International Labour Organization

Productivity growth, diversification, and structural change in the Arab States

Lebanon Country Profile

1. Introduction

This country snapshot starts with a historical overview of macroeconomic labor productivity trends in Lebanon. Subsequently, it provides an overview of Lebanon's contemporary business environment and prospects based on two recent enterprise surveys – the 2019 world Bank (WB) enterprise survey and the 2021 ILO survey on productivity growth, diversification, and structural change.

In addition to highlighting the position of Lebanon relative to other Arab economies[1] and global frontiers in terms of labour productivity, the first part (section 2) of this snapshot documents the trends in labour productivity and the relative contributions of labour productivity and employment growth to aggregate output growth. The structure of an economy plays a vital role in determining a country's productivity trends, both due to technological change and productivity growth within industries, and the potential for enhancing productivity by shifting resources to more productive uses. Therefore, this section also examines the evolution of the structure of Lebanese economy, in terms of industry composition of employment and output compared to the Arab economies' average.

In the second part (Section 3), the snapshot highlights the key findings of the WB and ILO enterprise surveys regarding barriers and challenges that business enterprises face in Lebanon, particularly since the Covid pandemic, along with the business impressions regarding the future strategies for productivity improvement.

Finally, in section 4 a few recommendations for future productivity improvement in the country are derived using the existing evidence on long-term productivity trends and insights from the enterprise surveys.

2. Historical overview of productivity growth, and structural change

2.1. Relative Labour Productivity levels

Relative labour productivity levels (i.e., the output per worker in a country relative to a frontier country that is technologically advancing faster) are indicative of a country's productivity catch-up with the global frontier. Figure 1 shows the levels of Lebanon's labour productivity (output per worker) relative to the United States.[2] Historically, labour productivity levels in Lebanon have been quite close to, and even often larger than, the US level from 1950 through the 1980s. It was also generally higher than the average levels in non-GCC Arab countries - much higher in the 1950-1980 period. Even during the non-GCC Arab region's

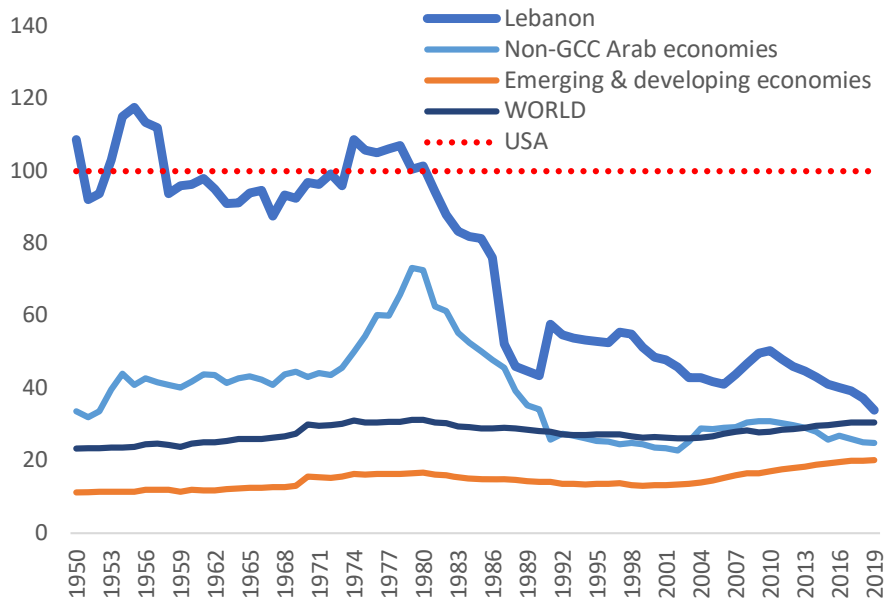
1 In this snapshot, when we refer to the Arab economies, it consists of six GCC countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) and six non-GCC Arab countries (Iraq, Jordan, Lebanon, the occupied Palestinian territory, the Syrian Arab Republic, and Yemen). The global economy is an average of 132 countries covered in The Conference Board Total Economy Database.

2 Relative labour productivity level is measured as the amount of output an average worker in Lebanon produces in a year, compared to the amount of output an average worker produces in the United States.

peak productivity in the 1980s, Lebanese productivity levels were higher by about 30 percent.

