



JORDAN

SELECTED ISSUES

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JORDAN

SELECTED ISSUES

June 15, 2022

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BOOSTING FEMALE EMPLOYMENT OPPORTUNITIES IN JORDAN¹

The analysis explores the main obstacles related to low female labor force participation in Jordan. It finds that gender disparity in labor market participation in Jordan is not due to access to basic services such as education and health but is rather based on structural and legal impediments. Particularly, structural variables as well as regulations help explain the gap in participation rates between men and women.

A. Background

1. Jordan has made significant progress in closing gender gaps in education and health.

Jordan has the highest rate of female literacy at nearly 98 percent in comparison to other countries in the Middle East and North Africa (MENA) region (around 80 percent). The gap between male and female enrollment in primary and secondary education has been negligible for over the past decade (Jordan has been similarly outperforming regional comparators in this indicator), and women even constitute the majority of those enrolled in tertiary education (36 percent female enrollment as compared to 30 percent male enrollment in 2019). Fertility rates have been on the decline (the average in 2019 was 2.7 as opposed to 3.7 in 2009 and 4.1 in 2000), and maternity deaths are low (46 deaths per 100,000 live births).

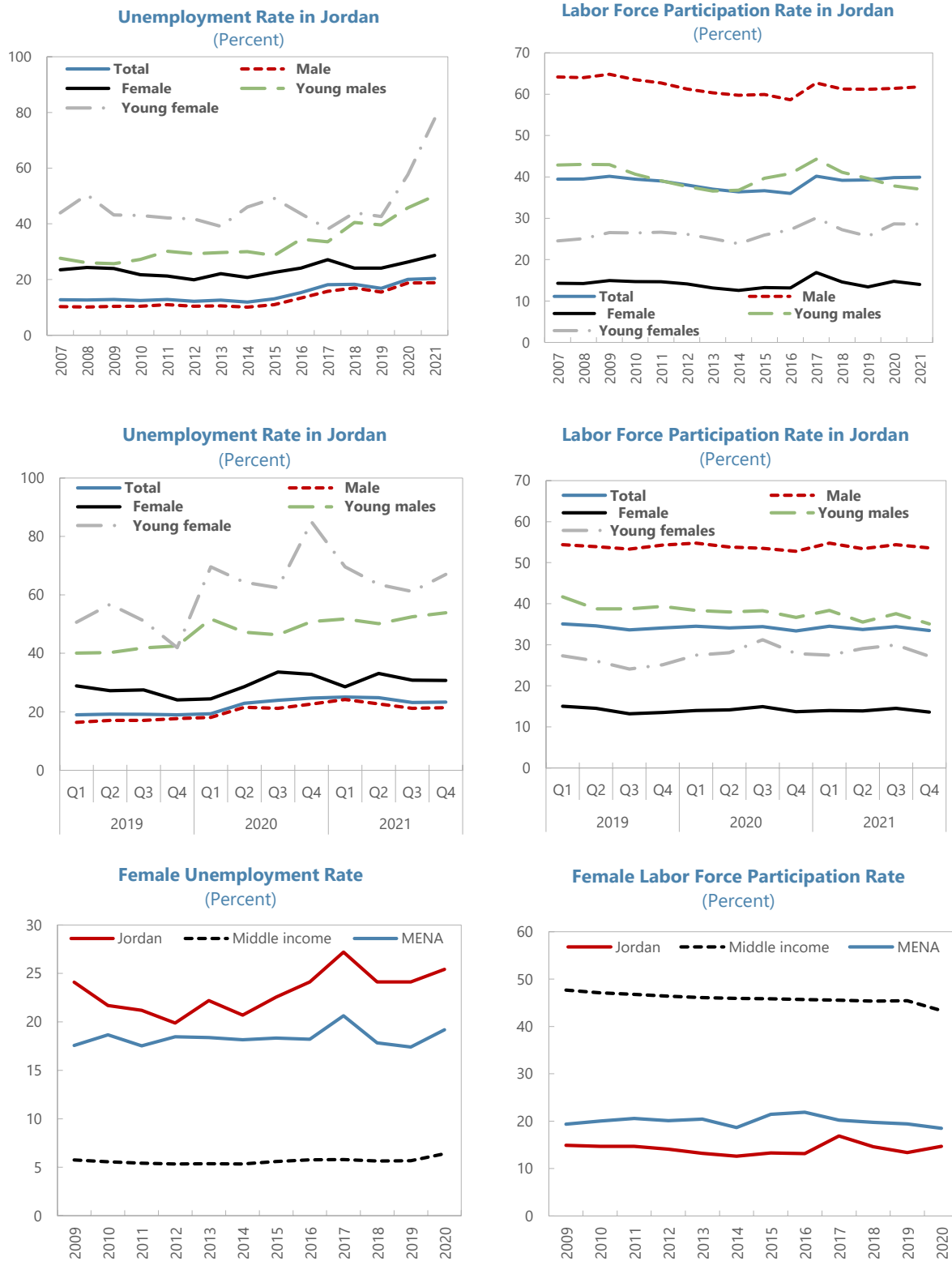
2. Despite a highly educated female population, participation in the labor force has been historically low and unemployment high. The average labor force participation rate for women in Jordan has been around 14 percent for 2009–19 as compared to male participation rates of 62 percent for the same period. Average unemployment rates for females are also higher for 2009–19 at 23 percent in comparison to males at 12 percent. Jordan’s female labor force participation rate is also lower than countries with similar income per capita (46 percent for middle income countries for 2009–19), including within the MENAP region (20 percent).

3. The COVID-19 pandemic exacerbated unemployment outcomes for women and young females. In 2021Q4, female unemployment rates reached 31 percent, and female labor force participation over the same period was 13.6 percent. A study showed that around one in three working women in Jordan lost their job at the onset of the pandemic and those who were able to keep theirs witnessed reduced wages.² Unemployment rates for young females (aged 15–24) was twofold at almost 67 percent with them even though they are twice as likely to participate in the labor market with an average rate of 30 percent. Young females were significantly impacted as they were the first to lose their jobs during the COVID-19 pandemic with the unemployment rate reaching 85 percent in 2020Q4. While male unemployment rates marginally increased at the onset of the pandemic, it has managed to slightly recover as pandemic-related restrictions eased and the economy in Jordan opened.

¹ Prepared by R. Al-Farah, with contributions from Hippolyte Balima and Diego Gomes.

² Ghaith, Batool, “Study highlights women’s struggles amid pandemic,” The Jordan Times. February 19, 2022.

Figure 1. Labor Market Trends in Jordan



Note: Young males and females defined as those between the ages of 15–24.
Sources: Jordan Department of Statistics, and IMF staff calculations.

B. Relevant Literature and Studies

Female labor force participation rates in Jordan have been inelastic to exogenous shocks to the economy, suggesting that the issue largely corresponds to structural and legal impediments in the labor market.

4. Studies have explored the main drivers of the gender gap in MENA labor market and have highlighted several determinants to female economic participation. These include structural barriers related to the level of economic development (demographics, education, and access to suitable infrastructure), unfavorable policies related to labor market regulation as well as tax and transfer systems, and legal barriers (Gonzales and others, 2015; Hakura and others, 2016; Hyland and others, 2020; Balima and Gomes, IMF forthcoming). Balima and Gomes (IMF, forthcoming) have shown that basic and financial legal rights are the biggest contributors to larger gender gaps in the MENA region compared to other income and regional groups.

5. Low level of job creation in Jordan, especially in the private sector, limits opportunities available for women. Anemic growth over the last decade has limited labor demand. At the same time, job opportunities in the public sector are diminishing given the limited fiscal space,³ and most newly created jobs are in the private sector, where women tend to be underrepresented.⁴ A study by the Jordan Strategy Forum (2016) found that there are only two sectors where women make up most of the workforce: education (at 63 percent) and health and social work (at 61 percent). These fields are saturated and do not typically offer high wages to employees or equal pay, especially in the private sector.

6. Social norms coupled with the lack of affordable childcare can play a role in limiting opportunities for women in the workplace. A survey by the World Bank⁵ found that 96 percent of respondents in Jordan agree that it is acceptable for women to work, but this statement was subject to several constraints. Nearly half of those surveyed considered it unacceptable for women to work if the job necessitated children be left with relatives, and over 70 percent believed that it was not suitable for women to accept a job that required them to return home after 5 PM. As a result of these factors and the lack of affordable childcare,⁶ half of women in the work force tend to exit after the age of 30.

³ Public sector employment in Jordan is more desirable for females as it allows greater flexibility (shorter working hours) and steady pay, enabling women to have a better balance between work and household duties.

⁴ The World Bank 2021 Fiscal Public Expenditure Review for Jordan found that there is an equal split between female employment in the public and private sectors, whereas more Jordanian men work in the private than in the public sector. Private sector employers are also predominantly men and can tend to value traditional gender roles and assume that female employees will be less reliable (and will take more time off for home-related priorities). Moreover, until recently they had to bear the full cost of maternity leave. This has contributed to gender discrimination in hiring practices and salaries (lower wages and shorter contracts).

⁵ World Bank Group, 2018. Lessons from the Field: understanding the impact of social norms on women's employment in Jordan.

⁶ UN Women (2017), Women Working: Jordanian and Syrian Refugee Women's Labor Force Participation and Attitudes Towards Employment. Average childcare costs as a share of women's median wages range from 123 percent for women with primary school degrees to 77 percent for women who are university graduates.

7. Lack of access to safe and reliable public transportation can hamper labor market choices for women. The high cost and unreliability of public transport in Jordan, combined with concerns of sexual harassment, aggravates women’s already low participation in the labor force. The International Labor Organization (ILO) estimates that it reduces female participation probability by 16.5 percent.⁷ The impact is even more significant in countries such as Jordan with big gender gaps in the labor market, where 47 percent of women surveyed have turned down job opportunities due to the current state of public transportation.⁸ Private sector employment in Jordan tends to take place in urban settings, where many women would have to travel long distances and are faced with transportation constraints. On average Jordanian working women spend 48 minutes commuting to and from their jobs and spend around JD 57 per month on transportation costs.⁹ A survey by the World Bank found that 82 percent of female respondents believed that the longest acceptable commute time is 32 minutes on average, and around 44 percent think that women may face harassment either commuting to and from work or at work.¹⁰

8. Gender-based legal restrictions may also prevent women from participating in the labor market. Jordan’s overall score on the World Bank’s “Women, Business and the Law 2022” index is lower than the regional average in the Middle East and North Africa (46.9 out of 100 as compared to 53 for the region). In particular, Jordan has scored 0 out of 100 on laws and regulations that affect women in the workplace, as there is no legislation in place to deter from gender-based discrimination in hiring practices nor protect against harassment. The report noted that Jordan should consider reforms to improve legal equality for women.

