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▶ Trade, investment and employment in the Southern Mediterranean Countries

Thematic Report of the “Mainstreaming Employment
into Trade and Investment in the Southern
Neighbourhood” project



EXECUTIVE SUMMARY

► Executive summary

Trade, investment and industrial policies are at the heart of economic transformation and of job-rich strategies in developing countries. In the Southern Mediterranean Countries, despite the many reforms adopted over the past decades, structural transformation remains slow and the impact of these policies on job creation remains low, especially for women and youth. This thematic report examines the evolution of these policies and their impact on economic transformation, diversification of exports and the labour market, with a focus on youth and women, and on small and medium-sized enterprises in the region. The report also provides an analysis of future trends that are expected impact to the labour market in the region.

Overview of the labour market, trade and investment

Chapter 1 provides an overview of the current economic outlook in the region, with an overview of the labour market and the evolution of trade and investment in the region.

The Southern Mediterranean Countries has been through significant political and economic turmoil, from the 2011 social movements to the global COVID-19 crisis, with many country-specific events that had a significant impact on the region's economic trajectory. The 2011 social movements, which started in Tunisia and swept through to Egypt, Libya and other countries in the region, were driven mainly by youth striving for economic and social prosperity, for more participation in shaping their countries' development paths and for a democratization of the political systems. Countries like Jordan and Lebanon have also been severely affected by the Syrian Civil War, which started in 2011.

Overall, economic growth in the region has been lower than its potential over the past decade. The disappointing economic growth in the Southern Mediterranean Countries is reflected in the region's labour market outcomes, characterized by a low labour force participation rate, especially for women and youth, high levels of unemployment and informality, and low levels of quality job creation. A decade after the 2011 social movements,

very little has changed for the economic reality of women and youth in the region. For instance, the female labour force participation rate is one of the lowest globally, lower on average than other countries within the same or a lower income category. Similarly, for youth (15–29 years), the labour force participation rate is much lower than the rate for their older peers. The significant share of women and youth not participating in economic activities and not even looking to be economically active hints at the difficulties that women and youth face to participate fully in their countries' economies.

The share of the Southern Mediterranean Countries in global trade did not improve over the past decades. In 2019, the region accounted for about only 0.08 per cent of world merchandise exports in 2019 and 1 per cent of world merchandise imports in the same year.¹ The region's merchandises imports are significantly higher than its exports, with a shift in the dynamic in 2008 and a widened gap since then. The higher growth in imports than in exports, in general, resulted in persistent trade and current account deficits among oil-importing countries in the region. Lebanon, Morocco, Jordan, Tunisia, the Occupied Palestinian Territory and Egypt have been running large and persistent trade deficits for more than a decade. In contrast, the region's oil exporters have historically significant current accounts and trade surpluses, although that has changed in recent years for Algeria. Moreover, the region has important vulnerabilities in trade. These include the high volatility of exports for oil-dependent countries, which was demonstrated in 2020 by the huge drop in oil prices and its impact on the economies of Algeria and Libya. Also, there is a high concentration of export markets, particularly in Europe, especially for North African countries. Finally, despite its relatively open regional economy, there is little intra-regional trade, and non-existent trade between some countries in the region.

The Southern Mediterranean Countries has adopted several reforms to attract foreign direct investment (FDI) over the past decades, including reforms of the regulatory frameworks and the establishment of special economic zones. Despite these reforms, FDI inflows have increased at a relatively low pace in the region between 2005 and 2019. FDI inflows

¹ Calculations based on UNCTAD data.

represented 2.1 per cent of total GDP in the region in 2019 and have constantly been growing in stocks. However, FDI inflows have been unstable, especially after the 2011 social movements and the impact of the COVID 19 pandemic on the global economy.

In addition to reforms at the national level, efforts have also been made to foster regional integration. The launch of the Union for the Mediterranean (UfM) in 2008 led to noticeable improvements in terms of collaboration and trade intensification. Although trade relationships intensified between several countries in the region, there remains considerable untapped trade potential between the Southern Mediterranean Countries and non-EU or UfM countries.

