International Labour Organization

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

Iraq Country Profile

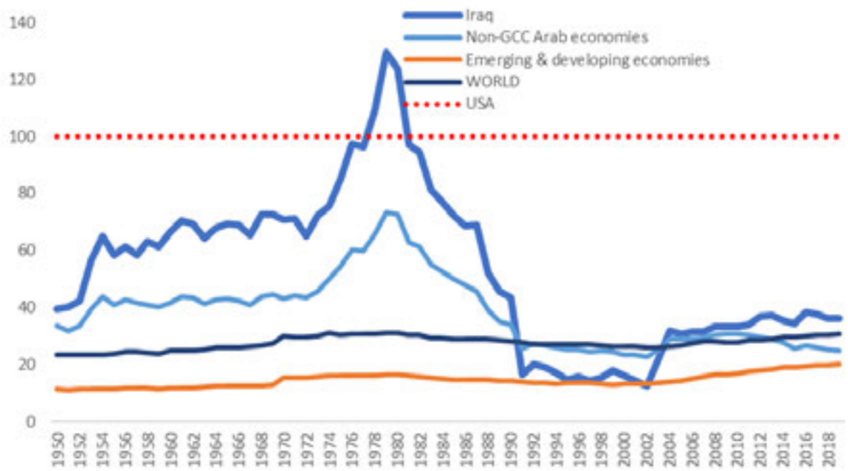
1. Introduction

This country snapshot provides a historical overview of Iraq's labour productivity trends compared with other non-GCC Arab economies and the global economy. In addition to highlighting the position of Iraq relative to other Arab economies and global frontiers in terms of labour productivity, this snapshot documents the trends in labour productivity and multifactor productivity growth and the relative contributions of labour productivity and employment growth to aggregate output growth. Given the importance of the structure of an economy in determining its 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, this country profile also examines the evolution of the structure of Iraq's economy, in terms of industry composition of employment and output compared to the Arab economies' average. Finally, using the existing evidence on productivity trends, a few recommendations for future productivity improvement in the country are derived.

2. 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. Iraq is one of the largest economies among the six non-GCC Arab economies considered in this study, comprising about half of the GDP produced in this group of countries and more than one-third of total jobs. Iraq sustained a relatively higher level of labour productivity than the average productivity levels of non-GCC Arab countries, the global economy, and emerging markets until the early 1990s. Moreover, the country showed a sustained improvement in the relative productivity levels until 1980, with rapid progress in the 1970-1980 decade, making it achieve a productivity level higher than the US in the 1980s. However, from 1981 onwards, the country witnessed a rapid erosion in the relative productivity levels, which reached close to the emerging markets average after the war in the early 1990s. Recently labour productivity levels in the country have shown signs of improvement since the 2000s. Yet, its current productivity levels are far below that of the global frontiers, and catching up with the global average remains a considerable challenge for the country. It might require heavy investment in human and physical infrastructure.

▶ **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) [1]. Non-GCC Arab economies consists of Iraq, Jordan, Lebanon, Syria, Yemen and Occupied Palestinian Territory.

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

▶ 3.Labour Productivity growth: Labour productivity vs. Employment

Iraq's relatively higher labour productivity levels in the first three decades since the 1950s were supported by better productivity growth. In the first decade, productivity growth was pretty impressive compared to neighboring non-GCC economies such as Syria, Jordan, Lebanon, and the GCC neighbor Kuwait. Although productivity growth eased in the second decade, it generally remained better than the neighboring economies in the 1960s and sustained in the 1970s when Jordan and Syria performed somewhat better. Moreover, Iraq's productivity growth performance in the 1970s was relatively better than the averages for non-GCC Arab economies, Emerging markets, and the global economy. However, there were significant productivity losses in the decade of 1983-1992, which included the Gulf war years. Although productivity growth weakened in most non-GCC Arab countries and the region on average, the magnitude of the fall in these economies pale in comparison with Iraq. The impact of internal conflicts and the war on productivity is not alien to Iraq, especially during the last three decades. In our periodization, 1983-1992 includes the Gulf war period, and 1993-2009 and 2019-2019 periods include Iraq's recovery from the gulf war years and the Iraq war years of 2003-2011 and 2013-2017. With substantial productivity loss in the 1980s through 1990s, Iraq's recovery growth rates were much more impressive than the rest of the Arab world, especially during the first ten years after 1993. However, the loss in productivity during the 1983-1992 period was so huge that the recovery in the subsequent decade was insufficient to bring the relative levels closer to the frontier. Moreover, productivity growth further weakened in the most recent decade.

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

▶ **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.

