

Labor Market Dynamics in the UAE: Challenges in Transitioning to a Knowledge Economy

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About the Growth Lab

The Growth Lab's multidisciplinary team, led by Professor Ricardo Hausmann, pushes the frontiers of research on economic growth and development policy. The Growth Lab advances academic research on the nature of economic growth and conducts applied, place-based engagements that aim to understand context-specific growth processes, address key constraints, and identify promising opportunities. Key frameworks developed at the Growth Lab include Growth Diagnostics and Economic Complexity. Growth Diagnostics is a systematic methodology that aims to identify the most binding constraints to better growth outcomes, allowing policymakers to take the most impactful actions. Economic Complexity is a growing field of research that sees the economy as composed of distributed knowledge and productive capabilities that must be networked in order to be used in production and sees growth as the expansion of both the underlying knowledge and its uses. Through its research and teaching activities, the Growth Lab has become a global thought leader offering breakthrough ideas, methods, and tools that help policymakers, stakeholders and scholars find ways to accelerate economic growth and expand opportunity across the world.

Acknowledgements

This report was produced in the context of the ongoing collaboration between Harvard's Growth Lab and the Ministry of Economy of the United Arab Emirates (UAE), which aims to produce novel research-based inputs to inform an ambitious, forward-looking economic policy agenda. The goal of this collaboration is to provide rigorous research that can support the Ministry of Economy and related policy-making entities in their mission of promoting high-quality, sustainable growth and fostering structural transformation in the UAE.

Key Messages

Labor market dynamics are a key component of the UAE's growth and diversification trajectory. The UAE's labor market displays several unique features, some of them related to the oil-induced migration boom that amplified in the 2000s. The population and workforce are largely comprised of foreigners, and of men. The country has a high labor force participation and low unemployment, and the labor market is segmented with a dichotomy of roles between citizens and foreigners, as well as wide heterogeneity in the type of jobs held by foreigners.

These features were partly shaped by the historical policies that regulated migration flows into the country, and to a lesser degree, by some of the tools used to pursue social policy. The *kafala* system, the main instrument of migration policy, that has since gone through several waves of relaxation, allowed to meet the large labor needs of employers in a context of rapid growth. These labor needs were mainly comprised of male workers in sectors like construction and trade. The dichotomy of the labor market between foreigners and citizens might be sustained by using public employment as a tool for social policy towards citizens, in a context of phasing out of subsidies. It may also be maintained by general incentive structures that encourage public sector employment despite past and current Emiratization efforts.

There are four possible threats that may constrain the UAE labor markets' ability to support the country's future growth agenda. First, the transient nature of foreign workers may lead to limited permanent accumulation of knowhow in the economy. Second, the bias towards labor-intensive production due to the stickiness of past immigration policies may disincentivize specialization into high-productivity activities. Third, the limited participation of Emiratis to the country's privately led future engines of growth may further exacerbate the vulnerability of knowledge accumulation, transmission, and retention, as well as diminish citizen's professional satisfaction. Finally, the persisting gender imbalance in the workforce may be hampering productivity, diversification, and the attraction of talent valuing inclusiveness in the workplace.

1. Introduction

In this report, we describe the UAE labor market and analyze its ability to support the country's growth agenda. The growth of the economy is closely related to its labor market. Hence, understanding it is even important to operationalize the country's objective to increase productivity and expand its growth engines.

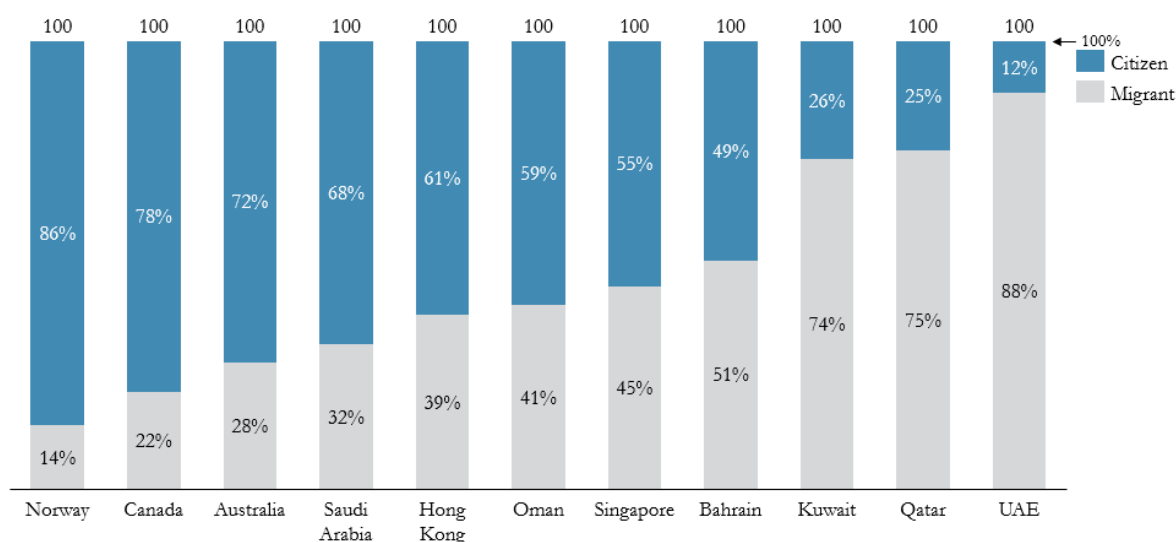
Over the past two decades, the UAE has proven able to build the labor force needed to support its fast-growing economy. The open migration policy allowed employers to swiftly source the skills needed in sectors like construction and trade, and gradually source talent across a broader range of sectors. Going forward, as the growth agenda includes objectives such as deepening diversification and transitioning towards a knowledge economy, the adequate supply of human capital will be an important determinant in the successful pursuit of the growth agenda. Understanding the trends of the country's labor market, and the threats that could constrain its ability to support growth are thus important. The first section of this chapter describes salient characteristics of the UAE's labor market. The second section explores the mechanisms that have led to such characteristics. The last section describes threats that may hamper the ability of the UAE's labor market to support the country's growth agenda.

2. Main features of the UAE's labor market

2.1 Foreigner-majority population driven by oil-related migration boom

The UAE had a total population of 9.9 million in 2020 according to UNDESA, out of which 88% were foreigners. Most of the foreigners in the country come from Asian countries. Out of the 8.7 million foreigners living in the UAE in 2020, 40% were from India, 13% from Bangladesh, 11% from Pakistan and 10% from Egypt. At 88.4%, the country had the highest migrant populations to total population ratios in the world in 2015. (Figure 83).

Figure 1: Share of migrants in total population, UAE vs peers 2015

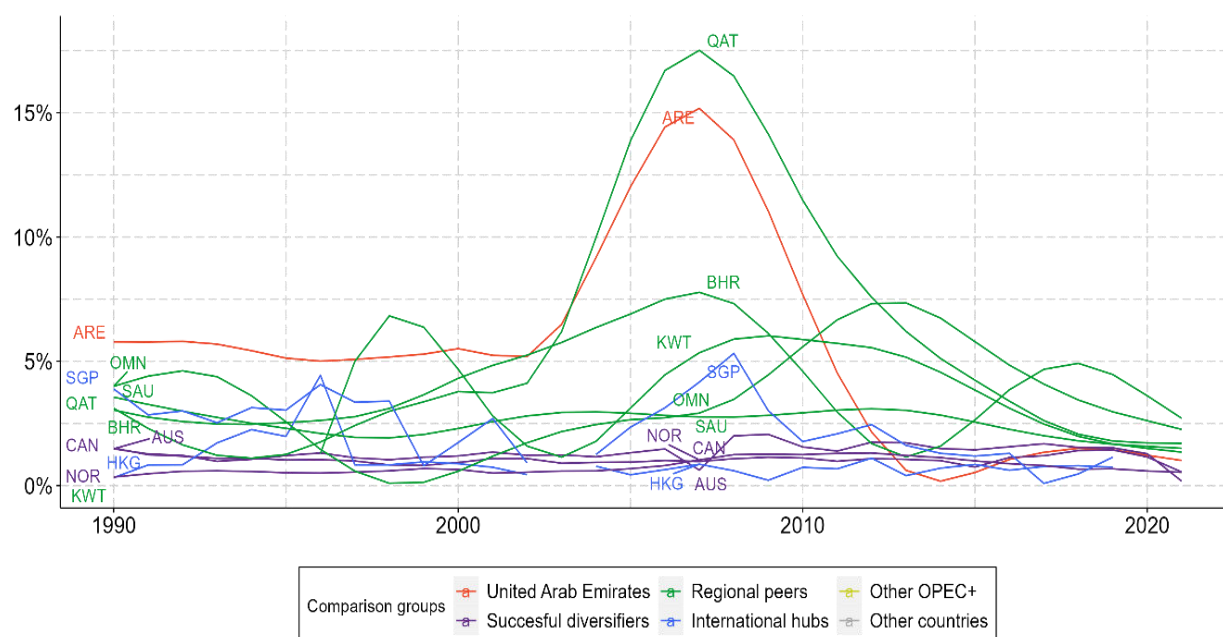


Source: Own elaboration based on World Development Indicators (WDI)

The composition of the population is a result of the migration boom accelerating in the 2000s. This boom nearly tripled the population between 2000 and 2021 from 3.1 million people to 9.9 million. This population growth experienced by the UAE is unique among comparison countries, as seen in Figure 84, where it is visible that the year-on-year population growth experienced by the UAE far exceeded most aspirational, global, and regional comparator countries.¹ This increase in incoming foreign workers was spurred by increased oil revenue that entered the economy in the early 2000s and led to parallel trends of massive increases in the size of the workforce. The only peer country that experienced similarly high year-on-year population growth was Qatar, which also experienced an influx of foreign workers due to increased oil revenue.

¹ Successful diversifiers: Australia, Canada, Norway. Regional peers: Bahrain, Kuwait, Oman, Saudi Arabia, Qatar. International hubs: Hong Kong, Singapore

Figure 2: Year-on-year population growth: UAE and comparator countries



Source: Own elaboration based on WDI.

The country's labor force quadrupled since 2000. The trends in the labor force of the UAE largely follow the trends in population growth, given that the rise in population can be attributed to the inflow of foreign workers. By 2020, the labor force had more than quadrupled from the size of the labor force in 2000, going from 1.7 million to 6.8 million. The country's labor force was the second largest in the Gulf region in 2020, behind Saudi Arabia (15 million) but larger than Qatar (2.1 million) and Kuwait (2.3 million).

The large boom in population, spurred by migration, led to the development of two salient features in the labor market of the country: the high ratio of employment to population and the overrepresentation of men. These features are common among other small-sized regional countries. The migration patterns led to gender imbalances at every level of the labor market.

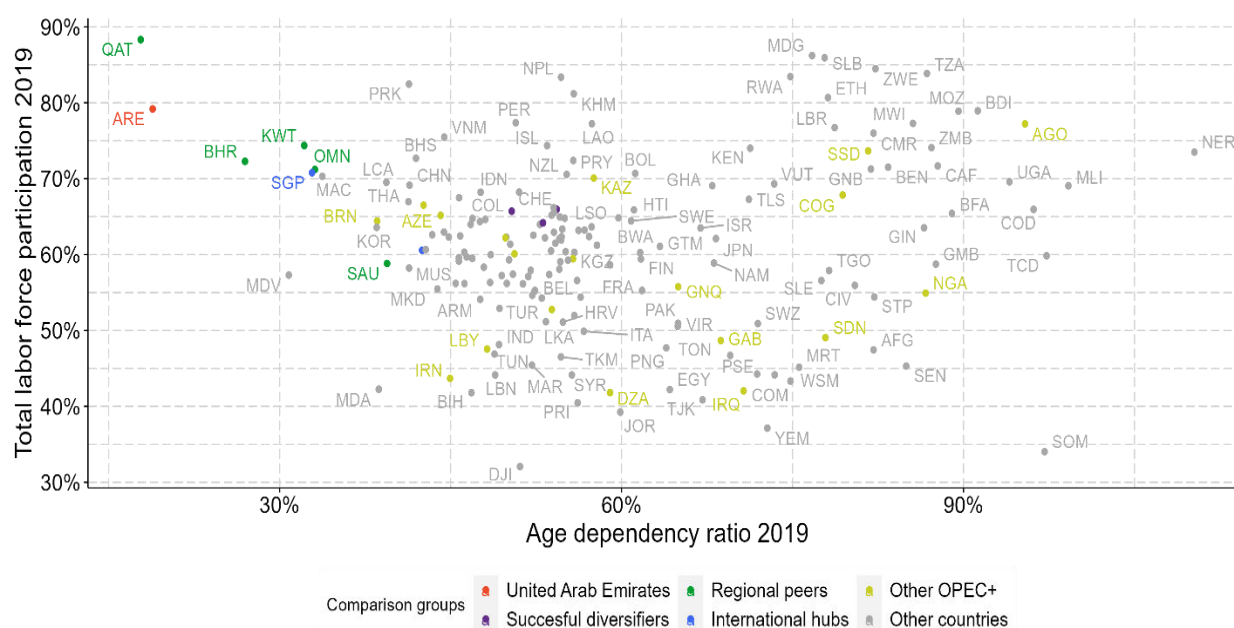
2.2 High employment, low dependency

The UAE had one of the highest employment-to-population ratios in the world at 76.9% in 2020 and the lowest age-dependency ratios. This is the joint result of high labor force participation, a small population outside of working age (those below 15 and above 65), and low unemployment within the workforce. The age dependency ratio is lower not only than most comparator countries but also lower than most of the world (Figure 85). As noted, while these facts are certainly exceptional, it is a function of the

immigration policy that requires incoming workers to be employed. Given that most of the population is comprised of foreign workers, the ratio of employment to population is expected to be high due to the mechanical effect of this calculation. Only Qatar, which witnessed a similar inflow of foreign workers but has a much smaller total population has a higher labor force participation rate and employment-to-population ratio.