The nexus between the labour market and trade, investment and industrial policies is particularly important for the Southern Mediterranean Countries. If channelled correctly, through effective institutions and industrial policies that promote structural change, trade and investment policies could help the countries in the region expand their productive sectors, including for SMEs, while creating much-needed quality jobs, including for women and youth. In this context, promoting dialogue and technical cooperation within the region provides an important opportunity to further accelerate these efforts and foster regional integration.

Trade, investment, industrial and employment policies and their impact on the labour market

Chapter 2 provides an overview of industrial, trade, investment and employment policies in the region, and their impact on exports and job creation, including in productive and tradable sectors.

The Southern Mediterranean Countries followed the international trends in terms of industrial and trade policies. After independence, all countries in the region adopted policies to protect and develop their local industries and reduce dependency on the more developed countries in the 1970s and 80s. Many countries in the region started focusing on export promotion and trade liberalization. These policies, however, were implemented at a different pace and intensity across the region. During the

1990s, most countries in the region adopted structural adjustment reforms prescribed by the World Bank and the IMF. With the structural adjustment programmes (SAPs), countries in the region went through a significant wave of privatization. As a result, trade barriers, specifically trade tariffs, progressively and significantly decreased in the region. Over the last two decades and particularly since the mid-1990s, countries in the region have relatively opened their economies and tried to integrate them into the global economy by adopting a set of trade and investment policies that aim to attract foreign direct investment (FDI) and improve their levels of exports. These policies also aimed to improve labour productivity, support SME development, foster the convergence process with developed economies and create more jobs, including quality ones, to absorb the entrants to the labour market. In the 1990s and 2000s, parallel to these substantial trade liberalization reforms, countries in the region embarked on considerable investment reforms either through the revision of the regulatory frameworks or the establishment of special economic zones (SEZs), also called free zones (FZs), free trade zones (FTZs) or export processing zones (EPZs) in order to create mainly fiscal incentives.

Countries in the region have also implemented a number of industrial policies including both transversal and targeted objectives, with a set of policies and measures to improve the market functioning and the business environment and targeted support to sectors that could yield productivity growth and development. Morocco and Egypt stand out in the region as the countries that have put the most effort into designing and implementing industrial policies that combine transversal and targeted interventions. Morocco is the only country to design and implement a repeated self-discovery process, with an updated list of targeted sectors and interventions based on identified economic changes. The design of industrial policies can be significantly improved for all countries in the region. The main gaps remain on the conditionality of support provided to firms,² the embeddedness and social dialogue with the private sector and the transparency in the implementation. Most of the countries in the region have some level of public-private dialogue. However, an effective dialogue requires formalized forums, frequency and transparency in the decision-making and deliberations, which remains a weak spot for most countries in the region. Another

² This is the carrot and stick feature as described by Dani Rodrik (2008).

major gap is on the implementation and its transparency. There is limited information available on the implementation mechanisms, which suggests that transparency and monitoring and evaluation mechanisms remain to be improved in the region.

In terms of employment policies, not all countries have separate and explicit national employment policies (NEPs), some countries incorporate employment measures in national development plans or other national policies. There are various dynamics that helped the adoption of NEPs. First was the job crisis, which helped put employment policies on the agenda from the early 2000s. Second, the 2020 labour market disruptions arising from the COVID-19 pandemic are confirming the crucial role of employment policies, not only to mitigate the short-term impacts of the crisis, but also to promote recovery and strengthen the resilience of economies and labour markets to adverse shocks in the long-run. Third, employment policy processes have also been stimulated by socio-political crises specific to certain countries. A notable example was the 2011 social movements, in which people's claims and protests also centred around access to employment. From 2010 onwards, this led to the emergence of NEPs in Arab countries such as and **Morocco and Tunisia**.

Overall, these policies did not result in effective structural transformation. Since 2000, the region has gone through a shift of labour from agriculture; however, this shift has been mainly towards services, with at best a relatively stable share of manufacturing and industry in different countries. In terms of outputs, the contribution of the broad sectors to GDP in value-added did not significantly change in the countries in the region. In terms of both employment and outputs, most of the economies in the region are service driven, particularly in Lebanon, in which the share of services in outputs increased to around 80 per cent in 2019. Countries in the region are witnessing an early deindustrialization. Manufacturing, which has been historically the driver of structural transformation for more advanced economies, has a different weight across the region but has been at best stagnant and at worst decreasing in countries in the region.

