DOI: 10.20472/EFC.2022.017.001

PHILIPPE ADAIR

ERUDITE, University Paris-Est Créteil, France

VLADIMIR HLASNY

United Nations Economic and Social Commission for Western Asia, Lebanon

LABOUR MARKET SEGMENTATION AND FORMALISING INFORMALITY IN MENA COUNTRIES

Abstract:

We tackle the problems of labour market segmentation and low occupational mobility in MENA countries in relation to prospective formalisation policies. First, we provide an overview of the informal economy in its taxonomy, coverage and stylised facts, and drivers, across six MENA countries. Second, using longitudinal microdata from Labor Market Panel Surveys and COVID-19 MENA Monitors, we apply transition matrices and multinomial logistic regressions to analyse workers' occupational mobility according to their pre-existing status, age cohort, gender and other demographics. We find persistent segmentation and weak occupational mobility in all countries, suggesting that informal employment is not driven by choice on the labour supply side but by structural constraints on the demand side. Third, assessing the existing formalisation policies encapsulating distinct stick and carrot strategies, and business versus worker targeting, we find rather modest impacts. We submit that promoting social and solidarity enterprises, and extending microfinance to informal enterprises holds a promise for the creation of formal, decent jobs.

Keywords:

Formalisation policies; Informal employment; Segmentation; Transition matrices; Youth unemployment; Female labour force participation

JEL Classification: E26, J46, O17

1. Introduction

We address the issue of formalisation of the informal economy (henceforth informality) in six MENA countries: Egypt, Morocco and Tunisia in North Africa, and Jordan, Lebanon and Palestine in the Middle East. These oil-importing countries are lower middle-income economies that share many pervasive labour-market characteristics. Female participation rate is dramatically low; youth unemployment rate is high; micro and small-size informal businesses provide most jobs and tend to operate in low productivity industries; and informal employment constitutes half the labour force (Charmes, 2019).

The rest of the study is organized as follows. Section 2 addresses informality as regards the definitions and coverage in MENA countries. Section 3 starts out with selected stylised facts, and then takes advantage of longitudinal microdata from Labor Market Panel Surveys and COVID-19 MENA Monitors to analyse occupational mobility according to workers' initial status, age cohort and gender, with the use of transition matrices and multinomial logistic regressions. Section 4 assesses existing formalisation policies including distinct stick and carrot strategies, and business and worker targeting approaches. Section 5 conclude, taking stock of the status quo and the policy responses in place, and proposes ways forward toward a more equitable and sustainable state.

2. Definitions and Theories of Informality: A Fuzzy Set and Happy Heuristics

The common thread in literature on the MENA region labour markets is the fragmentation, a duality between formal and informal private employment (Hlasny & AlAzzawi, 2020), and a growing trend of vulnerable employment, particularly among youths. Once the school-to-work transition drives workers into an informal job, they are at pain transitioning to formal employment later in their careers. In addition to a youth bulge affecting the prospects among (male) youths, women have also increasingly engaged with the labour market. This has put pressure on the availability of jobs, and on working conditions.

Many existing investigations have carelessly used the informal economy terminology (Ohnsorge and Yu, 2021) without referring to the origins of the concept of informality in Hart (1971) and the ILO report on Kenya (ILO 1972). Other studies have analysed the shadow economy (Medina and Schneider, 2019) or various models of informality (Albertini et al., 2020) with modest fit. Extant research over half a century suggests that the concept of informal economy aligns with happy heuristics, but encapsulates diverse theories and distinct methodologies lacking consensus. Informality is thus better thought of as a "fuzzy set" at the intersection of multi-criteria assessments of the informal economy, the non-observed economy, and the shadow economy. This fuzziness affects the precision and adequacy of policies and regulations relating to informality in developing countries (Adair, 2022a).

Informality encapsulates three key components: the informal sector, and informal activities within the formal sector and in households. Data sources are disparate and patchy, and coverage remains poor, not least in the MENA countries. The informal sector encompasses the unincorporated enterprises made up of unregistered own-account workers and employers with fewer than five permanent paid employees. Informal employment encompasses all precarious jobs carried out both in the informal sector (the largest component) as well as within formal

enterprises and households. It includes domestic workers and household members producing goods and services for their own final use, where workers are not subject to labour regulation, income taxation or employer-provided social protection (Charmes, 2019).

Fig. 1. Segmentation of informal workers by status and income: the staircase vulnerability to poverty risk



Note: In bold, mainly male workers. In italics, mainly female workers.

Source: Authors' analysis, adapted from Chen et al. (2020, 71).

According to Figure 1, the classification of employment type, and the corresponding degree of vulnerability to poverty is uneven between genders. In a five-prong classification of informal workers – as employers, regular informal employees, own-account workers, casual/irregular employees, and unpaid family workers – men are over-represented among the three upper categories, whereas women concentrate in the two categories at the bottom of the staircase.

Such a stratification of regional labour markets has attracted various explanations. A threefold spectrum of theories have tackled the emergence of informality, namely dualism, structuralism and institutionalism. According to a less optimistic interpretation of dualism (Lewis, 1954), persistent informality is due to labour market segmentation, namely barriers to entry in the formal economy affecting the labour market supply side (i.e. workers). Labour market segmentation – into formal *versus* informal jobs – is not congruent with structuralism (Castells & Portes, 1989), given that the informal economy is not separated but rather subsumed by the formal economy under subcontracting arrangements. (These have been used in the region to, for instance, shrink production costs in the textile industry or in call centres in Tunisia and Morocco.)

The institutionalist approach (de Soto, 1986) assumes that informality stems from inadequate regulation, and excessive bureaucracy and taxation, driving small firms and marginal workers to voluntarily step outside or be excluded from the formal economy. This is prevalent in Tunisia and other North Africa countries (de Soto, 2012). Hence, this viewpoint advocates removing constraints on informal entrepreneurs, and diminishing the costs borne by start-ups. The World Bank's emphasis on lowering firms' barriers to entry and to business activity, and levelling the competitive field, is consistent with institutionalism together with structuralism, as they focus on the demand side of the labour market and the supply side of the goods market (i.e. businesses).

3. Unemployment and Informal Employment in MENA Countries: Youths' Curse

3.1. The Context of Labour Shocks

At the aggregate level, three stylised facts about MENA labour markets are noteworthy. First, average (non-agricultural) informal employment is a structural phenomenon, standing around 50 per cent of the work force throughout the 2000s and the 2010s. Second, it has been countercyclical, rising with economic slowdowns until the late 2000s, contracting with upswings of economic growth, and experiencing a trend reversal in the early 2010s. Analyzing these patterns requires a thorough inspection with respect to the various components of informal employment, as the levels and trends differ across countries, according to the impact of economic shocks and policies designed to absorb the shocks. Third, informal employment is related negatively to GDP per capita, since factor productivity in the informal sector is low (Charmes, 2019). These observations paint a worrying picture for workers' outcomes amid the global economic and supply-chain disruptions in the post-pandemic and Ukraine-war environment.