These metrics are nevertheless important because of the consequences on the labor market and demographic balance. Retirement for Emiratis may not be a chief issue in the country given the high employment-to-population ratio and level of wealth of the country. The UAE is unique in both the high labor force participation and low age dependency ratio. There is also little pressure on the labor absorption capacity of the economy stemming from young Emiratis entering the labor force. However, it may also lead to weaker incentives to develop local human capital.

Figure 3: LFP rate vs. age dependency ratio, UAE vs peers – 2019



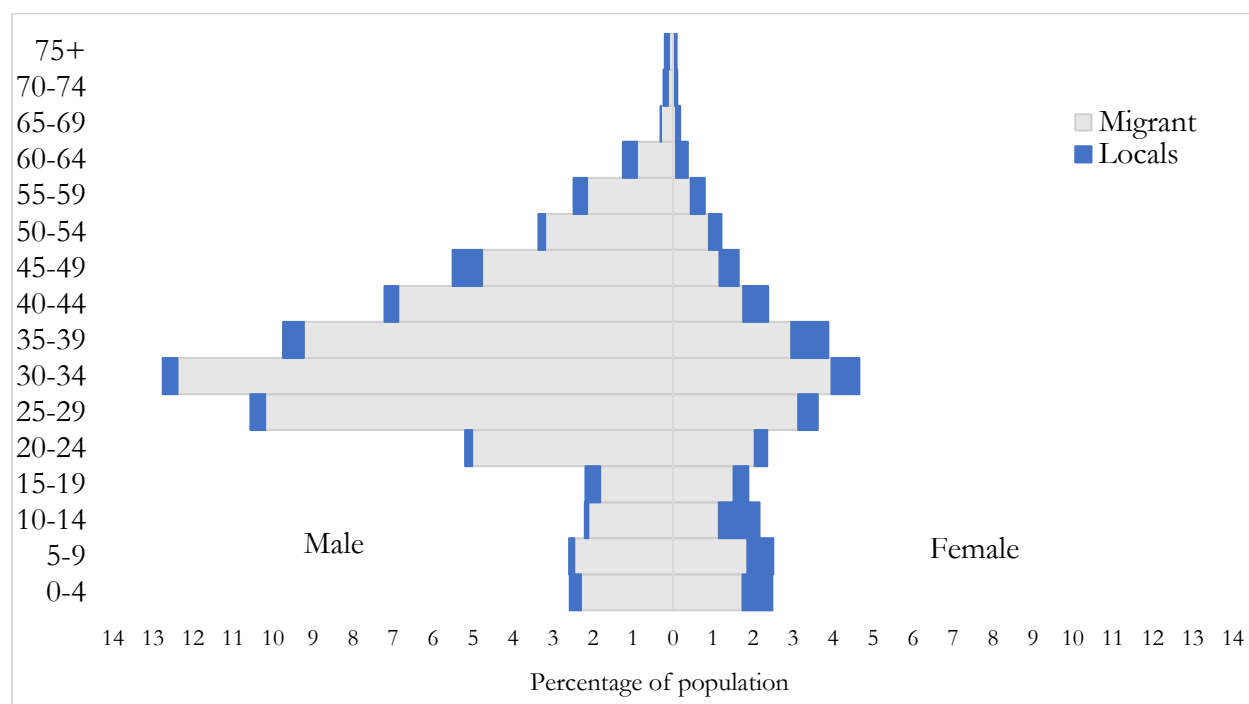
Source: Own elaboration based on WDI (1) Total labor force participation rate-ILOSTAT modeled estimates; (2) Age dependency ratio-WB staff estimates using UNDESA")

2.3 An over-representation of men in the population, the labor force, and the employed population

A key feature of the UAE's labor market is the over-representation of men in both the demographic and employment distributions. The dominant proportion of men in the general demographic distribution can be observed by the left bulge in the population pyramid in Figure 86. Foreign men drive this larger male population, as they represent 94% of total males in the UAE. These men typically come for work and live in the country

alone without their families, thus, contributing to a high proportion of men in the population. Females only made up about 31% of the total population in 2020, the second lowest ratio in the world behind Qatar. Out of the total females, 77% of females were foreigners (Figure 88).

Figure 4: Population pyramid by citizenship 2019



Source: Own elaboration based on UN DESA - 2019

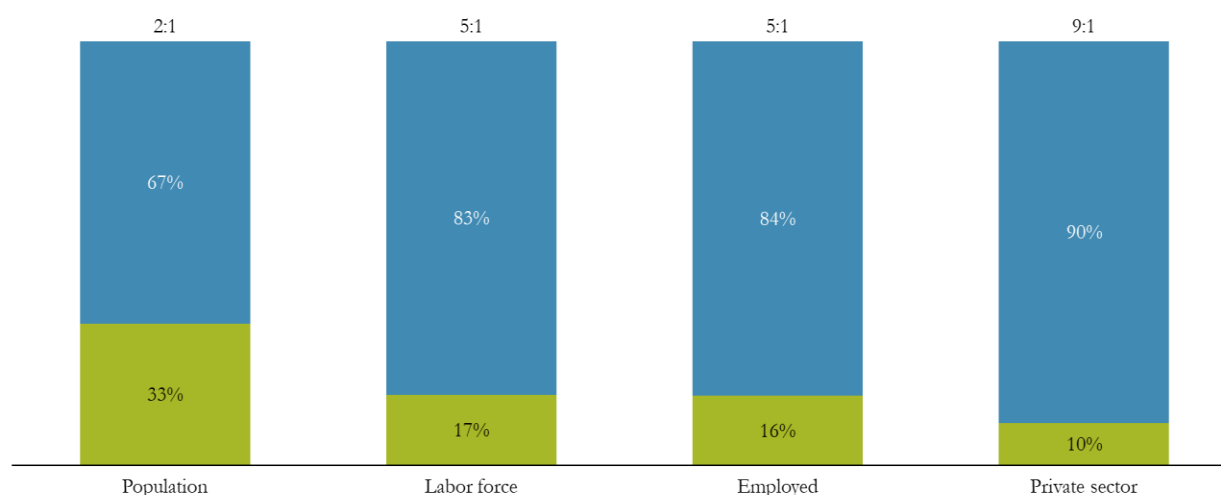
The gender dynamics are magnified in the labor force when analyzing the ratio of men to women, which reaches 5:1 (Figure 87). This high male-to-female ratio in the labor force results from the combination of a low share of women in the population and a relatively low female labor force participation. It should be noted that the labor force participation rate of women increased to 61.8% of the total female population aged 15+, better than most regional peers and close to global ones (Figure 89).² Owing to the imbalance in the labor force, the employed population is also mostly men. However, this imbalance is further exacerbated in the private sector where the ratio of male employees to female employees reaches 9:1.

² These figures are generated through the national estimates collected by the World Bank World Development Indicator. The ILOSTAT modelled estimates of female labor force participation values differ between 2017-2020. According to the ILO modelled estimates, the female labor force participation rate declined after 2017, reaching 42% in 2020. It is important to note that these values combine Emirati and foreign women so they may hide potential challenges of low labor force participation among Emirati women.

There are three main drivers for the overrepresentation of men at the different levels of the labor market: i) migration biased towards physical labor, ii) restrictions on labor force participation, and iii) social norms around employment. At the level of the overall population, the largest driver of overrepresentation has been inward migration heavily biased towards labor-intensive sectors, such as construction, that tend to employ men, which is reflected in the bulge in the population pyramid above (Figure 86). The lower share of females in the labor force is driven by the combined result of demographic distribution, regulations, and local considerations. In the UAE, there have been significant policy restrictions on women's labor force participation. In January 2020, many of these restrictions were lifted including limitations on working at night and working on jobs deemed hazardous, arduous, or morally or socially inappropriate (Smith, 2020). Furthermore, the government also introduced legislation that promoted labor market participation, restricted discrimination, and opened sectors like mining, construction, manufacturing, energy, water and agriculture, and transportation. Thus, historically such restrictions have contributed to the low participation of women. In terms of low employment or high unemployment for younger women, social norms such as limited social networking opportunities are deterrents. These factors are discussed in more detail in the section about unemployment in the UAE.

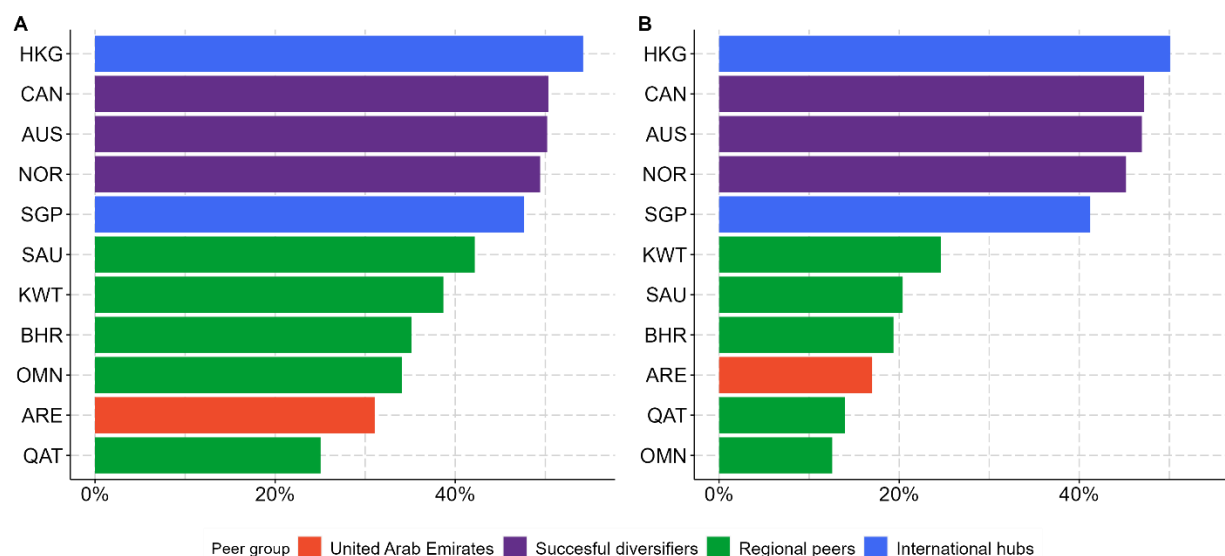
Labor force participation is particularly low among female Emiratis with low levels of education: Only 5% of Emiratis females that have a primary education level participate in the labor force while that number reaches 85% among those with a higher education level (Figure 90). The low labor force participation of women has been attributed to social pressure to deprioritize work, the absence of childcare-related incentives, and a lack of supportive working policies for childcare-providing Emirati women (Al Hajeri and Vammalle, 2020).