9. Pay disparity between men and women, as well as limited opportunities to reach and maintain leadership positions, could disincentivize females from joining the labor market or accepting certain job opportunities. Despite Jordan having equal pay legislation, the World Bank estimated that wage gap in the private sector in Jordan in 2020 between women and men working similar jobs with similar education and experience is approximately 17 percent.¹¹ The gender pay gap is also high as women progress in their career. For example, male legislators, senior officials, and managers earn an average of JD 1,503 per month, whereas women in the same positions make JD 963.¹² In addition to the gender pay gap, women in Jordan do not have complete control over their finances. According to a study conducted by Jordanian National Commission for Women

⁷ International Labor Organization, 2017. World Employment Social Outlook: Trends for Women. While lack of access to public transportation also impacts employment and participation outcomes for men in Jordan, it is more socially acceptable for men to rely on shared taxis, hitchhiking, and carpooling.

⁸ World Bank Group Blogs, 2020. Addressing women’s safety concerns in public transport in Jordan to boost their economic activity

⁹ REACH and UN Women, 2019.

¹⁰ World Bank Group, 2018. Hashemite Kingdom of Jordan Understanding How Gender Norms in MNA Impact Female Employment Outcomes. Report No: ACS25170.

¹¹ A different report by the ILO found that the median wages for males in the private sector in Jordan is 7 percent higher than that of females in 2021. However, in the public sector, the average salary for females is 13 percent higher than males.

¹² United Nations (2020), Meta-Analysis on Women’s Participation in the Labour Force in Jordan.

(JNCW), women are unable to spend their wages or are being deprived of inheritance rights. Only 27 percent of Jordanian women have their own bank account.¹³

10. Once women participate in the labor market in the MENA region, they are more likely to be unemployed. Assaad and others, 2020 observed that in the MENA region even if increases in participation occur, they are typically associated with a rise in unemployment rather than employment. This paradox can be primarily attributed to the change in employment opportunities in the public sector facing educated women in the MENA region, which has not been commensurately matched by an increase in jobs in the formal private sector. Women are also more likely to work in the informal sector¹⁴ and to have both lower wages and lower hours worked in comparison to men (Angel-Urdinola and Tanabe, 2012; Dabla-Norris and Kochhar, 2019; Assaad and others, 2020).

C. Methodology and Results

11. A series of regressions were employed to quantify the relative contribution of structural, legal, and policy factors to gender gaps in Jordan. A maximum likelihood estimator¹⁵ was used to examine the impact of four different types of factors on female labor force participation and employment gaps in Jordan: structural (fertility, education, and GDP per capita), infrastructure (access to electricity, drinking water, sanitation services, and childcare), public policies (retirement age, taxes, and social security transfers), as well as regulation (labor market legislation, basic legal rights, and financial-related legal rights). An index between 0 and 1 was constructed for each of these dimensions, with a higher value pointing to more favorable conditions for female labor force participation and employment,¹⁶ and then a regression framework was applied to quantify the role played by each index in determining labor market gender gaps in Jordan.

12. The analysis concludes that structural variables and regulations are the main drivers of the gender gap in participation and employment outcomes in Jordan. Based on the regression results, there is a statistically significant relationship between the structural variables and regulations and the gap in both participation and employment. The results for Jordan are also compared with the MENA region.

¹³ Central Bank of Jordan, Financial Inclusion Report 2018–20.

¹⁴ UN Women (2021), Women's Informal Employment in Jordan: Challenges Facing Home-Based Businesses During COVID-19. Most women working in the informal sector in Jordan operate a home-based business and are engaged in food production.

¹⁵ A fixed effect model and an ordinary least square regression confirm the results of the analysis. Additional robustness tests were conducted to tackle potential omitted variable bias, including first differences. A bootstrap regression was applied to further establish validity and robustness of the results.

¹⁶ The indices will be constructed following the World Bank “Women, Business, and Law” methodology, where each sub-indicator is standardized to vary between 0 and 1, and then the result of their unweighted average is taken and scaled to 100, with a higher value pointing to less favorable conditions for female labor force participation and employment rates.

Maximum Likelihood Estimator Regression Results				
Variables	Jordan		MENA	
	Female-to-Male Labor Force Participation	Female-to-Male Employment	Female-to-Male Labor Force Participation	Female-to-Male Employment
Structural	1.153*** (0.356)	0.489* (0.290)	0.232*** (0.080)	0.078 (0.083)
Infrastructure	0.223 (0.372)	0.103 (0.303)	-0.166*** (0.033)	-0.189*** (0.034)
Public Policy	0.025 (0.042)	0.020 (0.034)	0.115*** (0.027)	0.092*** (0.028)
Regulations	0.611*** (0.210)	0.568*** (0.171)	0.122*** (0.033)	0.158*** (0.035)
Observations	18	18	105	105
Number of countries	1	1	9	9
Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1				
Source: IMF staff calculations. Note: All coefficients have the expected sign, except for the infrastructure index for the MENA region (possibly reflecting its high correlation with the structural index, as countries with higher GDP per capita are more likely to have better infrastructure).				

D. Policies to Boost Female Employment and Participation Opportunities

13. Raising female participation rates is critical to achieving sustainable and inclusive growth in Jordan. Increasing female labor force participation and employment outcomes can significantly boost GDP, productivity, and tax collections. Ostry and others, (2018) found that men and women complement each other in the workplace in terms of different skills, collaboration, and risk perception, and including more females in the workplace can boost productivity and incomes.¹⁷ The study also demonstrated that increasing women's labor force participation and consequently employment generates gains in economic welfare, which can have a ripple effect to increased consumption, home production, and leisure time. These gains exceed 20 percent in the MENA region. Utilizing an occupational choice model, Cuberes and Teignier (2014) and Cuberes, Newiak and Teignier (2016) have also shown that the MENA is the region with the highest income loss due to low female participation, with an average loss of approximately 38 percent.¹⁸

14. Based on the results of the analysis, structural reforms to enhance female employment and participation potential should focus on:

¹⁷ Complementarity of skills can raise productivity in the workplace. For instance, women tend to be more organized and less risk averse as compared to men, which can lead to positive outcomes for companies. Sahay and Čihák (2018) found that banks with gender-diverse boards had greater financial sustainability, higher capital buffers, and lower NPLs.

¹⁸ The potential gains from increasing the participation of women in the economy to the level of men, essentially closing the gender gap, could create a one-off increase in Jordan's GDP by roughly 45 percent (Cuberes and Teignier, 2014).

- *Improving the regulatory framework*: this includes passing amendments to Labor Law that protect women from harassment and remove gender biased articles; ensuring adequate access to maternity and paternity leave benefits and destigmatizing its utilization; and addressing pay disparity including by enforcing the recently passed legislations on anti-discrimination in pay as well as raising awareness around dual income sources for families as an attractive option.
- *Ensuring adequate access to infrastructure, including childcare facilities and public transport*: this entails continued efforts on improving access to childcare and lowering the costs of nurseries. Recent efforts by the Government of Jordan on the nurseries licensing bylaw and review of the regulatory institutional model, as well as providing cash support for nurseries in areas with low female labor force participation through the Social Security Corporation are welcome steps, but more needs to be done to increase awareness of benefits and availability. Greater provision of early childhood care and education service centers can also create job opportunities for other women in those facilities. Improving access to public transportation, including its reliability and safety and cost, is also critical.¹⁹ The operationalization of the Bus Rapid Transit (BRT) is a step in the right direction but does not sufficiently address the significant gap in the market.
- *Improving the business and investment environment to stimulate jobs-rich growth in the private sector*. The private sector in Jordan is currently small and unable to accommodate the needs of women. Enhancing the business and investment environment can bolster private sector growth and expand the opportunities available for women (away from limited positions in the public sector). Fostering growth in knowledge-intensive business and service sectors where flexible work arrangements and hours are feasible will also help increase participation and employment.

¹⁹ While data availability impacts the ability of the analysis to include a measure reflecting access to and quality of public transport, anecdotal evidence, field-based surveys, and conversations with government employees as well as other local stakeholders have highlighted the challenges facing women in Jordan in this sphere.