However, as with Arab economies in general, Lebanon also witnessed a massive erosion in its relative productivity levels since the 1980s, reaching quite close to the non-GCC Arab economies levels by 1987. Lebanon seems to have lost the productivity drive since 1975, the year in which its civil war began, and continued to see productivity erosion in full swing until 1990, the year in which the war came to an end. However, after a post-war recovery in 1991, the upward momentum was not sustained. Although it still remained slightly higher than the non-GCC Arab averages, in general, it did not show any further upward trend since the 1990s, barring small deviations in the years immediately after the global financial crisis. The erosion in Lebanese productivity since 1980 is tremendous. It fell from above the US levels in 1950 to just above 1/3rd in 2019, which is quite close to the global average levels, and slightly above the non-GCC and emerging markets averages.

▶Figure 1: Relative Levels of labour Productivity (US=100)



Note: Labour productivity levels are calculated in purchasing power parity terms for individual economies as GDP per worker and are expressed as a percentage of productivity level in the United States. For the list of countries used to obtain the aggregates of World, and Emerging & developing economies, please see Appendix Table 4 in ILO (2022) [3]. Non-GCC Arab economies consists of Iraq, Jordan, Lebanon, Syria, Yemen, and Occupied Palestinian Territory.

Source: The Conference Board Total Economy Database (TED), April 2021.

2.2. Labour Productivity growth: Labour productivity vs. Employment

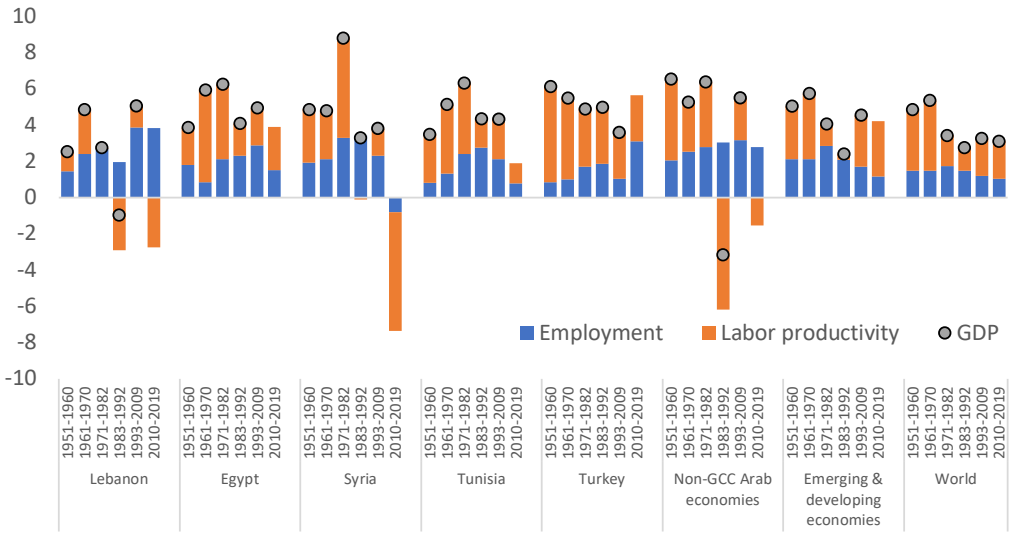
The output of an economy can be increased by adding more workers, increasing working hours, or raising worker productivity. Except for the first two decades since 1950, labour productivity growth in Lebanon

3 ILO (2022), "Productivity growth, diversification and structural change in the Arab States", https://www.ilo.org/actemp/publications/WCMS_840588/lang--en/index.htm

was very weak and often negative. Even when the non-GCC Arab average labour productivity had shown impressive growth rates in the 1970s and 1990s, the Lebanese economy shied away from improving productivity. Also, other neighboring countries - Egypt, Syria, Tunisia, and Turkey - all had much better productivity growth than Lebanon. Achieving productivity growth in Lebanon has been a continuing challenge and is likely to remain so in the coming years. Even the global and emerging market average productivity growth were much higher than the Lebanese economy during the entire sixty years.

