the first ranks in informal employment with more than 85% of the workers employed informally, followed by the construction and general works sector at 69,5% and the trade sector at 66.2%.

Source: INS, 2019

Informal employment in Tunisia (another estimation)

	Total Informal Employment		Salaried Informal Employment		Non-salaried Informal Employment	
	Number (Thousands)	Percent	Number (Thousands)	Percent	Number (Thousands)	Percent
2005	1007.2	34.4	413.6	20.5	593.6	64.9
2006	987.3	2.9	389.3	19.0	598.0	62.6
2007	953.8	30.9	409.6	19.1	544.2	57.8
2008	929.9	29.5	375.8	17.2	554.1	57.3
2009	894.5	28.0	334.4	15.1	560.0	56.6
2010	900.6	27.5	299.4	13.3	601.2	58.2
2011	738.5	23.5	260.8	11.7	477.7	52.9
2012	815.7	25.3	316.6	13.7	499.1	54.2
2013	880.3	26.6	370.8	15.5	509.5	55.2
2014	968.5	28.4	348.2	14.7	620.2	59.8
2015	996.7	29.4	459.0	18.6	537.7	58.5
2016	938.0	27.5	401.4	16.3	536.6	56.3
2017	904.8	26.2	481.5	18.5	423.4	49.2
2018	881.9	25.2	437.3	16.7	444.6	50.7

Source : Nidhal Ben Cheikh (2021)

Factors contributing to informality

Data used

- The 2015 Household Budget, Consumption and Living Standards Survey": micro-dataset from the 2015 HBS conducted by the INS
- The reference survey on household budget and consumption that the INS has been conducting on a five-yearly basis since the mid-1960s
- A total sample of 27108 households representative of all Tunisian households living in both rural and urban areas

Model used

- Socioeconomic or job specific factors may affect informality: the educational attainment, age, marital status, sector of activity (with the agriculture sector having the highest incident of informal workers), type and duration of contract, employment stability, wage level etc.

- **A Probit analysis:**
- is a non-linear function G of the independent variables.

$$P(y = 1) = G(x\beta)$$

- The model uses the cumulative density function of normal distribution: Φ

$$P(y = 1) = \Phi(x\beta) = \int_{-\infty}^{x\beta} \Phi(z)\, dz$$

	Men	Women
age	-0.0277***	-0.0260***
agesquare	0.000223***	0.000194***
chrdis_hh	0.00545**	0.00956*
child_hh	-0.0182***	-0.0214*
Married	-0.200***	0.0277
Widowed	-0.189***	-0.260***
Divorced	-0.0868	-0.101*
Primary	-0.115***	-0.0445
Secondary	-0.179***	-0.226***
Tertiary	-0.272***	-0.321***
Temporary	0.248***	0.354***
Seasonal	0.136***	0.181***
Occasional	0.209***	0.372***
Private firms	0.0560***	0.0847***
Private premises and housing	0.351***	0.612***
Ambulant	0.436***	0.640***
Farm	0.469***	0.744***
Building Site	0.535***	0.443***
Other	0.352***	0.410***
Nord Est	0.0702***	0.0217
Nord Ouest	0.116***	0.143***
Centre Est	0.102***	0.144***
Centre Ouest	0.201***	0.294***
Sud Est	0.0829***	0.252***
Sud Ouest	0.000219	0.200***
N	21241	7968

Results

- Marginal affects of the Probit model are represented in the table
- Factors affecting informality similarly across men and women and include:
  - Education level
  - Type of job
  - Number of children
  - Region
- Marital status impacts informality differently for men and women

Factors affecting the transition to formality

Data used

- We use the INS survey of population and employment for the 2nd trimester of 2019
- Data collected by INS as an extension to the household survey.
- A sample of 10,911 people following a sampling plan stratified by professional status (employees, self-employed workers, employers, family helpers) and gender
- This survey targets specifically informal workers within the household survey and allows us to identify the main characteristics of those informal workers.

Allows to to analyze the characteristics of those who have **transitioned** to formality

Models used

- **2 types of estimation**:

  ESTIMATION 1 : We perform a Probit estimation to identify characteristics of the population/workers who have transitioned to the formal sector.

