

Social Insurance from A Regional Perspective: Egypt, Jordan and Tunisia

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Abstract

This paper presents a comparative analysis of social insurance systems in Egypt, Jordan, and Tunisia. It examines legal, structural, and institutional distinctions and investigates efforts to extend coverage to challenging-to-insure groups and sectors. Conceptualized within the framework of the social contract, the analysis takes a two-pronged approach. Firstly, a mapping of the legal provisions and *de jure* coverage of social insurance schemes is conducted for all three countries to assess the inequalities in access to contributory social insurance schemes and identify vulnerable groups at risk of exclusion due to labor market dynamics and economic structures. Secondly, *de facto* social insurance coverage is explored by analyzing data from the Integrated Labor Market Panel Surveys (ILMPS) for Egypt (2018), Jordan (2016), and Tunisia (2014). The analysis reveals that in all three countries, gaps are present between *de jure* and *de facto* social insurance coverage. This is especially true for those engaged in sectors characterized by high informality, daily wage laborers, women, youth, and low-income individuals. Additionally, significant gaps persist between the private sector and the public sector. The findings underline the need for a comprehensive approach to foster inclusivity in the social insurance system, which can significantly upgrade the broader social contract.

Keywords: Social insurance, regional perspective, Egypt, Jordan, Tunisia

JEL Classifications: J1, J2

ملخص

تقدم هذه الورقة تحليلاً مقارناً لنظم التأمين الاجتماعي في مصر والأردن وتونس. وهي تدرس الفروق القانونية والهيكلية والمؤسسية وتحقق في الجهود المبذولة لتوسيع نطاق التغطية لتشمل الفئات والقطاعات التي تنطوي على تحديات للتأمين. يتخذ التحليل، الذي تم تصوره في إطار العقد الاجتماعي، نهجاً ذا شقين. فأولاً، يجري رسم خريطة للأحكام القانونية والتغطية القانونية لمخططات التأمين الاجتماعي لجميع البلدان الثلاثة لتقييم أوجه عدم المساواة في الوصول إلى مخططات التأمين الاجتماعي القائمة على الاشتراكات وتحديد الفئات الضعيفة المعرضة لخطر الاستبعاد بسبب ديناميات سوق العمل والهيكل الاقتصادية. ثانياً، يتم استكشاف تغطية التأمين الاجتماعي الفعلية من خلال تحليل البيانات من المسوحات التتبعية لأسواق العمل المتكاملة (ILMPS) لمصر (2018) والأردن (2016) وتونس (2014). ويكشف التحليل عن وجود ثغرات في جميع البلدان الثلاثة بين تغطية التأمين الاجتماعي بحكم القانون وتغطية التأمين الاجتماعي بحكم الواقع. وينطبق هذا بصفة خاصة على العاملين في القطاعات التي تتسم بارتفاع درجة الطابع غير الرسمي، والعاملين بأجر يومي، والنساء، والشباب، والأفراد ذوي الدخل المنخفض. وبالإضافة إلى ذلك، لا تزال هناك ثغرات كبيرة بين القطاع الخاص والقطاع العام. وتؤكد النتائج الحاجة إلى اتباع نهج شامل لتعزيز الشمولية في نظام التأمين الاجتماعي، الذي يمكن أن يحسن إلى حد كبير العقد الاجتماعي الأوسع نطاقاً.

1. Introduction

In Egypt, Jordan, and Tunisia, the social contracts between citizens and their governments have evolved over time, influenced by political regimes, economic policies, and societal aspirations. These contracts encompass the provision of public services, the protection of individual rights, and equitable resource allocation (Heydemann, 2020). Egypt is in the midst of transitioning from state-driven welfare programs as it grapples with the challenge of maintaining socially just systems in the face of political instability and economic disparities. In contrast, Jordan's social contract has traditionally been paternalistic, with the monarchy playing a central role in maintaining stability and economic benefits. Meanwhile, Tunisia has been witnessing a fluctuating shift toward a more inclusive and democratic framework that prioritizes political participation, economic egalitarianism, and human rights (El-Haddad, 2020; Ibrahim, 2021; Loewe, Zintl, and Houdret, 2021).

However, sustaining socially just systems in these countries remains challenging due to factors such as (geo)political volatility, economic tribulations, and social unrest. Recent years have seen a decline in economic opportunities, high unemployment rates, corruption, and inadequate public services (Loewe and Albrecht, 2022). These challenges raise concerns about the sustainability of the current social contracts, prompting the need for new measures.

One potential solution, proposed by development institutions and researchers,¹ is the strengthening of contributory social insurance schemes. Such schemes involve regular contributions made by individuals and employers to a social security fund, which aims to provide financial protection against a range of risks including old age, disability, unemployment, and healthcare expenses (Cichon et al., 2004). The underlying objective is to ensure comprehensive coverage and distribute the burden of social protection collectively.

To achieve this, it is essential to assess the level of inclusivity within these programs both in terms of their legal framework and their practical implementation. Hence, to comparatively investigate this subject, this paper introduces a set of research questions aimed at offering insights into the current state of the social contract by scrutinizing the status of social insurance in these countries.

Research Question A: Does societal group inequality exist with regard to access and barriers to contributory social insurance from a legal perspective?

The legal frameworks and eligibility criteria governing participation in contributory social insurance schemes vary among the three countries. These schemes typically cover employees in the formal sector, which includes workers in public and private sectors, and may also extend to self-employed individuals. However, differences in specific coverage and eligibility criteria can lead to the exclusion or limited access of certain vulnerable groups. The relationship between

¹ See, for example, ILO (2020), ESCWA (2019), and Loewe and Jawad (2018).

societal groups, both with the government and among themselves, does not inherently guarantee equality. This gives rise to concerns about possible disparities within societal groups in terms of access to contributory social insurance and the obstacles faced within their domain, particularly from a legal perspective. The analysis will note this issue while considering the International Labour Organization's (ILO) definition of the informal sector (and its workers), particularly in the context of social insurance coverage.^{2,3}

Research Question B: Which groups are susceptible to being left out due to labor market dynamics and existing economic structures?

In addition to legal considerations, the effective coverage of these social insurance schemes may be influenced by various factors, including inadequate enforcement mechanisms, the prevalence of labor markets outside the scope of social insurance coverage, and resource constraints. Consequently, certain vulnerable populations – such as those engaged in sectors characterized by high informality, daily wage laborers, women, youth, and low-income individuals – may encounter difficulties in accessing social insurance benefits, thereby perpetuating their exclusion and leading to inequitable outcomes. A comprehensive understanding of the groups at risk of marginalization resulting from labor market dynamics and existing economic structures is imperative for policymakers to address the specific needs and challenges faced by these populations.

Research Question C: To what extent is the de facto social insurance coverage realized within Egypt, Jordan, and Tunisia?

By assessing the level of coverage, we examine the current social security systems and identify existing gaps, disparities, and inequalities.

The paper aims to provide insights into who benefits from these programs and who is left behind. Our overarching hypothesis is that the effectiveness of social insurance coverage in Egypt, Jordan, and Tunisia is hindered by significant disparities between the *de jure* inclusion in social insurance schemes and the *de facto* coverage of these schemes. While the legal frameworks in these countries generally encompass employees eligible for social insurance, certain vulnerable groups may face exclusion or limited access to these benefits. Additionally, inadequate enforcement mechanisms, vulnerable labor conditions, and limited resources contribute to inequitable outcomes and challenges in accessing social insurance schemes. This research endeavors to scrutinize these

² Sector of economic activity of workers and economic units insufficiently or not covered by formal arrangements. The usual criteria for the operationalization of informal jobs usually refer to the lack of coverage by the social security system and entitlement to paid annual or sick leave and/or contract (ILOSTAT, 2023).

³ *De jure* focuses on the legal framework and criteria for participation in contributory social insurance schemes, which typically cover formal sector employees and may extend to self-employed individuals. However, specific coverage and eligibility criteria may differ, potentially excluding vulnerable groups. *De facto* coverage considers factors such as inadequate enforcement, labor market informality, and limited resources, which can impact the effective implementation of social insurance schemes and lead to exclusion and inequitable outcomes for populations such as informal workers, women, youth, and low-income individuals.

complex dynamics through the prism of the social contract, shedding light on the intricate interplay between social security and the broader societal compact.

The structure of the paper is as follows. Section two explores the facets of the social contract and social security concepts, specifically examining how they relate to the cases of Egypt, Jordan, and Tunisia. Section three sets out the methodology employed in this paper, while section four sets out a comparative approach discussing the macroeconomic and labor market structures for each country within which social insurance is given shape. Section five then maps out the legislative and institutional frameworks across the three countries. This is followed by section six, which presents an analysis of the social insurance coverage presented using the Integrated Labor Market Panel Surveys (ILMPS). In section seven, a detailed discussion of the findings is given, leading to the conclusions in section eight, where the paper wraps up with key insights.

2. Framing social security in relation to the social contract

2.1. Social contracts

In countries such as Egypt, Jordan, and Tunisia, citizens have long and actively sought to renegotiate the social contract, demanding greater accountability, inclusivity, and socioeconomic justice. These movements and initiatives have emerged as responses to longstanding grievances, including political restrictions and oppression, economic inequality, and limited civic participation (Heydemann, 2020). Citizens have taken to the streets, organized protests, and engaged in dialogue with authorities to voice their concerns and push for transformative changes in the social contract (Goldstone, 2011). These efforts have aimed to redefine the relationship between the state and its citizens, calling for enhanced political representation, improved public services, and the equitable distribution of resources. By demanding a more inclusive and responsive social contract, citizens in these countries have sought to shape a fairer and more just society.

In a closer analysis of recent history, the social contract was notably influenced by the structural adjustment programs of the late 1980s and the 1990s, which prompted a significant shift toward market economies, consequently impacting the public sector (Zallio, 1995) and having mixed effects on the social contract itself. These programs, which ultimately aimed to address economic challenges, often resulted in social inequalities, reduced access to basic services, and increased discontent among citizens (Bourguiba and Rijkers, 2016; Al-Salem and Al-Asmar, 2003; El-Mikawy and Harb, 2006). As also argued by Loewe et al. (2021), looking at the social contract only as a relation between citizen and state is not sufficient; it is important to recognize the inherent inequalities that are prevalent within society, with some societal groups being more influential than others. Similarly, the relation between the societal groups is essential to understanding the prevailing social contract.

To fully understand the state of the social contract in those countries today, it is imperative to consider the contextual perspective and the significant changes that each country has undergone

in its institutional, social, and political arrangements (El-Haddad, 2020; Ibrahim, 2021; Loewe, Zintl, and Houdret, 2021). Egypt, for example, witnessed a historical shift from state dominance to demands for political freedoms, social justice, and economic opportunities during the 2011 uprising. In Jordan, relatively stable political conditions have coexisted with rising challenges stemming from rapid demographic changes, influxes from neighboring countries, and the need for social inclusion, whereas in the case of Tunisia, the turbulence of political instability led to the dissolution of its established social compact, laying bare deep-seated concerns like inequality, corruption, and insufficient social services.

However, it is important to note that these countries have evolved today into a hybrid mode, combining elements of both market economies and state intervention. The Arab uprising, which began in 2011, had a profound impact on the social contract and social insurance systems in the region. The uprisings were driven by demands for political freedom, social justice, and economic opportunities (Loewe, Zintl, and Houdret, 2021). The literature on the Arab uprising highlights the call for change in the social contract, with citizens demanding greater accountability, transparency, and inclusivity from their governments (Grinin and Korotayev, 2022). These movements also drew attention to the need for reforming social insurance systems to address the inequalities and inadequacies in providing social protection to all segments of society (Jawad, 2019).

The social contracts in Egypt, Jordan, and Tunisia share some similarities in their evolution over the years. All three countries have experienced periods of political instability and social unrest that exposed weaknesses in their existing social contracts. These weaknesses include issues such as inequality, corruption, inadequate social services, and limited political freedoms. The uprisings and subsequent transitions in these countries have led to calls for greater accountability, transparency, and inclusivity in the social contract (Loewe and Albrecht, 2022). Additionally, there is growing recognition of the need for reforms to address socioeconomic disparities and ensure equal opportunities for all citizens, regardless of which societal group they belong to. These similarities highlight the common challenges faced by these countries in redefining their social contracts to meet the evolving needs and aspirations of their populations.

One potential solution proposed to address the challenges facing the social contract is the strengthening of contributory social insurance schemes (Kidd, Nycander, Tran, and Cretney, 2020; Loewe and Jawad, 2018). These schemes involve regular contributions made by individuals and employers to a social security fund, aiming to provide financial protection against a range of risks including old age, disability, unemployment, and healthcare expenses. The underlying objective would be to ensure comprehensive coverage and distribute the burden of social protection collectively. However, it is important to recognize that the degree of inclusivity within these schemes varies from a legal standpoint across Egypt, Jordan, and Tunisia.

Regardless of the legal framework in place, employees may face difficulty in starting their career while being socially insured – as illustrated by Razzaz and Selwaness (2022) in the context of Jordan – let alone be able to transition to a job that provides social insurance coverage. Alternatively, they may opt out of formal employment altogether as it emerges in the context of the Maghreb (Merouani, Moudden, and Hamouda, 2021). The boundaries between different employment relationships are often blurred, and workers frequently move between different arrangements. Still, they are often not covered or inadequately covered by the social security system, thus maintaining the status quo of the prevailing social contract.

To break this cycle, a critical examination of the social security system in place is warranted. The subsequent sections of this paper will therefore present a detailed discussion of this proposed measure, exploring the intricacies and nuances of these schemes, examining the legal frameworks in each country, understanding to what extent this is inclusive of different societal groups, and critically analyzing the potential of social insurance in strengthening the social contract. However, a few definitional clarifications must be presented first.

2.2. Social security and social insurance

From a definitional angle, social security refers to a broader concept that encompasses various programs and measures implemented by the government to provide social protection and support to individuals and families in times of need. It is a comprehensive system that aims to ensure economic security, social welfare, and well-being for the population. Social security programs typically include provisions for income support, healthcare, unemployment benefits, disability benefits, and pensions (Cichon et al., 2004).

On the other hand, social insurance is a specific type of social security program that is based on the principle of income smoothing, risk-pooling, and individual contributions (ILO, 2001). Therefore, we examine contributory social insurance programs that are based on individual contributions and operate within the larger framework of social security systems.

2.1.1. *De jure* and *de facto* coverage

De jure and *de facto* coverage are terms used to describe different aspects of social insurance systems. *De jure* coverage refers to the statutory or legal provisions that define who is eligible for social insurance benefits and under what conditions. It represents the formal or official scope of coverage as outlined in laws, regulations, or policies.

On the other hand, *de facto* coverage refers to the effective or actual coverage that is achieved in practice. It takes into account the extent to which individuals who are eligible for social insurance benefits are actually enrolled and receiving the intended coverage. *De facto* coverage considers factors such as enrollment rates, accessibility, and the effectiveness of implementation in reaching the target population.

The difference between de jure and de facto coverage can be significant. While de jure coverage may indicate a wide scope of eligibility, the effectiveness of implementation and the actual enrollment rates may vary, leading to gaps in de facto coverage. In some cases, individuals who are eligible for social insurance benefits may face barriers in accessing them, resulting in lower de facto coverage compared to de jure coverage.

Understanding this distinction is important for policymakers and stakeholders to accurately assess the performance of social insurance systems. It helps identify gaps and challenges in implementation, enabling them to develop strategies to improve de facto coverage and ensure that the intended benefits reach the target population effectively.

2.1.2. Informality: The informal sector, informal employment, and the informal economy

In 1993, the 15th International Conference of Labor Statisticians at the ILO (ICLS) defined the informal sector as unincorporated household-owned production units, typically small and non-registered enterprises. This definition broadened during the 17th ICLS in 2003, where informal employment was defined as any remunerative work (self-employment or wage employment) lacking legal protection, including non-remunerative work within income-producing enterprises. This inclusive view encompasses both self-employed and wage workers without secure contracts, benefits, social protection, or workers' representation. Despite their distinctions, the concepts of the informal sector and informal employment are complementary, collectively characterizing the informal economy as economic activities insufficiently covered by formal arrangements, whether in law or practice, as recognized by the ILO.⁴ In this paper, we employ the concept of the informal worker, which follows the lack of social insurance coverage and the sectoral definition on informality by the ILO (ILOSTAT, 2023). This could be someone working in a formal business and not covered by social insurance, or someone working in the informal sector.

3. Methodology

This paper focuses on social insurance schemes in Egypt, Jordan, and Tunisia. To understand to what extent societal group inequality affects access to contributory social insurance schemes considering economic characteristics, this paper employs a mixed methods approach. This enables us to understand the issue from both law and pension system-related coverage gaps (i.e., de jure) and existing coverage gaps (i.e., de facto). This section will therefore set out the methodology for

⁴ Refer to:

- [https://www.ilo.org/global/programmes-and-projects/prospects/themes/informal-economy/lang--en/index.htm#:~:text=The percent20informal percent20economy percent20refers percent20to,insufficiently percent20covered percent20by percent20formal percent20arrangements](https://www.ilo.org/global/programmes-and-projects/prospects/themes/informal-economy/lang--en/index.htm#:~:text=The%20informal%20economy%20refers%20to,insufficiently%20covered%20by%20formal%20arrangements)
- https://www.ilo.org/global/topics/wages/minimum-wages/beneficiaries/WCMS_436492/lang--en/index.htm

both the mapping of the existing laws implementing the social insurance system and the quantitative analysis of the data from the Integrated Labor Market Panel Surveys (ILMPS).

Following a contextualization of the macroeconomic and labor market structure for the countries, we conduct an in-depth analysis of the de jure and de facto social insurance coverage for the three countries. To do so, we employ a two-fold analysis. Firstly, we conduct a mapping of the social insurance schemes in Egypt, Jordan, and Tunisia, focusing on their legal provisions and de jure coverage. This enables us to determine the accessibility of various social schemes for different groups based on their legal entitlements. Secondly, we analyze the de facto coverage by examining the linkage between labor market conditions and effective social insurance coverage. To accomplish this, we utilize the ILMPS. The following sections outline the specific approaches employed for each analysis.

It is important to note that we solely focus on contributory social protection schemes and exclude non-contributory social protection schemes as well as private health insurance schemes. Additionally, we exclude the analysis of COVID-19 responses, as the pandemic has ended. Furthermore, our examination is limited to the labor market conditions and social insurance coverage for citizens, thereby excluding non-citizens, such as migrants and refugees, from the scope of analysis.

3.1. Mapping

To come to a systematic mapping of the respective social insurance schemes, we conduct a desk review comprising regulations on social protection programs, policy reports by the various actors, and, where necessary, secondary information such as news items and policy reports by civil society or other studies. The primary focus of the mapping is on contributory social insurance programs offered by the Government of Jordan, the Government of Egypt, and the Government of Tunisia. We examine programs that fall under the respective social security agencies within each country.