Figure 5 Male to female ratio in the UAE population, labor force, employed, and among private sector workers



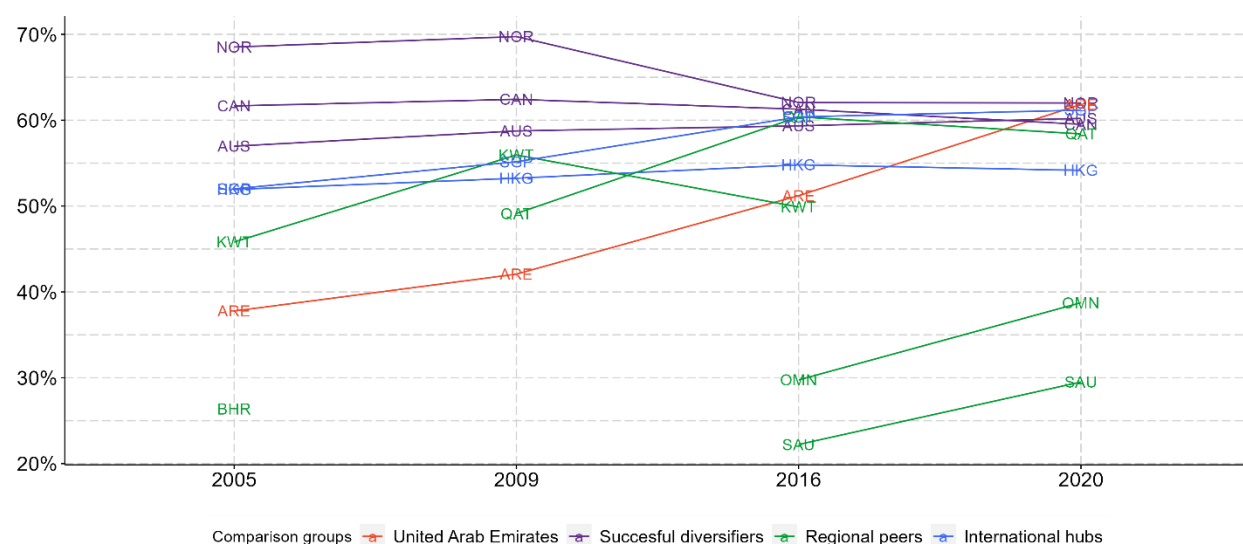
Source: Own elaboration based on WDI and Federal Competitiveness and Statistics Centre (FCSC).

Figure 6: (a) Percentage of females in total population – 2021 (b) Percentage of females in total labor force – 2021



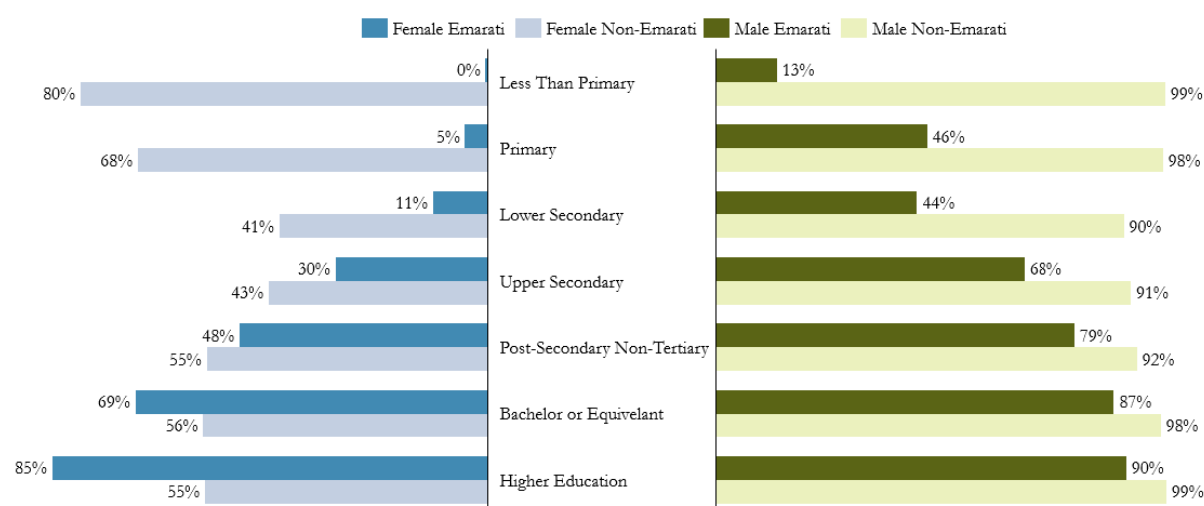
Source: Own elaboration based on: (a) World Bank, WDI - Estimates based on UNDESA World Population Prospect (b) World Bank, WDI - Derived from ILOSTAT

Figure 7: UAE vs peers, female labor force participation rate – national estimates



Source: Own elaboration based on World Development Indicators and National estimates

Figure 8: Share of active population by education level, gender and citizenship in 2017



Source: Own elaboration based on Labor Force Survey – 2017 and FCSC.

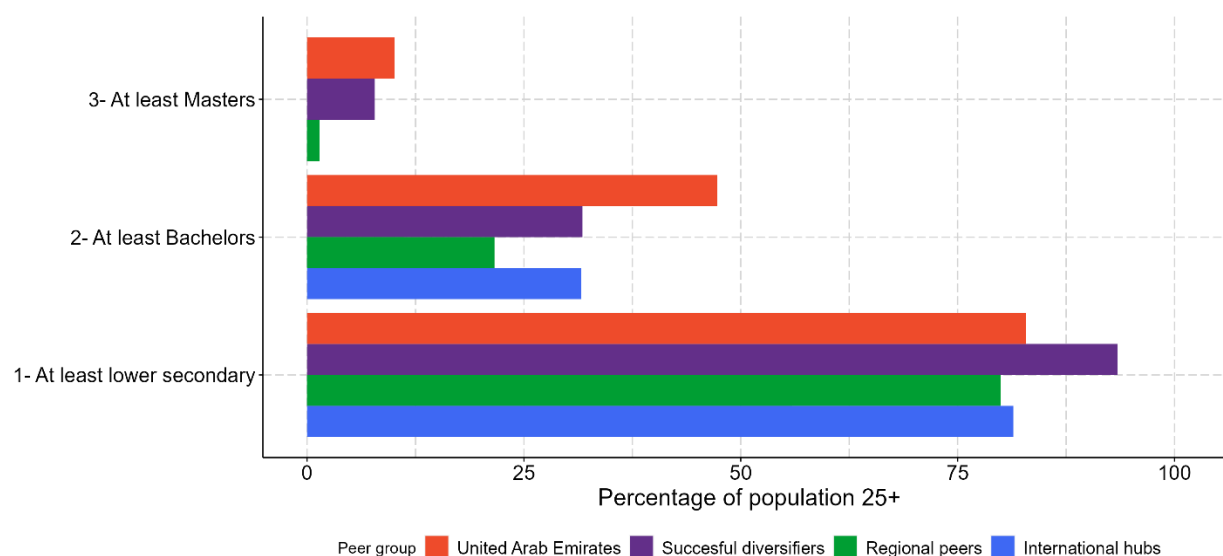
2.4 A highly educated population, mainly sourced from abroad

Overall, the UAE displays high levels of educational attainment among the population and these figures are much higher than their comparator countries. The UAE increased the share of its population which at least completed lower secondary from 70 to 85% over 4 years in 2016-2019. This share is now higher than in countries like Singapore and Hong Kong (Figure 91). The size of the population aged more than 25 with

a bachelor's or equivalent degree is much higher than those in peer countries. Thus, people with bachelor's degrees represent 45% of the population over 25, the highest among peers. Similarly, the size of the population with a masters or equivalent degree is much higher than those in peer countries.

These high educational attainments are driven by the education of foreign workers acquired before coming to the UAE. It is also important to note that the UAE has a much higher proportion of those with lower levels of education than their regional peers and international hubs. This is reflective of UAE's migration policy which also maintained an open channel to low-skill migration. This is unlike most countries in the world where low-skilled migration is limited. Given that most of the labor market participants in the country have acquired their education abroad, the broad education attainment rates do not reveal the underlying quality of education offered in the UAE. An assessment of the UAE education system follows in the second section under a discussion of education among citizens.

Figure 9: UAE vs peers, education attainment level in peer group countries by percentage of population 25+ - 2018



Source: Own elaboration based on WDI.

2.5 Low unemployment overall but localized difficulties for young, educated females

The unemployment rate of the country has historically been lower than most peer countries. It has been close to 2-3% through the years only jumping to 5% in 2020 when COVID-19 impacted the economy (Figure 92). The overall unemployment rate has been low in the UAE mechanically because the population is comprised of foreign workers who

are required to secure a job before they enter the country and hold the job for the entirety of their stay.

Unemployment is more pronounced for women, younger people, and those with more education. While men made up most of the unemployed population in 2019, the unemployment rate for women is higher at 5% compared to 1.3% for males in 2019. The unemployment figures by gender and age group show that the highest levels of unemployment are experienced at younger ages for both males and females (Figure 93). It is important to note that unemployment is not the best indicator for the 20- to 24-year-old group due to the high rates of education in the UAE³. However, with a labor force participation rate of 74.2%, this is still irrelevant. The high LFP in this group indicates that a sizeable proportion of the age group is participating in the labor force but unable to find employment. The specific mechanisms that lead to high youth unemployment in the UAE warrant a detailed investigation. Research done in other GCC countries such as Saudi Arabia attributes the high youth unemployment in those countries to demographic trends, information deficit, skills deficiencies, and expectation mismatch (Evidence for Policy Design, 2019). Another common difficulty faced by job seekers is the reliance on social networks to find employment. Young people and women tend to have limited social networks and may be facing higher unemployment due to that. As the UAE is a unique context, these factors cannot be directly applied to understanding the unemployment in the country and only provide a helpful framework.

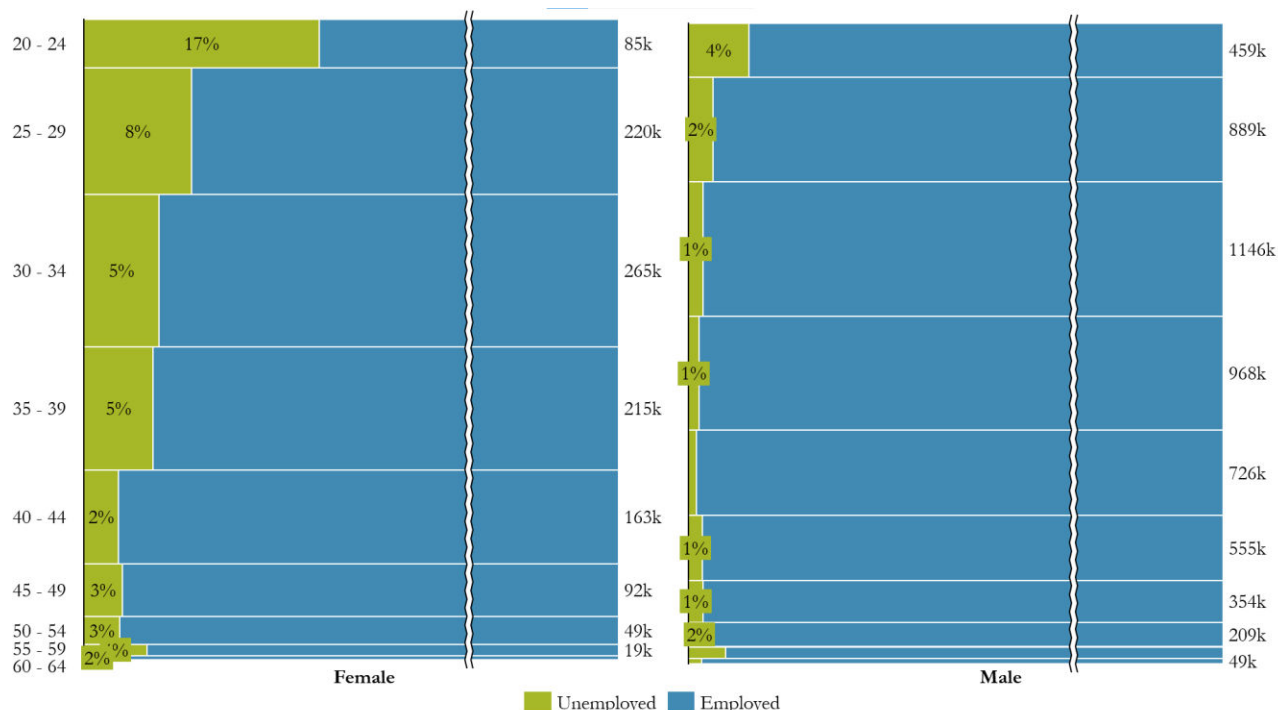
Figure 10: UAE vs peers, unemployment rate



Source: Own elaboration based on World Bank, WDI - Derived from ILOSTAT.

³ Ideally the right indicator would be NEETs. However, this data was not immediately accessible for the UAE.