The output of an economy can be increased by adding more workers, increasing working hours, or raising worker productivity. In terms of relative roles of productivity and employment, in the first decade, productivity growth contributed more than three-fourths of the GDP growth in Iraq. In contrast, in the second and third decades, the productivity contribution declined to above half of GDP growth. But the most significant productivity loss was in the decade that included the Gulf war years. During the 1983-1992 decade, the entire decline in GDP growth resulted from erosion in labour productivity. Yet, except during Iraq's productivity-losing decade, 1983-1992, which includes the war years, and the post-global financial crisis periods, the relative role of labour productivity in driving growth remained prominent in Iraq compared to the neighboring economies such as Jordan, Lebanon, and Kuwait. While these countries tend to have relied relatively more on job creation to improve output growth, Iraq seemed to have relied on a combination of jobs and productivity, with productivity growth seeing much more prominence.

▸ 4. Multifactor productivity growth

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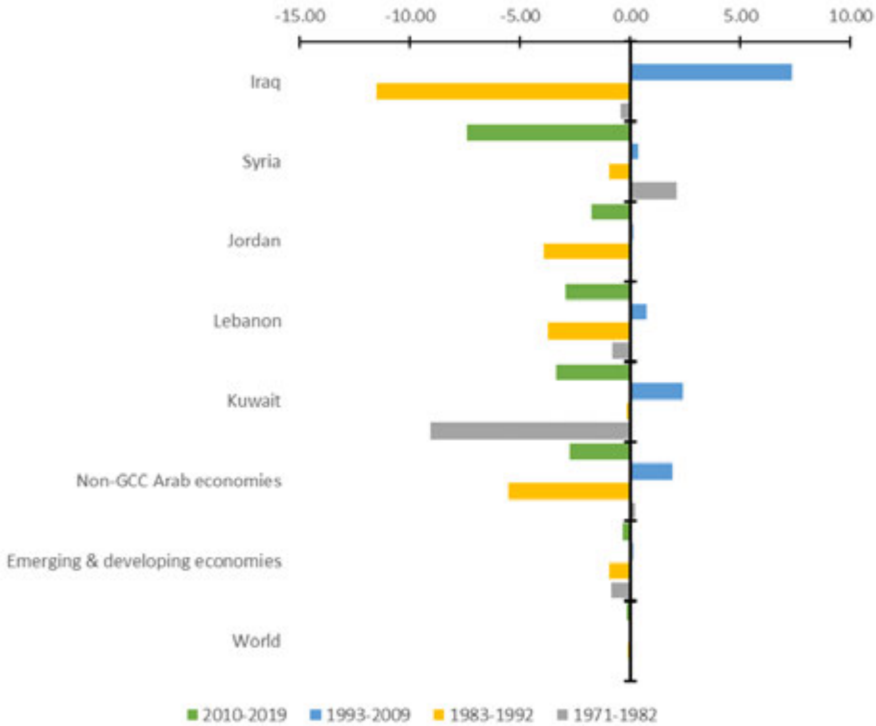
▶ Figure 3. Multifactor productivity growth



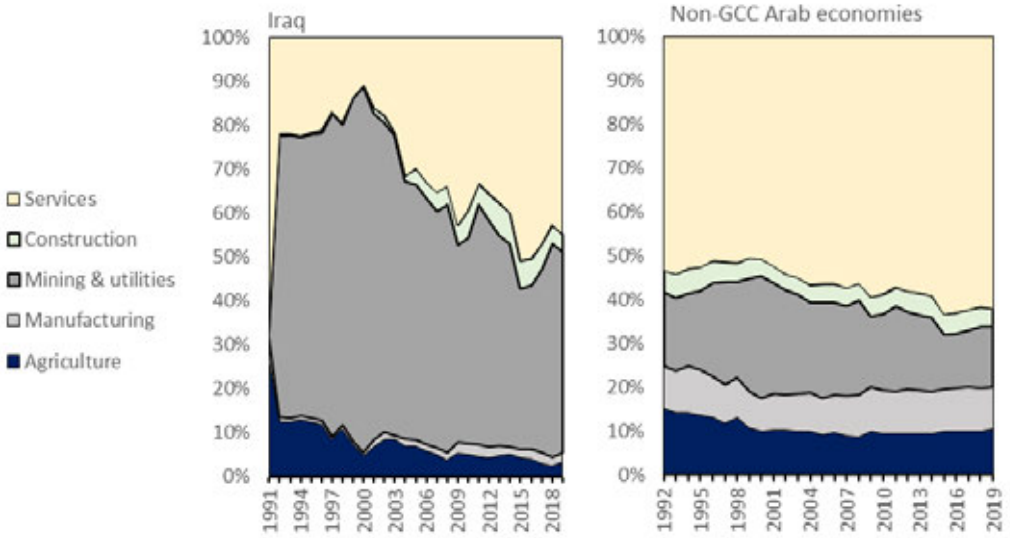
Notes: Multi-factor productivity growth rates are calculated using a growth accounting equation as a residual after accounting for the contributions of capital and labour inputs to GDP growth. For other notes, please see Figure 1.

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

▶ 5. Industry composition of employment and output

Although improvements in general-purpose technologies offer the potential for technological improvements across the board, differences in adoption rates and applicability of such technologies, along with several industry and institutional factors, lead to substantial productivity differences across industries. Therefore, the industry composition of a country will have important implications for productivity growth. Moreover, the changes in the composition of industry, through which resources shift to more productive sectors of the economy, is an important factor that determines the overall efficiency of resource use in the economy..

