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# From HydroCarbon to Hightech: Mapping the Economic Transformation of Qatar

Chandana Kularatne, Ken Miyajima and Dirk Muir

SIP/2024/010

*IMF Selected Issues Papers* are prepared by IMF staff as background documentation for periodic consultations with member countries. It is based on the information available at the time it was completed on December 18, 2023. This paper is also published separately as IMF Country Report No 24/044.

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Middle East and Central Asia Department

**From HydroCarbon to Hightech: Mapping the Economic Transformation of Qatar  
Prepared by Chandana Kularatne, Ken Miyajima and Dirk Muir \***Authorized for distribution by Ran Bi  
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**ABSTRACT:** *Qatar's state-led, hydrocarbon intensive growth model has delivered rapid growth and substantial improvements in living standards over the past several decades. Guided by the National Vision 2030, an economic transformation is underway toward a more dynamic, diversified, knowledge-based, sustainable, and private sector-led growth model. As Qatar is finalizing its Third National Development Strategy to make the final leap toward Vision 2030, this paper aims to identify key structural reforms needed, quantify their potential impact on the economy, and shed light on the design of a comprehensive reform agenda ahead. The paper finds that labor market reforms could bring substantial benefits, particularly reforms related to increasing the share of skilled foreign workers. Certain reforms to further improve the business environment, such as improving access to finance, could also have large growth impact. A comprehensive, well-integrated, and properly sequenced reform package to exploit complementarities across reforms could boost Qatar's potential growth significantly.*

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Author's E-Mail Address:	<a href="mailto:ckularatne@imf.org">ckularatne@imf.org</a> ; <a href="mailto:kmiyajima@imf.org">kmiyajima@imf.org</a> ; <a href="mailto:dmuir@imf.org">dmuir@imf.org</a> ;

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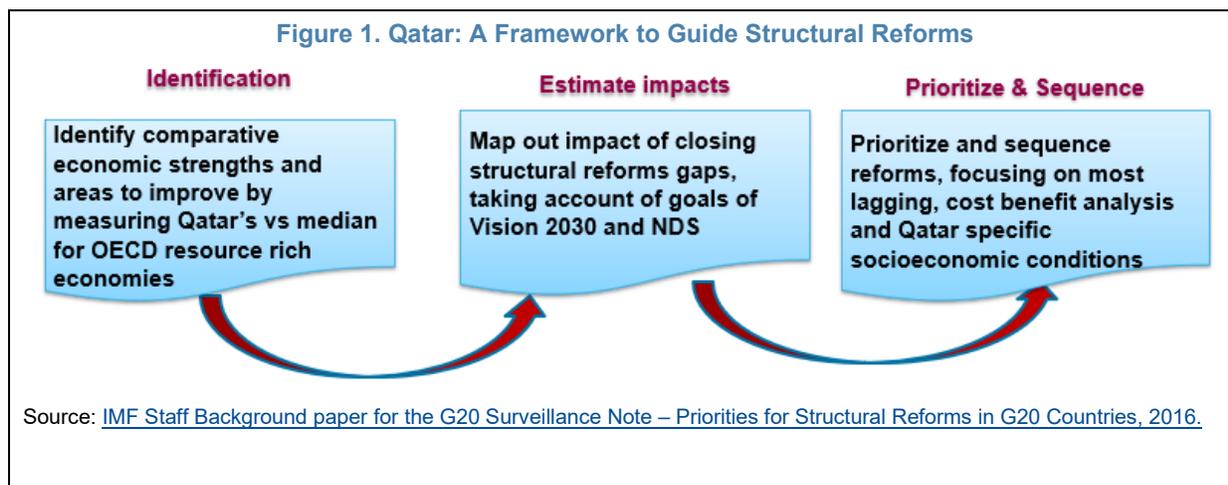
# **From HydroCarbon to Hightech: Mapping the Economic Transformation of Qatar**

Qatar

## A. Introduction

**1. Qatar has undertaken significant strides to transform its economy and is in the final phase to achieve the National Vision 2030.** Adopted in October 2008, [Qatar's National Vision 2030](#) has set the framework for a more diversified, knowledge-based, and greener economy. It recognizes the limits of further increasing the size of the public sector given its significant share of economic activity and Qatari employment, and supports private sector-led development. Guided by the first two National Development Strategies ([2011-16](#) and [2018-22](#)), significant progress has been made in diversifying the economy, including significant investments in education and health, and measures to attract foreign direct investment across several sectors. Top-notch infrastructure built in preparation for the 2022 FIFA World Cup and the global visibility brought by the event have also laid solid foundation for further economic transformation. Looking ahead, amid an unfavorable global environment and the ongoing energy transition that will ultimately reduce demand for hydrocarbon, Qatar's development of its third and final National Development Strategy toward Vision 2030 provides a critical opportunity to recalibrate the reform agenda to boost productivity, foster private sector development, reduce reliance on hydrocarbon, enhance climate resilience, and create new, technology-based, sources of growth.