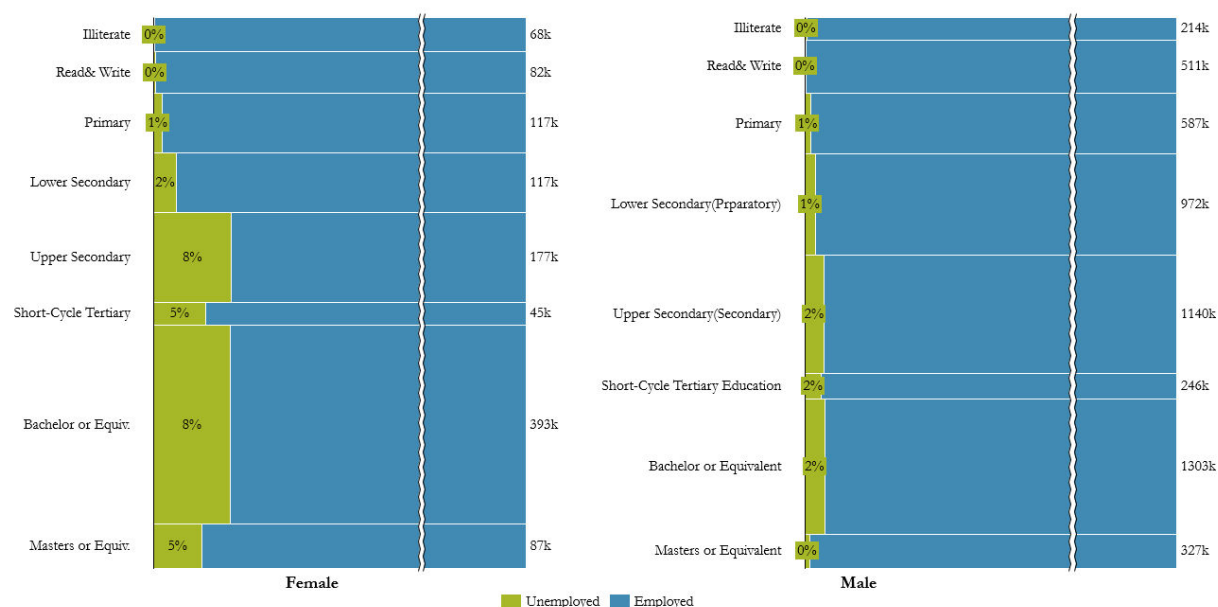
Figure 11 Unemployment rate by age and gender in 2019, age 20-64 only



Source: Own elaboration based on: (1) Labor Force Survey 2019 – FCSC; (2) WDI

The high unemployment figures for those with bachelor's degrees mean that even those who have strong formal credentials face unemployment (Figure 94). This could be indicative of the mismatch between the skills needed by employers and those obtained in formal education, or a lack of quality of the skills acquired. It could also be possible that given the incentives for public sector employment such as higher wages and job security, young people might be choosing to stay unemployed as they are targeting public sector jobs. This has important implications not only for the labor market but also for understanding whether the country is receiving the results and returns on investment being put into the education and skilling of the working-age population.

Figure 12: Unemployment distribution by education level and gender in 2019⁴



Source: Own elaboration based on: (1) Labor Force Survey 2019 – FCSC; (2) WDI.

2.6 Prevalence of low-skilled occupations and low productivity activities, but an increasing share of high-skilled jobs.

The occupation distribution in the UAE has more low-skilled occupations than comparator countries. Figure 95 shows that while in the UAE in 2019 the most common occupation was elementary occupations, regional peer Saudi Arabia displayed a smaller share of those employed in elementary occupations and a higher share of professionals as well as technicians and associate professionals. In comparison to the UAE, Singapore and Hong Kong have much larger shares for managers, professionals and technicians, and associate professionals. The UAE's occupational makeup may be more biased toward low-skill employment as compared to regional and aspirational peers.

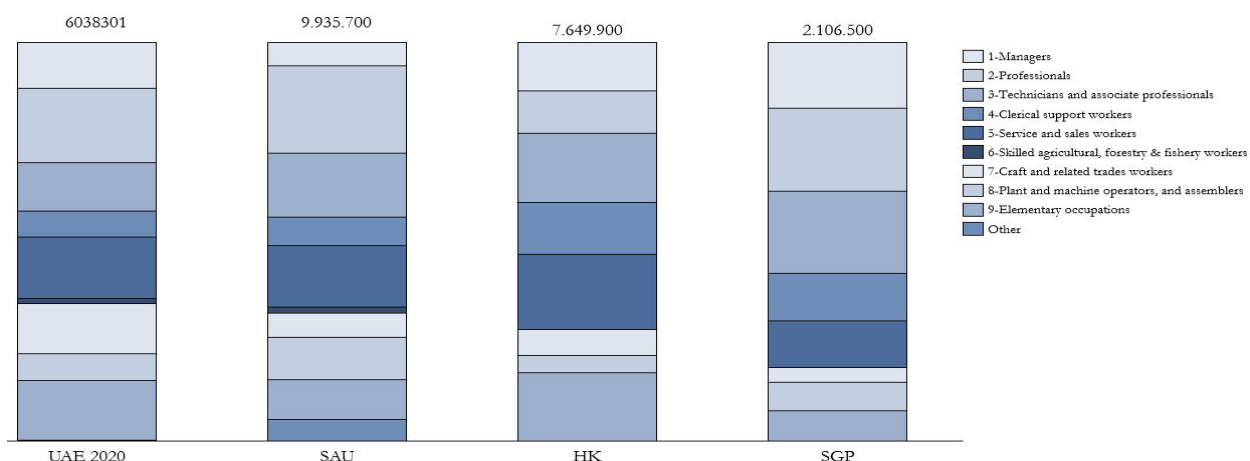
The occupation distribution varies significantly between the private and the public sector. Zooming into the private sector reveals that most people are employed in low-skill occupations such as elementary occupations, crafts, and related trade workers. The gap between overall occupation distribution and private sector occupation distribution shows that the public sector has more high skilled workers⁵. In Figure 96, the bars for managers, professionals, and technicians are larger in the column on the right that shows the occupation distribution for the total economy (including public sector employment). Thus, by combining public sector and private sector, the occupation distribution moves

⁴ Certain categories have been removed from this graph.

⁵ Data on the occupation distribution of the public sector was not available

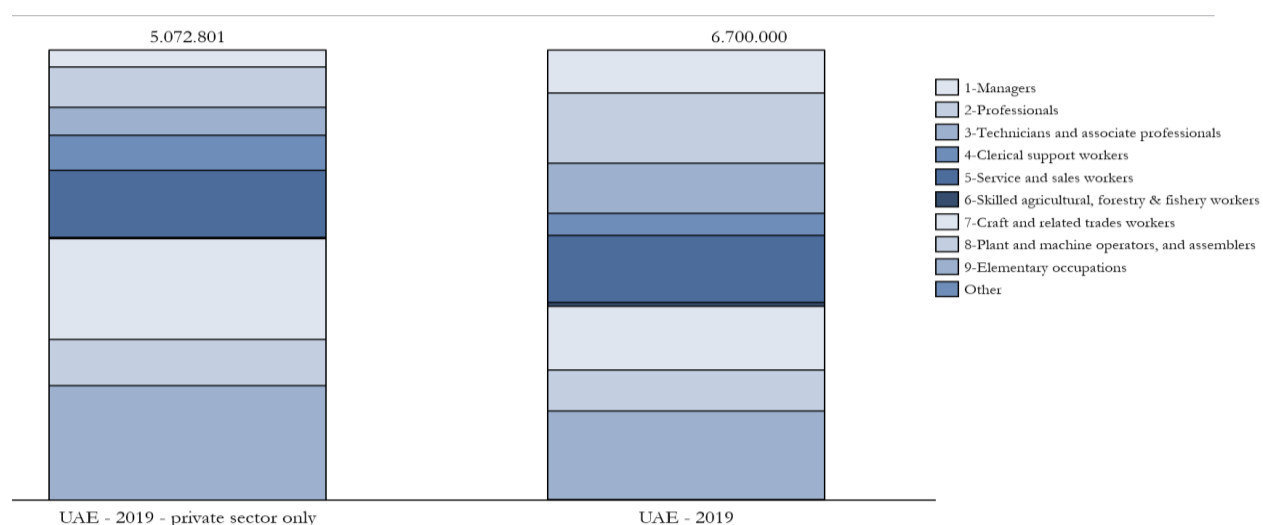
towards high-skills indicative of a differential occupation distribution and highly skilled public sector.

Figure 13: UAE vs peers: Workers by occupation - 2020



Source: Own elaboration based on Labor Force Survey 2019 – FCSC and Statistical agencies from Saudi Arabia, Hong Kong, and Singapore.

Figure 14: UAE private sector vs total economy, by occupation type

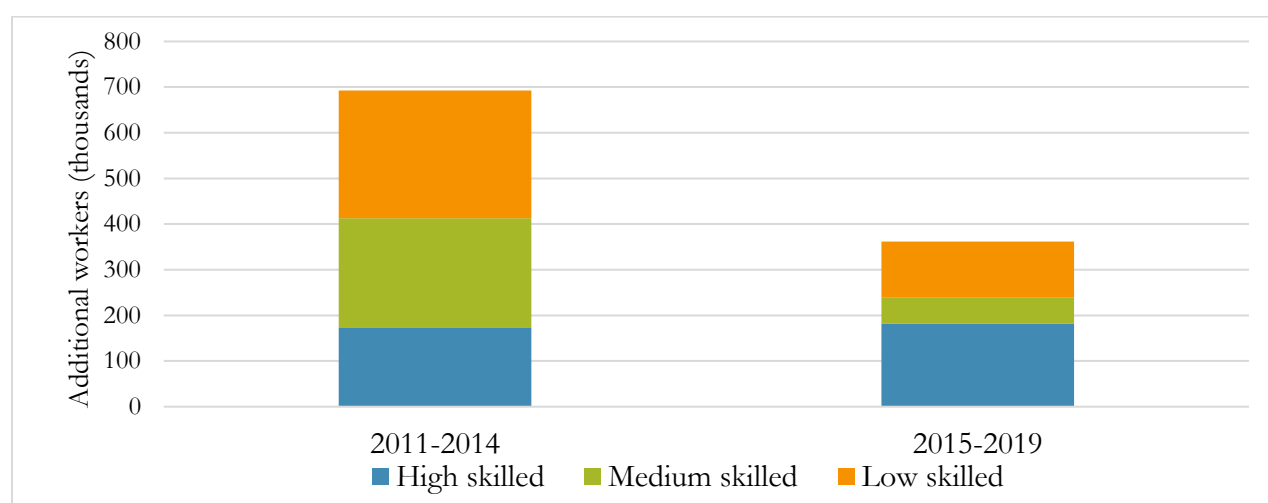


Source: Own elaboration based on Labor Force Survey 2019 – FCSC and Statistical agencies from Saudi Arabia, Hong Kong, and Singapore.

Despite the prevalence of low-skilled workers, the last five years before the onset of pandemic show a faster increase in the share of managers and professionals in the private sector pool of workers. About half of private sector employment has been in low-skilled elementary and crafts occupations. Yet these have lost labor share to manager and professional occupations. This is an important change in the occupation

space of the country given that the private sector represents three-quarters of the total workforce. This is potentially reflective of the change in the nature of demand for workers – demand for low-skilled workers reduced after the oil bust of 2014 while that of high-skilled workers sustained, reflecting a combination of a wealth effect towards low-skilled workers and increased demand for high-skilled workers due to the emergence of export-oriented non-oil goods and service sectors. In 2020, the trends in occupation distribution at the economy-wide level shifted even more, and professionals represented the largest share of occupation in the total economy, and elementary occupations came in second. However, this could possibly be a temporary effect related to the COVID-19 pandemic-induced distortions in the labor market.⁶

Figure 15: Change in employment, by skill level (2011-2019)⁷



Source: Own elaboration based on FCSC – Private Sector Employment by Occupation 2011-2019

