

The Impact of Covid-19 on MENA Labor Markets: A Gendered Analysis from Egypt, Tunisia, Morocco and Jordan

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Working Paper No. 1559

August 2022

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¹ The Authors wish to thank the Economic Research Forum (ERF) for funding this research and for facilitating the collection of the valuable datasets used in this study during the COVID-19 pandemic and making them publicly available.

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First published in 2022 by
The Economic Research Forum (ERF)
21 Al-Sad Al-Aaly Street
Dokki, Giza
Egypt
www.erf.org.eg

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Abstract

This paper relies on a gendered lens to assess if the COVID-19 health crisis has differently affected women and men labor market outcomes in four MENA countries, namely Egypt, Jordan, Tunisia and Morocco. The paper first overviews employment, unemployment and participation trends during the pandemic as opposed to pre the outbreak of the virus. It then focuses on documenting a number of facts about worker flows pre to post the outbreak of the Coronavirus, focusing on gender differences and volatility of private sector jobs. By focusing on four MENA countries to address its core research questions, the study provides a comprehensive review of the economic impacts of COVID-19, including the macroeconomic impacts, the existing evidence on employment, and non-employment trends, and post-COVID19 government assistance measures both for general economic relief and specifically for our population of interest i.e. women. The paper also uses a set of harmonized micro datasets from the ERF COVID-Monitor data to examine labor market stocks and worker flows by gender on a country-by- country basis amid and post the COVID-19 pandemic outbreak. We decompose the contributions of worker flows by sector and type of employment to fluctuations in employment, unemployment and participation post the pandemic. The main findings of this paper show that COVID-19 has resulted mainly in decreases in employment, and increases of unemployment. Unemployment levels have revealed to be substantially higher post COVID-19, as opposed to pre-COVID levels, with significantly higher rates and increases for females. Female workers in the private wage employment sector have been the most vulnerable and their (out-of-employment) exit flows have substantially contributed to the rise in unemployment.

Keywords: COVID-19, health, labor market, employment, Egypt, Jordan, Tunisia, Morocco

JEL Classifications: J1, I1

ملخص

تعتمد هذه الورقة على عدسة نوعية لتقييم ما إذا كانت أزمة فيروس كورونا (كوفيد-19) الصحية قد أثرت بشكل مختلف على نتائج سوق العمل للنساء والرجال في أربعة بلدان في الشرق الأوسط وشمال إفريقيا، وهي مصر والأردن وتونس والمغرب. تستعرض الورقة أولاً اتجاهات العمالة والبطالة والمشاركة أثناء الجائحة على عكس ما كانت عليه قبل تفشي الفيروس. ثم تركز على توثيق عدد من الحقائق حول تدفقات العمال في الفترة ما قبل تفشي فيروس كورونا لما بعدها، مع التركيز على الفروق بين الجنسين وتقلب وظائف القطاع الخاص. من خلال التركيز على أربعة بلدان في الشرق الأوسط وشمال إفريقيا لمعالجة أسئلتها البحثية الأساسية، تقدم الدراسة استعراضاً شاملاً للآثار الاقتصادية لفيروس كورونا (كوفيد-19)، بما في ذلك آثار الاقتصاد الكلي، والأدلة القائمة بشأن العمالة، واتجاهات البطالة، وتدابير المساعدة الحكومية بعد تفشي فيروس كورونا (كوفيد-19) على حد سواء للإغاثة الاقتصادية العامة وتحديدًا لسكاننا المعنيين، أي النساء. تستخدم الدراسة أيضًا مجموعة من مجموعات البيانات الدقيقة المنسقة من بيانات راصدي-فيروس كورونا (كوفيد-19) منتدى البحوث الاقتصادية لفحص مخزونات سوق العمل وتدفقات العمال حسب الجنس على أساس كل بلد على حدة في الفترة وسط تفشي-جائحة فيروس كورونا (كوفيد-19) وبعدها. نحلل مساهمات تدفقات العمال حسب القطاع ونوع العمالة للتقلبات في العمالة والبطالة والمشاركة بعد الجائحة. تظهر النتائج الرئيسية لهذه الدراسة أن فيروس كورونا (كوفيد-19) أدى بشكل أساسي إلى انخفاض في العمالة وزيادة في البطالة. كشفت مستويات البطالة عن ارتفاع كبير بعد تفشي-فيروس كورونا (كوفيد-19)، مقارنة بمستويات البطالة ما قبل فيروس كورونا (كوفيد-19)، مع معدلات وزيادات أعلى بكثير للإناث. وكانت العاملات في قطاع العمالة بأجر في القطاع الخاص أكثر الفئات ضعفًا، وأسهمت تدفقات خروجهن (خارج نطاق العمالة) إسهامًا كبيرًا في زيادة البطالة.

I. Introduction

The COVID-19 pandemic has created particular labor market conditions around the world and has drawn attention to “essential workers” who are needed to sustain basic existence (WHO, 2020). While those working in the health sector are an important segment of these front-line workers, low-wage/low-skilled service workers represent most of this stratum. Globally, women tend to be over-represented among both health professionals and these low-skilled service workers, which exposes them to a greater risk of infection (OECD, 2020a). In addition, women face increased unemployment risk given their over-representation in jobs harder hit by economic contraction such as retail, hospitality, and tourism. Regardless, shocks of similar scale from past economic and health crises, such as the 2008 financial crisis and the 2014-15 West African Ebola outbreak, tend to affect men and women differently (OECD, 2020a).

The analyses in this paper rely on a gendered lens to assess if the COVID-19 health crisis has differently affected women and men labor market outcomes in four MENA countries, namely Egypt, Jordan, Tunisia and Morocco. The paper first overviews employment, unemployment and participation trends during the pandemic as opposed to pre the outbreak of the virus. It then focuses on documenting a number of facts about worker flows after the outbreak of the Coronavirus, focusing on gender differences and volatility of private sector jobs.

Worldwide, the impact of the pandemic on careers, and career aspirations has been unprecedented. The crisis has so far demonstrated that it has adverse repercussions on the quantity of jobs, whether in term of unemployment or underemployment, and the quality of work (income and social protection). It has also shown worldwide, and particularly in the MENA region, signs of the challenges faced by individuals (i) to remain attached to their jobs, (ii) to maintain the same working terms and conditions they had before the pandemic, and (iii) the new increased hurdles to find jobs in the case of the unemployed. Moreover, the COVID-19 related restrictions and measures such as social distancing, quarantine measures, closures of schools and daycares, work from home...etc., have all led people to value a job differently. The desirability of non-monetary job attributes has been substantially impacted. In other words, workers look at the labor market differently and have different work-related priorities post the shock; attaching more importance not only to subsistence, but also working conditions and work-life balance after the onset of the COVID-19 crisis (Baert et al., 2020).

Time is a limited resource for individuals. Decisions on the number of hours allocated to (market) work, domestic work (both care and household chores) and leisure are therefore in competition and inter-dependent. The COVID-19 crisis involved (i) physical distancing restrictions, (ii) closure of childcare services and schools and (iii) work from home of most men and women. This clearly impacts labor supply, particularly women's, in all countries. Low and middle-income countries, such as the MENA region, are even more prone to a more amplified impact and to further exacerbate gender inequalities. In these economies, women are still considered to be the main

responsible of most, if not all, household-related activities, even though men are stepping in more than earlier times in history. In MENA, the biased division of labor in care and household chores clearly results in stagnant low female labor force participation rates, even though gender educational gaps have continued to close over the past two decades (Spierings 2014, Hendy 2015b).

Since female labor supply in the MENA region rely heavily on access to external help in child care and household chores, and participation in jobs with flexible work arrangements and family-friendly amenities, the COVID-19 crisis, is very likely to impact women's empowerment and labor supply both through direct and indirect channels. Much of these risks also stem from the fact that women are over-represented in sectors like tourism, agriculture and hospitality that were disproportionately affected by COVID-19; and other vulnerable types of work that women are predominating such as informal, low-paying irregular work with lack of social protection (OECD 2020c). According to ILO nowcasting model, the MENA region has experienced declines in working hours during 2020 Q1 by 1.8%⁵ compared to 2019 Q4 -before the pandemic- which will endure lower levels of income and hence, higher levels of poverty specially in countries where the labor market-institutional setting is weak and fiscal space as well as social protection are limited (ILO, 2020). While at a sectorial approach, around 18.2 million in the Arab States work in the most-at-risk sectors like food and accommodation, manufacturing and retail and are facing relatively⁶ high risks of wage reductions, working hours reductions and underemployment as well as layoffs.