Trade, investment and industrial policies have generally yielded some positive results in the region, with higher levels of exports pre-COVID-19-pandemic in 2019 than in 2000. However, the results have been uneven across countries in the region. Egypt and Morocco in particular have been driving the export growth in the region, reflecting both

countries' efforts in trade, investment and industrial policies undertaken in the past two decades. Exports of both countries significantly increased since the early 2000s, except for a downward trend between 2011 and 2015. In 2019, both countries had very similar levels of merchandise exports, which is quite remarkable for Morocco, considering the differences in the size of both economies (Egypt's GDP is 2.5 times higher than Morocco's GDP). The evolution of skill and technology intensity of exports in the region shows an increase in the share of medium-skill and technology-intensive and high-skill and technology-intensive manufactures in exports in Morocco, Egypt and Tunisia. This indicates a certain level of sophistication improvement and upgrade of technological capabilities in these economies. However, the region did not witness a significant diversification of exported products, except for some encouraging signs in Egypt, Morocco and Tunisia, including in the electronics and automotive sectors in Morocco and, to a lesser extent, in Tunisia, and electrical machinery in Egypt.

Most countries in the region have not significantly improved their levels of FDI. Inward FDI flows in most countries in the region increased significantly between 2000 and 2008 and have been on a declining trajectory since then, except for Egypt and Morocco. For other countries, pre-pandemic FDI levels have been stagnating at best. FDIs in the region are not yielding the expected results, with most investments concentrated in capital-intensive sectors. Hence, the impact of FDIs in job creation, labour productivity and structural change might not be to the level expected by policymakers in the region. A focus on the domestic linkages with local SMEs should be enhanced to maximise the impact of these FDIs and their contribution to domestic economic outcomes.

Overall, and despite the industrial, trade and investment policies implemented, there hasn't been a significant employment growth in the region in tradable sectors, such as manufacturing and tradable services. Workers in almost all countries are moving out of agriculture, mainly towards the non-tradable and low-productive sectors. However, exports and trade have increased demand for higher skills in the region, particularly in Egypt, Morocco and Tunisia, in line with an increased share of skill and tech-intensive exports. Tradable sectors and particularly manufacturing, were not able to create enough demand for the region's labour force. The share of manufacturing in employment in almost all countries has decreased, except in Egypt. At the same time, the

share of wholesale and retail has almost systematically increased. Other non-tradable sectors such as public administration and education have contributed significantly to job creation. There are some encouraging signs, however, in generally high-skilled tradable services, particularly in Morocco, which is in line with the increasing role that trade in services is playing in the region. Tradable services have significant growth potential in the region; however, they will mostly increase the demand for high-skilled workers. Focusing on high-skilled sectors and other sectors in manufacturing that would absorb the important share of low- and mid-skilled workers seems to be the right approach for countries in the Southern Mediterranean Countries.

The impact of trade policies on the labour market is not only determined by the level of trade liberalization and trade policies but also depends heavily on the adoption of other sets of policies that are coherent with trade policies and that build the necessary environment for their success. As discussed earlier, the quality of industrial policies in the region is relatively low, despite some encouraging signs in Egypt and Morocco. Trade policies need effective industrial policies to yield the expected positive outcomes and provide quality jobs for workers in the region. The impact of both industrial and trade policies in the region depends heavily on the quality of infrastructure. Infrastructure can be defined by physical and soft infrastructure and is an important input to economic development and trade expansion. Physical infrastructure includes roads, connectivity, telecommunications and ports and soft infrastructure includes finance, human capital and the quality of institutions. Overall, the quality of hard and soft infrastructure in the region can be significantly improved to unlock the potential of trade and industrial policies and their impact on the labour market. For instance, the quality of institutions in the region is particularly low. The 2011 social movements marked an attempt to reform the extractive economic institutions that led to endemic corruption, strong rent-seeking business-state ties and ultimately low levels of quality job creation and growth. The success of industrial policies depends on the capacity of the state to establish a transparent and collaborative relationship with the private sector, with a clear set of rules and incentives, and a “carrot-and-stick” attribute that would decrease the rent-seeking approach. Countries in the region should focus on reforming the economic institutions, including the competition laws and agencies, and promoting the rule of law if they are to stand a chance in developing their economies and benefit-

ting from a positive impact of trade and investment on their economies.