Table 1. Jordan: Variables Included in the Indices

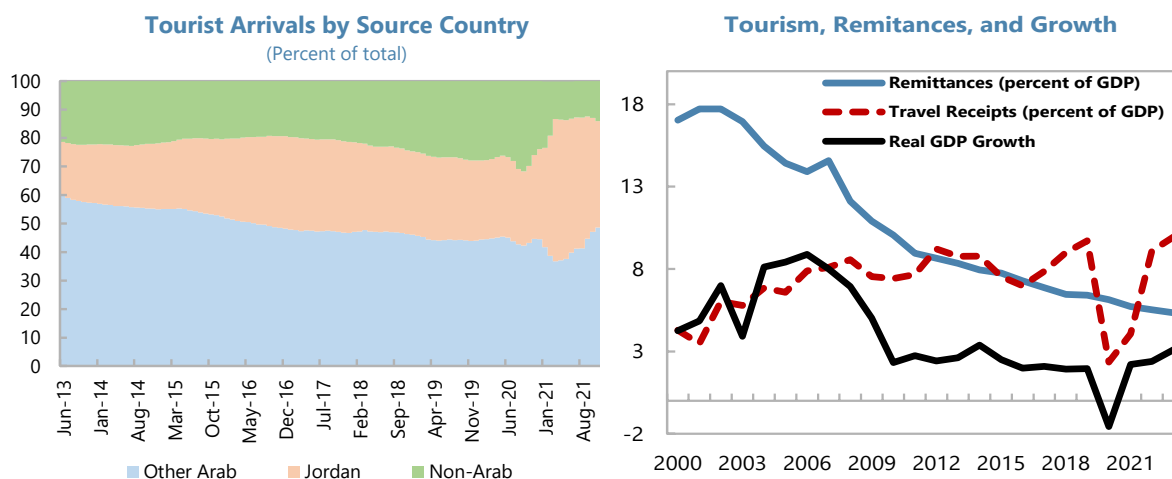
Variables	Definition
Structural	
GDP per capita	Log of GDP per capita (constant 2010 US\$)
Average schooling	Average years of schooling, female
Fertility rate	Total births per woman
Infrastructure	
Access to electricity	Access to electricity, rural (% of rural population)
Access to drinking water	People using at least basic drinking water services, rural (% of rural population)
Access to sanitation	People using at least basic sanitation services, rural (% of rural population)
Access to childcare	School enrollment, preprimary (% gross)
Public Policy	
Maternity benefits	1 if government administers 100% of maternity leave benefits, otherwise 0
Full pension retirement	1 if ages at which men and women can retire with full pension benefits are equal, otherwise 0
Partial pension retirement	1 if ages at which men and women can retire with partial pension benefits are equal, ptherwise 0
Retirement age	1 if mandatory retirement age for men and women are equal, otherwise 0
Childcare absence in pension	1 if periods of absence due to child care are accounted for in pension benefits, otherwise 0
Top marginal income tax rate	Countries with higher marginal tax rates that take effect at lower income thresholds receive lower ratings
Transfers and subsidies	Lower rating for countries with large transfers
Regulations	
Choose where to live	1 if woman can choose where to live in the same way as a man, otherwise 0
Domestic violence legislation	1 if there is legislation specifically addressing domestic violence, otherwise 0
Signing contracts	1 if a woman can sign a contract same way as a man, otherwise 0
Registering businesses	1 if a woman can register a business same way as a man, otherwise 0
Access to credit	1 if law prohibits gender discrimination in access to credit, otherwise 0
Access to bank accounts	1 if a woman can open a bank account in same way as a man, otherwise 0
Spousal property rights	1 if men and married women have equal ownership rights to property, otherwise 0
Inheritance	1 if sons and daughters have equal rights to inherit assets from their parents, otherwise 0
Spousal inheritance	1 if surviving spouses have equal rights to inherit assets, otherwise 0
Spousal authority over assets	1 if the law grants spouses equal administrative authority over assets during marriage, otherwise 0
Valuation of nonmonetary contributions	1 if the law provides for the valuation of nonmonetary contributions, otherwise 0
Get a job same as man	1 if a woman can get a job in the same way as a man, otherwise 0
Gender discrimination in employment	1 if the law prohibits discrimination based on gender in employment, otherwise 0
Sexual harrassment legislation	1 if there is legislation on sexual harassment in employment, otherwise 0
Penalties for sexual harrassment	1 if there are criminal penalties or civil remedies for sexual harassment in employment, otherwise 0
Equal pay for equal work	1 if the law mandates equal remuneration for work of equal value, otherwise 0
Limits on night hours	1 if women can work the same night hours as men, otherwise 0
Limits on jobs deemed dangerous	1 if women can work in jobs deemed dangerous in the same way as men, otherwise 0
Limits on industries	1 if women are able to work in the same industries as men, otherwise 0
Paternal leave	1 if there is paid parental leave, otherwise 0
Dismissal of pregnant workers	1 if dismissal of pregnant workers prohibited, otherwise 0

Sources: Women Business and the Law database, World Development Indicators, Barro-Lee educational attainment dataset, UNESCO Institute of Statistics, Fraser Institute, and IMF staff.

ENGINE OF GROWTH? TOURISM IN JORDAN'S ECONOMY¹

Tourism has grown to become Jordan's largest service export, representing a third of total exports prior to the pandemic. We present evidence that tourism fluctuations are an important source of business cycle variation in Jordan, with a negative tourism shock reducing growth and inflation and rising unemployment. More importantly, we document significant positive complementarities of tourism with other sectors, especially finance, restaurants and hotels, construction, and manufacturing, suggesting that further expansion in tourism is unlikely to have net Dutch disease effects.

1. Tourist receipts have grown to become the most import service export for Jordan. Net tourist receipts have grown from only 4 percent of GDP in the early 2000s to around 10 percent in 2019, displacing remittances as the most important source of services receipts. Moreover, this expansion of tourism has taken place against a backdrop of weaker GDP growth, with disruptions to trading partnerships related to geopolitical tensions after 2010. The increase in tourism shares in GDP has in part been supported by an expanding market share beyond the region, where EU shares in tourist arrivals has risen from an average share of around 7 percent in 2010–16 to 12 percent prior to the pandemic, coinciding with the expansion of low-cost European airlines to the region.



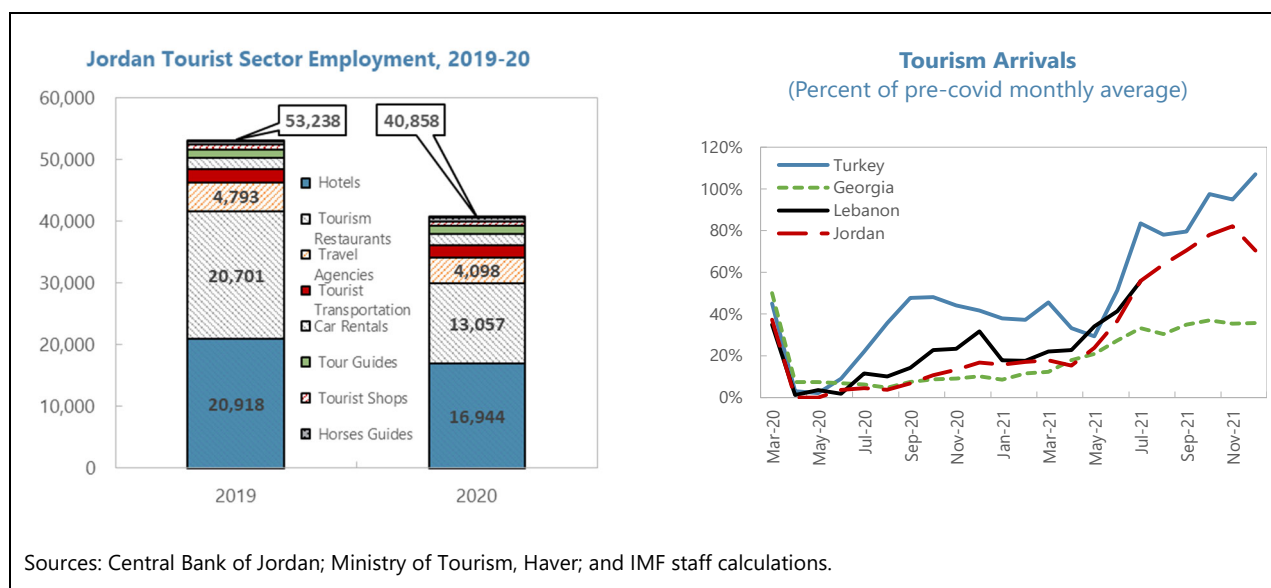
Sources: Central Bank of Jordan, Ministry of Tourism, Haver, and IMF staff calculations.

2. Tourism sector growth provides an import source of employment. In 2019, the tourism sector directly contributed to the employment of approximately 54,000 people (4 percent of total employment). This number is likely to be underestimated as it does not take into account those who work in the informal sector, those who work in other sectors that indirectly service tourists, or those who have not registered their businesses with the Ministry of Tourism and Agriculture. The impact of

¹ Prepared by Chris Redl and Rayah Al Farah with research assistance from Jonathan Saalfield.

the COVID-19 on employment in the tourism was severe, where around 14,000 employees reportedly lost their jobs due to restaurant and hotel closures.²

3. The beneficial impact of tourism growth may be dampened or amplified depending on the nature of spillovers to other sectors. Tourism generates foreign demand for non-tradable goods and services, raising their price and the real exchange rate, and potentially creating ‘Dutch disease’ dynamics for other exports in traded goods sectors such as manufacturing and agriculture (Copeland, 1991). However, those negative spillovers are likely to be weaker in the face of significant unemployment, especially if the tourism sector is more labor intensive.³ In contrast, by increasing local services production, tourism can generate positive spillovers to traded goods by improving access to local business services (such as finance, consulting, and accounting services), facilitate business networks, as well as directly reduce credit constraints through tourism revenues (Faber and Gaubert, 2019). Our findings emphasize the latter mechanism in Jordan, with evidence of positive spillovers to other industries, higher levels of credit to GDP, and no evidence of REER appreciation.



4. The impact of tourism on the broader economy is assessed through idiosyncratic variation in arrivals from source countries. We employ the results of Redl, Xin and Bi (forthcoming) who use an identification scheme following Gabaix and Kojin (2021), where shocks to tourist receipts are identified using granular data on receipts by source country. Specifically, changes in tourism receipts from large sources countries are correlated with aggregate receipts⁴ (because they are large) but if there are also changes that are not reflective of a general trend in Jordanian

² Jordan Strategy Forum, *Jordan’s Tourism Sector—Post COVID-19 Road Map for Recovery* (March 2021).

³ It does not follow from the presence of unemployment that the government should promote tourism, as noted by Copeland (1991), there may be better policies to address this directly, especially if negative spillovers from tourism are present.