The above-mentioned negative effects are even prone to be further amplified within the MENA region given its institutional setting. The presence of an over-sized public employer, a substantial share of informal wage employment and stagnant low female participation rates are common characteristics of a prototypical MENA labor market. The COVID-19 shock within such a context, is nothing but expected to lead to a substantially worsened situation and the adjustment to the shock is hence forecasted to be slow and challenging, if not handled appropriately. A prompt policy response is therefore necessary to alleviate between the different employment sectors, the individuals' -especially women's- change in preferences and aspirations, and the newly developed economic constraints.

The paper in object addresses two core research questions: (i) How have labor market conditions, and worker gross flows evolved post the outbreak of the Coronavirus in MENA countries? And (ii) whether the pandemic has led to different labor market outcomes for distinct population subgroups, particularly women and men?

⁵ Approximately equivalent to 1 million full time jobs related to 48 working hours/week.

⁶ Employees working in other sectors undeniably face significant economic losses as well.

Limited by the extent to which data and information is available, the paper focuses on four MENA countries; Egypt, Jordan, Morocco and Tunisia. The study provides a comprehensive review of the economic impact of COVID-19 in the targeted countries, focusing on the macroeconomic impacts, existing evidence of employment, unemployment and participation trends and post-COVID19 government assistance measures both for general economic relief and specifically for our population of interest i.e. women. The paper then uses a set of harmonized micro datasets from the ERF COVID-Monitor data to examine the labor market stocks and worker flows by gender on a country-by- country basis amid and post the COVID-19 pandemic outbreak. We decompose contributions of worker flows by sector and type of employment to fluctuations in employment, unemployment and participation post the pandemic.

To our knowledge, this study is among a limited handful of other studies which have opted to focus in the MENA region on how the pandemic has resulted in substantially different women labor market outcomes, as opposed to men. While the gendered analysis has been the leading interest of studies worldwide, it has been an under-researched topic in MENA to-date.

The findings of this paper are not surprising per se, and are in line with the general worldwide trends and the economic theory. Documenting those employment and non-employment trends, as well as the contributions of worker flows to the post-COVID19 fluctuations of these labor market stocks provide the key value-added of the paper. The COVID-19 health crisis resulted mainly in decreases in employment, and increases of unemployment. In Tunisia, Egypt and Jordan, unemployment levels have revealed to be substantially higher post COVID-19, as opposed to pre-COVID levels, with significantly higher rates and increases for females. Female workers in the private wage employment sector reveal to be the most vulnerable and their exit flows - out-of-employment - have substantially contributed to the rise in unemployment. This particular finding can be explained by (1) what is referred to as the “Private Sector Gender-bias”⁷, as well as (2) the increased care responsibilities/burden falling on women during lockdown periods, and following the COVID19 related restrictions (such as schools and daycare closure).

The remainder of the paper is organized as follows; Section 2 provides an exhaustive overview of the literature on the economic impacts of COVID-19 in the four MENA countries in question. Section 3 complements the review with a summary of the labor market-related measures adopted by those MENA governments as a response to the COVID-19 Pandemic, both as a general economic relief and specifically focusing on our population of interest (women). Section 4 exposes the data and methods relied upon in our analysis. Section 5 provides a discussion of our findings with respect to employment and non-employment trend, followed by a discussion of worker flows and transition matrices in Section 6. Section 7 concludes.

⁷ The Private Sector Gender-bias refers to the situation where the private sector prioritizes employing men when jobs are limited (Krafft, Keo, and Fedi 2019).

II. A Comprehensive Review of COVID-19 Economic Impacts⁸

As COVID-19 hits the globe, several researchers have looked at how this crisis affects the various economic elements and life aspects, including labor market dynamics. This crisis is in fact not only a health crisis but rather an economic and labor market crisis as well (ILO, 2020). For instance, Kahn, Lange and Wiczer (2020) use three different surveys to examine factors affecting the American labor market during the COVID-19 crisis. They consider four facets which are childcare needs, groups at risk in the workforce, potential supply of healthcare workers, and working from home. They find that almost a quarter of the American workforce have children under 12 at home, hence affecting their full-time work capacity. They also argue that one-fifth of the workforce and one quarter of healthcare workers are more likely to severely suffer from this crisis or live with someone in an at-risk group. Additionally, they estimate that the potential supply of healthcare workers that could be recalled to address potential future shortages does not exceed an additional 40 percent of the healthcare workforce.

Assessing the repercussions of telework, Bonacini, Gallo, and Scicchitano (2020) examine how working from home attitudes affect labor income distribution among Italians. They use two labor market surveys to estimate the effect of a change in working from home attitude on gross labor income distribution. They find that an increased shift towards telework would increase wage inequality among employees. They argue that the wage premium associated with a move from low to high telework attitude is equal to 10 percent. Baert et al. (2020) focus on the Belgian labor market and assess the impact of the pandemic on career aspirations and outcomes. They conduct a survey in the largest Belgian region on a representative sample of 3,821 individuals. They report that around one-fifth of the respondents' fear losing their jobs due to the crisis and around quarter of them anticipate foregoing promotions opportunities because of the virus. They also find that vulnerable groups, such as migrants, have higher fear of this negative impact. Additionally, they argue that respondents adopt different work-related attitudes due to the crisis as valuing more working conditions and work-life balance.

Like the paper in object, Alon et al. (2020) focus on how the coronavirus economic downturn would affect women differently from men. More specifically, they examine the effects of pandemic outbreak on gender equality. They argue that, unlike previous recessions, female employment is more affected since social distancing measures mostly involve sectors with higher female employment shares. However, they reason that gender inequality would decrease in the long term due to persistent current changes toward more equal labor division in the household.

Women are over-represented among health professionals and low-wage/low-skilled service workers who represent the “essential workers” needed to sustain basic existence during the COVID-19 outbreak, which exposes them to a greater risk of infection. In addition, women face

⁸ For a summary table, please refer to Table 5.

increased unemployment risk given their over-representation in jobs which are harder hit by economic contraction such as retail, hospitality, and tourism (OECD, 2020a).

The International Monetary Fund's (IMF) economic outlook report for April 2020 assesses how the global pandemic and measures taken to fight the virus would affect the world economy. Estimates have forecasted the pandemic to have worse economic effects than the 2008-09 financial crisis, shrinking the global economy by 3 percent and the Middle East and North Africa's (MENA) economy by 3.3 percent in 2020. For Egypt, the report estimates that real GDP growth would decrease to 2 percent in 2020 and 2.8 percent in 2021, compared to 5.6 percent in 2019. Meanwhile, total unemployment rate among Egyptians would rise to 10.3 percent in 2020 and 11.6 percent in 2021, compared to 8.9 percent in 2019 (IMF, April 2020).

According to the World Bank Economic Update in 2021⁹, economic growth in Egypt is forecasted to decline from 3.6% in 2019/2020 fiscal year to 2.3% in 2020/2021 fiscal year due to the renewed increase of COVID-19 cases and to the slow vaccine roll-out even abroad. On the one hand, pre-pandemic worrying trends in the Egyptian Labor Market, such as increasing informality and declining real earnings, are even worsened by the crisis. This is expected to lead to higher poverty rates. On the other hand, remittance inflows and expanded social protection - thanks to the Egyptian Government prompt countermeasures – are expected to in-part support private consumption and sustain low inflation. Sufficient deployment of vaccines by early-2022 could help Egypt gradually regain its growth over fiscal year (FY) 2021/22-23. Focusing on the Egyptian economy, Breisinger et al. (2020) examine the effects of the COVID-19 pandemic on the reduced tourism revenues, lost payments collected from the Suez Canal, and lower remittances sent by Egyptians expatriates. They estimate that for each ongoing month of the crisis. Their findings suggest that the Egyptian economy could shrink by 0.7 to 0.8 percent and household consumption and expenditure could decrease by 9 to 10.6 percent of average household income. If the crisis lasts for 3 to 6 months, an anticipated annual decrease in Egyptian GDP of 2.1 to 4.8 percent by the end of 2020 has been estimated (World Bank, 2021a).

As for Jordan, macroeconomic indicators have generally been in deterioration because of back-to-back 2nd and 3rd surge of COVID-19 cases. Unemployment has been persistently increasing. The Jordanian tourism sector has been severely hit, which represented approximately 18% of GDP and total employment in 2019. Recovery in the second half of 2021 is expected to be stretched out unless the vaccination pace significantly picks up, compared to 0.6% vaccinated of the population in mid-February 2021. However, adopted policies are expected to boost social security programs, employees' salaries in the public sector as well as help increase the minimum wage (World Bank, 2021b).

⁹ World Bank (2021a) 'Egypt's Economic Update April 2021'.