In the first two decades since 1950, the Lebanese economy somewhat relied equally on productivity and employment creation to generate output growth. However, the role of productivity growth started evaporating rapidly since 1971 - productivity growth was close to nil in the 1971-1980 period - and the country started losing productivity in the 1980s. Although some recovery was made in the 1990s, the relative role of job creation dominated productivity growth, and in the most recent decade, productivity growth has been massively negative. While several structural weaknesses and economic structure may have contributed to the recent productivity failure in the country, the rapid expansion in job reliance, especially in the recent decade, may also reflect the rising job market pressure from Syrian refugees. When compared with the non-GCC Arab average, emerging markets, the global economy, and even some of the neighboring countries such as Egypt, Syria, Tunisia, and Turkey, the dominance of employment on productivity are pretty high and visible in Lebanon.

▶ Figure 2. Contribution of labour productivity growth and employment growth to GDP growth



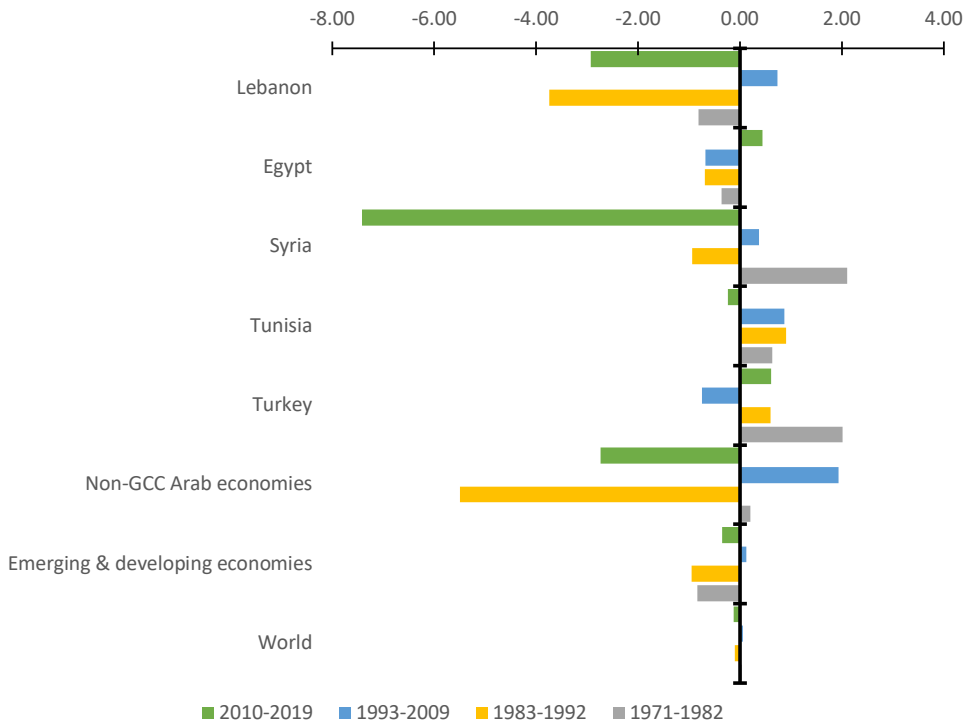
Notes: All growth rates are calculated as log changes. Regional growth rates are a weighted average of individual countries, using nominal value added weights. For other notes, please see Figure 1.

Source: The Conference Board Total Economy Database, April 2021.

2.3. Multifactor productivity growth

Multi-factor productivity (MFP) growth is an important indicator of technological change and overall efficiency improvement.[4] MFP growth has been mostly negative in Lebanon during last fifty years. It was positive only from 1993-2009, whereas it was negative during the 1970s, 1980s and the most recent decade since 2010. However, the decline in Lebanon's MFP was less intense in the 1970's, compared to the other two periods. The declining trend in Lebanon's MFP is generally consistent with the non-GCC Arab average, except for a mild positive MFP growth for the region in the 1970s. Persistent negative MFP growth might reflect several institutional, structural, and technological weaknesses the country or region possesses. When compared with other neighboring countries, only Egypt shows a similar MFP growth pattern. Egypt's productivity decelerated substantially in the most recent decade since 2010. On the contrary, on average, Syria had positive MFP growth rates in the 1970s and 1990s, Tunisia had positive MFP growth during the first four decades since 1971, and Turkey had negative MFP growth only in the 1990s. In general, the 2010-2019 period appears to be a period of MFP deterioration everywhere.