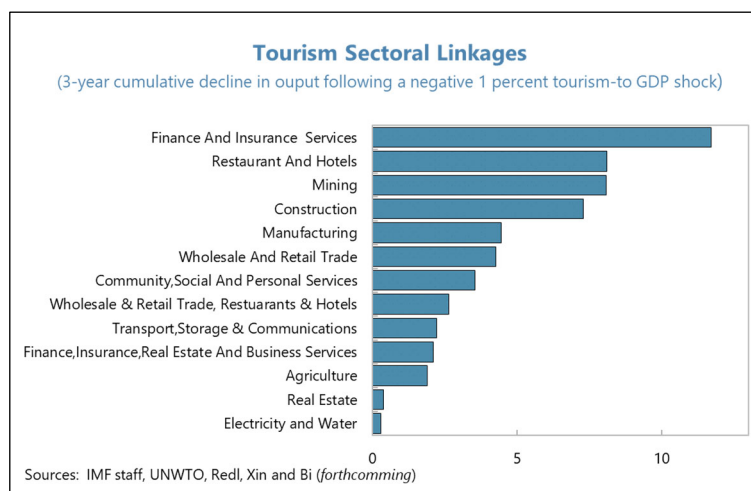
⁴ First stage regressions reveal an incremental F-stat for this instrument of 114 which far exceeds the Stock and Yogo (2005) critical value of 16.83 for a weak instrument.

tourism demand (e.g., because of higher global incomes leading to more tourism or a general increase in the attractiveness of Jordan), they are then idiosyncratic demand from those large countries which is plausibly exogenous. Source country data for inbound receipts is taken from the UN World Tourism Organization.⁵ The impact of tourism shocks on other variables is measured using local projections following Jorda (2005) where tourism recipients is instrumented by the granular instrumental variable described above.

5. A 1 percent decline in tourism receipts to GDP results in a sizable demand shock reducing growth, raising unemployment, and reducing inflation. A 1 percent of GDP decline in tourism receipts leads to a three-year cumulative decline in GDP of 2.5 percent and a 1.7 percentage point increase in the unemployment rate. Inflation declines by 1.2 percent after two years, but the effect is temporary and not significant after 3 years. Thus, a contraction in tourism affects the domestic economy as a demand shock with a temporary drag on inflation.

6. Importantly, higher levels of tourism produce positive spillovers to other sectors.

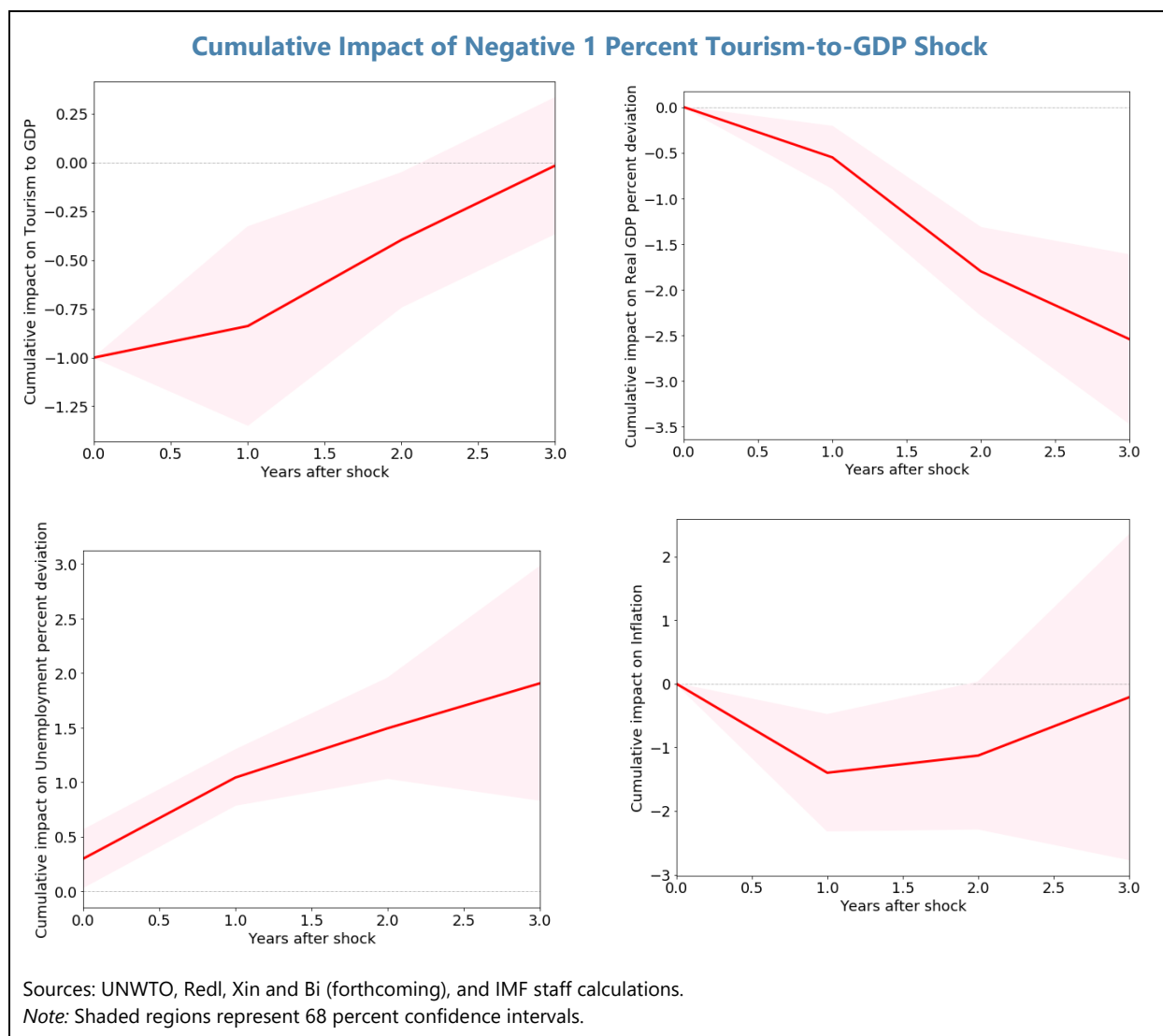
Turning to sectoral spillovers, we estimate the impact of tourism shocks on sectors given significant complementarities in Jordan with financial and insurance services as well as manufacturing.⁶ We find that there are also strong effects for sectors providing direct inputs to tourism such as retail, and restaurants and hotels.



7. Jordan’s tourism strategy for 2021–25 aims to return revenues, employment, and tourist arrivals back to 2019 levels. The Jordan Tourism Strategy focuses around five strategic objectives namely: increasing faith-based and wellness tourism, as well as domestic and medical tourism; developing the capacity of employees in the sector through TVET initiatives as well as re-skilling and upskilling; restoring, rehabilitating, and maintaining sites; reviewing bylaws and regulation to remove hurdles in terms of doing business and investment; and improving marketing efforts. To achieve the goals laid out in the strategy, JD 50 million has been allocated to the budget of the Ministry of Tourism and Antiquities to be distributed over 2021–25.

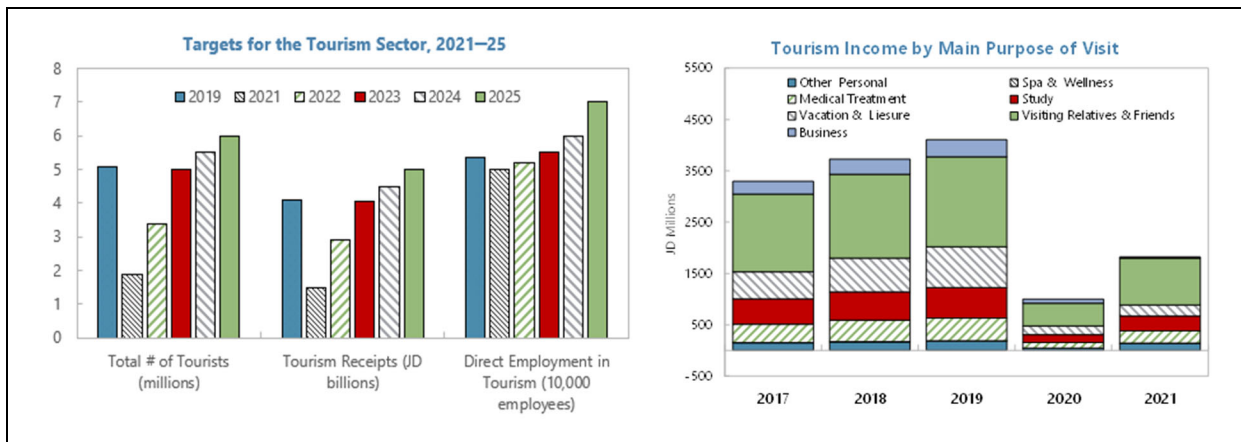
⁵ The UNWTO organization data covers annual data for 1996-2018 and thus excludes the pandemic shock. However, this is desirable since the scale of that shock will dominate the sample and skew the true relationship since the COVID-19 shock is unlikely to be representative of past and future tourism shocks, see Lenza and Primiceri (2021).

⁶ This analysis echoes Faber and Gaubert’s (2019) findings for Mexico.



8. Tourism is amongst the sectors where Jordan has a comparative advantage with several opportunities for growth, but there are also risks that need to be considered.

Developing new areas such as wellness and faith-based tourism as well as medical tourism is a welcome step, but more needs to be done regarding expanding access to new source countries and markets (such as Asia and Sub-Saharan Africa) and prolonging length of stay. There are also risks factors that have the potential to impact tourism growth, which need to be factored into the broader tourism strategy of Jordan. These risks include further political instability in the MENA region, increased competition from neighboring countries (Egypt, Saudi Arabia, and the UAE for example), a slowdown in global growth and supply chain disruptions, and the potential adverse impact of tourism development on natural resource demand including water.