The mapping provides an insight within the analysis into the type of economic participants who have access to the social insurance schemes. Within this, we account for those who are mandatorily covered in all schemes, and those who are voluntarily covered. In mandatory coverage, we distinguish between full coverage and partial coverage. The difference depends on whether the type of worker has access to all schemes or only part of the schemes. Furthermore, the mapping enables the identification of the design and structure of the program. The comprehensive mapping of the programs is presented in the Annex.

3.2. Data analysis

3.2.1. Data

This analysis is based on ILMPS data. The dataset includes data from Egypt, Jordan, and Tunisia. Specifically, it integrates the Egypt Labor Market Panel Survey (ELMPS) for 1888, 1998, 2006,

2012, and 2018, the Jordan Labor Market Panel Survey (JLMPS) for 2010 and 2016, and the Tunisia Labor Market Panel Survey (TLMPS) for 2014 (OAMDI, 2019). For each country, the analysis focuses only on the most recent available data. Henceforth, all outcomes in the analysis refer to 2018 for Egypt, 2016 for Jordan, and 2014 for Tunisia unless otherwise indicated. Moreover, the analysis mostly uses the three months prior to the survey as the reference period for all the labor statistics.

The ‘Incidence of work social insurance in prim. job (ref. 3-month)’ is the main outcome variable for the descriptive analysis as well as a dependent variable in the conducted logit model and descriptive analysis on the coverage of social insurance.

3.2.2. Analysis

The methodology includes both a descriptive component and a logit regression. The descriptive component is used to describe the current (at the time of the survey) situation of the three countries. Therefore, the labor market structure and social insurance coverage in the three countries are compared based on the disaggregation of relevant groups. Hence, all the figures will be a product of the descriptive analysis, providing insightful information on social insurance coverage, which will be complemented in their description by the logit model results.

Through the logit regression and data descriptive, the focus of the analysis will gradually shift from an overall labor market and social insurance coverage analysis into a private sector-specific analysis. The logit regression sustains the analysis, verifying the probability of individuals being insured based on four covariates groups: demographic, geographic, employment (primary job), and firm characteristics. The first model looks at the overall employment market and analyzes the probability of being insured for employed individuals. For this model, the determinants explored are age, gender, marital status, education, geographic location, employment status, employment sector, and the sector of economic activity (see Appendix 5). The second model refers to the probability of being insured for waged employees. This includes all the variables of the first model, with the exclusion of the employment status (as the reference population are employees), and additionally comprises firm characteristics such as their size and work on-premises as covariates (see Appendix 6).

The dependent variable is the ‘Incidence of work social insurance in primary job (ref. 3-month)’ variable, taking the value of 1 if the worker is insured and 0 if not. This variable is constructed in the integration process of the ILMPS data for all single countries. Therefore, it does not always allow for an insightful analysis of the specific schemes in which the employed are participating. This holds particularly true for Tunisia, where the analysis is unable to distinguish between the schemes of the *Caisse Nationale de Sécurité Sociale* (CNSS) and the *Caisse Nationale de Retraite et de Prévoyance Sociale* (CNRPS) to benchmark differences in social insurance coverage with previous studies (El Mekkaoui, Forouheshfar, Benhassen, Cheikh, and Emont, 2022).

The model adopts the logistic “Sigmoid” function, translating the linear combination of the independent variables into a probability value between 0 and 1. The equation for the logistic regression model can be represented as the logarithm of:

$$P(\text{Social Insurance}) = \frac{1}{(1 + e^{-z})}$$

With z being the combination of independent variables:

$$z = \beta_0 + \beta_1 X_1 + \dots + \beta_n X_n$$

and where $P(\text{Social Insurance})$ is the probability of a worker being insured.

Additionally, odds ratios (OR) are used to understand how individual independent variables impact this probability. The odds ratio for an independent variable is calculated as $OR(X_i) = e^{\beta_i}$ and helps quantify the influence of each variable on the probability of being insured.⁵

3.2.3. Operationalizing de jure analysis and its challenges

An additional point to be mentioned is that the analysis at hand replicates the mapping of the social insurance law in the ILMPS data.

On the one hand, the analysis looks into the overall coverage. On the other hand, it further defines the lack of access to social insurance. Hence, the paper investigates gaps in compliance (de facto) and gaps in the laws and regulations (de jure). The latter are translated from the thorough mapping analysis into the data by defining those mandatorily covered groups paying for pension-related social insurance contributions (see Appendix 2 for a further explanation of the challenges underlying the operationalization of de jure coverage).

The operationalization of the de jure coverage in the data drives some preliminary consideration. The wider the group of individuals included under the de jure coverage, the higher the gap deriving from the non-compliance to the law. For this reason, the analysis will focus on the overall social insurance aiming at picturing the scope and extent to which the laws achieve the widest coverage and groups.

⁵ In this equation, while $\beta_1, \beta_2, \dots, \beta_r$ represent the coefficients of each independent variable (X_1 to X_n), β_0 represents the intercept term. The goal of the logistic regression is to estimate coefficients in order to maximize the likelihood of the observed data.

Appendix 5 and Appendix 6 present the odd ratio (OR) results. For an X_1 independent variable:

- If $OR(X_1) > 1$, increasing X_1 raises the odds of being insured by a factor of $OR(X_1)$.
- If $OR(X_1) < 1$, increasing X_1 lowers the odds of being insured by a factor of $\frac{1}{OR(X_1)}$.
- If $OR(X_1) = 1$, X_1 has no effect on the odds of being insured.

4. Contextualization of the economic structure and labor market structure in Egypt, Jordan, and Tunisia

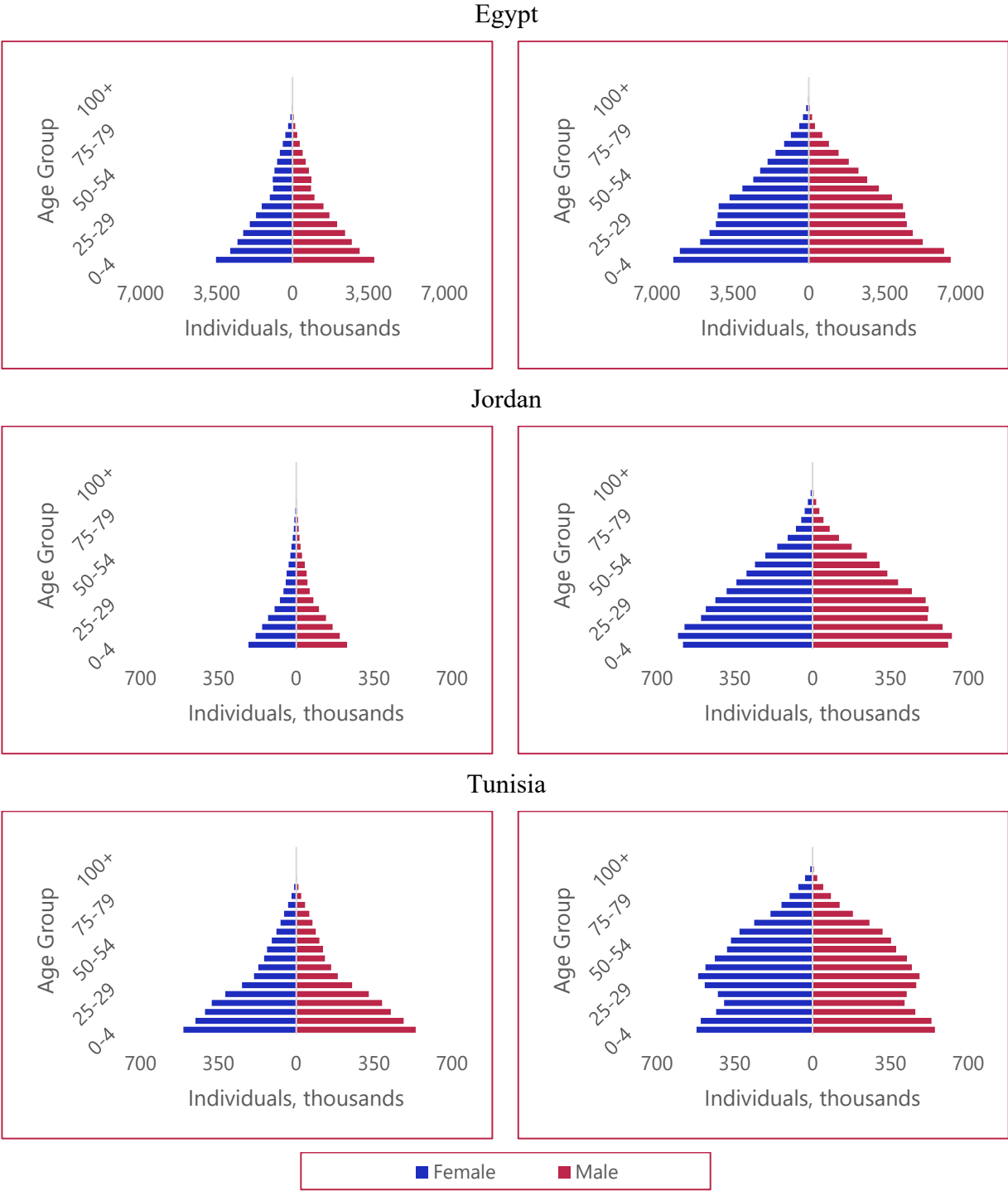
To inform our understanding of the evolution and current state of social protection programs that will be presented in section five, this section offers a comparative analysis of the economic developments and labor market situation in Egypt, Jordan, and Tunisia. It starts by assessing demographic trends, followed by inflation and real gross domestic product (GDP) growth, and concludes with an overview of government finances. The analysis further examines government revenues, expenditures, debt, and Official Development Assistance (ODA) to gain insights into fiscal performance, external financing, and future challenges. Thereafter, a brief overview of the labor market situation in each country is given to provide a foundation for understanding the social security outcomes for different social groups.

4.1. Demographic trends

According to the World Population Prospect, Egypt's population reached 109.3 million, Jordan's 11.2 million, and Tunisia's 12.3 million (UNDESA, 2023). In Tunisia, the challenges of an aging population are already visible from past demographic statistics, while in Egypt and Jordan, these will only be unveiled in the long term, nevertheless making the need for an inclusive and lasting social insurance system of vital importance (

Figure 1). On one side, social insurance would promote the future income security of the older generations, and on the other, it would support the longstanding financial resilience of the system, preventing intergenerational inequalities (Ridao-Cano, Moosa, Pallares-Miralles, and Pinxten, 2023; Kotlikoff, 1994).

Figure 1. Demographic structure by age groups for Egypt, Jordan, and Tunisia 1980 (left side) and 2019 (right side)



Note: The age pyramids are based on 1980 and 2019 data. The upper year bound was chosen to avoid the inclusion of post-pandemic age estimates.
 Source: World Population Prospect (UNDESA, 2022).

4.2. Economic developments

To understand the current state of the social insurance system, it is important to consider the overall macroeconomic context and its impact on household purchasing power. Inflation, real GDP per capita, real income, and household expenditures as a percentage of GDP can be used to determine whether families' purchasing power has been increasing. This is vital to determine whether contributors can contribute and to identify policies that can provide the maximum coverage for the population.

The Middle East and North Africa (MENA) region is suffering from ongoing conflicts, COVID-19 impacts, and periodical and increased intensities of climate shocks. In previous years, Egypt and Jordan already experienced a significant slowdown in real GDP per capita growth. Among the most recent effects and downturns of the ongoing conflict is the global increase in prices of primary goods, driven by offer shortages and reinforced by the increase in fuel and fertilizer costs driven by the war in Ukraine (WFP, 2022; WFP, 2022a).

The increases in food prices have been hindering the capacity of the MENA region to recover from the recent turbulent past, posing a significant challenge to fostering food security in the future (Gatti et al., 2023). Currently, food and electricity price increases are fostering a sharp rise in overall prices globally, significantly affecting Egypt, with inflation year-on-year percentage growth expected to rise to 21.6 in 2023 (Figure 2a). Egypt is expected to be among the most affected by the ongoing price crises, with inflation exceeding by far the Central Bank of Egypt's (CBE) inflation target of seven percent (\pm two percentage points) and the Monetary Policy Consultation Clause (MPCC), suffering from the aftermath of the recent liberalization of the exchange rates (IMF, 2021; World Bank, 2017).⁶

In Tunisia, inflation slowed down during the pandemic years as a consequence of internal demand contraction and the global decrease in fuel prices, which reversed with the recent conflicts, driving a sharp increase in the inflation rate in the following years, expected to reach 11 percent in 2023 (IMF, 2021b; World Bank, 2023). In contrast, the operation of the Central Bank of Jordan (CBJ) ensured significant stability in recent years, with inflation remaining fairly constant compared to the effects of the 2008 global financial crisis (Figure 2a) (IMF, 2022b).

The main highlights on the Consumer Price Index (CPI) changes across the years in Egypt, Jordan, and Tunisia are also reflected in the GDP per capita growth in real terms. While Jordan suffered the most out of the 2008 financial crisis, Egypt experienced a sharp decrease in GDP per capita in the year subsequent liberalization of the exchange rates. All three countries showed significant

⁶ The liberalization of the exchange rates generated positive outcomes on Egypt's macroeconomic conditions, easing shortages in foreign currencies and yielding a positive contribution of net exports to GDP in 2017 (IMF, 2021). Nevertheless, inflation reached record-high levels, fostering government intervention to mitigate the consequent disastrous social impacts (World Bank, 2017).

economic decreases, driven by demand contraction and the sharp decline in the tourism sector due to the global restrictions presented by COVID-19. While Tunisia shows a sharp recovery in 2021, rising global crises and climate change are driving a slowdown in post-COVID-19 recovery. The same is reflected in Egypt, where the impacts of the pandemic were only moderate, while Jordan showcases a significant constant recovery in consideration of the long-term negative growth of the past decade (Figure 2b).

Moreover, Egypt and Tunisia both share a recent history of mass protests and political turmoil. While taking diverging paths in terms of political and social outcomes, in both cases, the changes are reflected in the overall macroeconomic condition and the labor market. In 2011, the year the Arab uprising started in Tunisia and expanded to several countries in the MENA region and Egypt, both countries registered significant decreases in the real GDP per capita, with a negative growth rate (Figure 2b).

Figure 2. CPI and Constant GDP per capita growth, 2006-23⁷

Figure a. Inflation 2006-23, % Growth

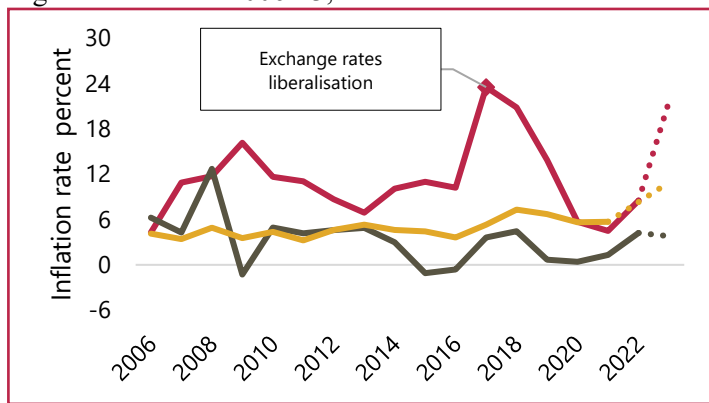
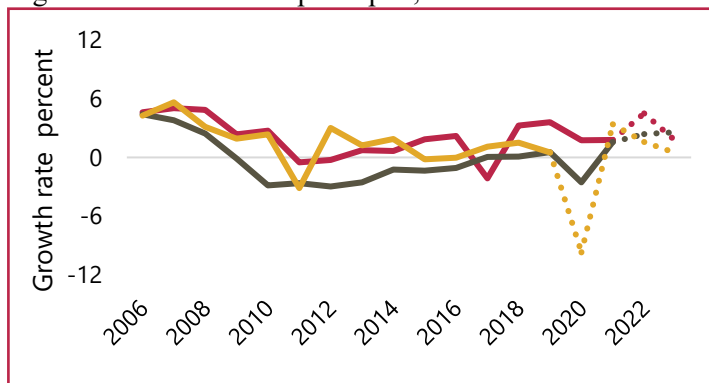


Figure b. Constant GDP per capita, % Growth



⁷ 2006 was chosen as a base year as it considers a five-year period before 2011, a strong transformative momentum in the region.

Note: For CPI, estimates start after 2022 for Egypt and Tunisia, and 2021 for Jordan. For GDP constant prices per capita growth, estimates start after 2021 for Egypt and Jordan, and 2019 for Tunisia. Population data for Tunisia are estimated after 2019, therefore per capita GDP is only estimated after 2019. Similar growth rates (and drops in 2020) are observed for the overall GDP in constant prices observed data.

Source: World Economic Outlook (2023).

GDP in real terms has stagnated in Jordan over the last decade, with significant increases only expected to occur by 2023. A similar fluctuation also took place in Egypt and Tunisia. Nevertheless, individual purchasing power grew at a higher rate in Egypt, exhibiting a higher real GDP per capita by 2013. In 2019, the real GDP reached a purchasing power parity (PPP) of 1,297.8 billion in Egypt, 106.5 billion in Jordan, and 139.6 billion in Tunisia. In the same year, per capita real GDP reached PPP 13,113 in Egypt, substantially higher than the other two countries. During the pandemic outbreak, both Jordan and Tunisia experienced a decrease in real GDP (-1 percent in Jordan and -9 percent in Tunisia), which was expected to be promptly recovered over the 2021-23 period, and eventually reached per capita PPP of 12,893 and PPP of 13,270 by 2023. Nevertheless, recent developments in Tunisia suggest greater challenges ahead for the recovery, with higher commodity prices and import bills increasing, hindering public expenditures and stagnating GDP growth and high inflation rates (World Bank, 2023a).

Taxes on income (including income profits and capital gains) yielded revenues of 10.2 percent of GDP in Tunisia in 2019 and only 4.7 percent and 3.2 percent in Egypt and Jordan (UNU-WIDER, 2022). Moreover, Egypt experienced a sharp decline in revenues from natural resources over the years, from around 8.6 percent of GDP in 2006 to two percent in 2019. Hence, While Tunisia experienced a strong increase in revenues as a share of GDP, Egypt and Jordan observed a substantial decline in revenues. Nevertheless, due to decreases in government expenditures compared to 2006, Egypt and Jordan showcased only a marginally higher gap in their primary balances than Tunisia, with the debt levels evolving quite homogeneously across the countries (

Figure 2). Tunisia is currently facing tough macroeconomic challenges. In 2022, Tunisia reached a preliminary agreement for a USD 1.9 billion loan from the International Monetary Fund (IMF) to finance the 2023 budget, the ratification of which has been delayed due to concerns related to the implementation of the conditional reforms (Guesmi, 2023; Saleh, 2023).