**2. This paper aims to identify key reforms to accelerate Qatar's economic transformation, estimate their impact, and shed light on the design of a comprehensive reform agenda.** Broadly following the framework developed in [IMF \(2016\)](#) (Figure 1), this paper starts by taking stock of Qatar's progress in key reforms so far (section B), identifying areas for further improvement (section C),<sup>1</sup> proposing structural reform measures (section D), estimating the impact of key proposed reforms (section E), and providing principles on the prioritization and sequencing of reforms (section F), before concluding (section G).



<sup>1</sup> To determine areas where Qatar can improve, the paper will benchmark key labor and business environment indicators against the median for 8 OECD resource-rich, or extractive economies, defined in the paper as OECD countries with mineral and hydrocarbon exports account for at least 15 percent of total merchandise exports: Australia, Canada, Chile, Colombia, Greece, Iceland, Norway, and the US.

## B. Significant Process

**3. A wide range of reforms have been introduced to enhance human capital, promote private sector development, and build a greener and climate-resilient economy.** Annex I provides an overview of key reforms adopted under the Second National Development Strategy since 2018. Main achievements include:

- **Strengthened labor market dynamics and protection of expatriate workers.** To enhance expatriate labor mobility and protection, Qatar became the first GCC country to abolish the Kafala system—workers no longer need the No-Objection Certificate (NOC) from their previous employer to switch jobs—supplemented by mandatory minimum wage and allowances for food and housing.<sup>2</sup> Legislative changes have limited the probation period of employees to a maximum of six months and allowed workers to leave Qatar without holding exit permits. The Worker’s Support and Insurance Fund was introduced to protect workers and ensure their rights to work in a healthy environment. The renewed Qatar-ILO collaboration for 2024-27 would further efforts in this area. To attract more high-skilled workers, a residency program has been introduced for real estate investment and procedures simplified. Qatar Visa Centers (QVCs) have been introduced across the globe to facilitate application of work visas. Qatar’s female labor participation rate has risen 9 percentage points over the last decade. To improve women’s participation in the economy, legislations are adopted to ensure that women can apply for a passport and register a business in the same way as men.<sup>3</sup>
- **Significant investments in education and health.** Total public expenditure on education per student in 2019 was around US\$13,783, about US\$2,800 above the median education spending in extractive OECD economies and significantly above that in other GCC countries. An [Education City](#) presently hosts 13 schools and several universities, including at least 7 renowned foreign universities. The prestigious Qatar University currently enrolls over 23,000 students. Major investment has also been made to improve [healthcare services](#) including in state-of-the-art healthcare infrastructures, facilities, and technologies.
- **Attracting foreign investment and protecting investor rights.**<sup>4</sup> Reforms were introduced to Qatar’s foreign investment and foreign property ownership laws, including to allow for up to 100 percent foreign ownership of businesses in most sectors and real estate in newly designated areas. In 2020, the government also enacted legislation to regulate and promote public-private partnerships. Protection of foreign investor rights, such as unrestricted transfer of funds and assurances against expropriation, is strengthened. The commercial registration process has been eased with the physical one-stop shop or

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<sup>2</sup> Effective March 2021, Qatar’s Law No. 17 of 2020 set the minimum wage for all private-sector workers, including domestic workers, at QAR 1,000 (Qatari riyals) per month. QAR 500 per month is allocated by the employer for accommodation expenses. Also, QAR 300 per month is allocated for food unless the employer already provides adequate food or accommodation for the employee or domestic worker.

<sup>3</sup> In 2007, Qatar adopted Law No. 5 that allowed women to apply for passports in the same way as men, thus improving the overall WBL score on *Mobility*.