Trade, investment and industrial policies and youth and women in the labour market

Chapter 3 provides a detailed analysis of youth and women in the labour market in the region, and the evolution of their employment in productive sectors, including tradable ones over the last two decades.

Youth in the Southern Mediterranean Countries struggle to secure quality jobs and develop their economic potential. The labour force participation rate in the region is lower than 40 per cent for youth and the region also suffers from relatively high shares of youth not in employment, education or training (NEET). Youth unemployment rates in the region are one of the highest globally, ranging from a maximum of 42 per cent in Algeria and a minimum of 19 per cent in Tunisia in 2019. The unemployment rate has increased with the increase in levels of educational attainment, suggesting significant skill mismatches in the countries in the region. Unemployment has increased in particular for graduates and educated youth in the region, including for Tunisia and Jordan, two countries that have achieved relatively important levels of participation in tertiary education.

The tertiary graduates' unemployment is particularly problematic for the region. It indicates low returns of investment in education and might influence future generations' choices and lead to an overall decrease in human capital accumulation in these economies. Moreover, graduate unemployment is an economic and human capital loss for the middle-income countries in the region, considering the high opportunity cost of completing education at higher levels. Graduate unemployment reflects the absence of structural transformation and therefore the incapacity of the economies to create quality jobs for its educated youth. The high levels of youth unemployment and the lack of economic dynamism led to significant migration, including an undocumented one, and brain drain levels in most countries in the region. The share of highly skilled individuals among the migrant population has increased in these countries, reaching 20 per cent among migrant youth in 2017, suggesting a brain drain.

Employed youth in Egypt, Jordan, Occupied Palestinian Territory and Tunisia seem to be doing better when compared to their peers in other countries in the region in terms of participation in tradable sectors. Overall, the share of youth working in manufacturing and in tradable sectors is higher than for older workers. Manufacturing has, in general, increased demand for high skilled youth workers and in most countries, the demand for high-skilled youth has increased faster than for high-skilled older workers. However, youth tend to be more concentrated in low-skilled non-tradable sectors than their older peers, mainly in construction and wholesale and retail. Finally, there is no clear trend for the level of skills: Employed youth tend to be slightly better educated and with higher skills than their adult peers in Egypt and Tunisia and with lower levels of education in Jordan and Occupied Palestinian Territory.

As countries in the region have adopted new development models that are export-oriented, the demand dynamics for female labour should have significantly changed. However, in the Southern Mediterranean Countries, women are still facing structural challenges to participating in the labour market. The female labour force participation rate in the region is among the lowest in the world, with only 22 per cent in 2019. In the region, countries with the highest levels of educational attainments, such as Jordan and Tunisia, do not have the highest levels of female labour force participation rates. The female labour force participation rate is the highest in Libya (32 per cent), where females are less likely to be highly educated than any other country in the region. The low labour force participation rates for women and the overall high levels of education in the region constitute a paradox. In general, women's propensity to participate in the labour force increases with higher levels of education. However, there is no clear correlation between levels of education and levels of labour force participation for women in the region, which indicates that there are structural challenges for women's labour force participation outside of skills challenges.

The low levels of female labour force participation rates in the region are due to a lack of economic dynamism in the region as well as to social norms and stereotypes. Women in the region have generally preferred public sector employment for its formal nature and its security. However, the public sector opportunities have declined since the structural adjustment reforms in the 1990s, despite the important role they continue to play. In parallel, the private sector has been unable to provide the same

quality of jobs offered by the public sector, including for highly educated and married women. Other root causes reinforce and perpetuate the social norms and stereotypes, such as inadequate child-care provision, low access to affordable and public transportation, discriminatory family and labour laws and low wages and economic compensation.