Figure 2. Revenues, expenditures, and government debt (right axis) as percent of GDP, selected years

Figure 2a. Egypt

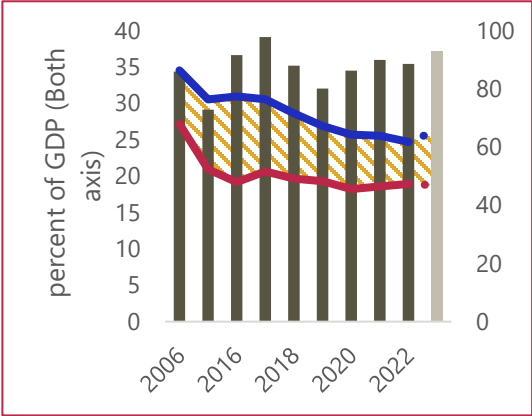


Figure 2b. Jordan

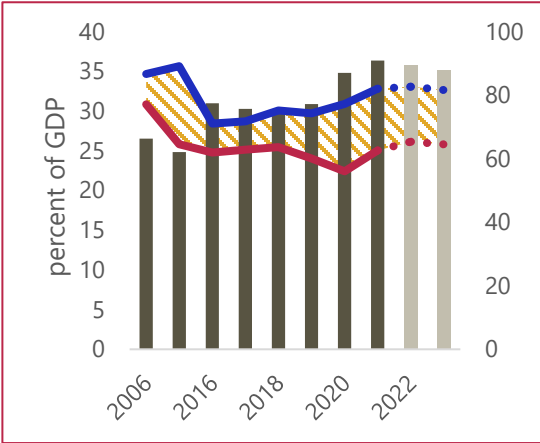
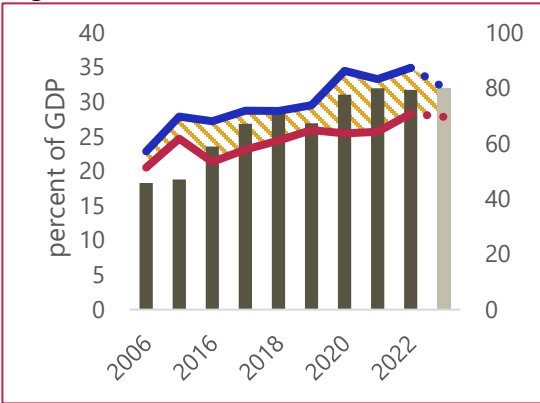


Figure 2c. Tunisia



Deficit
 Gross Domestic Debt (Right axis)
 Expenditures
 Revenues

Note: Both axes refer to percent of GDP. Revenues, expenditure, and the deficit are on the left axis, and debt is on the right axis. Estimates start after 2022 for Egypt and Tunisia and 2021 for Jordan. The dashed lines and lighter grey bars reflect the estimated years.

Source: World Economic Outlook (2023).

The debt level rose considerably in the last 15 years, reaching 80 percent of GDP in Egypt, 77.2 percent in Jordan, and 67.3 percent in Tunisia in 2019. Moreover, between 2019 and 2020, the

debt level increased by 10 percentage points in Jordan and Tunisia, and six percentage points in Egypt, depicting an increasing burden on the state. In all three countries, increasing deficits have been eroding the fiscal space for future reforms, and are one of the main challenges currently. Ongoing reforms in Egypt are expected to foster an increase in medium- to long-term revenues, which will be the focus of the ongoing discussion in Tunisia and Jordan (IMF, 2021a; IMF, 2022b; IMF, 2021b). Eventually, the availability of fiscal space reflects on the social insurance challenges.

Indeed, the extension of social insurance to the widest group of workers relies not only on legal enforcements but also on temporary support policies for workers experiencing barriers to entering the system (Barsoum and Selwaness, 2022; ILO, 2021). Moreover, the extension of social insurance, aside from fostering social protection coverage, also encourages employment growth and economic efficiency while reducing the burden on the state's budget (Ortiz, Chowdhury, Valverde, Muzaffar, and Urban, 2019).

In 2020, Egypt was granted additional support from the IMF for up to USD 5.2 billion to address social and macroeconomic challenges arising from the COVID-19 pandemic (IMF, 2022a). In the years preceding the pandemic, the total amount of net ODA flowing to the country decreased, reaching 0.4 percent of GDP in 2020. In 2021, however, with an increase of several billion USD, net ODA reached 1.9 percent of GDP. On the other hand, Tunisia and Jordan experienced long-term growth in ODAs flowing to the countries. In Jordan, where ODAs play a more considerable role in the economy, these reached 7.5 percent of GDP by 2021, while in Tunisia, they reached 2.3 percent of GDP (World Bank, 2023). Although concessionary loans (a substantial part of ODAs) are an occasion to foster economic development in the country, the attached conditionality can have strong detrimental impacts on the recipient countries. In the aftermath of the Arab uprising, in an attempt to counter the sharp increases in debt levels, all three countries accessed several loans from the IMF (i.e., three for each country), which posed policies, especially social ones, under the conditional approval of the lenders (Chandoul, Rouine, Al-Ajlouni, Falsy, and Azouaoui, 2022). A clear example is the ongoing discussion between Tunisia and the IMF, where the cancellation of Tunisia's subsidy policies, of great cost to the government, are among the main conditionalities from the IMF, posing significant challenges to the social stability in the country (World Bank, 2023; Guesmi, 2023).

In the past decade, the region has been characterized by a stagnating panorama from a macroeconomic perspective and especially from a labor force perspective. The ongoing crises have only highlighted and exacerbated the existing conditions of job disparities affecting women and the younger generation (ILO, 2015; ILO, 2022a).

4.3 Labor market: Participation, employment, sectors, and contributions

Following the downturns of recent conflicts, both the economy and labor market have been significantly impacted, experiencing long-term stagnation and notable declines in labor force

participation and employment rates. In 2006, Egypt had the highest labor force participation rate (LFPR), with nearly 47 percent of the active-age population involved, while Tunisia's LFPR was slightly lower. Conversely, only 38 percent of working-age Jordanians participated in the labor market. Since 2013, Egypt's LFPR has been declining, in contrast to Jordan and Tunisia (Figure 3).⁸

Gender disparities in labor force participation are also apparent, with women participating less due to social norms, lack of information, employer discrimination, and unfavorable working conditions (El Ashmawy, Muhab, and Osman, 2020). While the gender gap had been narrowing prior to the pandemic, recent data up to 2021 indicate a reversal of the trend in Jordan and Egypt, with disproportionately lower labor force participation rates among women, thereby emphasizing existing challenges and the gendered impact of the COVID-19 crisis (ILO, 2022a).⁹

Similar to Jordan, the LFPRs of young Tunisian adults declined between 2013 and 2017 (Figure 3). The ILO reported that the global average share of youth not in education, employment, or training (NEET) was 23.3 percent in 2020 (ILO, 2023). Both Jordan and Egypt were above this average in 2019, at 28 percent and 36 percent, respectively. However, while Jordan's share of youth in NEET kept decreasing during and in the aftermath of the pandemic, the share in Egypt reached 28.7 by 2021. For Tunisia, data are only available for 2010 and 2015, showing a significant increase between the two years, with the share standing at 31.5 percent in 2014 (ILO, 2023).

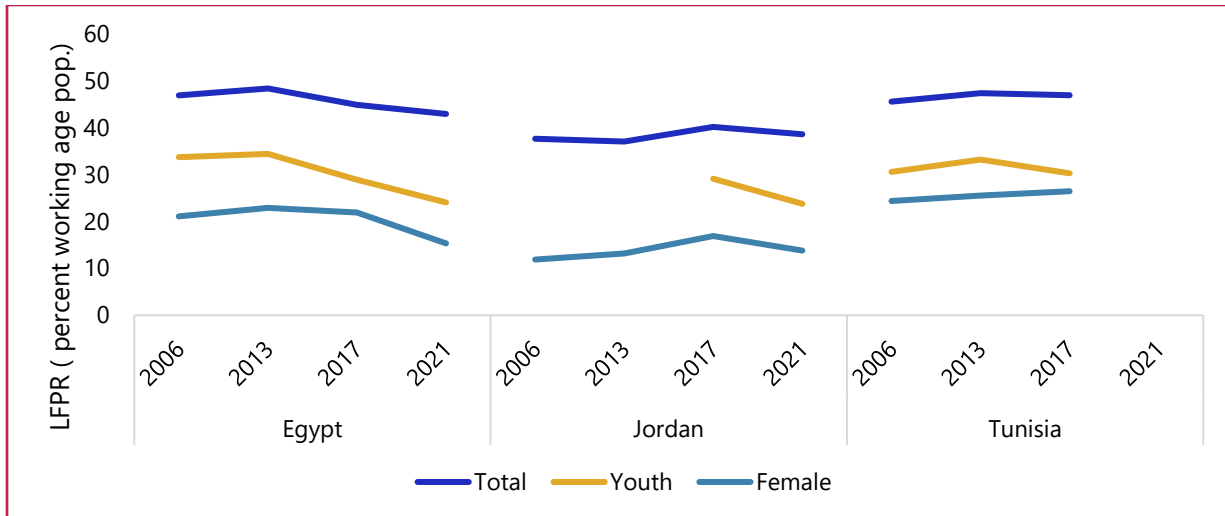
In all three countries, the share of NEET youth is considerably higher for women compared to men. For available data years, Tunisia and Jordan made considerable progress in closing gaps between ages and genders. Furthermore, Egypt registered very high disparities in 2021, with the NEET rate for female youth being 2.5 times the rate for males (ILO, 2023).¹⁰

Figure 3. Labor force participation rate in Egypt, Jordan, and Tunisia, selected years and categories

⁸ The working-age population includes all individuals over the age of 15.

⁹ While negative gender impacts are registered by the ILOSTAT data in Egypt and Jordan (ILO, 2023). The ILO suggests that a significant increase in labor force participation in 2021 in Tunisia, combined with wage contractions, could have been driven by additional household members joining the labor market as a coping strategy (ILO, 2022a).

¹⁰ The NEET rate for female youth in Tunisia was 1.6 times higher than that for males in 2010, down to 1.2 by 2014. In Jordan, the NEET share for females lowered from being 1.7 times higher than that for males to 1.2 by 2021.



Note: The graph displays the Labor Force Participation Rate (LFPR) (percent of working-age population). Estimates start after 2021 for Egypt and Jordan and 2019 for Tunisia.
Source: ILOSTAT (2023).

Out of those in the labor force, the unemployed were 10.5 percent in Egypt and 14 percent in Jordan in 2006. As per its economic outlook, Egypt suffered from political instability, with unemployment rates rising to 13.1 percent in 2013 and steadily decreasing to 7.4 percent in 2021. During the pandemic, unemployment rates kept dropping, with most job losses translating into exits from the labor force, with women having a higher probability of following this path (ILO, 2022a). In contrast, Jordan experienced the highest unemployment increase between 2019 and 2021, when a three-percentage point increase led the unemployment rate to reach almost 20 percent. Other spikes in the unemployment rate can be observed between 2015 and 2017. Data for Tunisia are only available up to 2019 when the unemployment rate was 15.1 percent, marginally higher than in 2006-10 but significantly lower than unemployment rates following the Arab uprising at 18.3 percent of the labor force in 2011 (ILO, 2023). Nevertheless, Tunisia’s recent outlook suggests that unemployment remained fairly constant over the period, reaching 15.2 percent in 2022, not reflecting higher employment rates but rather an increase in the number of people out of the labor force (World Bank, 2023a).

Following the ILMPSs, we then dive further into the labor market situation at the time of the survey (Egypt in 2018, Jordan in 2016, and Tunisia in 2014) using the widest definition of employment.^{11,12}

Egypt has a waged employee majority (75.8 percent), followed by self-employed individuals (10.8 percent), employers (7.6 percent), and unpaid family workers (5.9 percent). Jordan relies heavily

¹¹ The labor market statistics, as the analysis on coverage, were executed using the variable `uswrkstsr1` in the ILMPSs, which is defined as “Work status during ref. 3-month, market def. (search required).”

¹² A perspective over time is available in Appendix 1.

on waged employees (84.5 percent), still with 9.6 percent of self-employed individuals. Tunisia exhibits higher numbers of self-employed (17.3 percent), waged employees represent 72.8 percent of the employed, employers 5.2 percent, and unpaid family workers only 4.3 percent (Figure 4).

Figure 4. Employment status, as a percentage of total employment in Egypt, Jordan, and Tunisia



Note: Reference years are: Egypt 2018, Jordan 2016, and Tunisia 2014. The column on the left represents the shares by labor force status of the total working-age population (15+). The column on the right shows employment status by share of the total employment.

Source: Authors' elaboration of ILMPS data.

Despite the variations among the countries, some similarities in employment contract distribution are evident (*Error! Reference source not found.*). Waged employees constitute the main group among the employed in all three countries, and mandatory social insurance requirements are the norm rather than the exceptions. The relevance of analyzing contracts' incidence arises from the logit model, showing a significantly lower likelihood for non-employees to participate in the social insurance system and a higher likelihood for those employed with a contract (compared to the ones without).

Figure 5. Employment and contract incidence by six main sectors of economic activity, percent of total employment

Figure a. Egypt



Figure b. Jordan

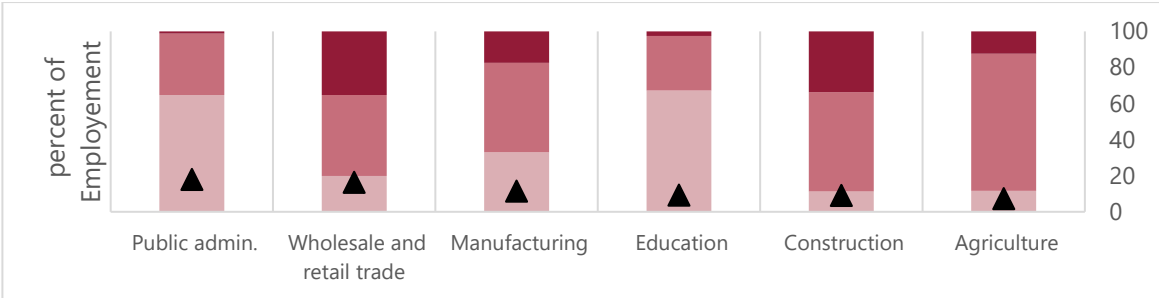
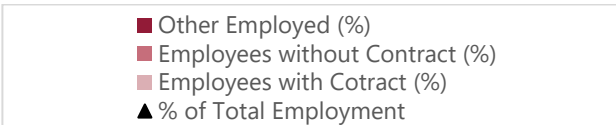


Figure c. Tunisia



Note: For each of the countries, the six economic activities with the highest share of employed were selected based on the individuals who stated their economic sector. All statistics refer to the primary job of the interviewed when the economic activity is stated.¹³ Markers (black triangles) refer to the share of total employment in the sector. Columns (100 percent of total employment) are divided into employees with and without contracts and other employed. Other employed include employers, self-employed, and unpaid family work.

Source: Authors' analysis of ILMPS data.

All three countries exhibit an extremely low share of employees with contracts in the agriculture, forestry, and fishing sector. Egypt has the lowest percentage, with 1.65 percent of the employed in the sector, followed by Tunisia (4.8 percent), and Jordan (10.2 percent). Similarly, a moderate percentage of employees have contracts in wholesale and retail trade. Jordan has the highest share

¹³ The main sector in terms of share in total employment are calculated based on those individuals that reported their economic activity of primary job. While only a marginal share of the employed did not report the sector of economic activity in Egypt and Jordan (respectively 0.17 percent and 2.24 percent of the employed), 23 percent of the employed in Tunisia did not report any information on their economic activity.

(19.9 percent), while Egypt (13.2 percent) and Tunisia (13.1 percent) have slightly lower but comparable figures. These similarities highlight common challenges and potential areas for improving contract arrangements within these sectors across the countries.

Differences in employment contract distribution also emerge across sectors in Egypt, Jordan, and Tunisia. Notably, the construction sector shows variations, with Egypt having a higher share of employees with contracts (18.3 percent) compared to Jordan (11.3 percent) and Tunisia (7.2 percent). In the manufacturing sector, Tunisia stands out with the highest percentage of employees with contracts (52.7 percent), followed by Jordan (33 percent) and Egypt (35.5 percent). Furthermore, the 'Education' sector reveals significant differences, with Egypt reporting the highest share of employees with contracts (86.3 percent), followed by Tunisia (84.9 percent) and Jordan (67.3 percent). Moreover, the private sector economic activities with the highest contract incidence are characterized by higher average firm sizes. For instance, in Tunisia, in the manufacturing sector, 53 percent of employees work in enterprises with more than 25 employees, while sectors characterized by smaller size enterprises have a lower share of workers with contracts, as is the case for the accommodation and wholesale sectors. A similar picture is also reflected in Egypt and Jordan, with the exception of the mining sector. In this sector, while most of the workers work in enterprises with more than 25 employees (72.3 percent in Egypt and 76 percent in Jordan), only 55 percent of the workers in the sector have contracts.

In Tunisia, several economic activities are undertaken only by employees. These include water supply, electricity, real estate, and other public sectors in Tunisia, while this is the case for a few sectors in Jordan and Egypt. In all three countries, sectors with a high incidence of contracts are characterized by a low share in overall employment.

Women are less likely to be engaged in waged jobs in Egypt and Jordan compared to Tunisia. Almost one in four employees were women in 2014, while the number was lower to almost one in six for Egypt and Jordan.¹⁴ In Tunisia, 29.8 percent of employees with a contract are women, whereas in Egypt and Jordan, that number is only around 28.4 and 20.9 percent, respectively.

The difference between the countries lies in the share of women in employee positions, which is drastically lower than the share of men. Only 14.4 percent of employee positions are held by women in Jordan, compared to 17.4 percent in Egypt and 24.8 percent in Tunisia, which (among the three) is the country with the highest LFPR of women. In Egypt, a significant percentage of women in non-contract employment arrangements engage in agriculture, as is the case for men, as well as in the wholesale and retail trade sector. In Jordan, the highest representation of women without contracts is observed in the manufacturing sector, while the accommodation and food

¹⁴ The share of women in waged jobs was of 24.2 percent in Tunisia at the time of the survey. In Egypt, the same share was 17.3 percent, and in Jordan 14.4 percent.