▶ Figure 3. Multifactor productivity growth



Notes: Multi-factor productivity growth rates are calculated using a growth accounting equation as a residual after accounting for the contributions of capital and labour inputs to GDP growth. For other notes, please see Figure 1.

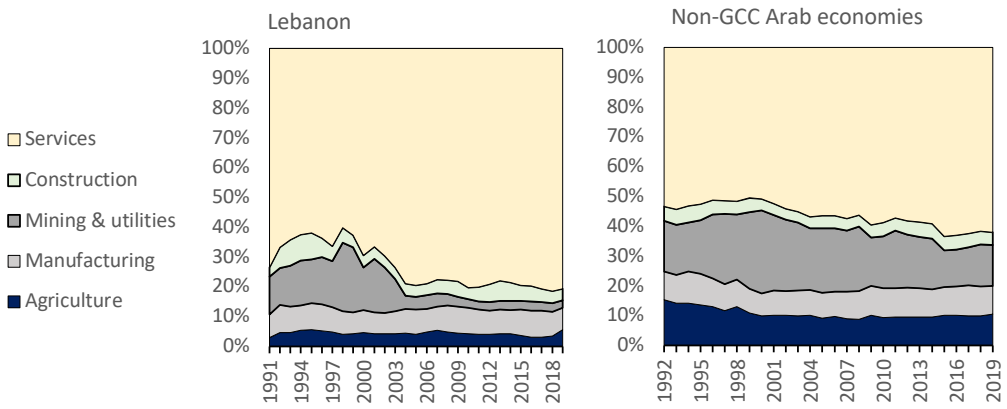
Source: The Conference Board Total Economy Database, April 2021.

4 MFP is generally measured as a residual after allocating output growth accrued due to the accumulation of factor inputs (e.g., labour and capital) to input growth. A multitude of factors, including technology and innovation, macroeconomic and business climate, market conditions, and institutional factors, can influence changes in MFP.

2.4. Industry composition of employment and output

Enhancing productivity growth and levels can be achieved by moving workers to more productive sectors of the economy, such as manufacturing. Following the traditional structural transformation hypothesis, one would expect worker movements from the agricultural sector to the manufacturing sector, creating more productive and income-earning jobs in developing countries like Lebanon. In Lebanon 1/5th of its total jobs were in the agricultural sector in 1991, compared to 1/4th in the non-GCC Arab region. We see a substantial fall in farm jobs over the years, reaching 11 percent in 2019, although a less pronounced decline than the fall in the non-GCC Arab average. However, as in the case of the non-GCC Arab region, in general, this fall was not compensated by a gain in the manufacturing sector, defying the conventional structural transformation hypothesis. The manufacturing sector, in fact, witnessed a slip in job share from 15 percent in 1991 to less than 12 percent, a slightly larger decline compared to the non-GCC Arab average. Similar to the non-GCC Arab countries' general trend, much of the loss in employment in agriculture and manufacturing was absorbed by the services sector, which has seen an increase in job share by nearly 11 percent in three decades.

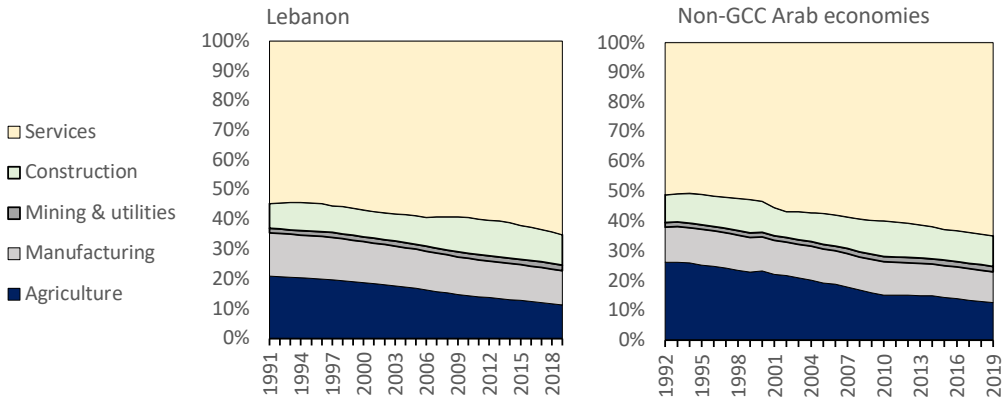
▶Figure 4: Output share of industries



Note: See Figure 1.