Informality and unemployment are not distributed uniformly across the MENA population and economic sectors. Youth unemployment and job informality, in particular, have been pervasive features of the MENA labour markets (Fehling et al., 2016; Suleiman, 2022). Fresh graduates, if they succeed at finding employment, land informal or irregular jobs. These jobs leave workers with limited prospects for transition to decent work later in their careers. The informal sector, and micro and small enterprises (MSEs) lag behind the formal sector in factor productivity, value-added and fiscal receipts, in part due to a mismatch between skill supply and demand, in a state where workers have few opportunities for upskilling or retraining, and employers fail to invest in them (Hlasny & AlAzzawi, 2020).

From the sectoral perspective, job creation in the region has been biased toward manufacturing, building and construction with an outsized share of informal workforce, while skilled services relying on formal workforce have stagnated. Public sector has also scaled down recruitment since a decade ago as part of macroeconomic and public-sector reforms (Shahen et al., 2020).

The surge of COVID-19 has further hollowed out job opportunities for vulnerable workers. The pandemic had heterogeneous real-economy impacts across different MENA countries implementing a variety of mitigation measures in their labour markets. Reduced consumer demand, and challenges associated with remote work have led to many workers being laid off, facing reduced hours or pay, or exiting the labour market altogether. Lockdowns in public spaces and school closures also forced some workers to reduce their hours or quit work of their own.

Over 11 million full time equivalent (FTE) jobs were lost in the region during 2020. FTE job losses of over 23 million occurred in the second quarter of 2020 alone, when the most severe lockdowns took place (ILO, 2020a). Another 5 million FTE jobs were estimated to vanish over the course of the year 2021 (ILO, 2021).

COVID has exacerbated the reluctance of employers to invest in workers, and encouraged the shift from regular to irregular platform or gig employment. This has particularly affected women and youths putting them at a substantial risk of falling into vulnerable employment (AlAzzawi &

Hlasny, 2022). In light of the pre-existing structural obstacles in accessing decent jobs, a break from regular service caused by COVID-19 impairs their ability to get back on their feet (Hlasny & AlAzzawi, 2022a,b).

3.2. Sources and Coverage of Informality in MENA Countries

Data on labour informality varies in quality across countries. Morocco is the only country with three representative surveys devoted to the informal sector (1999, 2007 and 2013). These surveys show that three out of four Moroccan businesses consist of only one worker (HCP, 2016; Lopez-Acevedo et al., 2021). In Egypt, the Central Agency for Public Mobilization and Statistics (CAPMAS) and the Economic Research Forum (ERF) surveyed representative samples of household firms in 2012 and 2018. 62.5 per cent of the year-2018 sample of firms consist of the self-employed (one-person firms) and 31 per cent are micro firms (two to four workers). Tunisia has not administered its five-year surveys of microenterprises since 1997, and the threshold for microenterprises (below six employees) is inconsistent with the below-five definition used by the International labour Organisation (ILO) and the World Bank Enterprise Surveys (WBES). The absence of national household surveys dedicated to informal employment or enterprise surveys devoted to the informal sector is an ongoing challenge in Jordan, Lebanon and Palestine.

Informal employment can be scoped from the national Labour Force Surveys (LFS) or Labor Market Panel Surveys (LMPS) using relevant questions regarding social protection coverage, although using disparate criteria across countries. As shown in Table 1, the share of informal employment (including agriculture) has been highest in Morocco (77.22%) and lowest in Tunisia (44.8%), the two countries that do not avail of their LFS data through ILOSTAT. After the onset of COVID-19, Economic Research Forum (ERF) partnered with ILO to survey workers' pandemic-coping mechanisms and employment transitions using the high-frequency phone-based COVID-19 MENA Monitors.

Table 1. Informal employment including in agriculture in MENA countries (2019), in thousands

Country (employed, 1000s)	Sex	Total (% informal)	Employees (% total)	Self-employed (% total)
Egypt (26,661)	Total	16,870 (63.27)	10,183 (60.33)	6,676 (39.57)
	Male	14,806	9,414	5,390
	Female	2,064	769	1,286
Jordan (2,648)	Total	1,205 (45.50)	1,054 (87.48)	151 (12.51)
	Male	1,107	964	143
	Female	98	90	8
Lebanon (1,590)	Total	880 (55.33)	553 (62.89)	327 (37.10)
	Male	611	339	272
	Female	269	215	54
Palestine (906)	Total	540 (59.58)	355 (65.78)	185 (34.23)
	Male	471	315	156
	Female	69	40	29
Morocco*		(77.22)		
Tunisia*		(44.80)		

Note: * LFS not provided to ILOSTAT

Source: Authors' analysis of Labour Force Surveys (2019).

Table 2 displays similar statistics by gender. Self-employment is seen to largely overlap with informal and most vulnerable forms of work, such as male own-account workers and female contributing family workers or casual/irregular workers.

Table 2. Distribution of workforce status and vulnerability 2019, by gender

_	Self-Employed*		Wage Employees			Vulnerable**			
Country	Female	Male	Total	Female	Male	Total	Female	Male	Total
Egypt	31,37	30,18	30,43	68,63	69,82	69,57	27,73	15,41	17,97
Jordan	2,30	16,24	13,92	97,70	83,76	86,08	1,58	12,37	10,58
Lebanon	15,01	44,39	37,48	84,99	55,61	62,53	13,84	35,73	30,58
Morocco	57,11	45,89	48,56	42,89	54,11	51,44	56,29	42,91	46,10
Tunisia	14,27	28,61	25,16	85,73	71,39	74,84	11,47	21,29	18,93
Palestine	22,72	29,66	28,57	77,28	70,34	71,44	20,00	22,42	22,04
Average***	23,80	32,49	30,69	76,20	67,50	69,32	21,82	25,02	24,37

Notes: * includes employers, own-account workers and contributing family workers. ** Some self-employed (excluding employers) as a percentage of total employment. *** Figures in italics are above average. *Source*: Authors' analysis of ILOSTAT database (modelled estimates).

The 2015 *Sahwa* survey for four North African countries (Algeria, Egypt, Morocco and Tunisia) and Lebanon – a balanced sample of 3,027 active people – was devoted to youths 16–29 years old. This survey suggested that young workers do not enjoy social protection (Merouani et al., 2018), and there is a high prevalence of informal employment among youths (Gherbi and Adair; 2020), consistent with a U-shaped lifecycle pattern: informality declines from youth to maturity (Gatti et al., 2014) and rises again among the older age group.

Evidence from the *Sahwa* survey also shows substantial income gaps between informal/formal jobs and across genders. This supports the segmentation theory. The formal/informal employee income ratio is similar for females (1.78) and for males (1.77), just as the formal/informal self-employed ratio (2.26 for females and 2.20 for males). In contrast, gender pay gap is lower among formal workers (21.82%) than among informal workers (24.05%), illustrating the lack of safeguarding mechanisms in the informal sector.