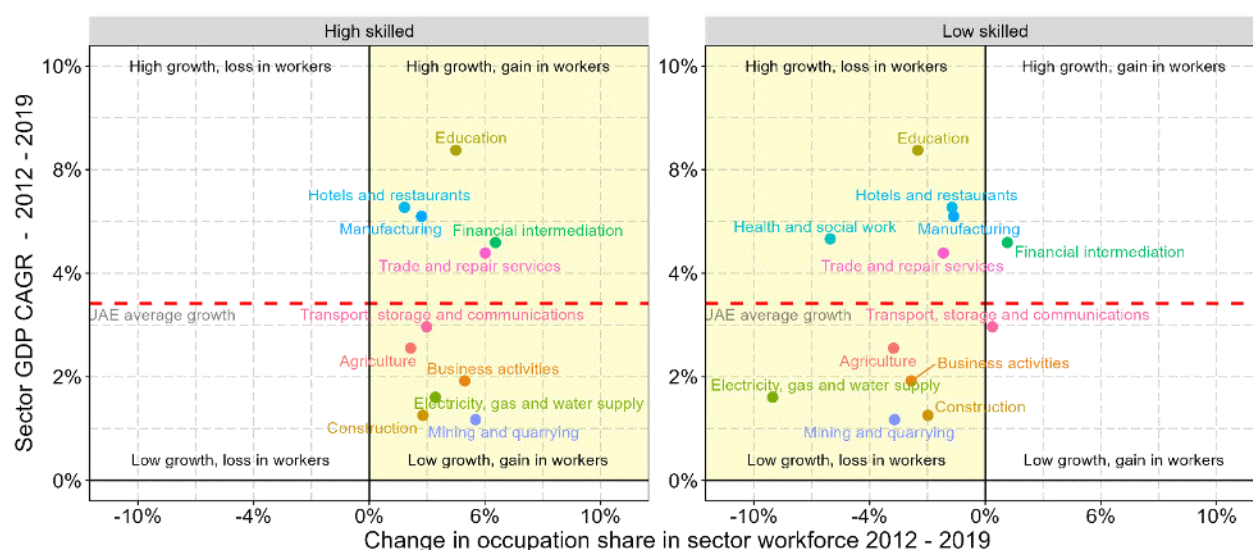
The UAE’s workforce has predominantly been low-skilled, but this trend has been changing over the last decade with an increasing presence of high-skilled workers between 2012 and 2019. All economic activities witnessed an increased share of high-skilled workers as can be noted by the absence of data points on the negative horizontal axis on the first graph in Figure 98. All these sectors increased their share of high-skilled workers while experiencing growth, for sectors like education, manufacturing, hotels and restaurants, and trade and repair services—highlighted in the yellow quadrants in Figure

⁶ Many professionals work in the public sector, whose employment was less impacted by the pandemic, and thus their employment size stayed constant in 2020. However, workers employed in elementary occupations in the private sector might have been more vulnerable to the pandemic as sectors such as construction and retail scaled back employment. Thus, the exit of people employed in elementary occupations would have led to a rise in the relative share of professionals in the larger economy.

⁷ High skill: managers, professionals, technicians and associate professionals. Medium skill: Clerical support workers, service and sales workers, skilled agricultural, forestry and fishery workers, and plant and machine operators, and assemblers. Low skill: Craft and related trades workers, elementary occupations

98. It is important to note that for many sectors, the high-skilled workers seem to have been added to the existing base of workers in the economy and not as replacements for low-skilled workers like sectors in business activities, health and social work, and education.

Figure 16: UAE change of sector share in the workforce vs change in occupation share (2012-2019)



Source: Own elaboration based on FCSC – Private Sector Employment by Occupation 2011-2019

2.7 Dominance of construction, retail, and household among the employed population

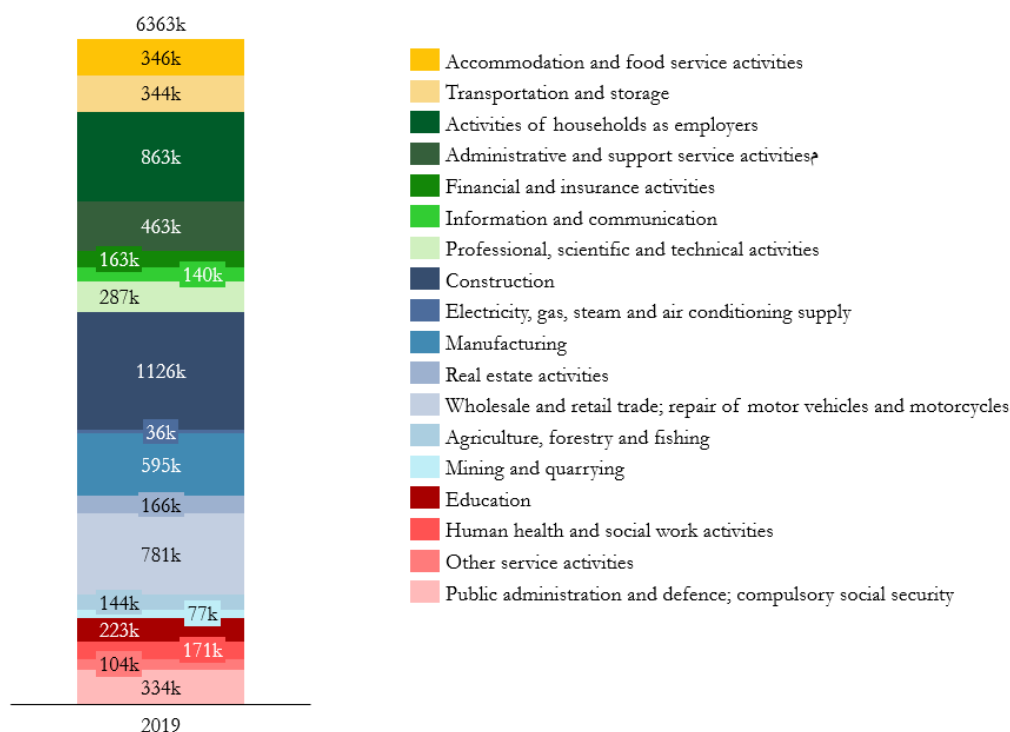
Construction, retail, and activities of households are the largest economic activities in the UAE. In 2016, construction, wholesale trade, and private households employed approximately 50% of the total employed population. The total share of these sectors decreased to 47% of the total employed in 2019. Electricity, mining, and manufacturing represented 11% of the total employment in 2016 and increased to 12% in 2019. High-skilled services sectors including finance, information and communication, and professional, scientific, and technical activities had 7% of the total employment in 2016 and increased to 9% by 2019. Thus, in recent years the sectoral distribution in the country has been constant.

2.8 High share of nationals employed in the public sector

The private sector is the largest employer type, employing 71% of the total employed population and the public sector employs another 10%. Despite the high share of nationals employed by the public sector, estimates suggest that the wage bill represents only a small share of total public expenditure. Between 2013 and 2019, the

wage bill of the public sector increased, in line with a similar regional trend. Even with this increase, the UAE's wage bill as a share of total public expenditure in 2019 was smaller than all regional peers⁸.

Figure 17: Sectoral decomposition: 2019⁹

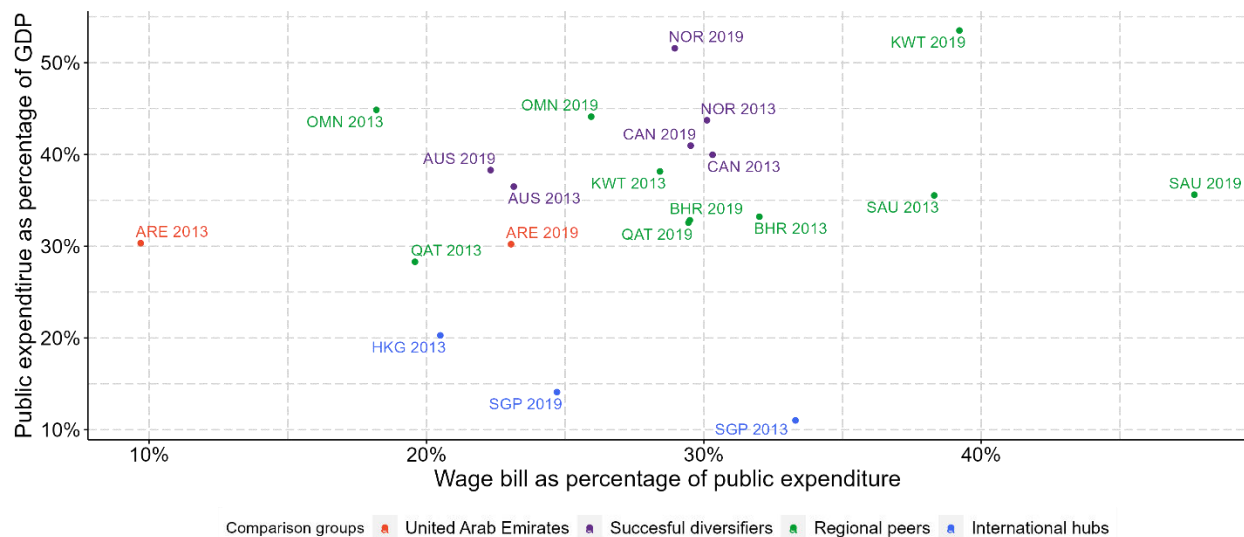


Source: Own elaboration based on: (1) Labor Force Survey 2019: FCSC (2) World Bank WDI estimates

⁸ The picture might not be fully accurate given the lack of clarity on the scope of public expenditures for countries.

⁹ Note: Activities of extraterritorial organizations, water and waste management, arts and recreation have been removed

Figure 18: Public expenditure as a share of GDP versus wage bill as a percentage of public expenditure



Source: Own elaboration based on FCSC – Private Sector Employment by Occupation 2011-2019

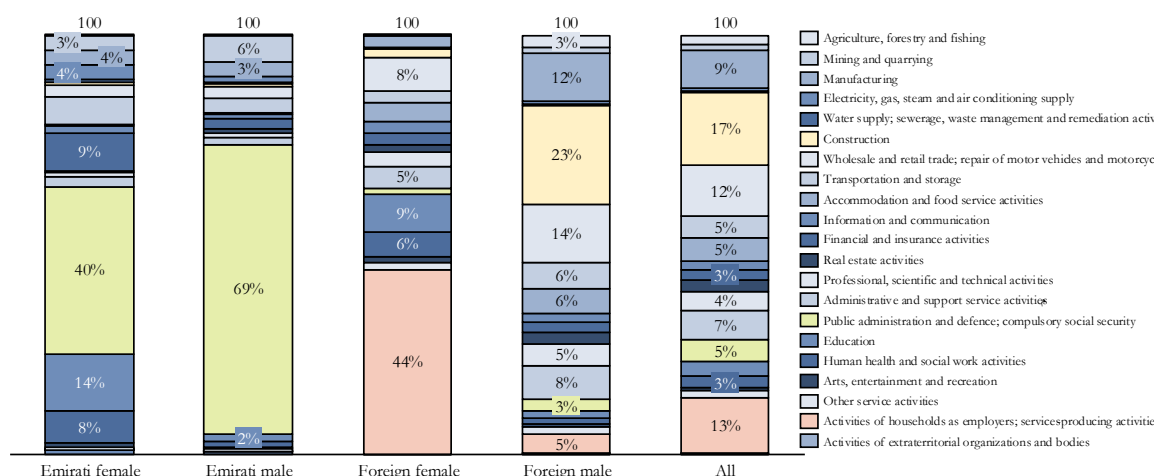
2.9 A strong dichotomy of roles between nationals and foreigners

Emirati workers and foreign workers exhibit starkly different participation characteristics in the labor market. These differences emerge along three levels: the split between the type of employment (public sector versus private sector), the economic activity within the broad sectors, and the occupation or skill practiced by them. This dichotomy in the labor market indicates the need for differential analyses or policy interventions for the two types of workers in the economy.

Most Emirati workers are employed by the public sector. Labor force survey numbers from 2019 indicate that 82% of Emirati males and 71% of Emirati female workers are employed by the Federal Government or Local Government. On the other hand, only 6% of female foreign workers and 7% of male foreign workers are employed by the Federal or Local government. Thus, the local and foreign working population is divided along the lines of public-sector and private-sector employment. The figures calculated by Soto and Vasquez-Alvarez (2011) on the origin of workers by their share of occupation in the emirate of Dubai highlight this dichotomy further. Their results show that in 2008, approximately 92.9% of Emiratis were in the public sector and a staggeringly high 76.3% of Emiratis were in high-skills and managerial occupations. On the other hand, only 19.4% of the foreign workforce was employed by the public sector and more than half of the foreign workforce in mainland Dubai was engaged in low-skilled occupations.

There is heterogeneity in the economic activities where Emiratis and foreigners participate in. Foreign men work in construction, trade, and manufacturing and foreign women work in households. Most Emirati men and women work in public administration—40% of Emirati females and 69% of Emirati males. A large share of Emirati females also work in education (14%) and healthcare (8%). For Emirati men, all activities other than public administration are only done by a small share.