Source: UNNAS, ILOSTAT.

▶ Figure 5: Employment share of industries



Note: See Figure 1.

Source: UNNAS, ILOSTAT.

Interestingly, the output share of agriculture increased in Lebanon, contrary to the non-GCC Arab countries' trend. In fact, over the last three decades, the agricultural output share in Lebanon has not shown a declining tendency ever. It has increased from three percent in 1991 to six percent in 2019. This indicates some productivity gains in Lebanon's agriculture sector. In contrast, the Lebanese manufacturing sector witnessed a decline in output share, although the magnitude of decline was less severe compared to its job losses and was also not in alliance with the non-GCC Arab countries' average, where manufacturing output share largely remained stagnant. Two other sectors where we do not see a decline in output share are construction, which was mainly stable, and services, where it increased, absorbing most of the reductions in mining and utilities and manufacturing shares. The mining and utilities sector rapidly expanded production shares in the 1990s, alongside a consequent fall in the service sector output shares. But it evaporated soon, as it started falling rapidly in the early 2000s. As is the general case, Lebanon seems to be also in the list of countries that witness pre-mature deindustrialization, which can hinder its further productivity acceleration, given its low level of development.

▶ 3. Business environment, productivity, and prospects: insights from Enterprise Surveys

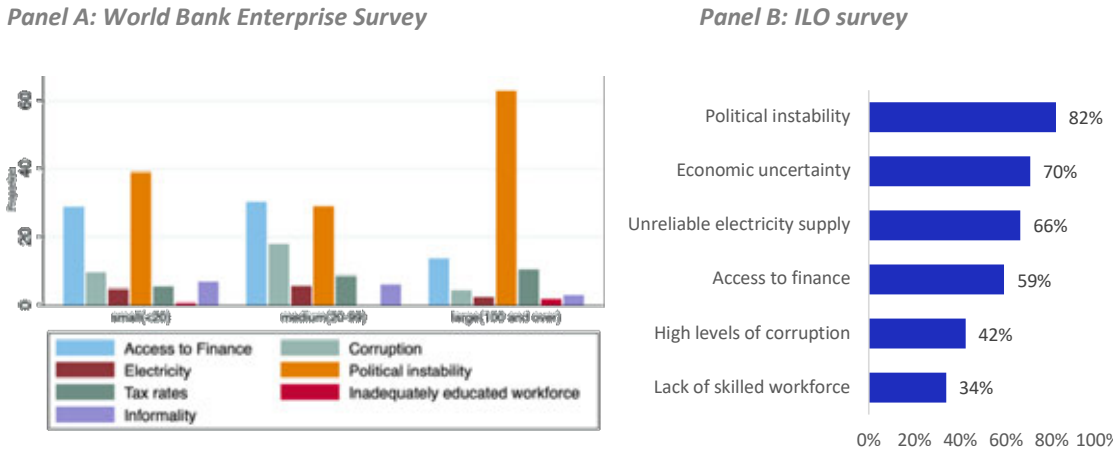
This section highlights the key findings from two enterprise surveys - the 2019 World Bank Enterprise Surveys (WB) and the ILO 2021 survey on productivity growth, diversification, and structural change. The WB survey interviewed 532 formal SMEs and large enterprises from the country's most vibrant governorates. The survey included questions related to the business environment and main obstacles for business operations, employment structure and wages, productivity, and management practices, among other topics. The ILO survey aimed to assess challenges and opportunities for sustainable enterprise development and economic growth amid the COVID-19 pandemic. Surveyed enterprises were asked about factors for an enabling business environment, obstacles to operating and upgrading technology, and factors that impacted productivity growth, among others. The ILO survey covered 73 micro, small, medium, and large enterprises in Lebanon. Most responses came from the manufacturing sector (75 percent), followed by other service activities (10 percent) and shopkeeping, sales, or trade activities (4 percent).

