GCC Job Nationalization Policies
A Trade-Off between Productivity and Employment
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Introduction

The high share of expatriate workers in Gulf Cooperation Council (GCC) economies has been a source of significant demographic imbalances. Over the past 30 years, this issue has attracted the attention of both researchers and decision makers in the region.

During the second half of the 20th century, millions of migrant workers poured into the region in search of the job opportunities that were created as a result of the influx of oil wealth. With the large growth in the local population, and the extreme volatility of oil revenues, the ability of regional governments to create sufficient job opportunities for native people was reduced. While authorities began looking for solutions to this problem, such as enacting policies aimed at replacing expatriate workers with natives, implementing these policies was not easy due to the mismatch between the types of jobs held by the large number of expatriates.

Over the past three decades, there has been an extensive examination and discussion of issues related to the region’s job nationalization process. Various approaches have been considered by the relevant authorities in the region, some of which have achieved remarkable positive results, while others have faltered. This study aims to understand labor market dynamics in GCC economies from a productivity perspective. Along with examining trends in the labor market—such as employment trends, changes in the national-expatriate composition, etc.—and reviewing various regional policy initiatives, this report seeks to explore whether job nationalization policies and the consequent creation of jobs have led to a reduction in sustainable, long-term sources of growth, including productivity. This study provides quantitative evidence on the trade-off between creating more job opportunities for natives and productivity, and also analyzes the productivity differences between expatriate workers and national workers, as understanding these differences will play an important role in determining which nationalization policies are best able to enhance and ensure economic growth opportunities in the region.

There is evidence of an increasing trade-off between productivity and labor market participation in GCC economies. This trade-off has been the highest in the GCC compared to the global average and its counterparts in advanced and emerging countries. This report provides empirical evidence of migrants having a productivity premium over nationals. This, along with migrants’ substantially lower wages, makes them more attractive to private enterprises, as they help companies stay more competitive and profitable. Unless efforts are made to improve the productivity of nationals, however, there will be limited substitution possibilities between migrants and nationals in a number of jobs. These findings point to the need for a more long-term plan with regard to skill development and diversification of economic activities in sectors that are likely to employ more skilled nationals paying relatively better wages, making them competitive in the labor market.
This report is divided into three chapters. Chapter I begins by presenting an extensive review of the literature before moving on to discuss the main imbalances in the GCC labor markets, and briefly describes the tremendous economic growth that the region has achieved, which has been largely the result of migrant labor due to the lack of a sufficient local demographic base. The chapter also outlines the segmented structure of the labor markets in terms of sectors, nationalities, gender, and wages.

Chapter II examines the empirical impact of job nationalization policies in GCC countries by examining how migrants affect productivity. The chapter first presents the general relationship between job creation and labor productivity in the region given the over-reliance of the region’s economy on employment rather than labor productivity, and goes on to examine the productivity premium of migrants to check the impact of native workers on productivity. The elasticity of substitution between migrants and natives is also estimated.

Chapter III deals with the mechanisms and effects of the two main job localization policies that have been applied in a number of GCC countries; namely, the policy of employment quotas and the policy of facilitating the employment of natives in the private sector. These two policies use similar tools and mechanisms, although their implementation differs from one country to another. The first part of the chapter presents the development and results of these two policies in each GCC country, and also presents the effects of a third approach, which is increasing the cost of expatriate labor. The second part of the chapter discusses some of the major issues that limit the effectiveness and success of the job nationalization policies in the region. The report concludes with a presentation of findings and policy recommendations.
Chapter I: Tracks of Convergence and Contrast between the Gulf Labor Markets

1. Review of the Literature

Brief background
Interest in the dynamics of GCC labor markets has increased in the literature over the past three decades. With the possible exception of the period from 2002 to 2007, the literature has mostly coincided with a period of low oil prices while assessing the impact of employment policies carried out during previous periods of high oil prices. Periods of high oil prices were often characterized by high growth rates in employment, accompanied by improvised policy decisions to expand management structures, ill-considered appointments, promotions, and compensation (Baldwin-Edwards 2011; Randeree 2012). Given the increased volatility in oil prices and the fiscal stress that many GCC governments have witnessed lately, the recent literature has raised concerns over the sustainability of the widely segmented labor market structure in the Gulf region. The region’s labor market has been characterized by years of lax migration policies, implicit guarantees for nationals’ employment, and a substantial increase in the participation rates of the national labor force (IMF 2013; World Bank 2018). Much of the previous research, mostly undertaken by international institutions (e.g., IMF), has mainly been descriptive in nature, as sparse data sources (often misreported or inaccessible) have limited the depth of concrete empirical research. This report is an attempt to review the existing knowledge regarding the dynamics of the GCC labor market, and to empirically explore the impact of the region’s job nationalization policies.

Historical context
Following the discovery of oil, there was a large influx of migrant workers into the region, resulting in these workers dominating local labor markets by the 1970s. This inequality was driven by the low participation rate of nationals due to insufficient education and training, and the relatively low wages of migrants. While the participation rate of nationals in the labor market has seen a steady rise since the 1980s due to the increasing number of graduates entering the market, these nationals have been mostly absorbed by the public sector (Baldwin-Edwards 2011). The implicit guarantee of a government job opportunity for nationals has led them to regard the public sector as the most desirable destination for employment. It can also be argued that higher wages, benefits, job security, and a career track based on seniority regardless of education level or professional skill have led nationals to believe that a public job is part of their citizenship entitlement (see El-Katiri, Fattouh, and Segal 2013 for the case of Kuwait).
At the same time, GCC governments have maintained an “open door policy” for expatriates in the private sector. These expatriates have been relatively cheaper and more flexible than nationals in terms of hiring and firing, which has helped private firms in the non-oil sector keep their production costs low and maintain their competitiveness (Fasano-Filho and Goyal 2004). As a result, nationals have dominated the public sector, which has become a channel for the distribution of oil wealth (Eifert, Gelb, and Tallroth 2003; Thiollet 2016), whereas the private sector has relied largely on expatriate workers from low-wage countries, creating a segmented labor market in the region (ILO 2015; Hertog 2014, 2019; Behar 2015).

Contemporary context

As the natural population growth in the region has increased, the number of new entrants into the labor market has grown, female participation in the workforce has improved, unemployment rates have increased, and oil prices have become more volatile, the adverse effects of this distribution model and regional migration policies have become more severe, making financing of excessively high wages unsustainable. GCC governments can no longer continue to be the main source of employment for nationals. Addressing nationals’ rising demand for jobs requires creating many more jobs than are available in regional governments, as the public sector has grown at a slower pace compared to the private sector (Fasano-Filho and Goyal 2004; IMF 2013). It can also be argued that the appeal of public sector jobs outweighs private sector opportunities for nationals (Behar and Mok 2013). For example, while 7 million new jobs were created in the GCC between 2000 and 2010, only a quarter of those jobs were held by nationals, largely in the high-paying public sector. Most private sector jobs were given to expatriates, who earned lower and market-driven wages (World Bank 2018). The lower wage premium of expatriates in the private sector across all education levels has enhanced the sector’s preference for expatriate workers. The private sector has also been able to impose a lower wage on expatriates, as the migrant sponsorship system (Kafala) makes it difficult for these workers to negotiate better pay or working conditions, given their limited union rights (Baldwin-Edwards 2011; IMF 2013). The Kafala system requires all workers to have a local sponsor, usually their employer, who is responsible for their visa and legal status. The objective of the system was to allow a large number of expatriates to quickly and temporarily access the GCC labor market. However, the Kafala system has long been criticized by human rights groups as it creates opportunities to abuse workers, and the observed imbalances in the labor markets have revealed shortcomings in this system (Baldwin-Edwards 2011; Randeree 2012).

Wages and local employment

The biggest concern now is whether the reliance on expatriates hampers job prospects and wages for nationals. Conceptually, the impact of immigration on local employment depends on whether migrants are close substitutes or complementary (Borjas 1995). If they are substitutes, migrant workers will push wages down as competition in the labor market rises. This will lead to a decrease in the employment of nationals, who are relatively more expensive for the same skills and competencies. If migrant workers are complementary, production and demand will expand, creating more opportunities in local job markets and positively influencing local employment and wages (Bodvarsson, Van den Berg, and Lewer 2008).
Globally, there is hardly any consensus on the empirical relationship between migration, local employment, and wages, in particular on the direction of causality. Typically there are two types of approaches followed in the literature. The first is to relate the employment or unemployment of nationals to the percentage of migrants (Angrist and Kugler 2003; Borjas et al. 1997; Card 2001; Dustmann, Fabbri, and Preston 2005; Friedberg 2001; Pischke and Velling 1997; Winter-Ebmer and Zimmermann 1999). The second is to estimate the elasticities of substitution between locals and expatriates (Borjas 2003; Ottaviano and Peri 2005). In both cases, there are conflicting conclusions. For instance, Borjas (2003) observes a perfect substitution between nationals and expatriates in the United States among similarly educated workers, whereas Ottaviano and Peri (2005) do not find supporting evidence for this. Similarly, while some studies observe a negative impact of migration on wages and local employment (Angrist and Kugler 2003; Borjas 2003), others show a strong positive effect (Ottaviano and Peri 2005; Peri 2007), and some show no conclusive evidence (Dustmann, Glitz, and Frattini 2008). Indeed, these findings are dependent on the data and approach they take (Borjas, Grogger, and Hanson 2008), the precise nature of the labor market, and the skill attributes of migrants.

The available evidence in the GCC is no different. In Kuwait’s private sector, IMF (2015) observed that expatriates had a significant and positive effect on the employment growth of nationals in the short term, potentially indicating a complementarity between them. But this could also be the result of institutional arrangements that promote the nationalization of the labor force, which creates more opportunities for nationals in the private sector. IMF (2015a) observed that although in Kuwait the reliance on expatriate workers helped address labor and skill shortages and saved the economy from inflation and wage pressures—or a negative effect on aggregate wages—in Saudi Arabia it locked the economy into a low-growth pattern, and hindered the prospects for nationals. The wage differences between nationals and expatriates are quite large, although they vary across educational groups (IMF 2015), which could indicate substitutability between migrants and nationals. However, the GCC labor market is a unique case. Wage differences are not driven by market forces but by government policies, and the labor market features significant segregation between the private sector and the public sector, which makes such a conclusion debatable.

Productivity

A higher wage level for nationals is not a problem if it is accompanied by higher productivity, which will help sustain cost competitiveness, as the unit labor cost will be lower. However, there is not much available literature on the productivity differences between nationals and expatriate workers in the region, or even the productivity dynamics in general. Some studies have looked specifically into banking sector productivity, often comparing the performance of Islamic and conventional banks (Alexakis et al. 2019). But analysis of a wider range of the economy is limited, and the available evidence suggests weak productivity performance in the region across countries and industries (IMF 2013; van Ark et al. 2008; van Ark, Erumban, and de Vries 2019). IMF (2013) argues that growth has been mostly driven by labor and capital accumulation, which has resulted in large increases in non-national employment in particular, an observation that was further supported by van Ark, Erumban, and de Vries (2019). IMF also considered the low productivity of nationals, stemming from a weak educational system and a hampered public sector that offers no incentive to improve
productivity, as a constraint on the local economy’s ability to provide jobs for nationals. Furthermore, considering job guarantees as part of the citizenship entitlement has weakened the quality of investment in education (Behar 2015).

After analyzing productivity and structural transformation using sectoral data, van Ark, Erumban, and de Vries (2019) conclude that there has been a widespread decline in productivity in the region, with diversification policies doing little to limit this productivity drop. Most sectors, including financial services, manufacturing, and trade, which had positive productivity growth before 2008, have shown a loss in productivity since then. However, a few sectors in certain countries have defied the general weakening trend in productivity. These sectors include transportation and communications, manufacturing (Kuwait, Qatar, UAE), trade (Saudi Arabia and UAE), and finance (Qatar and UAE). Nevertheless, the improved productivity performance in these sectors has not been enough to neutralize the impact of the deteriorating productivity in other sectors on the overall non-oil economy (van Ark, Erumban, and de Vries 2019). Moreover, the large oil sector, which features high levels of capital intensity and labor productivity but low potential for further improvement in productivity, has dragged down aggregate productivity growth. Indeed, the dominance of other low-productivity sectors such as construction and retail, supported by government spending patterns, has also contributed to low aggregate productivity in the GCC (World Bank 2018).

In an earlier study, van Ark et al. (2008) found that economic activity in the GCC expanded mostly in low-productivity sectors such as construction and real estate, while expansion in sectors with productivity potential, such as manufacturing or high-quality services, was limited. IMF (2015) documents some productivity gains in the non-oil sector in Saudi Arabia since the 2000s following investment in infrastructure, education, and the accession to the WTO and liberalization reforms. Regardless, in general, it can be argued that the availability of cheap expatriate workers provided less incentive to support technology adoption and improve productivity in the region (IMF 2013; Hertog 2019), which seems to have created a trade-off between productivity and employment. Aus dem Moore and Chandran (2018) suggest that there is significant potential in the region to automate and gain productivity.

These studies have primarily looked into productivity dynamics in the aggregate economy or broad sectors. Efforts to delineate the productivity differences between nationals and expatriates to understand the potential impact of various job nationalization policies on productivity and the competitiveness of the private sector have seldom been made. In an analysis of the wage differential between skilled local and skilled migrant workers in the GCC, Alfarhan and Al-Busaidi (2018) suggest that Western citizens are paid higher mainly due to their greater productivity. In contrast, the overpayment of nationals, perpetrated by past state-driven development strategies and recent job nationalization policies, is the main reason for the wage differential between skilled migrants and skilled locals in general.

**GCC job nationalization policies**

Rising concerns about the limited success in creating jobs for nationals, especially in the private sector, have led to a change in the region’s orientation since the 1990s migration policies. Instead of trying to increase the employment of nationals in the private sector, several strict reforms were initiated to control and regulate the flow of expatriate workers (Kapitszewski 2007; Thiollet 2016). The most prominent policy was one that included setting
quotas for migrant workers, upskilling and training nationals, and creating more white-collar jobs that were appealing to nationals (ILO 2015).

The literature on GCC labor markets addresses the issue of job nationalization in a broad and multi-directional manner. Some studies track the record of the policies and measures adopted by GCC countries and attempt to highlight either the positive results or the negative impacts attained or expected from those policies, while others try to assess the effectiveness of these policies and the programs derived from them.

Classification of policies
Baldwin-Edwards (2011) summarizes the various job nationalizing strategies followed by countries in the GCC (see also Randeree 2012). One set of policies aims to reduce the demand for expatriates (see Exhibit 1.1 for a summary of these policies). Such policies include raising the cost of employing expatriate workers; stopping the employment of expatriates in specific sectors or occupations, or limiting employment to a given threshold; imposing taxes on employing migrant workers or on non-diversity of nationalities (e.g., not allowing a specific nationality to make up more than 30 percent); limiting labor-intensive projects in the public sector; reforming or ending the sponsorship system; and providing benefits for the employment of nationals (e.g., granting preferential government contracts to private companies that meet targeted rates of national employment).

Exhibit 1.1. Job nationalization policies in the GCC

<table>
<thead>
<tr>
<th>Reduce demand for expats</th>
<th>Raise the cost of expats*</th>
<th>Improve employment opportunities for nationals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raise the cost of employing expats</td>
<td>Impose a health insurance requirement</td>
<td>Set national quotas in both public and private sectors</td>
</tr>
<tr>
<td>Impose expat quotas on certain sectors or professions</td>
<td>Charge a degree validation fee</td>
<td>Provide wage support to natives in the private sector</td>
</tr>
<tr>
<td>Tax expat employment for non-diverse nationalities</td>
<td>Impose a direct tax on expat labor</td>
<td>Develop or expand sectors attractive to natives</td>
</tr>
<tr>
<td>Limit labor-intensive private projects</td>
<td>Regulate visas and relatives</td>
<td>Upskill and train natives</td>
</tr>
<tr>
<td>End/reform the sponsorship system</td>
<td>Deport irregular migrants</td>
<td></td>
</tr>
</tbody>
</table>

*In practice, the costs borne by migrant labor are often passed fully or partly onto employers.
The second set of policies aims to increase the cost of work opportunities for immigrant workers. This includes imposing health insurance requirements, charging a degree validation fee, instituting a direct tax on migrant workers, restricting visa issuance, and deporting irregular migrants. The third set of policies that aims to increase the demand for nationals includes setting quotas for both the public and private sectors, subsidizing wages for native workers in the private sector, promoting the development and expansion of certain sectors (such as financial and telecom services) that create more opportunities for nationals, and upskilling and training nationals. Baldwin-Edwards (2011) also referred to other policies aimed at reducing the demand for household service jobs that included discouraging female participation in the labor market (Bahrain and Saudi Arabia) and family planning measures to reduce the fertility rate (Oman).

The impact of and challenges to job nationalization policies

The impact of job nationalization policies has been analyzed by some researchers (Hertog 2012, 2014; Randeree 2012; Ryan 2016). Since their inception, these policies have faced implementation challenges, including public vs. private sector preferences, the role of women in society, the reliance on expatriate employment, high rates of unemployment among poorly trained nationals, and the cumulative need for sustainable development as well as the effective governance of human capital (Randeree 2009). Barring some success, for example in the financial sector in some countries, in general job nationalization policies have not been that effective at creating private sector jobs for nationals (Ryan 2016; Forstenlechner 2008; Alsheikh 2015; Al-Aali 2019; IMF 2015).

As much of this job nationalization has happened “by fiat” through quotas and prohibitions (Hertog 2012), these policies have led to rule avoidance and illegal practices rather than to a genuine increase in national employment. Moreover, such policies have also been shown to have serious macroeconomic repercussions, as job nationalization creates upward wage pressure and raises inflation (IMF 2015). Also, country-specific issues such as the stigmatized aversion of nationals to specific jobs has hindered the success of nationalization policies. For instance, while it was feasible for Saudi Arabia to implement a quota system for a wide range of activities—both skilled and unskilled—it was not easy to emulate this in other countries (Randeree 2012).

The literature also suggests that private sector employers generally do not enthusiastically embrace job nationalization policies. Governments’ lack of proficient forward guidance on job nationalization policies, concerns about losses in productivity associated with hiring nationals, and doubts about the government’s commitment to developing the private sector were major concerns for the private sector (Randeree 2012). Finally, sociocultural factors, predominantly the negative attitude of nationals toward private sector jobs, their desire for managerial positions (see Yamada 2015 for Saudi Arabia), and the inadequacy of nationals’ skills remain major hindrances to the ability of the private sector to expand local employment (Randeree 2012; World Bank 2018).

However, there have been some notable improvements, such as increased female participation thanks to an increase in the number of years of schooling for women and lower fertility rates (IMF 2013; Randeree 2012). For instance, the IMF (2018) has shown that job nationalization policies helped improve female participation and reduce the wage gap between
nationals and expatriates in Saudi Arabia. Yet despite being more educated than their male peers, female nationals in the GCC are still unable to fully benefit from job nationalization, which has yielded only small increases in their participation rates. Moreover, policies like the expatriate levy program force private firms to adjust to the higher cost of labor, making the overall macroeconomic impact less favorable.

Future vision

It is clear from the literature that the current segmentation of the Gulf labor market makes large-scale job creation for nationals unrealistic, as greater job mobility and increased labor rights for locals make them less attractive private sector employees. Moreover, the considerable wage difference between nationals and expatriates makes a direct substitution of expatriates with nationals difficult, as it will increase the cost of production for private sector firms, and reduce their profitability and competitiveness. If job nationalization policies are not accompanied by efforts to boost productivity to compensate for higher wages, as Hertog (2019) observes, the widespread practice of outsourcing jobs to foreign countries (offshoring) could escalate. Alternatively, the high wage pressure endorsed by stringent checks on expatriate labor may increase pressure to automate various jobs (Hertog 2019). Policies should focus on improving nationals’ productivity, which, as van Ark, Erumban, and de Vries (2019) suggest, will enable a smart diversification process and compensate for the higher labor cost. Such policies would include prioritizing shifting economic activities to higher-value-added sectors, more tech-intensive production, diversifying and improving the quality of exports, upskilling native workers, and improving immigration policies (World Bank 2018).

Studies have stressed the importance of a unified approach across countries in the region and a focus on skill development to benefit from such policies (Ryan 2016; Randeree 2012; IMF 2015). The reluctance of nationals to pursue STEM (science, technology, engineering and mathematics) subjects in school has created a mismatch between the supply of and demand for human capital that is restricting the employability of nationals in the private sector (see Mellahi 2007; Budhwar et al. 2019 for discussions on this skills mismatch). The prevailing educational systems have had a major impact on making the environment conducive for nationals to advance in practice.

Within this context, GCC countries have to motivate nationals to actively participate in the national economy’s interest, raise skill sets among nationals, provide a proper work environment, and enable nationals to recognize and apply their potential. Furthermore, reforms should be aimed at increasing the attractiveness of the private sector as a potential job destination for nationals (World Bank 2018).

Meanwhile, the demand for migrant workers is expected to continue across the skills spectrum. In the short term, the GCC’s ambitious infrastructure projects, along with the region’s fast-growing health services, will keep demand for low-skilled expatriate labor high. In the long term, certain jobs—mostly those that are unappealing to nationals (i.e., that have low wages and/or benefits)—will continue to be dominated by expatriate labor, while the average skill profile of future migrant and national workers (outside of the previously mentioned job category) will evolve in line with technology and the pace at which firms adopt such technology, as well as the higher participation of nationals in semi-skilled jobs (Hertog 2019).
Past research on labor market dynamics in the GCC, in particular on the impact of job nationalization policies and the productivity differences between nationals and expatriates, has been largely descriptive. Evaluating the relationship between output, labor, and productivity, as well as the impact of job nationalization policies, has been limited by scarce and unrefined data sources and should be explored further in consideration of recent data improvements. While Fasano-Filho and Goyal (2004) derived a matching model of employment for nationals specific to the uniqueness of the GCC labor market, limited data stopped them from deriving estimates for the relationship between matching costs and job nationalization policies. Behar (2015) derived output-employment elasticity for both nationals and non-nationals econometrically, yet this was only on the aggregate GCC level, whereas country-specific analysis was inconclusive due to the unreliability of individual country data. Zahran (2013) presented a model to evaluate the impact of quotas on nationalization, but didn’t go beyond developing the framework, leaving empirical testing for others.

2. Oil-Induced Imbalances in the GCC Labor Markets

2.1 Growth dynamics and a limited local demographic base

In the four decades between 1970 and 2010, the rapid oil-led growth of GCC countries led to an accelerated demand for labor (Baldwin-Edwards 2011; IMF 2013). The limited local workforce, in terms of participation and quality, pushed governments in the region to rely heavily on migrant labor in order to implement the necessary economic and social expansion. This led to expatriate control of all GCC labor markets, while national labor became a minority (Randeree 2012).

Imbalances in GCC labor markets continued after 2010. Strong regional growth, which was again spurred by high oil prices in the first half of the decade, attracted higher flows of migrant workers, especially in the construction and services sectors. But a partial reversal happened in the second half of the decade when lower oil prices slashed government spending and slowed economic growth (see Chart 1.1).
Strong inflows of expatriate workers during the first half of the 2010s were not without consequences. Between 2011 and 2014, the crude oil price averaged $105 per barrel, $26 above the average price needed to balance the regional state budgets of those years. This helped expand real economic output at an annual average of 4 percent. A large part of this expansion was due to public investment in infrastructure projects, and to the significant growth in the services sectors, whose contribution to GCC non-oil real GDP amounted to about 58 percent by the end of 2014. At the same time, improvement in the share of nationals in the labor market was suppressed. During the first half of the decade, more than 2.9 million people were employed in the GCC, with 63 percent of total employment consisting of non-nationals. During the same period, the number of laborers coming from abroad exceeded that of national workers in Oman and Qatar, which led to a hefty decline in the latter’s share; however, the percentage of nationals remained steady in Kuwait and Bahrain (see Chart 1.2). Despite the large inflow of migrants, the Saudis managed to improve their share of nationals due to their high participation in the labor market (see Charts 1.2 and 1.3). It should be noted that 2011 coincides with the introduction of the Nitaqat program in Saudi Arabia, which reinforced (and improved) existing Saudization policies.