Table 3. Average monthly incomes of youths, North Africa as of 2015

	Females	Males	Gender pay gap (%)
Formal employee	742.35	868.36	14.51%
Formal self-employed	859.82	1,429.25	39.84%
Formal workers	751.49	961.32	21.82%
(employees + self-employed)			
Informal employee	417.42	489.28	14.68%
Informal self-employed	380.73	650.18	41.44%
Informal workers	407.51	536.56	24.05%
(employees + self-employed)			
Formal /Informal employee ratio	1.778	1.774	
Formal /Informal self-employed ratio	2.258	2.198	

Notes: 1,900 youths (aged 15-29) in North Africa holding jobs in 2015. Income in \$ PPP (Purchasing Power

Parity Adjusted). North Africa: Algeria, Egypt, Morocco, Tunisia.

Source: Gherbi & Adair (2020).

The World Bank database on the informal economy (Elgin et al., 2021) is also devoted to enterprises, while the WBESs pay very little attention to micro-enterprises, even though these are the bulk of businesses. The limited data for informal (i.e. unregistered) firms are not conducive to a proper analysis. Hence, WBES conducted in the six MENA countries of interest as of 2019

all lack representativeness and cannot be used to scope the informal sector (Adair & Berguiga, 2019). A similar problem affects the COVID-19 MENA Monitor Enterprise Surveys.

This study relies on the Labor Market Panel Surveys (LMPS) for Egypt (2012 & 2018), Jordan (2010 & 2016) and Tunisia (2014), and COVID-19 MENA Household Monitors for Egypt, Jordan, Morocco and Tunisia (Feb. 2020-Sep. 2021). All these are panel surveys, allowing the tracking of workers' outcomes, and have recall modules, providing multiple snapshots even in unbalanced-panel settings. These sources survey workers' current occupation type, status as (ir)regular and (in)formal in/out of establishment, presence of contract and social insurance coverage. Some survey waves also cover the size and registration status of ones' employers. Besides informing of the aggregate prevalence of informal employment, these allow us to track the employment statuses of individuals from vulnerable groups such as women, youths or rural poor, over the span of 6–12 years in the case of the LMPSs, and up to 18 months in the case of the COVID-19 Monitors. Table 4 illustrates.

Table 4. Informal employment in MENA countries, LMPS and COVID-19 Monitors

		,			Informa	lly empl.
			Employed (#	<i>‡</i>)	(%)	
	Country	Wave	Men	Women	Men	Women
LMPS	Egypt	2006	9,206	2,751	57.39	58.32
		2012	11,788	2,742	60.98	43.91
		2018	13,659	3,011	66.09	52.11
	Jordan	2010	4,939	1,018	42.26	21.34
		2016	5,317	1,025	52.76	19.44
	Tunisia	2014	2,827	863	45.31	43.21
COVID-19 Monitor	Emmt	0 [D]. E-h 2020	2 (97	490	(7.72	50.75
Monitor	Egypt	0 [R]: February 2020	2,687	489	67.72	52.75
		1: June 2020				
		2: January–Feb. 2021				
		4: June–July 2021	455	55	67.47	54.69
	Jordan	0 [R]: February 2020	1,498	418	40.55	26.03
		2: January–Feb. 2021				
		4: June–July 2021	420	97	44.04	31.43
		5: August–Sept. 2021	457	101	43.04	36.95
	Morocco	0 [R]: February 2020	2,300	502	79.29	70.01
		2: January-Feb. 2021	379	47	83.60	83.76
		3: April 2021	544	51	83.52	49.28
		4: June–July 2021	531	75	78.12	71.07
	Tunisia	0 [R]: February 2020	1,483	542	58.19	56.77
		2: January-Feb. 2021	539	161	54.55	48.49
		3: April 2021	665	182	58.76	54.31
		4: June–July 2021	706	217	57.55	49.69

Notes: [R] denotes responses in recall modules, included in waves 1–5 of COVID-19 Monitor. Informality shares account for survey sampling weights. Non-employed workers are excluded from the counts, which explains the disproportionally low counts of women compared to men.

Source: Authors' analysis of LMPS and COVID-19 Monitor microdata, various waves.

Labor market panel surveys (LMPS) are presently available for Egypt (1988, 1998, 2006, 2012, 2018), Jordan (2010, 2016) and Tunisia (2014) (OAMDI, 2019). They are administered by national statistical offices in partnership with the Economic Research Forum (ERF), and are harmonized and made available by the ERF. They are highly suitable for examining the dynamics governing individual workers' employment statuses. These surveys track the same workers and their employment status over the span of six or even upward of 12 years between survey waves. The LMPSs also include recall modules screening workers' backgrounds and employment history, supplementing the information on workers' contemporaneous labour market statuses from across multiple survey waves.

Given the far-reaching economic implications of the COVID-19 epidemic, and the extensive social-expenditure responses to it undertaken or planned by regional governments, microdata from the years 2020–2021 are particularly beneficial to evaluate the gravity of the labour market shocks for employment, particularly in relation to vulnerable workers. The *ERF COVID-19 MENA Household Monitors* are useful in this regard (OAMDI 2021). They are presently available for Morocco and Tunisia (Nov.-Dec. '20, Jan.-Feb. '21, Mar.-Apr. '21, and Jun.-Jul. '21), and for Egypt and Jordan (Jan.-Apr. '21 and Jun.-Jul. '21). They are large-sample telephone surveys facilitating representativeness within a certain sample frame of contactable respondents. Like the LMPSs, they are panel surveys (with refresher samples, and with limited recall modules), allowing us to track the same workers over the span of 18+ months. Similarly to the LMPSs, the ERF COVID-19 MENA Monitors are useful for analyses tailored to vulnerable groups such as women, youths or rural poor.

3.3. Results of Static Assessments of Informality

This section assesses static manifestation of informality across different demographic groups, as well as across subsequent survey waves.

Occupational mobility has been deteriorating over time. For instance, it proved stronger in Egypt over 1996–2006 due to the role of the public sector (Woldemichael et al., 2019), whereas most individuals remained in their initial labour market segments over 2006-2012 (Tansel & Ozdemir, 2019).

Over the span of the past decade, employment vulnerability rose in Egypt, dominated by the rise in the share of youth men who are in vulnerable employment, as well as youth women who experienced a sharp rise in vulnerability. In Jordan, while youth men's vulnerability dropped from 40 per cent to 34 per cent between 2010 and 2016, that of youth women and especially non-youth men increased, for an overall increase in informality. In Tunisia as of 2011 (gauged by recall questions to past employment), the share of youth men in vulnerable employment was high at 63 per cent, and remained roughly the same over time, whereas that of other groups abated.

COVID-19 generally aggravated the situation and forced more workers out of formal or any employment. Compared to pre-pandemic times, the degree of informality increased among both genders both in Egypt and especially in Tunisia. In Jordan, the prospects of formal employment somewhat improved for men, but dramatically deteriorated for women.