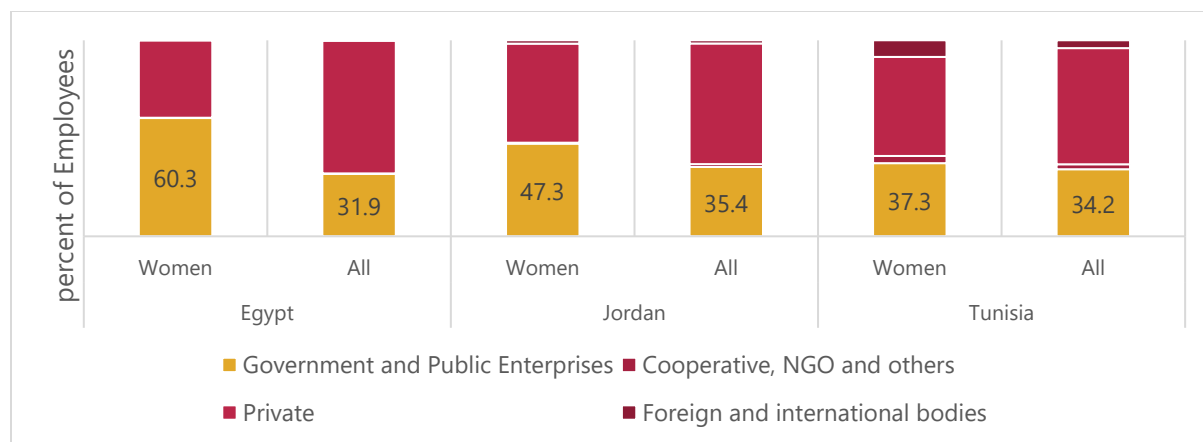
service activities sector also shows notable female participation. In Tunisia, the education sector has the lowest percentage of women without a contract, and the accommodation and food service activities sector has one of the highest, with 84 percent of women employees working with no contract (compared to 72 percent of men). Several sectors display significantly higher contract incidence for women compared to men, and this is the case only for those sectors where more women than men are employed, which, for instance, applies to the education sector in Jordan.

Moreover, women who work in waged employment are still conducting a significant number of hours of domestic work per week. In addition, women in Egypt and Tunisia represent the highest share of jobs as unpaid family workers, while in Jordan, this employment status is equally shared between men and women.

Similarly, looking at the type of employment for the overall labor market in relation to wage income, we find that average wages are provided in private employment positions in Egypt and Tunisia, with a shift toward the government sector for the highest incomes. In Jordan, the middle quintiles of the wage distribution have a higher concentration of government-related employment, with a sharp shift to the private sector for the highest wage quintiles. Waged private works mostly take place in the middle quintile. In the fifth quintile, we observe a low share of female employees and a shift of men to the private sector, where wages are higher (Figure 6).

Women in the highest quintile of income primarily work in government activities in Egypt (71 percent) and Tunisia (65.9 percent), while they are split between the public and private sectors in Jordan (53 percent and 41 percent of the women in the highest quintile). The government's share of total employees ranges between 31.9 percent (in Egypt) and 35.4 percent (in Jordan). Conversely, the share sharply rises when considering women, from 47 percent in Jordan to 60.3 percent in Egypt. In Tunisia, almost 30 percent of employees in the highest quintile are women, more than doubling compared to the same share in Egypt and Jordan, with a significant share of them employed in foreign and international bodies. However, the share of female employees in the higher income quintile should be noted.

Figure 6. Share of waged employees by economic sector, percent of total employees of overall population and women



Note: All statistics refer to waged employees. The breakdowns are by economic sector and highlight the differences between the overall labor market outlook and women.

Source: Authors' analysis of ILMPS data.

Drawing attention to the economic sector helps set the ground for the analysis of social insurance coverage. Indeed, waged employment in the public sector offers many opportunities, most importantly a higher incidence of contracts.

Gender disparities can be associated with similar limitations for younger workers and accentuated barriers for young women entering the labor force. On the one hand, when considering the age group 15 to 29, 14.3 percent of the young adults in Egypt are in NEET. The share rises to 24.2 percent in Jordan and lowers to 12.3 percent in Tunisia. On the other hand, considering the same statistics for young women, the percentages rise significantly to 23.5 percent in Egypt, 26 percent in Jordan, and 15 percent in Tunisia.

Labor market disparities, evident across sectors, genders, and age groups, necessitate a closer examination of entitlements for various workers. The next section offers a historical overview, shedding light on the current state of social security in Egypt, Jordan, and Tunisia. It concludes by discussing the accessibility of various contributory social insurance programs among diverse societal groups.

5. Mapping the legislative and institutional framework

5.1 Egypt

On an **international level**, Egypt is bound to the Universal Declaration of Human Rights and has ratified the International Covenant on Economic, Social and Cultural Rights,¹⁵ the Convention on

¹⁵ Signed 4 August 1967, ratified 14 January 1982. Source: United Nations Treaties Collection, n.d-a. 'Chapter IV. Human Rights. 3. International Covenant on Economic, Social and Cultural Rights.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4&clang=en.

the Elimination of all Forms of Discrimination against Women,¹⁶ the Convention on the Rights of Children,¹⁷ and the Convention on the Rights of Person with Disabilities.¹⁸ Furthermore, it adopted ILO Recommendation No. 202 on the Social Protection Floor in 2012¹⁹ and ILO Recommendation No. 204 on Transition from Informal Work to Formal Work in 2015.^{20,21}

On a **national level**, the right to social security is enshrined in Article 17 on social security systems and Article 27 on economic systems of the 2014 Constitution of the Arab Republic of Egypt, revised in 2019.²² Social insurance programs in Egypt have undergone significant development and evolution over the years, driven by the country's development policies and the aim to improve social protection and welfare for its population. A series of laws have played a crucial role in shaping and expanding these social insurance programs. These laws have introduced amendments, established new institutions, and brought about comprehensive reforms to enhance coverage, benefits, and the governance of the social insurance system. This introduction sets the stage for examining the key laws that have shaped social insurance in Egypt (Table 1).

Table 1. Egyptian laws pertaining to social security

Law	Description
Law No. 79 of 1975	Established the initial framework for social insurance in Egypt. It laid down the principles and provisions related to social insurance programs, including pension schemes and social security benefits. The law, which established the National Organization for Social Insurance (NOSI) in Egypt, was mandated by Law No. 79 of 1975 as the regulatory body responsible for overseeing the administration and management of social insurance programs in the country.
Law No. 108 of 1976	Introduced amendments and updates to the social insurance system, aiming to expand coverage and improve the social protection provided to workers in various sectors.

¹⁶ Signed 16 July 1980, ratified 28 September 1981. Source: United Nations Treaties Collection, n.d-b. 'Chapter IV. Human Rights. 8. Convention on the Elimination of All Forms of Discrimination against Women.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-8&chapter=4&clang=en.

¹⁷ Signed 5 February 1990, ratified 6 July 1990. Source: United Nations Treaties Collection, n.d-c. 'Chapter IV. Human Rights. 11. Convention on the Rights of the Child.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&clang=en

¹⁸ Signed 4 April 2007, ratified 14 April 2008. Source: United Nations Treaties Collection, n.d-d. 'Chapter IV. Human Rights. 15. Convention on the Rights of Persons with Disabilities.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-15&chapter=4&clang=en.

¹⁹ Adopted during the 101st International Labour Conference, 14 June 2012. See also: ILO, n.d.-a. 'Submission of R202 – Social Protection Floors Recommendation, 2012 (No. 202).' Normlex. Available at https://www.ilo.org/dyn/normlex/en/f?p=1000:13300:0::NO:13300:P13300_INSTRUMENT_ID:3065524.

²⁰ Adopted during the 104th International Labour Conference, 12 June 2015. See also: ILO, n.d.-b. 'Submission of R204 – Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204).' Normlex. Available at https://www.ilo.org/dyn/normlex/en/f?p=1000:13300:0::NO:13300:P13300_INSTRUMENT_ID:3243110.

²¹ For a complete overview of ILO ratifications by Egypt, see: https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102915.

²² See also https://www.constituteproject.org/constitution/Egypt_2019.

Table 2. Egyptian laws pertaining to social security (contd.)

Law No. 112 of 1980	Expanded the coverage of social insurance to include both public and private sector employees, providing a broader scope of protection. It aimed to create a comprehensive social insurance system that encompasses a larger segment of the workforce and ensures a wider range of benefits.
Law No. 10 of 2014	Introduced amendments specifically related to the pension system. It aimed to enhance the sustainability of the pension system by adjusting contribution rates, implementing reforms in pension calculations, and introducing optional early retirement schemes.
Law No. 12 of 2010 and its amendments	Primarily focused on health insurance in Egypt. It aimed to improve access to healthcare services by expanding health insurance coverage and implementing reforms in the management of health insurance funds. The law established the Health Insurance Organization (HIO) as the authority responsible for managing health insurance programs.
Law No. 148 of 2019	Referred to as the new law, it replaced many existing social security laws and regulations, and consolidated several different social insurance programs into one. The law introduced new benefits and adjusted pension calculations and retirement age.

Source: Authors' compilation of the laws.

Two key institutions are involved in social insurance in Egypt. The National Organization for Social Insurance (NOSI) and the Health Insurance Organization (HIO). NOSI serves as the regulatory body responsible for overseeing social insurance programs, including collecting contributions, managing funds, and administering social security benefits. Additionally, NOSI plays a crucial role in ensuring compliance with social insurance laws, protecting the rights of insured individuals, and promoting the effectiveness of social insurance programs. HIO, on the other hand, focuses on providing health insurance coverage, ensuring access to quality healthcare services, and managing health insurance funds.

The current legal framework for social insurance in Egypt is shaped by the aforementioned laws and their amendments. These laws have introduced reforms to expand coverage, enhance benefits, address gaps in the system, and improve the governance and administration of social insurance programs. They provide specific provisions that regulate various aspects, such as contribution rates, eligibility criteria, benefit entitlements, pension calculations, and the roles and responsibilities of different stakeholders.

5.1.1 Contrasting the 1980 and 2019 laws

In 2019, the Government of Egypt introduced a new legal framework for its social insurance system with the aim of addressing the low enrollment of workers, particularly in sectors characterized by high informality. The reforms included reducing contribution rates, increasing penalties for non-compliance by employers, and improving benefits. Additionally, the law offered to cover the employer's share of contributions for certain categories of vulnerable workers.²³ The analysis of the characteristics of contributors to the previous system suggests that structural

²³ For a detailed scheme description, please refer to: <https://www.issa.int/node/195543?country=845>

barriers, such as a high number of low-earners and informal enterprises in the economy, may hinder the expansion of system enrollment despite the legal reforms. Additionally, the limited scope of improved access failed to acknowledge the diversity of informal work arrangements. (Barsoum and Selwaness, 2022).

When comparing the two significant legislations pertaining to social insurance in Egypt, namely Law 112/1980 and Law 148/2019, it's crucial to highlight the key modifications that have taken place:

- **Coverage Expansion:** Law 112/1980 primarily focused on providing social insurance coverage to public and private sector employees, offering limited coverage to self-employed individuals. In contrast, Law 148/2019 brought about more extensive coverage by including previously excluded groups, such as informal sector workers, agricultural laborers, and domestic workers. This expansion aimed to bridge gaps in social protection and establish a more inclusive system.
- **Contribution Mechanism:** Law 112/1980 relied on a fixed contribution rate based on the employee's salary, with separate contributions from the employer. Under Law 148/2019, a unified contribution rate was introduced, encompassing both employee and employer contributions. The new law also introduced flexible contribution options, enabling self-employed individuals to select their contribution level based on their income.
- **Pension Reforms:** Law 148/2019 brought changes to the pension system, including adjustments in the calculation of pension benefits and retirement age.
- **Social Security Benefits:** Law 148/2019 expanded the array of social security benefits provided under the social insurance system. It introduced unemployment benefits, maternity benefits, and occupational injury benefits; these additions aimed to bolster social protection and create a safety net for individuals facing various risks and life events.
- **Governance and Administration:** Law 148/2019 initiated reforms in the governance and administration of the social insurance system. It established NOSI as the regulatory body responsible for overseeing the implementation and management of social insurance programs. This restructuring aimed to enhance efficiency, transparency, and accountability in the administration of social insurance.

However, as we explore this topic further in the paper, it becomes clear that even with these changes, social insurance programs don't always work exactly as they should in practice compared to what the law says. While Law 148/2019 tries to make social insurance more inclusive by including groups that were left out before, ensuring that it works smoothly in reality is still a work in progress (Barsoum and Selwaness, 2023).

5.2 Jordan

At both the national and international levels, the Government of Jordan has affirmed the right to social protection. On an **international level**, Jordan is bound to the Universal Declaration of

Human Rights and has ratified the International Covenant on Economic, Social and Cultural Rights,²⁴ the Convention on the Elimination of all Forms of Discrimination against Women,²⁵ the Convention on the Rights of Children,²⁶ and the Convention on the Rights of Persons with Disabilities.²⁷ It furthermore adopted ILO Recommendation No. 202 on the Social Protection Floor in 2012.^{28,29}

On a **national level**, the right to social security is also referred to in Article 23 of the Constitution of the Hashemite Kingdom of Jordan, which states that “special compensation shall be given to workers supporting families and on dismissal, illness, old age and emergencies arising out of the nature of their work.”³⁰ Its first social security scheme, which was established in 1959, was aimed at public sector employees (the Civil Pension and Military Pension). In 1978, similar schemes were set up for private sector employees. The Social Security Corporation (SSC) was established in 1978 to oversee the multiple schemes directed at private sector workers. Until 1995, private sector workers and the public sector fell under two different types of institutions. The SSC only covered private sector workers, whereas civil servants and the military had independent schemes. Following the 1995 and 2003 reform laws, new civil servants and military are covered by the SSC scheme, along with private sector workers. To date, civil servants who were recruited prior to 1995 continue to fall under the Civil Pension System, governed by the Ministry of Finance (Kawar, Nimeh, and Kool, 2022a; Kawar, Nimeh, and Kool, 2022b).

In 2010, a social security reform took place, eventually resulting in the adoption of Law No. 1 of 2014 for Social Security. This led to the introduction of additional social insurance schemes, such as unemployment insurance, maternity insurance, and health insurance for pensioners (Kawar, Nimeh, and Kool, 2022a; Alhawarin and Selwaness, 2018).

²⁴ Signed 13 June 1972, ratified 28 May 1975. Source: United Nations Treaties Collection, n.d-e. ‘Chapter IV. Human Rights. 3. International Covenant on Economic, Social and Cultural Rights.’ Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4&clang=en.

²⁵ Signed 3 December 1980, ratified 1 July 1992. Source: United Nations Treaties Collection, n.d-f. ‘Chapter IV. Human Rights. 8. Convention on the Elimination of All Forms of Discrimination against Women.’ Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-8&chapter=4&clang=en.

²⁶ Signed 29 August 1990, ratified 24 May 1991. Source: United Nations Treaties Collection, n.d-g. ‘Chapter IV. Human Rights. 11. Convention on the Rights of the Child.’ Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&clang=en.

²⁷ Signed 30 March 2007, ratified 31 March 2008. Source: United Nations Treaties Collection, n.d-h. ‘Chapter IV. Human Rights. 15. Convention on the Rights of Persons with Disabilities.’ Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-15&chapter=4&clang=en.

²⁸ Adopted during the 101st International Labour Conference, 14 June 2012. See also: ILO, n.d.-c. ‘Submission of R202 – Social Protection Floors Recommendation, 2012 (No. 202).’ Normlex. Available at https://www.ilo.org/dyn/normlex/en/f?p=1000:13300:0::NO:13300:P13300_INSTRUMENT_ID:3065524.

²⁹ For a complete overview of ILO ratifications by Jordan see: https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:103201.

³⁰ See also the 1952 Constitution of the Hashemite Kingdom of Jordan, revised in 2016 at https://www.constituteproject.org/constitution/Jordan_2016.

With the adoption of the 2019-25 National Strategy for Social Protection, a renewed focus was placed and the government sought to provide a “social protection floor” to achieve its vision. Under the first pillar (Opportunities), it sought to promote private labor market participation and further increase work-related protection for Jordanians, such as access to contributory social insurance for different societal groups, including temporary and part-time workers (GoJ, 2019).

Subsequently, Regulation No 108 of 2020 was adopted, making it mandatory for self-employed workers in the agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors. This is conditional upon working at least 16 days a month. However, while the bylaw has been introduced, no internal regulation was in place to start until 2021 (ILO, 2022b; ILO, 2021b). In bylaw Regulation No. 19 of 2021, agricultural businesses were to include agricultural workers if a business had four agricultural workers or more (ILO, 2022b). Yet, this was met with protests after which coverage for agricultural workers was restricted to work injury insurance and partial inclusion of old age as per Communication 41 (ILO, 2022b).

In 2022, the government introduced the Estidama++ program to provide an opportunity for the working poor – i.e., those who are not poor enough to benefit from social assistance – to pay into the social insurance scheme. The scheme can thus be seen as a form of contribution subsidy (WIEGO and ILO, 2022) as well as income support (ILO, 2022c). It is funded by the Kingdom of the Netherlands and the Kingdom of Norway, as well as the United Kingdom (ILO, 2022b; ILO, 2023b) and thus is dependent on the continuation of funding.

The Estidama++ program sought to focus on informal vulnerable workers left out of the COVID-19 response as they were not registered with SSC (ILO, 2022b). However, due to its funding, it is only able to cover some of the workers eligible.

The current legal framework for social insurance in Jordan is thus shaped by the aforementioned laws, bylaws, and regulations. Similar to Egypt, these laws have introduced reforms to expand coverage, enhance benefits, address gaps in the system, and improve the governance and administration of social insurance programs. They set out the specific provisions that regulate various aspects, such as contribution rates, eligibility criteria, benefit entitlements, and pension calculations.

The social insurance scheme currently provides old age pension, disability pension for non-work-related injuries, survivor pension, natural death pension, unemployment allowance, work injury insurance, and maternity allowance.³¹ These are all mandated for private sector workers as well as self-employed individuals who, firstly, are engaged in the agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors, and, secondly, work for at

³¹ An extensive mapping of the various schemes, including entitlements and benefits, can be found in Appendix 3.

least 16 days. On the other hand, public sector employees are mandatorily covered through public sector insurance. Further, depending on the type of work, agricultural workers may have access to work injury insurance provided they work for at least 16 days. In general, the employee contributes 7.5 percent and the employer contributes 14.25 percent for each monthly salary.

Though steps have been taken to improve the de jure coverage of workers since 2019, several groups of workers continue to remain outside the scope of the social insurance schemes. These include domestic workers, those classified as irregular workers,³² and those engaged in the labor market without a contract. Additionally, most agricultural workers continue to lack access to contributory social insurance programs.