Source: IMF, national data, author estimates; excludes the UAE
The quality of the jobs that were created may explain the degree of their acceptance by nationals. For example, in Bahrain, the bulk of the jobs created were in activities related to market services (such as retail trade, transportation, food and accommodation), which are historically dominated by immigrants due to their low wages and limited skill requirements, making them unattractive to nationals (IMF 2013; World Bank 2018). Yet a shift occurred after oil prices lost ground in the second half of the decade. Governments were forced to cut public spending, thereby slowing growth and partially reducing the rate of immigration. During the period from 2015 to 2018, average annual growth in GCC economies declined to 1.3 percent, and the annual fiscal gap amounted to −6.7 percent of GDP, the largest fiscal gap during the preceding 18 years. In response, governments sharply reduced their spending, particularly on investment, which is mostly needed to intensify private activities, and pursued gradual fiscal reforms by imposing taxes and raising service fees (IMF 2017).

The steady increase in the cost of living, along with the bleaker economic environment, the decline in government revenues, and the increase in the cost of employing non-nationals, led to the departure of large numbers of expatriates. The number of departures in 2018 alone was about 1 million workers, most of them from Saudi Arabia and Oman (Gulf Business 2019).
Chart 1.3. Labor participation rate of nationals (Percent)

![Chart 1.3](image)

Source: GCC-Stat

Chart 1.4. Absolute change in employment in Saudi Arabia’s private sector, 2018 (Thousands)

![Chart 1.4](image)

Source: General Organization for Social Insurance (GOSI)
This exodus of immigrants has improved the proportion of nationals in regional labor markets, despite a slowdown in the pace of local job creation. Between 2015 and 2018, GCC economies (excluding UAE) added about 140,000 nationals, a figure lower than the 323,000 nationals who were added in the previous two years. However, the percentage of nationals in Saudi Arabia and Oman increased, while the percentage of nationals stabilized in Bahrain, Kuwait, and Qatar (see Chart 1.3). As noted earlier, the jobs that non-nationals leave are often not the ones that nationals are seeking. For example, the jobs vacated by immigrants in Saudi Arabia in 2018 were primarily in construction, market services, and manufacturing (see Chart 1.4).

2.2 National employment: Dominant public vs. constrained private sector

The continued reliance on the public sector in the region to absorb the growing number of nationals in the labor force reflects the tendency of GCC governments to keep the public sector as the first resort of employment (Randeree 2012; IMF 2017). However, the persistence of this distribution model has recently become constrained by a lack of funding capacity.

**Chart 1.5. Correlation between fiscal balances and nationals’ public sector employment in the GCC**

![Chart 1.5. Correlation between fiscal balances and nationals’ public sector employment in the GCC](chart.png)

*Note: Fiscal balance is measured as a percentage of GDP, averaged over the 2000–2018 period, and nationals’ employment in the public sector is the percentage of nationals employed in the public sector out of total nationals’ employment in 2018.*

*Source: IMF and national data (Qatar includes nationals in quasi-sovereign entities)*
It is noteworthy that in the 18 years since 2000, the public budgets of most GCC countries enjoyed high and sustained fiscal surpluses, which helped governments create a significant number of employment opportunities for nationals in the public sector. For example, on average, Kuwait and Qatar, whose public budgets saw substantially greater fiscal surpluses relative to their GDP, had a higher rate of growth in national employment (see Chart 1.5), while Saudi Arabia and Oman, which enjoyed modest surpluses as a percentage of their GDP, had a lower rate of national employment expansion. In contrast, Bahrain, which did not enjoy such fiscal surpluses, had a much lower employment rate for nationals compared to its GCC peers.

Moreover, the implicit employment guarantee in the public sector was used to safeguard nationals against job losses in the private sector during periods of recession. During the 2008 financial crisis, when most GCC countries were enjoying high fiscal balances (due to skyrocketing oil prices prior to the outbreak of the crisis), Bahrain, Kuwait, and Oman, for instance, directed a majority of their nationals into government jobs (59 percent, 74 percent, and 65 percent, respectively, of all nationals employed between 2009 and 2013). Since the outbreak of the coronavirus (COVID-19), there have been significant job losses in most GCC economies, caused by the disruption of economic activity. However, as oil prices remain...
weak and the fiscal situation has worsened in most countries, employment guarantees of the type seen during earlier recessions are unlikely to follow. Since 2014, more than half of the GCC’s public expenditures have been allocated to wages and other transfers, which include subsidies and other benefits given to citizens (see Chart 1.6).