The negative impact of COVID-19 on the MENA labour markets thus varied by country and over time but also according to sectors and categories of workers (Assaad et al., 2022). Public

sector workers experienced the mildest effects, although youths and women did not fare well. Informal and especially irregular workers and those working outside of establishments often ended up self-employed or unemployed. Youths and women fared worse than non-youths and males throughout the pandemic, as they were first to be made redundant at the start of the pandemic, and were brought back only gradually over the period of recovery (Hlasny & AlAzzawi 2022a,b). Many women of all ages left the labour force altogether.

3.4. Multinomial Logistic Estimation of the Drivers of Informality

To investigate the risk factors for workers' informal employment statuses, we estimate multinomial logistic regressions of the status of workers of various ages and of either sex, on their individual and household characteristics. The multinomial logistic regressions estimate the probability that a worker will attain a particular employment type (i.e., formal, informal/irregular, self-employed/unpaid, unemployed) relative to the probability of the baseline option (remaining out of the labour force). The regressions take the values of regressors (worker demographics, backgrounds, and human capital), and estimate their marginal effects using the maximum likelihood method (AlAzzawi & Hlasny, 2022; Hlasny & AlAzzawi, 2022a). Finally, the estimates allow us to calculate the propensities of workers to attain each possible employment outcome (See Figures 2 and 3 in the Appendix).

The main findings from these regressions, estimated on the LMPSs separately for each country, are that family wealth, and father's education and employment are important determinants of employment outcomes and these associations persist even after a long period of work experience. Youth workers are less likely to attain decent employment than non-youths, particularly in formal employment. Labour market conditions deteriorated over the past decade in all three countries evaluated (Egypt, Jordan and Tunisia). Similar models estimated on the COVID-19 MENA Monitors – without parental and other background controls available – show that workers' education, age cohort, and place of residence help to explain workers' status. Even when controlling for workers' pre-pandemic employment status, and thus neutralizing the high persistency of employment status over the span of months, we find that education level in particular is a critical factor that allows workers' transition to better employment statuses, and thus a crucial means for social mobility.

3.4. Dynamic Analysis of Workers' Outcomes: Occupational Mobility in the 2010s

To understand better the fate of workers in vulnerable employment, we can assess detailed labour market status transitions of various groups of workers over the span of several years before the onset of COVID-19, and of several months across different phases of the pandemic.

Dynamic analysis using LMPSs and COVID-19 MENA Monitors confirms that youths starting in vulnerable jobs are unlikely to move to better quality jobs over time. Youth workers are less likely to access decent employment than non-youths, particularly in formal employment.

According to Table 5, informal jobs carry limited prospects for later transition to decent work in male youths' careers. The trajectory for women – those who start out in vulnerable employment is most likely to transition out of the labour market altogether, while the small minority who retain their vulnerable employment status rarely transition to formal jobs. Once out of the labour force, they rarely return. The only women who seem to hold on to their work and employment

status over time are those who were previously in formal jobs.

Occupational transition matrices of non-student youths (aged under 30) in several MENA countries over substantially comparable periods in the last decade offer a view of the evolving opportunities for lifetime mobility (AlAzzawi & Hlasny, 2022). Beyond the different configurations of the respective labour markets, the comparison of Egypt, Jordan and Tunisia reveals three distinct patterns. First, young male workers are less mobile than females are, whereas young female workers are more mobile initially but eventually leave the labour force.

Second, lack of mobility is a concern for males and to a lesser extent also females, regardless they start as formal or informal wage earners. This underpins the chronic segmentation of the labour market. Formal employees do not relinquish their status over time, which provides them with benefits in terms of social protection and pay, while informal employees have little success in overcoming barriers to entry into high-quality or formal employment (Fields, 1990). Third, across both genders, the self-employed in Egypt are distinctly more mobile (in Tunisia less mobile, respectively).

3.5. Salient Facts from Transition Matrices

Informal jobs leave youth workers with limited prospects for transition to decent work later in their careers. In particular, in Egypt, transitions out of vulnerable employment for youth men were very low during 2012–2018. Tunisian men both youth and non-youth faced similar persistence in terms of their vulnerable labour market status over the 6 years from 2008 to 2014. Over 80% of men who were in vulnerable employment in 2008 were in a similarly vulnerable status in 2014. Jordanian men's outcomes exhibited less persistence overall. There was some transition from informal/irregular work to formal work for youth men. The clear difference between Jordan, and Egypt and Tunisia, however, is that far more Jordanian men who had previously been working transitioned to being out of the labour force (OLF) over these six years-a phenomena that was almost entirely faced by women in the other two countries.

The trajectory for women seems far more consistent across countries and age groups. Women who start out in vulnerable employment are most likely to transition out of the labour market all together, while the small minority who retain their vulnerable employment status rarely transition to formal jobs. Moreover, once out of the labour force, they rarely transition back to it.

Similarly, only a small minority of unemployed women transition to employment, and if they do it is more likely to be formal jobs in either the public of private sector, but this share rarely exceeds 15% in Egypt. It is slightly higher in Jordan and Tunisia for youth women only. The only women who seem to hold on to their work and employment status over time are those who were previously in formal jobs, with between 50 and 80 percent of women who were in a formal job remaining in a formal job by the next survey wave.

In Egypt, men remain in employment within their professional status (almost two-thirds of employees on average), while more than half of the self-employed are mobile; men are less mobile than women who remain less in employment within their professional status (with the exception of formal employees), who are much more likely to leave the labour force. According to Table 5, 26% males and 22% females who are not employed retain their status; 65% males

and 72% females in formal employment retain their status; 63% males but only 12% females in informal employment retain their status; 90% inactive males become employees (mostly informal), whereas 82% inactive females remain inactive.

In Tunisia, men remain in employment within their professional status (over two-thirds on average); they are less mobile than women who remain less in employment within their professional status (about half on average), and are far more likely to leave the labour force. As many as 87% of males but only 58% females who are not employed retain their status; 82% males but only 52% females in formal employment retain their status; 71% males but only 43% females in informal employment retain their status; 45% inactive males but only 20% inactive females become active employees.

In Jordan during 2010–2016, 40% of youth men in informal occupations in 2010 remained there as of 2016, and 74% of those non-formally employed remained non-formal 6 years later. Among women, 42% of youths in informal occupations in 2010 remained there by 2016, and 97% of those non-formally employed remained non-formal six years later.