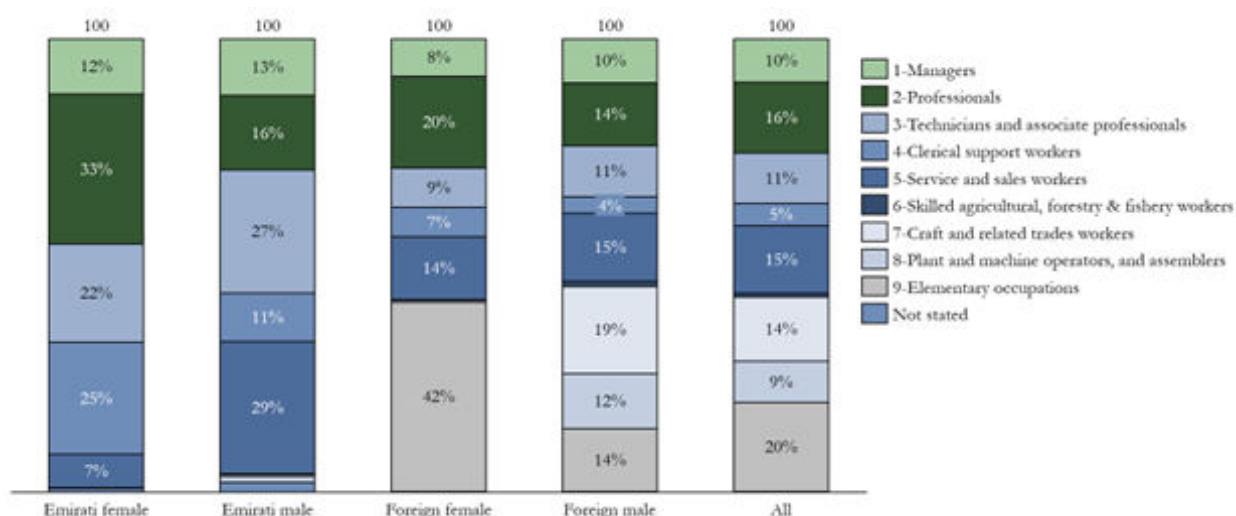
Figure 19: Heterogenous employment activities across gender and nationality 2019



Source: Own elaboration based on Labor Force Survey 2019 – FCSC.

Among the employed, Emiratis are more present in semi and high-skilled occupations compared with foreign workers. Emirati Women are particularly present in high-skilled occupations, with 45% of them working as managers or professionals. 46% of working Emirati men work as technicians or as service and sales workers. The over-representation of Emiratis in high-skilled and semi-skilled occupations is consistent with the low labor force participation of low-skilled citizens: low-skilled citizens participate less in the labor force, which means that those who are present in the workforce tend to be more skilled and hence tend to hold more skilled occupations.

Figure 20: Half of the employed Emirati population are professionals or technicians whereas those occupations make smaller percentages of the employed non-Emirati population



Source: Labor Force Survey 2017, FCSC

3. Drivers shaping the structural features of the labor market

3.1. Open migration policies that led to a high employment-to-population ratio and an over-representation of men in the labor force

The original *kafala* system was the legal framework that governed labor relations in the country and leveraged the wage differential between foreign workers' home countries and the UAE to fulfill their labor demands. A low-skilled job is likely to be taken up by a foreign worker from a developing country due to the low reservation wage in their home country. Simultaneously, Emirati workers are less likely to take up the job because their reservation wages are de-facto determined by the public sector wages and are thus higher than what will be offered for a low-skill job (Tong and Mouawiya 2014). This system created wide access for domestic employers to foreign workforce, with reduced flexibility for workers.¹⁰ Local Emirati individuals or companies were given permits to employ foreign labor. This entity was often referred to as a sponsor or *kafeel*. The sponsor was responsible for the travel and accommodation of the foreign worker. Private recruitment agencies were also involved in this process. Historically, a key feature of this system was the restrictions placed on the movement of people: out of the country and within jobs. Workers would need permission from their sponsors to transfer jobs, end employment, or leave the country. The *kafala* systems thus contributes to explaining the

¹⁰ The *kafala* system also determines labor migration in other GCC countries—Bahrain, Kuwait, Oman, Qatar, Saudi Arabia—as well as Jordan and Lebanon.

salient characteristics of the UAE labor market: the massive inflow of foreigners leads to high labor force participation & employment rates. The migration system also entails a wage requirement for dependent visas for foreigners, which explains why disproportionately only men come into the country. To be eligible to bring your family with you into the country, a foreign worker must obtain a minimum of AED 4,000 or AED 3,000 plus accommodation for male sponsors (United Arab Emirates Government, 2022). This threshold would restrict at least 50% of foreign males earning wages less than AED 2,500 per month from bringing their families. Thus, these foreign males must live alone, and their high numbers lead to a bulge in the population pyramid presented in the previous section.

The government has recognized the restrictions placed by the *kafala* system on labor mobility and has sought to relax the system in more recent years. For example, a key feature of the migration rules before 2011 tied an incoming foreigner in multi-year contracts to a single sponsor or employer. At the end of the contract, the foreign worker could only move to another firm if the previous employer provided an NOC or No-Objection Certificate. In the absence of an NOC or a renewal of the previous contract, the foreign worker would be required to leave the country within six months. The NOC requirement was lifted starting in January 2011, allowing workers to directly switch employers at the end of their contracts without the NOC. This only applied at the end of the contract—with workers still needing an NOC if they wished to change their employers without leaving the country while in their contract period (Naidu, Nyarko, and Wang, 2016).

The government has signaled changes to the restrictions on the length of stay for high-skill foreign workers (Valenta, *et al.* 2019). Starting in 2018, the government announced a series of visa schemes that would encourage longer-term stays in the country. One of them included a visa scheme allowing foreign workers to stay in the country after retirement on a long-term visa conditional on the ownership of property valued at a minimum of two million dirhams, or minimum financial savings of one million dirhams minimum income of 20,000 dirhams per month. Another scheme allowed high-skill foreign workers to work part-time for an additional employer without the requirement of permission from their existing primary employer. A scheme based on attracting high-skill workers introduced rules to extend residency visas for up to 10 years for investors and specialists in scientific, technical, medical, and research fields. As a result, employers can attract the best talent to the country and would be able to retain them through visa schemes aimed at longer-term residence.

The relaxation of the immigration regulations happened in parallel to the change in the nature of labor demand by employers, towards more high-skilled jobs. After

2010, there was a shift in demand away from labor-intensive non-tradeable goods and services towards exports. The relaxation of internal mobility constraints in 2011 and the introduction of self-sponsored visa programs in 2018 could have increased the attraction of high-skilled workers to the country who were needed for the export diversification phase.¹¹ This can be seen in the occupation distribution in the labor market which shows an increase in the share of managers and other high-skilled occupations in the economy and a reduction in the share of low-skilled workers.

3.2 Public sector employment as an instrument of social policy

Support to citizens has increasingly taken the form of public employment, reinforcing the Emirati-foreigner labor dichotomy. The UAE's oil endowment means that the state is not forced to tax the local economy to finance its activities (Hvidt, 2022). It also allows the state to support its citizens through various means such as inexpensive housing loans, free education, free healthcare, as well as employment in public sector jobs. Until recently the government heavily subsidized prices of utilities and occasionally gave out cash handouts, but these subsidies have been gradually phased out in successive reforms which leaves public sector employment as the main channel of oil rent redistribution. Given that these jobs are better paying, there is an incentive to opt for public sector jobs. Thus, although policy interventions have led to a gradual increase in Emirati labor force participation, this increase in participation was almost entirely in the public sector. This reinforces the dichotomy of the labor sector between foreigners and Emiratis.

3.3 Emiratization programs have increased Emiratis' participation in the economy, but mainly in the public sector

Emiratization programs have been pursued in the UAE since the 1990s, with the objectives and instruments changing over time. The goals of the initial Emiratization programs of the 1990s were to reduce the reliance on foreign workers and to create job opportunities for Emiratis. In the following decade, Emiratization focused more on the second objective (Al-Ali 2007). More recently, accounts of Emiratization objectives are “not merely about creating job opportunities but also about repositioning Emiratis in the thriving social and economic arena of the country.” In other terms, “while there is the need to correct labor market imbalance, the ownership of national prosperity and the

¹¹ The causal affect of the reforms of the migration system on the economy have not been determined. It is possible that a change in demand caused an increase in high-skill migration or that increased high-skill migration caused a change in demand. Analysis on the changes in wages would enable the distinction in the causality.

preservation of national identity has also been significant drivers of the Emiratization policy (Sarker and Rahman 2020).”

Quotas and regulations have been the most notable tools for Emiratization. These tools started with special employment quotas on banks and insurance companies in 1998. In 2005, 2%-5% quotas were imposed on private sector companies employing more than 100 people. In 2016, requirements to hire Emiratis for certain positions were put in place.¹² Other initiatives include imposing additional fees or penalties for companies that do not meet Emiratization targets. Starting in 2023, firms with more than 50 people who fail to reach the Emiratization quota will be subject to fines (Al Tamimi and Co, 2022).

More recently, instruments of the Emiratization policies focused on encouraging Emiratis to participate more in the workforce, particularly incentivizing Emiratis to work in the private sector. In 2018, the “Discounts and Offers” program of the Absher initiative granted discounts on basic services such as housing, aviation and insurance to Emiratis working in the private sector. The Nafis program launched in 2021 provides a range of incentive for Emiratis to join the private sector such as incentives for Emiratis to take leave from their public sector jobs and pursue entrepreneurial endeavors (The Economist, 2022).

Emiratization has been more successful in increasing Emirati employment in the public sector compared with the private sector. Despite several initiatives to encourage private sector employment, results are mostly observable in financial institutions. This could be affected by the relatively lower threshold and harsher penalties imposed on banks to hire nationals. At times, Emiratization initiatives were deemed controversial and ineffective, like the 2006 decree requiring all private sector companies to replace secretaries and HR managers with Emiratis within 18 months, without guarantee that the supply of these skills among Emiratis is sufficient (Salema, 2006). These factors further cemented the dichotomized labor market since Emiratis were encouraged to join the workforce but primarily ended up only in the public sector. While Emiratization initiatives like Nafis are too recent to have an observable impact, job creation agreements that the initiative created with private sector companies are positive signs of their future success (Khaleej Times, 2022).

3.4 Cultural norms in the workplace that incentivize work in the public sector

Perceptions around work and expectations regarding wages and work-life balance contribute to incentivizing public sector work more than private sector one.

¹² All construction facilities of 500 employees or more were required to appoint an Emirati occupational health and safety officer. Likewise, companies registered with Tas'heel, an online government system concerning labor, are required to hire Emirati data entry officer.

Qualitative interviews suggest that Emiratis may expect higher wages than their foreign counterparts in the private sector, and thus private sector employers are more likely to hire foreigners (Al-Waqfi, and Forstenlechner, 2012). The interviews also suggest a mismatch in the labor market experiences of Emiratis and the experience/skills demanded by private sector jobs. For example, many private sector jobs require experience through internships or summer jobs. For young Emirati graduates, this may be a prohibitive requirement since this is not a norm. Another prohibitive requirement is the required proficiency in the English language. There may also be differences between the Western management styles of some private sector jobs and those prevailing in the rest of the country. Such dissonance might create an incentive for Emiratis to work in public sector jobs, which have more cultural proximity. Finally, young Emiratis may be prevented from working in the private sector due to a lack of networking opportunities and a lack of Emirati role models in the private sector. Typically, most Emiratis in the private sector are entrepreneurs or business owners and are at a much higher level than those seeking entry-level positions. Thus, they may face hindrances in making connections and finding mentorship opportunities.

4. Four threats to the sustainability of the labor market and its ability to support the country's growth agenda

Analysis of the current labor market characteristics and its drivers show four threats to the sustainability of the labor market. While these threats may not be binding now, they may still undermine the labor market's ability to drive a domestic growth engine. The four threats are:

- 1) Immigration policies may promote more labor-intensive production
- 2) Transient nature of foreign workers may undermine knowhow transfer
- 3) Peripheral participation of Emiratis in the future engines of growth of the economy
- 4) Gender imbalance may hinder productivity

In the context of the United Arab Emirates, microdata on the labor market at the level of firms or individuals were not immediately available. Given the divided nature of the labor market, looking at economy-wide numbers do not give us adequate information on the labor market outcomes of the different type of actors that interact with the UAE's labor market. Thus, a classical labor market growth diagnostics approach is less relevant (refer to Box 3.1).

Box 4.1: The relevance of a growth diagnostic testing for the UAE's labor market

A growth diagnostic approach to the labor market uses four tests to assess the presence of a binding constraint in the economy:

1. The (shadow) price of the constraint should be high.
2. A change in the constraint should produce substantial change in outcomes. If the constraint has been addressed, there should also be a change in output
3. If a constraint is binding, there must be differential outcomes for those activities that vary in their intensity along that constraint. Agents less intensive in that constraint should be more likely to survive and thrive, and vice versa.
4. Agents should be attempting to overcome or bypass the constraint. If a constraint is binding, you should not be the first person to think of it – firms should be dealing with

In the UAE, there are challenges in the applicability and interpretability of the results of these four tests, given the unique features of the market. There are certain assumptions that underlie the tests which are refuted in the UAE. The first assumption is a limited supply of human capital and labor. The second assumption is that there is a natural growth rate of the population, from which labor and human capital is derived. In the UAE, the open migration system fundamentally shifts these two assumptions rendering the results of constraint testing as unclear. For example, if we were to perform the test to check the shadow price of labor: we might see that firms in the UAE are willing to paying a high price to attract foreign workers since there is virtually no difference between paying high wages for a citizen or for a foreign worker due to the open migration system.