**Chart 1.7. Absolute change in number of nationals employed by sector (in Thousands)**

```
Bahrain  Oman  Qatar
2009-13   2014-18

Public

Bahrain  Kuwait  Oman  Qatar
2009-13   2014-18

Private

Bahrain  Kuwait  Oman  Qatar
2009-13   2014-18

Source: National data (for Qatar, data are only available for 2014-2018)
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Bahrain and Oman’s outsize labor compensation bills and significant funding gaps have restricted their capacity to absorb national labor, and even pushed them to reduce the number of public sector employees in some departments, leaving others looking for job opportunities in the private sector (see Chart 1.7). The number of nationals working in the public sector fell in both countries between 2014 and 2018. In the case of Bahrain, this decline, along with the smaller increase in the number of nationals working in the private sector (compared to 2009–2013), suggests that a good number of nationals who left the public sector were unable to find alternative jobs in the private sector. In contrast, the number of Omanis in the private sector more than doubled between 2014 and 2018 compared to the previous five years (adding about 55,000 nationals). The decrease in the number of public employees in Oman may have been due either to discharges, retirements, or hiring freezes. The latter two are more likely due to Oman’s intensive job nationalization program, as well as to the sharp cuts in current expenditures—particularly the one related to new hires, bonuses, and allowances, which may have encouraged some Omanis to switch from (or completely forgo) the public sector. These dynamics were somewhat echoed in Saudi Arabia, which suffered from an average fiscal gap equivalent to 10 percent of its GDP over the same period of time and a
similarly heavy compensation bill, forcing the country to significantly reduce its public sector hiring rate (see Chart 1.7).

Nevertheless, governments that have maintained healthy fiscal balances since 2014 have managed to continue to employ more national workers, despite the slowdown in economic growth. In this context, the governments of Kuwait and Qatar continued to serve as a major source of national employment, which led to an even greater increase in the number of public sector employees between 2014 and 2018, albeit at a more moderate pace than before, as relatively fewer citizens were added to the private sector (see Chart 1.7).

2.3 The challenges of a rapidly growing young local population

The current fiscal burdens in the GCC raise questions about the ability of its public sectors to continue to employ the increasing number of graduates, given the challenging nature of future job opportunities, and the ability of existing educational systems to produce competencies capable of meeting the requirements of dynamic private sectors, and also given the nature of the population pyramid, which has undergone an increase in the youth base.

Chart 1.8. National population in the GCC by age group (in Millions)

Source: National data and author estimates (Saudi Arabia for 2017; Bahrain, Kuwait, and Oman for 2019; UAE for 2020 estimate; Qatar not included)

There is concern regarding whether the present job creation system is capable of meeting such challenges in the medium to long term. More than 40 percent of GCC nationals (excluding Qatar) are under the age of 20 (see Chart 1.8). Indeed, the percentage of this population segment is much higher in Kuwait and Oman, as according to 2019 data, young people constitute about 44 percent and 46 percent, respectively, of their national populations.
Chart 1.9. Distribution of occupations by skill level (percentage of total), GCC

Note: Low = low-skilled occupations; Medium = medium-skilled occupations; High = high-skilled occupations. “Past” refers to 2004 for Bahrain and Qatar; 2005 for Kuwait; 2006 for Saudi Arabia; and 2008 for Oman. “Present” is 2015 for Bahrain and Oman; 2016 for Kuwait and Saudi Arabia; and 2017 for Qatar.

Source: GCC-Stat and ILO

Chart 1.10. Number of tertiary-level graduates in the GCC (in Thousands)

Source: UNESCO
It appears that low- and medium-skilled jobs have expanded at the expense of high-skilled occupations in GCC countries (Randeree 2012; World Bank 2018). At present, most jobs available remain concentrated in low- and medium-skilled occupations. Due to the region’s strong expansion in the service sectors, the latter accounts for more than 50 percent of jobs. This was most noticeable in Oman and Qatar, where these jobs currently constitute more than 60 percent of all occupations (see Chart 1.9), and are mostly occupied by non-nationals. This is in line with other emerging markets (such as India, Turkey, and Egypt) and some European countries (Denmark, Spain, Belgium, and Italy) that have large service sectors relative to their GDP.¹

Meanwhile, the human capital accumulation of nationals continues at a strong pace. Yet most university graduates are falling short of private sector requirements, guiding graduates into unproductive government jobs. Between 2014 and 2017, the number of tertiary-level graduates saw double-digit growth, averaging 12.5 percent per year, with 300,000 graduates as of 2017 (see Chart 1.10).

Chart 1.11. Distribution of tertiary graduates by field of education in GCC countries, 2017

Source: UNESCO

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¹ The size of the service sectors in GCC countries relative to their non-oil GDP was used for comparison with the service sectors of the other countries mentioned.
However, the World Bank (2018) notes that private sector employers believe that GCC nationals are inadequately equipped, lacking the necessary skills to succeed in the workplace, despite the fact that most of them are graduating from relevant educational programs (see Chart 1.11). Young nationals are therefore being pushed into public sector employment, given its less selective criteria. However, evidence from Saudi Arabia implies their possible employment in redundant or low productive jobs, a trend that is anecdotally echoed across the GCC (World Economic Forum 2014).

3. Short-Term Context of Changes in GCC Labor Markets

As of today, the workforce in the GCC remains predominantly foreign, low skilled, and male, a consequence of the still relatively shallow national labor pools, labor-intensive jobs, and the prevalent sociocultural challenges that obstruct female participation (Baldwin-Edwards 2011; Rutledge et al. 2011). In 2018, non-national labor made up 77 percent of the GCC workforce (excluding UAE), which was only 4 percent lower than in 2011, highlighting the region’s still heavy reliance on migrants to work the laborious jobs on which its growth depends. In fact, more than 80 percent of expatriates in Bahrain, Kuwait, Oman, and Qatar worked in low- to medium-skilled occupations, qualified with either a secondary-level or lower-level education (see Chart 1.12). Meanwhile, despite some improvement in recent years, females account for only 14 percent of the workforce, with their share ranging from a low of 13 percent in Saudi Arabia to a relative high of 19 percent in Kuwait.

Chart 1.12. Distribution of expatriate labor by broad education levels in the GCC, 2018

Source: National sources, author estimates (excludes Saudi Arabia and UAE)
3.1 Large inflows of low-skilled male expatriate workers

Over the past decade, the annual average growth rate of GCC nationals in the labor market was lower than that of migrants, with their share of total employment either remaining steady or declining, except for the Saudi labor market. On average, between 2011 and 2018, the number of expatriate workers in Bahrain, Kuwait, Qatar, and Oman grew at more than one-and-a-half times the pace of nationals (see Chart 1.13).

**Chart 1.13. Average annual employment growth rate for nationals vs. non-nationals, 2011–2018**

Source: Haver Analytics, national sources

The majority of the GCC workforce (excluding Saudi Arabia and the UAE) is mostly composed of low-skilled, middle-aged male expatriates, concealing a younger, more educated, and male-dominant national workforce. Around 85 percent of employed workers are men, with migrants making up 9 out of 10 workers. The bulk of the expatriate male population is between 30 and 50 years old, and outnumbers expatriate females by a ratio of close to three to one (see Chart 1.14). This is a consequence of the region’s short-term expatriate employment schemes, which are designed to discourage migrants from settling in their host countries by limiting their mobility and ability to work beyond the jobs they were contracted to do. This in turn negatively affects the quality of the jobs offered and keeps most of them low skilled and low paying (World Bank 2018). Indeed, an intermediate-level education or below is the most common qualification found among 64 percent of immigrant men, as only 12 percent have a university degree or higher.
Meanwhile, male nationals account for about half of the GCC’s local population, but make up close to 80 percent of the native workforce. The native male population is also younger and better educated than its immigrant counterpart, with more than 60 percent (excluding Qatar) of male nationals below the age of 30, and almost 50 percent with a secondary education level or higher.

Chart 1.14. Expatriate population in the GCC by age and gender, 2018 (in Millions)

Source: GCC-Stat (excludes UAE and Qatar)

3.2 An increasing and well-qualified female workforce
Male dominance of the workforce is in decline, with female workers commanding a growing share, particularly among nationals. Between 2011 and 2018, the employment growth rate for females in the region surpassed that of males (see Chart 1.15). Although these trends are massively influenced by the data of Saudi Arabia, which is by far the largest economy in the region, ILO estimates suggest that female participation in the workforce has increased in

---

2 Excluding Qatar
3 Excluding UAE
all six countries by a range of 2 to 7 percent. In total, the share of females in the workforce rose from 9.8 percent in 2011 to 13.6 percent in 2018.

Over the same period (2011–2018), increased female employment was more noticeable among nationals, as female nationals were employed at a much faster rate than male nationals (an annual average of 10.5 percent for females vs. 4.3 percent for males), which helped raise their share in employment to 37 percent by 2018, compared to 28 percent in 2011. Rising female nationals’ participation levels were observed across all GCC countries except Kuwait (see Chart 1.16).

**Chart 1.15. GCC employment growth by gender (Percent)**

In general, female employees have higher educational qualifications than their male counterparts. More than 45 percent of working females in the GCC (excluding Saudi Arabia and UAE) are educated above the secondary level, compared to 17 percent of men, with this trend echoed in each individual country (see Chart 1.17). Among those countries with available comparable data, Oman and Qatar seem to possess a well-educated female workforce,

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with 29 percent and 34 percent, respectively, of their economically active women holding a bachelor’s degree or higher as of 2018.

Female nationals also have higher levels of education compared to their male counterparts. In 2018, close to two-thirds of female nationals in the GCC (63 percent) had an education level above secondary school, relative to only 38 percent of male nationals. And while only 35 percent of female expatriates had a secondary level of education or higher, they still maintained a 20-point lead over their male counterparts.

Chart 1.16. Labor participation rates of female nationals (Percent)

Source: GCC-Stat
However, higher education outcomes differ for national females across countries. In Bahrain, only 40 percent of females earned an education above the secondary level compared to 67 percent in Kuwait and 62 percent in Oman and Qatar. Meanwhile, expatriate females’ education levels were lowest in Oman, with only 27 percent educated above the secondary level compared to expatriate females in other GCC countries, whose education levels were up to 13 points higher.

### 3.3 Trends in employment, labor productivity, and wages

The relationship between real wage growth and labor productivity growth is widely discussed in the literature, particularly in the context of the growing disparity between the two measures in the United States (Bivens and Mishel 2015; Sharpe, Harrison, and Arsenault 2008; Feldstein 2008; Harrison 2009; Erumban and de Vries 2016). While neoclassical theory asserts that wages follow productivity—as firms will continue to hire until the marginal product is equal to the wage—the efficiency wage theories promoted by Shapiro and Stiglitz (1984) suggest that higher wages result in higher productivity (Akerlof and Yellen 1990). However, regardless of whether productivity determines wages or vice versa, both perspectives agree that there is a relationship between the two. This relationship has particular relevance in the context of GCC markets. The existing literature points to a clear segmentation in GCC labor markets as nationals are paid relatively more than expatriate workers, while not much is known about the differences between them in terms of
productivity. In this section, the recent trends in labor productivity and wages in GCC economies will be investigated, with the latter being examined in terms of skills and industry groups.

AGGREGATE EMPLOYMENT AND LABOR PRODUCTIVITY

The left-hand graph in Chart 1.18 shows GDP growth in GCC economies over the last two-and-a-half decades, along with GDP growth in emerging markets in aggregate. The right-hand graph depicts employment growth. While GDP growth in the region has largely been in alignment with trends in emerging markets (a simple correlation coefficient suggests a 78 percent correlation between the two), employment growth has not (with a correlation of less than half of that observed in the case of GDP).

The trade-off between wages and productivity is clear from this chart, especially during the period from 2003 to 2007, when employment grew much faster than output, even as output growth was slowing in GCC countries. In contrast, output growth maintained a significant edge over employment growth in emerging markets. After a recovery following the global financial crisis, output growth has continued to slow in GCC countries since 2011. Employment growth has also fallen, but has remained above output growth on average. In emerging markets, although output growth also declined during this period, employment growth did not fall that rapidly. These trends clearly indicate the extent to which the region relies on employment to expand production, which implies the region’s weakness in improving labor productivity.

**Chart 1.18. Output and employment growth in GCC vs. emerging markets**

Source: The Conference Board Total Economy Database (adjusted version), February 2020
Chart 1.19 combines output and employment in order to ascertain the trends in labor productivity, and shows that productivity growth in the GCC—both in the aggregate economy as well as in the non-oil economy⁵—has been negative for most of the past 25 years. In contrast, in aggregate, emerging markets (which include the GCC) show positive labor productivity growth in those years, except for 1998, when the Asian financial crisis hampered productivity growth in various Asian economies (Huynh et al. 2010; Poczter, Gertler, and Rothenberg 2013).⁶

Chart 1.19. Labor productivity growth in GCC vs. emerging markets

![Chart showing labor productivity growth in GCC vs. emerging markets](image)

Source: The Conference Board Total Economy Database (adjusted version), February 2020

There is no significant difference when GCC countries are looked at individually. Over the past 25 years, GDP growth has been driven predominantly by an expansion of employment in all six GCC markets (see Chart 1.20). Labor productivity growth has been negative in all countries over this period, with few exceptions. Bahrain and UAE had positive productivity growth from 2012 to 2019, yet this growth rate was quite dismal in the case of Bahrain. Similarly, among

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⁵ Throughout this report, the non-oil economy refers to all activities excluding the mining sector, and the oil sector refers to the mining sector. These two terms—the oil sector and mining sector (or non-oil economy and non-mining economy)—may be used interchangeably in the report.

⁶ Although a major part of the acceleration of productivity in emerging markets post 2000 has been driven by China, even without China the performance of this group of countries has been better than that of the GCC in general.
the three GCC markets that had positive productivity growth over the 1995–2003 period, only Oman had a noticeable improvement. Overall, there has been insufficient evidence to suggest a productivity improvement in the region, which shows either negative or near-zero productivity growth in all three periods depicted in Chart 1.20. These findings support the findings of earlier reports by The Conference Board (van Ark et al. 2008, 2019), which observed that productivity has been weak in GCC economies for a long time. In contrast, in the case of emerging markets, which are depicted in the last column of the chart, 60 to 70 percent of all output growth came from labor productivity.

**Chart 1.20. Aggregate GDP growth in GCC economies, decomposed into labor productivity and employment growth**

![Chart](chart.png)

Source: The Conference Board Total Economy Database (adjusted version), February 2020

Given that most GCC economies have a large and heavily capital-intensive oil sector, they generally maintain a high level of labor productivity (van Ark et al. 2019). However, the oil sector is less prone to improvements in productivity than the manufacturing and service sectors, and might be a drag on the aggregate productivity growth in the region. Moreover, a decrease in the oil sector’s share of the overall economy would pull down the average productivity of the aggregate economy, as the oil sector enjoys a relatively higher level of productivity than the rest of the economy. Therefore, it would be more meaningful to look at productivity dynamics in the region’s non-oil economy.
A comparison of Chart 1.20 and Chart 1.21 suggests that the non-oil economy has performed relatively better than the aggregate economy in terms of labor productivity growth. Except in Bahrain and Kuwait during 1995–2003, labor productivity growth in the non-oil sector has been higher, or the productivity drop in the subsequent periods has been less severe, when the oil sector is excluded, indicating that the oil sector is causing a significant erosion of productivity.

Chart 1.21. Non-oil GDP growth in GCC economies, decomposed into labor productivity and employment growth

![Non-oil GDP growth in GCC economies](image)

Note: Non-oil sector GDP and employment are residuals after subtracting mining sector GDP and employment from the aggregate economy.

Source: The Conference Board Total Economy Database (adjusted version), February 2020

As observed by van Ark et al. (2019), this is to be expected. As the oil sector’s share in these economies has been falling for years due to diversification, it has had a dampening effect on the average productivity of the aggregate economy. Although the oil sector does not employ many people, its productivity has been relatively high compared to the non-oil economy. As its share in the economy drops, it will pull down aggregate productivity unless the remaining sectors grow fast enough to offset the decline in the overall productivity level. However, in the longer term, diversification will eventually help achieve a sustainable growth path.

Regardless of the relatively better picture for the non-oil economy in general, these charts reaffirm our findings of weak productivity growth and employment-driven expansion in both
the aggregate and non-oil GCC economies. And the picture is not fundamentally different among the various countries in the region. Comparing GCC countries, Kuwait and UAE showed a substantial drop in labor productivity during the 2004–2011 period. While the UAE has recovered since 2012, Kuwait continues to see a lapse in productivity in its non-oil economy. The region’s largest economy, Saudi Arabia, had modestly positive productivity growth rates save for the most recent period.

Overall, regardless of whether one is considering the non-oil economy or the entire economy, the region’s productivity growth is quite weak, and much of the GDP growth has been driven by the increase in employment. There seems to be a clear trade-off between productivity and employment in GCC markets. Many researchers in the past have attributed this to the availability of cheap expatriate labor, which disincentivizes (private) firms from adopting more productivity-enhancing technologies (IMF 2013; Hertog 2019).

**Chart 1.22. Sources of labor productivity growth in GCC economies**

Following Solow’s (1957) seminal contributions to neoclassical growth theory, one can identify the sources of output and labor productivity growth using a growth accounting methodology. In this approach, labor productivity growth can be decomposed into contributions of capital intensity (i.e., capital per worker), labor quality (or the skill and quality of workers, often used synonymously with human capital), and total factor productivity (TFP), a measure of the overall efficiency of the production system (see van Ark et al. 2015 and Erumban and
van Ark 2018 for a graphical representation of this methodology). Chart 1.22 shows that almost all the labor productivity weaknesses in the region originate from weak TFP growth across the board in the GCC. TFP growth contributed positively to labor productivity growth in the region only in the UAE during the 1995–2003 and 2012–2019 periods, with TFP growth in the latter period being much smaller than before, and in Kuwait during 1995–2003, which includes its postwar recovery period. Despite the positive TFP growth, UAE’s labor productivity growth in the 1995–2003 period was negative, as its capital deepening decelerated.

Capital deepening, measured as capital per worker, in the region has generally been consistently positive in most countries. However, the significant declines in the UAE during the 1995–2011 period are reflected in the GCC aggregate, making the capital deepening rates in the region extremely low. A possible reason for the decline in the UAE’s capital per worker is the massive influx of construction workers. For instance, from 2000–2010 the percentage of construction jobs increased rapidly, from 16.7 percent of total jobs in 2000 to 23 percent in 2010, whereas manufacturing jobs fell slightly during that period, from 13 percent to 11.3 percent. Given the dominance of the oil sector in much of the region, it is likely that the high degree of capital deepening can be attributed to the sector structure, which might further suggest weaker capital intensity in the non-oil economy. The region’s high dependence on employing more labor in order to sustain output growth, along with its weak labor productivity and TFP growth, and its dismal capital deepening, suggests that the region has great potential to improve its automation, increase its capital intensity, and raise overall efficiency.

Insufficient and substandard physical investment, inefficient use of capital, over-reliance on an incompetent labor force, and a weak regulatory and institutional environment are among the possible reasons why the region consistently shows weak TFP growth. Overcoming these challenges and boosting private investment and TFP would require substantial structural reforms in the region, such as fostering healthy competition and a more attractive business environment. An efficient and competitive labor market that would be attractive to the private sector, particularly to foreign companies, would make the investment climate more attractive and encourage foreign investment, which would also bring advanced technology. Improvements in the institutional setting—in particular the quality of education, which would enable GCC nationals to be more productive—and continued efforts to diversify the economy by shifting resources to more productive uses (see van Ark et al. 2019) are necessary to gain productivity momentum (Mitra et al. 2016).

4. Mapping Out Changes in the Distribution of Labor by Sector

4.1 Structure of jobs and wages: Nationals vs. expatriates

As mentioned earlier, with the increased pressure on the labor market from a growing population and rising participation rates for nationals in the workforce, recent policies in the region have focused on regulating the inflow of expatriate workers (Thiollet 2016; Kapluszewski 2007). These policies are expected to boost the employment of nationals, especially in the private sector, as the strict migration policies are expected to open up more job opportunities for them. This expectation implicitly assumes a perfect substitutability between nationals and
expatriates. Chart 1.23 depicts nationals’ share in the region’s total employment (left-hand graph) and private sector employment (right-hand graph). Two points deserve attention in this regard. First, the share of nationals in aggregate employment has improved only in Saudi Arabia, where, as mentioned earlier, it has steadily risen from about 20 percent in 2011 to more than 30 percent in 2019. Second, while nationals’ share in total employment has consistently fallen in most other countries over time, it has stabilized in recent years, though at varying rates. Oman showed a decrease in the percentage of nationals in total employment, from one-third in 2004 to one-fifth in 2012, but their share has been relatively stable since then. In Qatar, nationals’ share of total employment has remained flat at 6 percent since 2008. The available data for Kuwait also show a flat share for nationals of around 15 percent of total employment over the last two decades. In general, for the years in which data were available, Qatar and Kuwait showed the lowest share for nationals in total employment across the five GCC markets.

**Chart 1.23. Nationals’ share of total employment (left graph) and of private sector employment (right graph) in GCC economies**

Since the primary objective of job nationalization policies has been to increase the presence of nationals in the private sector, let’s look at nationals’ share of employment in the private sector (see Chart 1.23, right graph). The story is quite similar, with Saudi Arabia again showing the greatest momentum, with nationals’ share of private sector employment having increased consistently since 2011. Currently, nationals comprise 20 percent of private sector employment in Saudi Arabia, up from just 10 percent a decade ago. Oman is the only other
country that shows some improvement in nationals’ job share, as in Kuwait and Bahrain, a rise in the current stabilization of nationals’ share in private sector employment has yet to occur.

**Chart 1.24. Nationals’ share of private sector* employment, by industry**

<table>
<thead>
<tr>
<th>Industry</th>
<th>Kuwait</th>
<th>Qatar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-market services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mining</td>
<td></td>
<td></td>
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<tr>
<td>Construction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td></td>
<td></td>
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<tr>
<td>Agriculture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*For Qatar, data comprise both private and public sectors.

Source: CSB (Kuwait), GOSI (Saudi Arabia), LMRA (Bahrain), PSA (Qatar)

The share of nationals in private sector employment differs significantly across industries in each economy within the region. Nationals comprise only about 5 percent of total jobs each in market services and non-market services in Kuwait’s private sector economy (see Chart 1.24). It is even lower in other sectors, such that expatriates occupy 95 to 99 percent of employment in most private sector industries in Kuwait. In Qatar, non-market services, including all private activities in education and health services, employs the highest proportion of nationals. Another sector that creates a relatively higher proportion of jobs for nationals in
Qatar is mining, in which more than 10 percent of all workers are nationals. Note that in the case of Qatar, the data presented in Chart 1.24 comprise both the private and public sectors, and therefore non-market services also includes all government jobs in public administration and the education and health sectors. Also, as can be observed in Chart 1.23, Qatar had the lowest share of nationals in total employment, so the figures in Chart 1.24, which includes both the private and public sectors, should be compared to other countries with caution. The private sector share is likely much smaller.

Non-market services in Saudi Arabia and Bahrain also employs a relatively higher proportion of nationals than other industries, although it is not the highest (see Chart 1.24). Nationals occupy more than 30 percent of non-market services jobs in Saudi Arabia and about 20 percent in Bahrain. Other private sector industries in Saudi Arabia and Bahrain that employ a relatively higher proportion of nationals are market services, manufacturing, and mining. For instance, nationals hold nearly one-fifth of market services jobs in both countries, a quarter to one-fifth of manufacturing jobs in both countries, and more than half of mining jobs in Saudi Arabia.

Non-market services is not the largest private sector job provider in the GCC economy in general or for nationals in particular. For instance, in Kuwait, this industry is responsible for only 6 percent of total private sector jobs and 8 percent of all private sector jobs occupied by nationals (see Table 1.1). Similarly, in Saudi Arabia and Bahrain the industry contributes about 8 percent of all jobs and only about 10 to 13 percent of total private sector jobs for nationals. The fact that this industry does not comprise a large share of the total jobs created in the private sector implies that the volume of jobs created for nationals is relatively low in this industry in these countries.

In contrast, the market services industry comprises almost 50 to 60 percent of total private sector jobs for nationals in Saudi Arabia and Bahrain. In general, market services seems to be the most attractive destination for private sector jobs for nationals in most countries, with 50 to 70 percent of all national jobs in the private sector in this industry. However, nationals occupy only 3 to 5 percent of market services jobs in Qatar and Kuwait (see Chart 1.24).

Compared to other countries, Bahrain seems to have had more success by employing a relatively larger share of its workers, especially nationals, in the manufacturing industry. As mentioned above, nationals constitute around one-fifth of private sector manufacturing jobs in Bahrain—one of the highest shares in that industry among all four countries. Therefore, Bahrain’s manufacturing sector, which creates 12 percent of all private sector jobs in the country, and 16 percent of private sector jobs for nationals (see Table 1.1), shows promising prospects for nationalizing manufacturing jobs. Saudi Arabia shows a similar pattern, though at a slightly smaller magnitude.

These comparisons show that, while in most cases the share of nationals in most private sector industries is low, more concerning is the declining trend in the share of nationals in most industries. It is evident from these charts that the private sector share has fallen in almost all industries in Kuwait and Bahrain (aside from the manufacturing industry in Kuwait). The slight increase in the percentage of nationals in the Kuwaiti manufacturing industry can be attributed to the availability of a high percentage of administrative jobs in the sector and
the substantial effort of Kuwait’s manufacturing trade union to train Kuwaitis for jobs in the sector. In Saudi Arabia, there has been improvement in the share of nationals across the board, mostly in market services, mining, and manufacturing. These observations support the general thesis we presented earlier. Despite some success in Saudi Arabia, where more job opportunities are created in the private sector for nationals via programs aimed at replacing expatriates with local labor, other GCC nations have not had much success in creating jobs for nationals.

Table 1.1. Industry share of private sector jobs for all employees (left), and for nationals only (right), 2018

<table>
<thead>
<tr>
<th>Industry</th>
<th>All Employees</th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kuwait</td>
<td>Qatar*</td>
<td>Saudi Arabia</td>
<td>Bahrain</td>
<td>Kuwait</td>
<td>Qatar*</td>
<td>Saudi Arabia</td>
<td>Bahrain</td>
<td>Kuwait</td>
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<tr>
<td>Agriculture</td>
<td>4.8</td>
<td>1.3</td>
<td>1.1</td>
<td>1.1</td>
<td>0.6</td>
<td>0.1</td>
<td>0.8</td>
<td>0.4</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>13.7</td>
<td>7.3</td>
<td>10.0</td>
<td>12.4</td>
<td>11.1</td>
<td>1.2</td>
<td>11.4</td>
<td>16.5</td>
<td></td>
</tr>
<tr>
<td>Construction</td>
<td>10.8</td>
<td>42.1</td>
<td>28.0</td>
<td>28.2</td>
<td>7.3</td>
<td>1.5</td>
<td>16.8</td>
<td>13.3</td>
<td></td>
</tr>
<tr>
<td>Mining</td>
<td>4.2</td>
<td>5.9</td>
<td>3.6</td>
<td>1.9</td>
<td>3.4</td>
<td>13.1</td>
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<td></td>
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<tr>
<td>Market services</td>
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<td>25.9</td>
<td>48.9</td>
<td>48.4</td>
<td>69.7</td>
<td>15.1</td>
<td>48.4</td>
<td>58.1</td>
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<tr>
<td>Non-market services</td>
<td>6.4</td>
<td>17.5</td>
<td>8.4</td>
<td>7.9</td>
<td>7.9</td>
<td>69.0</td>
<td>13.1</td>
<td>10.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
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</tr>
</tbody>
</table>

*For Qatar, the data comprise both the private and public sectors. Total may not add to 100 due to rounding.