Table 5. Youths' transitions in Egypt (2012-2018), Jordan (2010-2016) & Tunisia (2008-2014) by gender

Status	Self-employed	Formal employee	Informal employee	Unemployed	Inactive	
Egypt (2012-2018): Males						
Self-employed	0.26	0.07	0.46	0.05	0.04	
Formal employee	0.03	0.65	0.26	0.03	0.01	
Informal employee	0.09	0.13	0.63	0.06	0.05	
Unemployed	0.04	0.28	0.45	0.12	0.08	
Inactive	0.11	0.18	0.53	0.04	0.10	
Egypt (2012-2018): I	Females					
Self-employed	0.22	0.02	0.05	0.05	0.66	
Formal employee	0.00	0.72	0.05	0.04	0.19	
Informal employee	0.04	0.07	0.12	0.16	0.61	
Unemployed	0.02	0.05	0.04	0.26	0.63	
Inactive	0.05	0.02	0.03	0.08	0.82	
Jordan (2010-2016):						
Self-employed	0.24	0.15	0.15	0.18	0.22	
Formal employee	0.02	0.66	0.05	0.04	0.21	
Informal employee	0.10	0.23	0.40	0.06	0.18	
Unemployed	0.07	0.35	0.12	0.21	0.22	
Inactive	0.07	0.27	0.13	0.23	0.30	
Jordan (2010-2016):						
Self-employed	0.01	0.14	0.06	0.00	0.79	
Formal employee	0.00	0.45	0.04	0.08	0.43	
Informal employee	0.00	0.03	0.42	0.25	0.30	
Unemployed	0.00	0.22	0.00	0.27	0.48	
Inactive	0.00	0.05	0.02	0.09	0.84	
Tunisia (2008-2014)						
Self-employed	0.87	0.04	0.03	0.06	0.00	
Formal employee	0.02	0.82	0.11	0.04	0.01	
Informal employee	0.04	0.07	0.71	0.12	0.06	
Unemployed	0.04	0.18	0.09	0.52	0.16	
Inactive	0.08	0.17	0.20	0.31	0.24	
Tunisia (2008-2014)						
Self-employed	0.58	0.00	0.00	0.00	0.42	
Formal employee	0.02	0.52	0.00	0.00	0.46	

Informal employee	0.00	0.00	0.43	0.13	0.44
Unemployed	0.00	0.24	0.20	0.44	0.12
Inactive	0.02	0.11	0.06	0.20	0.60

Notes: Non-student youths aged 18–29.

Source: ELMPS 2012-2018, TLMPS 2014. AlAzzawi & Hlasny (2022).

During the pandemic, the probability for males to attain any employment status stagnated, with the only consistent trend being a gradual decline in the probability of self-employment and irregular employment. These trends were accompanied by a rise in involuntary unemployment since early 2021. Women have witnessed a similar stagnation of their status, by being largely excluded from work (Assaad et al., 2020; Hlasny & AlAzzawi 2022a, b). An increase in their participation rate to the labour market was accompanied by a rise in the prospect of involuntary unemployment.

Table 6. Youths' transitions in Egypt, Jordan, Morocco & Tunisia, Feb 2020-Feb 2021, by gender

	801 /			, , ,	
Status	Public sector	Formal private	Informal private	Unemployed	Inactive
Egypt: Males					
Public sector	1.00	0.00	0.00	0.00	0.00
Formal private	0.00	0.90	0.00	0.10	0.00
Informal private	0.01	0.00	0.93	0.05	0.01
Unemployed	0.00	0.00	0.00	1.00	0.00
Inactive	0.03	0.00	0.00	0.05	0.92
Egypt: Females					
Public sector	0.91	0.00	0.00	0.00	0.09
Formal private	0.00	0.19	0.00	0.81	0.00
Informal private	0.00	0.00	0.44	0.10	0.46
Unemployed	0.00	0.00	0.00	1.00	0.00
Inactive	0.02	0.00	0.00	0.01	0.97
Jordan: Males					
Public sector	1.00	0.00	0.00	0.00	0.00
Formal private	0.00	0.84	0.00	0.13	0.03
Informal private	0.01	0.00	0.75	0.20	0.05
Unemployed	0.04	0.00	0.00	0.96	0.00
Inactive	0.00	0.00	0.00	0.03	0.97
Jordan: Females					
Public sector	0.73	0.00	0.00	0.18	0.09
Formal private	0.00	0.76	0.00	0.20	0.04
Informal private	0.00	0.00	0.40	0.39	0.07
Unemployed	0.00	0.00	0.00	1.00	0.00
Inactive	0.00	0.00	0.00	0.02	0.98
Morocco: Males					
Public sector	0.84	0.09	0.01	0.06	0.00
Formal private	0.00	0.93	0.00	0.06	0.00
Informal private	0.00	0.04	0.87	0.08	0.01
Unemployed	0.00	0.02	0.06	0.86	0.05
Inactive	0.02	0.00	0.00	0.43	0.55
Morocco: Females					
Public sector	0.53	0.00	0.00	0.44	0.03
Formal private	0.03	0.85	0.00	0.05	0.08
Informal private	0.00	0.03	0.91	0.02	0.05
Unemployed	0.08	0.04	0.11	0.44	0.32
Inactive	0.00	0.00	0.00	0.06	0.94
Tunisia: Males					
Public sector	0.76	0.08	0.00	0.00	0.16
Formal private	0.00	0.78	0.06	0.11	0.05
•					

Informal private	0.00	0.12	0.59	0.25	0.04
Unemployed	0.00	0.03	0.18	0.72	0.07
Inactive	0.01	0.04	0.08	0.19	0.67
Tunisia: Females					
Public sector	0.76	0.00	0.00	0.24	0.00
Formal private	0.01	0.77	0.00	0.22	0.00
Informal private	0.00	0.30	0.30	0.25	0.15
Unemployed	0.00	0.14	0.00	0.67	0.19
Inactive	0.02	0.03	0.03	0.11	0.80

Notes: Non-student youths aged 18-29.

Source: Authors' calculations based on COVID-19 MENA Monitors. Hlasny & AlAzzawi (2022a).

Amid COVID-19, in Morocco, 57 per cent of youth men starting in informal occupations out of establishments in February 2020 remained in this status a year later, as did 92 per cent of those non-formally employed. Among women, attrition was serious. As little as 35 per cent of youth women starting in informal occupations out of establishments in February 2020 remained there, while as many as 86 per cent remained out of formal jobs – including out of the labour force – a year later.

In Tunisia, 57 per cent of youth men starting in informal occupations out of establishments in February 2020 remained there, and 93 per cent remained non-formally employed a year later. 28 per cent of youth women starting in informal occupations out of establishments in February 2020 remained there, and 99 per cent remained non-formally employed a year later.

4. The Root Causes of Informalisation, and the Formalisation Drive

The first main cause of persistent or rising informality is the inability of the formal economy (including the public sector) to absorb increasing labour force (Chen & Harvey, 2017). IMF, (2021) suggests that 85 per cent of all informal workers are in precarious employment, not through choice, but due to lacking opportunities in formal (private or public) employment. The other main cause is inadequacy of regulatory frameworks and weak enforcement of labour contracts and social security inspectorate, including corruption, which push the informal sector and microenterprises to operate outside the purview of regulations.