In Tunisia, manufacturing has experienced a 9.3% decline and tourism and transport were also severely impacted because of an 80% decline in passengers' arrival. According to business pulse surveys, 23.6% of formal firms, which mainly operate in the services sector, were temporarily or permanently closed by the end of 2020 yielding to a rise in unemployment rate at 17.4% in 2020 Q4 compared to 14.9% pre-COVID. Moreover, according to phone surveys conducted by the World Bank and the Institut National de la Statistique during March-November 2020, economic activity and incomes have severely declined. Despite resuming activities in November, wage and labor income haven't reached pre-COVID levels in particular for wage workers and the self-employed. On the other hand, the Tunisian GDP would have further decreased if expansion of cash transfer programs would have not occurred to commensurate the income decreases and employment losses. The recovery pace in 2021 depends on the trading partners, the vaccine roll-out and the countermeasures adopted to alleviate the pandemic's effect on firms and households (World Bank, 2021c).

In Morocco, the economic activity was already sluggish and volatile as it was constrained by low productivity and was operating below its potential growth pre-pandemic. The pandemic's economic impacts were considered as unprecedented and challenging as the country witnessed a sharp drop in the goods and services production. Overall, the recession in Europe led to a decline in the Moroccan exports, in the tourism sector and its revenues (-33.2 percent), in remittances (-8.1 percent) and Foreign Direct Investments (FDI). Due to the long lockdown period (~3months) that took place in Q2-2020, the Moroccan economic output has significantly declined by 13.8 percent in the second quarter of 2020 vs. a 0.1 percent increase in Q1-2020 pre-pandemic. Manufacturing significantly declined in the first half of 2020 (H1-2020) by 6 percent as several industries, especially the automotive sector, have stopped operating by mid-March. In addition, the services sector- main engine of the economy - dropped by 5 percent in H1-2020, causing a decline in the non-agricultural growth by 6.8 percent in H1-2020. Unemployment increased to 12.3 percent in H1-2020 compared to 8.1 percent pre-pandemic. Moreover, the budget deficit increased (expected to amount for 7.6 percent of GDP in 2020) as tax revenue declined by 8.3 percent due to a shortfall in custom duties, income and profits and production of goods and services. Due to the pandemic and increase in expenditures driven by a COVID-19 fund (1% of GDP), the fiscal consolidation efforts by the government have stopped as well. The COVID-19 fund aims to support the household by cash transfers and short-term work and credit benefits for firms. According to a recent survey by High Commission of Planning, 34 percent of Moroccan households- which represent 35 percent of the household in the rural areas- stated that they have lost their income sources due to the lockdown and shutting down their activities in Q2-2020 (World Bank, 2020).

III. Labor Market-Related Measures adopted by MENA governments as a response to the COVID-19 Pandemic¹⁰

The COVID-19 pandemic has drastically impacted the MENA economies leading the governments in the region to rapidly adopt massive policy-responses and institutional plans to contain the spread of COVID-19 and to support firms and households. The stringent measures that were adopted in the early stages of the outbreak helped limit human deaths and contain the spread of the virus in the region but were gradually lifted afterwards. Less strict measures accompanied by re-opening of borders and the economic activities were adopted since, which has made the situation more fragile, from a health standpoint, in the region, except in the Gulf countries where they have succeeded in flattening the infection curve. In fact, the re-emergence of the second wave in the other countries of the region constitutes a difficult test for its resilience and could dramatically damage its prosperities because of the MENA countries' level of health systems preparedness, and limited capacity to apply physical distancing (OECD, 2020b).

This crisis constitutes also a major challenge to the governmental institutions in the region as they are forced to come up with rapid decisions and effective policies to protect the communities as well as their economies. Some institutions have managed to show strong mobilization and coping capacities; implementing prevention measures as well as providing stimulus packages for individuals and firms (OECD, 2020b).

However, despite the large fiscal stimulus packages adopted by most of the affected countries, this crisis has caused a negative supply and demand shocks, weighing a drastic economic cost due to the inability of people to mobilize to work and of businesses to still be afloat. For instance, the tourism sector which represents a major economic pillar for various MENA countries notably Egypt, Tunisia, and Morocco, employing a very large number of people and particularly women in MENA have been drastically affected: unemployment has been rising while wages and remittances coming especially from the GCC countries are falling (ILO, 2021).

The Moroccan and Egyptian economies are amongst the most affected countries worldwide due to declines in tourism demand and hence GDP losses. In order to alleviate these challenges, some MENA countries have addressed particular attention and adopted several initiatives to support their tourism sectors such as in Tunisia where the touristic entities were offered debt rescheduling schemes. While in Egypt, hotels were authorized to open for domestic tourists on a 50% capacity basis on June 2020 as part of the deconfinement strategies while complying with safety measures and social distancing (OECD, 2020b). In addition, the Egyptian government dedicated a 50 billion EGP stimulus package to the tourism sector and decided the suspension of rent payments as well to help keep the touristic businesses afloat. Also, the Egyptian Labour Emergency Fund has increased its subsidies amount from 600 to 1756 EGP versed to workers in tourism. In Egypt, the

¹⁰ For a summary table, please refer to Table 6.

stimulus package accounted to 1.8% of their GDP (IMF, 2021). The Egyptian government increased their pension payments by 14% for the households in need and also extended their social assistance program (Takaful and Karama) to more families by expanding the eligibility criteria. Jobs and businesses were drastically affected in the MENA region. According to Kraft, Assaad and Marouani (2021a), different types of workers were hit by the crisis. Vulnerable wage workers, farmers and small business owners are the most affected categories amidst the pandemic in Morocco and Tunisia. Governments of the Maghreb countries had deployed several restrictions simultaneously with the increase of COVID-19 cases through the two waves that hit the countries. They also took some actions to provide social protection to help firms and households as a response to the economic hardships created by the crisis. For instance, Morocco created a particular fund financed by its government and other public and private entities on a voluntary basis. It is equal to 3% of GDP and aims to assist households, businesses, and the medical needs as well (International Monetary Fund, 2021). The Moroccan government supported households through the non-contributory health insurance program (RAMED) by receiving a monthly mobile payment of USD 80-120 from April, depending on households' composition. (Kraft et al., 2021b; IMF, 2021). They also supported businesses as the government postponed loan payments, included cash support and interest rate subsidies through the creation of a post crisis facility (Damane Relance Program) to financially support businesses to cover working capital needs (Kraft et al., 2021b; IMF, 2021).

While the informal and irregular wage workers are among the most affected in Tunisia due to higher rates of workers' layoffs, public and informal sector employees were the least affected ones and experienced decreases in working hours or some delays in their wage payments. As for farmers, they were hit by the double shock of the pandemic and simultaneous drought which made them unable to harvest their crops. Small business owners, also suffered from important challenges during the current pandemic. According to the November 2020 round of the ERF Monitor data 40% of the Tunisian businesses were open with reduced working hours because of the government restrictions, while 25% were open with reduced hours by choice because of the reduced demand by the households. Support to Tunisian firms was provided by extending the loan guarantees, postponing social insurance payments as well as tax payments, benefitting from reduced interest rates and providing funds to small and medium enterprises (IMF, 2021). As for the support to households, it was more limited to the confinement period in 2020. It depended on the existing social programs, aiming the ones already registered in the cash transfer program (PNAFN) and the free health insurance program (AMG) (Krafft el al., 2021b).

However, existing social safety nets are generally not well targeted. Farmers are the least likely to receive assistance despite having faced economic hardships. Targeting the workers that are in the most need is a critical mission since informal workers are not registered in the social insurance systems. Therefore, the Egyptian model assisting the irregular workers with financial allowances could inspire other countries like Morocco and Tunisia as the adopted social protection measures in most countries are not well targeted and have reached a small-even declining- share of the

population from November 2020 to February 2021. Such findings highlight the crucial role of better targeted social safety nets in order to cushion the pandemic's effects on the most affected and vulnerable workers in the region (Krafft et al., 2021b).

8.3 extra million people will fall into poverty because of the current COVID-19 pandemic and might also increase the inequalities gap from which already suffer the most fragile segments of societies; women, youth and informal workers, among others (UNESCWA, 2020). Unprecedented institutional reforms have been adopted by governments across the MENA region in order to support households and businesses. Special measures have been taken to ensure that the policies are sensitive to the target groups that are usually neglected in the social safety nets like informal and irregular wage workers. Cash transfers represent the most common policy response measure adopted in the region, whether implemented through existing or new schemes.