Note that the percentages in the right side of this table are not analogous to the percentages in Chart 1.24, which indicates the share of nationals in a given private sector industry—e.g., 5 percent of all workers in non-market services in Kuwait are nationals (95 percent are migrants). The right side of Table 1.1 indicates the share of a given industry in overall private sector employment for nationals—e.g., non-market services constitutes 7.9 percent of all private sector employment for nationals in Kuwait (vs. 69.7 percent for market services, 3.4 percent for mining, etc.).

Source: CSB (Kuwait), GOSI (Saudi Arabia), LMRA (Bahrain), PSA (Qatar)

Using the most recent data, our findings support past evidence that the effect of nationalization policies on creating jobs for nationals has been minimal in the region (Ryan 2016; Alsheikh 2015; Al-Aali 2019; IMF 2015). Two factors are highlighted in the prior literature that constrain the success of job nationalization policies. The first is the skills mismatch—in particular that nationals lack the skills required for private sector jobs (Mellahi 2007; Budhwar et al. 2019). The second factor is the wage difference between nationals and expatriates. The remainder of this chapter will examine the wage dynamics between nationals and expatriates, in the aggregate as well as at various skill levels.

4.2 Trends in aggregate wages

As highlighted in the literature, a common reason for the region’s reluctance to embrace automation and technology and move up the productivity ladder is the reliance on cheap expatriate labor. This section examines the trends in overall wages in GCC economies and the wage differential between expatriate and national workers.
Wage rates vary across GCC countries. In general, average nominal wages, converted from national currencies to US dollars, were highest in Qatar, followed by the UAE (see left-hand graph in Chart 1.25). While wages in the UAE are more than 30 percent lower than in Qatar, they are almost 60 percent lower than Qatar in Kuwait and Saudi Arabia. Since the data for Bahrain are only for the private sector, a comparison is less meaningful, yet suggest that private sector wages in Bahrain are more than 70 percent lower than aggregate wages in Qatar (including the public sector, where most nationals are employed).

However, some of the cross-country differences reflect purchasing power differences between countries. Price levels (purchasing power parity for private consumption expenditure to exchange rate ratio) in the UAE are much closer to those in Qatar (only 1.4 percent lower in UAE). However, price levels are 54 percent lower in Saudi Arabia, 36 percent lower in Bahrain, and 23 percent lower in Kuwait, suggesting notable differences in the purchasing power.
power of these countries’ currencies and therefore reducing the gap in wages from the perspective of living standards (The Conference Board Total Economy Database, 2020).

It is also evident from the chart that nominal wages have been consistently growing in all countries, although at varying rates, except for Saudi Arabia in recent years. In US dollars, the nominal wage has grown by almost 5 percent annually in the UAE and Qatar since 2010, but by only 1 percent annually in Kuwait since 2014. Similarly, private sector wages in Bahrain have grown by close to 2 percent since 2010, whereas in Saudi Arabia, nominal wages fell by nearly half a percent from 2010 to 2018. However, given that prices are also rising in most markets, real wage growth has been dismal everywhere (see Chart 1.25, right graph). On average, real wages have fallen by almost 2 percent in Saudi Arabia since 2010, whereas they have risen by 2.6 percent in Qatar and by 6.3 percent in the UAE. Kuwait’s overall real wages have risen by a paltry 0.4 percent since 2014, and private sector real wages in Bahrain have stayed mostly stagnant. Thus, real wages in most GCC economies suggest a stagnant trend, perhaps driven by the dominance of low-paid expatriates, who are likely to keep overall wages low compared to high-paid nationals. Given the structure of the GCC’s labor market, which features a large percentage of public sector and expat workers, the average wage trend can be misleading. It is essential to look at these different worker groups separately. Below, we will further examine the distribution of jobs and the wages of expatriates and locals to understand the wage disparity between them.

4.3 Wage disparity between nationals and expatriates

The oil rents distribution model adopted by most GCC nations helped sustain a high-wage job market for nationals in the government sector, along with job security and other financial benefits, regardless of education or professional skill (El-Katiri, Fattouh, and Segal 2013). This has greatly disincentivized nationals from participating in private sector jobs, leading the private sector to rely on relatively cheaper expatriate workers (Eifert, Gelb, and Tallroth 2003; Kapiszewski 2007; Hertog 2014, 2019; Behar 2015; ILO 2015; Thiollet 2016). These workers are primarily sourced from Asian economies, as the low wages available to them in GCC nations are still far more attractive than the wages they would receive in their home countries. The remittances from their earnings also help the home countries of expatriates improve their living standards (ILO 2015). In this section we will look at the wage differential between nationals and expatriate workers, adding to the existing literature on such comparisons (Alfarhan and Al-Busaidi 2018).
Currently, the wage gap between expatriates and nationals is highest in Qatar, followed by Kuwait. In Qatar, expatriates earn about 13 percent of the wages received by nationals on average; in Kuwait, they earn 20 percent of nationals’ wages (see Chart 1.26). The gap is lowest in Saudi Arabia, with expatriates receiving nearly 40 percent of nationals’ wages. But this number should be interpreted with caution, as the Saudi Arabia data for expatriates depicted in the chart comprises only the private sector (data are for the entire economy in all other countries). Given that public sector wages are relatively higher, the gap could be lower when the whole economy is considered. Yet it is unlikely to be substantially different, as public sector wages are mostly earned by nationals. On average, an expatriate’s wage in Bahrain is close to 30 percent of a national’s wage. The relative wages between nationals and expatriates in all three countries have remained somewhat stable over the last five years. The gap between wages paid to expatriates vs. those paid to nationals varies from 60 percent to 90 percent across countries. As most expatriates have fewer skills compared to nationals, the lower wages they receive are likely in part a reflection of their productivity. To get a broad idea of this, the wage differential between nationals and expatriates for select educational groups is examined below.
4.4 Wage disparity between national and expatriate workers of different educational levels

In Saudi Arabia, the wage gap between expatriates and nationals is lowest among holders of master’s and other graduate degrees (see Chart 1.27). Interestingly, the gap widens for holders of doctoral degrees. Still, while the gap for higher-skill groups—holders of graduate degrees and above—varies between 10 and 40 percent, it ranges between 50 percent and 70 percent for lower-skill groups—anyone with education below a diploma. There has been no sign of significant changes in the relative wage difference over the years, except for the higher diploma and master's degree group, where the gap has narrowed lately.

Chart 1.27. Expatriate wages as a percentage of national wages by education attainment level, Saudi Arabia

Source: GASTAT

A similar pattern can be observed in Bahrain and Kuwait (see Charts 1.28 and 1.29). In Bahrain, expatriates with a university bachelor’s have the smallest wage gap, which widens for holders of master’s degrees and PhDs. The difference between the two groups is quite large—the bachelor’s degree group has a 25 percent gap, whereas the master’s/PhD groups have a 50 percent gap (see Chart 1.28). All groups with less than a post-secondary education earn 25–40 percent of nationals’ wages. Since 2011 the wage gap has increased in higher degree categories, while it has fallen for lower degree groups.
Chart 1.28. Expatriate wages as a percentage of national wages by education attainment level, Bahrain

Source: LMRA

Chart 1.29. Expatriate wages as a percentage of national wages by education attainment level, Kuwait

Source: CSB
The gap is smaller in Kuwait for holders of university degrees, but as this group includes both holders of bachelor’s degrees and above, specific inferences with regard to higher-skilled workers are difficult to make.

Overall, there is a substantial variance in the wage gap between nationals and expatriates across countries. For instance, highly skilled expatriate workers in Kuwait and Bahrain receive nearly 50 percent (and in Saudi Arabia 60 percent) of the wages earned by nationals with similar qualifications. From the above analysis, it can clearly be seen that regardless of skill group, wages are far higher for nationals, although the gap narrows as we move up the skills ladder. The relatively low wage gap between highly skilled groups may indicate that skilled workers are being paid a wage equal to their productivity. However, the current gap remains very high for most skill groups, so in order to understand the relationship between wages and productivity, the productivity differences between nationals and expatriates will need to be investigated. We will attempt to do this in the next chapter of this study.
Chapter II: GCC Job Nationalization and Productivity

1. Introduction

This chapter examines the empirical impact of job nationalization policies in GCC countries by examining how migrants affect productivity in various sectors of the economy. The chapter first examines the general relationship between job creation and labor productivity in the region, given the over-reliance of the region’s economy on employment rather than labor productivity. The key question here is whether the region is ceding productivity improvements in favor of growth led by numerical increases in jobs. Subsequently, the chapter examines the productivity premium of migrants to see whether increasing the share of national workers will have any impact on productivity in the region. Finally, the elasticity of substitution between migrants and nationals will be estimated. Given the lack of data and the inconsistency of its components, the productivity premium analysis was performed only for Saudi Arabia and Kuwait, and the substitution elasticity was estimated for the case of Kuwait only.

The results suggest a trade-off between labor productivity and employment in the region. While that is not specific to the GCC, the trade-off appears to be more extensive in this region compared to emerging markets in general. In advanced economies, the trade-off seems to have lessened in recent years, whereas it still remains in emerging markets, and more strongly in the GCC. In both Kuwait and Saudi Arabia, there was significant evidence that migrants enjoy a productivity premium over nationals. The data for Saudi Arabia is only for 2005–2017, and for the years prior to 2005, the authors had to make assumptions about capital investment data, which might have an impact on the results. The observed tangible difference in productivity between the two groups in these economies suggests the need for continued efforts to provide training and skills development for nationals who are willing to work in the private sector. The substantial productivity differences might also make private companies in countries like Saudi Arabia try to evade the restrictions of adherence to job nationalization policies through false employment. In the case of Kuwait, a radical shift in nationals’ perception of employment as a mandate rather than a right of citizenship, and the rapid improvement of their skills and productivity, is essential for the success of job nationalization policies. A quantitative analysis of substitution between nationals and migrants confirms that they are imperfect substitutes, implying that a rapid transition from migrants to nationals would be highly costly in most sectors of the non-oil economy.

The remainder of the chapter is organized as follows: The second section discusses the methodology and results of the labor productivity-participation trade-off. The third section provides the methodology and analysis of the productivity gap between nationals and migrants, and the fourth section discusses the elasticity of substitution between migrants and nationals in Kuwait. The last section concludes the chapter.
2. Labor Productivity-Participation Trade-Off

The recent literature has clearly shown that labor force participation in most GCC economies has increased amid the rising participation of women and the entry of many young people into the labor force (see Chart 2.1). Since this study looks into the importance of productivity growth in the region, an important question is the extent to which growing labor force participation negatively influences improvements in worker productivity. The significant gains in participation that the region has achieved in recent years could offset productivity gains unless they are accompanied by sufficient skills and technology. This is particularly true if the various job nationalization policies have caused the replacement of cheap but adequately skilled expatriate workers with expensive and inadequately skilled national workers. In this section, we will examine whether there is a trade-off between labor productivity and labor force participation in GCC countries, using decomposition and econometric approaches. In particular, this section will examine whether this trade-off, if any, has been eased or aggravated in recent decades.

7 However, it should be noted that the high participation rate reflects the large and increasing share of migrant workers in the GCC labor force (see the right graph of Chart 2.A1 in the Appendix). In all the countries and years for which we have data, the participation rate of migrants was 30 to 40 percent higher than that of nationals. Although there has been a rise in the labor force participation of nationals in countries like Saudi Arabia, it remains far below that of migrants. While the participation rate of nationals was in the range of 30 to 50 percent over the 2011–2017 period, it was between 70 and 95 percent for migrants. Clearly, the 50 to 80 percent participation rate we see in Chart 2.1 in the aggregate data is heavily driven by migrants. However, due to the lack of adequate data on participation by nationality for many of the countries considered in our analysis, our analysis in this section of the report is confined to aggregate participation—inclusive of both nationals and migrants.
Chart 2.1. Labor force participation rates in GCC economies (Percent)

Note: Total labor force participation (age 15+) as a percentage of total population (modeled ILO estimate)

Source: ILO and WDI

2.1 Estimating the trade-off between productivity and participation: Methodology

The trade-off between labor productivity and labor market participation was estimated using the methodology suggested by Choudhry and van Ark (2010). Given that employment is a fraction of the total population, one can define per capita income as a product of labor productivity and the worker participation rate as follows:

\[
\frac{Y}{P} = \frac{Y}{L} \cdot \frac{L}{P} \tag{1}
\]

where \(Y\) is GDP, \(P\) is population, and \(L\) is employment. Note that \(L/P\), or the employment to population ratio, can be expressed as

\[
\frac{L}{P} = \frac{L}{LF} \cdot \frac{LF}{P_{15-64}} \cdot \frac{P_{15-64}}{P} \tag{2}
\]

where \(LF\) is labor force, and \(P_{15-64}\) is the working age population or active population. Replacing (2) in (1) and taking in log form:
\[ \ln pc = \ln y + \ln er + \ln lf + \ln ap \]  

(3)

where \( pc \) is per capita income (\( Y/P \)), \( y \) is labor productivity (\( Y/L \)), \( er \) is the employment rate (\( L/LF \)), \( lf \) is labor force (\( \frac{LF}{P_{15-64}} \)), and \( ap \) is active population (\( \frac{P_{15-64}}{P} \)). Rephrasing this to express in labor productivity terms:

\[ \ln y = \ln pc - \ln er - \ln lf - \ln ap \]  

(4)

or following (2),

\[ \ln y = \ln pc - \ln ep \]  

(5)

where \( ep \) is employment to population ratio. Since the above equation is an identity, and considering that the dependent variable is \( Y/L \), and the first independent variable is \( Y/P \), which might create some endogeneity issues, Choudhry and van Ark (2010)\(^8\) suggest moving the first independent variable to error term \( e \), which facilitates the estimation of the following model (across \( t \) years and \( i \) countries):

\[ \Delta \ln y_{i,t} = \alpha + \beta \Delta \ln ep_{i,t} + e. \]  

(6)

2.2 The trade-off between productivity and participation: Results

Chart 2.2 depicts the changes in employment participation and labor productivity that add to per capita GDP growth for the GCC aggregate (see equations 3 and 5), and in Table 2.1, the same is given for each of the six countries. The data on employment, population, and GDP used in this analysis are obtained from the Conference Board Total Economy Database. The labor force participation and working-age population data are obtained from the World Bank World Development Indicators. It is evident that there is a trade-off between the two. In the last two sub-periods, 2003–2012 and 2013–2018, when participation increased in the GCC, labor productivity decelerated equally (see Chart 2.2). It may also be noted that the fastest increase in participation was during the 2003–2012 period, which coincides with a high influx of expatriate workers amid the boom in the economy. This might suggest the compositional effect of participation on per capita income growth, as the higher share of expatriates in the overall labor force was instrumental in driving this participation.

Chart 2.2. Decomposition of per capita income growth into labor productivity and participation rates, GCC (Percent)

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8 Choudhry and van Ark (2010) use a large panel of countries, and therefore include the initial labor productivity level in the equation to account for the catching-up phenomenon of developing countries. Although we also estimated the global model with labor productivity levels, the results are not substantially different. Therefore, to ensure comparability across regional results, given that the GCC sample consists of only six countries that belong to developing markets, with no productivity catch-up potential among them, we report the basic model results with no catching-up coefficients.
The story is much the same across countries as well (see Table 2.1). Especially in the recent period, in almost all countries the productivity decline was even faster than the rate of increase in participation. In Saudi Arabia, the region’s largest market, the trade-off was not very strong in the earlier periods, but has become stronger lately. However, as explained earlier, these are accounting relationships. To get a more solid picture, further examination of the data using the regression estimates obtained using equation (6) are analyzed below.

The results are presented in Tables 2.2 and 2.2A. The regression for a global sample consisting of 130 countries was estimated by this study and then compared with subsamples of emerging markets, mature economies, and the GCC. The Hausman test fails to reject the null hypothesis that a random effect model is appropriate for the data—the Chi-square values are insignificant in all three cases that were opted for a random effect model. However, the fixed-effect results are also reported for the advanced economies sample, and the GCC in the 1970–1990 period (see Table 2.2A).
Table 2.1. Decomposition of per capita income growth into labor productivity and participation rates, by country (Percent)

<table>
<thead>
<tr>
<th></th>
<th>Saudi Arabia</th>
<th>United Arab Emirates</th>
<th>Qatar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor productivity</td>
<td>-0.4</td>
<td>-0.3</td>
<td>-2.0</td>
</tr>
<tr>
<td>Participation</td>
<td>-1.3</td>
<td>2.7</td>
<td>1.9</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>-1.7</td>
<td>2.4</td>
<td>-0.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Oman</th>
<th>Kuwait</th>
<th>Bahrain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labor productivity</td>
<td>2.3</td>
<td>-3.6</td>
<td>-5.0</td>
</tr>
<tr>
<td>Participation</td>
<td>0.0</td>
<td>3.4</td>
<td>2.2</td>
</tr>
<tr>
<td>GDP per capita</td>
<td>2.2</td>
<td>-0.2</td>
<td>-2.7</td>
</tr>
</tbody>
</table>

Source: Author calculation using data from The Conference Board Total Economy Database (February 2020) and World Bank World Development Indicators

The trade-off between productivity and participation is evident across the board. Although this trade-off has eased slightly in the global sample in the three decades since 1990, compared to the previous 20 years, that is primarily a reflection of mature markets. Whereas emerging markets continue to show a negative coefficient for change in participation in the post-1990 period, although slightly lower in magnitude, the trade-off between productivity and participation seems to have disappeared entirely in advanced economies, where the coefficient has been positive since 1990. Unlike the emerging markets and global sample, econometric tests suggest that a fixed effect is appropriate for the advanced economies' sample, and therefore, the fixed-effect model is also estimated. The results are quite consistent with the easing of the trade-off in the recent period (see Table 2.2A).

Table 2.2. Regression results (1970–2019): Labor productivity on participation rates—random effects

<table>
<thead>
<tr>
<th></th>
<th>Global Sample</th>
<th>Emerging Markets</th>
<th>Advanced Economies</th>
<th>GCC</th>
<th>GCC (non-oil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in participation</td>
<td>-0.573***</td>
<td>-0.486***</td>
<td>-0.634***</td>
<td>-0.565***</td>
<td>-0.258***</td>
</tr>
<tr>
<td>(11.78)</td>
<td>(-17.38)</td>
<td>(-10.59)</td>
<td>(-16.50)</td>
<td>(-3.69)</td>
<td>(3.16)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.061***</td>
<td>1.557***</td>
<td>0.430*</td>
<td>1.494***</td>
<td>2.389***</td>
</tr>
<tr>
<td>(5.33)</td>
<td>(11.03)</td>
<td>(1.80)</td>
<td>(7.60)</td>
<td>(11.39)</td>
<td>(12.18)</td>
</tr>
<tr>
<td>Observations</td>
<td>2730</td>
<td>3930</td>
<td>1876</td>
<td>2700</td>
<td>854</td>
</tr>
<tr>
<td># of countries</td>
<td>130</td>
<td>131</td>
<td>89</td>
<td>90</td>
<td>41</td>
</tr>
<tr>
<td>R^2 within</td>
<td>0.046</td>
<td>0.071</td>
<td>0.052</td>
<td>0.092</td>
<td>0.021</td>
</tr>
<tr>
<td>R^2 between</td>
<td>0.091</td>
<td>0.094</td>
<td>0.142</td>
<td>0.094</td>
<td>0.062</td>
</tr>
<tr>
<td>R^2 overall</td>
<td>0.045</td>
<td>0.072</td>
<td>0.064</td>
<td>0.092</td>
<td>0.007</td>
</tr>
<tr>
<td>Hausman statistic</td>
<td>0.040</td>
<td>1.930</td>
<td>0.050</td>
<td>0.900</td>
<td>7.010</td>
</tr>
<tr>
<td>p-value (Hausman statistic)</td>
<td>0.847</td>
<td>0.165</td>
<td>0.820</td>
<td>0.344</td>
<td>0.008</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are standard errors. * indicates significance at 10% level; ** at 5% level; and *** at 1% level. GDP and employment in the non-oil economy is estimated after subtracting the mining sector from the aggregate economy.

Source: Author calculation using data from The Conference Board Total Economy Database (February 2020) and World Bank World Development Indicators
In contrast, the GCC has seen an increasing trade-off between productivity and participation since the 1990s. The magnitude of the coefficient has nearly doubled, suggesting a stronger trade-off over the last three decades. However, the difference between 1990–2019 and 1970–1990 is reduced slightly when a fixed-effect model is used, which is the preferred model for the first period for the GCC. However, the overall story remains unchanged—a stronger, and further strengthening, trade-off between participation and productivity in the post-1990 period.

Given the high share of the oil sector in GCC economies, we also attempted to apply the same regression for the non-oil economy by subtracting the mining sector GDP and its employment from the data. The results for 1990–2019, for which we constructed such data, are provided in the last column of Table 2.2. These results confirm the strong trade-off between productivity and participation in the region, and the estimated coefficient is slightly higher than the entire economy. This indicates that the non-oil sector has banked a little more on job creation by jeopardizing productivity. It may also be noted that, in GCC economies, there is also a sizable public sector, which might show a different pattern compared to the private sector economy. However, such a distinction has not been attempted in this study due to data constraints.

The post-1990 period has witnessed several changes in the global economy, including the onset and widespread use of information and communication technology, the global integration of large emerging markets like India and China (after joining the WTO), and the global financial crisis. Therefore, considering the entire period from 1990 to 2019 as one period while analyzing the productivity-employment trade-off may conceal the impact of these changes, which were important for productivity growth. Thus, the post-1990 period is further

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**Table 2.2A. Regression results (1970–2019): Labor productivity on participation rates—fixed effects**

<table>
<thead>
<tr>
<th>Dependent variable: growth of labor productivity</th>
<th>Advanced Economies</th>
<th>GCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in participation</td>
<td>-0.298*** (4.16)</td>
<td>0.139*** (3.45)</td>
</tr>
<tr>
<td>Constant</td>
<td>2.413*** (21.54)</td>
<td>1.624*** (19.10)</td>
</tr>
<tr>
<td>Observations</td>
<td>854</td>
<td>1230</td>
</tr>
<tr>
<td># of countries</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>R² within</td>
<td>0.021</td>
<td>0.010</td>
</tr>
<tr>
<td>R² between</td>
<td>0.062</td>
<td>0.069</td>
</tr>
<tr>
<td>R² overall</td>
<td>0.007</td>
<td>0.006</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are standard errors. * indicates significance at 10% level; ** at 5% level; and *** at 1% level. Source: Author calculation using data from The Conference Board Total Economy Database (February 2020) and World Bank World Development Indicators.
subdivided into two periods: 1990–2000 and 2000–2019. The results are provided in Table 2.3.

**Table 2.3. Regression results (post-1990): Labor productivity on participation rates—random effects**

<table>
<thead>
<tr>
<th>Dependent variable: growth of labor productivity</th>
<th>Global Sample</th>
<th>Emerging Markets</th>
<th>Advanced Economies</th>
<th>GCC</th>
<th>GCC (non-oil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in participation</td>
<td>0.483***</td>
<td>-0.580***</td>
<td>0.534***</td>
<td>0.543***</td>
<td>0.763***</td>
</tr>
<tr>
<td>(13.01)</td>
<td>(-11.94)</td>
<td>(-12.22)</td>
<td>(-11.83)</td>
<td>(3.10)</td>
<td>(0.08)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.777***</td>
<td>2.064***</td>
<td>0.273</td>
<td>2.325***</td>
<td>2.643***</td>
</tr>
<tr>
<td>(3.13)</td>
<td>(10.57)</td>
<td>(0.81)</td>
<td>(8.84)</td>
<td>(10.14)</td>
<td>(7.90)</td>
</tr>
<tr>
<td>Observations</td>
<td>1441</td>
<td>2489</td>
<td>990</td>
<td>1710</td>
<td>451</td>
</tr>
<tr>
<td># of countries</td>
<td>131</td>
<td>124</td>
<td>90</td>
<td>86</td>
<td>41</td>
</tr>
<tr>
<td>R² within</td>
<td>0.120</td>
<td>0.052</td>
<td>0.147</td>
<td>0.071</td>
<td>0.016</td>
</tr>
<tr>
<td>R² between</td>
<td>0.001</td>
<td>0.152</td>
<td>0.000</td>
<td>0.218</td>
<td>0.071</td>
</tr>
<tr>
<td>R² overall</td>
<td>0.095</td>
<td>0.060</td>
<td>0.121</td>
<td>0.085</td>
<td>0.022</td>
</tr>
<tr>
<td>Hausman statistic</td>
<td>10.140</td>
<td>8.760</td>
<td>6.090</td>
<td>8.500</td>
<td>0.080</td>
</tr>
<tr>
<td>Pr value (Hausman)</td>
<td>0.000</td>
<td>0.000</td>
<td>0.001</td>
<td>0.004</td>
<td>0.772</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are standard errors. * indicates significance at 10% level; ** at 5% level; and *** at 1% level. GDP and employment in the non-oil economy is estimated after subtracting the mining sector from the aggregate economy.

Source: Author calculation using data from The Conference Board Total Economy Database (February 2020) and World Bank World Development Indicators

For the global sample, the trade-off worsened slightly in the 2000s compared to the 1990s. The estimated coefficient of the participation rate for the period 1990–2000 was quite similar to the overall post-1990 period (see Tables 2.1 and 2.2). But it increased by nearly 0.1 points in the 2000–2019 period. However, the worsening trade-off primarily reflects emerging markets, where the quantitative magnitude of the impact increased by more than 0.2 points in the post-2000 period. In mature economies, where the overall period has shown no trade-off, the complementary relationship between productivity and employment was confined only to the 1990s. Although the estimated coefficient for the 2000s is positive, the quantitative magnitude of the coefficient is near zero, and the effect is insignificant, indicating that the positive relationship has faded in the post-2000 period. It should be noted that the period from the 1990s through the 2000s was one in which mature markets saw a productivity expansion, supported by the extensive use of information and communication technologies (Timmer et al. 2011; Jorgenson and Vu 2005; Jorgenson 2001). Although information technology has replaced several routine jobs, mainly in the low-skilled segment, it has been argued that IT complements higher-skilled jobs (Autor and Dorn 2013). The simultaneous improvement in technology diffusion and productivity with no substantial job losses at the aggregate level seem to have helped advanced economies avoid the trade-off in the 1990s. However, the 2000s were a more challenging period, especially due to the global financial crisis, which led to substantial layoffs across mature economies.

Finally, compared to the global economy, emerging markets, and mature economies, the GCC stands out as a case where the trade-off worsened the most in the post-2000 period. It is quite evident that the significant trade-off observed for the entire period is a result of the 2000s, when the coefficient was large and significant, compared to a negative yet
insignificant relationship in the 1990s. We see a similar picture for the non-oil economy, although the 2000–2019 period’s coefficient is slightly below that for the aggregate economy. This may suggest that the productivity compromise has been slightly better in the non-oil sector. However, the results for the GCC have to be interpreted with caution, because the number of observations for such a short time period could affect the results. Therefore, the overall picture for the post-1990 period, which indicates a strong trade-off between productivity and employment in the GCC, would be a more reliable depiction of the reality.

Table 2.3A. Regression results (post-1990): Labor productivity on participation rates—fixed effects

<table>
<thead>
<tr>
<th>Dependent variable: growth of labor productivity</th>
<th>Global Sample</th>
<th>Emerging Markets</th>
<th>Advanced Economies</th>
<th>GCC</th>
<th>GCC (non-Oil)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in participation</td>
<td>-0.506***</td>
<td>-0.557***</td>
<td>-0.553***</td>
<td>-0.729***</td>
<td>0.0219**</td>
</tr>
<tr>
<td></td>
<td>(-13.38)</td>
<td>(-11.31)</td>
<td>(-12.46)</td>
<td>(-11.12)</td>
<td>(2.59)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.737***</td>
<td>2.050***</td>
<td>0.272</td>
<td>2.303***</td>
<td>2.040***</td>
</tr>
<tr>
<td></td>
<td>(4.23)</td>
<td>(18.88)</td>
<td>(1.08)</td>
<td>(15.09)</td>
<td>(11.26)</td>
</tr>
<tr>
<td>Observations</td>
<td>1441</td>
<td>2089</td>
<td>990</td>
<td>1710</td>
<td>451</td>
</tr>
<tr>
<td># of countries</td>
<td>131</td>
<td>124</td>
<td>90</td>
<td>86</td>
<td>41</td>
</tr>
<tr>
<td>R^2 within</td>
<td>0.120</td>
<td>0.052</td>
<td>0.147</td>
<td>0.071</td>
<td>0.016</td>
</tr>
<tr>
<td>R^2 between</td>
<td>0.001</td>
<td>0.152</td>
<td>0.000</td>
<td>0.218</td>
<td>0.071</td>
</tr>
<tr>
<td>R^2 overall</td>
<td>0.095</td>
<td>0.060</td>
<td>0.121</td>
<td>0.085</td>
<td>0.022</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are standard errors. * indicates significance at 10% level; ** at 5% level; and *** at 1% level. GDP and employment in the non-oil economy is estimated after subtracting the mining sector from the aggregate economy.

Source: Author calculation using data from The Conference Board Total Economy Database (February 2020) and World Bank World Development Indicators

Note that, for the global and emerging-market samples, the random effect models were not appropriate for the two subperiods in the post-1990 period, and therefore, the fixed-effect models for these samples are also estimated. The results are provided in Table 2.3A. But the story remains much the same, although the quantitative magnitude of the effect is slightly different.

The regression results reinforce the trade-off between labor force participation and productivity growth in our global sample and subsamples. This is consistent with previous studies on advanced economies (Beaudry and Collard 2002; Belorgey, Lecat, and Maury 2006; Becker and Gordon 2008), and on a larger global scale consisting of developing economies as well (Chaudhry and van Ark 2010). What is more interesting to note is that the trade-off is stronger and larger for GCC economies, signifying the possible compromise these