5.3. Tunisia

On an **international level**, Tunisia is bound to the Universal Declaration of Human Rights and has ratified the International Covenant on Economic, Social and Cultural Rights,³³ the Convention on the Elimination of all Forms of Discrimination against Women,³⁴ the Convention on the Rights of Children,³⁵ and the Convention on the Rights of Person with Disabilities.³⁶ It also adopted ILO Recommendation No. 202 on the Social Protection Floor in 2012³⁷ and ILO Recommendation No. 204 on Transition from Informal Work to Formal Work in 2015.^{38, 39}

Though Tunisia recognizes the right to social assistance in its 2022 Constitution of the Republic of Tunisia, it makes no reference to social security. Nonetheless, it should be recognized that within the Arab region, it is one of the more developed social protection schemes, with social insurance

³² See Annex 2 for a definition.

³³ Signed 30 April 1968, ratified 18 March 1969. Source: United Nations Treaties Collection, n.d-a. 'Chapter IV. Human Rights. 3. International Covenant on Economic, Social and Cultural Rights.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-3&chapter=4&clang=en.

³⁴ Signed 24 July 1980, ratified 20 September 1985. Source: United Nations Treaties Collection, n.d-b. 'Chapter IV. Human Rights. 8. Convention on the Elimination of All Forms of Discrimination against Women.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-8&chapter=4&clang=en.

³⁵ Signed 26 February 1990, ratified 30 January 1992. Source: United Nations Treaties Collection, n.d-c. 'Chapter IV. Human Rights. 11. Convention on the Rights of the Child.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-11&chapter=4&clang=en.

³⁶ Signed 30 March 2007, ratified 2 April 2008. Source: United Nations Treaties Collection, n.d-d. 'Chapter IV. Human Rights. 15. Convention on the Rights of Persons with Disabilities.' Available at https://treaties.un.org/Pages/ViewDetails.aspx?src=TREATY&mtdsg_no=IV-15&chapter=4&clang=en.

³⁷ Adopted during the 101st International Labour Conference, 14 June 2012. See also: ILO, n.d.-a. 'Submission of R202 – Social Protection Floors Recommendation, 2012 (No. 202).' Normlex. Available at https://www.ilo.org/dyn/normlex/en/f?p=1000:13300:0::NO:13300:P13300_INSTRUMENT_ID:3065524.

³⁸ Adopted during the 104th International Labour Conference, 12 June 2015. See also: ILO, n.d.-b. 'Submission of R204 – Transition from the Informal to the Formal Economy Recommendation, 2015 (No. 204).' Normlex. Available at https://www.ilo.org/dyn/normlex/en/f?p=1000:13300:0::NO:13300:P13300_INSTRUMENT_ID:3243110.

³⁹ For a complete overview of ILO ratifications by Tunisia, see: https://www.ilo.org/dyn/normlex/en/f?p=1000:11200:0::NO:11200:P11200_COUNTRY_ID:102986.

schemes covering a large portion of the population (ESCWA, 2016). In terms of different professions covered through social security, Tunisia's contributory social insurance is quite comprehensive in scope.

The Tunisian social insurance schemes are governed through two distinct social insurance funds that both fall under the responsibility of the Ministry of Social Affairs. These are the CNSS and the CNRPS, which were formally established under Act 60-30 of 14 December 1960 and Act 85-12 of 5 March 1985, respectively. The CNSS is directed toward the private sector whereas the CRNPS covers the public sector. Tunisia also established the *Caisse Nationale d'Assurance Maladie* (CNAM) in 2014 to cover health-related risks. The CNSS, CNRPS, and CNAM comprise several types of social insurance schemes covering a variety of risks.

The CNSS and CRNPS both cover risks related to old age, disability, income security, children, and death. Health-related risks are covered under the CNAM. Each social insurance fund is further explained below.⁴⁰

5.3.1 CNSS

Four years after Tunisia's independence, the CNSS was established under Law No. 60-33 of 14 December 1960. This law resulted in the establishment of social insurance schemes pertaining to old age and the survivor's disability scheme, and an old age and survivor's allowance scheme in the non-agricultural sector. Over time, many different laws and decrees were introduced to expand the coverage of the social insurance schemes and introduce new schemes.⁴¹ The extent to which one contributes and benefits depends on one's occupation.⁴²

Therefore, the type of private sector workers covered under the social insurance provided by the CNSS can be defined very broadly. From a *de jure* perspective, private sector employees, agricultural workers, employed fishermen, and those who might otherwise be classified as own

⁴⁰ An extensive mapping of the various schemes, including entitlements and benefits, can be found in Appendix 3.

⁴¹ Laws include but are not limited to: Law No. 60-33 of 14 December 1960 establishing an old age and survivor's disability scheme and an old age and survivor's allowance scheme in the non-agricultural sector; Law No. 65-17 extending social insurance to students, and its subsequent amendments; Decree No. 74-499 of 27 April 1974 relating to the old age, disability and survivor's scheme in the non-agricultural sector as amended and supplemented by subsequent amendments; Law No. 81-6 of 12 February 1981 organizing social security schemes in the agricultural sector as amended and supplemented by Law No. 89-73 of 2 September 1989; Decree No. 95-1166 of 3 July 1995 relating to the social security of self-employed workers in the agricultural and non-agricultural sectors as amended and supplemented by subsequent amendments; Law No. 2002-32 of 12 March 2002, relating to the social security system for certain categories of workers in the agricultural and non-agricultural sectors; Decree No. 2002-916 of 22 April 2002, relating to the terms of application of Law No. 2002-32; Law 2002-104 of 30 December 2002 relating to the social security system for artists, creators and intellectuals; and Decree No. 2003-894 of 21 April 2003 setting the procedures and terms of application of Law No. 2002-104 of 30 December 2002.

⁴² For an overview of contribution rates for the different groups, see the overview table on ESCWA (2016; p.11) as well as <https://www.cnss.tn/fr/>.

account workers or low-income workers (such as Tunisian domestic workers, drivers, construction laborers, small-scale farmers, fishermen, artists and craftsmen, and others) should all mandatorily contribute to the CNSS.⁴³

Under the CNSS, the following schemes are mandated for all types of workers in the private sector: old-age pension, disability benefit/pension, survivor pension, death allowance, and death benefits. Furthermore, private sector employees (excluding those in agriculture) have access to early retirement benefits, including early retirement due to physical-related reasons for decreasing work activity, dismissal, or if the retiree is 50 years old and the mother of three children. Other contributory social schemes that are accessible include a family benefit consisting of a child allowance and a single-income allowance.

In general, contribution rates depend on the type of professions as they are also closely linked to the type of schemes one is eligible for. For employed workers not in the agricultural sector and fishermen with a boat over 30 tons, social insurance contribution is set at 25.75 percent with 16.57 percent payable by the employer and 9.18 percent payable by the employee. This rate is at 19.47 percent for fishermen working on a boat less than 30 tons and agricultural employees working at a farm with at least 30 permanent employees or an agricultural or cooperative company. This is distributed as 12.48 percent by the employer and 6.99 percent by the employee. For agricultural workers who work less than 45 days with the same employer over the course of four months, it is set at 12.29 percent, with 7.72 percent by the employer and 4.57 percent by the employee. For independent workers, the social insurance contribution is paid solely by the worker and is determined by a fixed income bracket dependent on their monthly income or at a flat rate following the minimum income⁴⁴ and set at 14.71 percent.

In addition, two groups could opt to voluntarily contribute to social insurance schemes. Firstly, students are able to receive a family benefit through a one-off payment of five Tunisian Dinars (TD). Secondly, Tunisians abroad who do not fall under bilateral social security agreements may opt to enroll in social insurance schemes covering the different types of pensions.⁴⁵ The latter is not further included in the analysis.

5.3.2 CNRPS

The CNRPS was established in 1975 and has financial autonomy from the central government (Nasri, Amara, and Helmi, 2022). It resulted from a merger between the *Caisse nationale de retraite* and the *Caisse de prévoyance sociale*. Its legislative basis, however, was not established

⁴³ See also <https://www.cnss.tn/fr/>.

⁴⁴ Depending on the sector, this would either follow the *salaire minimum interprofessionnel garanti* (SMIG), or minimum income for industries, and the *salaire minimum agricole garanti* (SMAG), or the minimum income for the agricultural sector and most fisheries.

⁴⁵ See also <https://www.cnss.tn/fr/>.

until 1985 with the introduction of the Act 85-12 of 5 March 1985 (ESCWA, 2016), which was amended with Law No. 2019-37 of 30 April 2019 and complemented by (among others) Law No. 2002-61 of 9 July 2002, Law No. 2003-8 of 21 January 2003 and Law No. 2007-43 of 25 June 2007.

Public sector workers – whether permanent, temporary, seasonal, or casual - have access through the CNRPS to pension benefits (including early retirement), disability pensions, survivors' pensions, death benefits, and family benefits.⁴⁶ Therefore, the social insurance schemes are quite similar to those maintained under the CNSS. In general, for employed workers, social insurance contribution is set at 23.7 percent, with 14.5 percent payable by the employer and 9.2 percent payable by the employee.

5.3.3 CNAM

The CNAM was created in 2004 through Law 2004-71 of 2 August 2004. Like the CNRPS, it has financial autonomy and falls under the Ministry for Social Affairs. The institution was set up to further streamline the management of health risks, which previously fell under the responsibility of both the CNRPS and CNSS.⁴⁷

There are multiple social insurance schemes that fall under the CNAM. Firstly, there is a general scheme where individuals can choose between public and private healthcare. Their contribution rate differs accordingly. It also offers the option for reimbursement (Nasri, Amara, and Helmi, 2022).

Furthermore, it includes several types of social insurance schemes which previously fell under the national social security funds: workplace accidents and occupational disease benefits⁴⁸ as well as non-work-related illness benefit (sick leave benefits) and maternity leave benefits.⁴⁹ In addition, public sector workers working abroad and their dependents may continue to be registered with the CNAM.

The CNAM covers employees in both the public and private sectors and their spouses and dependents, as well as individuals receiving a pension by either CNSS or CNRPS and their dependents. Like the CNRPS and CNSS, the CNAM is contributory, and contributions depend on

⁴⁶ See also <https://www.cnrps.nat.tn>.

⁴⁷ See also <https://www.cnam.nat.tn/index.jsp>.

⁴⁸ This was, for example, established under Law No. 94-28 of 21 February 1994 on the compensation scheme for damages resulting from accidents at work and occupational diseases. This is also known as ATMP or *Accidents de travail et maladies professionnelles*.

⁴⁹ See also <https://www.cnam.nat.tn/index.jsp>. Though some classify this as social assistance (e.g. Nasri et al., 2021), it is only possible to access provided that you or your partner contribute to the scheme. Henceforth, it has been included as part of the contributory social insurance schemes.

the level of income of the contributor (El Mekkaoui, Forouheshfar, Benhassen, Cheikh, and Emont, 2022).

5.4 Contrasting de jure coverage

Egypt, Jordan, and Tunisia exhibit contrasting approaches to social insurance coverage, particularly in terms of mandatory and voluntary coverage, as well as exclusions. In Egypt, social insurance follows a mandatory framework that encompasses a broad range of workers. The country's social insurance system, administered by NOSI, covers employees in both the public and private sectors. It includes mandatory contributions from employers and employees, ensuring a comprehensive safety net for individuals against various risks such as disability, old age, and work-related injuries. This mandatory coverage extends to most formal sector employees, providing them with essential benefits and security.

In contrast, Jordan's approach to social insurance features a combination of mandatory and voluntary coverage. The SSC in Jordan administers the mandatory portion, which encompasses employees in the public and private sectors, excluding domestic workers. Mandatory contributions are made by both employers and employees, covering risks such as old age, disability, and death. However, voluntary coverage options are available for self-employed individuals and workers in specific sectors, allowing them to opt into the social insurance system and access benefits.

Tunisia, on the other hand, has a social insurance system that primarily relies on mandatory coverage. The CNSS, CNRPS, and the CNAM administer the mandatory scheme, encompassing employees in both the public and private sectors. Contributions are mandatory for both employers and employees, providing coverage for a comprehensive set of risks such as disability, old age, and death. Yet, it excludes unemployment from its set of risks. Further, unlike Jordan, Tunisia does not have a significant voluntary coverage component within its social insurance framework. The emphasis is placed on mandatory participation to ensure broad societal coverage as the mapping also details the extent to which these groups can access. Table 2 below provides an overview of coverage within the three countries.

Table 3. Overview of coverage within Egypt, Jordan, and Tunisia⁵⁰

		Egypt	Jordan	Tunisia
Mandatory coverage	Full coverage	<ul style="list-style-type: none"> Public sector employees. Private sector employees. Agricultural and fishing sector workers. Self-employed and owners of small-to-medium enterprises (SMEs).⁵¹ 	<ul style="list-style-type: none"> Public sector employees. Private sector employees. Self-employed persons in the agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors.* 	<ul style="list-style-type: none"> Public sector employees. Private sector employees in the non-agriculture sector.⁵² Fishermen working on a boat of 30 tons or more.
	Partial coverage	<ul style="list-style-type: none"> Irregular labor in the public sector.* 	<ul style="list-style-type: none"> Agricultural workers provided they meet the 16-day criterion.* 	<ul style="list-style-type: none"> Private employees such as domestic workers; construction; agriculture; fishermen working on a boat of less than 30 tons; agricultural workers (working less than 45 days with the same employer over the course of four months OR on a farm with at least 30 permanent employees or an agricultural or cooperative company). Independent workers (artists, creatives, and intellectuals; artisans, agriculture; fishermen; drivers; bath masseurs; and own account employers).
Voluntary coverage		<ul style="list-style-type: none"> Workers overseas. 	<ul style="list-style-type: none"> Own account. Employers and joint partners. 	<ul style="list-style-type: none"> Students – family benefit against symbolic payment of TD 5. Tunisians living abroad not covered under bilateral agreements.
Excluded		<ul style="list-style-type: none"> Unregistered self-employed workers. Informal workers. Low-wage workers. Migrants/cross-border workers. 	<ul style="list-style-type: none"> Irregular workers.⁵³ Domestic workers. Workers without a contract. 	<ul style="list-style-type: none"> Unregistered self-employed workers. Workers without a contract. Employed agricultural workers not meeting the aforementioned categories.

Note: the categories marked with an asterisk (*) are those that only were included following legislative changes set after the year of the survey; thus, 2018 for Egypt, 2016 for Jordan, and 2014 for Tunisia.

⁵⁰ Appendix 3 sets an overview of which groups have access to each respective contributory social insurance scheme.

⁵¹ These are enterprises with less than 50 employees.

⁵² These include (1) employees of industrial and commercial establishments, liberal professions, cooperatives, civil societies, unions and associations, international organizations, and diplomatic missions; (2) employees working in agricultural product processing companies and service companies in the agricultural sector; (3) employees employed in public transport companies for goods or people; (4) commercial travelers, representatives or ushers; (5) employees carrying out construction, repair or development work on buildings; (6) employees employed as guards or concierges in buildings reserved for rental.

⁵³ See Appendix 4 for a definition.

Despite the variations in mandatory and voluntary coverage, all three countries have certain exclusions within their social insurance systems. Commonly excluded groups include economic activities in the informal sector, domestic workers, and low-wage workers. These categories often face challenges in accessing social insurance benefits and protections due to their informal or non-traditional employment arrangements. Many of the otherwise vulnerable groups at risk of being left out seem to be included to a large extent only in the context of Tunisia. However, what also emerges from the mapping (Appendix 3) is that in Egypt and Jordan, the included groups largely have access to the same type of schemes, in Tunisia these are primarily the old age pensions, survivors' pensions, disability pensions, and, to a lesser extent, death benefits.

The recent developments within the legislative framework showcase that all three countries are committed to providing social insurance coverage to all, with efforts in Jordan and Egypt to address these exclusions and extend coverage to a wider segment of the population. The legislative framework in place is thus recognizant of the importance of social insurance in promoting social welfare and economic stability. Nonetheless, the analysis above also illustrates that gaps and fragmentation may occur. Combined with the findings of the labor market, this warrants a closer examination of the actual social insurance coverage. Therefore, the next section takes a comparative approach linking social insurance coverage in the three countries to their labor market conditions.

6. Social insurance coverage: A comparative analysis

In Egypt, Jordan, and Tunisia, the incidence of work-related pension social insurance varies significantly. This relates to the labor market background outlined in the previous section as well as different types of existing barriers and legislations in the three countries. In Egypt, 30.7 percent reported being enrolled in the social insurance scheme. Numbers slightly rise in Jordan (41.3 percent) and Tunisia (49.2 percent), differences that are reflected across sectors in the three countries (Figure 7).^{54,55}

Waged employees and unpaid family workers lie at the two opposite boundaries of coverage rates in all three countries. While 40 percent of waged workers are insured in Egypt, only 0.8 percent of unpaid family workers are, with similar differences in Jordan and Tunisia. Across employment statuses, Tunisia achieves higher coverage rates, with a strong share of self-employed covered (31.2 percent), compared to Egypt and Jordan, where only 7.5 percent and 4.9 percent of the self-employed are covered. Indeed, employers have two times the probability of being insured

⁵⁴ The coverage numbers refer only to reported values of the 'Incidence of work social insurance in prim. job (ref. 3-month)' as described in the methodology section.

⁵⁵ The outcome for Tunisia is significantly lower than the ILO figures and the 'Social Security Coverage and Informal Workers in Tunisia' report using the 2015 Household Budget, Consumption and Living Standards Survey (El Mekkaoui, Forouheshfar, Benhassen, Cheikh, and Emont, 2022). Moreover, there is a strong positive contribution to social insurance coverage in Tunisia from the foreign and international bodies sector. In the sector, 88 percent of Tunisians are insured. Nevertheless, a very limited number of employed work in this sector, hence reducing its impact.

compared to employees (Appendix 5). Moreover, Tunisia achieves a comparatively outstanding coverage rate of employers, where 61.7 percent are paying into social insurance compared to around 14.8 percent in the other two countries; these differences can be largely explained by the broader scope of coverage under the legislative framework as showcased above.

The three countries' most significant economic activity sectors are usually mostly characterized by a high share of private sector workers.⁵⁶ By comparing the share of the employed in the specific productive industry and analyzing the coverage and share of non-public employment, the analysis shows that sectors with a higher employment share in the overall economy have lower coverage numbers and are characterized by high shares of private employment. As an example, we could take the agricultural and education sectors in Tunisia, which show similar patterns as the other two countries. 18.9 percent of workers in Tunisia are involved in agricultural activities, and of these, 88.8 percent are in a non-public sector, with only 22.7 percent of workers covered by social insurance. In terms of education, only 5.6 percent of workers work in the private sector, and 78 percent are covered by social insurance. Although this economic activity is among the six larger ones in Tunisia, it involves only 8.3 percent of the workers in the country.