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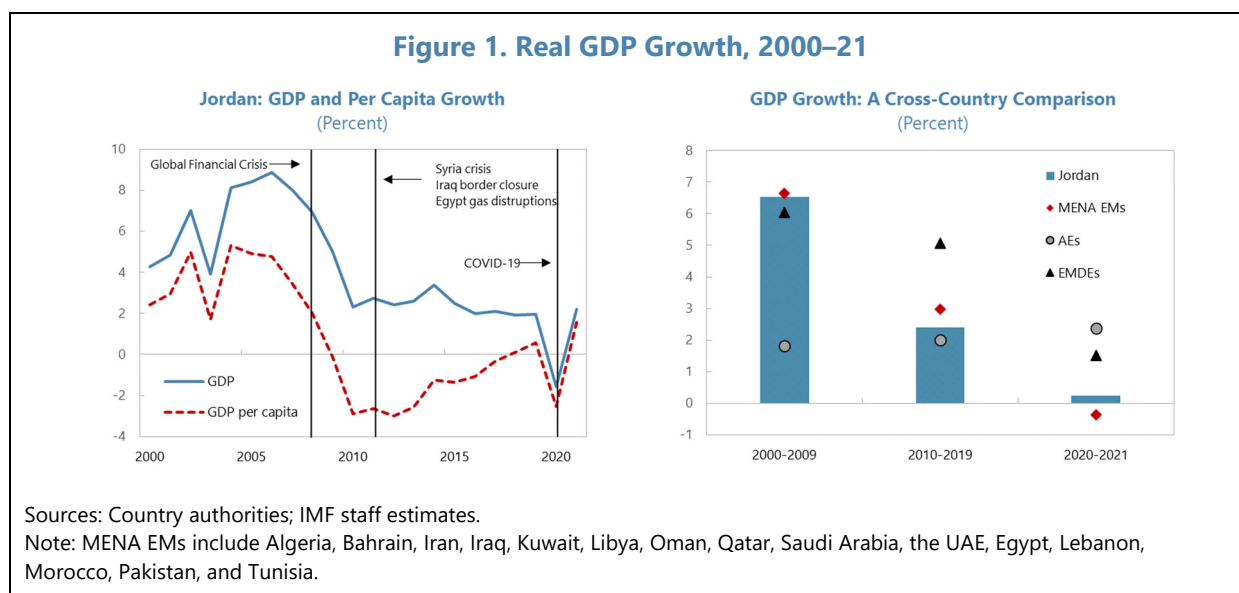
Redl, C., Xin, W., and Bi, C., 2021, "International Tourism Shocks," forthcoming.

ECONOMIC GROWTH IN JORDAN: RETROSPECT AND PROSPECT¹

Economic growth in Jordan has weakened substantially since the Global Financial Crisis (GFC), following several external shocks. This paper dissects Jordan's GDP growth by sector, expenditure, and factor of production over the past 20 years. It then examines trends in labor and total factor productivity to assess the competitiveness of the economy. The analysis identifies four key policies for strengthening Jordan's growth potential in the post-COVID era: reducing business costs, attracting financing for productive investments, facilitating labor participation and reallocations, and enhancing firm dynamism and competition.

A. Economic Growth Since the 2000s

1. Economic growth slowed significantly in the past decade amid several external shocks after having achieved impressive growth during 1999–2009. Real GDP growth was 6.8 percent on average from 1999–2009 but only stood at 2.4 percent during 2010–19 (Figure 1). The global financial crisis (GFC), the disruption of energy supplies during the Arab Spring, closure of borders with Iraq and Syria, and the Syrian refugee crisis caused severe strains on the economy. Debt increased dramatically over the past 10 years, leading to a period of fiscal consolidation and tepid public investment (Hausmann and others, 2019).

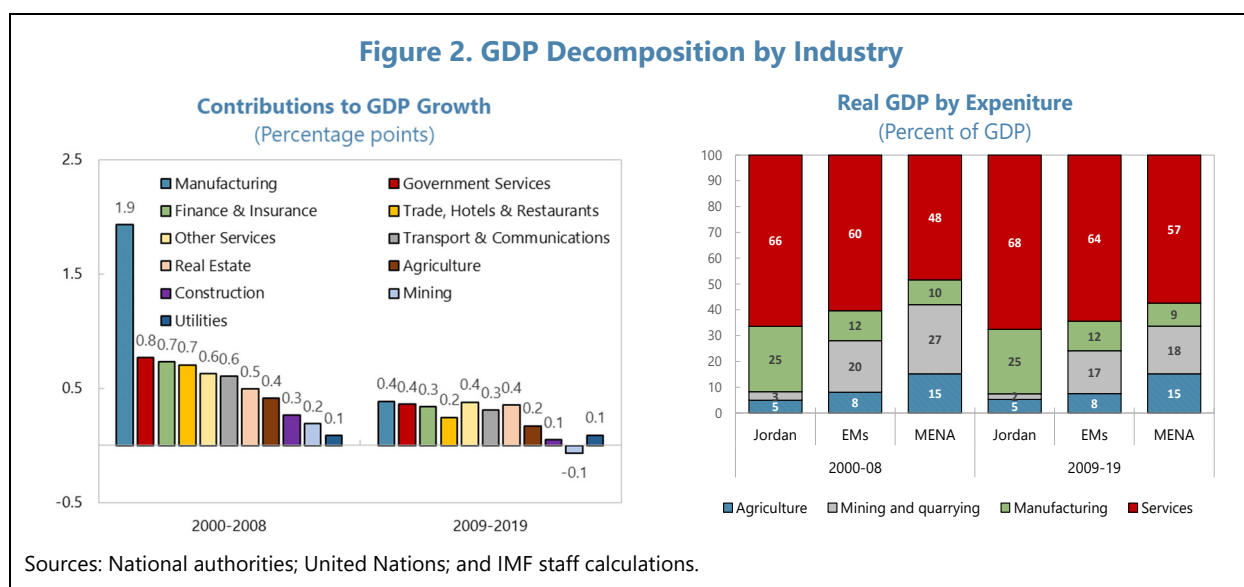


¹ Prepared by Yang Yang and Rayah Al Farah (both IMF), Feras S. Bseiso (Central Bank of Jordan) and Yazan Fanous (Ministry of Finance). Jonathan Saalfield provided research assistance.

2. The COVID-19 pandemic has inflicted further strains on the structural challenges of the economy. While the initial recession in 2020 appeared to be less severe than the rest of the world, the subsequent recovery has also been slower than advanced economies (AEs) and emerging and developing markets (EMDEs), albeit at a faster rate than that of Middle East and North Africa emerging markets (MENA EMs). Without decisive structural reforms, economic scarring risks hurting Jordan’s growth potential long after the immediate impact of the crisis has dissipated.

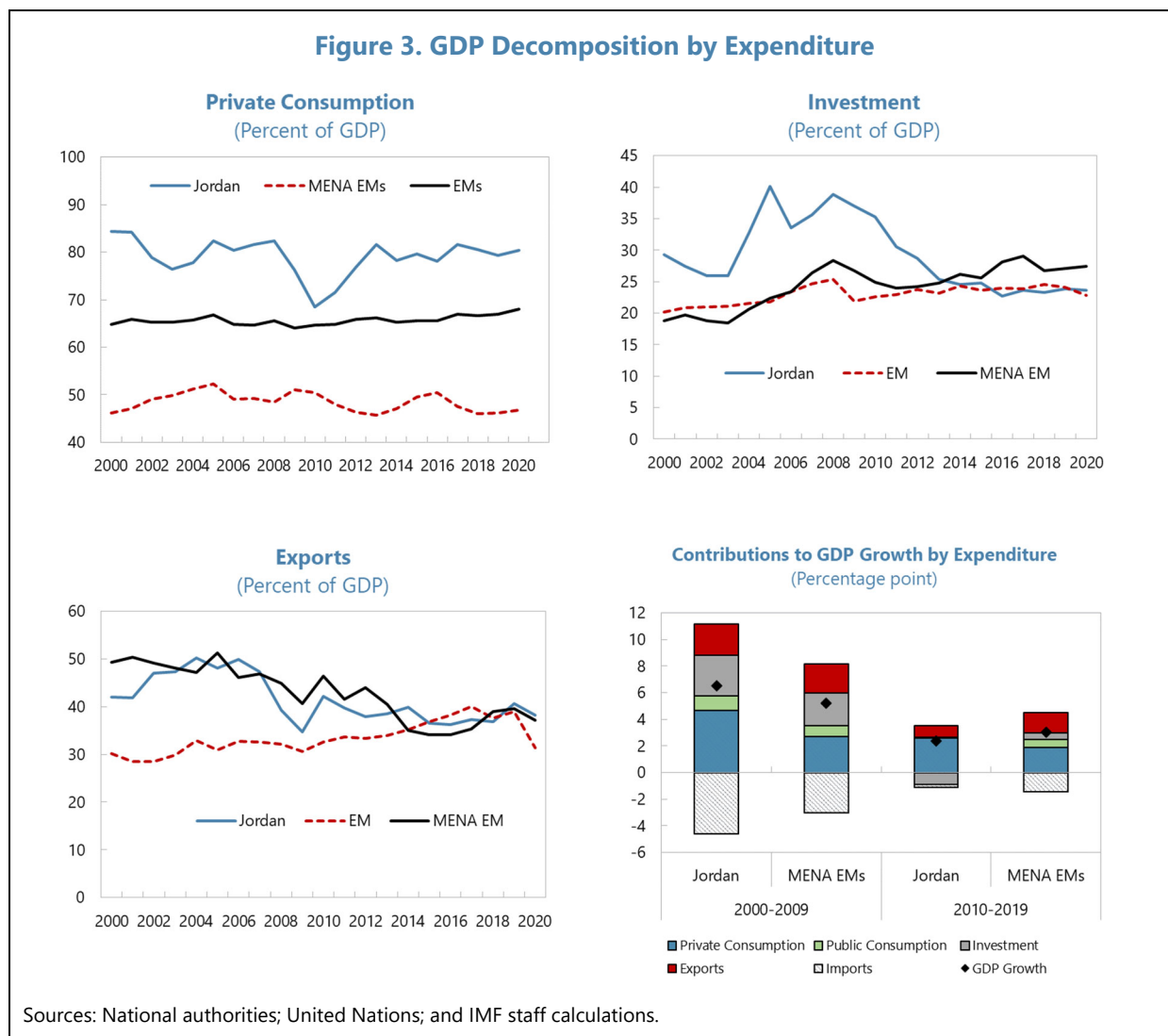
B. Dissecting GDP Growth in Jordan

3. Growth deceleration has been broad-based, affecting almost all industries (Figure 2). Manufacturing used to be a main driver of growth prior to the GFC contributing to around 2 percent of GDP growth on average from 2000–08, but its growth has declined since then. The contribution from financial services and government services also declined from 1.8 and 1 percent respectively in 2008 to 0.6 and 0.7 percent in 2019. The contribution of several other sectors also declined, most notably transportation, in light of instability in the region during the period of 2009–20 resulting in almost complete closure of land borders with a number of neighboring countries.