Within the labour force, women in the region experience higher levels of unemployment, despite being more educated than men. There are larger shares of women with higher education than men in the labour force in almost all countries in the region. Palestinian and Jordanian women in the labour force are the most educated, with respectively 63 per cent and 58 per cent with tertiary education in 2019. Yet, unemployment is much higher for women than men in the region, except for Morocco, where the unemployment rate is at similar levels. The high women's unemployment rates can be explained by the same constraints leading to their exclusion from the labour force. Also, it can be explained by the significant number of women in the region, especially in Jordan and Tunisia, queuing for the perceived "female-friendly" jobs, including in the public sector, which is reflected by the long-term unemployment for females.

As a result of meagre labour force participation rates and high levels of unemployment, the share of women in employment is very low across all countries in the region, ranging from 14 per cent in Jordan to 32 per cent in Libya. Women tend, in general, to work in a limited number of sectors, mostly in services. North African economies tend to be more inclusive for women, as women in Algeria, Morocco, Tunisia and Libya tend to work in more diverse sectors, including agriculture and manufacturing. For instance, in Libya, women represent 45 per cent of employment in manufacturing and 31 per cent of employment in agriculture. In Morocco, women represent a significant share of employment in agriculture (37 per cent) and manufacturing (29 per cent). Tunisian and Algerian women are more represented in manufacturing (43 per cent and 36 per cent) than in services (28 per cent and 22 per cent). In employment, women in Egypt and Tunisia suffer from a relatively large gender wage gap, with the mean gap using monthly earnings being respectively at 14 and 9 per cent. However, in Jordan, the gender wage gap is less of a concern as it is estimated on average at only 2 per cent using the monthly earnings.

Overall, women are more shifting out of tradable sectors towards non-tradable ones in the region.

This is mainly driven by a shift of labour of agriculture that has not been replaced at similar levels in other more productive tradable sectors. This trend is however more pronounced for women than for men. The share of manufacturing female employment has decreased in almost all countries, with the exception of Egypt, while it remained relatively stable for men. Male employment in tradable services has generally increased, while it remained either stable or decreased for women. Tradable services represent in general a very small share of female employment in the region, at lower levels than men and their share in employment has been mainly increasing for men. Women in the region tend to be concentrated in a handful number of sectors, mainly high-skilled services such as education, healthcare and public administration. The share of these sectors in female employment has significantly increased in almost all countries, translating to the increase of high-skilled female workers in the region's labour force. Also, the share of wholesale and retail has significantly increased for female workers in most countries in the region.

Policy orientations based on analysis in Chapters 1, 2 and 3

Overall, the slow structural change and the early deindustrialization that countries in the region are experiencing reduces the capacity of the economy to create productive and quality jobs for its relatively young and increasingly educated population. The high adjustment costs that trade policies and increased competition impose on firms and workers, especially vulnerable ones, might lead to sub-optimal outcomes. In the case of the Southern Mediterranean Countries, this has led to a decreased participation of women in tradable sectors in the labour market. The structural issues that women and youth face in the labour market, beyond the impact of trade policies, negatively impact labour productivity growth and output growth in the region, with an economic potential that remains untapped. Increased youth and women labour participation would help to improve economic outcomes in the region through increased human capital accumulation and increased household income, potentially leading to further consumption and an increase in local demand, and, finally, a decrease in the dependency ratio.

Addressing this requires integrated trade, industrial and domestic policies that reduce the possible unequal impact of trade liberalization on

the labour market. Women in the region tend to be highly educated and engage mainly in formal employment; therefore, focusing on high-skilled tradable sectors that could absorb this labour force is crucial for women's economic empowerment and inclusive trade and investment policies. Industrial policies should be used as a transmission channel for trade and investment policies to realize a productive structural change and yield the intended results, including creating opportunities for women and youth to benefit from trade liberalization and sophistication of exports. Countries in the region should focus on structural transformation to reverse the early deindustrialization and foster long-term and inclusive growth.