9 We also attempted to use the participation rate of migrants and nationals separately as independent variables in the regression. The results gain negative coefficients for both migrants and nationals, but a relatively smaller coefficient for the latter. When using the ratio of the nationals' participation rate to the migrants', we obtain a small positive coefficient of 0.08, suggesting that a relatively higher participation rate of nationals has a lower productivity-participation trade-off than the increased participation of migrants. However, none of these results are statistically significant, and hence not reported.

Moreover, we did not have extensive data on this; we only had seven years of data (six years of growth rate) for four countries (data for Oman and UAE were not available).
economies are making on productivity by relying on cheap foreign labor, and creating unproductive jobs for local workers.


In the previous chapter, we discussed trends and differences in the wages and employment of nationals. However, an important aspect that is less considered in the literature is the difference between nationals and migrant workers in terms of productivity. In addition to the several issues related to the measurement and availability of data on output and employment, it is nearly impossible to directly measure the productivity of different types of workers, as it is hard to attach a particular part of production to migrants or nationals. Although the role of migration and its impact on productivity is becoming increasingly important for most countries as globalization has intensified the mass movement of workers across the globe, the GCC remains an exceptionally important case. This is because, in most GCC markets, as explained in the previous chapter, the share of migrant workers in most economic sectors, particularly in the private sector, is quite large. Moreover, given the rising pressure on the local job market, many countries are pursuing job nationalization policies, which might have implications for productivity and growth in these economies, if the productivity differences between nationals and migrants are extremely high.

Many researchers have documented the impact of migration on wages and jobs—both in the GCC (Hertog 2012) and elsewhere (Dustmann et al. 2008; Card et al. 2012). One important aspect that would play a role in the productivity difference between migrants and nationals is skill differences. If most migrant workers have low skills compared to nationals, one might expect to see a negative impact on their relative productivity performance. However, the empirical evidence does not always support this. For instance, research by Peri and Sparber (2009) shows the presence of complementary skills between nationals and foreign workers, even among low-skilled groups, indicating that the co-existence of these two types of workers in the production process would lead to a productivity gain. A recent study by Gray, Montresor, and Wright (2020) suggests that the expansion of the European Union to Eastern European countries, and the consequent movement of low-skilled workers, has increased process innovation and overall innovation while reducing product innovation. According to Acemoglu (1998), firms will adjust their input mix and technology choices according to the availability of skills, which is very likely in the GCC, where private firms have access to relatively cheaper and more flexible expatriate workers compared to more rigid and expensive nationals. Due to limited data on the skill differences between migrants and nationals in GCC economies, it is hard to take that aspect into account while measuring the productivity difference between the two. However, work commitment in a strict work environment, and flexible firing and hiring policies for migrants versus more secure policies for nationals, might offset the impact of skills on productivity, as foreign workers might work hard and smartly, acquiring skills and retaining them via training and education. It is hard to hypothesize how the productivity dynamics work in the region and what factors would influence the differences.
One question that is often addressed in the literature is the impact of immigration on local wages—with the hypothesis being that it lowers wages in the domestic economy, as these workers are relatively cheaper. However, there is only limited evidence on this, and more importantly, that hypothesis is less suitable for the GCC, where wages for nationals are not market-driven, but rather are determined administratively in accordance with criteria that are not necessarily related to capabilities or productivity. Hence, the crucial question for the GCC is how much immigration affects local jobs and productivity, and in particular, whether job nationalization policies, whose purpose is to restrict migration to the region, can create more jobs and sustain productivity. The famous Rybczynski theorem (1955) implies that the economy’s output composition will change to firms that use more of the new abundant factors—in this case, national workers. Hanson and Slaughter (1999) find supportive evidence in the US for the Rybczynski theorem. They suggest that US states absorb regional endowment shocks such as immigration through mechanisms other than changes in relative factor prices. And in their study of the impact of immigration restrictions on Mexican farmworkers in the United States, Clemens, Lewis, and Postel (2018) found that such restrictive policies failed to raise wages or jobs for local workers. Instead, employers changed their technology to adjust their production processes to exclude foreign workers, wherever possible, or changed the volume of production. Thus, immigration restrictions did not lead to the employment of more national workers, but rather replaced immigrants with capital. In the case of the GCC, the effects are more nuanced, as the segmentation of the labor market is far more apparent, and not driven by market forces.

In theory, whether workers are immigrants or nationals, unless their skills differ, their contributions to output and production should be the same. This would indicate that a change in the number of migrant workers would have a similar impact as a change—in either direction—in local labor participation rates. Therefore, in a neoclassical growth setting, they should be perfectly substitutable. But in reality, especially in the GCC, that is not necessarily the case. In the subsequent sections of this chapter, we will examine the productivity differences between migrants and nationals, as well as the substitutability between the two.

3.1 Estimation of the impact of job nationalization on labor productivity

To estimate the impact of job nationalization policies on total labor productivity, we employed a production function approach. The most common functional form that is widely used in the literature—the Cobb-Douglas (CD) production function—was used in this regard. The conventional Cobb-Douglas production function takes the following form, where output is expressed as a function of factor inputs:

$$Y = F(K, L) = AK^\alpha \cdot L^\beta$$  \hspace{1cm} (7)

where $Y$ is output, $A$ is technology or productivity parameter, $K$ is capital input, $L$ is labor input, $\alpha$ is the output elasticity of capital, and $\beta$ is the output elasticity of labor (i.e., the amount of change in output for one unit change in these inputs). The CD production function assumes constant returns to scale so that $\alpha + \beta = 1$. Now considering that $L = N + M$, where
\( N \) is nationals and \( M \) is migrants, and assuming that there is a productivity difference between \( N \) and \( M \), say by the factor \( \phi \), we can rewrite the production function as

\[
Y = AK^\alpha \cdot [N + (1 + \phi)M]^\beta. \tag{8}
\]

Note that in the above specification, if \( \phi = 0 \), then it is the same as (1); that is, there is no productivity difference between migrants and nationals. If it is greater than zero, then nationals are less productive than migrants, and if it is less than zero, then nationals are more productive than migrants. To facilitate the estimation, we can simplify the model using the migrant share of total employment as\(^{10}\):

\[
Y = AK^\alpha \cdot L^\beta \cdot (1 + \phi s_m)^\beta \tag{9}
\]

where \( s_m = M/L \); that is, the share of migrant workers in total employment.

Transforming this into log form, and adding an error term (\( \varepsilon \)), we have the estimable equation:

\[
\ln Y = \ln A + \alpha \ln K + \beta \ln L + \beta \ln(1 + \phi s_m) + \varepsilon. \tag{10}
\]

Since our objective is to estimate the impact of job nationalization on productivity, it is more appropriate to use the above equation's labor productivity version:

\[
\ln y = \ln A + \alpha \cdot \ln K + (\beta - 1) \cdot \ln L + \beta \cdot \ln(1 + \phi s_m) \tag{11}
\]

where \( y \) is labor productivity \((Y/L)\). Since we do not know the value of \( \phi \), and given that \( \ln(1 + \phi s_m) \) can be approximated to \( \phi s_m \), using a first-order Taylor approximation, we can estimate the following equation:

\[
\ln y = \ln A + \alpha \cdot \ln K + (\beta - 1) \cdot \ln L + \beta \phi \cdot s_m. \tag{12}
\]

Further simplifying the notations, we can rewrite this as

\[
\ln y = \ln A + \alpha \cdot \ln K + \gamma \cdot \ln L + \mu \cdot s_m \tag{13}
\]

where \( \mu = \beta \phi \) and \( \gamma = (\beta - 1) \). The productivity difference between migrants and nationals, \( \phi \), can be obtained as \( \frac{\mu}{(1+\gamma)} \cdot \phi \) is a measure of any features that make migrant workers different from nationals. The coefficient of labor in this equation is the elasticity of labor in a standard Cobb-Douglas production function minus 1. Therefore, under constant returns to scale, it is the same as the elasticity of capital. Therefore, if one imposes constant returns to scale to the estimated equation, one can exclude labor from the equation, and use capital

---

\(^{10}\) Equation (8) can be expanded as \( Y = AK^\alpha \cdot (N + M + \phi M)^\beta \). Since \( N+M = L \), \( Y = AK^\alpha \cdot (L + \phi M)^\beta \). We can further simplify this by multiplying \( \phi M \) with \( L/L \), so that \( Y = AK^\alpha \cdot (L + \phi M \cdot \frac{L}{L})^\beta \), which is equivalent to \( Y = AK^\alpha \cdot (L \cdot \left(1 + \frac{\phi M}{L}\right))^\beta \). \( M/L \) is nothing but the share of migrants in total employment, say \( s_m \). Therefore, the final expression is \( AK^\alpha \cdot L^\beta \cdot (1 + \phi s_m)^\beta \).
intensity (capital per worker) as the independent variable. However, we do not impose this, but let the data reveal itself. Also, note that the \( \ln A \) in equation (13) is not TFP growth; it is a measure of average TFP, or the effect of all factors that are likely to influence TFP. For instance, it may reflect the state of technology as well as the skill and education level of the workers employed.

First, we tested for the appropriability of a pooled OLS regression using the Breusch and Pagan Lagrange Multiplier test for random effects. The result rejects the null hypothesis that the pooled OLS model is appropriate. Further, to choose between random and fixed-effect panel models, we used the standard Hausman test and Sargan Hansen test of over-identifying restrictions for fixed vs. random effects. The results reject the null hypothesis that the random-effects model is appropriate, suggesting that the differences between fixed effects and random effects were systematic, and the coefficients of fixed effects are efficient. This is indicative of the presence of industry-specific, time-invariant effects. Therefore, we estimate the following model using fixed-effects panel data regression with robust standard errors:

\[
\ln y_{it} = \ln A_i + \alpha \ln K_{it} + \gamma \ln L_{it} + \mu_s m_{it} + \epsilon_{it} \tag{14}
\]

where \( A_i \) is the total factor productivity in industry \( i \), and \( \epsilon_{i,t} \) is the random error term.

### 3.2 Data and variables

To estimate the production functions, we need data on the output and inputs (capital and labor) for industries in each country in the region. Due to the fact that most of the GCC authorities conduct annual surveys of economic establishments, it is assumed, at least theoretically, that such data are available for each GCC country. However, it was not possible to obtain sufficient, appropriate, and consistent data except for Saudi Arabia and Kuwait.\(^{11}\)

Data for Kuwait were obtained from the Central Statistical Bureau (CSB), and are classified according to the International Standard Industrial Classification (ISIC) revision 3. The data cover 41 industries\(^{12}\) over the period from 2002 to 2017. As we confine our analysis to the non-oil economy, the oil-refining sector has been excluded.

Data for Saudi Arabia were obtained from the General Authority for Statistics (GASTAT), and cover all economic activities from 2005 to 2017, except for public administration. For the 2005–2009 period, data are available for 55 industries, classified according to ISIC 3, whereas for the post-2009 period, they are in ISIC 4, covering 83 sectors. Using the ISIC 3 and ISIC 4 concordances provided by the United Nations, we have matched these two different industry groupings to arrive at a common set of industries. In our final data set, we have

---

\(^{11}\) Moreover, the researchers’ ability to access additional data was limited due to the disruption of activities caused by the coronavirus pandemic, which started during the preparation of this study. This made it difficult to approach the appropriate GCC authorities in search of this data.

\(^{12}\) In effect, the data exclude agriculture; fishing; electricity, gas, and water; public administration; activities of private households; and extraterritorial organizations and bodies.
43 industries, of which the oil sector is excluded from the analysis. Broadly speaking, our analysis in both countries is confined to sectors in non-oil manufacturing, market services, and non-market services except government services.\textsuperscript{13} Below, we detail the construction of each variable.

**GROSS VALUE ADDED**

For Kuwait, nominal values for gross value added (GVA) were directly obtained from the establishment survey. For Saudi Arabia, however, a proxy for nominal GVA was derived by adding compensation and operating surplus, both available in the surveys. Real values were then obtained by deflating the nominal values by each respective industry’s ISIC section value-added deflator.

**LABOR**

For both countries, the establishment surveys provided the number of total employees and employees by nationality (national and non-national).

**CAPITAL STOCK**

Capital stock was the most challenging part of the data in both countries, as the length of the time series is too short. Estimates of capital stock for both countries were derived from investment data using a perpetual inventory method (PIM):

\[
K_t = K_{t-1} \cdot (1 - \delta) + I_t
\]  \hspace{1cm} (15)

where \(K\) is the capital stock, \(I\) is the real investment, and \(\delta\) is the geometric depreciation rate. The subscript \(t\) indicates the year. To implement (1) one needs an initial stock, for which we rely on the famous Harberger (1978) approach. The initial capital stock was estimated for the year 2002 in the case of Kuwait and for the year 2005 in the case of Saudi Arabia, following the Harberger equation used in the Conference Board Total Economy Database (see Erumban and de Vries 2017):

\[
K_0 = \frac{I_1}{(g_I + \delta)}
\]  \hspace{1cm} (16)

where \(K_0\) represents the initial capital stock in period zero (that is, 2002 for Kuwait and 2005 for Saudi Arabia), \(I_1\) is the real investment in period 1, \(g_I\) is the average growth rate of investment, and \(\delta\) is the depreciation rate. Ideally, the denominator should be the sum of the growth rate of capital stock in the first period and the depreciation rate. However, since the capital stock growth rate data were not available, investment growth was used as a proxy instead. Moreover, given that investment growth is quite volatile, \(g_I\) is taken as an average.

\textsuperscript{13} Market services includes trade, transportation, accommodation and food, and business and administrative services. Non-market services includes community, social, and other services and activities, such as health and education.
for the entire time horizon of the data sets (15 years for Kuwait and 12 years for Saudi Arabia, respectively).

Gross fixed capital formation data deflated by investment deflators with base 2002 was used as the measure of investment in equation (16) for Kuwait. The investment deflator is assumed to remain the same across industries, and is taken from the national accounts. For Saudi Arabia, heterogeneity in reporting standards over time required the consolidation of two investment measures: fixed-asset purchases (FA), used in the surveys before 2010, and gross capital formation (GCF), which are provided in the years that followed. In addition to FA, GCF also accounts for changes in inventories and transfers, and thus displays higher levels of investment. For 2005–2009, we impute a nominal investment series by applying the distribution of gross fixed assets to broad sectoral estimates of gross fixed capital formation (GFCF). These sectoral GFCF estimates are obtained using the GFCF/value-added ratio from the national accounts available for broad sectors of the economy from the United Nations. However, since there was no overlapping year—the 2005 series ended in 2009, and the 2010 series started in 2010—to bridge the two series, we used the 2010 investment/GDP ratio from the new series and applied it to 2009. For the depreciation rate $\delta$ in equation (15), we use a geometric depreciation rate of 6 percent for both countries.

WAGES AND COMPENSATION

For both countries, the establishment surveys provided total compensation for employees. Kuwait, however, was the only one to have total compensation broken down by nationality (national and non-national).

3.3 The productivity difference between migrants and natives: Regression results

The results are provided in Table 2.4. Initially, we estimated the regression using data for 41 industries over the 2003–2017 period for Kuwait and 43 industries over the 2006–2017 period for Saudi Arabia. Since the 2008–2009 global financial crisis impacted productivity growth globally and in the GCC, we include a crisis dummy in equation (14) to capture any impact the global financial crisis may have had on labor productivity. The productivity drop in some sectors in 2009 and the recovery in 2010 were quite large. Moreover, given the significant reliance of the GCC economies on oil revenue, we also included global oil prices

14 Other capital stock variations were estimated using various assumptions to consolidate the two investment measures. For instance, total investment was derived from the total economy capital output ratios and distributed for 2005 through 2009 using the investment shares of each individual industry division relative to the original total provided by the data. Other variations assumed these shares to be fixed to their 2010 distribution. Another attempt was made by using the actual annual growth rates of investment in the years 2005 and 2009. All variations provided similar estimation outcomes.

15 We tried two alternatives here: 1) a dummy that takes 1 for 2007, 2008, and 2009, and 0 otherwise; 2) a dummy that takes 1 for 2009 only. Both produced similar results.
as a control variable in the regression. These data were obtained from the International Energy Agency.

For Kuwait, the estimated coefficient of labor is negative, −0.345, and that of capital, or the elasticity of capital to output, is 0.104. These coefficients are different than those for Saudi Arabia, where the estimated coefficient of labor is −0.398 and the coefficient of capital is 0.122. The coefficients of both labor and capital are significant in both countries. Recall that since we estimate a labor productivity equation, the coefficient of labor is not the elasticity of labor in the production function, but the elasticity minus 1. Therefore, in the last row of the table, we provide the estimated elasticity of labor, which is 0.655 for Kuwait and 0.602 for Saudi Arabia. Apparently, the marginal productivity of labor is slightly lower in Saudi Arabia, while that of capital is slightly higher.

Table 2.4. Regression results: Production function with migrant share in employment, non-oil economy

<table>
<thead>
<tr>
<th>Dependent variable: log of labor productivity</th>
<th>No lag</th>
<th>One year lag</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Kuwait</td>
<td>Saudi Arabia</td>
</tr>
<tr>
<td>log Capital (α)</td>
<td>0.104**</td>
<td>0.122***</td>
</tr>
<tr>
<td></td>
<td>(2.63)</td>
<td>(4.01)</td>
</tr>
<tr>
<td>log Labor (γ=β−1)</td>
<td>-0.345***</td>
<td>-0.398**</td>
</tr>
<tr>
<td></td>
<td>(-6.43)</td>
<td>(-2.40)</td>
</tr>
<tr>
<td>sm(μ=βφ)</td>
<td>0.494*</td>
<td>0.443*</td>
</tr>
<tr>
<td></td>
<td>(2.30)</td>
<td>(1.90)</td>
</tr>
<tr>
<td>Crisis Dummy</td>
<td>0.0355</td>
<td>-0.154***</td>
</tr>
<tr>
<td></td>
<td>(0.87)</td>
<td>(-3.50)</td>
</tr>
<tr>
<td>log Oil prices</td>
<td>-0.0751</td>
<td>-0.0302</td>
</tr>
<tr>
<td></td>
<td>(-1.37)</td>
<td>(-0.48)</td>
</tr>
<tr>
<td>Constant (ln A)</td>
<td>3.777***</td>
<td>7.085***</td>
</tr>
<tr>
<td></td>
<td>(11.64)</td>
<td>(4.07)</td>
</tr>
<tr>
<td># of industries</td>
<td>41</td>
<td>43</td>
</tr>
<tr>
<td># of observations</td>
<td>608</td>
<td>513</td>
</tr>
<tr>
<td>R² - within</td>
<td>0.144</td>
<td>0.193</td>
</tr>
<tr>
<td>R² - between</td>
<td>0.071</td>
<td>0.085</td>
</tr>
<tr>
<td>R² - overall</td>
<td>0.080</td>
<td>0.087</td>
</tr>
<tr>
<td>Estimated φ</td>
<td>0.754</td>
<td>0.736</td>
</tr>
<tr>
<td>Estimated β</td>
<td>0.655</td>
<td>0.602</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are standard errors. * indicates significance at 10% level; ** at 5% level; and *** at 1% level.

16 The authors are grateful to one of the reviewers for adding this specific suggestion.
Given that the sum of the elasticities (of capital and labor) adds to less than unity in both countries, the production functions for Kuwait and Saudi Arabia seem to feature a decreasing return to scale. Output increases less than proportionately to labor and capital, and given that the employment elasticity is around 0.7, it seems to be mostly a capital-driven phenomenon. Basu and Fernald (1997) find decreasing returns to scale in the US economy, using firm-level data, especially when value added is used as a measure of output. They suggest that under imperfect competition, value added might suffer from an omitted variable bias and aggregation bias, leading to less robust estimates. Decreasing returns to scale estimates might also occur if there is substantial variation in capacity utilization; that the use of capital is not adequately taken into account. We do not account for cyclicality and capacity utilization in our estimates. In any case, if the observed decreasing returns to scale in our estimates are real, it might imply that the marginal cost of investment in these economies is an increasing function of investment. That is, the marginal cost of investment is higher for higher investment levels, and the gain from higher investment levels is lower.

The crisis dummy was negative and significant in Saudi Arabia, indicating that it had a massive impact on lowering productivity. It was, however, insignificant in the case of Kuwait. Interestingly, the coefficient of oil prices is negative and insignificant in both countries, indicating no impact of oil price changes on productivity in GCC economies. Earlier literature established a negative relationship between oil prices and productivity, primarily for the net importing countries. In the case of oil-producing countries, the relationship appears to be more complex. If a higher oil price leads to high-quality investment both in human and physical capital, that will serve as an impetus to improve productivity in the non-oil economy. However, that doesn’t appear to be the case, prima facie, in both Kuwait and Saudi Arabia, as suggested by an insignificant relationship in our results. It is beyond the scope of this paper to explore this relationship further. However, a possible reason why oil prices do not show any meaningful impact on productivity is that high oil prices might be accompanied by greater and less productive job creation, thus offsetting any positive productivity spillover that could come from oil revenues.

Now coming to the most interesting coefficient from the perspective of the current study, which is the share of immigrants in total employment, we get a positive coefficient of 0.494 in the case of Kuwait and of 0.443 in the case of Saudi Arabia. In both cases the estimated coefficient is significant at a 5 percent level of significance. This suggests that a 1 percent higher migrant share leads to a 0.4–0.5 percent increase in overall labor productivity in these economies.

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17 Given that the oil price is subject to significant volatility—the standard deviation of annual Europe Brent spot prices from 2003 to 2017 was 23.2—we also tried the ratio of oil price to industry value-added price. (Industry value-added prices were obtained for industries at higher aggregates from the United Nations.) But the results did not change, and are therefore not reported.

18 Jorgenson (1982) argues that higher energy prices were a major reason for the productivity slowdown in the United States.

19 Even at the aggregate level, using labor productivity from The Conference Board Total Economy Database, we find no significant correlation between oil prices and labor productivity in these two countries. For instance, the correlation coefficient is −0.21 for Saudi Arabia and 0.08 for Kuwait for the 1987–2019 period, and in the short term (during the period of our analysis), it is 0.10 for Saudi Arabia (2006–2017) and −0.3 for Kuwait (2003–2017).
two countries, clearly indicating that a higher migrant share has a positive productivity impact. In other words, migrants tend to have higher productivity levels than nationals in the non-oil sectors of Saudi Arabia and Kuwait.

Following equations (6) and (7), we can approximate the productivity differences between nationals and migrants using the migrant share coefficient. The estimated magnitude of $\hat{\varphi}$, which is the migrants’ productivity premium, is 0.754 for Kuwait and 0.736 for Saudi Arabia (see the penultimate row in Table 2.4). This would suggest that migrants are about 75 percent more productive in both countries than their national counterparts. In the previous chapter, we have shown that there is a large wage gap between migrants and nationals in most GCC economies. With the massive productivity gap we illustrate in this section, the wage gap indicates substantial cost competitiveness for migrant workers over nationals. Chart 2.3 combines the two indicators—the estimated productivity gap and the actual wage gap (see Chart 1.26 in the previous chapter). The average productivity of nationals is 75 percent lower in both Kuwait and Saudi Arabia. In contrast, the wages paid to migrants are just over 20 percent of nationals’ wages in Kuwait, and less than 40 percent of nationals’ wages in Saudi Arabia. This indicates that the implicit unit labor cost of national workers, or the average labor cost for producing one unit of output, is nearly 12 times higher in Kuwait, and five times higher in Saudi Arabia compared to migrants.

Chart 2.3. Estimated productivity differences between nationals and migrants, compared to nominal wage differences, in Kuwait and Saudi Arabia (Nationals = 100)

Note: The productivity of migrants, obtained using the regression results presented in Table 4, is expressed relative to nationals.
Source: The Conference Board
It may be noted that production function estimates, which relate output to factor inputs and productivity, are subject to endogeneity problems, as inputs are often endogenous as they are chosen simultaneously with output levels (Kangasniemi et al. 2012). Given the data constraints for GCC economies, it is hard to obtain appropriate instruments that can help us address the endogeneity issue using an instrumental variable approach. However, we have tried to estimate the model using lagged values of capital, labor, and migrant shares (see the last two columns of Table 2.4). The results convey the same message for Kuwait: that migrants have a productivity premium. In fact, the impact of migrants becomes even stronger and larger, suggesting greater productivity differences between migrants and nationals in Kuwait when we use lagged independent variables. For Saudi Arabia, the coefficient remains positive but turns insignificant.

Another important issue with the data was the normality of the migrant share in employment. While output, capital, and labor data were transformed into a log form, which made them normally distributed, the specification in equation (14) required the migrant share to be included as is. However, the migrant share data were not normally distributed, which may impact the results. When we convert the employment percentages of migrants and nationals into a log form, nationals’ share in employment attained a normal distribution. Therefore, following Kangasniemi et al. (2012), we ran the regression using the log values of the national share in employment, which produced similar results. The coefficients of both capital and labor remained significant, and their values remained somewhat unchanged in Kuwait (see Table 2.5). The log of the migrant share also remained positive and significant. In contrast, the log of the nationals’ share had a negative yet insignificant coefficient. A similar pattern holds in Saudi Arabia as well. Its labor and capital coefficients hovered around −0.4 and 0.13, respectively. Interestingly, while the effect of the log of the migrant share was positive but insignificant, the log of the share of national workers attained a negative and significant coefficient for Saudi Arabia. These results support our earlier observations that migrants enjoy a productivity premium, as the log of the migrant share in Kuwait shows a positive and significant impact, and the log of the national share in Saudi Arabia shows the opposite. The results also indicate that faster growth in the national share of employment is likely to have productivity setbacks in Saudi Arabia. However, the log-transformed share values are not consistent with our original specification for estimating the productivity premium, and therefore such an attempt has not been conducted.
The two main inferences we arrive at from the analysis here are that there is a significant productivity difference between migrants and nationals in Saudi Arabia and Kuwait, and there are concerns over productivity advancement in Saudi Arabia with the rising national share of employment. In both countries, to circumvent the productivity challenge amid the increasing drive to expand nationals’ jobs, it is essential to upskill the native population and stimulate structural change in the economy to create smart and productive jobs that nationals are motivated to fill.

### 3.4 Migrants and nationals: Substitutes or complementary?

The impact of job nationalization—or restrictions on the import of labor—heavily depends on the assumed effect of the relative wages of migrant workers on their relative supply and demand. This is similar to the relative price and demand relationship between imported and domestic products, which is usually considered in the international trade literature when evaluating the effects of tariffs (Feenstra et al. 2018). This measure of substitution elasticity

<table>
<thead>
<tr>
<th>Dependent variable: log of labor productivity</th>
<th>log National share</th>
<th>log Migrant share</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kuwait</strong></td>
<td><strong>Saudi Arabia</strong></td>
<td></td>
</tr>
<tr>
<td>log Capital</td>
<td>0.105**</td>
<td>0.137***</td>
</tr>
<tr>
<td></td>
<td>(2.53)</td>
<td>(4.51)</td>
</tr>
<tr>
<td>log Employment</td>
<td>-0.347***</td>
<td>-0.432**</td>
</tr>
<tr>
<td></td>
<td>(-5.77)</td>
<td>(-2.64)</td>
</tr>
<tr>
<td>log nationals share</td>
<td>-0.0234</td>
<td>-0.216**</td>
</tr>
<tr>
<td></td>
<td>(-0.95)</td>
<td>(-2.21)</td>
</tr>
<tr>
<td>log migrant share</td>
<td></td>
<td>0.283*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.15)</td>
</tr>
<tr>
<td>Crisis Dummy</td>
<td>0.0356</td>
<td>-0.177***</td>
</tr>
<tr>
<td></td>
<td>(0.83)</td>
<td>(-3.84)</td>
</tr>
<tr>
<td>log oil price</td>
<td>-0.0720</td>
<td>-0.0499</td>
</tr>
<tr>
<td></td>
<td>(-1.41)</td>
<td>(-0.76)</td>
</tr>
<tr>
<td>Constant</td>
<td>4.149***</td>
<td>7.310***</td>
</tr>
<tr>
<td></td>
<td>(13.45)</td>
<td>(4.17)</td>
</tr>
<tr>
<td># of industries</td>
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<td>43</td>
</tr>
<tr>
<td># of observations</td>
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<td>513</td>
</tr>
<tr>
<td>$R^2$ - within</td>
<td>0.132</td>
<td>0.195</td>
</tr>
<tr>
<td>$R^2$ - between</td>
<td>0.139</td>
<td>0.203</td>
</tr>
<tr>
<td>$R^2$ - overall</td>
<td>0.090</td>
<td>0.066</td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are standard errors. * indicates significance at 10% level; ** at 5% level; and *** at 1% level.
between imported and domestic goods is usually called the Armington elasticity, attributed to Armington's (1969) original model. In the context of domestic versus imported labor, a similar relationship may be expected. Using the neoclassical assumption of wage marginal product equivalence, one can estimate the substitution elasticity between migrants and nationals by relating the log relative wage of migrants to the relative log supply of migrants (Borjas, Grogger, and Hanson 2012). Given that migrants are generally less costly than native workers, domestic wages should face downward pressure from the inflow of migrant workers, especially of similar skills. However, empirically the wage effects of migration depend on the magnitude of migration and how substitutable workers of different skills are (Ottaviano and Peri 2012). Given the data restrictions we encountered in GCC economies, it is difficult to compare the wages and demand dynamics between migrants and nationals across different skill groups. To get an overall picture of the substitutability between migrants and nationals nevertheless, we carried out some basic analysis following the previous literature on this subject. If workers are highly substitutable, the changes in the relative supply of native and foreign workers will not have a significant effect on their relative wages. Because firms can easily shift to the cheaper worker category, neither employee category will have much ability to adjust its wages to its relative supply.