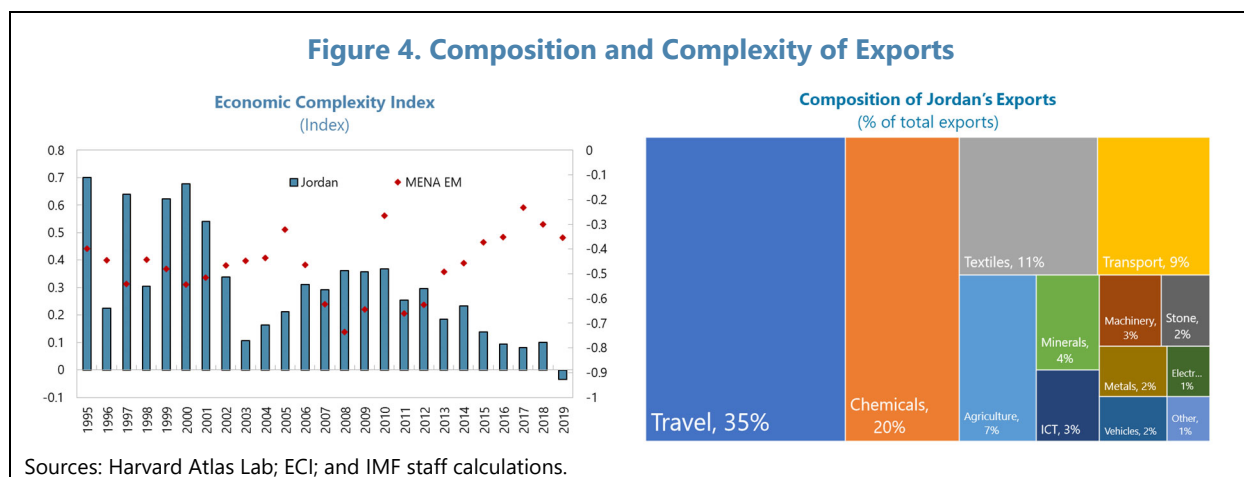
4. Private consumption has been the largest contributor to growth, even more so today than before. The share of private consumption in total GDP is about 80 percent of GDP in Jordan, much higher than its MENA peers (about 60 percent of GDP on average). The high private consumption largely sustained despite slower growth after the GFC, mostly attributable to the high rate of population growth following the influx of Syrian refugees into Jordan in 2011. Growth of government spending has been very modest after the GFC, primarily due the fiscal consolidation measures the government undertook to contain public debt. The already elevated levels of debt suggest continued consumption growth is unlikely to be the main driver of growth going forward.

5. Investment growth has slowed significantly. Gross capital formation (GCF) was trending upward during 2000–08, due to the substantial inflow of FDI (predominately from the GCC)—FDI’s share of GDP increased from 2.5 percent in 2002 to 23.5 percent of GDP in 2006. Investment growth declined from 32 percent during the period 2000–08 to -22 percent during the period 2011–19 on account of multiple exogenous shocks in the region as regional instability increases and large swings in oil prices created uncertainties. Consequently, investment’s share in GDP declined from 39 percent in 2008 to 24 percent in 2019 (Figure 3). This sharp decline in capital accumulation risks hindering Jordan’s growth potential over the medium and long term.



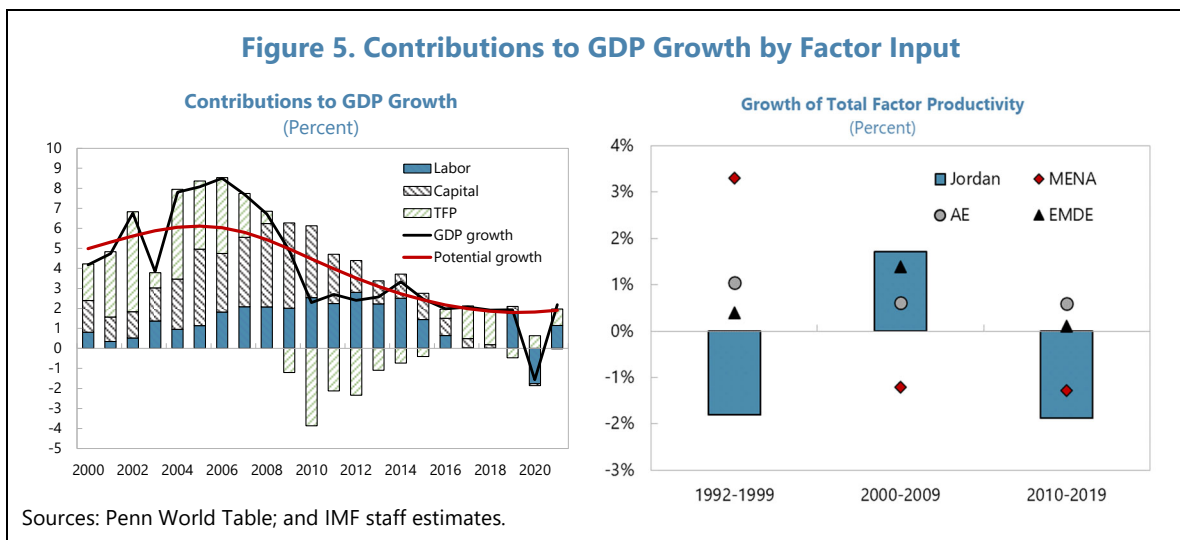
6. Jordan’s export growth has also decelerated as regional geopolitical tensions disrupted trade. Jordan’s trade linkages with the rest of the world expanded rapidly in the 2000s, with both exports and imports becoming more important for its economy. Both export and import growth, however, have slowed significantly since the GFC and the collapse of trade with Iraq and Syria (Figure 3). Tourism, transport and ICT, and chemicals are the main exports of Jordan, jointly

contributing to over 50 percent of total exports. The complexity of the economy, which is often seen as an indicator of diversity and complexity of a country’s goods exports, has declined sharply after the GFC (Figure 4). Economists have argued economic complexity reflects a country’s accumulation of productive knowledge and is predictive of a country’s future growth (Hausmann and others, 2007). This is particularly relevant for Jordan—given Jordan’s relatively small domestic market, its future growth hinges crucially on its ability to compete on the international market.



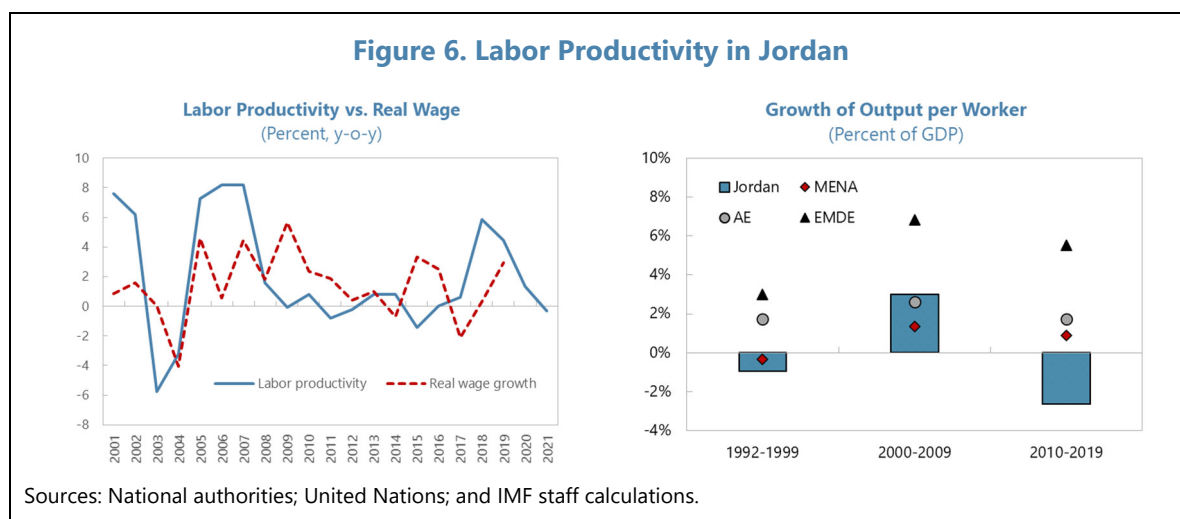
7. A growth accounting exercise reveals weaker contributions to growth from all factors of inputs after the GFC, although TFP growth rebounded somewhat in recent years. A simple Cobb-Douglas production function is applied to the Jordanian economy to estimate potential output. Trend labor, capital and in total factor productivity (TFP) are estimated using a standard Hodrick-Prescott filter.² Growth pre-GFC was driven by robust growth in TFP and capital accumulation. After the GFC, TFP growth declined drastically, particularly in the midst of the cutoff of the Egyptian gas supply and closure of the borders of neighboring trade partners. Capital accumulation also slowed significantly as fiscal space became more constrained. Growth after the GFC was initially driven by rapid population growth but rising Jordanian unemployment rate starting in 2015 dampened employment growth, with COVID-19 further damaging the labor market. Potential GDP growth has slowed substantially from around 6 percent before the GFC in to only 2 percent currently (Figure 5). Nonetheless, TFP growth turned positive in recent years—a positive indication for future growth if sustained.

² Estimated TFP using the HP filter appears to be better correlated with other measures of efficiency such as labor productivity and economic complexity, compared to using other filters such as the Christiano-Fitzgerald filter and the Hamilton filter.