Policymakers in the Southern Mediterranean Countries need to incorporate employment issues into trade and investment policies and design and implement trade and investment interventions that ultimately optimize the quantity and quality of employment created in the region. This would require adopting effective and modern industrial policies that would act as transmission channels to yield an inclusive and positive impact of trade policies on the region's labour markets. Active and passive labour market policies and programmes can be used as a tool to facilitate labour mobility, facilitating the reshuffling of productive factors and improving the capacity of vulnerable workers to face the significant adjustment costs imposed by trade liberalization. Moreover, investment in physical infrastructure can foster employment creation and trade expansion by facilitating labour mobility and reducing the adjustment costs of workers and firms to trade liberalization. Investment in infrastructure can also foster trade expansion by lowering the trade-related transaction costs, including communication costs, domestic transport costs, time and money spent in ports on border procedures and international transport costs. Overall, a well-developed physical infrastructure can reduce the non-tariff barriers to trade.

Future trends in the labour market

Chapter 4 provides an analysis of the COVID-19 impact on the labour market and potential pathways for recovery, as well as future trends that might disrupt the labour market in the region, with a focus on the technological revolution.

The COVID-19 crisis has resulted in severe economic and social consequences for the Southern

Mediterranean Countries. All countries in the region have witnessed a significant GDP contraction, with a more pronounced decrease in Libya and Lebanon (in the case of Lebanon, this is mostly due to the significant ongoing social and economic crisis). The IMF estimates a recovery in almost all countries in the region, except for Lebanon, where the economic and social situation remains highly uncertain. However, considering the health crisis, these estimations for recovery might be too optimistic. The level of investment has also significantly dropped in most countries in the region, except for Jordan and Libya. The COVID-19 crisis is also impacting the macro-economic balances in the countries, with an increase of the gross debt (as a percentage of GDP) in most countries and a decrease in public revenues. In most countries in the region, public revenues dropped in 2020, driven by the shock on the real economy.

Trade and particularly exports in the region have significantly dropped due to the pandemic. Most countries in the region have exported fewer goods and services in 2020, except for Egypt, which witnessed a 3 per cent growth in goods exports between 2019 and 2020. Exports of goods in 2020 have decreased in Libya in particular, driven by the oil crisis. While high-income countries are currently slowly recovering, it remains unclear how the recovery will be for the Southern Mediterranean countries.

The COVID-19 pandemic has severely affected the labour market in the Southern Mediterranean Countries. As witnessed across the world and as expected, the COVID-19 crisis has led to relatively significant job layoffs in the region, and most businesses have reported severe drops in sales and outputs due to the COVID-19 crisis. Moreover, the crisis has impacted the level of wages of workers and incomes for households in a significant manner in the region. However, wage-employed workers in the public sector have been the least concerned by wages decrease. Most countries in the region have adopted relatively quickly several measures to reduce the impact of COVID-19 on their economies, despite relatively low incidence of the health crisis in the second quarter of 2020, during which most of these measures have been adopted. The measures have three main objectives: simulating the economy, protecting jobs and incomes, and protecting workers in the workplace.

The recovery from the COVID-19 crisis in the Southern Mediterranean Countries will strongly depend on the effectiveness and speed in tackling

the health crisis. Globally, there are signs of recovery in international trade, especially within high-income countries; however, the pathways for recovery in the region remain uncertain. International travel remains highly disrupted, directly impacting a strategic sector in most countries: the tourism sector. Recovery in FDI is also highly uncertain, and particularly for new greenfield projects in the manufacturing sector, outside of the extractive industries.

The investment and production dynamics within some sectors that are particularly important for countries in the region, such as the textiles and apparel, pharmaceuticals, and electronics and automobile equipment, might shift to favour more nearshoring and reshoring activities. Another pathway to recovery includes the level of public and private investment into productive sectors that could upgrade technological capabilities and strengthen the local manufacturing sector. The COVID-19 crisis highlights even further the importance of industrial policies and of developing the local production capabilities. Industrial and trade policies should therefore be geared towards not only integrating countries in the region in the global value chains (GVCs) but also towards building high-growth SMEs in high-productive sectors, which could strengthen the countries' resilience in the case of a new global pandemic and significant disruptions in the GVCs. Other pathways to recovery are the levels of investment in human capital and the bandwidth within government to drive key and reforms that promote structural transformation.