In the 2010s, the International Labour Organisation (ILO, 2013) provided a comprehensive overview of the informal economy and recommended policy approaches to achieve transition and integration into the formal economy. The World Bank has advocated and assessed formalisation policies targeting the inefficiencies and inequities in the informal sector (Benjamin et al., 2014). The deepening of informality reveals contradictory traits of narrow short-term advantages and general disadvantages: unfair bare-knuckles competition in prices from informal micro and small sized enterprises *vis-à-vis* formal firms; erosion of the fiscal tax base; entrapment of (most) informal workers in subsistence jobs without employment protections; the lack of standards and guarantees of equal treatment across different classes of workers; and the loss of incentives for investment in human capital, technology and infrastructure. The formalisation drive would ideally reconcile the promotion of sustainable entrepreneurship advocated by the World Bank, with the ILO-supported organic expansion of social protections for informal and other non-covered workers (Adair, 2022b).

A broad range of formalisation policies have been proposed to address the heterogeneity of informality, but impact assessments provide mixed evidence. A relevant distinction is between policies explicitly tackling informality vs. policies that prove influential though without explicitly aiming at formalisation, such as Active Labour Market Policies (ALMPs). The former policies target categories of businesses (e.g. microenterprises), or workers (e.g. domestic work), and the component of informality (e.g. undeclared work in formal enterprises). ALMPs address the following: (i) skills training in Tunisia (Almeida et al., 2012) and in Morocco (Kluve et al., 2014); (ii) support for enterprise development including microfinance services; (iii) employment services that have no impact on employment outcomes in Jordan (Groh et al. 2012); and (iv) subsidised employment (public employment and wage subsidies) in Jordan and Tunisia (Barcucci & Mryyan, 2014) that does not create jobs on the long run (ILO, 2017b).

Microcredit has some significant positive impacts in the short-term, mainly upon already established businesses in Egypt (Amer & Selwaness 2021), as well as in Morocco (Crépon et al. 2015), while there is no impact on the probability of establishing new businesses. Positive effects vanish in the long run, perhaps because loan amount is too small to spur investment, thus calling for a more sustainable approach (ILO, 2017b).

Formalisation policies address the informal sector more than informal employment, although formalisation targeting the latter proves more effective than targeting the former (Jessen & Kluve 2019). Enacting laws does not ensure alone the transition of workers from informal to formal jobs; beyond design and implementation, monitoring and assessment are crucial steps in the policy cycle (ILO, 2017a). This applies to the law on self-employed entrepreneur and the law on domestic employment Morocco respectively adopted in 2015 and 2016 (Cherkaoui & Benkaraach, 2021).

Formalising businesses using incentives (carrot) is threefold. First, information campaigns on the procedures and benefits of registration, alone, remain ineffective. Second, one-stop shops bring together several procedures and relevant agencies simplifying business registration, and incentives to reduce taxes as well as social security contributions prove effective. Third, shrinking registration costs for start-ups and providing bonuses to businesses willing to register, the impact of which depends on the amount. Reducing half the entry cost would decrease the informal sector by five per cent, whereas shrinking the payroll tax by half would shrink informal employment by 13 per cent (Balima, 2021), some plausible although undocumented figures.

Formalising businesses using penalty (stick) includes, as a fourth approach, law enforcement by the labour inspectorate, which has a minor but significant impact on the formal employment of workers and persists for several years (Gaarder & van Doorn, 2021).

We contend that a concerted effort toward labour-market formalisation would increase firms' factor productivity and performance, which would in turn encourage retention of high-quality workers and acquisition of complementary capital, leading to further performance gains and incentives to curtail labour turnover. The availability of many currently underutilized youths (in the informal sector, or unemployed) and women (economically inactive) presents an opportunity to entrepreneurs. Last, authorities must assess the impact of COVID-19 assistance

schemes designed in the MENA countries to develop consistent and sustainable policies (Krafft et al., 2021).

5. Conclusions

As emphasized in this study, informality is a dynamic concept that looks to the future while remaining grounded on achievements made so far. Informality remains more topical than ever, both conceptually (linking informality to value added), metrically (calculating its scope and trend) and politically (better integrating and formalising it). Informality requires both ongoing thorough investigation and taking stock of evolving stylised facts. Quarterly surveys that were disrupted in several countries by the Covid-19 pandemics must resume data collection for assessment. This is a pre-requisite for policies addressing the formalisation of informality.

Formalisation policies should be judged by the minimal standards of whether they increase employment and general welfare. Their major component of promoting job creation should take place within formal sustainable organisations. In this respect for-profit cooperatives and not-for-profit social and sustainable institutions (SSEs) including microfinance institutions (MFIs), should play a key role (Adair et al., 2022, 2023). In the MENA region, SSEs were spearheaded in Morocco decades ago, and were recently adopted by Tunisian, Egyptian and other governments (Prince et al., 2018). Female workers, being typically disadvantaged compared to their male counterparts, should be assigned priority (Suleiman, 2021).

Formalisation should target both informal businesses and workers, using incentives and penalties. Specific tax and public procurement policies addressing informal workers who are establishing or joining formal sustainable organisations should be promoted (Kiaga & Leung, 2020).

MFIs enable formalisation by supporting and incentivizing informal businesses and workers to take steps toward inclusivity and sustainability. As a paragon to emulate and benchmark against, Alexandria Business Association (ABA), an Egyptian MFI, tripled the number of fully formalised clients between 2004 (6%) and 2016 (18%).

References

- Adair, P. (2022a). How robust a concept is the informal economy and how large is its scope? A few sketchy comments. Proceedings of *The Informal Economy and Gender Inequalities* International Conference, Bejaia University, Algeria, June 14, 2021, *Revue d'études sur les institutions et le développement*, pp. 1-7.
- Adair, P. (2022b). Policies addressing the formalisation of informality in North Africa: Issues and outcomes. Proceedings of *The Informal Economy and Gender Inequalities* International Conference, Bejaia University, Algeria, June 14, 2021, *Revue d'études sur les institutions et le développement*, pp. 97-110.
- Adair, P., Hlasny, V., Rosshandler, K. S., & Omrani, M. (2022). Assessing the job creation potential of the social economy in the MENA region. EuroMeSCo policy study 26.