<sup>4</sup> The government provides various incentives to attract local and foreign investments, including exemptions from customs duties and certain land-use benefits. The corporate tax rate is 10 percent for foreign companies in most sectors, and there is no personal income tax. One notable exception is the corporate tax of 35 percent on foreign firms in the extractive industries, including but not limited to those in natural gas extraction.

online through the Invest in Qatar portal. Domestic and foreign companies may also opt to register in one of Qatar's economic zones, which provide different incentives.<sup>5</sup> Legislative changes are disseminated via the legal portal ([Al-Meezan](#)) while the authorities ensure that all laws are published in the *Official Gazette*.

- **Enhanced access to finance.** The Qatar Credit Bureau, established in 2010, provides a centralized credit database to inform QCB policies and support commercial banks' risk management. Two bankruptcy regimes have strengthened the financial architecture to facilitate access to finance.<sup>6</sup> The state-owned [Qatar Development Bank](#) (QDB) supports Qatari small and medium-sized enterprises (SMEs) to access finance through credit guarantee (*Al-Dhameen*), SME equity (*Istithmar*), seed funding (*Ithmar*), green house financing, export finance, export insurance, and direct lending. The QDB also provides financial education to SMEs and start-ups and has created a fintech incubation center to cater to startups in the financial sector.<sup>7</sup> A national fintech strategy launched in early-2023 is expected to further enhance financial inclusion.
- **Building a greener, more climate resilient economy.** The National Environment and Climate Change Strategy (2021) aims to reduce greenhouse gas (GHG) emissions by 25 percent relative to the business-as-usual baseline by 2030. Key pillars under the strategy include to: (i) establish a carbon storage plant to capture emission from the domestic energy industry, (ii) rationalize electricity and water consumption in the residential sector, (iii) adopt global sustainability assessment standards to support green infrastructure, (iv) adopt an [Electric Vehicle Strategy](#) to help make local public transit more fuel efficient and green, and (v) enhance biodiversity and restore marine habitats. The authorities are also preparing a framework addressing climate finance.
- **Furthering digitalization.** The rapid deployment of initiatives including the National Broadband Network, the National Payment Gateway, and the adoption of the e-Government 2020 Strategy underscores this progress. Moreover, the launch of a FinTech strategy, coupled with concerted efforts by the Investment Promotion Agency, would help foster a robust digital ecosystem. Significant progress has been made in the area of cyber security, including the establishment of the Cyber Security Center in 2020 and the National Cyber Security Agency in 2021. A series of related training has been given at Qatar Finance and Business Academy.

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<sup>5</sup> [Qatar Financial Centre](#); [Qatar Free Zones Authority](#); and [Qatar Science and Technology Park](#).

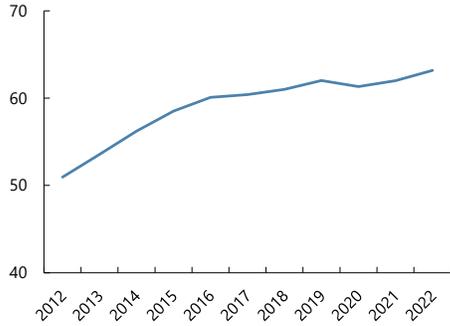
<sup>6</sup> The Commercial Law 27/2006 protects creditors from a bankrupted debtor whose assets are insufficient to meet the amount of the debts. The second bankruptcy regime is encoded in QFC's Insolvency Regulations of 2005 and applies to corporate bodies and branches registered within the QFC.

<sup>7</sup> QDB oversees the Qatar Business Incubation Center, which has been operating since 2014.

**Figure 2. Qatar: Indicators of Economic Diversification and Performance**

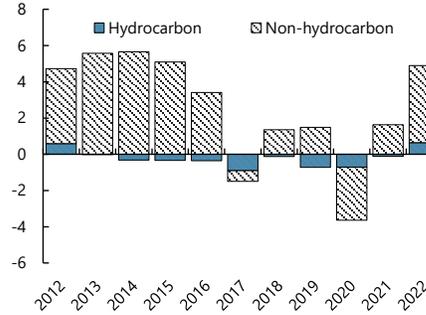
The non-hydrocarbon sector has gained in economic importance ...

**Share of Non-hydrocarbon GDP**  
(Percent)



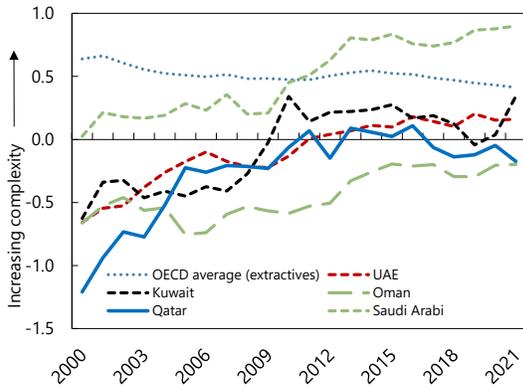
... and is the main contributor to growth ...