3.1. Obstacles for business operations

Combining insights from the two surveys, it is evident that political instability, economic uncertainty, access to finance, and electricity are the most important concerns affecting business operations in Lebanon (Figure 6, Panels A and B). Access to finance is a larger constraint for SMEs than for larger enterprises. More than 70 percent of enterprises funded their working capital needs with internal funds (e.g., cash or savings), whereas only a quarter relied on banks (Figure 7). The COVID-19 pandemic and the related restrictions made it hard for enterprises to timely comply with their obligations, making access to credit further tedious. Electricity is a big concern in the ILO survey conducted in 2021, which is not the case in the WB survey conducted in 2019. This is because the compounding crises in Lebanon since 2021 have caused a limited supply of electricity from public grids, forcing enterprises to rely on expensive and polluting diesel generators. Moreover, the WB survey also suggests that Lebanese enterprises spent almost twice

the time getting electricity connection than those in upper-middle and lower-middle-income economies.[5] Enterprises in Lebanon also report high trade challenges in terms of time, costs, and customs clearance, compared to other upper-middle-income countries (Figure 8).

▶ Figure 6. Business obstacles for enterprises



Note: Bars represent % of enterprises. Obstacles that accounted for less than 34 per cent of the sample are not displayed in Panel B.

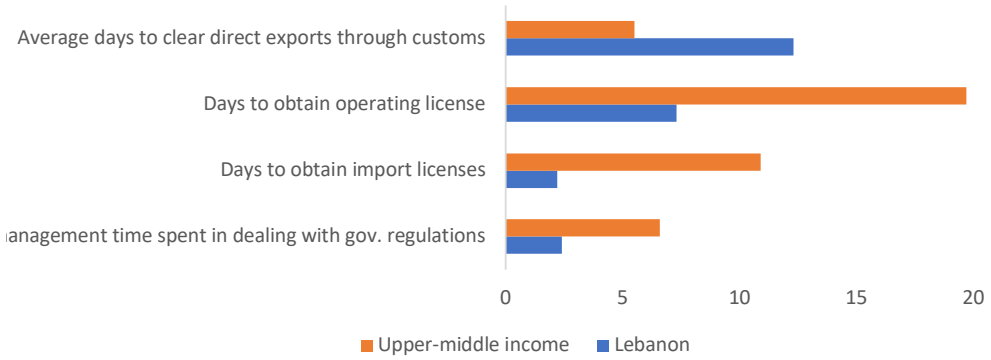
Source: World Bank Enterprise Surveys 2019 (Panel A), and ILO's 2021 survey on productivity growth, diversification, and structural change (Panel B).

▶ Figure 7. Investment (left) and working capital (right) funding

Source: World Bank Enterprise Surveys 2019.

5 The comparison considered the average time of firms of all upper-middle and lower-middle-income economies that were surveyed in 2019 World Bank Enterprise Survey

▶ Figure 8. Business environment main areas of concern



Source: World Bank Enterprise Surveys 2019.

3.2 Impact of Covid on enterprises

The Covid-19 pandemic has caused severe effects on sales, employment, and wages across enterprises in Lebanon. A substantial portion of the respondents in both surveys reported dismissing employees during the pandemic. For instance, nearly a quarter of surveyed firms in the WB survey reported a reduction of permanent and temporary workers and a fall in working hours and salaries since the outbreak of Covid-19 until mid-2020. Although the semi-skilled workers were the most affected, the high-skilled ones were not spared as well. The layoffs were driven by declines in sales and revenues due to lock-downs. The WB survey further indicates that substantial job-lay-offs also led to 30 percent of medium-sized firms becoming small and a similar percentage of large-size firms becoming medium-sized by the end of 2020. The job decline was prominent in the services sector, compared to the manufacturing sector, which experienced a wage reduction.