Other trends might shape the future of work in the region and globally, driven by the technological revolution that might be accelerated with the COVID-19 crisis. The future of work and the impact of new technologies on the labour market are among the most debated questions today. The adjustment costs to these new technologies might be high, especially for low-skilled workers currently engaged in routine-based tasks that are more likely to be computerized and automated than other tasks. This might lead to an increase in inequality among low- and high-skilled workers, as high-skilled workers are generally not involved in routine-based tasks and as the new technologies are likely to increase the demand for this segment of workers. More broadly, technological innovation might slow down or disrupt the convergence process and widen the inequality gap between high-income and low- and middle-income countries.

Innovation in technologies is evolving at an exponential and unprecedented pace and affect all

economic sectors. Technologies that are likely to be the most disruptive are artificial intelligence, big data, the internet of things and connected devices, text, image and voice processing, robotics, 3D printing and modelling, cloud computing and biotechnology.

While globally the impact of these technologies on the labour market and the share of jobs that will be automated is highly debated, for countries in the Southern Mediterranean Countries, the impact of technologies is linked to another central and critical question: will these technologies slow down or accelerate their convergence process, and will they provide an opportunity for these countries to “leap-frog” and bridge the productivity and knowledge gap with high-income countries? Technologies such as artificial intelligence (AI) are likely to be labour-saving, which would devalue the main competitive advantage that most low- and middle-income countries have. The threat of automation in low- and middle-income countries is more a concern within the manufacturing sector, considering the historic role that this sector has played in structural transformation. Manufacturing, which has historically absorbed mostly low-skilled labour engaged in repetitive tasks, could be highly exposed to automation. In manufacturing, three main technologies are expected to disrupt the industry: robotics and AI, 3D printing and the internet of things. These technologies can be combined and are most likely to be adopted in parallel to respond to the increasing demand for customized and personalized products in different sectors. Within manufacturing, different sectors are exposed in different ways to the automation threat, with automotive and transport equipment, pharmaceuticals and electronics and cars components being the sectors identified by the literature as the most at risk for automation.

The impact of these technologies on the labour market and the extent to which countries will benefit from this ongoing revolution will likely be determined by at least four main variables that influence the potential adjustment costs in different economies. These are: the pace of innovation and technological change globally, which is currently growing exponentially; the level of digital infrastructure in each country; the level of skills and its readiness for technology in each country; and the absorption rate

of technology by firms globally and in each country. The absorption rate of technology by firms globally and in the Southern Mediterranean Countries will be influenced by the cost of technologies compared to labour costs, as well as by the adoption of the current levels of human capital within firms, and their capacity understand, to invest and adopt these technologies. The absorption rate of firms heavily affects the potential for automation.

Overall, it is very difficult to assess the impact of these technologies on the labour market in the Southern Mediterranean Countries. It is easier to assess how technology will shape the demand for skills than it is to estimate its effect on job losses. There seems to be a consensus on the role of human capital in the future of work and that the highest disruption caused by technological change will most probably be on the demand for skills. As discussed above, routine tasks are the most likely to be highly automated, which would decrease the demand for low-skilled workers. Moreover, soft skills or cognitive skills are expected to gain momentum and importance as these are skills that are unlikely to be automated, which would increase the demand and the premium for these skills. Therefore, the quality and composition of human capital in the Southern Mediterranean Countries and the level of investment to prepare workers in these countries for the technological revolution will play a significant role in the adjustment of their economies to the future of work and represent important variables that would determine if countries in the region would witness more job displacement or more job replacement and creation.

Policy orientations based on analysis in Chapter 4

Policymakers in the region need to proactively align industrial trade and employment policies with the technological revolution. This includes designing and implementing proactive and anticipative education and training policies to prepare the labour force and workers for the disruptions in the labour market. There is a need to invest in developing digital and soft skills for all workers, including for low-skilled workers who will be the most affected by the technological revolution.

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