- Adair, P., Hlasny, V., Rosshandler, K. S., & Omrani, M. (2023). Fostering the social and solidarity economy in MENA countries: a promising challenge [in French]. Maghreb—Machrek Journal, forthcoming.
- AlAzzawi, S., & Hlasny, V. (2022). Youth labor market vulnerabilities: Evidence from Egypt, Jordan and Tunisia. *International Journal of Manpower*, forthcoming.
- Almeida, R. K., Barouni, M., Brodmann, S., Grun, R., & Premand, P. (2012). Entrepreneurship Training and Self-Employment among University Graduates: Evidence from a Randomized Trial in Tunisia. Washington, DC: the World Bank.
- Amer, Mona, and Irene Selwaness (2021) Unleashing the employment potential in the manufacturing sector: developing SME finance and the way forward. Alternative Policy Solutions policy paper, January.
- Assaad, R., Hendy, R., Lassassi, M., & Yassin, S. (2020). Explaining the MENA paradox: rising educational attainment yet stagnant female labor force participation, Demographic Research 43:817-850.
- Assaad, R., Krafft, C. G., Marouani, M. A., Kennedy, S. Cheung, R. & Wahby, S. (2022) Egypt COVID-19 country case study, ILO/ERF report, February.
- Balima H. (2021). Informality and Development in North Africa. Speech at the IMF 2021 Annual Meetings, October 13. International Monetary Fund.
- Barcucci, V., & Mryyan N. (2014). Labour market transitions of young women and men in Jordan. *Work4Youth Publication Series* No. 14; International Labour Office: Geneva.
- Benjamin N., Beegle K., Recanatini F., & Santini M. (2014). Informal Economy and the World Bank, *Policy Research Working Paper* 6888, the World Bank, Washington DC.
- Berguiga I., & Adair P. (2019). Funding MSMEs in North Africa and Microfinance: the Issue of Demand and Supply Mismatch. *Economic Research Forum Working Paper* No. 1350, September. Cairo.
- Castells, M., & Portes, A. (1989). World Underneath: the Origins, Dynamics, and Effects of the Informal Economy. In Portes, A. Castells, M., Benton L. A. (Eds.) *The Informal Economy: Studies in Advanced and Less Developed Countries*, Baltimore, Johns Hopkins University Press.
- Charmes J. (2019). *Dimensions of Resilience in Developing Countries: Informality, Solidarities and Carework*, Springer, Series: Demographic Transformation and Socio-Economic Development, 10.
- Chen, M., & Carré, F. (Eds) 2020, The informal economy revisited examining the past, envisioning the future. Routledge.
- Chen, M., & Harvey, J. (2017). *The informal economy in Arab nations: A comparative perspective*. WIEGO, January 23.
- Cherkaoui, M., & Benkaraach, T. (2021). Striving for formalisation Gender and youth aspects of informal employment in Morocco in Ghosh J. Ed. *Informal Women Workers in the Global South. Policies and Practices for the Formalisation of Women's Employment in Developing Economies.* (Chap. 5, pp. 137-173) Routledge.
- Crépon, B., Devoto, F., Duflo, E., & Parriente, W. (2015). Estimating the impact of microcredit on those who take it up: Evidence from a randomized experiment in Morocco. *American Economic Journal: Applied Economics* 7(1), 123–150.

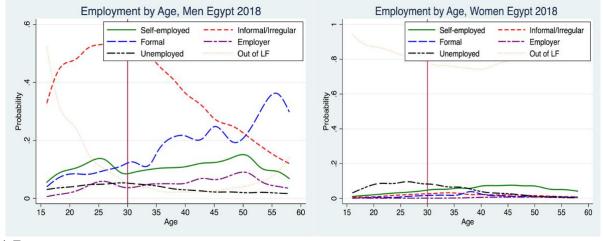
- De Soto, H (2012). L'économie informelle: comment y remédier? Une opportunité pour la *Tunisie* [The informal economy: how to remedy it? An opportunity for Tunisia], UTICA and Instituto Libertad y Democracia, Ceres Edition, Tunis.
- De Soto, H. (1986). *The Other Path: The Invisible Revolution in the Third World*. Harper and Row, English translation, 1989.
- Elgin, C., Kose, A., Ohnsorge, F., & Yu, S. (2021). Understanding Informality. *CEPR Discussion Paper* 16497. Centre for Economic Policy Research, London.
- Fehling, M., Jarrah, Z.M., Tiernan, M.E., Albezreh, S., VanRooyen, M.J., Alhokair, A., & Nelson, B.D. (2016). Youth in crisis in the Middle East and North Africa: A systematic literature review and focused landscape analysis, *Eastern Mediterranean Health Journal*, 21(12), 916-930.
- Gaarder, E., & van Doorn, J. (2021). Enterprise Formalization: Simplifying and facilitating business start-up and compliance. International Labour Office: Geneva.
- Gatti, R., Angel-Urdinola, D. F., Silva, J., & Bodor, A. (2014). *Striving for Better Jobs The Challenge of Informality in the Middle East and North Africa*, Washington DC, the World Bank.
- Gherbi H., & Adair P. (2020). The Youth Gender gap in North Africa: Income differentials and Informal Employment, *Erudite Working Paper* series 06-2020. RePEc
- Groh, M. Krishnan N., McKenzie D., & Vishwanath T. (2012). Soft skills or hard cash? The impact of training and wage subsidy programs on female youth employment in Jordan. *Policy Research Working Paper Series* 6141. Washington, DC: the World Bank.
- Hart, K. (1973) Informal Income Opportunities and Urban Employment in Ghana. *Journal of Modern African Studies*, 11(1), 61-89.
- HCP (2016). *Enquête nationale sur le secteur informel 2013/2014*, Haut Commissariat au Plan, Rabat, Maroc.
- Hlasny, V., & AlAzzawi, S. (2020). Informality, market fragmentation and low productivity in Egypt, *ERF Forum*, August, Cairo: Economic Research Forum.
- Hlasny, V., & AlAzzawi, S. (2022a). First out, last in amid COVID-19: employment vulnerability of youths in the Middle East, AFD research paper 245, April, Paris: Agence Française de Développement.
- Hlasny, V., & AlAzzawi, S. (2022b). Last in after COVID-19: employment prospects of youths during a pandemic recovery, Forum for Social Economics, 51(2), 235-244.
- ILO (2022). ILO Monitor on the world of work. 9th edition. ILO Briefing note, May 25. International Labour Office: Geneva.
- ILO (2021). ILO Monitor: COVID-19 and the world of work. 7th edition. ILO Briefing note, January 25. International Labour Office: Geneva.
- ILO (2020a). Global Employment Trends for Youth 2020: Arab States. International Labour Office: Geneva. https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/briefingnote/ wcms_737672.pdf.ILO (2020b). Extending Social Protection to Informal Workers in the COVID-19 Crisis: Country Responses and Policy Considerations, Social Protection Spotlight. 14 September, International Labour Office: Geneva.
- ILO (2018a). The Cooperative Sector in Lebanon: What Role? What Future? International Labour Office: Geneva. https://www.ilo.org/wcmsp5/groups/public/---arabstates/---robeirut/documents/- publication/wcms_644724.pdf