The third largest sector in Tunisia, as a share of total employment, is the manufacturing sector, nevertheless achieving a substantially high social insurance coverage rate (60.3 percent) (Figure 7c). In Egypt and Jordan, wholesale and retail trade activities are the second most relevant, involving 13.2 percent and 16.4 percent of the employed. This sector has significantly lower coverage rates than the manufacturing sector in Tunisia, with active contributors representing only 15.6 percent of the industry in Egypt and 23.6 percent in Jordan (Figure 7b). Furthermore, in Jordan and Egypt, the larger shares of workers are covered by social insurance in manufacturing compared to the other main sectors, but they employ a lower proportion of the population in the two countries (Figure 7a and Figure 7b).

⁵⁶ The most significant economic activities are defined based on the share of total employed individuals in each of the activities.

- In Egypt, these are: agriculture, forestry and fishing; wholesale and retail trade, repair of motor vehicles and motorcycles; construction; manufacturing; education; and transportation and storage.
- In Jordan, these are: public administration and defense, compulsory social security; wholesale and retail trade, repair of motor vehicles and motorcycles; manufacturing; education; construction; and agriculture, forestry and fishing.
- In Tunisia, these are: agriculture, forestry and fishing; construction; manufacturing; wholesale and retail trade, repair of motor vehicles and motorcycles; public administration and defense, compulsory social security; and education.

Figure 7. Percentage of workers by sector, percent social insurance coverage and percentage of private sector workers (area), percentage of employed by six main sectors of economic activity for each country

Figure 7a. Egypt

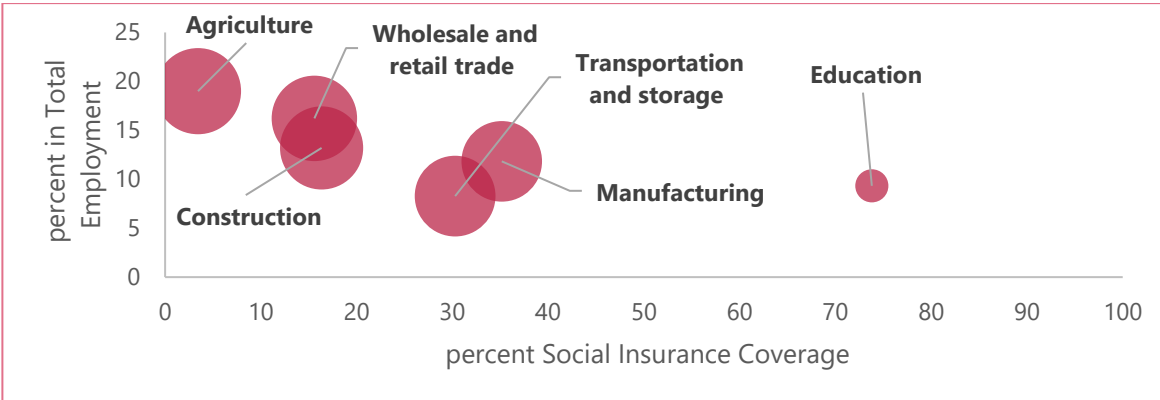


Figure 7b. Jordan

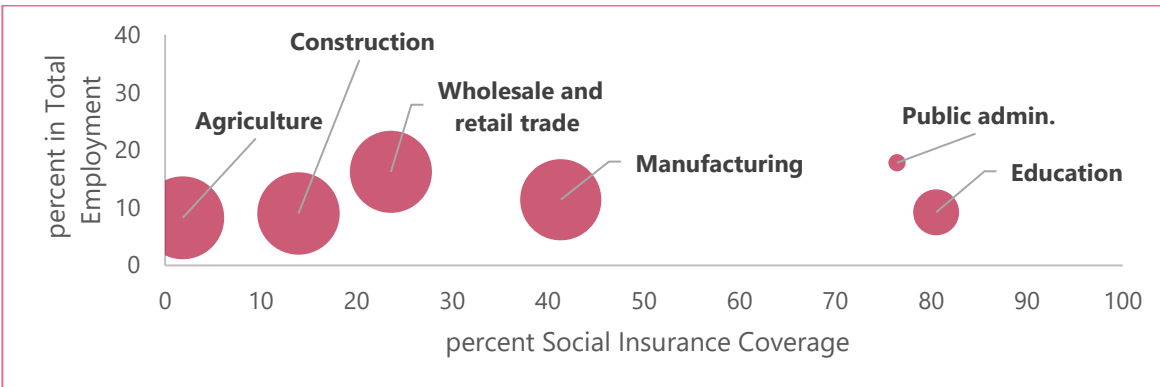
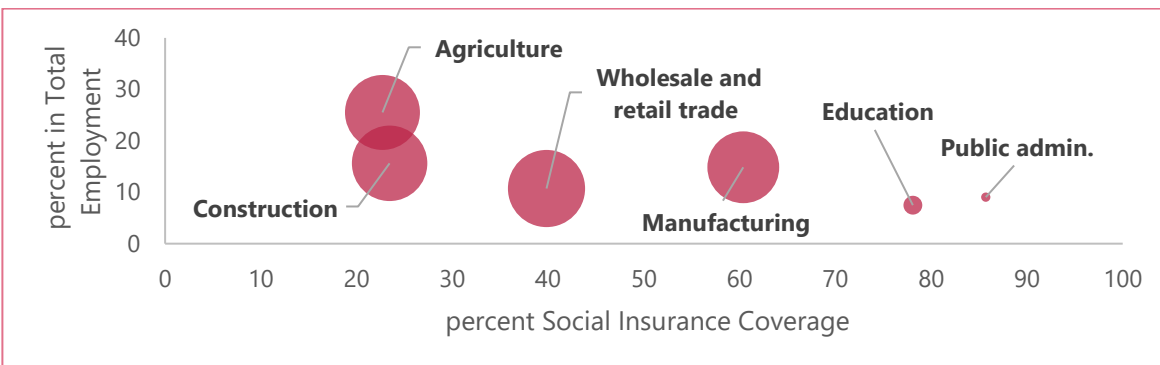


Figure 7c. Tunisia



Notes: On the horizontal axis is the share of the employed covered by social insurance. On the vertical axis is the percent of total employment. The size of the bubbles represents the share of workers in the private sector (including: 'Private,' 'cooperative, NGO and other,' 'foreign and international bodies'; excluding: 'Government' and 'Public Enterprises'). The bigger the bubble, the higher the share of workers in the private sector. 'Agriculture' stands for 'Agriculture, forestry and fishing'; 'Wholesale and retail trade' stand for 'Wholesale and retail trade, repair of motor vehicles and motorcycles'; 'Public admin.' stands for 'Public administration and defense, compulsory social security.'

Source: Authors' elaboration of ILMPS data.

Setting in relation to the ‘weight’ of the sector on the overall employed population and social insurance coverage gives a clear idea of where the social insurance coverage gap and challenges lie. In all three countries, the most labor intense sectors (e.g., agriculture, construction, and wholesale) are placed quite high in the figures (high share in total employment) and mostly on the left-hand side (low social insurance coverage, covering a wide area, as they are mostly private sector). In contrast, the public sector (smaller bubbles) has higher social insurance coverage but low relative weight. Moreover, the manufacturing sector replicates the classical employee-to-employer relation, a dichotomy on which most social insurance systems were funded, enabling the leaner enforcement and functioning of social insurance law. Hence, the higher coverage rates. Appendix 6 shows that most of the economic activity characterized by jobs in education and public administration (i.e., jobs in the public sector itself) increases the likelihood of being insured for employees, and, in Egypt’s case, displays even high significance. When looking at the private sector (e.g., construction, wholesale, and trade), the likelihood of being insured is much lower, as shown in Figure 7, in particular amongst construction. Yet, those in the agricultural sector are the least likely to be insured. Hence, the probability of being insured for non-agricultural workers in sectors is much higher compared to the agricultural sector.

While 81.4 percent of government public sector workers were insured in 2018 in Egypt, the share falls to 14.2 percent when looking at private sector workers. Similar differences can be seen in Jordan, while Tunisia has a higher share of insured private sector workers (36.9 percent). In fact, in the public sector, there is a higher incidence of contracts for employees, who are mostly included under social insurance. When looking at private employees with contracts, almost 70.7 percent have social insurance in Egypt, 63.9 percent in Jordan, and 78.6 percent in Tunisia. Though these figures are much higher compared to the overall coverage rates, it still indicates that there are consistent gaps in terms of coverage among waged employees with a contract.

Among private sector waged workers, their probability of being insured depends on two main features of the enterprise they are working in: first, if they work in an establishment, and second, the firm’s size. All three countries reported odd ratios, showing positive correlations between the firm's size and the likelihood of being insured with the effect of the employment activity on the premises is even more significant (Appendix 5). Employees conducting their work activities outside the enterprise’s establishment have less probability of being enrolled in the social insurance scheme.

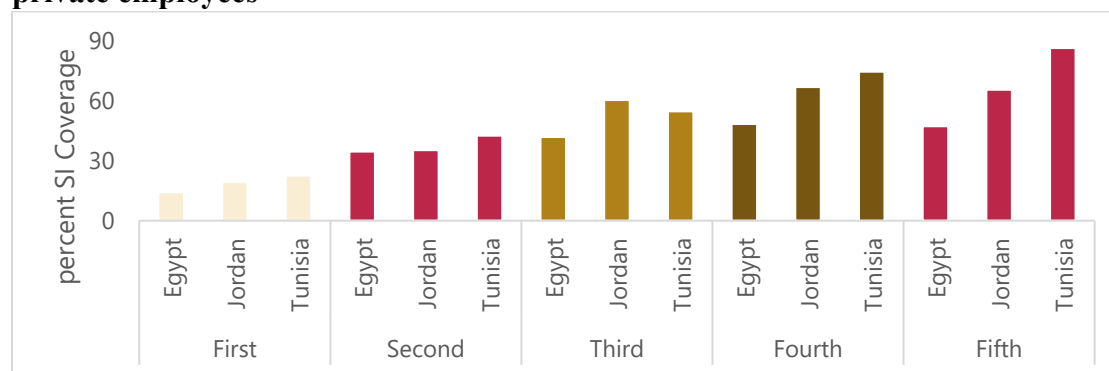
In Egypt, only six percent of those working outside enterprise premises are contributing to social insurance schemes, against 28 percent among those working in the establishment. This is a likelihood of about 4.5 times as high. Similar outcomes also hold for Jordan and Tunisia, with on-premises workers having five times higher probabilities of being insured in Jordan and two times in Tunisia (Appendix 6). Between the smaller and medium enterprises, the share of those insured sharply increases, reaching 41 percent of the employees in firms with 50 to 99 employees in Egypt,

and 86.6 percent of the same category in Jordan. Moreover, the firm size correlates with the level of employees' monthly income, as wealthier individuals, determined through the primary job's monthly wage, are usually in larger firms in the case of Jordan and Tunisia.

This is also reflected when accounting for income quintiles. In the regression model in Appendix 6, by excluding the middle quintile, it is estimated that higher quintiles (i.e., the fourth and fifth quintiles) are associated with higher odds of being insured when significant, and the lower ones are associated with negative ones.

In the highest quintile in Tunisia, almost 86.4 percent of the individuals who reported their monthly wages (i.e., among the waged employees) are insured through their work. In the first quintile, the share of insured in Tunisia was 22.5 percent. A similar progression can be seen in the other two countries, with the exception of coverage declining for the wealthiest employees in Jordan and Egypt (Figure 8). Nevertheless, these results reflect only partially the logit model results, which validated the lower probability for the lowest quintiles to be insured but not the decline in coverage for the highest quintiles in Jordan (Appendix 6).

Figure 8. Social insurance coverage and quintiles of monthly income of primary job for private employees⁵⁷



Notes: Only a partial number of private employees reported information on monthly income.

Source: Authors' elaboration of ILMPS data.

⁵⁷ The quintiles are based on the Monthly Wage of Primary Job. The following table reports the maximum value per quintile in terms of 2018 PPP. For Egypt and Jordan two values (the top two incomes) were excluded as outliers; respectively, 2018 PPP 90,533 and 2018 PPP 715,782 in Egypt and 491,715 and 970,658 in Jordan.

Quintile	EGY	JOR	TUN
First	298	713	469
Second	426	973	644
Third	572	1,167	837
Fourth	824	1,459	1,172
Fifth	37,514	62,091	15,087

The share of females insured in Tunisia is significantly lower compared to men in all the sectors, while coverage differences are slightly lower in Jordan and Egypt's public sectors. The logit model shows no negative likelihood associated with being women and insured in the three countries. Nevertheless, only 21.5 percent of the insured are women in Jordan and Tunisia, and 26 percent in Egypt. While results for the gender determinant in the logit model in Appendix 6 are significant only for Jordan, these are rather driven by the low inclusion in employment. In fact, while the share of women among individuals without insurance equals 16.7 percent in Egypt and 24.4 percent in Tunisia, these represent only 6.5 percent of non-insured employees.

When looking into private sector employees, even in Tunisia, it is interesting to note that more women than men are insured. Despite women having a higher social insurance incidence, they are disproportionately less present in high-level employee private sector jobs and overall have lower wages. Hence, while coverage is higher for women, the logit model shows no significant results; being a woman correlates with factors that have negative outcomes on the probability of being socially insured (e.g., low income and working out of premises).

Although private sector employees are (mostly) included under mandatory coverage schemes, the data analysis highlighted significant gaps. Therefore, the following section will explore the de jure coverage by proxying the mapping into the data and asking who among the mandatory covered private employees is not covered by the system. By answering this question, the section will be highlighting (1) who is legally covered, and therefore what the de jure coverage is, and (2) among those covered, who are the ones that are paying work social insurance contributions in the data at hand. This provides an initial insight into the discrepancy between what the law states and what happens on the ground.

6.1 De jure coverage

The de jure coverage results are only proxies for the actual figure of the employer and employee individuals that should be included under the mandatory coverage schemes. As discussed under the methodology, the optimal detail level could not be reached. Nevertheless, the pivotal component of this paper (i.e., mapping the social insurance provisions) is a thorough guide to walk through the conditions of the three social insurance systems, by itself providing a qualitative assessment of the de jure coverage, and to which the reader should primarily refer.

The de jure coverage in the three countries is widely different. In Jordan, where the legislation back in 2016 excluded agricultural workers and irregular workers (individuals working less than 16 days per month), the estimated coverage of the law is 72 percent of the employed. An additional eight percent of the employed were not mandatorily covered but could voluntarily insure themselves, leaving around 20 percent of the employed with no access to the system. In Tunisia, agricultural workers are mostly excluded from the mandatory coverage, but specific categories are still included. Under the compulsory coverage, all employees are included, as well as agricultural

workers operating in cooperatives with more than 25 employees, while additional agricultural-specific groups (e.g., fishing activities in large fishing vessels), artists, creatives, and intellectuals, drivers, and artisans were included under a separate category. Through this established rule, the de jure mandatory coverage results are 57.6 percent of the employed, while the additional groups of compulsory insurance, partially covered, reach only 0.7 percent, given the complexity of tracing such specific categories.

In Egypt, the available set of laws gives rise to the higher coverage of 98.7 percent of the employed. The groups covered under the mandatory social insurance schemes were replicated in the data using all employees, agricultural workers, self-employed, and firms smaller than 50 workers.⁵⁸ It has to be taken into consideration that although a high number of de jure coverage highlights low legal gaps, they might give rise to a higher de facto gap.

The legal coverage in Egypt seemingly reaches the entirety of the employees in the private sector. Yet, out of the private sector employees, only 17.1 percent contribute to the social insurance system in their current jobs. In Tunisia, 89.3 percent of private employees are covered under mandatory social insurance legislation, with 41 percent contributing to the social insurance system in their current job. Lastly, 82.3 percent of private sector employees in Jordan are covered under the mandatory provisions, of which 35.1 percent have access to social insurance in their current job.

Conversely, a basic picture describing the de facto/de jure coverage gap is the share of supposedly mandatorily insured who are de facto not covered. Hence, 59 percent of the de jure covered private sector employees (89.3 percent of the private sector employees) are not enrolled in the social insurance system in Tunisia, reaching 64.9 percent in Jordan and 82.9 percent in Egypt.⁵⁹

7. Discussion

While Egypt, Jordan, and Tunisia exhibit differences, they all grapple with common challenges, including issues of inequality, corruption, deficient social services, and constrained political freedoms. These challenges have laid bare deficiencies within their respective social contracts, prompting calls for increased accountability, transparency, and inclusivity. In response, we propose strengthening existing contributory social insurance schemes and enhancing their implementation as a potential solution. The analysis above provides an initial overview, focusing on mapping the social insurance system from both a data and structural standpoint. It reveals that although exclusion from both de jure and de facto social insurance is more pronounced among non-employee groups, such as the self-employed, significant gaps persist between private sector

⁵⁸ The de jure definitions used in the data analysis are limited by the availability of data. Data on firm size are divided into five categories which do not allow for any cut-off point. The authors acknowledge this strong limitation as highlighted in this report and others (Barsoum and Selwaness, 2022).

⁵⁹ The gaps highlighted also include those individuals in private sector waged jobs who do not have contracts. Among the de jure covered, 17.3 percent have a contract in Egypt, 37.2 percent in Jordan, and 35.6 percent in Tunisia.

employee coverage and the public sector. This underscores the necessity for a comprehensive approach to establish inclusivity within the social insurance system.

In this section, we reflect on the factors contributing to these disparities in coverage and outcomes, while the following section presents a discussion of the underlying challenges that give rise to fragmented and inadequate levels of protection. These challenges are linked to variables like labor market dynamics, obstacles to coverage, and legislative frameworks. Additionally, the section will draw cross-lessons from the experiences of Egypt, Jordan, and Tunisia to offer valuable insights into addressing these challenges effectively.

Social insurance systems

In Egypt, a mandatory framework administered by NOSI covers a broad range of workers, including both public and private sector employees. Mandatory contributions from employers and employees ensure comprehensive coverage, particularly for formal sector employees.

In Jordan, a combination of mandatory and voluntary coverage exists. The SSC administers mandatory coverage for employees in the public and private sectors, while self-employed individuals and workers in specific sectors have voluntary coverage options.

Tunisia relies primarily on mandatory coverage through the National Social Security Fund (CNSS), encompassing employees in both public and private sectors. Mandatory contributions from employers and employees provide coverage for various risks. However, depending on the type of profession, the type of social insurance scheme that one can access is more limited.

Labor market composition

Employees in the formal sector, particularly waged employees, are more likely to participate in the social insurance system in all three countries. Sectors such as agriculture, forestry, and fishing, construction, and wholesale and trade face common challenges in terms of low contract employment rates. Differences in employment contract distribution also emerge across sectors, with variations observed in the construction and wholesale and trade sectors among the three countries.