  - 2 Proxies to determine formality:
    “socials”: a dummy variable representing being affiliated to a social security scheme, public or private
    “**formal**”: a dummy variable representing being formally declared by the respondent’s employer

Results (Probit model)

	(1) socials	(2) socials	(3) formal	(4) formal
young	-0.208*		-0.219*	
old	0.109		-0.185	
urban	0.0802	0.0655	0.167**	0.152*
havechild	0.113	0.0526	0.0914	0.0255
single	-0.361**	-0.270*	-0.158	-0.0632
widow	-0.388	-0.439	-0.321	-0.410
divorced	0.146	0.128	0.288	0.279
Male	-0.0496	-0.0758	-0.0268	-0.0596
illiterate	-0.442***	-0.507***	-0.275*	-0.355**
secondary	0.154*	0.197**	0.249***	0.302***
tertiary	0.536***	0.598***	0.725***	0.793***
parttime	-0.275**	-0.295***	-0.304**	-0.325**
seasonal	-0.781***	-0.784***	-1.083***	-1.095***
ocasional	-0.786***	-0.782***	-1.060***	-1.061***
AgeSquare		-0.000292		-0.000293
Age		0.0378**		0.0383*
N	5622	5622	5826	5826

Main factors affecting transition to informality are :

- Age
- Education level
- Duration of job (part time vs. full time and permanent jobs vs. seasonal and occasional jobs)
- These results are in line with the previous section

ESTMATION2: Multinomial logit Analysis: to identify factors which determine transition to formality

- Using :
  Q1: If you are not declared by your current employer, have you been affiliated before: as an independent, employee or not affiliated
  Q2: Are you declared by your current employer to the social security fund ?

- identify 3 categories of individuals:

  1) Formal workers: are not concerned by Q1 and report “yes” to Q2
  2) Informal worker, previously formal: reply “no” to Q2 and either of the first 2 answers to Q1
  3) Informal worker, previously informal (biggest share in the sample): reply “no” to Q2 and “not affiliated” to Q1

Results (Multinomial logit marginal effects)

categories	(1)	(2)	(3)
AgeSquare	-0.0000605	-0.0000679	0.000128*
Age	0.00816*	0.00598	-0.0141***
urban	0.0333*	0.0158	-0.0491**
havechild	0.0149	0.0211	-0.0361
single	-0.00599	-0.0300	0.0359
widow	-0.0958	-0.0859	0.182*
divorced	0.0676	-0.0487	-0.0189
Male	-0.0170	0.0237	-0.00667
illiterate	-0.0942**	-0.0456*	0.140***
secondary	0.0746***	0.0191	-0.0937***
tertiary	0.180***	-0.0398	-0.141***
parttime	-0.0812**	-0.0181	0.0993***
seasonal	-0.266***	0.0469**	0.219***
ocasional	-0.259***	0.0137	0.245***
N	5795	5795	5795

- Cat 1: Those who transitioned to formal sector
- Cat 2: those who transitioned but came back to informality
- Cat 3: informal workers who did not transition

Determining factors for transition:

- Stability of the job
- Education
- Age

Conclusions

- Our results have highlighted that people most likely to remain in informal jobs on a long-term basis are illiterate people, those having occasional/seasonal/part-time job.

- Developing universal coverage or social assistance schemes is a way to expand social protection coverage and to fight vulnerability with an affordable cost for the countries.

Conclusions

Using the ILO social protection floors calculator, the cost of benefits as percentage of GDP for Tunisia varies between 4.88% to 7.50%

Reducing the cost of transition to the formal economy by creating an enabling political and legal environment that reduces existing barriers, protects workers' rights, and increases benefits from joining the regulated sector.

Control mechanisms should be endorsed especially for informal employees in the formal sector.

Extension of social protection

Proposition 1

Implementation of universal coverage programs, including for illiterate workers and those having occasional/seasonal/part-time jobs

Proposition 3

Setting up semi-contributory schemes: the state provides part of the contributions and the informal worker contributes as well.

Proposition 2

Dissociating access to social insurance programs from employment, allowing access to social insurance programs for all workers regardless of their employment status or sector of activity

Thanks

Do you have any questions?