C. Productivity and Competitiveness

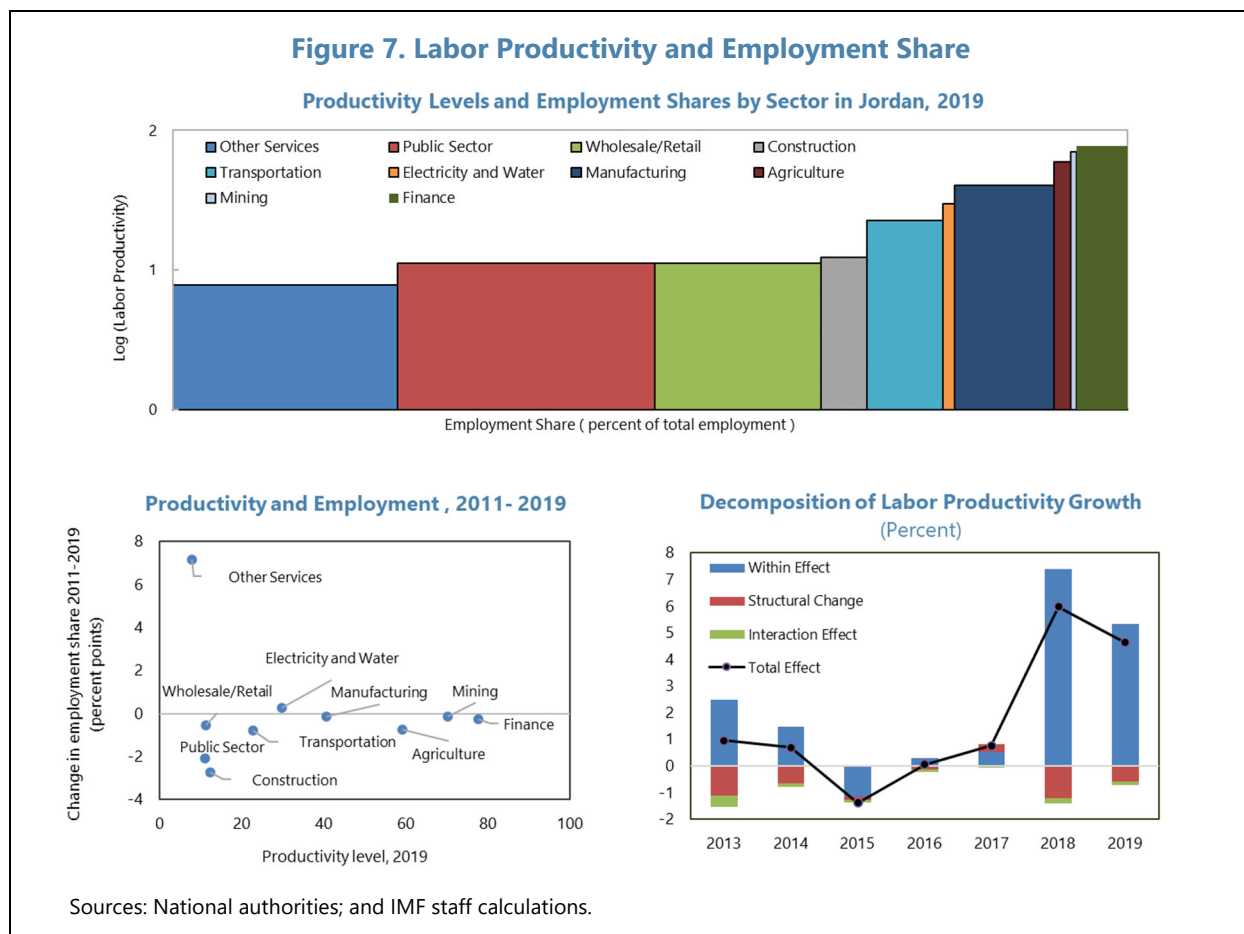
8. Aggregate labor productivity growth had stagnated since the GFC, although there was a pick-up in 2018–19 before the pandemic hit the economy. Labor productivity growth has been low since 2008 and outpaced by real wage growth (Figure 6). Labor productivity is calculated as value added divided by number of Jordanian workers given the sparsity of employment data for non-Jordanians. This suggests that the trend of labor productivity inclusive of non-Jordanian workers could be even weaker as the non-Jordanian population has expanded rapidly since 2011.



9. We analyze the drivers of aggregate labor productivity changes using established decomposition techniques. A variant of the canonical decomposition originating from Fabricant (1942) is used (also see Timmer and De Vries 2014):

$$\Delta P = \sum_i (P_i^T - P_i^0) S_i^0 + \sum_i (S_i^T - S_i^0) P_i^0 + \sum_i (P_i^T - P_i^0) (S_i^T - S_i^0)$$

where S_i is the share of sector i in overall employment, P_i the labor productivity level of sector i , and superscripts 0 and T refer to initial and final period. In the equation, the change in aggregate productivity is decomposed into three terms. The first term on the right-hand side is the “within-effect.” which is positive when the net change in labor productivity for all sectors (weighted by their employment shares) is positive. The second term measures the contribution of labor reallocation across sectors, being positive when labor moves from less to more productive sectors (structural change). The third term is the cross or interaction term and represents the interaction of changes in employment shares and sectoral productivity growth.



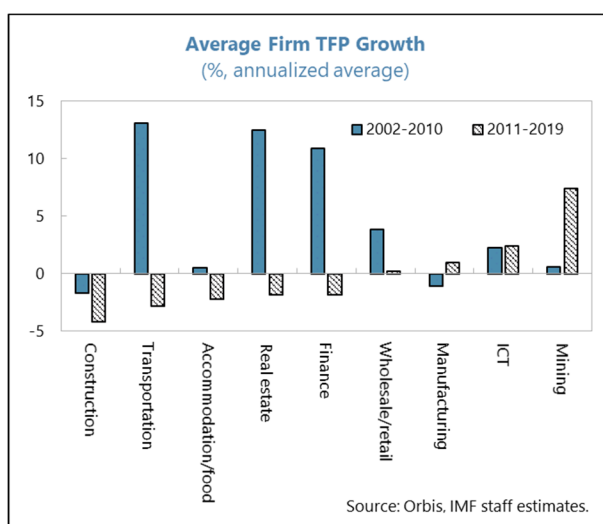
10. It is found that labor remains concentrated in low productivity and non-growing service sectors, dragging down aggregate productivity growth. Structural change, or the shift of labor from low to higher productivity sectors, has been an important source of aggregate productivity growth for both advanced and emerging economies (McMillan and Harttgen 2014, Dabla-Norris and others. 2013, and Hnatkovska and Lahiri 2014). Jordan, however, has been on an opposite trajectory in the past decade. The public sector, other services (community, social, personal, household and non-profit services) and wholesale/retail represent half of the total Jordanian employment in the economy, but these sectors have relatively low labor productivity and do not have a large (Figure 7). In contrast, finance, manufacturing, transportation, and ICT have higher productivities and have been proved to have great potential for further expansion in high-growing

countries. The share of higher-productivity sectors (finance, agriculture, transportation) did not increase from 2011 to 2019 and workers migrated to low productivity sectors (other services). A potential source of bias lies in the observation that employment of non-Jordanians is concentrated in the informal sector, other services and construction.³ As a result, labor productivities in other services and construction are likely to be even lower than staff's estimates and the employment shares of the two sectors are likely to be even larger.

11. We also examine the evolution of TFP at the sectoral and micro level. While Jordan's macro data does not allow us to estimate TFP at the sectoral level, the Orbis database can be used to estimate firm-level TFP for Jordan for the period 2000–19.⁴ The methodology proposed in Gandhi, Navarro and Rivers (2020) is used to estimate firm level TFP. Gross output is assumed to be a function of two types of inputs—flexible inputs including material inputs and costs of labor, and capital as the inflexible input. A simple Cobb-Douglas production function is estimated using firm data for each industry. The number of observations for Jordan is too small to directly estimate factor shares by industry. Instead, input shares are estimated for 28 major economies for which there are enough observations and the necessary data for TFP estimation. Averages of the estimated input shares are used for estimating firm TFP for Jordan. Input shares and firm TFP are estimated at the two-digit NACE level.

12. TFP growth at the firm level was negative for many industries during 2010–19.

Firm-level data suggests that TFP growth were very high during 2002–10 across almost all industries but has slowed significantly. During 2011–19, transportation, real estate and finance saw sharp declines in productivity growth, whereas manufacturing, mining, and ICT experienced some positive TFP growth. The unfavorable micro level evidence confirms the weak productivity growth at the aggregate level revealed by the growth accounting exercise. This suggests a slowdown of technological, product and process innovations in Jordan's corporate sector, which is likely to pose a fundamental obstacle for achieving higher potential growth as technical progress is arguably the ultimate source of growth in the long term.



³ Some studies estimate the share of non-Jordanians in the informal sector is as high as 85 percent in 2017. According to the Jordan Labor Force Survey in 2021Q4, 43 percent and 12 percent of non-Jordanians work in other household service activities and construction sector, respectively.

⁴ The Orbis database has the necessary information to estimate firm TFP for 120 publicly listed Jordanian firms.

D. Catalyzing Growth in the Post-COVID Era

13. The pandemic has significantly exacerbated Jordan’s weak growth momentum and raised risks of scarring over the medium term. The economy risks scarring from multiple channels including debt overhang and fiscal consolidation, persistent weakness of employment in high contact-intensive sectors, loss of schooling and high-skill expatriates. It is imperative to identify potential drivers of growth in the post pandemic era and accelerate structural reforms to unleash Jordan’s growth potential. In this regard, the analysis conducted in this note and previous diagnostics of Jordan’s growth and private sector offer useful guidance (Hausmann and others, 2019; International Finance Corporation, 2019).

14. A post-pandemic growth strategy should focus on promoting investments in strategic sectors and improving export competitiveness. Given Jordan’s already high private consumption, limited fiscal space and small domestic markets, higher potential growth will need to come from investments in growth-enhancing capital and expansion of exports. To this end, reforms will need to support investments in critical infrastructures that benefit and transform the economy in a broad way. A set of industries with high export and employment potential should also be identified for policy to promote the expansion of these sectors. To this end, the government recently launched an Economic Modernization Vision, which will serve as the overarching strategy for promoting economic growth (Box 1).