**Real GDP Growths by Sector**  
(Contribution, percentage point)



... but the large hydrocarbon sector limits economic complexity

**Economic Complexity Index**



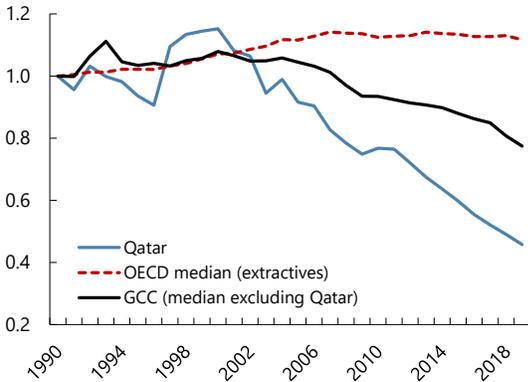
... and is a significant contributor to government revenue.

**Fiscal Revenue due to Hydrocarbon Activity**  
(Percent share of total fiscal revenue)



Productivity of the economy has declined in the recent past

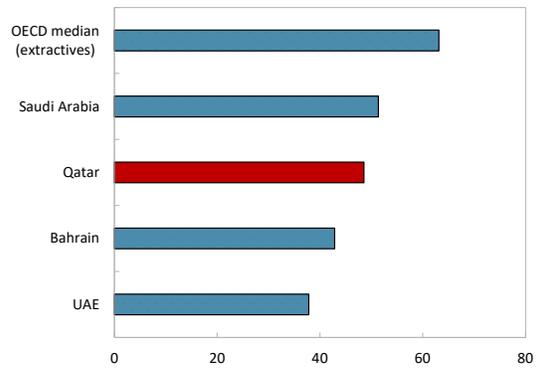
**Total Factor Productivity**  
(Constant prices, 1990=1)



...and labor productivity remains below OECD.

**Labor Productivity, 2021**

(GDP per employment and hour, PPP US dollars)

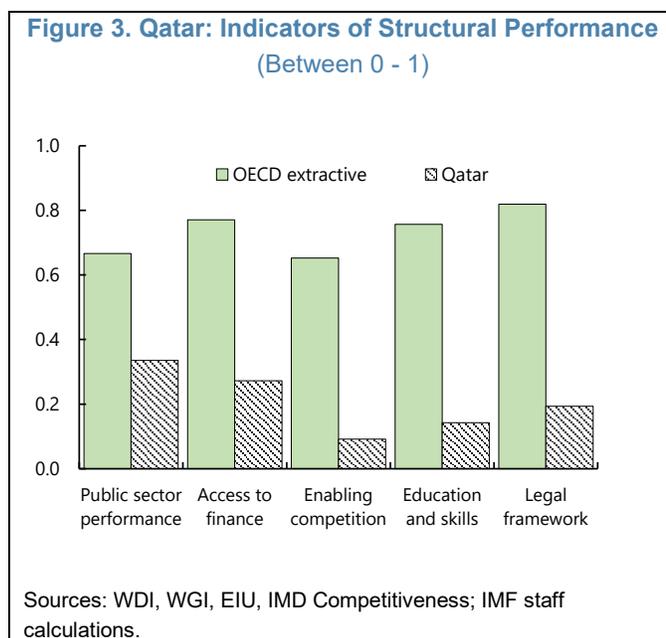


Sources: Penn World Tables, Growth Lab, MIT, IMD World Competitiveness Center, Qatar PSA, and IMF staff calculations.