In addition, more than half of respondents to the ILO survey indicated inadequate cash flow to maintain business operations and higher material prices as challenges to their business during the pandemic. While small and medium enterprises primarily reported the former, large firms reported the latter. In the range of 30 to 45 percent of respondents suggested employee absenteeism, mainly a concern for medium enterprises, and loss in demand due to cancellation of orders. More than a quarter of respondents mentioned the challenges of corruption and inefficiency in the public system.

Despite all the challenges during Covid, firms rapidly adopted delivery services and improved management practices[6] and marketing processes to deal with lockdowns. According to the WB survey, between 28 to 36 percent of firms in Lebanon introduced new or improved products or services to cope with the Covid-19 outbreak effects on the economy. In general, enterprises in Lebanon showed a great ability to face challenges, but the adoption took more time compared to similar Arab economies. Only 18 percent of enterprises could start or increase remote work during 2020, and only about 6 percent of the workforce could work remotely. The same happened with the adoption of online services and delivery. However, subsequent survey rounds show an increasing number of enterprises using online business activity and/

6 To measure management practices, we constructed an index that captures businesses' performance in four areas: operations, monitoring, targets, and incentives across firms, industries, and countries (see Bloom and Van Reenen, 2010).

or delivery services.[7]

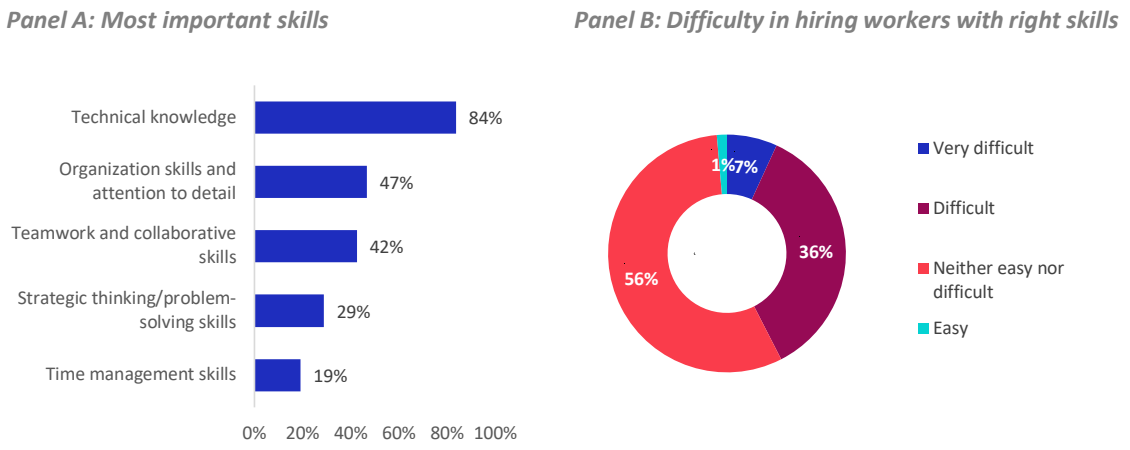
3.3 Factors that foster productivity growth

Contrary to expectation, the WB survey provides no evidence of large or exporting firms doing better in terms of productivity. However, more productive enterprises tend to pay higher wages per worker, and firms that introduce new or improved products or processes exhibit higher productivity rates, indicating how innovation and productivity help worker incomes. Well-educated and skilled workers can help improve enterprise productivity. Likewise, training opportunities are essential to recruit and retain workers while improving enterprise growth and productivity in the long term.

In the ILO survey, enterprises were asked about the most important skills for their businesses. Overwhelmingly, technical knowledge was the most important skill, followed by organization skills and attention to detail, and teamwork and collaborative skills (Figure 9 Panel A). These skills were important for enterprises across all sizes and key sectors. However, more than one-third of respondents indicated finding workers with the required skills is difficult (Figure 9 Panel B). Yet 56 percent reported it was neither easy nor difficult, whereas nearly no one agreed it was easy.

Regarding training and retaining talent, about 42 percent of enterprises reported either the absence of a separate budget for staff training or allocating less than 1 percent of total salary cost for this purpose. However, 7 out of 10 enterprises reported incentive compensation programs to reward workers for achieving target results. Large enterprises were more likely to allocate resources to staff training and have incentive compensation programs than small and medium enterprises.