The impact of the increasing number of migrant workers on domestic wages and employment and the substitutability between national and migrant workers has attracted much attention in the literature. Studies have observed both negative and positive impacts across industries and skill cohorts. For instance, Ottaviano and Peri (2012) find imperfect substitutability between migrants and nationals within narrowly defined skill categories. However, Borjas, Grogger, and Hanson (2008) show that the imperfect substitutability disappears when the analysis considers the various heterogeneities in the labor market. In Germany, Brücker and Jahn (2011), using a general equilibrium framework, show that the labor market effects of immigration are moderate.

On the other hand, Bratsberg and Raam (2012) showed that a rising migrant share led to falling wages in the construction sector in Norway. In particular, the effect was largest on the wages of low- and medium-skilled nationals. A recent study by Wei et al. (2019) examines the substitution between nationals and foreign workers in the US farm sector, among various categories of age, skill, and legal status. They found no evidence that either authorized or unauthorized immigrant workers had a significant effect on natives' jobs. Past studies have also looked at the substitutability between skilled and unskilled workers (e.g., Behar 2010; Blankenau and Cassou 2011). Angioloni and Wu (2020) provide estimates of native-migrant substitution elasticity by sector for the UK, and observe that the two types of workers are gross substitutes overall. However, the results vary substantially across sectors, and point to a potential labor shortage in industries that rely heavily on migrant labor.

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20 See Bajzik et al. (2020) for a review of several studies that use this concept and provide elasticity measures for domestic versus foreign goods.
Following the previous literature in labor economics, we estimate the following equation that relates the relative wages of migrants to their relative employment (Borjas 2003; Manacorda, Manning, and Wadsworth 2012; Ottaviano and Peri 2012; Angioloni and Wu 2020):  

$$\ln \left( \frac{W_m}{W_n} \right)_{i,t} = \rho + \pi \cdot \ln \left( \frac{M}{N} \right)_{i,t} e_{i,t}$$

(17)

where $W_m$ is the wage rate of migrants, $W_n$ is the wage rate of nationals, and $\pi = -\frac{1}{\sigma}$ where $\sigma$ is the elasticity of substitution. Once the equation is estimated, $\sigma$ can be obtained as $-1/\pi$.

If the estimated $\pi$ is statistically insignificant, implying no impact of a change in the relative supply of migrants on their relative wages, then nationals and migrant workers are perfectly substitutable. For instance, if the supply of migrants falls, their wages will not rise relative to natives; rather, firms will naturally shift to nationals, given that they are perfectly substitutable to migrants. In this case, when the estimated $\pi$ is close to zero, the $\sigma$ will be close to infinity. A significant $\pi$ would say that the two types of workers are imperfect substitutes. In other words, the availability of migrants in the economy has a strong influence on their wages, because they are not easily substitutable by native workers. The magnitude of the estimated elasticity $\sigma$, is indicative of how closely substitutable nationals and migrants are. The larger the magnitude of the elasticity of substitution, the more likely the two will be swapped. For instance, if the $\pi \rightarrow 0$, that clearly says that the relative prices are not responsive to the relative supply of workers and that the $\sigma \rightarrow$ infinity. In other words, regardless of the availability of migrants in the economy, their wages would remain unchanged; otherwise, they can be easily substituted by the locals. Several studies in the past have observed that they are imperfect substitutes (Card 2009; Ottaviano and Peri 2012; Manacorda, Manning, and Wadsworth 2012).

However, as mentioned earlier, note that the elasticity of substitution may differ substantially across different skill groups. As we were constrained by the data availability, we confined our analysis to total workers only. There is a myriad of literature that infers that migrants and nationals receive differing remuneration, despite having common skills (Borjas 1994; Manacorda, Manning, and Wadsworth 2012).

---

21 Note that previous studies have considered this model using various cohorts of workers, categorized by education and age groups. However, we do not have these dimensions in our data, and therefore, we implicitly assume some sort of homogeneity across various skill and age groups, which is less realistic.
Table 2.6. Regression results: Elasticity of substitution, Kuwait

<table>
<thead>
<tr>
<th>Dependent variable: log of relative wages of migrants</th>
<th>Fixed effect</th>
<th>Random effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>log relative wages of migrants</td>
<td>-0.188*</td>
<td>-0.165***</td>
</tr>
<tr>
<td></td>
<td>(-2.25)</td>
<td>(-2.60)</td>
</tr>
<tr>
<td>Crisis Dummy</td>
<td>0.0151</td>
<td>0.0138</td>
</tr>
<tr>
<td></td>
<td>(0.22)</td>
<td>(0.19)</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.415</td>
<td>-0.483**</td>
</tr>
<tr>
<td></td>
<td>(-1.55)</td>
<td>(-2.03)</td>
</tr>
<tr>
<td># of industries</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td># of observations</td>
<td>606</td>
<td>606</td>
</tr>
<tr>
<td>R² - within</td>
<td>0.057</td>
<td>0.057</td>
</tr>
<tr>
<td>R² - between</td>
<td>0.067</td>
<td>0.067</td>
</tr>
<tr>
<td>R² - overall</td>
<td>0.067</td>
<td>0.067</td>
</tr>
<tr>
<td>Estimated elasticity</td>
<td>5.32</td>
<td>6.06</td>
</tr>
<tr>
<td>Breusch-Pagan LM test</td>
<td>1227.48***</td>
<td></td>
</tr>
<tr>
<td>Hausman statistic</td>
<td>2.040</td>
<td></td>
</tr>
<tr>
<td>Sargen Hansen statistic</td>
<td>4.559*</td>
<td></td>
</tr>
</tbody>
</table>

Note: Figures in parentheses are standard errors. * indicates significance at 10% level; ** at 5% level and *** at 1% level.

The results of the regression specified in equation (17) are provided in Table 2.6. Since the Hausman statistic fails to reject the random-effects model, we provide both the fixed-effects and the random-effects results. We see a negative and significant coefficient for relative employment in both models, which is an intuitive indication of imperfect substitutability between migrants and nationals in Kuwait. The estimated elasticity is between 5 and 6 (among the two models). However, such conclusions should be reached with caution, as the comparison here is not between nationals and migrants of similar observable characteristics. The relationship may be less strong at higher skill levels compared to lower skill levels. For instance, Peri and Sparber (2009) suggest that low-skilled migrants’ lower language skills make them specialize in manual tasks that are not attractive to nationals. In other words, migrant workers in this group are likely to complement native workers or take up tasks that natives are not keen to do. In contrast, the higher-skilled group may experience a higher substitutability, as there is more similarity between migrants and nationals (Peri and Sparber 2009). However, based on the aggregate employment results, there is no strong evidence to substantiate that argument.

Our econometrics results also show a positive and significant coefficient for the crisis dummy. Although it may appear strange that migrants’ relative wages were high during the crisis, significant job losses likely happened among them, especially for low-paid jobs. In other words, it is likely that highly paid migrants remained employed, while many low-paid migrants were laid off, leading to a higher average wage during the crisis years.
A critical aspect of understanding the substitutability between the two types of workers is the spending patterns of migrant workers. Even at the aggregate level, the approach we took is a partial equilibrium approach, without considering the demand-side dynamics. Unskilled workers likely spend their income on sectors that create more unskilled jobs (i.e., likely more migrant jobs). In contrast, skilled migrants may spend more on sectors that create medium- and high-skilled jobs, creating opportunities for nationals. This pattern may vary across countries in the region and the nationalities of migrants and their skill levels. Although this is an important aspect to consider, it was hard to do in the present study due to data limitations. Despite all the caveats, the aggregate results we present suggest that migrants and nationals in Kuwait are mostly complementary rather than substitutes. This makes it even harder to pursue nationalization policies without understanding the factors that can make the substitution between the two easier, including skill, productivity, and wage differences.

3.5 Closing observations

In this chapter we made an unprecedented attempt to gain a better understanding of the relationship between employment and productivity in GCC economies, using different approaches. First, we examined the trade-offs between employment and labor productivity in the region in a comparative framework with emerging markets, mature economies, and the global economy. Second, we analyzed the productivity differences between migrants and nationals in Kuwait and Saudi Arabia. Finally, we evaluated the elasticity of substitution between migrants and nationals in Kuwait.

In general, this study makes an important contribution to the literature on GCC labor markets. First, it can be seen that there is a strong trade-off between rising participation and labor productivity in GCC markets, which has worsened since the 2000s. This chapter highlights evidence of the region’s increasing compromise on a more sustainable source of growth; i.e., productivity in exchange for the creation of more jobs. Second, in Saudi Arabia and Kuwait, migrant workers enjoy a productivity premium over nationals. Finally, migrants and nationals do not appear to be close substitutes, but rather imperfect substitutes. However, since this study did not conduct a detailed analysis of the substitution possibilities within the various skill categories, such a conclusion might be somewhat premature.

The preceding and following chapters indicate the substantial wage gap between nationals and migrants, wherein the latter’s wages are substantially lower than the former’s. This wage gap has mainly been driven by policy distortions rather than market forces. The lower relative wages of migrants, when combined with their higher productivity premium, may indicate a lower unit labor cost, which might encourage private enterprises to continue relying on expatriate workers to stay cost competitive. This would make substitution between the two categories of workers even more difficult.

All these dynamics point to the need to upskill the native workforce and create more productive jobs. Although we lack data on the substitutability between migrants and nationals at different skill levels, it is likely that they are more substitutable at higher skill levels, and creating more high-skilled jobs and equipping workers with higher skills will be important. At the same time, reliance on expatriates, especially for low-skilled jobs, is likely to continue unless a major automation process is implemented. Moreover, it is not wise to reject high-skilled migrants to nationalize a couple thousand jobs, given the intensity of the global war for talent.
and the importance of retaining skilled, experienced, and qualified workers. Rather, one might argue, if the data support a feasible substitution at middle-skill levels, that is perhaps a more beneficial approach, as there might be more nationals available in those segments of the labor force. This requires a more thorough analysis of the degree of substitutability between migrants and nationals at various skill levels.

The GCC is notorious for having insufficient data to conduct a comprehensive economic analysis of the region’s economies. Our study is therefore subject to the biases and limitations created by this lack of data. For example, we had to make several assumptions to derive a consistent series of capital stock to measure productivity. In addition to possible endogeneity issues in the econometric analysis, these unsatisfactory data issues are likely to impact our results. However, our assessment is that regardless of any such differences, the general picture is likely to remain the same.

In support of our conclusion, the next chapter will focus on the development and effectiveness of the GCC’s job nationalization policies by reviewing the published papers and reports on these policies. We will then illuminate the five basic issues hindering the progress and success of these policies before summarizing the final results and proposing recommendations on the courses of action necessary to deal with the issue of localizing the region’s labor markets in a manner that does not compromise labor productivity, the most essential source of economic growth.
Chapter II Appendix Tables

Chart 2.A1. Labor force participation rates in GCC economies (percentage of population ages 15+): Nationals (left graph) vs. migrants (right graph)

![Chart 2.A1](image)

Source: GSTAT

Table 2.A1. Correlation between independent variables—Kuwait

<table>
<thead>
<tr>
<th></th>
<th>log employment</th>
<th>log Migrant share</th>
<th>log Log migrant share</th>
<th>log Native share</th>
<th>log Log native share</th>
<th>log log relative wages (migrants)</th>
</tr>
</thead>
<tbody>
<tr>
<td>log employment</td>
<td>0.558</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migrant share</td>
<td>-0.268</td>
<td>0.154</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>log migrant share</td>
<td>-0.258</td>
<td>0.124</td>
<td>0.972</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>native share</td>
<td>0.268</td>
<td>-0.154</td>
<td>-1</td>
<td>-0.972</td>
<td></td>
<td></td>
</tr>
<tr>
<td>log native share</td>
<td>0.462</td>
<td>-0.036</td>
<td>-0.799</td>
<td>-0.696</td>
<td>0.799</td>
<td></td>
</tr>
<tr>
<td>log relative wages (migrants)</td>
<td>-0.016</td>
<td>0.139</td>
<td>-0.285</td>
<td>-0.259</td>
<td>0.285</td>
<td>0.284</td>
</tr>
<tr>
<td>log relative employment (migrants)</td>
<td>-0.445</td>
<td>0.054</td>
<td>0.87</td>
<td>0.787</td>
<td>-0.87</td>
<td>-0.991</td>
</tr>
</tbody>
</table>
Table 2.A2. Correlation between independent variables—Saudi Arabia

<table>
<thead>
<tr>
<th>Variable</th>
<th>log capital</th>
<th>log employment</th>
<th>Migrant share</th>
<th>Log migrant share</th>
<th>Native share</th>
</tr>
</thead>
<tbody>
<tr>
<td>log employment</td>
<td>0.60</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Migrant share</td>
<td>-0.15</td>
<td>0.08</td>
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</tr>
<tr>
<td>log migrant share</td>
<td>-0.16</td>
<td>0.06</td>
<td>0.98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>native share</td>
<td>0.15</td>
<td>-0.08</td>
<td>-1.00</td>
<td>-0.98</td>
<td>-1.00</td>
</tr>
<tr>
<td>log native share</td>
<td>0.18</td>
<td>-0.07</td>
<td>-0.95</td>
<td>-0.88</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Table 2.A3. Summary statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>#Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Saudi Arabia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>log labor productivity</td>
<td>513</td>
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<td>0.8</td>
<td>3.1</td>
<td>6.9</td>
</tr>
<tr>
<td>log capital</td>
<td>513</td>
<td>15.7</td>
<td>1.9</td>
<td>9.4</td>
<td>20.5</td>
</tr>
<tr>
<td>log employment</td>
<td>513</td>
<td>10.7</td>
<td>1.5</td>
<td>6.9</td>
<td>13.9</td>
</tr>
<tr>
<td>migrant share</td>
<td>513</td>
<td>0.7</td>
<td>0.2</td>
<td>0.2</td>
<td>0.9</td>
</tr>
<tr>
<td>native share</td>
<td>513</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.8</td>
</tr>
<tr>
<td>Kuwait</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>log labor productivity</td>
<td>608</td>
<td>2.0</td>
<td>1.0</td>
<td>0.1</td>
<td>4.9</td>
</tr>
<tr>
<td>log capital</td>
<td>609</td>
<td>10.7</td>
<td>2.1</td>
<td>4.1</td>
<td>15.0</td>
</tr>
<tr>
<td>log employment</td>
<td>609</td>
<td>8.7</td>
<td>1.4</td>
<td>4.6</td>
<td>11.7</td>
</tr>
<tr>
<td>migrant share</td>
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<td>0.9</td>
<td>0.1</td>
<td>0.3</td>
<td>1.0</td>
</tr>
<tr>
<td>native share</td>
<td>609</td>
<td>0.1</td>
<td>0.1</td>
<td>0.0</td>
<td>0.7</td>
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</tbody>
</table>
Chapter III: Evaluation of GCC Job Nationalization Policies

1. Overview

Chapter I explained that the enormous and increasing demand for expatriate labor in the GCC region was the result of high economic growth linked to the flow of oil wealth, especially following the multiple oil-price hikes that occurred in the 1970s. By the last decade of the 20th century, the majority of GCC governments, under pressure from the rising number of natives entering the labor market, felt the need to localize jobs.\textsuperscript{22} Due to the overcrowding of the public sector with native employees and the spread of disguised unemployment among them, GCC countries adopted policies aimed at localizing jobs in the private sector as well. These policies were similar in their direction and aims, but differed in their details, implementation mechanisms, and application tools. For example, one main difference was the sense of urgency between GCC countries regarding the need for such policies. A UN poll conducted in 2004 found that Kuwait, Saudi Arabia, the UAE, and Oman all believed that this was an urgent problem, while Bahrain and Qatar did not (\textit{Yale Review of International Studies} 2018).

As referenced in the work of Baldwin-Edwards (2011) and Randeree (2012) discussed in Chapter I, the job nationalization policies adopted by GCC countries can generally be grouped into the following three categories: 1) policies aimed at reducing the demand for expatriate workers; 2) policies aimed at increasing the cost of migrant workers; and 3) policies aimed at increasing employment opportunities for natives. By reviewing the various job nationalization policies within the framework of these three groups, it is clear, however, that most of them follow one of two paths: 1) reducing the number of expatriate workers through a two-way quota system (requiring the employment of a minimum percentage of natives or a maximum percentage of expatriates in specific occupations, industries, or sectors); or 2) incentivizing the employment of natives in the private sector by subsidizing wages or rewarding businesses that achieve a specified quota for native employment.

With the exception of these two main methods of localizing jobs, we did not find sufficient evidence that programs to impose quotas or increase the cost of expatriate labor, whether on the supply or demand side, were part of a systematic policy aimed at correcting imbalances in regional labor markets. The fees, fines, and deductions introduced or increased by various GCC countries were related more to financing public budget deficits than to job

\textsuperscript{22} The 1998 GCC summit in Abu Dhabi recommended coordinating the policies of GCC governments with regard to job nationalization. However, due to differences between countries regarding the need for such policies, no regionwide policy was established.
nationalization strategies. Accordingly, the first part of this chapter will review the two main approaches to job nationalization—establishing quotas and incentivizing native employment—before discussing methods for increasing the expatriate cost. The second part of the chapter will present the main constraints associated with some of the current labor market conditions and policies that slow down or impede the success and effectiveness of job localization policies in the region. These constraints, which require close and serious attention on the part of GCC policymakers, include the following:

- Constraint 1: The segmented labor market
- Constraint 2: The unilateral formulation of job localization policies
- Constraint 3: The ineffective education system
- Constraint 4: The sponsorship system
- Constraint 5: Biased policies toward the public sector
- Constraint 6: A justified private sector preference for expatriates

2. Main GCC Job Nationalization Policies

2.1 Job nationalization through quota systems

Most GCC countries have resorted to imposing quotas on the private sector, by either restricting certain occupations, professions, and trades to natives, or setting a minimum percentage for them in these jobs. The quota system has succeeded in increasing the percentage of natives in certain sectors, but not in others.

SAUDI ARABIA

Since the 1970s, the Saudi nationalization scheme ("Saudization") has been central to all national development plans (Looney 2004). It became more important in the wake of the sharp drop in oil prices in the mid-1980s, when immigration procedures were tightened and many undocumented foreign workers were deported. In 2002, the nationalization of 25 percent of jobs was set as a target, in addition to accelerating the process of localizing certain jobs such as security guards, administrators, clerks, salespeople, and taxi drivers (Looney 2004; Al-Dosary and Rahman 2005). The following year, a more ambitious 30 percent localization target was adopted for private enterprises with 20 workers or more. Yet in 2006, business leaders lobbied the government to reduce this quota to 10 percent in many activities. The country’s Eighth Development Plan (2006–2010) restored the 30 percent target for natives in all private activities. However, this achieved only marginal success (Wynbrandt 2010), and the Ninth Development Plan (2010–2015), which aimed to revive the Saudization strategy,
ended up being no better than its predecessor.\textsuperscript{24} Subsequent plans aimed to increase the participation rate of national youth and women in the labor market, and in 2012, the fine for noncompliance with the quotas was increased to $640 per year for every expatriate employed in excess of the native employees.

In 2011, Nitaqat was introduced in order to increase job localization in the private sector. This program, which extended Saudization quotas to 52 industries, assigned a unique company-specific status based on three factors (the business’s primary activity, the size of the labor force, and the percentage of natives employed). This in turn determined the type of immigration facilities, incentives, and privileges companies could avail themselves of when recruiting nationals. Based on those factors, companies were classified under one of four color-coded statuses: Platinum, Green (High, Medium, or Low), Yellow, or Red.

Between 2011 and 2013, the transport and communications sectors saw the highest growth rate of job localization (from 9 percent to 20 percent), followed by manufacturing (from 13 percent to 19.3 percent). Comparable rates in the retail and construction sectors increased from 12.9 percent to 18.4 percent and from 7.2 percent to 10.3 percent, respectively.

Nevertheless, the Nitaqat program faced several hurdles, and in 2016 an initiative was launched to tackle them.\textsuperscript{25} The following year, sales jobs in stores selling women’s accessories were restricted to Saudi females, and in 2018, a full Saudization target was ordered to be completed within nine months in 12 retail jobs. (However, due to subsequent problems this target was scaled back to 70 percent of sales jobs in the wholesale and retail sectors.) In 2019, the Nitaqat program was amended whereby newly employed Saudis in Platinum and High-Green companies would be immediately considered a full unit instead of having to wait 26 weeks, which enabled these companies to start accumulating reward points right away.

Since the Nitaqat program counts each disabled national employed in the private sector as equal to four nationals, some companies began to hire a large number of disabled nationals to benefit from the lower wages paid to them and reduce the number of nationals they had to employ. The government sought to curtail such practices by auditing firms and limiting the percentage of disabled nationals employed to a maximum of 10 percent. Companies that employ disabled people were also required to create a proper work environment for them.

Despite these job localization efforts, some observers felt they weren’t well thought out, as nationals were unwilling to do manual jobs and unqualified to hold technical jobs (Nereim 2018). And employers complained that it was difficult to fire a national, even if they failed to show up or couldn’t meet the job’s requirements.\textsuperscript{26}

As of 2009, only about 20 percent of Saudi graduates were in technical or scientific fields. And although there has been a black market for foreign worker permits in Saudi Arabia for several decades, it has expanded under the Saudization program, and pushed the cost of a

permit to over $1,500. While authorities are trying to limit the issuance of these permits, some companies have sought to circumvent the requirements.

The Nitaqat program has also resulted in the false employment of large numbers of Saudi citizens and led to the closure of a vast number of companies. By 2014, more than 212,000 companies had suspended their operations due to their inability to meet the required employment quota for Saudis.27

Authorities have been flexible with regard to the implementation of the program, however. The decision to restrict jobs to nationals in some activities (such as driving taxis and selling gold) was quickly abandoned when performance in them declined and chaos ensued after the replacement of migrant workers by nationals who lacked professional experience and the desire to work in these jobs.28

UAE

In 1980 the UAE enacted the Labor Law, which created a jobs localization department and stipulated that no foreigners should be employed unless it could be proved to authorities that there were no unemployed nationals capable of doing the same work. The following decade, the country raised the employment quota for nationals by 4 percent per year for banks and insurance companies, and subsidized the salaries of nationals working in the private sector along with the cost of their training.

In 1999, educational institutions asked that native graduates be given priority in recruitment for jobs in both the public and private sectors. Yet the government was reluctant to alienate the private sector by imposing a quota on the employment of nationals. Moreover, a study (“Attitudes toward the Private Sector”) found that most native graduates favored jobs in the public sector or oil sector, with only a meager 11.5 percent opting for the private sector. Most graduates cited high salaries, better benefits, job security, and shorter working hours as their reasons for preferring the state and semi-state sectors.29

In 2005, the government established a voluntary (Morris 2005) minimum native employment quota for companies with more than 100 workers. Due to poor adherence, the government moved in 2007 to reduce the license validation fees and other municipality charges for companies that complied with this policy, and in 2010 also exempted companies from the required security deposit for each employee if they adhered to the Emiratization requirements. In 2017, the government ordered the localization of certain professions in companies


28 The decision to nationalize taxi driver jobs was issued on October 28, 2002, with the aim of creating thousands of jobs for Saudis, yet nationals had no interest in the profession. The Taxi Saudization decision led to gridlock and a significant increase in taxi prices. The decision was abandoned less than a year later.

employing more than 1,000 people, and for construction companies with 500 or more employees to appoint Emiratis as health and safety officers.

The impact on native employment of the UAE's national labor quota policy is unclear, however (Marchon and Toledo 2014). While an increase in the employment quota for native workers increases their employment share, it also reduces industry production and the employment of labor. One way to mitigate this negative impact would be to calibrate an optimal quota to maximize native employment, implementing it in industries facing less elastic demand for outputs and where native and expatriate labor are closer substitutes.

To increase the localization of jobs to 5 percent by 2021, the UAE announced in 2018 that companies should give priority to the hiring of citizens before expatriates in 400 occupations. In accordance with its practice of not imposing pressure on the private sector, the government said that it would not force companies to hire citizens, but that native applicants should be interviewed to determine their qualifications, and if they weren't hired, the company had to explain why. The salary for these particular jobs was more than $2,700 a month. The plan was to provide 15,000 jobs for Emiratis in 2018—far more jobs than the government had secured for citizens in the private sector in 2017 (6,862) and 2016 (5,608). In 2018, the government's employment database showed that there were 4,155 Emiratis looking for work, of which 3 percent held a master's or PhD (Gulf News 2018).

In 2019, the UAE moved to increase opportunities for the employment of nationals in 20,000 jobs over the following three years in strategic sectors including civil aviation, telecommunications, banking, insurance, and real estate development. To provide nationals with the necessary skills, the government would fund specialized programs to train 8,000 native graduates a year in government, semi-government, and private entities for six to 12 months, and subsidize 40 percent of their salary. The authorities would also equalize pensions and benefits for nationals in the public and private sectors. In the continuation of its soft localization policy, the UAE would provide exceptional incentives to entities that facilitated job opportunities for nationals.30

OMAN

In 2010, Oman announced that certain occupations would be nationalized.31 The Omani 2040 Vision plan aimed to increase the localization of jobs in the private sector by more than 40 percent by imposing minimum quotas for the employment of Omanis in certain sectors: 60 percent in transportation, logistics, and communications; 45 percent in finance, insurance, and real estate; 35 percent in manufacturing; 30 percent in hotels and restaurants; 20


31 Those occupations include lawyers, civil engineers, accountants, legal advisers, department managers, primary school teachers, nurses, architectural drafters, television camera operators, general car mechanics, general salespersons, leather workers, typists, electricians, newspaper vendors, machine operators, and car repairers ([https://www.mei.edu/regions/oman](https://www.mei.edu/regions/oman)). Although bans from employing non-Omanis in specific jobs and professions tend to be temporary, they are often renewed every six months ([https://www.mondaq.com](https://www.mondaq.com)).
percent in wholesale and retail trade; and 15 percent in contracting (Oxford Business Group 2019).

Although the Omani quota system has shown significant progress with regard to the employment of nationals in middle and upper management in the oil and banking industries, quotas have been less successful in other industries, especially those with prevailing low wages, such as retail and construction (Assaad 2014). The success of quotas in oil and banking can be attributed to the fact that these industries tend to have higher revenues, and can extensively train their staff and pay the higher salaries Omani expect. In lower-paid industries with less favorable working conditions, quotas are more difficult to apply. There are also concerns that the strict imposition of quotas may hinder growth and discourage foreign investment (Oxford Business Group 2019).

KUWAIT

In 2002, private companies in Kuwait were required to adhere to the national employment quotas. Those who failed to comply would be fined and banned from public bidding (Fasano-Filho and Iqbal 2003). Quotas were first imposed on 16 professions, mainly clerical and IT jobs (Dito 2008). By 2008, banks were asked to nationalize 60 percent of their workforce. In other industries, such as real estate and manufacturing, quotas were set at 15 percent and 2 percent, respectively. The minimum quota for nationals in companies operating in other sectors was set at 25 percent (Shah 2008; Hertog 2014). In 2018, the Central Bank of Kuwait required local banks to increase the percentage of nationals hired to 80 percent from 65–69 percent.32 The following year, the government recommended to a parliamentary committee that it increase the fine for noncompliance with the national employment quotas from 100 Kuwaiti dinars to 300 Kuwaiti dinars in specific private sector activities such as tourism, hotels, and medical services, in addition to nationalizing all administrative, executive, and accounting jobs.33

QATAR

In 2000, Qatar launched its first major job nationalization program by setting a minimum employment quota of 50 percent for nationals in the oil and gas sector and 20 percent for nationals in all private and semi-private entities. In 2008, the government announced its plan to nationalize all nonspecialized administrative and clerical positions (124 jobs) in 66 government agencies, which was achieved by 2010.34 However, private sector compliance was lower than expected, leading to heavy fines on establishments for failure to meet the employment quotas or their training requirements.35 However, the results were mixed, as in order to fulfill the quota requirement, businesses were forced to recruit unqualified nationals, which increased overhead and compromised work quality (Hertog 2014).