4.1 Immigration policies may promote more labor intensive production

The ability for firms to hire workers from abroad at very low costs creates incentives for sectors to remain labor-intensive instead of investing in labor-saving technologies. The system tied an incoming foreign worker to a sponsor or *kafeel*. Despite the changes to the migration system, workers may still face legal limitations on movement through fixed contracts with fixed wages. While those limitations can be comparable to those faced by foreign workers in other countries, the dominance of foreign workers in the UAE means that most of the labor force could be subjected to those limitations. This means employers may be incentivized to focus on activities that are labor intensive and require low skills because extracting value from foreign workers may be easier. Previous research shows that between 2000 and 2010, the UAE relied on capital and significant labor accumulation, rather than efficiency in the use of these factors (Haouas and Soto,

2012; Hertog 2012). This can be attributed to the combined effects of firms' abilities to hire low-wage workers internationally, and employer monopsony power that skews production towards labor-intensive instead of labor-saving technologies, as low labor costs keep firm profits high and deny them the incentive to boost their efficiency to compete. Within the UAE, labor regulations are different between free zones and the mainland. Researchers utilized this difference between mainland Dubai versus Free Zones to find that firms operating under the *kafala* system in the mainland were subject to higher technical inefficiency than those in free zones, documenting the relationship between access to low-cost, restricted labor and lowered productivity (Soto and Vásquez, 2011). Thus, the tendency of firms to stay inefficient is a major threat to the sustainability of the economy.

4.2 Transient nature of foreign workers may undermine knowhow transfer

The immigration policies create disincentives to knowhow transfer.¹³ The *kafala* system required that foreign workers come into the country as guest workers and were hence temporary due to the way the system was designed. Foreign workers may be disincentivized from engaging in productivity-enhancing activities due to limited mobility, flat wages, and short contracts (Soto and Vásquez, 2011). Despite the reforms in the migration system, transience is created due to short-term contracts and visas incoming foreign workers must adhere to. The effect of transience is also magnified through mechanisms other than contracts and short-term visas. There exists an asymmetric power balance between the employer and employee that permeates employer-employee relations across all skill levels. For example, activities such as permission to obtain a driving license, open bank accounts, get internet access, and get a rental contract all require no-objection certificates (NOCs) from employers. These processes are highly dependent on the relationship of each employee with their employer and may add considerable friction to the process of seeking job opportunities that better value the foreign worker's skills. Most notably, if an employee would like to terminate their position before the end of their contract period to transition to a new job, they must obtain permission from their employer. The employer's incentives are set up to decline permission. Furthermore, employees must forego their end-of-service gratuity if they decide to leave before the contract termination. Thus, transitioning to another position is expensive. In this context, a foreign worker stays attached to their sponsor and foregoes

¹³ There are two types of knowledge: explicit and tacit. Knowledge that can be easily transferred is referred to as explicit knowledge. However, a large part of knowledge is tacit, thus explaining why countries differ in their distance to the technological frontier. Transferring tacit knowledge is costly and time-consuming. Thus, individuals specialize in acquiring productive knowledge for particular functions. These internalized "person-bytes" can be understood as knowhow. (Bustos, et al. 2014)

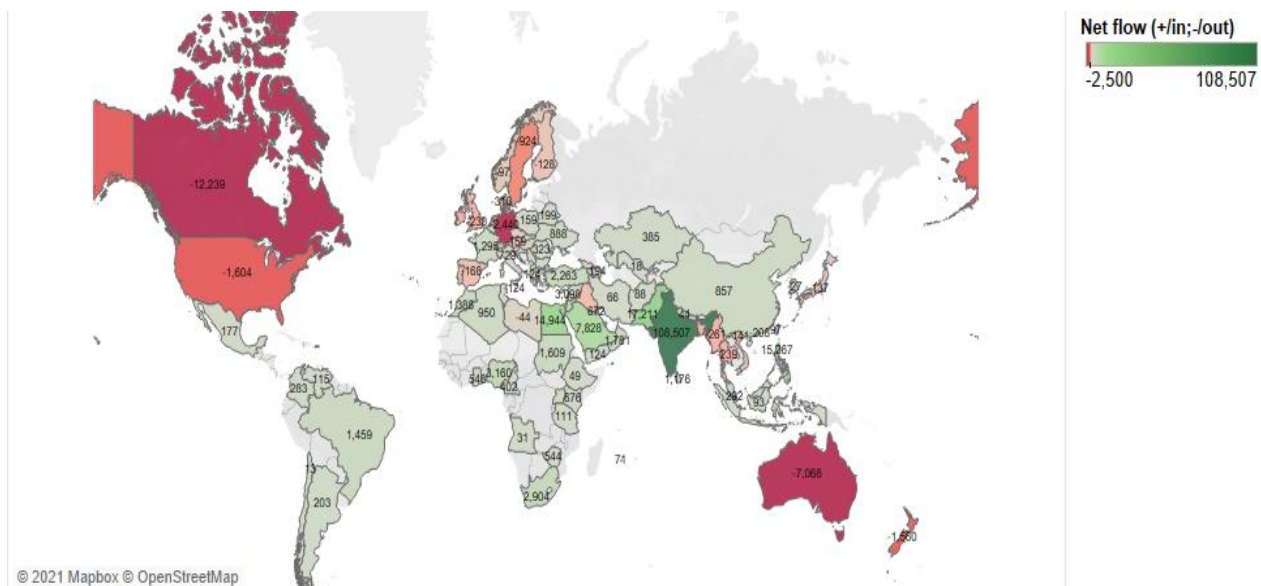
job opportunities that could fully use her skillset, possibly resulting in lost use of knowhow for the country.

The lack of pathways to permanent residency may discourage high-skilled foreign workers from contributing to the UAE economy. The Government has announced many long-term visas in recent years that allow highly skilled individuals to migrate to the country. However, the true impact of these reforms is yet to be assessed and the impact might be limited due to the lack of information on the process of nominations to receive such visas. Thus, foreign workers may engage in a variety of activities to extend their stay in the country. This includes a combination of various tactics, including exiting the country for months at a time simply to re-enter on a new contract. While this is a feature in other countries as well, the prospect of permanent residency status or citizenship can offset the transience of the foreign worker. However, this is improbable for most foreign workers in the UAE. Furthermore, the second generation or children of foreign workers are also not authorized to get citizenship or permanent residency, even if they were born there or spent most of their lives in the UAE, so the first generation might be disincentivized from pursuing the limited pathways for permanent residency.

Thus, the transient nature of foreign workers in the country creates incentives for a suboptimal contribution to the economy. This is realized firstly due to the inflexibility in the system wherein a worker faces flat wages and has little incentive to improve their productivity for the company they work for. Secondly, given that post-retirement they must leave the country, they place most of their savings and long-term investments outside of the country. Although the government has introduced a new retirement visa for “highly skilled” workers it again, remains unclear who all fall under this category and whether this will significantly change the incentives for most high-skilled workers. Furthermore, the limited options for the second generation to stay in the UAE will still create incentives for the first generation of foreign workers to leave.

Signals suggest that UAE is a transitional country as people move there from developing countries to upskill and then leave for developed countries. While foreign worker tenure microdata is not yet available, data from the World Bank LinkedIn dataset can help infer talent flows to and from the UAE. This data could signal that the UAE is a transitional country as people move from developing countries to the UAE to upskill and then leave for developed countries. The country gains employees from Asian countries (India, Pakistan, China), Gulf countries, and North African countries (the countries in green in Figure 103). It primarily loses workers to Canada, Australia, the United States, and Germany (the countries in red in Figure 103).

Figure 21: UAE net migration (2016-2019)



Source: Own elaboration based on World Bank - LinkedIn country migration data

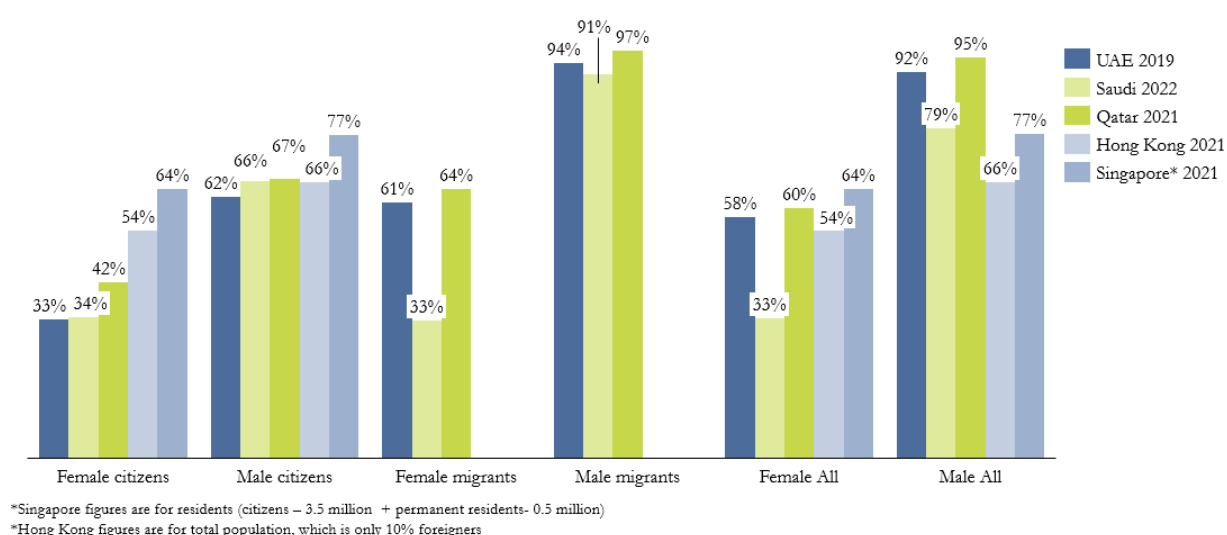
4.3 Peripheral participation of Emiratis in the future engines of growth of the economy

Despite Emiratis representing a small share of the labor force, ensuring their comprehensive contribution - covering both private and public, managerial and technical occupations - to the country's economy is important. First, the country's economic plans expect growth to come primarily from the private sector (Hvidt, 2015). In this regard, citizens need to be adequately equipped to contribute to that growth by taking jobs in firms operating in high-growth sectors, including in specialized knowledge occupations. Second, in the UAE's transition towards diversification and towards becoming a knowledge economy, there are reasons to believe that some roles in this transition can only be fulfilled by citizens, and particularly by high-skilled ones: Decision makers leading the economy towards its stated objectives need to be incentivized towards the long-term interest of the country, and also have enough specialized knowledge to effectively tap into and retain the foreign knowledge sourced from abroad (Madar Research, 2006). The transience of immigration in the UAE discussed earlier can limit foreign workers' ability to champion such roles, which makes the meaningful presence of high-skilled Emiratis important. On another level, one understanding of the knowledge economy conditions it to a broad change in culture "that focuses on citizens' participation (in economic activities), ownership of processes and active learning so that motivation, aspirations and entrepreneurship will become an intrinsic ethos of the individual" (Stiglitz, 1999; Hvidt 2015). Internalization of such a mindset among citizens is thus desirable in that perspective. Third, aspirational hub countries like Singapore and Hong Kong have a strong participation of their citizens in their economy (70% resident labor force

participation in Singapore in 2021, 60% in Hong Kong), and that participation expands beyond the public sector as discussed previously in this document.¹⁴ While there is no known causal relationship between the composition of their national labor force and their economic outcomes, the strong contribution of their citizens to the economy provides an additional reason for the UAE to do the same.

Emirati labor force participation is below comparison countries, especially for Emirati women. Labor force participation of citizens has been historically low in Gulf countries, which led many governments in the region to pursue specific policies to increase this ratio. However, the latest figures available show that the UAE has some of the lowest labor force participation rates in the region and compared to aspirational countries. As seen in Figure 104, 33% of female Emiratis are in the labor force, compared with 42% of Qataris and 64% of Singaporean residents. Saudi female labor force participation is now like that of the UAE, following a 15% increase since 2017. Emirati male labor force participation is also lagging, with a 4% to 15% difference with comparison group countries.