▶ **Figure 4: Output share of industries**



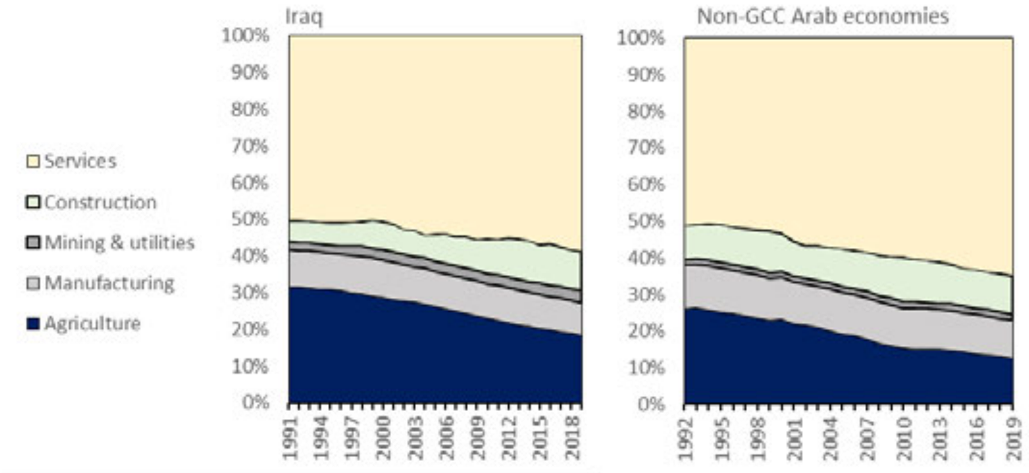
Note: Other industries include the mining sector, which consists of a large oil sector in the GCC economies. For other notes, please see Figure 1.

Source: UNNAS, ILOSTAT.

In Iraq, agriculture constitutes just over three percent of GDP, which has declined consistently since the early 1990s. The manufacturing output share is very trivial compared to the non-GCC Arab average. Furthermore, the manufacturing share fell rapidly during the war years. Although the sector has been trying to move up in output distribution, it has yet to be successful. It improved from just one percent of GDP in the early 2000s to two percent by 2018, with some annual fluctuations. The lion's share of Iraq's GDP is in the mining and utilities sector, which includes the oil sector. However, despite some volatility, its share is gradually falling, which has been compensated largely by the services sector. We see the most dynamics in terms of the structural shift in the services sector.

In terms of employment distribution, the changes are much clearer and smooth, as we see continuous erosion, yet a large portion of workers still rely on agriculture. The reliance on the agricultural job fell from close to 1/3rd in the early 1990s to less than 1/5th by 2019. On the other hand, the manufacturing sector did not see a substantial fall in the employment share, rather hovering around 9-10 percent of total employment. Thus proportionately higher employment share in both agriculture and manufacturing sectors compared to their output shares indicates the productivity weakness of these sectors in the country. Close to 60 percent of all jobs are generated in the service sector. The job share of the mining sector is much smaller and more stable, whereas jobs in the construction sector, which maintains a somewhat stable output share in the economy, take a relatively larger portion and show faster improvement. Compared to the regional average, where manufacturing and construction share somewhat stagnated and services jobs expanded, Iraq shows slightly faster job expansion in the construction sector. The overall story is that of a service expansion in output and employment, along with rising jobs in the construction sector and stagnation in manufacturing, suggesting Iraq's inability to tap the productivity potential in manufacturing..

▶ Figure 5: Employment share of industries



Note: See Figure 1 and Figure 4.

Source: UNNAS, ILOSTAT.

▶ Recommendations

- Iraq's economy has substantial productivity challenges, driven by its own structure and the continued exposure to domestic conflicts and wars during the last three decades.
- Despite being a large economy among the non-GCC Arab countries and well located geographically, Iraq's lack of diversification and continued reliance on the mining economy limits its ability to improve productivity.
- Iraq needs economic diversification and, more importantly, increased private-sector participation to get out of this productivity trap.
- Diversifying away from the mining sector and investing in more productive and sustainable sectors of the economy, including manufacturing, will help the country achieve productivity through structural change, creating productive jobs and enhancing welfare.
- Institutional development is an essential factor that Iraq will have to address to mobilize resources and also to channel them into productive uses. The fragility in the current institutional environment and persistent domestic struggles are challenges, and therefore, strengthening social cohesion and improving the institutional environment are vital for productivity-led growth.
- Investing in physical infrastructure and logistics is essential for the country to tap its geographical advantages and improve productivity in many logistic and retail services, which might help Iraq to become a bridge between different countries in the region.
- Investing in human skills and modern technologies is also important to stay competitive and efficient in the global economy.
- Attracting more foreign investment to the country, especially to improve its non-oil economy, is crucial yet challenging, as foreign investors would be inclined to see a peaceful economy.

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