Across the three countries, variations in the distribution of employment contracts can be observed, particularly in sectors such as construction and wholesale and trade. While wholesale and trade have the lowest share of contracts, the manufacturing sector showcases the highest share of contract incidence among the private waged workers for all countries. This high share may be reflective of the classical employment arrangements in the labor market. It serves as a crucial factor in establishing a strong foundation for sustainable funding through regular contributions. This, in turn, facilitates the provision of comprehensive social protection programs. Moreover, formal

employment offers legal protections that effectively safeguard the rights of workers and ensure their access to various social insurance benefits.

These formal employment arrangements serve as a foundation for sustainable funding through consistent contributions, enabling the provision of comprehensive social protection programs. They come with legal frameworks that safeguard workers' rights and ensure access to social insurance benefits.

However, it should be noted gender disparities are prevalent in the labor force, with a lower share of women among employees compared to men. This compounds the sustainability of the system. When women are engaged in the labor market, they predominantly engage in positions that hold a contract, and they are more likely to engage in the public sectors, with variations across the countries.

Factors influencing coverage

Disparities in social insurance coverage between the public and private sectors exist in all three countries, attributed to the varying resources and capacities of employers. Larger firms are more likely to offer social insurance benefits compared to smaller enterprises.

Employees in the private sector are generally provided better coverage due to compliance with legal requirements, while self-employed workers face barriers to accessing social insurance programs.

Income level also influences coverage, with higher-income individuals having better access to benefits. Among the three countries, those individuals among the higher income quintiles are more likely to be insured, with those in the lowest income quintile displaying only marginal coverage rates. This signals the importance of further discussion on the financial constraints associated with the extension of social insurance; this is particularly the case in Egypt and, to a lesser extent, Tunisia, where it is important to recognize that expanding systemic coverage within the social insurance system cannot solely rely on legal inclusion.

Contrasting de jure and de facto coverage

While de jure coverage appears comprehensive on paper, de facto coverage reveals significant gaps and limitations. In Egypt, smaller enterprises and workers in the agricultural sector face challenges in accessing social insurance programs. Jordan exhibits gaps in coverage for informal and irregular workers, while Tunisia faces limitations for informal sector workers.

Egypt and Tunisia have comprehensive de jure coverage within their social insurance systems, but de facto coverage reveals significant disparities, with mandatory groups only partially covered. In

Jordan, stricter legislation at the time of the survey defines a smaller subset of the employees being included by law. These differences reflect the gap between those de jure covered and those among them that are de facto covered, highlighting that the expansion of the law cannot by itself promote the expansion of social insurance coverage. Addressing these gaps requires policies focusing on extending coverage to informal sector workers, improving access to programs, and promoting awareness. Bridging the gap between de jure and de facto coverage is essential to ensure comprehensive and adequate protection for all individuals, regardless of employment status or sector.

While the primary objective of this paper has been to examine disparities between de jure and de facto coverage within social insurance systems in Egypt, Jordan, and Tunisia within a social contract framework, it is imperative to acknowledge the broader macro- and micro-level challenges that influence these systems. At the macroeconomic level, the sustainability and long-term viability of these social insurance programs are intrinsically linked to the overall economic landscape of these countries. A sustainable macroeconomic structure is essential to bolster the resilience of these programs against continuous threats. On the micro level, challenges encompass issues like weak administration and implementation, which can impede the efficient delivery of social insurance benefits. Additionally, inadequate infrastructure can create barriers that hinder access and enrollment. Financial constraints also play a significant role, as limited resources may curtail the extent and effectiveness of social insurance initiatives. Lastly, ensuring the adequacy of benefits is paramount to ensure that the support provided through social insurance adequately meets the needs of beneficiaries.

These multifaceted challenges must be carefully considered when formulating strategies to fortify and enhance the social insurance systems within these countries. Recognizing the interplay of macroeconomic and micro-level factors within the framework of the social contract is crucial in crafting effective and sustainable solutions to improve these vital social safety nets. In the next sub-section, we use these insights to discuss the cross-country lessons learned from the analysis.

Cross-country lessons for the future of the social contract

After exploring the intricacies of the social insurance systems in Egypt, Jordan, and Tunisia, three main lessons learned are suggested below:

- Mandatory framework for comprehensive coverage: Egypt's implementation of a mandatory social insurance framework, encompassing a wide spectrum of workers across public and private sectors, stands as an exemplary starting point. The emphasis on mandatory contributions from both employers and employees has the potential to yield extensive coverage and a robust safety net against diverse risks. Jordan and Tunisia might consider adopting a similar mandatory framework approach to bolster coverage and provide crucial benefits, with a particular focus on formal sector employees.

- Voluntary coverage for the self-employed: Jordan's approach blends mandatory and voluntary coverage and extends provisions for self-employed individuals and specific sectors to voluntarily participate in the social insurance system. Egypt and Tunisia could explore introducing similar voluntary coverage options to encourage greater social insurance enrollment among self-employed individuals, thereby narrowing gaps in coverage within the informal sector.
- Balancing de jure and de facto coverage: Tunisia's efforts toward rectifying disparities between theoretical and actual coverage within its social insurance system provide an instructive lesson. Moreover, Tunisia's prioritization of mandatory participation as the primary means to achieve widespread societal coverage offers valuable insights. Egypt and Jordan can contemplate mechanisms that reinforce the importance of mandatory contributions from both employers and employees to construct a more comprehensive and inclusive social insurance system.

All three countries should prioritize policies aimed at bridging the gap between theoretical and actual coverage, ultimately extending comprehensive protection to individuals, regardless of their employment status or sector. These lessons pave the way toward strengthening and enhancing the three countries' social insurance systems.

4. Conclusion and the way forward

The examination of social insurance coverage and labor market conditions in Egypt, Jordan, and Tunisia offers an intricate perspective on the social contracts within these nations and their prospective implications. These social agreements, delineating the reciprocal responsibilities between citizens and their governments, have been shaped by historical, political, and economic influences, establishing the framework for public service provision, safeguarding individual rights, and ensuring equitable resource distribution.

Within the context of these countries, the social contracts have undergone transformations in response to evolving societal needs and aspirations. Transitioning from state-driven welfare initiatives to calls for more inclusive and democratic systems following the 2011 Arab uprisings, the social contracts have struggled to adapt to changing expectations. Nevertheless, the challenge of sustaining socially equitable systems amid political turbulence, economic disparities, and social unrest looms large.

In this paper, we identify a substantial challenge in the effectiveness of social insurance coverage in Egypt, Jordan, and Tunisia. This challenge stems from a significant gap between de jure and de facto coverage in social insurance programs. The existence of gaps in social insurance coverage not only propagates prevailing inequalities but also amplifies the vulnerabilities experienced by marginalized segments of society, in particular those engaged as domestic workers, self-employed workers or those employed in (small-scale) agricultural companies. Evident variations in coverage

rates across societal strata underscore this issue, with the private sector and particularly those having a lower income often exhibiting lower coverage rates. This gives rise to concerns about the fairness and inclusivity of the social contract, which should ideally ensure equal access and protection for all individuals, regardless of their employment status or societal belonging. Furthermore, a significant insight from this analysis underscores a fundamental deficiency in the social contract. It falls short in providing adequate protection and support to individuals, regardless of their socioeconomic status, thereby perpetuating its inherent weaknesses.

In the remainder of this section, we provide some recommendations based on our findings about social insurance and labor markets in Egypt, Jordan, and Tunisia.

Local strategies:

1. **Policy reforms:** It is imperative for Egypt, Jordan, and Tunisia to embark on comprehensive policy reforms aimed at bridging the gaps in social insurance coverage. Reforms should focus on expanding coverage to vulnerable and informal sector workers, addressing disparities between sectors and societal groups, and ensuring equitable access to social protection.
2. **Resource allocation:** Governments should prioritize sustainable resource allocation to bolster social insurance systems. Financial resources must be allocated judiciously to ensure the fiscal sustainability of social insurance schemes while extending their coverage. Special attention should be given to accommodating the needs of marginalized groups. The challenge of fiscal sustainability should be addressed, especially since changes associated with emergency COVID-19 measures have come to an end.
3. **Labor market policies:** Adapting labor market policies to the evolving dynamics of the informal market, sectoral variations, and economic transitions is crucial. Tailored policies should be developed to address the specific challenges faced by informal workers, daily wage laborers, women, youth, and low-income individuals.
4. **Strengthening social protection:** Efforts should be directed toward strengthening social protection mechanisms within these countries. This involves enhancing the effectiveness and inclusivity of social insurance systems, thereby aligning them more closely with the objectives of the social contract. The social contract should be viewed as a gradual process, incorporating a participatory approach that includes the different societal groups, recognizing that some groups have more power than others. A tripartite approach involving employers, people, and government can foster collaboration.
5. **Capacity building:** Enhancing institutional capacity, particularly in the administration and management of social insurance programs, is essential. Capacity-building initiatives can empower governments to design and implement effective reforms.

Regional strategies:

1. **Knowledge sharing:** Collaboration among these countries and sharing best practices regionally can yield valuable insights into improving social insurance coverage. Peer learning

and the exchange of experiences can guide policy development and implementation. Political will and regional issues should also be addressed, recognizing the variations in performance among Tunisia, Egypt, and Jordan.

2. **Regional cooperation on common challenges:** Recognizing common challenges faced by countries in the region, cooperative approaches such as harmonizing policies and standards to promote more consistent social protection across borders could be explored.
3. **Advocacy for external support:** Collaborative advocacy initiatives could be jointly pursued to actively engage external stakeholders, including international donors and organizations, in championing social insurance policies that are closely aligned with the objectives of the social contract within Egypt, Jordan, and Tunisia. This could also be done on a national level. The involvement of external partners offers a valuable opportunity to augment the available resources and tap into their wealth of technical expertise, which can significantly augment the efforts aimed at reforming and enhancing the social insurance systems within these nations. However, it is of paramount importance to exercise caution when dealing with external actors, particularly donors whose interventions have the potential to disrupt or reshape the course of social insurance reform. While external support can be instrumental in advancing these policies, a thoughtful and strategic approach is required to ensure that such support aligns harmoniously with the broader goals of the social contract and the unique needs and aspirations of each country. This involves careful consideration of the potential consequences, both intended and unintended, that external support may bring, to safeguard the integrity and effectiveness of the social insurance systems in the three countries.

Further research:

In the context of strengthening social protection and its impact on social contracts in Egypt, Jordan, and Tunisia, this section outlines key research areas. Building on the findings of this paper, these suggestions are intended to guide future studies, focusing on comparative analyses, inclusion dynamics, policy effectiveness, public perception, the role of technology, and long-term outcomes.

1. **Continue comparative analyses:** Future research should prioritize comparative analyses across Egypt, Jordan, and Tunisia. These analyses should explore policy approaches, highlight best practices, and provide evidence-based guidance for decision-makers.
2. **Implement a follow-up study on social contracts and social security:** It is important to examine more practical and policy-oriented perspectives on the relationship between social contracts and social security. Questions that need to be asked include what challenges and opportunities arise when attempting to harmonize social security policies with the implicit or explicit existing social contracts.
3. **Further examine the inclusion and exclusion dynamics:** In-depth studies should investigate inclusion and exclusion dynamics within social insurance systems. Identifying specific barriers faced by vulnerable populations can inform targeted policy interventions.
4. **Assess effectiveness and sustainability:** Research should evaluate the effectiveness and sustainability of policy interventions, including the design and implementation of contributory

social insurance schemes. Long-term viability and the impact on poverty reduction, income security, and social mobility should be evaluated.

5. **Understand public perception and trust:** Studying public perception and trust in social insurance programs is vital for citizen engagement and support. Research in this area can guide efforts to build trust and enhance program participation and may help to further shed light on the social insurance gap.
6. **Explore the role of technology and innovation:** The role of technology, such as digital platforms and data analytics, should be investigated to develop innovative solutions for expanding coverage, improving efficiency, and reducing administrative burdens.
7. **Initiate longitudinal studies:** Conducting longitudinal studies and impact assessments can provide insights into the long-term outcomes of social insurance programs. This includes their impact on poverty reduction, income security, and social mobility.

In this paper, we examine social insurance coverage across Egypt, Jordan, and Tunisia, revealing both commonalities and distinctive characteristics within their respective social security systems. A central and shared challenge among these nations revolves around the insufficiency of the social contract, particularly in the domain of social insurance provision. These persistent deficiencies in coverage not only perpetuate pre-existing inequalities but also exacerbate vulnerabilities within the population. The imperative to address these issues extends beyond their immediate impact; it is fundamental for ensuring the stability and prosperity of these societies in the years to come.

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Appendix 1

A trend perspective on employment in Egypt, Jordan, and Tunisia

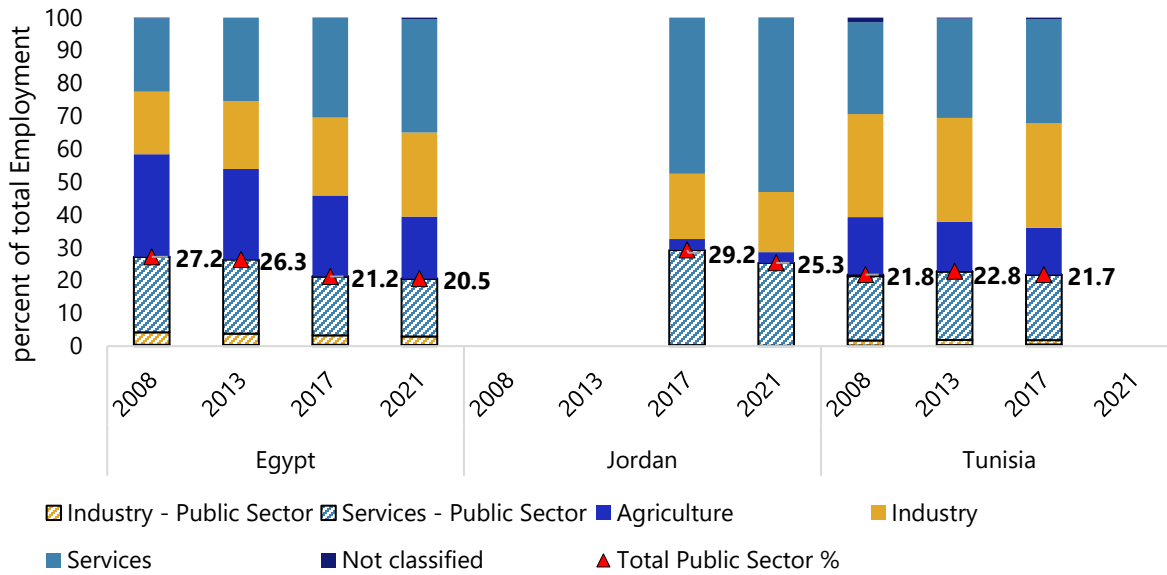
In 2017, 18.4 percent of the employed population were women in Jordan, with the percentage marginally increasing to 20.7 percent in Egypt and rising to 26.3 percent only in the case of Tunisia.⁶⁰ In 2006, both Egypt and Tunisia, for which data are available, displayed similar women employment shares, highlighting that the gender employment composition has not seen any positive variation in the near past. Conversely, data between 2017 and 2021 for Egypt and Jordan show worsening conditions for the two countries, with women's share of employment reaching 15.7 percent and 15.4 percent of the employed population.

Moreover, employed youth represent a moderate share of the overall employed, which dramatically declined in the years of the pandemic. From historical data, the percentage of youth in total employment has declined over the past decade, only partially explained by increases in secondary and tertiary school enrollment rates (World Bank, 2023). Hence, additional factors play a role in the (formal) occupational gap for the youngest working-age generations.

Employment's institutional and economic sectors are of pivotal importance for the analysis, as there is a strong relation between social insurance coverage and public sectors. Egypt experienced a notable decrease in the public sector's allocation and a corresponding increase in the private sector's share over time. For example, in the industry sector, the public sector's allocation decreased from 3.8 percent in 2008 to 2.6 percent in 2021, while the private sector's share increased from 19.1 percent in 2008 to 25.6 percent in 2021. This trend is also evident in the services sector, where the public sector's percentage decreased from 23 percent in 2008 to 17.6 percent in 2021, while the private sector's share increased from 22.3 percent in 2008 to 34.6 percent in 2021. Similarly, Jordan experienced a shift from the public to the private sector within industry and services. In the industry sector, the public sector's share decreased from 0.3 percent in 2017 to 0.1 percent in 2021, and the private sector's allocation increased from 19.9 percent in 2017 to 52.9 percent in 2021. Likewise, in the services sector, the public sector's allocation declined from 28.9 percent in 2017 to 25.2 percent in 2021, whereas the private sector's share rose from 47.5 percent in 2017 to 52.9 percent in 2021. On the other hand, Tunisia displayed relatively stable allocations in these sectors, but the data for 2021 are available (see Appendix Figure 1 below).

⁶⁰ 2017 is considered a comparison year as it is one of the few years for which data on employment are available for all three countries.

Appendix Figure 1. Percentage of employment by sector for Egypt, Jordan, and Tunisia, selected years and categories



Note: The pattern areas represent the industry and services of the public sector percent of total employment. Total Public Sector percent indicates the total share of employment in the public institutional sector. The stacked columns above the triangle are the private sector, divided by economic activity. Blank years have missing data. Estimates start after 2021 for Egypt and Jordan and 2019 for Tunisia.

Source: ILO (2023).

Appendix 2

Methodological considerations: Operationalizing de jure coverage

In Egypt, the de jure covered group was identified by including all employees, agricultural workers, self-employed and workers in firms with less than 50 workers.⁶¹ In Jordan, all employees are included provided they work more than 16 days per month and excluded if they work in the agricultural sector (as these were not included in the legislation at the time of the survey). In Tunisia, more challenges arose, as many partially covered groups were not included due to the mismatch between the specifics of the provisions and the data at hand. In Tunisia, the de jure coverage includes employees, excluding the agricultural sector, unless if part of a cooperative with more than 25 workers. Few groups under the agricultural sector are included in the legislation as other workers in different sectors.

⁶¹ Following Egypt's definition of small-to-medium enterprises (SMEs).

Appendix 3

Overview type of contributory social insurance schemes

Type of social insurance scheme/country	Egypt		Jordan		Tunisia	
	Available	Included groups	Available	Included groups	Available	Included groups
Old age pension	X	<ul style="list-style-type: none"> Public sector employees (age 16 and over). Formal private sector workers (age 18 and over). 	X	<p>Mandatory</p> <ul style="list-style-type: none"> Private sector employees. Public sector employees, not covered by the Civil Pension Law or Military Pension Law. Self-employed persons in agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors provided they meet the 16-day criterion. <p>Voluntary basis</p> <ul style="list-style-type: none"> Own account. Employers and joint partners. <p>Non-Jordanians</p> <ul style="list-style-type: none"> Formal work. Self-employed non-Jordanians if in flexible work permit. 	X	<p>Public sector employees</p> <p>Private sector employees</p> <ul style="list-style-type: none"> Non-agricultural workers. Domestic workers. Construction workers. Fishermen employed on a boat weighing at least 30 tons. Fishermen employed on a boat weighing less than five tons. Fishermen with a boat weighing up to 30 tons. Agricultural workers (working less than 45 days with the same employer over the course of four months). Agricultural employees (farm with at least 30 permanent employees/an agricultural or cooperative company). <p>Independent</p> <ul style="list-style-type: none"> Creatives, intellectuals, and artists. Independent agricultural workers. Sharecroppers. Own account agricultural workers (small-scale). Owners of a boat of more than 30 tons. Owners of a boat less than five tons. Independent fishermen. Own account workers or independents. Bath masseurs. Craft professionals. Independent public transport drivers. Artisans making single pieces.