In Egypt, the government issued Decree No. 776 of 220 to create emergency benefits funds for workers as well as a committee for the irregular workers hit by the pandemic. It is formed by several ministers and entities' representatives¹¹. In addition, the Egyptian Ministry of Manpower has dedicated a 50 million EGP package as a temporary cash assistance program to 1.6 million irregular workers who lost their jobs and later announced an exceptional cash allowance of 500 EGP¹² to workers registered to their database in 2020. This allowance was also later supported by the Central Bank of Egypt and the Union of Banks by an additional 530 million EGP (OECD, 2020c).

While in Jordan, the government has adopted several economic and social protection measures. In March 2020, The Prime Minister has issued a Defense Order No. 4 to establish relief fund post-COVID named "Himmat Watan" (JD 115 million~USD 162 million) to eradicate COVID-19 (IMF, 2021). An additional fund of JD 50 million ~USD 71 million was allocated for health equipment purchases, renting of hotels for quarantines, among others. A temporary cash transfer program (JD 81 million – about USD 114 million) was established to financially support the unemployed and self-employed. According to the Central Bank in Jordan in March 2020, the government has also dedicated 8% of their GDP in order to finance these measures and others in order to subsidize wages enabling firms to continue paying their salaries and to allow deference on loans' principal repayments, among others. They also created a social protection committee in order to closely monitor the social protection response to COVID-19, building on the existing Zakat (UNICEF and Jordan Strategy Forum 2020) and National Aid Fund (NAF). These measures have successfully assisted around one million workers and 40,000 firms.

In June 2020, the Prime Minister has announced a package of measures in order to support the touristic sector by allowing the sector to pay the 2019 tax liability in installments and reducing the

¹¹ the Minister of Planning, Minister of Manpower and the President of the National Council for Women, among others

¹² 3-months instalments of 500 EGP from May 2020 later extended to 6-month instalments ended in March 2021 (Hamdy, 2021).

general sales tax for hotels and restaurants (IMF, 2021). In December 2020, the cash transfer program (Takmeely) was expanded to include 100,000 new families and daily workers and a new funding to protect around 180,000 jobs in the most affected sectors with more support for the tourism sector as well. Moreover, The Jordanian government created a temporary cash transfer program through the existing National Aid Fund (NAF) to assist the daily workers and mitigate the economic hardships they have faced due to COVID-19. This program has included extra 100,000 new households and daily workers in need (IMF, 2021).

As of March 2021, the government decided to impose sales tax exemption on medical equipment, postpone 70% of custom duties from selected firms, imposed a price ceilings policy on the essential products and reallocated 50% of the maternity insurance funds (JD 16 million – about USD 23 million) to material assistance for the elderly and sick. In addition, the Jordanian government has made unlawful the firing of workers in order to alleviate the negative consequences of the pandemic. Unlike the Tunisian government, Jordan has not postponed the social insurance contributions paid by private sector firms but reduced them (from 21.75% to 5.25%) in order to encourage employers to formalize their workers and integrate them in the formal workers' pool.

As of end of March 2021, the Jordanian government announced the establishment of a new stimulus package (JD 448 million) dedicated to protecting existing jobs (JD 113 million), extending the social assistance programs (JD 60 million) to target more citizens in need, primarily through expanding the Takaful cash transfer program and introduce vacancies in COVID-related programs to the youth seeking employment (JD 10 million) (IMF, 2021).

The COVID-19 pandemic has had unequal impacts across the different socio-economic groups, leaving the vulnerable ones at a greater risk of losing their jobs (Chetty et al., 2020; IMF, 2020). There has been an on-going debate about the COVID-19's gender-asymmetric impact on labor market. In fact, the literature examining the differences in labor market outcomes by gender amid the current pandemic has been growing with increased scrutiny as recent studies have been arguing that this pandemic is causing a "she-cession" phenomenon, where female's labor market outcomes have disadvantaged disproportionately (Albanesi & Kim 2021, Alon et al. 2020, Caselli et al. 2020, Fabrizio et al. 2021, and Shibata 2020). There could be some long-term asymmetric negative effects on females' employment as females are more likely to rethink their career paths during and after the pandemic, leading to a decline in female labor force participation in the future (Romei, 2021). This could also be amplified in the MENA region due to the restrictive social norms that imply heavier care burdens for women in the households. The persistent unsatisfactory labor market outcomes in North Africa have been even worse for the young women following the pandemic as they incurred the largest employment declines in 2020 across most occupational groups (services, sales workers, healthcare workers, among others) except for some few high-skilled occupations (ILO, 2021). Women in the MENA region, especially young ones are facing a double hurdle as the socio-economic consequences will aggravate the youth vulnerability among

which 27% of them are already unemployed on average (OECD, 2020c). Before the onset of the pandemic, the non-GCC countries were already facing different hardships from political turmoil to economic and financial instability, decent work deficits, low labor force participation rates, high unemployment and labor underutilization rates, among others and with the pandemic, the labor market impacts were more devastating for the youth and women who represent already the disadvantaged groups in the Arab States region (ILO, 2021).

Worldwide, the services sector has experienced the greater share of net job losses for both sexes, but since women are over-represented in the sector, they were relatively more impacted than men by these job losses. In addition, in MENA, women have unequal economic opportunities, and large proportions of them were also employed in the sectors that were hardly hit by the pandemic such as tourism and manufacturing, leading to net job losses. Based on the UN Women predictions, around 700000 jobs held by women will be lost as a consequence of the pandemic. They also suffer from limited access to financial services and from restrictive views related to women's role in the society, which make their jobs and sources of income more exposed to economic collapse.

As a result of believing that women labor force participation represents a catalyst to economic prosperity, some of the MENA countries have adopted some steps to include women's needs in the policy-making process and generate gender-sensitive measures.

For instance, the Ministry of Women's Affairs in Tunisia is heavily involved, along with other entities in the elaboration of the crisis response strategy. More specifically, the Ministry of Women, The Family, Children and Seniors has agreed with the Tunisian Solidarity Bank to adopt a scheme enabling access of domestic workers to loans of 1000 TND maximum, scheduling repayments on preferential terms (OECD, 2020c). Online training was offered to female entrepreneurs by the United Nations Industrial Development Organization (UNIDO) in Tunisia. Moreover, the Ministry of Women has been closely working with the Ministry of Finance to include vulnerable groups (like women) in the response plan. As for Morocco, another online training was offered by the European Bank for Reconstruction and Development (EBRD) for female entrepreneurs to raise their awareness about crisis management as well as educate them about digital marketing. In addition, Morocco has adopted flexible work arrangements, enabling teleworking.

Worldwide, women are more exposed to COVID-19 as the majority of the healthcare workforce is females working as nurseries, midwives or community health workers (ILO, 2021). It is also the case in Egypt where women are at the frontlines of the health emergency response. As a result, in order to support the health sector's employees, the Egyptian President has ordered to increase the medical interns' bonuses up to 2200 EGP per month in 2020 instead of only 400 EGP. The Egyptian government also provided an extra 1 billion EGP fund for health services. Moreover, in order to alleviate the difficulties facing women in March 2020, the Prime Minister has issued a

decree in March 2020 to decrease physical presence in the public sector while enabling teleworking modalities and granting exceptional leaves for pregnant women as well as mothers of less than 12 years old children. On the other hand, the government extended the national cash transfer program (Takaful and Karama)¹³ to include extra 160,000 families, in particular women who are also the households' heads. Additionally, the Ministry of Social Solidarity has increased their payments to women community leaders in rural areas as well as soft loans for micro enterprises owned by females (NCW, 2020).

To monitor the government's policies and examine whether they are responsive to women specific needs, the National Council for Women has simultaneously launched a bimonthly policy tracker named -Women policy tracker on Responsive Policies and Programs during COVID-19 Pandemic- (NCW, 2020). Also, in August 2020, the Ministry of International cooperation has launched jointly with the International Finance Cooperation (IFC) an advisory program for 3 years which aims to motivate firms in the private sector to integrate more women in the labor market, help them adopt family-friendly work environments and help increasing inclusivity in the Egyptian labor markets. In 2020, Egypt has become the first African and Middle Eastern country to launch a public-private collaboration modality called the "Closing the gender accelerator" to help its government and private firms adopt more gender-sensitive actions, mainly basing on 4 pillars: boosting female labor participation, preparing women for the labor market post-Covid, normalizing women leaders and finally closing wage gaps within and across sectors.