- ILO (2018b). Jordan: Establishing Day Care Centres in the Private Sector. *Impact Brief Series*,
 - 15, International Labour Office: Geneva.
- ILO (2017a). Towards Evidence-Based Active Labour Market Programmes in Egypt. Challenges and Way Forward. Impact Report Series, Issue 4, International Labour Office: Geneva.
- ILO (2017b). Promoting women's empowerment in the Middle East and North Africa Impact A rapid evidence assessment of labour market interventions Brief Series, Issue 9, International Labour Office: Geneva.
- ILO (2015). Transition from the Informal to the Formal Economy Recommendation No. 204, International Labour Conference -104th Session. Employment policy (part IV), 1-13 June, International Labour Office: Geneva.
- ILO (2013). *Measuring Informality: A Statistical Manual on the informal sector and informal*, International Labour Office: Geneva.
- ILO (1972) Employment, Incomes and Equality. A Strategy for Increasing Productive Employment in Kenya, International Labour Office, Geneva.
- ILOSTAT, Labour Statistics database, International Labour Office, Geneva.
- Jessen, J., & Kluve, J. (2019). The Effectiveness of Interventions to Reduce Informality in Low-and Middle Income Countries, *IZA Discussion Paper* 12487.
- Kiaga, A., & Leung, V. (2020) The transition from the informal to the formal economy in Africa, Global Employment Policy Review background paper 4, December, International Labour Organization.
- Kluve J., Dyer P., Gardiner D., & Mizrokh E. (2014). Boosting Youth Employability in Morocco II Randomized Controlled Trial Baseline Report December. International Labour Office: Geneva.
- Kluve, J., Puerto, S., Robalino, D., Romero, J.M., Rother, F., Stöterau, J., Weidenkaff, F., & Witte, M. (2019). Do youth employment programs improve labor market outcomes? A quantitative review: *World Development*, 114, 237 253
- Krafft, C., Assaad, R., & Marouani M. A. (2021). The Impact of COVID-19 on Middle Eastern and North African Labor Markets: Vulnerable Workers, Small Entrepreneurs, and Farmers Bear the Brunt of the Pandemic in Morocco and Tunisia, *ERF Policy Brief* 55. Cairo: Economic Research Forum.
- Lewis, A. (1954). Economic Development with Unlimited Supplies of Labour, *Manchester School of Economic and Social Studies*, 22(2), 139-191.
- Lopez-Acevedo, G., Betcherman, G., Khellaf, A., & Molini, V. (2021) Morocco's jobs landscape: identifying constraints to an inclusive labor market, International Development in Focus, World Bank.
- Medina, L. & Schneider, F. (2019). Shedding Light on the Shadow Economy: A Global Database and the Interaction with the Official One. *CESifo Working Paper, No.* 7981. Munich.
- Merouani, W., El Moudden, C., & Hammouda, N-E. (2018). Social Security Entitlement in Maghreb Countries: Who is Excluded? Who is not Interested? *ERF Working Paper* No. 1264, Economic Research Forum, December.

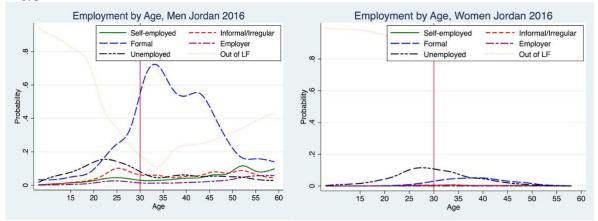
- OAMDI (2021). COVID-19 MENA Monitor Household and Enterprise Surveys: Egypt, Jordan, Morocco, Tunisia (CCMMHH, CCMMENT), www.erfdataportal.com/index.php/catalog. Version 2.0 of the licensed data files. Open Access Micro Data Initiative. Cairo: Economic Research Forum (ERF).
- Ohnsorge, F. & Yu, S. Eds. (2021) *The Long Shadow of Informality: Challenges and Policies*. The World Bank. Washington DC.
- Prince, H., Halasa-Rappel, Y. & Khan, A. (2018) Economic growth, youth unemplyment, and political and social instability: a study of policies and outcomes in post-Arab Spring Egypt, Morocco, Jordan and Tunisia, UNRISD working paper 2018-12, United Nations Research Institute for Social Development.
- Shahen, M.E., Kotani, K., Kakinaka, M., & Managi, S. (2020). Wage and labor mobility between public, formal private and informal private sectors in a developing country, *Economic Analysis and Policy*, 68, 101–113.
- Suleiman, H. (2021) COVID-19 and women employment in Mediterranean countries: impact and policies for reducing gender inequality in work, Med Brief 14, FEMISE.
- Suleiman, H. (2022), Youth unemployment in the south of the Mediterranean: a chronic challenge to development and stability, EuroMeSCo paper 48.
- Tansel, A., & Ozdemir Z. A. (2019). Transitions across labor market states including formal/informal division in Egypt. *Review of Development Economics*, 23(8),1–22.
- Woldemichael, A., Joldowski, M., & Shimeles, A. (2019). Labor Market Flexibility and Jobs in Selected African Countries, *Working Paper Series* N° 330, African Development Bank, Abidjan, Côte d'Ivoire.

Appendix

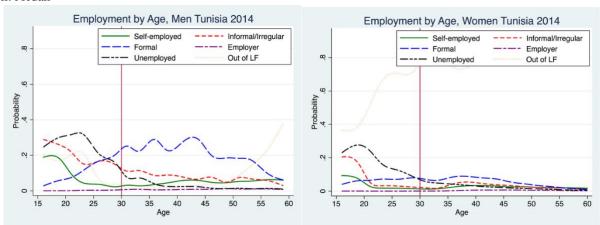
Figure 2. Predicted prospect of job type in Egypt 2018, Jordan 2016 and Tunisia 2014, by gender



i. Egypt

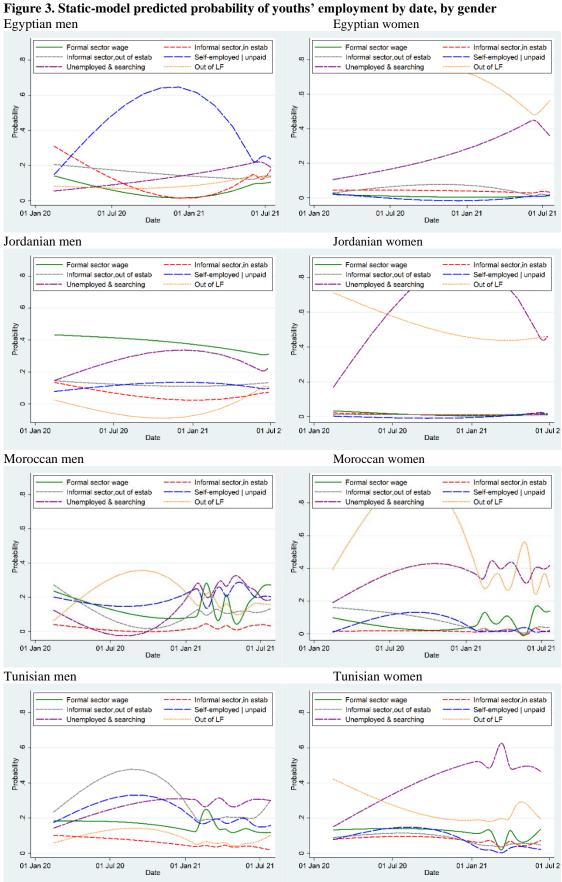


ii. Jordan



iii. 2014 Tunisia

Source: Authors' calculations based on ELMPS 2018, JLMPS 2016, TLMPS 2014.



Source: Authors' calculations from COVID-19 MENA Monitors, Egypt, Jordan, Morocco & Tunisia waves 1–4.