Overview type of contributory social insurance schemes (contd.)

Disability pension x (non-work related)	<ul style="list-style-type: none"> Public sector employees (age 16 and over). Formal private sector workers (age 18 and over). 	X	Mandatory	X	Public sector employees
			<ul style="list-style-type: none"> Private sector employees. Public sector employees, not covered by the Civil Pension Law or Military Pension Law. Self-employed persons in agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors provided they meet the 16-day criterion. 		Private sector employees
			Voluntary basis		<ul style="list-style-type: none"> Non-agricultural workers. Domestic workers. Construction workers. Fishermen employed on a boat of at least 30 tons. Fishermen employed on a boat of less than five tons. Fishermen with a boat up to 30 tons. Agricultural workers (working less than 45 days with the same employer over the course of four months). Agricultural employees (farm with at least 30 permanent employees/an agricultural or cooperative company).
			Non-Jordanians		Independent
			<ul style="list-style-type: none"> Own account. Employers and joint partners. 		<ul style="list-style-type: none"> Creatives, intellectuals, and artists. Independent agricultural workers. Sharecroppers. Own account agricultural workers (small-scale). Owners of a boat over 30 tons. Owners of a boat less than five tons. Independent fishermen. Own account workers or independents. Bath masseurs. Crafts professionals. Independent public transport drivers. Artisans making single pieces.

Overview type of contributory social insurance schemes (contd.)

Survivor's pension	X	<ul style="list-style-type: none"> Public sector employees (age 16 and over). Formal private sector workers (age 18 and over). 	X	All public and private sector employees contributing to the SSC.	X	<p>Public sector employees</p> <p>Private sector employees</p> <ul style="list-style-type: none"> Non-agricultural workers. Domestic workers. Construction workers. Fishermen employed on a boat of at least 30 tons. Fishermen employed on a boat of less than five tons. Fishermen with a boat up to 30 tons. Agricultural workers (working less than 45 days with the same employer over the course of four months). Agricultural employees (farm with at least 30 permanent employees/an agricultural or cooperative company). <p>Independent</p> <ul style="list-style-type: none"> Creatives, intellectuals, and artists. Independent agricultural workers. Sharecroppers. Own account agricultural workers (small-scale). Owners of a boat over 30 tons. Owners of a boat less than five tons. Independent fishermen. Own account workers or independents. Bath masseurs. Craft professionals. Independent public transport drivers. Artisans making single pieces.
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Overview type of contributory social insurance schemes (contd.)

Death benefits/natural death pensions	X	Mandatory	X	Public sector employees
		<ul style="list-style-type: none"> Private sector employees. Public sector employees, not covered by the Civil Pension Law or Military Pension Law. Self-employed persons in agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors provided they meet the 16-day criterion. 		Private sector employees <ul style="list-style-type: none"> Non-agricultural workers. Fishermen working on a boat of 30 tons or more. Agricultural workers (working less than 45 days with the same employer over the course of four months). Agricultural employees (farm with at least 30 permanent employees/an agricultural or cooperative company).
		Voluntary basis <ul style="list-style-type: none"> Own account. Employers and joint partners. 		Independent <ul style="list-style-type: none"> Artists, creatives, and intellectuals. Independent fishermen with a boat over 30 tons. Independent agricultural workers. Sharecroppers. Own account workers or independents. Bath masseurs. Craft professionals. Independent public transport drivers.
Unemployment benefit	X	<ul style="list-style-type: none"> Public sector employees (age 16 and over). Formal private sector workers (age 18 and over). 	X	Mandatory
				<ul style="list-style-type: none"> Private sector employees. Public sector employees, not covered by the Civil Pension Law or Military Pension Law. Self-employed persons in agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors provided they meet the 16-day criterion.
		Voluntary basis <ul style="list-style-type: none"> Own account. Employers and joint partners. 		
		Non-Jordanians <ul style="list-style-type: none"> Formal work. Self-employed non-Jordanians if in flexible work permit. 		

Overview type of contributory social insurance schemes (contd.)

Maternity benefit	X	<ul style="list-style-type: none"> Public sector employees (age 16 and over). Formal private sector workers (age 18 and over). 	X	<p>Mandatory</p> <ul style="list-style-type: none"> Private sector employees. Public sector employees, not covered by the Civil Pension Law or Military Pension Law. Self-employed persons in agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors provided they meet the 16-day criterion. <p>Voluntary basis</p> <ul style="list-style-type: none"> Own account. Employers and joint partners. <p>Non-Jordanians</p> <ul style="list-style-type: none"> Formal work. Self-employed non-Jordanians if in flexible work permit. 	X	<p>Private sector employees</p> <ul style="list-style-type: none"> Employees in the non-agricultural private sector. Employees in the private agricultural sector. Employees in the private agricultural sector. <p>Independent</p> <ul style="list-style-type: none"> Self-employed workers in the agricultural and non-agricultural sector. Artists, creators, and intellectuals.
Work injury benefit	X	<ul style="list-style-type: none"> Public sector employees (age 16 and over). Formal private sector workers (age 18 and over). 	X	<p>Mandatory</p> <ul style="list-style-type: none"> Private sector employees. Public sector employees, not covered by the Civil Pension Law or Military Pension Law. Self-employed persons in agriculture, construction, transport, tourism, public service and maintenance, and art and media sectors provided they meet the 16-day criterion. Agricultural workers provided they meet the 16-day criterion. <p>Voluntary basis</p> <ul style="list-style-type: none"> Own account. Employers and joint partners. <p>Non-Jordanians</p> <ul style="list-style-type: none"> Formal work. Self-employed non-Jordanians if in flexible work permit. 	X	All private sector employees including trainees, students of vocational or technical education, prisoners engaged in prison labor, workers within national or regional development projects, and domestic workers.

Overview type of contributory social insurance schemes (contd.)

Early retirement benefit			X	<p>Public Sector Employees</p> <p>Private Sector Employees</p> <ul style="list-style-type: none"> • Non-agricultural workers. • Fishermen working on a boat of 30 tons or more. <p>Independent</p> <ul style="list-style-type: none"> • Independent agricultural workers. Sharecroppers. • Own account workers or independents. • Bath masseurs. • Craft professionals. • Independent public transport drivers.
Health insurance			X	Employees in the public and private sectors and their dependents.
Sickness benefit	X	<ul style="list-style-type: none"> • Public sector employees (age 16 and over). • Formal private sector workers (age 18 and over). 	X	<p>Private sector employees</p> <ul style="list-style-type: none"> • Employees in the non-agricultural private sector. • Employees in the private agricultural sector. • Employees in the private agricultural sector. <p>Independent</p> <ul style="list-style-type: none"> • Self-employed workers in the agricultural and non-agricultural sector. • Artists, creators, and intellectuals.
Family benefits			X	<p>Public sector employees</p> <p>Private sector employees</p> <ul style="list-style-type: none"> • Non-agricultural workers. • Fishermen working on boats of 30 tons or more. • Owners of a boat less than 30 tons. • Agricultural employees (farm with at least 30 permanent employees/an agricultural or cooperative company). <p>Other</p> <ul style="list-style-type: none"> • Students registered with CNSS and in higher education.

Appendix 4

Definition of irregular workers according to the respective countries

Country	Definition
Egypt	<p>As per article of the Labor Law No. 12 of 2003.</p> <p>Individuals who engage in employment activities that are not in compliance with legal regulations and formal employment standards. These workers typically operate outside the formal labor market, lacking legal protection, social security benefits, and other employment rights guaranteed by the law.</p>
Jordan	<p>As per Article 4 of the 2014 Social Security Law and its amendments:</p> <ol style="list-style-type: none">1. A day laborer working less than 16 days in any given month with a single employer.2. An hour, piece, shipment laborer or the like who works less than 16 days in any given month; regardless of the number of working hours, pieces, or shipments per day.3. A laborer who is paid on a monthly basis regardless of the number of working days per month, with the exception of the first month of work to which the principle of less than 16 working days per month shall apply.
Tunisia	N/A

Appendix 5

Logit models (odds ratios) for having social insurance coverage, employed population, Egypt, Jordan, and Tunisia working-age individuals

VARIABLES	EGYPT	JORDAN	TUNISIA
	odds ratio	odds ratio	odds ratio
Age group (age group 25-34 is excluded)			
16-24	0.331*** (0.000)	0.881 (0.466)	0.462*** (0.001)
35-44	1.704*** (0.000)	0.979 (0.878)	1.017 (0.924)
45-60	2.384*** (0.000)	1.006 (0.968)	1.446* (0.053)
60+	1.606*** (0.01)	2.037* (0.06)	0.673 (0.166)
Gender (male excluded)			
Female	1.103 (0.478)	1.445** (0.037)	0.639*** (0.008)
Geographic (urban excluded)			
Rural	0.714*** (0.000)	1.161 (0.345)	0.798* (0.064)
Marital Status (married excluded)			
Single	0.759** (0.031)	1.309* (0.06)	0.395*** (0.000)
Widowed or divorced	0.944 (0.881)	0.383** (0.03)	0.791 (0.533)
Education (less than secondary is excluded)			
Secondary	1.884*** (0.000)	1.076 (0.635)	1.695*** (0.009)
Tertiary+	3.697*** (0.000)	2.455*** (0.000)	2.228*** (0.000)
Employment status in primary job (excludes employees)			
Employer	0.879 (0.345)	0.286*** (0.000)	2.316*** (0.001)
Self-employed	0.341*** (0.000)	0.0910*** (0.000)	0.747* (0.092)
Unpaid family work	0.119*** (0.000)	0.0529*** (0.007)	0.373** (0.022)

Logit models (odds ratios) for having social insurance coverage, employed population, Egypt, Jordan, and Tunisia working age individuals (contd.)

Employment sector (private is excluded)			
Government	9.816*** (0.000)	3.626*** (0.000)	2.766*** (0.001)
Public enterprise	11.88*** (0.000)	3.258** (0.022)	3.400*** (0.000)
Cooperative NGO & other	0.996 (0.997)	0.201* (0.072)	0.590 (0.421)
Foreign and international bodies	3.573 (0.146)	0.191*** (0.000)	8.114*** (0.000)
Sectors of economic activity (Agriculture, Forestry, and Fishing is excluded)			
Mining and quarrying	4.912** (0.037)	176.7*** (0.000)	10.25*** (0.000)
Manufacturing	8.731*** (0.000)	37.50*** (0.000)	5.203*** (0.000)
Electricity; gas; steam and air conditioning supply	9.604*** (0.000)	58.30*** (0.000)	
Water supply; sewage; waste management and remediation activities	11.04*** (0.000)	39.37*** (0.000)	
Construction	2.989*** (0.000)	9.750*** (0.000)	0.865 (0.475)
Wholesale and retail trade; repair of motor vehicles and motorcycles	3.717*** (0.000)	17.94*** (0.000)	2.344*** (0.000)
Transportation and storage	7.237*** (0.000)	16.11*** (0.000)	2.873*** (0.000)
Accommodation and food service activities	3.006*** (0.000)	25.94*** (0.000)	2.080** (0.032)
Information and communication	6.342*** (0.000)	48.99*** (0.000)	23.61*** (0.000)
Financial and insurance activities	5.547*** (0.001)	108.1*** (0.000)	8.380** (0.042)
Real estate activities	4.550* (0.057)	91.98*** (0.000)	1.653 (0.742)
Professional, scientific, and technical activities	5.904*** (0.000)	56.23*** (0.000)	0.855 (0.901)
Administrative and support service activities	3.153*** (0.004)	14.69*** (0.000)	3.323** (0.04)

Logit models (odds ratios) for having social insurance coverage, employed population, Egypt, Jordan, and Tunisia working-age individuals (contd.)

Public administration and defense; compulsory social security	7.712*** (0.000)	43.49*** (0.000)	5.925*** (0.000)	
Education	3.898*** (0.000)	57.60*** (0.000)	3.455*** (0.000)	
Human health and social work activities	6.142*** (0.000)	49.69*** (0.000)	5.639** (0.014)	
Arts, entertainment, and recreation	4.164** (0.02)	7.031** (0.027)	1.938 (0.32)	
Other service activities	3.767*** (0.000)	10.44*** (0.000)	1.378 (0.456)	
Activities of households as employer	0.914 (0.831)	0.823 (0.847)	0.468 (0.405)	
Activities of extraterritorial organizations and bodies		0 53.34*** (0.000)		0 (0.000)
Constant	0.0281*** (0.000)	0.0172*** (0.000)	0.401*** (0.000)	
Observations	16,483	6,269	3,059	
Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				
Employed	16,791.20	6,803.19	4,471.09	
Share (Obs./Empl)	98.2 percent	92.1 percent	68.4 percent	

Appendix 6

Logit models (odds ratios) for having social insurance coverage, employee population, Egypt, Jordan, and Tunisia working-age individuals

VARIABLES	EGYPT odds ratio	JORDAN odds ratio	TUNISIA odds ratio
Age group (age group 25-34 is excluded)			
16-24	0.292*** (0.000)	0.830 (0.356)	0.371*** (0.004)
35-44	1.457*** (0.000)	1.024 (0.885)	0.860 (0.621)
45-60	1.861*** (0.000)	1.222 (0.248)	1.122 (0.719)
60+	1.122 (0.706)	2.359 (0.13)	0.517 (0.318)
Gender (male excluded)			
Female	1.129 (0.372)	1.629** (0.016)	1.263 (0.457)
Geographic (urban excluded)			
Rural	0.828** (0.038)	1.228 (0.273)	1.362 (0.145)
Marital Status (married excluded)			
Single	0.671*** (0.007)	1.478** (0.018)	0.479** (0.018)
Widowed or divorced	0.684 (0.109)	0.445** (0.046)	0.680 (0.475)
Education (less than secondary is excluded)			
Secondary	1.163 (0.177)	0.946 (0.724)	0.873 (0.72)
Tertiary+	1.748*** (0.000)	1.668*** (0.005)	0.975 (0.95)

Logit models (odds ratios) for having social insurance coverage, employee population, Egypt, Jordan, and Tunisia working-age individuals (contd.)

Quintile of Monthly Wage (Primary Job) (third quintile excluded)			
First	0.373*** (0.000)	0.448*** (0.000)	0.181*** (0.000)
Second	0.972 (0.832)	0.827 (0.275)	0.888 (0.692)
Fourth	1.062 (0.635)	0.951 (0.766)	1.509 (0.201)
Fifth	1.264* (0.091)	1.168 (0.422)	4.096*** (0.000)
Employment sector (private is excluded)			
Government	4.020*** (0.000)	2.095*** (0.000)	1.584 (0.316)
Public enterprise	4.401*** (0.000)	2.936** (0.027)	2.495* (0.055)
Cooperative NGO & other	2.972 (0.222)	0.983 (0.97)	1 #VALUE!
Foreign and international bodies	3.881 (0.196)	0.0875*** (0.000)	55.98*** (0.000)
Sectors of economic activity (Agriculture, Forestry, and Fishing is excluded)			
Mining and quarrying	1.134 (0.864)	17.94*** (0.000)	3.827 (0.198)
Manufacturing	2.704*** (0.000)	11.88*** (0.000)	1.631 (0.313)
Electricity; gas; steam and air conditioning supply	3.428** (0.021)	12.40*** (0.002)	1 #VALUE!
Water supply; sewage; waste management and remedial activities	8.036*** (0.000)	13.02*** (0.000)	0 (0.000)
Construction	1.859*** (0.009)	10.62*** (0.000)	0.586 (0.144)

Logit models (odds ratios) for having social insurance coverage, employee population, Egypt, Jordan, and Tunisia working-age individuals (contd.)

Wholesale and retail trade; repair of motor vehicles and motorcycles	1.915*** (0.009)	10.83*** (0.000)	0.904 (0.834)
Transportation and storage	8.982*** (0.000)	9.930*** (0.000)	0.563 (0.444)
Accommodation and food service activities	1.006 (0.986)	9.349*** (0.000)	1.155 (0.824)
Information and communication	2.823** (0.031)	11.56*** (0.002)	1 #VALUE!
Financial and insurance activities	2.950* (0.094)	18.00*** (0.000)	1.349 (0.734)
Real estate activities	17.56* (0.093)	20.25** (0.01)	1 #VALUE!
Professional, scientific, and technical activities	3.238*** (0.001)	10.62*** (0.000)	1 #VALUE!
Administrative and support service activities	1.294 (0.553)	10.81*** (0.000)	1.185 (0.865)
Public administration and defense; compulsory social security	4.251*** (0.000)	11.15*** (0.000)	2.939** (0.039)
Education	2.497*** (0.000)	22.07*** (0.000)	1.049 (0.93)
Human health and social work activities	3.748*** (0.000)	19.41*** (0.000)	0.615 (0.646)
Arts, entertainment, and recreation	1.650 (0.284)	2.049 (0.474)	1.113 (0.893)
Other service activities	3.667*** (0.000)	9.245*** (0.000)	1.711 (0.461)

Logit models (odds ratios) for having social insurance coverage, employee population, Egypt, Jordan, and Tunisia working-age individuals (contd.)

Activities of households as employer	1.166 (0.739)	1.267 (0.827)	2.339 (0.342)	
Activities of extraterritorial organizations and bodies		0 35.75*** (0.000)		0 (0.000)
Firm size (100+ workers excluded)				
1-4 workers	0.140*** (0.000)	0.107*** (0.000)	0.434** (0.02)	
5-24 workers	0.178*** (0.000)	0.409*** (0.000)	0.705 (0.323)	
25-99 workers	0.590*** (0.000)	1.093 (0.619)	0.615 (0.145)	
Work in establish. primary job ('yes' is excluded)				
Not working in establishment	0.243*** (0.000)	0.203*** (0.000)	0.407** (0.011)	
Constant	0.440*** (0.004)	0.154*** (0.001)	1.977 (0.26)	
Observations	10,019	5,159	1,053	
Robust standard errors in parentheses				
*** p<0.01, ** p<0.05, * p<0.1				
Waged employee Share (Obs./Waged Employee)	12,642 79.2%	5,739 89.9%	3,023 34.8%	