Figure 22: Labor force participation by gender and citizenship



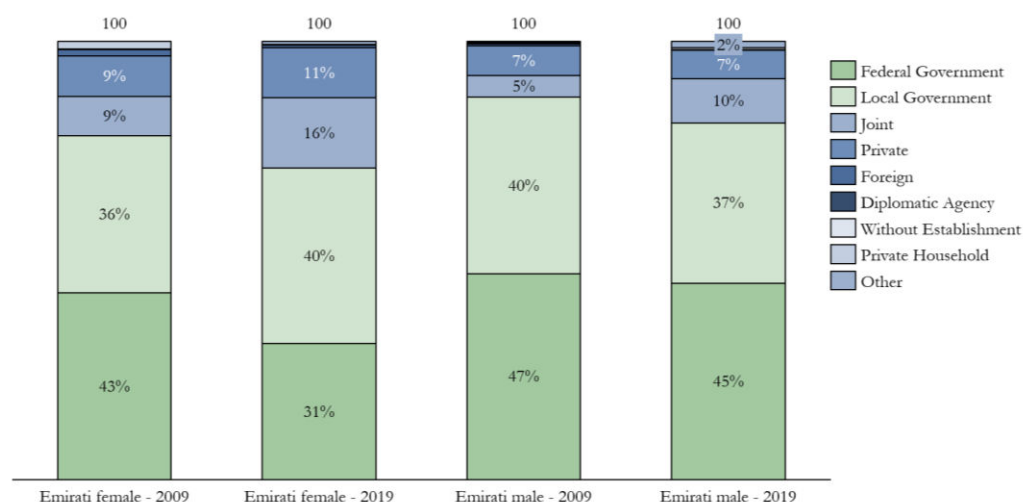
Source: Own elaboration based on FCSC, Qatar, Saudi, Singapore and Hong Kong statistical authorities

Employment of Emiratis remains highly concentrated in the public sector, with little change since 2009. In 2019, 71% of female working Emiratis and 82% of male working Emiratis were employed by either the federal or local government. Despite several waves of Emiratization programs, these percentage numbers have moved very little since 2009:

¹⁴ Data for Singapore and Hong Kong come from Ministry of Manpower, A Singapore Government Agency Website 2021 and Census and Statistics Department, Hong Kong 2022.

the share of Emiratis in the private sector remained quasi-constant at 9-11% for women and 7% for men, but a small share of public sector workers joined public/private firms (Figure 105). Assuming the labor force participation of Emiratis did not change over the past decade, one explanation is that the joint sector presents fewer constraints to employing Emiratis compared with the private sector. These constraints are discussed in the following section. Emirati employment is also concentrated in public administration and defense activities. In 2019, 70% of working Emirati men and 40% of working Emirati women were employed in this sector. While this share has been constant for men, the share of public administration workers among women increased since 2009, and these workers primarily came from the education sector.

Figure 23: Change in Emirati workers distribution by employer type



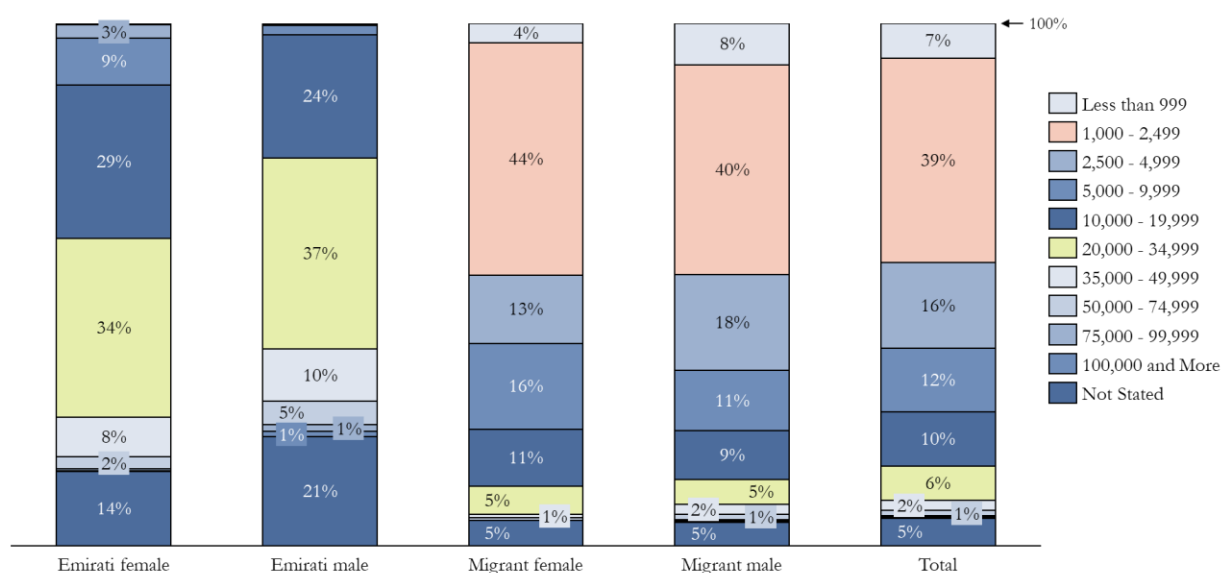
Source: Own elaboration based on UAE Labor Force Surveys 2009 and 2019

Within the public sector, Emirati employment tends to be concentrated in managerial positions and away from specialized roles (Hvidt, 2022). This means that while Emiratis are more likely to be decision-makers within the public sector, the specialized knowledge accumulated within the organization could be staying with foreign employees. Managers may not always interface with the technical aspects of the production process and diversity in the positions occupied by Emiratis would increase the base of people with the technical knowledge.

Emiratization efforts are undermined by a lack of incentives for Emiratis to join the private sector, a lack of incentives for private sector firms to hire Emiratis, and a lack of competitiveness in skills. Emiratis are disincentivized from joining the private sector due to the default option—the public sector—offering comparatively better prospects to them. In the public sector, Emiratis have access to high-paying positions that also come with job security and flexibility. This access forms wages and work expectations

that can hardly be matched by private sector employers, which creates a strong disincentive for Emiratis to leave the public sector. For instance, 75% of Emirati men have wages that are 20,000 AED or above (Figure 106), compared to 12% of foreign male workers. Even within the public sector, Emiratis are paid on average more than foreigners – in the case of the Dubai government, 4 times more, a difference in wages unlikely to be found in the private sector.¹⁵ High-potential Emiratis may be encouraged to seek public sector employment due to high wages and opportunities to be in higher positions. Those with less experience or education may also be encouraged to work in the public sector since they might be able to find higher-paying jobs than would have been available for them in the private sector. The de-facto reservation wage for Emiratis is determined by the public sector jobs.

Figure 24: Wage distribution by citizenship and gender in 2019



Source: Own elaboration based on Labor Force Surveys 2019 – FCSC.

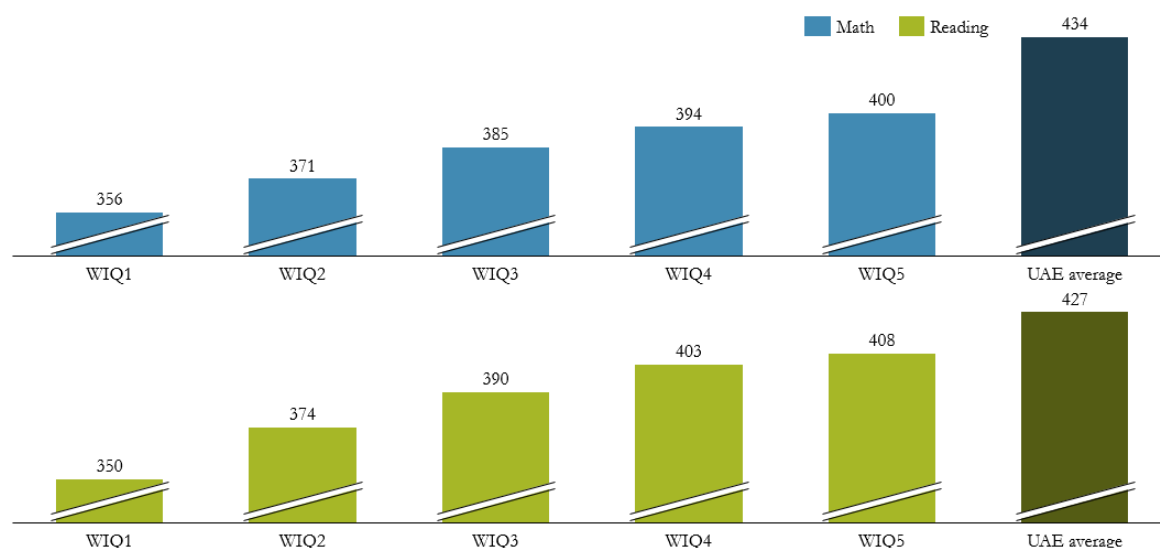
For private companies, the incentives to hire Emiratis are few: profit-seeking companies are not inclined to meet the high wage expectations of Emiratis. In addition, immigration regulations until recently gave more control and power to employers over foreign employees by tying their presence in the country to the jobs they hold. In contrast, hiring Emiratis brings more uncertainty in terms of unexpected turnovers and salary expectations compared to their foreign counterparts.

Despite their high levels of educational attainments, several signals suggest that the skills acquired by Emiratis may not be consistent with private sector needs. First, the open market policy of the county means that Emiratis, with higher reservation wages, are

¹⁵ Interview with Dubai Department of Economic Development, March 2022

effectively competing against any qualified foreigner willing to come to the UAE, which represents a large group of potential candidates. Second, surveys identify the perception among employers of a mismatch between the skills and experiences of Emiratis and those needed to work in the private sector (Al-Ali, 2007). Lastly, the quality of education of Emirati students lags behind that of foreign students, which is an additional signal of the lack of competitiveness of Emiratis in the profit-driven private sector. Looking at the PISA scores of Emiratis by income quintile (Figure 107), the highest income quintile is 20 to 34 points behind the country's average in reading and math respectively, and 100 points below the PISA global average. The gap between the lowest income level and the national average is even wider. It is not clear that the foreign students that represent the majority of the students in the UAE will constitute the workforce of tomorrow since most foreign workers have acquired their education from abroad. Nonetheless, Emirati PISA scores remain 100 points below the global average (500), which is a reasonable comparison given the open talent policy of the country. The difference in the quality of education between Emiratis and foreigners could be perpetuated by the duality of secondary education, where 80% of public-school students are Emiratis, and 88% of private school students are foreigners in 2019 --according to UAE Bayanat.

Figure 25: PISA scores of Emiratis by wealth income quintile vs country average in 2015



Source: The Other Gap: Examining Low-Income Emiratis' Educational Achievement, Elizabeth Buckner

5.3.4 Gender imbalance may hinder productivity

The underrepresentation of women in the labor force is a missed opportunity to elevate the economy due to skill complementarities between men and women,

productivity gains offered by additional women, and the creation of an attractive working environment. A range of evidence suggests complementarities exist between women and men in the workforce. This implies that by adding more women to the workforce, the UAE would be able to experience a larger gain in output than it would by simply adding more male workers. The modeling work done by Ostry, *et al.* (2018) suggests strong evidence that increasing the gender diversity of the workforce is likely to boost productivity due to the new skills women bring. Thus, the returns to improving the gender balance in the UAE would be significant, given the current stark disbalance between men and women. The IMF modeling suggests that in the MENA region, the welfare and marketable output gains from removing barriers to female labor force participation would be in the range of 20% and 50% respectively. Thirdly, given the UAE's stated objective of transitioning to a knowledge economy dominated by high-skilled workers, a diversified workforce would benefit the country. The transition to a knowledge economy would require the country to competitively attract high-skilled workers from across the world. A strong imbalance in the gender composition can signal less inclusive work environments and hence be a deterrent to attracting talent.

5. Conclusion

Overall, the UAE's labor market has been able to meet the economy's needs, with an open migration policy that allows employers to attract the needed talent. Going forward, as the country aims to create new engines of growth and transition towards a knowledge economy, four possible threats require attention to ensure the ability of the country's talents to support the country's growth agenda.

Four possible threats may constrain the UAE labor markets' ability to support the country's future growth agenda. First, the bias towards labor-intensive production due to the stickiness of past immigration policies may disincentivize specialization into high-productivity activities. Second, the transient nature of foreign workers may lead to limited permanent accumulation of knowhow in the economy. Third, the limited participation of Emiratis in the country's privately-led future engines of growth may further exacerbate the vulnerability of knowledge accumulation, transmission, and retention, as well as diminish citizen's professional satisfaction. Finally, the persisting gender imbalance in the workforce may be hampering productivity, diversification, and the attraction of talent valuing inclusiveness in the workplace.

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