IV. Data and Methods

We use in this paper the COVID-19 MENA Monitor Household Surveys¹⁴ conducted by the Economic Research Forum (ERF) in Egypt, Jordan, Morocco and Tunisia in order to measure the impact of COVID-19 on households and the labor markets in these selected MENA countries. This survey is constructed using short panel mobile phone surveys which have covered an exhaustive list of issues such as household characteristics, education levels, labor market status, employment characteristics and social safety nets, among others. The CCMMHH allows furthering assessing the pandemic consequences on vulnerable groups like women. The survey is a wide-ranging and nationally representative panel survey. The first wave was conducted in October 2020 in Tunisia and Morocco, while in Egypt, the Egyptian Center for Public Opinion research "Baseera" was commissioned to conduct a cross-sectional survey in June 2020 and was later harmonized by ERF. In February 2021, the second wave was collected and harmonized by ERF for Egypt, Jordan, Morocco and Tunisia. This paper also uses the Labor Market Panel Survey (LMPS)¹⁵ for Egypt, Jordan and Tunisia to compare labor market outcomes to pre-pandemic levels.

¹³ This program beneficiaries are informal workers and women represent up to 88% of them (OECD, 2020c)

¹⁴ OAMDI, 2021. COVID-19 MENA Monitor Household Survey (CCMMHH), <http://www.erfdataportal.com/index.php/catalog>. Version 2.0 of the licensed data files; CCMMHH_Nov-2020-Feb-2021. Egypt: Economic Research Forum (ERF).

¹⁵ OAMDI, 2019. Labor Market Panel Surveys (LMPS), <http://erf.org.eg/data-portal/>. Version 4.0 of Licensed Data Files; LMPS. Egypt: Economic Research Forum (ERF).

Conscious of the difference in nature of sampling and data collection methods adopted in CMM phone surveys and face-to-face LMPS surveys and to approach the maximum level of comparability (pre to post COVID), we have constrained our pre-pandemic LMPS samples to individuals aged 18-64 years old and to only those who own mobile phones. It is however worth noting that even after constraining the samples to a comparable universe of respondents, comparison of levels should still be made with a grain of salt. Phone surveys ought to be short and hence do not contain as much detailed detection questions for employment and unemployment statuses, leading to a potential overestimation of these labor market stocks.

This paper is of a descriptive nature offering an examination of labor market stocks and worker flows by gender on a country-by- country basis amid and post the COVID-19 pandemic outbreak. We hence decompose the contributions of worker flows by sector and type of employment to fluctuations/trends in labor market stocks i.e. employment, unemployment and participation post the pandemic.

V. An Overview of Employment and Non-employment trends from pre- to post the outbreak of COVID-19

Although labor market indicators have shown some improvements just before the pandemic compared to several years before, the crisis has resulted in decreases in employment and increases of unemployment rates in our selected four MENA countries.

Figure 1 shows employment, unemployment and out of labor force rates across countries by gender and over different points in time. Comparing pre and post pandemic levels, taking into account comparability reservations, we generally observe a declining trend in employment rates, particularly in Egypt and Jordan, and a substantial increase in unemployment rates.

As we examine the subsequent waves of the CMM surveys (i.e. evolution post the outbreak of COVID-19), we observe potential signs of improvements in Morocco, Tunisia and Egypt, where employment rates have slightly increased for both men and women, yet with less magnitude for women. In February 2021, employment rates increased compared to November 2020 by (7 percentage points for men vs 5 percentage points for women in Morocco) and by (8 percentage points for men vs 1 percentage point for women in Tunisia). As for Egypt, employment rates have increased by 2 percentage points for men and women. Post-COVID, employment rates are still very low for Jordanian women (16%) compared to their male counterparts (57%) in February 2021.

Figure 1. Evolution of Labor Market Indicators Pre vs. Post-Covid by Gender for Egypt, Tunisia, Morocco and Jordan



Source: Constructed by the authors.

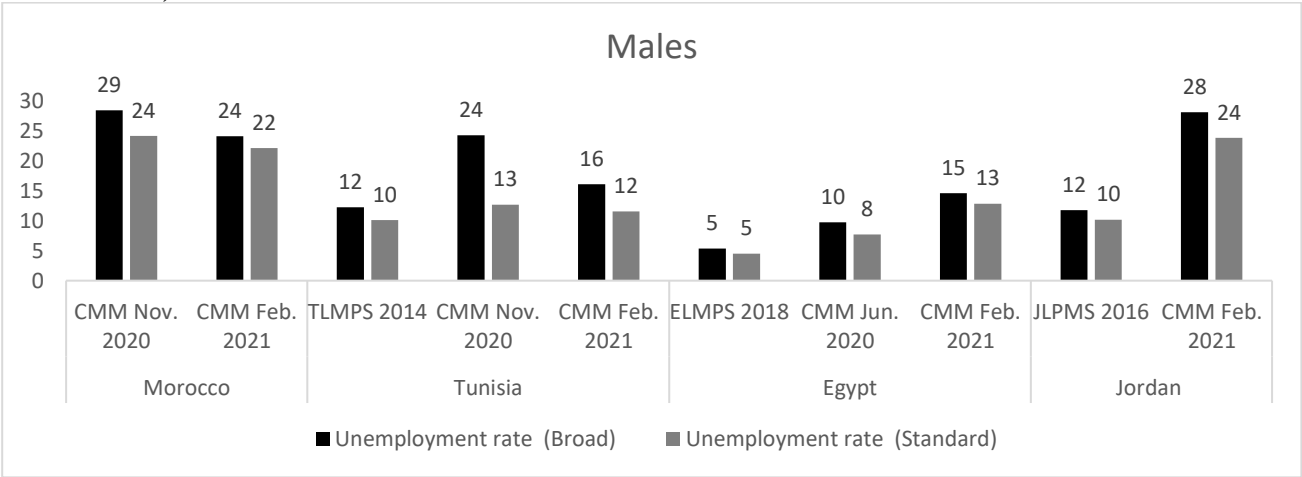
Different patterns of out of labor force rates have however been observed across countries. Inactivity level decreased in Morocco across the two post-COVID subsequent waves (5 percentage points for men vs 9 percentage points for women). In February 2021, Tunisia witnessed an increase of out of labor force rates for men and women compared to the first wave. Moreover, in Egypt, unemployment rates increased from 8% to 13% for men vs 8% to 31% for women from June 2020 to February 2021.

We show in

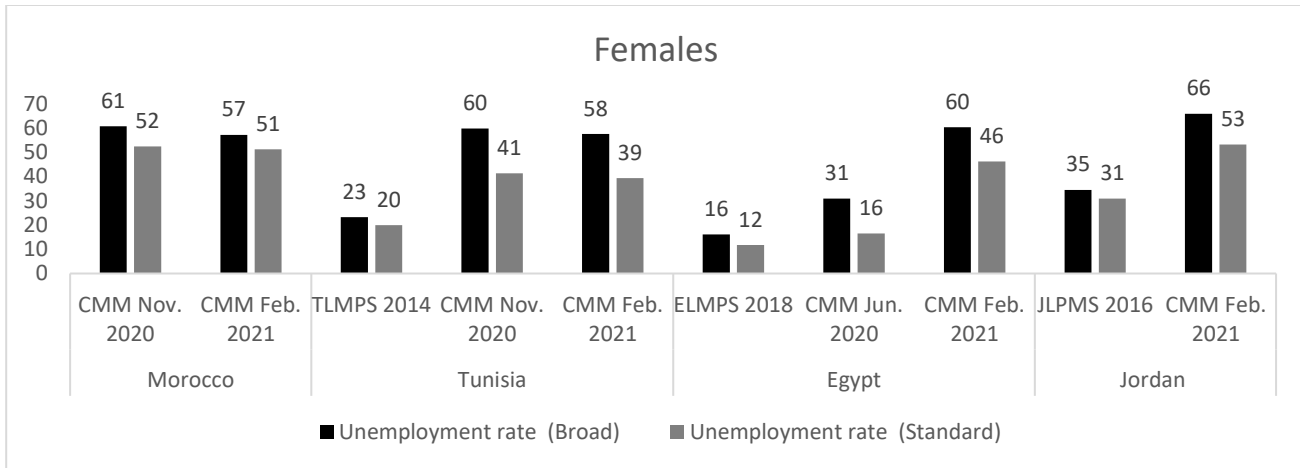
Figure 2 the evolution of unemployment rates, as a share of the labor force, exploring both the broad and standard definitions of unemployment, across countries and by gender and overtime. In Tunisia, Egypt and Jordan for which we showcase the rates of unemployment using LMPS before COVID, unemployment rates have seen larger increases due to COVID-19 for both men and