35 The fines ranged between $13,000 and $26,000 (https://www.AlArabya.net, 2009).
BAHRAIN

From the beginning the government of Bahrain was concerned that a strict policy of national employment quotas would have more negative than positive consequences. First of all, such a policy was likely to jeopardize its economy due to the negative impact on foreign investment flows, which could easily be transferred to a larger and less restricted regional market such as the UAE, and secondly, citizens in the private sector lacked the required skills. Bahrain therefore did not embrace the quota system, and was forced to reconsider its job nationalization policies to align more closely with developing education and training curricula, and approaches based on market mechanisms (Al-Aali 2014).

In 1994, Bahrain introduced its first quota system, imposing a 5 percent annual increase in the number of nationals employed in the private sector. The business sector reacted with reservations, as nationals required higher wages yet lacked the necessary vocational skills. The system has also been negatively exploited, leading to the spread of the “ghost worker” phenomenon, where on paper private employers hire stay-at-home nationals (in many cases housewives or inactive persons) often at minimum wage levels, just to fulfill the legal quota requirement. In 2012, a new regulation reduced the national quota obligation on businesses, exposing nationals to greater competition with expatriate labor and forcing them to improve their skills or accept wages comparable to those of expatriates (Peck 2017).

In general, the restriction of specific professions to nationals and quota systems has had limited success in most GCC countries. Obligatory quotas, whether for expatriates or nationals, have led to negative consequences. The system is also difficult to monitor and has led to informal (off the payroll) expatriate employment, “phantom employment” of nationals, evasion, and in some cases corruption among businesses and government representatives (Hertog 2014).

2.2 Incentivizing national employment

In light of the vast differences between the salaries and fringe benefits that nationals receive in the public sector and the salaries the private sector can offer them, GCC governments recognized the need to provide incentives for nationals to work in the private sector and enable the latter to bear the cost. These incentives included making social insurance payments equivalent to those received by their counterparts in the public sector, providing free or subsidized job training to citizens, and bearing the cost of benefits and allowances similar to those received by government sector employees. In addition, a number of GCC governments have bridged the salary gap between the public and the private sectors for nationals. Over the past two decades, Bahrain, Kuwait, and Saudi Arabia have provided wage subsidies for nationals working in the private sector, at varying rates and for different periods of time. Bahrain and Saudi Arabia have followed previous international models in this context, whereas Kuwait has been the only GCC country to provide such a subsidy without limiting its duration. Kuwait has been committed to this program since its inception in 2001. According to a report by the IMF, wage subsidies are expensive, and unless they are temporary, well-tailored, and precisely targeted, their costs may exceed their benefits and can outweigh the cost of creating jobs in the public sector. The IMF therefore advised GCC countries to provide such subsidies on a temporary basis after careful consideration of the justified beneficiaries so that costs could be contained (IMF 2013).
In 2001, Bahrain launched a program that combined both employee training and wage subsidies for employers who hired Bahrainis (Randeree 2012; Al-Qudsi 2005, 40–41). In 2011, Bahrain’s Tamkeen program subsidized half the cost of professional development for nationals, leading to improved skills among natives and encouraging job localization. This program subsidizes 50 percent of wages for new graduates in the first year and 30 percent of wages over the next six months, in addition to providing support to increase the wages of current employees for a year. When a salary is raised for the second time, Tamkeen pays the total of the two increases for the second year. In addition, the program supports the training of Bahraini employees in various occupations with the aim of increasing their efficiency and developing their productivity at work.

Between 2017 and 2018, wage subsidization and support of wage increases more than doubled. In 2018, the program provided support for wage increases for more than 4,400 national employees. The program also funded training for more than 30 percent of the workforce in the private sector. By 2018, Tamkeen had contributed to the training and qualification of more than 15,000 Bahraini students in various specializations, in addition to providing initiatives to support the entry of youth into the entrepreneurship sector.

To bridge the gap between the Saudi reservation wage and the wage the private sector can offer to nationals, in the early 2000s, Saudi Arabia launched a program to subsidize the wages of nationals in the private sector (Hertog 2014). Financial pressures from the sharp drop in oil prices in 2014 prompted the Saudi government to cut allowances, halt bonuses, and suspend annual wage increases for public sector employees. Although these decisions had nothing to do with the country’s job nationalization policy, to some extent they helped efforts to improve the gap between wages in the public and private sectors.

In 2015, the Saudi Human Resources Development Fund spent $266 million in support of 20,000 private companies that had achieved specific localization targets, and also subsidized the salaries of Saudi employees in these companies. In October 2017, the fund helped cover 15 percent of the salaries of Saudi men and 20 percent of the salaries of Saudi women working in the private sector. Another program called Tamheer offered Saudi graduates $800 a month for six months of training.

Since 2018, the Saudi government has been subsidizing nationals’ salaries for 36 months at a rate of 30 percent for the first year, 20 percent for the second year, and 10 percent for the third year. Additional support is given if a company employs women or people with disabilities, or if it hires people in small villages or in small companies (50 workers or less). The subsidized wage ranges between $1,067 and $2,667. This support is also extended to recent graduates and job seekers who have never been employed, or who have been out of

work for more than 90 days. In 2020, this subsidy was increased to 30 percent and 50 percent respectively, for a period of two years.

Kuwait initiated a National Wage Subsidy Program (NWSP) in 2000. The program aims to encourage nationals to work in the private sector by ensuring that the government will bear the cost of social and child allowances on par with those allocated to their peers in government jobs. In its first year, 2001, there were 1,662 beneficiaries of these bonuses at a cost of 570,000 Kuwaiti dinars. In 2018 these numbers increased to 71,000 beneficiaries at a cost of 494 million Kuwaiti dinars. Nationals’ allowances in the private sector were almost doubled in early 2013 following a substantial increase in public sector salaries (Hertog 2014). In the over two decades since the start of the Kuwaiti wage subsidy, the number of Kuwaitis working in the private sector has increased fivefold. However, it is difficult to attribute this increase to the narrowing of the gap between salaries in the two sectors, as a substantial part of the increase in the share of Kuwaitis in the private sector is due to the quota system, and because young nationals benefit from the generous funding provided by the state for small and medium private enterprise initiatives. The bias in favor of public sector jobs is still strong in the country due to the financial security, job stability, opportunities for promotion, and low level of governance and performance control.

However, the NWSP has been subject to extensive fraud. Cases of misuse can be found in official statements, judicial rulings, and the local press. In 2015, for example, the government sent about 1,500 native private sector employee files to regulatory authorities to check for false employment. That same year, the Criminal Court sentenced the director of a fabricated business to imprisonment for 10 years, and another partner to seven years, for falsely reporting the hiring of nationals to benefit from their wage subsidy. In similar cases, the court sentenced 30 people to five years’ imprisonment and suspended imprisonment for 144 other defendants, each of whom was fined 1,000 Kuwaiti dinars instead. It refrained from punishing the rest of the offenders after they refunded the money they had taken from NWSP.

In March 2019, the number of Kuwaiti employees registered in the Consumer Cooperative Societies sector, the main sector for retail activity in Kuwait, was about 10,000. This number far exceeds the actual number of citizens in the sector, which is estimated to be about a quarter of this figure. Most of the rest were either retirees or did not finish college. These employees were typically contracted for a nominal monthly wage so that their employer could obtain the wage subsidy and other social allowances. In 2020, several businesses were investigated on charges of tampering with the percentages of national employees, the widespread layoffs of national employees after being reported for official quota purposes, and the appointment of non-Kuwaiti employees in foreign companies to subcontract them from these

companies. Among the investigated companies were publicly registered commercial banks, which are subject to a higher nationals’ quota of 70 percent.\textsuperscript{42}

\subsection*{2.3 Charges and fees for services}

Literature and reports related to the GCC job nationalization issue include, among the programs targeting labor, raising the fees imposed on expatriate workers for administrative services, public utilities, health care services, educational services, transportation, etc. However, the impact of programs targeting the supply side (labor) cannot be completely separated from the demand side (employers), as the burdens of some of the measures imposed on expatriate workers are shifted to employers. Furthermore, some burdens may also be passed on to consumers in the price of goods or services, especially in sectors that lack regulation, control, and transparency.

In general, GCC countries impose numerous fees on immigrants, including fees for obtaining work permits, residence fees, public education fees, and healthcare service fees. While most of these fees may not be much of a burden on skilled expatriate workers, they have a tangible burden on unskilled labor. In unregulated markets, where there are large numbers of unskilled workers, these fees can be easily passed on to consumers through various channels. Also, many resolutions to institute or amend fees, especially those related to the demand for public services, were aimed at reducing pressure on those services.

According to the Ministry of Public Health in Kuwait, all fees imposed on health services in the country seek to ease congestion at public hospitals, while allowing government-run clinics to take in more patients (\textit{Gulf Business} 2019). Nevertheless, since such fees affect the real cost of living, they are expected to negatively impact the supply of expatriate workers, especially skilled labor, which is more elastic.

By tracking the time periods in which various fees were established or raised, it is apparent that most of these fees coincided with the decline in oil prices, which may suggest that the goal behind the purpose of these fees may not be directly related to addressing labor market imbalances, but rather to increase income. Although there was an earlier effort in December 1998 at the 19th session of the GCC Supreme Council in Abu Dhabi to increase the cost of expatriate labor to make the employment of citizens feasible for private employers, this policy has not been implemented consistently.

In one instance the early institution of health care fees in the GCC region coincided with the Asian financial crisis, which caused, among other effects, a collapse in oil prices in 1998. Kuwait initiated its first health services fees on expatriates in 1999, Saudi Arabia in 2000, and Bahrain in 2001. In the case of Bahrain, Bahraini employers were asked to purchase health insurance to cover primary and secondary health services for workers, including regular check-ups and surgery.\textsuperscript{43} Saudi Arabia continued to provide free health services to expatriates working in the public sector, while expatriates working in the private sector have to

\begin{footnotesize}
\begin{enumerate}
\item Al Qabas daily, October 17, 2020, https://alqabas.com/.
\end{enumerate}
\end{footnotesize}
obtain their own obligatory health care coverage. (Most of this coverage is paid by their employers as part of their salary package.)

Following the oil price decline in the second half of the 2010s, Kuwait substantially increased its health fees for expatriates (between 100 percent and 1,500 percent). These increases were accompanied by a substantial rise in the price of electricity and water for expatriate housing. The new fees included an annual health fee of about $165 for the head of the family, $130 for the spouse, and $100 for each child. Other fees must be paid upon each visit to a polyclinic or hospital. The new fees also included charges of approximately $100 a day for intensive care and $165 a day for a private room in a hospital.

The introduction of other fees or increases have also coincided with a decline in oil prices. In 2017, Saudi Arabia introduced fees on dependents, requiring expatriates to pay $27 per month for each of their dependents when their visas are renewed. This fee doubled to $53 a month in 2018, rose to $80 in 2019, and was slated to reach $106 in 2020. One year after the imposition of these fees, Saudi Arabia added a new burden on expatriate labor by imposing fees ranging from $80 to $107 per worker per month, to be borne by companies that employ expatriate workers. These fees were set to gradually increase in 2019 and 2020, and are higher for companies that employ more expatriate workers than local workers. Although such fees may support opportunities to employ more citizens in the private sector and increase public revenues, there may be negative effects from the loss of certain skilled workers and the departure of hundreds of thousands of immigrants, thus weakening the demand for goods and services. These additional burdens coincide with the imposition of a 5 percent value-added tax on various goods and services by Saudi Arabia and the UAE, which led to an increase in the cost of living, a decline in demand, and the departure of many expatriate workers.

In 2016, the fee for Oman’s two-year work permit issued to expatriate workers in the private sector was increased from about $522 to $782, and temporary work permits were also increased to $155 for four months, $235 for six months, and $350 for nine months. Work permits for housing workers and farmworkers were maintained at $367 for the first three workers, while the permit for four workers or more was raised to $780. Although these increases were driven by the country’s need for income, they were supposed to pave the way, even if only partially, for Omanis to compete with expatriates for about 210,000 managerial positions, of which the percentage of Omani was less than 5 percent.44

On the other hand, for decades Oman had provided free educational services at public schools. However, beginning with the 2018–2019 academic year, the parents of approximately 21,000 expatriate students enrolled in public schools were asked to pay an annual fee of $260 per child. This imposition of educational fees was part of the framework of the five-year development plan (2015–2020), which aimed to deal with the decline in oil prices by diversifying sources of income and encouraging government agencies to search for

nonbudgetary income sources, including leasing land and other assets to the private sector, and imposing new fees or increasing existing ones.

3. Major Constraints

3.1 Constraint 1: The segmented labor market

The GCC labor markets are highly segmented, mainly between the public and private sectors as well as between nationals and expatriates, among other types of segmentation. In fact, there is a great deal of overlap between the public and private sector, as the public sector is, to a large extent, the exclusive sector for nationals—with some differences in the density of nationals from one GCC country to another—while the private sector is almost solely an expatriate sector. This clear segmentation creates a barrier to the effectiveness of localization policies. In general, the public sector is glutted with nationals, as GCC governments have used it for several decades as a source for citizens’ employment. In many cases, employment in this sector has been used to gain the political goodwill of citizens, and governments in the region are reluctant to address the mounting employment inflation in this sector for fear of provoking social unrest or upsetting some opposing factions. On the other hand, wages in this sector are managed by the government and are not subject to market mechanisms, as citizens earn wages that exceed their work contributions and are much higher than the compensation of their migrant counterparts. Moreover, citizens receive generous benefits and bonuses that their expatriate counterparts do not, public jobs are secured for them with only limited controls and a weak oversight system, and citizens working in the public sector enjoy early retirement opportunities and generous pensions.

In contrast, the majority of workers in the private sector are expatriates, and are usually brought into the country by a sponsorship system, known as “Kafala,” which requires a natural or legal national citizen to take full responsibility for the immigrant worker. Kafala is a source of additional constraints, and will be highlighted in a later section of this chapter. To a certain degree, market mechanisms play a role in determining wages in this sector, as there are significant differences between the wages of skilled and unskilled workers. The wages of the latter are remarkably low given that the supply of unskilled labor is highly inelastic compared to the supply of skilled labor. Even when compared to nationals, the supply of expatriate skilled labor remains much more inelastic.

The main sources for both types of labor, skilled and unskilled, are the MENA region and South Asian markets, which are characterized by a surplus of labor. Expatriate wages are largely determined by the low standards of living back in their home countries, rather than by the standard of living in the GCC. This is more evident in the case of unskilled workers than in skilled workers, since unskilled workers often obtain their housing and meals from their employers; consequently, they transfer the bulk, if not the total, of their salaries to support

45 Labor markets, according to the theory of labor market segmentation, are not competitive markets that depend on market mechanics, as neoclassical theory assumes. Differences on the demand side mean differences in wages that are neither explained by the characteristics and capabilities of the worker nor by his or her productivity.
their families in their home countries. There is no doubt that the wage discrepancy between citizens and expatriates in the private sector will continue as long as the supply of expatriate workers, especially unskilled ones, is almost perfectly inelastic.

Thus, the capacity of the GCC private sector to absorb national labor is constrained by the high cost of hiring and firing such labor. Most GCC legislation limits the ability of an employer in the private sector to terminate a contract or dismiss a native employee, except in exceptional cases, such as if they physically assault the employer or manager; use a false identity; provide forged certificates or documents; violate worker safety instructions; violate public morals; intentionally cause damage or loss to the employer; or are absent for many days without a legitimate reason. Additionally, such termination is not allowed for reasons unrelated to work, or for the purpose of replacing the citizen with an expatriate.

Despite this higher cost of hiring nationals, it varies substantially from one GCC country to another. Yet in any GCC labor market, a native would not accept a job opportunity in the private sector unless he or she was paid a reservation wage; that is, the minimum wage that a native with a comparable degree would receive in a job in the public sector, which, as was mentioned earlier, by far exceeds the worker’s contribution to production. This is due to the belief that every citizen should be guaranteed employment in the public sector. The greater the difference between the reservation wage and the private sector wage, the more difficult it is for the private sector to absorb local labor. Large variances between the average reservation wage and the average wage offered by the private sector in different GCC labor markets has resulted in a clear dissimilarity in the absorption capacity of citizens in the private sector of each GCC region. Table 3.1 calculates the GCC wage gap percentage between the public and private sectors by dividing the average wage in the public sector by the average wage in the private sector. It also shows the percentage of citizens working in the private sector and public sector, and considers the ratio of the first to the ratio of the second as a private sector attractiveness index. Chart 3.1 shows the public-private sector wage gap index versus the private sector attractiveness index in five GCC countries. Table 3.1 and Chart 3.1 clearly show that the attractiveness of private sector employment to GCC nationals depends on the wage gap between the two sectors. The greater the wage gap, the lower the percentage of nationals employed in the private sector.

<table>
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<tr>
<th>Country</th>
<th>Average Wage in Public Sector in U.S. dollars</th>
<th>Average Wage in Private Sector in U.S. dollars</th>
<th>Wage ratio of public to private sector</th>
<th>% of Natives in Public sector</th>
<th>% of Natives in Private sector</th>
<th>Private Sector Attractiveness Index</th>
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</thead>
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<td>1,890</td>
<td>3.31</td>
<td>88</td>
<td>12</td>
<td>0.14</td>
</tr>
</tbody>
</table>

Source: Data derived from various GCC national sources (2015–2019)
Some GCC countries (Kuwait, Saudi Arabia, and Bahrain) addressed the negative impact of wage differentials between the public and private sectors by subsidizing the salaries of citizens in the private sector. This meant that part of the cost of production in the private sector became a public burden. This policy coincided with the private sector’s mandate to employ high rates of national workers in certain professions and activities, which created a false demand for national workers in the private sector. It also resulted in fraudulent “paper employment.”

3.2 Constraint 2: The unilateral formulation of job localization policies

In referencing the bases and perspectives of various GCC job localization policies, and reviewing the initial stages of their inception, it is easy to discern that they are often devoid of a strategic dimension, or a connection with the development objectives or future plan for the local economy. In most cases, they are designed to address specific phenomena within the confines of the regional labor market, or to meet the urgent need to create a certain number of jobs for nationals.

Since economic development depends predominantly on human skills, any effective job localization policy must not neglect the country’s development perspective, but must be integrated and consistent with it. The GCC region’s economic development depends largely on the availability of advanced and high-level skills. This means that the education and
upskilling of nationals on the one hand and the restructuring of the private sector to adopt technology-intensive techniques that reduce its current excessive dependence on cheap and unskilled labor on the other hand, are two conditions that must be met before substituting expatriate workers with nationals. Yet we find that most current GCC job nationalization policies tend to initiate this process of substitution without considering such preconditions.

Hence, the current substitution process is taking place independently of the actual qualifications or productivity of nationals. In addition, their salaries are determined independently of their marginal productivity, as shown by the theory of the marginal productivity of wages, meaning that economic criteria do not take priority in native employment when political, social, and other sectarian considerations may prevail. In many cases, such considerations may also govern the processes of promotion and the allocation of extra benefits and privileges. Although the majority of GCC native employees hold university degrees, the process of employing them, especially in the public sector in which the majority of them are concentrated, takes place without consideration of their academic specializations and personal skills, which means that their jobs are neither connected to their talent nor to their potential contribution to the growth of the national economy. Consequently, the public employment policy reinforces nationals' belief that job opportunities in the public sector are part of their nationality benefits rather than actual jobs with their own requirements, burdens, and responsibilities, and this carries over to the attitude that there is no need to acquire knowledge and skills in order to obtain a job.

In addition, most of the nationalization policies adopted by the governments in the region have been designed, formulated, and issued unilaterally; that is, by governments or their agencies without the actual participation of the business community, which is the group that is most closely concerned with and affected by such policies. In spite of the request by the GCC Supreme Council at its 19th session, which was held in Abu Dhabi in December 1998, to involve the private sector in developing and proposing plans and programs for the localization of jobs, the continued reservations and resistance of the business sector to such plans and programs may indicate that this request has not been effected.46

It is certain, both according to economic theory and theories of public administration, and widely established in empirical and applied studies, that governments running an over-staffed, bureaucratic, and poorly productive public sector will not be able to devise innovative or effective employment policies capable of addressing labor market imbalances. Criticism of the lack of coordination between governments and business communities regarding the skills needed by the private sector is common in GCC countries, and can be widely seen in the relevant literature and the views of private employers. Such coordination is crucial, and can determine the success or failure of any job nationalization program (Al-Lamky 1998; Sadi and Henderson 2005). Despite the clear connection between job nationalization policies and the ability of the GCC’s educational and training systems to supply workers with the appropriate skills and qualifications, with a limited number of exceptions, governments

have not been able to adequately reformulate their educational systems in line with the need for job localization, especially in the private sector (Forstenlechner et al. 2012).

3.3 Constraint 3: The ineffective educational system

The inability of the GCC’s educational system to provide qualified graduates who can compete for highly skilled jobs in the private sector constitutes one of the main constraints that limits the ability of the region to implement a nationalization policy on a large scale. Despite the remarkable quantitative development that the GCC’s public education sector has seen over the past five decades, the quality of education, based on relevant comparative indicators, has not kept pace with this quantitative development. Rather, various studies have indicated a decline in educational performance, especially in public schools. Consequently, over the past two decades demand for private schools (whether by natives or expatriates), especially those that follow Western curricula, has increased due to the widespread belief that these schools provide a better quality of education than public schools, as they are often linked to the curricula of the countries they belong to.

Chart 3.2. 8th-grade student scores in TIMSS (math and science) and PIRLS (reading) in the GCC compared to advanced international benchmark scores

Note: TIMSS compares worldwide student scores in mathematics and science, and PIRLS compares worldwide student scores in reading. Singapore, Chinese Taipei, and South Korea are the advanced international benchmark countries for TIMSS, and Russia, Singapore, and Hong Kong are the advanced international benchmark countries for PIRLS.

*Dubai only

Source: TIMSS and PIRLS
GCC governments allocate a relatively large share of public spending to the education sector. In 2016, for example, the share of education in public spending was about 22.7 percent in Saudi Arabia, 21.2 percent in the UAE, 21 percent in Oman, 15 percent in Kuwait, 10 percent in Qatar, and 9.2 percent in Bahrain. These rates exceed or approximate the educational spending allocated by developed countries. In the same period, the United States allocated to education a corresponding rate of 15.2 percent; the United Kingdom 11 percent; and Germany 5.2 percent. Despite the GCC’s generous spending, the quality of education in GCC countries is lower than that of developed countries. According to the results of the TIMSS and PIRLS, the two main tests that monitor the achievement of fourth- and eighth-grade students in mathematics, science, and reading, GCC countries consistently rank below advanced international countries. Chart 3.2 shows, for example, the scores achieved by GCC eighth-grade students in TIMSS mathematics tests over the course of their participation in the international assessment compared to countries with the highest benchmark scores. It also shows the scores achieved by eighth-grade GCC students in PIRLS reading tests in 2019, which were below the highest international scores.

According to various sources, the quality of education in the GCC is particularly low in terms of the qualifications of graduates and the nature of educational curricula (Global Competitiveness Index 2016). GCC countries continue to be disadvantaged by the absence of meaningful plans to connect educational outputs with the labor market, as well as the lack of a database for the market needs of jobs that indicates required specializations over the next 10 years, which would help direct students toward majors appropriate to the needs of the labor market. There is also no link between strategic or medium-term national development plans and educational systems.

While educational systems in the GCC region are substandard overall, some countries rank higher than others. According to the Global Competitiveness Index (2018), the level of education in Qatar, UAE, and Bahrain is relatively higher and better than the level and quality of education in other GCC countries. Qatar ranked fifth out of 140 countries for the quality of its educational system, UAE ranked 12th, Bahrain 24th, Saudi Arabia 41st, Oman 75th, and Kuwait 89th. However, the job nationalization issue is less important in Qatar and UAE, as their native populations are quite small relative to the size of their economies.

In the case of Bahrain, even though the number of highly educated and qualified nationals has increased, their employability in the private sector did not improve, possibly due to a weak link between the skills taught in educational institutions and the skills needed by private sector employers (Alseddiqi, Mishra, and Pislaru 2009; Nair 2017). Tamkeen, a public authority established in Bahrain in 2006 to support the labor market nationalization process, has managed to train and educate a large number of nationals to supply them with the expertise needed to compete with expatriates for positions in the private sector. In 2005, a year before Tamkeen was established, nationals accounted for about 26.3 percent of total


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employment in the private sector.\(^{49}\) By 2018, this national percentage had declined to about 17.3 percent.\(^{50}\) The percentage of nationals in the country’s private sector remained limited even in industries where other GCC economies have made great progress in expanding the native share. The percentage of nationals in the banking industry was 50 percent, in the legal profession 40 percent, in private hospitals 20 percent, and in accounting between 40 and 50 percent. These results question the efficacy of the programs (Ganguli and Matar 2016).

In Qatar, the development of the educational system has been prioritized as a prerequisite for achieving economic diversification and becoming a regional education hub. The education sector has been expanding at a rapid rate to meet the rising demand from nationals and expatriates. Qatar has also seen an increasing preference for private education, which has resulted in an influx of international institutions. These institutions offer diverse curricula anare particularly beneficial for the expatriate population, which is not allowed to obtain an education in the country’s public schools.\(^{51}\)