Box 1. Jordan’s Economic Modernization Vision

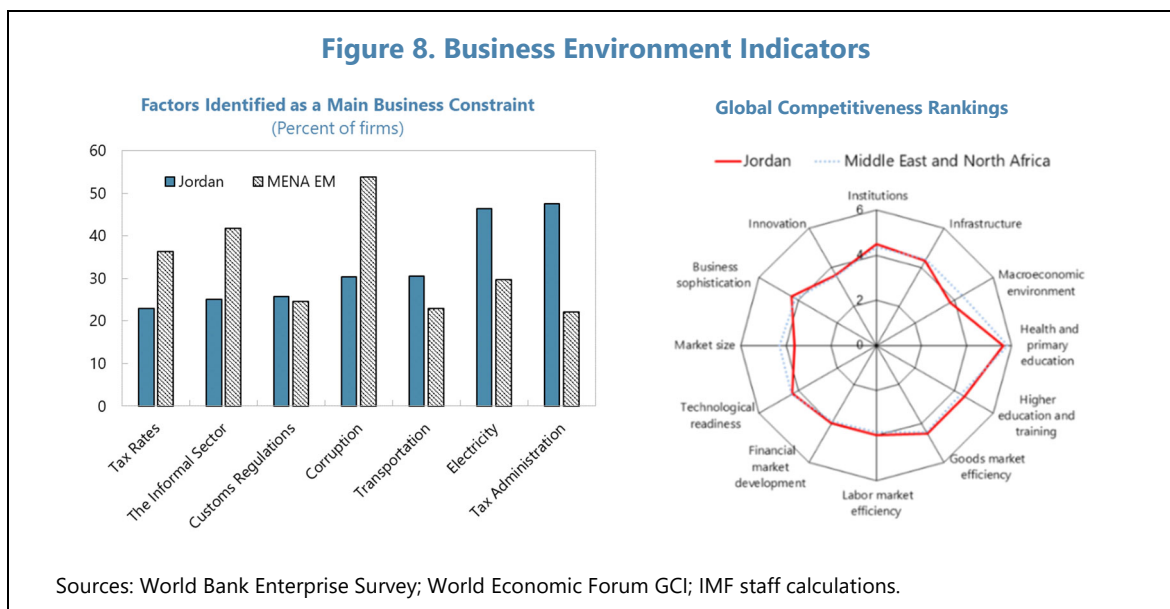
In early June 2022, the government launched the Economic Modernization Vision, which aims to improve both economic growth and quality of life in Jordan. The Vision was developed through the participation of more than 500 specialists, stakeholders and representatives of the public and private sectors, the parliament, and civil society organizations. The Vision is expected to be implemented in 3 phases over a period of 10 years to create employment opportunities and raise Jordanian’s standard of living. Ambitious targets are set under the Vision, including boosting real GDP growth rate to 5.6 percent per year and creating one million employment opportunities by 2033. The government will produce a multi-year executive implementation program to achieve the objectives set in the Vision.

The Vision envisions achieving several strategic goals by end of 2033. These goals include creating one million economic opportunities by 2033; increasing the real income per capita by an average of 3 percent per year; improving Jordan’s ranking in the WEF Global Competitive Index to be among the top 30 percentile; improving Jordan’s ranking in the Global Environmental Performance Index to the top 20 percentile; improving Jordan’s ranking in the Legatum Prosperity Index to the top 30 percentile; improving Jordan’s Global Sustainability Ranking to the top 40 percentile.

Eight areas are identified as the main drivers to realize the objectives under the Vision: (i) High Value Industries (manufacturing industries, agriculture and mining); (ii) Future Services (ICT, healthcare, financial services, creative industries, trade and mobility); (iii) Destination Jordan (tourism and filming) (iv) Smart Jordan (human resources development and entrepreneurship); (v) Sustainable Resources (energy and water); (vi) Invest Jordan (investment and doing business); (vii) Green Jordan (green growth and climate change) and (viii) Vibrant Jordan (quality of life and urban development).

Large investments are expected to be made to achieve the Vision. The government estimates an overall investment of about JD 41 billion will be required in the next 10 years. About 72 percent of the investment is expected to be mobilized from the private sector (including both domestic and foreign investors) and the remaining 28 percent will come from the government’s budget, with support from donors.

15. The broad-based growth deceleration suggests key cross-cutting bottlenecks need to be tackled to attract investment and promote exports. Global Competitiveness Index innovation and macroeconomic environment as key constraints (Figure 8). On the other hand, Jordan performed well on health and education. Businesses often cite tax administration and electricity costs as the two main business constraints. High energy cost is considered one of the most important challenges for vital sectors such as retail and whole trade and hospitality, industrial and agriculture. It is worth noting that in the last two years, Jordan has implemented important reforms to improve the administrative efficiency of tax administrations and the electricity tariff structure.

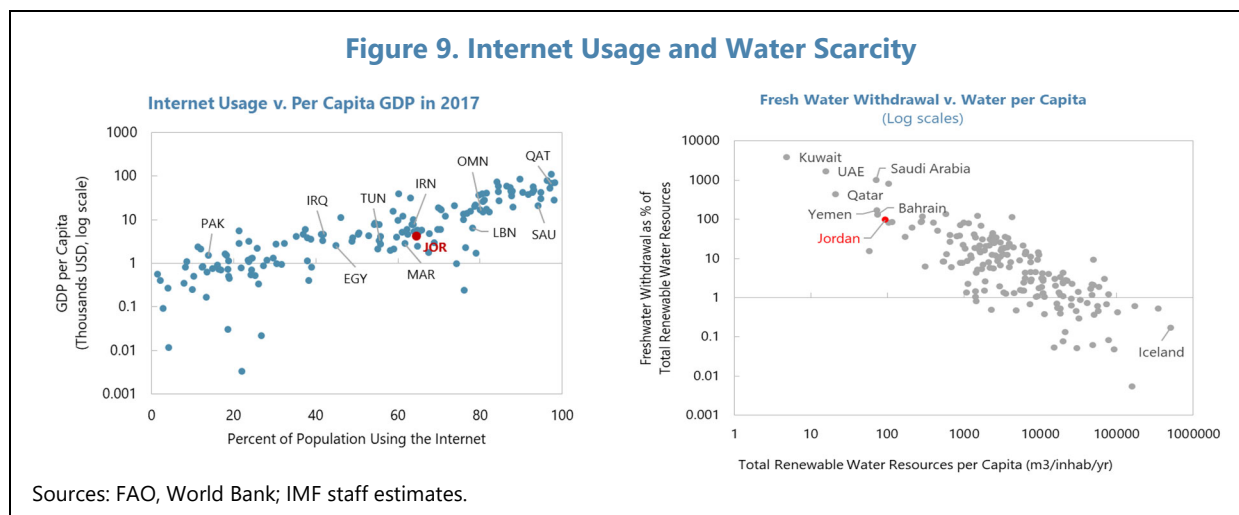


16. Investments in digital infrastructure and climate adaptation could foster the transformation into a more productive, inclusive, and resilient economy. Digital technologies are essential for innovation and business efficiency across the board in any modern economy. Digital access and ability also foster inclusion (e.g., fintech) and enhance the economy's resilience against shocks such as the pandemic (Abidi and others, 2022). Climate challenge, in particular water shortage, is a key risk for Jordan's economy (see Annex IX). Only adequate adaptation could mitigate the negative impact of global warming on social and economic outcomes. Therefore, investments in these two areas are mostly likely to generate high economic and social returns in the long run.

17. Lifting key business constraints can help unlock Jordan's full export potential in services and chemicals with positive spillovers to the rest of the economy⁵. Tourism, chemicals, and business (including ICT) services have been identified by many previous studies and the Economic Modernization Vision as sectors where Jordan might enjoy a comparative advantage (International Finance Corporation 2019; O'Brien and others 2021). The tourism sector provides an

⁵ Some sectors are large in the economy but have limited potential for stimulating further growth and creating new job opportunities. For example, a recent study conducted by the Central Bank of Jordan (Hello, 2019) showed that the finance, insurance, and real estate sector has very weak (direct and indirect) interlinkages with the remaining economic sectors despite its large share in total GDP.

importance source of jobs and drives activities in other sectors such as hotels and restaurants, finance, and retail trade. In this regard, the authorities' tourism strategy for 2021–25 aims to boost medical tourism, develop sites, upskill workers, and remove regulatory hurdles. Next, Jordan could consider expanding fertilizer production (for which it mines the raw materials locally) to boost its value-added exports and productivity, especially at a time of global fertilizer shortages. Finally, Jordan's highly educated labor force provides the necessary soil for developing a regional hub in business and IT services. While it is relatively small in the Jordanian economy, it should be a key sector for development.



18. Structural reforms to catalyze strategic investments and export growth should address key cross-cutting bottlenecks to enhance productivity and competitiveness of the economy:

- *Reducing costs of doing business, in particular electricity costs and tax administration burdens.* To this end, the new electricity tariffs rolled out on April 1, 2022 serve to address high electricity costs faced by businesses, which will see electricity tariffs reduced by 13 percent on average for the corporate sector. Reforms to streamline tax rules and incentives under the EFF will also help establish a simpler and more efficient tax administration system. Continued reforms in tackling these cross-cutting constraints are needed to enhance productivity growth and makes Jordan a more attractive destination for FDIs and an origin of exports.
- *Mobilizing financing for digital infrastructure and climate adaptation.* Digital and ICT infrastructure and climate adaptation are crucial for Jordan's future growth but also require large investments. Participation of the private sector and external donors will be needed to fulfill the investment needs given limited fiscal space. In this regard, strengthening governance and transparency will be important for attracting FDI and mobilizing private sector and donor financing. The PPP law and the new legislation on investment climate will reduce policy unpredictability and investment risks.

- *Promoting labor market flexibility and participation.* Labor market policies should focus on facilitating labor reallocations including changing the incentives for Jordanians from public sector and low-productivity services to more productive sectors. Incentivizing participation requires removing gender-biased articles from labor legislation (see Annex IV) and job training. The lackluster performance of innovation highlights the need to attract entrepreneurs and skilled workers that can bring specific technologies and skills into priority sectors such as professional business services, tourism, and logistics.
- *Increasing firm dynamism by enhancing competition.* Policy distortions that lead to misallocation of resources should be removed to promote aggregate productivity growth (Dabla-Norris and others, 2015). Industry-specific subsidies, size-dependent policies and subsidies to state-owned enterprises are examples that could lead to price distortions and resource misallocation. In this regard, removing barriers to entry, strengthening the competition and anti-corruption frameworks, streamlining licensing requirements, and reducing the economic footprint of the state will help promote entrepreneurship and productivity growth. The new competition law currently being drafted serves as an important step towards enhancing competition.

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