women, but significantly larger for women. For instance, the rate using the broad definition of unemployment for men in Tunisia was 12% in 2014 and has largely increased to 24% in November 2020 and only decreased to 16% in February 2021 (still at a higher rate compared to pre-COVID rates despite improvements). Similarly, in Morocco, the rate using the broad definition has decreased from 29% in November 2020 to 24% in February 2021. On the other hand, the standard definition of unemployment had seen relatively smaller decreases specially in Tunisia where the rate decreased by only one percentage point for men from November 2020 to February 2021. The standard unemployment rate for men in Egypt was 8% in June 2020 and increased to 13% in February 2021. Both levels reveal a substantial increase in unemployment rate as opposed to pre-COVID broad unemployment rate (5%). Jordan had high post-COVID unemployment rates as the broad definition was at 28% while the standard definition was at 24% in February 2021, as opposed to 12% and 10%, prior to the pandemic, respectively. Unsurprisingly, unemployment rates continue to be higher for women in the MENA region which is coherent with the persistent high rates of female unemployment in the MENA region (Assaad, Ghazouani, and Krafft 2018; Assaad, Krafft, and Keo 2019; Krafft, Assaad, and Keo 2019). Rates using broad definition of unemployment using LMPS data prior to the pandemic in Egypt and Tunisia were substantially less than unemployment rates in June and November 2020 respectively. Following the pandemic, mere decreases of unemployment rates from November 2020 to February 2021 are found in Morocco and Tunisia. The highest unemployment rates for women across the different countries were observed in Jordan as their broad unemployment was at 66% while the standard unemployment was at 53% in February¹⁶.

Figure 2. Evolution of Unemployment Rates Pre vs. Post-Covid by Gender for Egypt, Tunisia, Morocco and Jordan



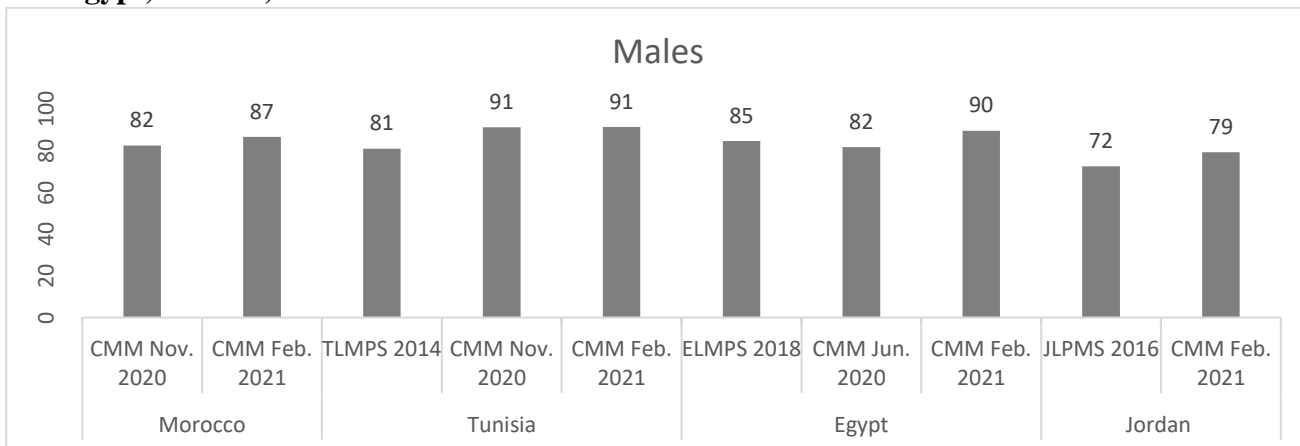
¹⁶ Comparison of levels should still be made with a grain of salt. Phone surveys ought to be short and hence do not contain as much detailed detection questions for employment and unemployment statuses, leading to a potential overestimation of these labor market stocks.

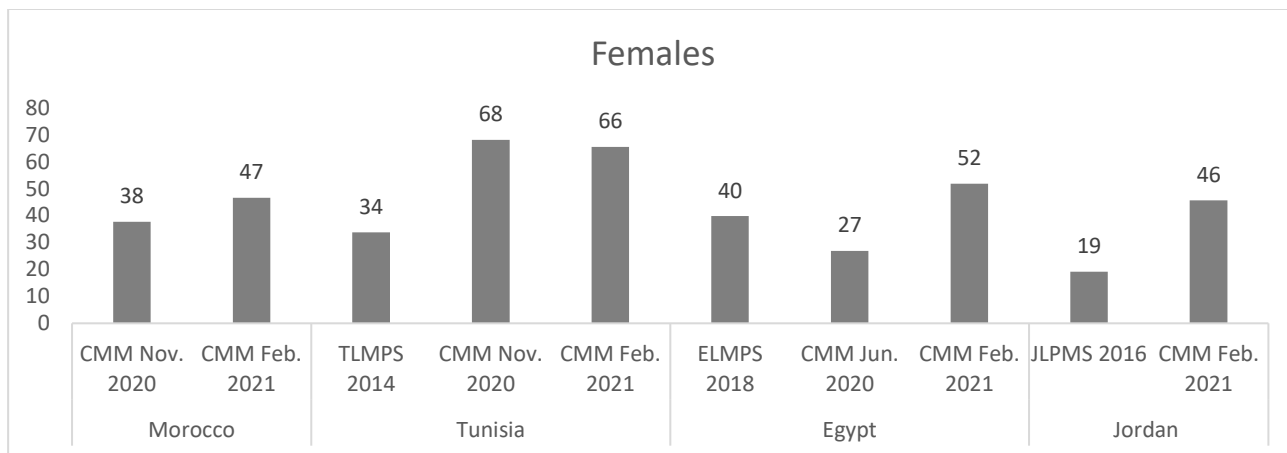


Source: Constructed by the authors.

Figure 3 shows the evolution of the labor force participation using the broad definition. Male labor force participation in Morocco has largely increased from November 2020 to February 2021 (82% to 87%). High male labor force participation was also seen in Tunisia, Egypt and Jordan in February 2021 as rates were at 91%, 90% and 79% respectively. As for female labor force participation (FLFP), the rate has increased from 38% to 47% from November to February 2021 in Morocco. Moreover, in Egypt, the country has witnessed increases in female labor force participation from 27% in June 2020 to 52% in February 2021. In Jordan, FLFP was at 46% in February 2021.

Figure 3. Evolution of Labor Force Participation Rates Pre vs. Post-Covid by Gender for Egypt, Tunisia, Morocco and Jordan





Source: Constructed by the authors.

VI. Examining Worker Flows post the outbreak of COVID-19¹⁷

In Table 1, we show transitions in labor market status of workers in February 2021 compared to their status in February 2020 (pre-pandemic) in Morocco. Following the pandemic, 11% of the farmers in February 2020 have lost their jobs and became unemployed a year later in February 2021. 13% of employers/self-employed became unemployed in February 2021 vs 11% of the public wage workers. Among those who were working in the private sector, 20% become employers/self-employed and 10% have become unemployed as of February 2021. Yet, 25% of the unemployed males became employers/self-employed in February 2021. Moroccan women faced greater negative impacts as they were likely to exit the labor force or become unemployed. Among Moroccan employers/self-employed women in February 2020, 12% exited the labor force a year later. 21% of public wage workers have become unemployed and 27% became employers/self-employed. Among private wage workers in February 2020, 13% became unemployed while 23% became unpaid family workers. While across countries 64-89% of men working in the private sector in February 2020 have remained in the same status in February 2021, only 0-52% of women working in the private sector in February 2020 have remained in the same status as of February 2021. This can also be interpreted by the private sector gender-bias which prioritizes employing men when jobs are limited (Krafft, Keo, and Fedi 2019) as well as the increased care responsibilities during the lockdown period.

¹⁷ It is worth noting that the matrices are built from labor market status questions in wave 2 asking about retrospective data regarding main job/activity as of the end of February 2020- right before the pandemic outbreak to compute labor market transitions Pre and Post COVID-19.

Table 1. Labor Market Transitions Pre and Post Covid-19, Morocco (percentage distribution)

		Males						
		Status in Feb. 2021						
		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Status in Feb. 2020	Farmer	72	7	4	3	11	0	4
	Employer/Self-employed	1	76	0	6	13	1	3
	Public Wage	0	8	72	7	11	0	2
	Private Wage	0	20	1	64	10	1	4
	Unemployed	2	25	0	9	61	0	3
	Unpaid Fam. Worker	21	13	3	26	4	23	10
	Out of Labor Force	3	23	1	4	25	0	44
		Females						
		Status in Feb. 2021						
		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Status in Feb. 2020	Farmer	100	0	0	0	0	0	0
	Employer/Self-employed	0	76	0	0	4	8	12
	Public Wage	0	27	51	0	21	1	0
	Private Wage	0	8	1	52	13	23	5
	Unemployed	0	3	4	10	67	13	3
	Unpaid Fam. Worker	0	4	0	0	2	92	1
	Out of Labor Force	0	5	0	3	6	28	58

Note: This graph is calculated using the second wave of the Morocco CMM data.