▶ Figure 9. Skills and their availability



Note: Skills that accounted for less than 19 per cent of the sample are not displayed in Panel A. The numbers are % of enterprises
Source: ILO's 2021 survey on productivity growth, diversification, and structural change.

7 By mid 2021, online sales increased eight times compared to October 2019.

3.4 Investing for future productivity

Several factors impact the extent to which businesses can thrive, particularly in environments that might not be conducive to sustainable enterprise development. Enterprises, however, can implement strategies to increase revenue while boosting business growth and productivity. The ILO survey also revealed five important strategies to improve revenue, growth, and productivity. More than half of the respondents indicated the importance of diversifying markets and offering new products or services. Less than half of enterprises reported the importance of ensuring business continuity planning, and more than one-third suggested the role of reducing prices of selected products and services and investing in new technologies.

Although enterprises realize the importance of technology adoption in fostering growth and productivity, they anticipate challenges to conducting such adoption or upgrades. More than one-third of enterprises (primarily medium ones) consider the risk associated with upgrading technology as a barrier, whereas close to one-fifth of firms (mostly large firms) consider a lack of appropriate government incentives as a constraint to adopting or upgrading technologies. Another 15 percent considered the high fixed cost associated with technology as a barrier, whereas a quarter of small enterprises reported there was no internal need to upgrade technology.

Looking ahead, 70 to 80 percent of all enterprises in Lebanon planned to invest in buying machinery and equipment, launching new products or services, training workers, and adopting new technologies. While the investment plan in machinery and equipment was dominant among large firms, investing in employee training was more likely among small ones. Overall, firms realize the need to upgrade, and many also plan to do so, which might help them improve future productivity.

▶ Recommendations

▸ Industrial and agricultural policies

- Lebanon needs to recognize the need to change its structural orientation from service sector activities to a more inclusive manufacturing sector, which can help create productive employment.
- Lebanon seems to have opportunities to invest and gain more productivity in the agro-food and agricultural sector, which appears to be witnessing a decline in jobs, yet with rising output shares.
- Focusing on high-value-added crops within agriculture and identifying manufacturing activities where Lebanon has a competitive advantage in the export market are important for the country's future productivity improvement.
- Encouraging competition in the market and facilitating the easy entry of new firms into the manufacturing sector is key.
- Develop policies that promote technology adoption in the manufacturing sector through incentives such as grants, subsidies or tax holidays
- The government needs to support enterprises' efforts to improve their processes to constantly introduce new products in response to changes in demand and streamline process to improve the customer journey, centralize and coordinate customer experience insights.

- Diversifying the economy to more productive sectors would also require several economic reforms, trade reforms, and even tax incentives to encourage private sector businesses.

▸ Reliable energy supply

- Developing and maintaining power and infrastructure facilities and reducing several inefficiencies in resource allocation.
- Opening the electricity sector to competition through public private partnership (PPP) and modernizing the grid.
- Installing large generators in industrial areas to provide backup power.
- Providing technical support to industries to help them optimize their energy consumption.

▸ Skills policies

- Up-skilling and re-skilling the workforce by providing training, including vocational skills, would help improve labour productivity.

▸ Access to finance

- Establish initiatives to improve access to finance for micro and small enterprises in order to improve cashflow and their ability to respond to sudden and unexpected shocks.
- Tackle structural barriers to credit rationing from commercial banks and promote the development of financial products, including digital financial services, tailored to meet MSEs needs, hand in hand with measures to raise MSE productivity and address the lack of collateral and financial literacy.
- Conduct reforms to the business environment through policies that alleviate the impact of key obstacles to operate such as political instability, economic uncertainty and unreliable electricity supply.

▸ Digitalization

- The adoption of technology on enterprises processes needs to be encouraged and facilitated, mainly efforts toward adopting delivery services, digital marketing processes, online sales, and the use of digital platforms to expand their reach to other markets, gather data from customers to offer more personalized experiences.

▸ Enterprise -level productivity enhancement

- Enterprises in Lebanon are dealing with severe crisis and high level of uncertainty. To enhance business resilience and continuity and raise productivity, improving management practices to raise resource efficiency, developing risk management strategies, and building financial buffers is essential.

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