The UAE began to develop its educational systems in the 2000s by focusing on teaching English as well as scientific and technical curricula (Forstenlechner 2008). In 1999, the country established a public authority called Tanmia to accelerate the employment of citizens in the private sector. When it became clear that nationals must first acquire qualifications and skills to be able to compete equally for jobs in both government and the private sector (Salih 2010, 170), Tanmia shifted the focus of its strategy from implementing a quota system to helping young nationals develop their skills and start their careers. This revised approach is in line with the proposed policy that the best job nationalization strategy should aim to optimize the human resources available in the country in the economic process while also providing opportunities to transfer skills and knowledge from expatriates to nationals (Kuntze and Hormann 2006, 56).

In other GCC economies, educational systems have not been successful in providing either the necessary skills or sufficiently qualified native graduates suitable for the needs of the private sector. The education system in Saudi Arabia and Kuwait has been ineffective in attracting a large percentage of natives into the science and technology fields. Most Saudis and Kuwaitis typically major in less technical fields that are not in high demand in the contemporary competitive labor market (Kechichian 2004; Gulseven 2015). According to Rees and Althakhri (2008), jobs nationalization policies are resisted in Saudi Arabia and Oman, and even in the UAE, as there is a lack of technical skills among nationals to fill the manual and technical jobs available in the private sector.

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In Oman, the present educational system is not designed to support the nationalization program in several economic sectors (AlNahdi 2016). The system neither targets highly skilled occupations nor semi-skilled or hazardous occupations. For these job categories, the country will have to depend on expatriates for a few more years (Das and Gokhale 2020). For instance, in the Omani automotive sector, which mostly requires semi-skilled workers with vocational and applied training such as administrators, receptionists, and salespersons, there are an insufficient number of qualified nationals to occupy these positions, and therefore, expatriates will continue to dominate the majority of the sector’s semi-skilled jobs.

Another important problem in Oman is the high dropout ratio in schools. Many students are insufficiently motivated to finish their 12 years of general education. The blame can be placed on the educational system for this, which many see as outdated, and which does not encourage innovation or knowledge-based learning. Also, as small businesses represent an important growth engine in the economy, contemporary cutting-edge education is a crucial requirement to provide the younger generation with the necessary innovative and entrepreneurial capacity, regardless of which major they choose.

3.4 Constraint 4: The sponsorship system

The Kafala system, which regulates employers’ relationship with migrant workers and under which a migrant is recruited to work in a host country, is another form of constraint that limits the success of job localization policies. All authorities in the region have adopted this sponsorship system, which for many years has been subject to widespread international criticism because of the unequal relationship it creates between the employer and the migrant worker, which in many cases has become a form of forced labor. The sponsorship system is a set of laws, administrative regulations, and common practices that regulate the migration of labor to the country. Under the sponsorship system, migrant workers are bound to their sponsor throughout the contract period in all matters related to their immigration and legal status, so that migrant workers cannot enter the country, quit their job or move to another job, or even in many cases leave the country without prior express permission from their employer.

The Kafala system weakens the position of migrant labor—especially those working in the household sector or as unskilled workers—because of sponsors’ power to control workers’ mobility. While there is no doubt that most sponsors in the GCC strive to provide decent and fair working conditions, the system provides plenty of opportunities for employers to abuse migrant workers. Terminating or reforming the GCC sponsorship system is not only necessary because it violates human rights, but also because it increases private employers’ preference for expatriate labor. In view of this, some authorities in the region have already begun to reform or abandon the sponsorship system.

In August 2009 Bahrain became the first GCC country to abandon the sponsorship system by establishing the Labor Market Regulatory Authority (LMRA), to which some of the responsibilities of expatriate workers’ sponsorship were transferred. The LMRA regulates the recruitment process and the entry and exit of migrant workers, and allows them to have some career mobility without the need for written consent from their current employer. The LMRA also gives migrant workers 30 days to find a new job in their host country after the expiration of their employment contract. In July 2017, Bahrain introduced the Flexi Pass, an initiative
that allows illegal immigrants to legitimize their status by sponsoring themselves so they can work legally.\textsuperscript{52}

In contrast, in February 2011 Kuwait announced its intention to abolish the sponsorship system, but instead was content to simply introduce amendments to prevent employers from trading residence and work permits in order to reap the profits.\textsuperscript{53} In 2016, employees were given the right to replace their sponsor after three consecutive years of service if they gave their employer three months' notice.\textsuperscript{54}

In December 2016, Qatar announced that it would abandon the Kafala system and replace it with a contract system whereby employees with unlimited-term employment contracts could move to another employer after working for at least five years under their initial contract. Workers with fixed-term contracts could change their jobs and sign new employment agreements at the end of their previous contracts without needing prior permission from their employer, but only with approval from the Ministries of Interior and Labor. In its original announcement of the reform, Qatar had at first revoked employer exit permits, but reinstated them in 2017.

In January 2016, the UAE implemented reforms that enabled highly skilled immigrants to terminate their fixed-term contracts without facing a labor ban. Migrants classified in the “low-level” jobs category, including construction workers and service workers, also would not face any ban if they terminated their contracts after six months of work. Likewise, in November 2016 Oman announced plans to remove its No Objection Certificate requirement.

In 2016 Saudi Arabia announced reforms that enabled workers to change employers without permission if the employer failed to renew the worker’s residency permit or stopped paying wages for three months in a row.\textsuperscript{55} Then in November 2020, Saudi Arabia abolished the sponsorship system to align with the Kingdom’s Vision 2030 framework.\textsuperscript{56}

In short, continuing to implement reforms in the sponsorship system, or abandoning it altogether, will help support and improve the chances of success of job localization policies in the GCC.

\begin{itemize}
  \item \textsuperscript{52} Migrant Rights.org, https://www.migrant-rights.org/2017/07/bahrain-launches-flexi-permit-for-undocumented-workers/.
  \item \textsuperscript{53} Janardhan 2011, https://agsiw.org/associates/narayanappa- janardhan/.
  \item \textsuperscript{54} Migrant Rights.org, https://www.migrant-rights.org/campaign/end-the-kafala-system/ https://www.migrant-rights.org/.
  \item \textsuperscript{55} Migrant Rights.org, https://www.migrant-rights.org/campaign/end-the-kafala-system/.
\end{itemize}
3.5 Constraint 5: Biased policies toward the public sector

In general, most GCC nationals prefer government employment, mainly because it provides job security, stability, and a less demanding work environment compared to the private sector (Abdalla et al. 2010; Swailes, Al Said, and Al Fahdi 2012). When compared with private sector occupations, government jobs are subject to, in most cases, easier monitoring and follow-up systems, and in general are characterized by higher salaries (Wilkins 2001; Godwin 2006; Nelson 2004), shorter working hours, better work conditions, and better non-monetary benefits (Nelson 2004). Furthermore, nationals do not see career-development prospects for themselves in the private sector, and believe there is little opportunity for training and promotion (Al-Aali 2014). Also, due to the prevailing rentier culture in the region and as mentioned earlier, a public job is seen as a right and a tool for nationals to acquire their share of the country’s oil wealth. In rich GCC countries where the native population is limited, such as in Kuwait, Qatar, and UAE, nationals see themselves as elite or naturally middle class, and when it comes to employment they will generally only accept work congruent with these beliefs (Morris 2005). According to these expectations, they mainly want to attain comfortable white-collar jobs in managerial roles, whether or not they are qualified for such positions (World Economic Forum 2008). Thus, retail and service jobs are unlikely to suit nationals’ aspirations.

Hence, governments in these countries face a great challenge when it comes to encouraging nationals to take up manual or technical jobs in the private sector (Wilkins 2001, 7). Even in Oman, a GCC country that is not as rich as Kuwait, Qatar, or UAE, the preference for public jobs is evident. For example, during the 2011 Arab unrest, the Omani government announced the creation of 35,000 new government jobs, which led 37,000 Omanis to quit their private sector jobs in order to seek public employment (Hertog 2014).

Decades of easy employment for natives in the public sector, generous salaries, inflated fringe benefits, early retirement, and high pensions have resulted in a gradual loss of incentive among nationals for learning and capacity building. The lack of performance evaluations, and the prevalence of subjective considerations along with the use of social networks and family and tribal ties (wasta) to get job promotions, have contributed to this attitude. IMF experts had warned GCC governments against continuing this policy, presenting studies conducted in Malaysia and the United States on “positive discrimination” that showed that giving preferential, indulgent treatment to an unqualified group of people diminishes their ambitions and weakens their competencies (IMF 2013).

3.6 Constraint 6: A justified private sector preference for expatriates

From the perspective of private employers, localization policies are barriers to competitiveness, since hiring locals is costly (Mellahi and Al-Hinai 2000). In the UAE, for example, private companies have encountered challenges with native employees including unprofessionalism, inadequate skills, limited experience, unrealistic salary and promotion expectations, insensitivity to cultural diversity, lack of a performance-oriented attitude, absenteeism, and irregular working hours, to name a few (Harry 2003; Oakes 2004; Toledo 2006; Forstenlechner 2008). According to both anecdotal information and survey-based research on the
reluctance to hire nationals in the UAE, employers, both expatriates and Emiratis alike, hold negative, stereotypical views of native workers that have had an adverse impact on their willingness to recruit them (Al-Ali 2008).

In Saudi Arabia, it has been argued that the country’s localization policy has failed to take into account the need to develop human capital, or the private sector’s preference for employing cheap, foreign skilled labor (Ramady 2005). In both Saudi Arabia and Qatar, business owners claim that locals fail to maintain corporate reputations or promote the success of their workplace, and fail to appreciate the importance of reliable, high-quality service standards (Swailes, Al Said, and Al Fahdi 2012).

In Kuwait, nationals’ ability to leave their job at any time makes them less attractive to employers and undermines companies’ incentive to invest in national human resources (Hertog 2014). Job nationalization fell short of expectations in Kuwait not only due to the high cost of natives for firms, but also because many professions, such as nursing, could never be filled by Kuwaitis.57

In 2017, the Omanization of both the public and private sectors in Oman fell short of the country’s Vision 2020 guidelines (Oman Ministry of Commerce 2015). In 2018, the Ministry discovered that 199 companies were not complying with the Omanization policy, as most of these businesses were exclusively hiring expatriates (Arab News 2018). The Omanization policy also has not been properly implemented, as it only concentrates on junior positions, a criticism used by employers as a risk-avoidance measure, since employing inexperienced personnel into top positions threatens the very existence of their businesses (Ali et al. 2017). In contrast, expatriates usually accept lower wages, require lower welfare benefits than their Omani counterparts,58 and have higher productivity (Oman NCSI 2018).

3.7 Closing observations

Despite all the constraints and limitations that have accompanied and still accompany the GCC’s job nationalization policies, whether in the public sector or the private sector, the significance of the goals and results achieved by some of these policies cannot be underestimated. However, the importance of what has been achieved does not diminish the deficiency of other policies and their inability to achieve optimal results. There is no question that the predominance of expatriate workers in the private sector in GCC countries requires various policies and programs to address, whether by imposing quotas or taxes, fees, and fines, or other remedies. It is also impossible to ignore the advantages and benefits countries of the region can reap in the long term by restructuring educational systems and training programs and replacing expatriate workers with qualified national workers. Among the confirmed returns would be reducing unemployment rates among graduates, deepening and expanding the base of private activity, cutting current government spending (on an inflated public sector), reducing spending on social welfare, increasing domestic aggregate demand


due to additional income inflows for national labor, supporting the circular flow of income in the economy by reducing remittances, and utilizing the residual income within the local economic cycle to support growth through the effect of the spending multiplier. This will stimulate investment and expand business activities and employment, which in turn will attract more foreign direct investment and eventually increase the competitiveness of the economy.

However, strict job nationalization policies, especially when formulated without sufficient consideration of their implications and consequences, and when created by regulatory authorities without the active participation of the business community, may flounder and not achieve their desired objectives. Factors that can impede job nationalization policies include a weak education and training system, and the prevalence of traditions and cultural values that prevent natives from engaging in certain jobs or prevent the active participation of women in the labor force, or that stem from misguided public policies that tend to favor the public sector in terms of salaries and benefits. There is no doubt that forcing insufficiently prepared natives to replace expatriate skilled labor goes against the basic tenets of economic efficiency. Such a policy leads to lower productivity and hampers the competitiveness of the local economy.

An effective and efficient job nationalization policy should target qualitative achievements rather than quantitative outcomes, giving priority to reforming education systems and maintaining economic efficiency. Some job nationalization policies are only short-term solutions to the unemployment problem. Many advanced economies follow a policy of acquiring skilled foreign workers and integrating their skills into their society, as they understand the importance of these skills in supporting economic growth. In the long term this leads to more job opportunities for citizens and solves the problem of unemployment.
### Chapter III Appendix Tables

#### Appendix 3.1. GCC Job Nationalization Examples

<table>
<thead>
<tr>
<th>Policy</th>
<th>Purpose</th>
<th>Consequences</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bahrain</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tamkeen established (2006)</td>
<td>To train and educate Bahraini nationals to compete against foreign workers in the private sector</td>
<td>• Employability of nationals increased by 2.5% a year (2014–2015)</td>
<td>Ganguli and Matar 2016</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• While 2,652 Bahrainis were hired from 7 employment fairs in 2018, employment only rose to 31% in 2018 from 29% in 2014</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• In the first half of 2019, 1,225 Bahrainis were hired from employment fairs</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bahrain did not successfully utilize its training and education investments</td>
<td></td>
</tr>
<tr>
<td>LMRA established (2006)</td>
<td>To dismantle the Kafala system</td>
<td>• Only regulated work process and post-recruitment</td>
<td>Randeree 2012; Migrant Forum in Asia 2013, <a href="https://mfasia.org/">https://mfasia.org/</a></td>
</tr>
<tr>
<td>No Objection Certificate launched (2011)</td>
<td>To allow and regulate expats to change jobs</td>
<td>• In the first quarter of 2011, only 4,271 out of 453,661 expatriates changed employers</td>
<td>LMRA 2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 68% were terminated or had expired work visas</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>• Only 2% changed jobs without their employer’s consent</td>
<td></td>
</tr>
<tr>
<td>Initiative</td>
<td>Key Changes and Consequences</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
| Flexi Permit launched (2017) | • To allow expats to work and live in Bahrain without an employer/sponsor  
  • Expat can work in any job for any number of employers on a full- or part-time basis  
  • Number of irregular migrants reduced by 30% (from 82,000 in 2017 to 50,000 in 2020)  
  • Flexi Permit has not completely replaced the Kafala system  
  • Holders of permits are restricted in nonspecialized jobs  
  • Worsened unemployment for nationals |
| Sector-specific “Bahrainization” quotas (2007) | To create additional job opportunities for nationals in specific activities  
  • Hurt the economy and deterred foreign investment in 2008 |

**Kuwait**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Key Changes and Consequences</th>
</tr>
</thead>
</table>
| *Da’m al-’amala* ("wage support") system launched (2001) | To bridge the gap between private and public sector wages  
  • Motivated less-educated Kuwaitis to join the private sector  
  • The system has been abused with phantom employment  
  • It would cost ~$3.3 billion a year for the gov’t to nationalize all public sector jobs |
| Reform of sponsorship system (2007) | To make it easier for expatriates to change jobs  
  • Led to an 11% increase in expatriate wages, making them more competitive |
| Sponsorship system reformed (2009) | To allow non-domestic foreign workers in the private sector to change employers without requiring their consent  
  • Did not effectively control foreign workers  
  • Several broker scandals (2013–2014) |
| Sector-specific “Kuwaitization” quotas instituted (2000) | To create additional job opportunities for nationals in specific activities |  
|---|---|---|
| • Unemployment among natives decreased to 5% in 2010 from 8.5% in 2000  
• As Kuwaitis can leave employers at any time, they are less attractive to private sector employers  
• Kuwaitis lack the required skills for many private sector professions  
• System supported over 50,000 out of ~70,000 Kuwaiti private sector employees in 2011  
• Number of Kuwaitis fell from 72,549 in 2018 to 71,013 in 2019 | Randeree 2012; Hertog 2014; Gulseven 2015; Zawya 2017 |
| Oman |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| **Amnesty campaign for expats introduced (2016)** | To reduce the number of expatriates | • 115,000 expats left the country between 2016 and 2018  
• Hundreds of commercial property owners faced bankruptcy, as rent from foreigners was their major source of income | *Arab News 2018* |
| **Sector-specific “Omanization” quotas (1999)** | To create additional job opportunities for nationals in specific activities | • Nationals concentrated in lower-level positions  
• Foreign workers are usually skilled and earn lower wages  
• Fear of employing inexperienced personnel for top positions  
• Policy blamed for phantom employment (2007)  
• Omanization ratio hit 92.5% in banking sector (2016)  
• Automotive sector hurt, as most jobs require qualifications and training (2016)  
• IMF reported that the policy could reduce competitiveness (2018) | *Mellahi 2007; Al-Nahdi 2016; Ali et al. 2017; Times of Oman 2018* |
| **Public sector reforms (2011)** | To restructure and redefine the functions of public jobs | • Unemployment benefits for nationals ($390/mo.) announced  
• 35,000 new government jobs created  
• 60,000 private sector employees quit jobs (2010) | *Hertog 2014* |
<table>
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<tr>
<th>Education sector reforms (1976–2001)</th>
<th>To enhance nationals’ skills</th>
<th>• Failed to target highly skilled or unskilled and hazardous occupations</th>
<th>mei.edu 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sponsorship system reform (2011)</td>
<td>To eliminate the negative impact of the Kafala system</td>
<td>• 28,000 expatriates changed jobs (pre-2011 monthly average was about 4,000)</td>
<td>Naidu, Nyarko, and Wang 2014</td>
</tr>
</tbody>
</table>
| Sector-specific “Emeritization” quotas (2005) | To increase job opportunities for nationals  
To reduce obstacles facing nationals in the private sector. | • Hard to get nationals to take manual or technical jobs in the private sector  
• Emiratis seen as unprofessional, culturally insensitive, and unmotivated  
• Industries such as retail and services unlikely to meet nationals’ aspirations  
• Nationals see no career-development prospects in the private sector  
• Private sector doesn’t foster a workplace culture that appeals to nationals, as they expect to hold comfortable white-collar managerial positions | Wilkins 2001; Al-Ali 2006, 2008; World Economic Forum 2008; Arabian Business 2019 |
|---|---|---|---|
| Public sector reforms (2011) | To provide more job security to nationals and redefine functions of public jobs | • Public sector monthly minimum wage of $533 announced, along with other perks  
• Created 300,000 new public jobs (2012)  
• Emiratis quit jobs to join public sector, leaving only 0.5% working in private sector | Hertog 2014; Arabian Business 2019 |

**Saudi Arabia**
| Sector-specific “Saudization” quotas introduced | To enhance job opportunities for nationals | • Education system largely unable to match jobs requiring technical expertise  
• Lack of consideration for market structure and human capital development  
• “Ghost workers” fraudulently used to show a commitment to the policy | Kechichian 2004; Ramady 2005; Melahi 2007; Arab News 2012 |
| --- | --- | --- | --- |
| Nitaqat launched (2011) | To nationalize jobs | • Provided flexibility to companies and was more in line with different business activities  
• ~500,000 Saudis hired from 2011 to 2013, constituting a 70% increase  
• Led to “phantom employment” of Saudi women  
• Firms lobbied to lower quotas, compromising quality  
• Bankruptcies doubled due to additional costs  
• Foreign investors had to settle for much less qualified employees | Guardian 2013; Peck 2017; Hertog 2014; Frank-Fahle 2019 |
<table>
<thead>
<tr>
<th>Qatar</th>
</tr>
</thead>
</table>
| **Sector-specific “Qatarization” quotas announced (2000)** | - No Qatarization-specific incentives provided  
- Increased employment costs  
- Not cost-efficient  
- Workers generally young, with little experience in the private sector  
- Employers feel natives don’t follow corporate rules | Al-Horr 2011; Swailes, Al Said, and Al Fahdi 2012; Hertog 2014 |
Conclusions and Policy Recommendations

After an in-depth review of the developments and problems in GCC labor markets over the past four decades, and through an econometric estimation of the relationship between labor productivity and labor composition in different GCC industries, we came to the following key conclusions.

For the last quarter of the 20th century, GDP growth across GCC countries, without exception, was mostly driven by employment expansion rather than labor productivity. Growth in the region’s labor productivity was mostly negative or close to zero, and has fallen over time. The weakness and deterioration in labor productivity in the region can be partially attributed to the availability of cheap expatriate labor, which has led to the private sector’s reluctance to introduce and adopt more knowledge-based technologies to enhance productivity.

Low labor productivity and slowing total factor productivity due to weak technologies indicate that the region has great potential to enhance its automation, increase capital intensity, and raise the overall efficiency of its economies. There is no doubt that making growth sustainable and driven by increased productivity requires, in addition to improving automation and technology, developing advanced education and vocational systems and raising the skills of local workers to compensate for their relatively high costs.

The employment of citizens is mostly concentrated in the public sector; that is, in non-market services, and while this is partly related to their skill levels or personal preferences, the lack of skills or the deviation and bias in preferences that prevent their active involvement in the private sector is the result of generally inadequate public policies related to the nature of the region’s educational and training systems, and the favoritism in the non-market services sector characterized by high salaries and inflated benefits, which are policies that have hindered job nationalization programs in most GCC countries.

Most worrisome is the substantial wage gap between migrant workers and citizens. This study found a positive relationship between the size of this gap and the concentration of nationals in the public sectors, which are overstaffed by natives. Another large gap, between the wages for low-skilled and high-skilled workers, diverts domestic investment toward activities that rely on low skills.

Most of the job nationalization policies adopted in the region were found to be quantitative in nature, with the aim of replacing migrant workers with national workers. In this context, our study did not find specific policies that dealt with the root of the problem, which stems in most cases from the inability of the national labor force either in terms of quantity or quality to meet the sizable and accelerating demand for jobs brought about by the region’s great influx of wealth, especially following the multiple increases in oil prices in the 1970s. Furthermore, there was no policy aimed at creating new products or services that was tailored to absorb national labor and gradually replace the current activities that still depend heavily on cheap manual and unskilled labor.
This study also did not find any innovative job nationalization policies aimed at creating promising new economic activities corresponding to the nature of the qualifications and aspirations of the increasing number of young graduates entering the labor market. To meet these needs, the region should consider implementing the following policies:

1. Developing non-customary employment opportunities by establishing new industries that are able to absorb national labor and gradually replace existing activities that still rely heavily on manual and unskilled cheap labor;

2. Diversifying the base of economic activity by supporting initiatives in the local private sector and creating opportunities for foreign direct investment that can lead to real job opportunities for skilled workers;

3. Replacing the employment of specific percentages of citizens in certain professions or industries (the current quota systems) with qualifying and training specific percentages of citizens in these professions and industries, while providing government support to companies that play a major role in this process;

4. Rebuilding and restructuring educational, qualification, and training curricula to achieve a legitimate connection between academic and applied education systems and training methods on the one hand, and the professions required in the labor market on the other, to eliminate the gap between the national labor supply and the demand for skills in the private sector. Improving automation and technology alone will not be sufficient to achieve productivity-driven growth, as this requires improving the level of learning and the skills of local labor to compensate for that segment’s relatively high cost and low productivity;

5. Disseminating and adopting the use of technology in production and service activities in a way that reduces the need for unskilled labor, and increases the demand for skilled and educated workers;

6. Involving the business community, education sector, academic institutions, and vocational training institutions in a real and fundamental way in the creation of job nationalization programs, and not limiting the initiatives of such programs to government agencies, as has been the case in the region over the past three decades;

7. Segregating job nationalization programs and the business cycle, especially since the cycle in the region is characterized by severe volatility and instability due to the excessive dependence of GCC economies on the revenues of oil exports.

While the above policy actions are important, they are insufficient to solve the problem. The region must create a new paradigm that makes national workers a desirable factor of production in the private sector. The achievement of this will not only depend on multiple parallel reforms to deal with the six constraints mentioned in Chapter III that limit the effectiveness of job nationalization policies, but the region’s authorities must also take further steps. Among the most crucial of these steps is stopping the inflation of the public sector. Reconsidering the open-door policy of the public sector is no longer a matter of choice for regional authorities, as the annual number of graduates from universities, institutes, and schools is snowballing. The relevant authorities can no longer escape the fact that the public sector can no longer be used as a repository for national employment. This requires restructuring ownership of each country’s assets so that the private sector can play its true role in
managing and operating the production and distribution processes, and the state can return to its natural functions of regulating, controlling, legislating, and ensuring security and social justice.

Econometric estimates show that there is a trade-off between labor productivity and employment in GCC markets. This trade-off is more severe in GCC markets than in emerging markets and other advanced economies, and is getting worse, indicating that the region is losing ground in improving productivity as it continues to create less productive jobs. Our model also found that migrant workers in Kuwait are more productive than natives. However, due to insufficient data, this study cannot confirm a comparable upper productivity level in Saudi Arabia.

Due to the large negative productivity gap between citizens and migrant labor on one hand, and the large positive gap between the wages of the two groups on the other hand, the success of job nationalization policies in Kuwait requires a fundamental shift in citizens’ perception of employment, from considering it a right of citizenship to considering it a duty with its own liabilities and burdens. It also requires a radical improvement in natives’ scholastic achievement, skills, and productivity. This study also found that migrants and citizens are imperfect substitutes, which implies that the rapid replacement of migrants with native workers will be very costly for most non-oil private sectors.

Last but not least, the problem of inconsistent and insufficient published data on the variables of GCC labor markets must be remedied. The lack of data, especially on the subsector or industry level on the one hand, and the lack of consistent time periods corresponding to all countries of the region on the other hand, deprive researchers of the necessary tools for conducting an extensive analysis concerning the relationship between productivity, skills, and wages in the region. In this respect, the researchers call upon the relevant authorities in the region to intensify their efforts to provide detailed and comparable data on the relevant labor, capital, and other variables to help further understand the dynamics of GCC labor markets, which will help establish more effective job nationalization policies.
References

1. Research papers


Behar, A. (2010). The elasticity of substitution between skilled and unskilled labor in developing countries is about 2. Selected Works, International Monetary Fund. works.imf.gov/alberto_behr/16/.


Thiollet, H. (2016). Managing migrant labor in the Gulf: Transnational dynamics of migration politics since the 1930s. hal-01346366, https://hal.archives-ouvertes.fr/hal-01346366/.


2. Data sources and official reports


Migrant Forum in Asia 2013, https://mfasia.org/


3. Media articles

*Al Qabas* daily. (2019, March 5). Kuwaitis are fake workers in cooperatives. https://alqabas.com/article/3686524-.


Mohamoon-qa.com. A plan to Qatariize specialized jobs in the government sector matches the availability of national expertise with the needs for expatriates: 100% Qatariization rate in


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