Source: Constructed by the authors.

In Egypt, less than 30% of men who were unemployed in February 2020 managed to find a job in the private sector by February 2021 (

Table 2). 16% of men who were unpaid family workers were employed in the public sector by February 2021 and 13% of men who were inactive in February 2020 became private wage workers by February 2021. As for the Egyptian women, 95% of women who were employers/self-employed pre-pandemic have closed their businesses and became public wage workers. All the women who were private wage workers in February 2020 reported that they have lost their jobs as of February 2021.

Table 2. Labor Market Transitions Pre and Post Covid-19, Egypt (percentage distribution)

		Males						
		Status in Feb. 2021						
		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Status in Feb. 2020	Farmer	100	0	0	0	0	0	0
	Employer/Self-employed	0	89	0	6	4	0	1
	Public Wage	0	2	97	0	0	0	2
	Private Wage	0	3	1	89	5	0	2
	Unemployed	1	7	0	28	64	0	0
	Unpaid Fam. Worker	0	0	16	0	0	84	0
	Out of Labor Force	0	8	1	13	2	0	75
		Females						
		Status in Feb. 2021						
		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Status in Feb. 2020	Farmer	0	89	0	0	0	11	0
	Employer/Self-employed	0	0	95	1	0	3	1
	Public Wage	0	1	0	57	13	27	3
	Private Wage	0	0	0	0	100	0	0
	Unemployed	0	1	1	1	0	97	0
	Unpaid Fam. Worker	0	3	4	7	2	2	83
	Out of Labor Force	0	89	0	0	0	11	0

Note: This graph is calculated using the second wave of the Egypt CMM data.

Source: Constructed by the authors.

In

Table 3, among Jordanian men who were farmers in February 2020, 6% are unemployed and another 8% are out of labor force by February 2021. Furthermore, 8% of those who were employers

or self-employed and 16% who were private wage workers in February 2020 are unemployed in February 2021. Around 32% of unpaid family workers in February 2020 have become unemployed by 2021Q2. Women in Jordan have faced more job losses than men regardless of their initial status in February 2020. 20% of those who were employers or self-employed became unemployed and 13% became unpaid family workers. As for the private wage workers, 26% are unemployed and 11% are unpaid family workers as of February 2021. Yet, there were some improvements as among the unemployed women in 2020Q2, 21% had found jobs in the private sector and among those who were out of the labor force very few found employment by February 2021.

Table 3. Labor Market Transitions Pre and Post Covid-19, Jordan (percentage distribution)

		Males						
		Status in Feb. 2021						
Status in Feb. 2020		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Farmer		86	0	0	0	6	0	8
Employer/Self-employed		0	84	0	5	8	0	3
Public Wage		0	0	95	1	1	0	2
Private Wage		0	2	1	78	16	1	2
Unemployed		0	3	2	22	69	0	4
Unpaid Fam. Worker		0	0	0	0	32	68	0
Out of Labor Force		0	1	0	6	3	0	89
		Females						
		Status in Feb. 2021						
Status in Feb. 2020		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Farmer		100	0	0	0	0	0	0
Employer/Self-employed		0	63	0	0	26	11	0
Public Wage		0	0	94	0	3	4	0
Private Wage		0	2	0	70	22	5	1
Unemployed		0	0	0	21	79	0	0
Unpaid Fam. Worker		0	0	0	1	0	99	0
Out of Labor Force		0	0	1	0	4	0	95

Note: This graph is calculated using the second wave of the Jordan CMM data.

Source: Constructed by the authors.

In Tunisia, 7% of male farmers in February 2020 became private wage workers, 4% became unemployed and another 4% are out of the labor force by February 2021. While for female farmers only 1% remained in the same status by February 2021, 17% became unpaid family workers and 82% are inactive by 2021Q2. Among those who were employers or self-employed in 2020Q2, 17% of men and 43% of women are unemployed and 22% of women are unpaid family workers by 2021Q2. 18% of men who were private wage workers by 2020Q2 lost their jobs and became unemployed. While 23% of women who were private wage workers became unemployed and 8% became unpaid family workers. This trend seems to be similar across countries in the MENA region. Among those who were unpaid family workers in Tunisia in February 2020, 11% of men became employers of self employed against only 1% of women. 17% of unemployed men became private wage workers in February 2021 and 25% of women were employed by the private sector (Table 4).

Table 4. Labor Market Transitions Pre and Post Covid-19, Tunisia (percentage distribution)

		Males						
		Status in Feb. 2021						
		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Status in Feb. 2020	Farmer	81	3	2	7	4	0	4
	Employer/Self-employed	0	58	0	23	17	0	2
	Public Wage	0	1	92	4	1	0	3
	Private Wage	1	3	3	71	18	0	5
	Unemployed	1	6	5	17	67	0	4
	Unpaid Fam. Worker	0	27	0	1	43	28	0
	Out of Labor Force	0	11	1	9	23	0	55
		Females						
		Status in Feb. 2021						
		Farmer	Employer/Self-employed	Public Wage	Private Wage	Unemployed	Unpaid Fam. Worker	Out of Labor Force
Status in Feb. 2020	Farmer	1	0	0	0	0	17	82
	Employer/Self-employed	0	33	0	1	43	22	0
	Public Wage	0	0	87	8	4	2	0
	Private Wage	0	2	2	63	23	8	2
	Unemployed	0	1	0	25	42	17	15
	Unpaid Fam. Worker	0	2	0	6	2	82	8
	Out of Labor Force	0	1	3	3	7	24	61

Note: This graph is calculated using the second wave of the Tunisia CMM data.

Source: Constructed by the authors.

IV. Conclusion

In this paper, we rely on a gendered lens to showcase how COVID-19 health crisis has differently affected women and men labor market outcomes in four selected MENA countries, namely Egypt, Jordan, Tunisia and Morocco. Generally, COVID-19 has resulted mainly in decreases in employment, and increases of unemployment. Unemployment levels have revealed to be substantially higher post COVID-19, as opposed to pre-COVID levels, with significantly higher rates and increases for females. Female workers in the private wage employment sector have been the most vulnerable and their (out-of-employment) exit flows have substantially contributed to the rise in unemployment. Our findings are informative and crucial as we move towards a pandemic recovery phase, where it becomes necessary for policy makers to focus on the root cause of these employment exits, how sustainable they were, and what can be anticipated and forecasted during the recovery period.

The paper started by providing a comprehensive review of the economic impacts of COVID-19, including the macroeconomic impacts, the existing evidence on employment, and non-employment trends, and post-COVID19 government assistance measures both for general economic relief and specifically for our population of interest i.e. women. Generally, the literature has forecasted and documented substantial slowdowns of Economic growth in the region, accompanied by rises in unemployment. Deterioration of key industries such as tourism, transport and the decline of remittances have also been the highlights of the major economic repercussions of the pandemic. Alleviation of the impact across countries has been substantially dependent on government countermeasures and assistance (such as cash transfers or special financial assistance programs).

Our analysis starts by validating macro labor market indicators and investigating their evolution through the pandemic. This is possible by following two subsequent waves of the MENA monitor surveys for on a country-by-country basis. We then focus on documenting a number of stylized facts about worker flows pre to post the outbreak of the Coronavirus, focusing on gender differences and the volatility of private sector jobs.

In the analysis, we rely on a set of harmonized micro datasets from the ERF COVID-Monitor data to examine labor market stocks and worker flows by gender on a country-by- country basis amid and post the COVID-19 pandemic outbreak. The CMM dataset allowed the decomposition of the contributions of worker flows by sector and type of employment to fluctuations in employment and non-employment post the pandemic.

Our analysis documents that the selected four MENA countries have witnessed some challenges in light of the COVID-19 pandemic. Women and men's labor market outcomes were impacted by the pandemic. Individuals struggled to remain attached to their jobs and with the new increased hurdles to find jobs in the case of the unemployed. However, The COVID-19 MENA Monitor Surveys have revealed some potential signs of improvement particularly in Morocco and Tunisia

between November 2020 and February 2021. Slight ameliorations were observed in employment rates, labor force participation rates and hence decreases in unemployment rates. Yet, women particularly wage workers in the private sector and employers/self-employed have struggled to keep their jobs or their businesses open particularly in Egypt.

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Annex 1

Table 5. Summary of the stylized facts literature

Country	Literature	Findings
Egypt	World Bank (2021a)	<ul style="list-style-type: none"> • Economic growth is forecasted to decline from 3.6% in 2019/2020 fiscal year to 2.3% in 2020/2021 fiscal year due to the renewed increase of COVID-19 cases and to the slow vaccine roll-out even abroad. • Pre-pandemic worrying trends in the Egyptian Labor Market are even worsened by the crisis.
	Breisinger et al. (2020)	<ul style="list-style-type: none"> • The Egyptian economy could shrink by 0.7 to 0.8 percent and household consumption and expenditure could decrease by 9 to 10.6 percent of average household income.
Jordan	World Bank (2021b)	<ul style="list-style-type: none"> • Macroeconomic indicators have generally been in deterioration because of back-to-back 2nd and 3rd surge of COVID-19 cases. • Unemployment has been persistently increasing. • The tourism sector has been severely hit, which represented approximately 18% of GDP and total employment in 2019.
Tunisia	World Bank (2021c)	<ul style="list-style-type: none"> • Manufacturing has experienced a 9.3% decline and tourism and transport were also severely impacted because of an 80% decline in passengers' arrival. • According to business pulse surveys, 23.6% of formal firms, which mainly operate in the services sector, were temporarily or permanently closed by the end of 2020 yielding to a rise in unemployment rate at 17.4% in 2020 Q4 compared to 14.9% pre-COVID. • Economic activity and incomes have severely declined: Despite resuming activities in November, wage and labor income haven't reached pre-COVID levels in particular for wage workers and the self-employed. • On the other hand, the Tunisian GDP would have further decreased if expansion of cash transfer programs would have not occurred to commensurate the income decreases and employment losses.
Morocco	World Bank (2020)	<ul style="list-style-type: none"> • The economic activity was already sluggish and volatile (constrained by low productivity and was operating below its potential growth pre-pandemic). • A sharp drop in the goods and services production. • A decline in the Moroccan exports, in the tourism sector

and its revenues (-33.2 percent), in remittances (-8.1 percent) and Foreign Direct Investments (FDI).

- The Moroccan economic output has significantly declined by 13.8 percent in Q2-2020 vs. a 0.1 percent increase in Q1-2020 pre-pandemic.
 - Manufacturing significantly declined in H1-2020 by 6 percent as several industries, especially the automotive sector, have stopped operating by mid-March.
 - Services sector dropped by 5 percent in H1-2020.
 - Unemployment increased to 12.3 percent in H1-2020 compared to 8.1 percent pre-pandemic.
 - Budget deficit increased as tax revenue declined by 8.3 percent due to a shortfall in custom duties, income and profits and production of goods and services.
 - Fiscal consolidation efforts stopped.
 - Establishment of a COVID-19 fund aiming to support household by cash transfers and short-term work and credit benefits for firms.
 - 34 percent of Moroccan households- ~ 35 percent of households in the rural areas- stated that they have lost their income sources due to the lockdown in Q2-2020.
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Table 6. MENA governments' response measures to COVID-19 by chronological order

	Egypt	Jordan	Tunisia	Morocco
March - April 2020	<ul style="list-style-type: none"> • Dedication of a 50 billion EGP stimulus package to the tourism sector • Establishment of an emergency benefits funds for irregular workers. • 50 million EGP package dedicated by The Egyptian Ministry of Manpower as a temporary cash assistance program to 1.6 million irregular workers who lost their jobs. • Allocation of 1 billion EGP fund for health services. • Increasing the medical interns' bonuses up to 2200 EGP per month in 2020 instead of only 400 EGP. • Issuance of a decree in March 2020 to decrease physical presence in the public sector while enabling teleworking modalities and granting exceptional leaves for pregnant women as well as mothers of less than 12 years old children. • Extension of the national cash transfer program (Takaful and Karama) to include additional 160,000 families, in particular women who are also the households' heads. • Increase of the Ministry of Social Solidarity's payments to women community leaders in rural areas as well as soft loans for micro enterprises owned by females. • The launch of a bimonthly policy tracker named -Women policy tracker on Responsive Policies and Programs during COVID-19 Pandemic by the National Council for Women to monitor the government's policies and examine whether they are responsive to women specific needs 	<ul style="list-style-type: none"> • Establishment of a relief fund named "Himmat Watan" (JD 115 million~USD 162 million) to eradicate COVID-19. • Allocation of a JD 50 million fund (~USD 71 million) for health equipment purchases, renting of hotels for quarantines, among others. • Establishment of a temporary cash transfer program (JD 81 million~USD 114 million) to financially support the unemployed and self-employed. • Measures account for 8% of Jordanian GDP to finance to subsidize wages allowing firms to continue paying salaries and to allow deference on loans' principal repayment. • Creation of a social protection committee in order to closely monitor the social protection response. 	<ul style="list-style-type: none"> • Touristic entities were offered debt rescheduling schemes. • Support to the affected firms provided by extending the loan guarantees, postponing social insurance and tax payments, reduced interest rates and providing funds to small and medium enterprises. • Support to households was limited to the confinement period in 2020. It depended on the existing social programs, aiming the ones already registered in the cash transfer program (PNAFN) and the free health insurance program (AMG). • Agreement between The Ministry of Women and the Tunisian Solidarity Bank to adopt a scheme enabling access of domestic workers to loans of 1000 TND maximum, scheduling repayments on preferential terms. • Conducting an online training to female entrepreneurs by the United Nations Industrial Development Organization (UNIDO) in Tunisia. • Involvement of the Ministry of Women with the Ministry of Finance to include vulnerable groups (like women) in the COVID-19 response plan. 	<ul style="list-style-type: none"> • Online training conducted by the European Bank for Reconstruction and Development (EBRD) for female entrepreneurs to raise their awareness about crisis management as well and educate them about digital marketing. • The Moroccan government has adopted flexible work arrangements, enabling teleworking.
May-June 2020	<ul style="list-style-type: none"> • Hotels were authorized to open for domestic 	<ul style="list-style-type: none"> • June 2020- A package of measures in order to 		<ul style="list-style-type: none"> • Particular fund dedicated to the

	<p>tourists on a 50% capacity basis as part of the deconfinement strategies.</p> <ul style="list-style-type: none"> • An exceptional cash allowance of 500 EGP to workers registered to the Ministry of Manpower’s database. This allowance was also later supported by the Central Bank of Egypt and the Union of Banks by an additional 530 million EGP. • The Egyptian Labour Emergency Fund increased its subsidies amount from 600 to 1756 EGP versed to workers in tourism. 	<p>support the tourism sector to allow paying the 2019 tax liability in installments and reducing the general sales tax for hotels and restaurants.</p>	<p>pandemic management: of about 3% of GDP and aims to assist households, businesses, and the medical needs.</p> <ul style="list-style-type: none"> • Households benefitted from their existing non-contributory health insurance program (RAMED). • Establishment of a post-crisis facility (Damane Relance program (3.7 billion Moroccan dirhams (USD 414 million) to financially support businesses to cover working capital needs at subsidized interest rate.
August 2020	<ul style="list-style-type: none"> • The joint launch of a 3-year advisory program by the Ministry of International Cooperation and the International Finance Cooperation (IFC), to motivate private sector firms into integrating more women in the labor market and help them adopt family-friendly work environments. • The launch of a public-private collaboration modality called “Closing the gender accelerator” to help the government and private firms adopt more gender-sensitive measures. 		
December 2020		<ul style="list-style-type: none"> • Expansion of the cash transfer program (Takmeely) to include additional 100,000 new families and daily workers. • Creation of a new funding to protect around 180,000 jobs in the most affected sectors. • Creation of a temporary cash transfer program through the existing National Aid Fund (NAF) to assist the daily workers (included extra 100,000 new households and daily workers in need). 	
March 2021		<ul style="list-style-type: none"> • Sales tax exemption on medical equipment. • Postponement of 70% 	

of custom duties from selected firms.

- Imposing a price ceilings policy on the essential products.
 - Reallocating 50% of the maternity insurance funds (JD 16 million – about USD 23 million) to material assistance for the elderly and sick.
 - The government has made unlawful the firing of workers to alleviate the negative consequences of the pandemic.
 - The reduction of the social insurance contributions paid by private sector firms (from 21.75% to 5.25%) to encourage the formalization of workers by private employers.
 - End of March 2021- Establishment of a new stimulus package (JD 448 million) dedicated to protecting existing jobs (JD 113 million), extending the social assistance programs (JD 60 million) via expanding the Takaful cash transfer program and introduce vacancies in COVID-related programs to the youth seeking employment (JD 10 million).
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