### C. Areas for Further Improvement

**4. Despite the significant progress made, more measures are necessary to support progress towards achieving Vision 2030.** Although the non-hydrocarbon sector has gained in importance, Qatar continues to rely significantly on hydrocarbon in exports and government revenue. Moreover, total factor productivity is on a declining trend since the early-2000s at a faster pace than in other GCC countries and contrary to the rising trajectory in OECD commodity producers, while labor productivity remains relatively lower as well. (Figure 2)

**5. Compared to extractive OECD economies, Qatar performs relatively well in public sector effectiveness, with scope for improvement in a few other areas.** Qatar scores relatively high on public sector performance, particularly on government effectiveness in policy formulation and implementation. On the other hand, the large role of the state in the economy is not conducive to private sector development and competition. The comparison with extractive OECD economies also points to areas for further improvement, especially on the quality of education and skill mismatch, degree of competition, and transparency and fairness of the legal system (Figures 3 and 4):



- **Education quality and skill mismatches.** Despite considerable public spending on education, Qatar lags OECD median in the average years of school attendance and performances in standardized tests, such as the Program for International Students Assessment (PISA), particularly in science, technology, engineering, and math (STEM). Moreover, given the importance of English proficiency in a globalized workplace, the Test of English as a Foreign Language (TOEFL) score of Qatari students in 2020 lags that of OECD and some other GCC peers. There are also gaps in the availability of skilled workers, skill mismatches, and labor force participation.
- **Gender gaps in labor force participation.** Significant and persistent gender gaps exist in labor force participation, limiting both the availability of labor and improvements in [labor productivity](#). In 2021, the female labor force participation rate for Qatari nationals was 25 percentage points below that of men. The 2023 World Bank Women Business and Law (WBL) report points to legal barriers affecting women's decisions to work in Qatar.<sup>8</sup> On the other hand, Qatari females are relatively well educated—according to

<sup>8</sup> [Women, Business and the Law](#) index measures explicit discrimination in the law, legal rights, and the provision of certain benefits, areas in which reforms can bolster women's labor force participation. In total, 35 questions are scored across eight indicators. Overall scores are then calculated by taking the average of each indicator, with 100 representing the highest score.

the [2020 Census](#), 64 percent of Qatari females have a secondary and post-secondary school qualification, comparable to 62 percent of Qatari men, pointing to potential productivity loss with gender gaps in the labor market.

- **Lack of Qatari employment in the private sector.** More than 90 percent of Qatari nationals are employed in the public sector which provides favorable work conditions, generous compensation and benefits and job security. This has incentivized Qataris to invest in education and skills that are generally more demanded by public service, increasing the gap between the supply of skills and the need of the private sector. Large public sector employment may prevent SMEs from getting the talent they need (Tamirisa et al, 2018).
- **Significant state footprint and limited competition in some sectors.** According to the [WTO](#), SOEs still play a major role in the Qatari economy, and dominate sectors such as oil and gas, and telecommunications. Although legislation exists to protect against monopolistic behavior by firms,<sup>9</sup> state institutions and government-owned companies are allowed to have predominant roles in some sectors. Concentration of state ownership in certain sectors could limit entries of private firms, affecting private sector development.
- **Restrictions on foreign direct investment.** Despite recent reforms to liberalize foreign ownership, restrictions remain on foreign investment in certain sectors (e.g., banking, insurance, and commercial agencies).<sup>10</sup> Similarly, foreign ownership and leasing rights of real estates, while broadened, still limit to designated zones.<sup>11</sup>
- **Trade barriers.** Qatar established a single window electronic customs clearance system (Al-Nadeeb) to support trade. At present, there is a common external tariff (CET) among GCC members but internal border posts are still in operation, and each GCC member maintains autonomy through its individual customs administration.<sup>12</sup> While Qatar benefits from a number of bilateral trade agreements, compliance costs for imports and exports remain above OECD median.<sup>13</sup> Trade-weighted tariff rates for non-agricultural and non-fuel products remain well above the OECD level.
- **Limited access to finance by SMEs.** Notwithstanding the existence of the credit bureau, weak credit information and creditor rights, and an insufficient collateral infrastructure have been identified as the main reasons for banks' reluctance to lend to SMEs. Furthermore, large public sector financing needs may crowd out credit to private sector, including to SMEs.

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<sup>9</sup> Law 19/2006 established the Competition Protection and Anti-Monopoly Committee to receive complaints about anti-competition violations and is mandated to monitor economic activity and ensure fair practices.

<sup>10</sup> Using a commercial agent, companies can operate in Qatar without establishing a legal presence of their own in the country.

<sup>11</sup> The Cabinet created the Office for Non-Qatari Real Estate Ownership in 2020 to regulate foreign real estate ownership and use.

<sup>12</sup> Qatar imposes a 5 percent ad valorem tariff on the cost, insurance and freight (C.I.F.) invoice value of most imported products, including food products as a member of the Gulf Cooperation Council (GCC) Customs Union.

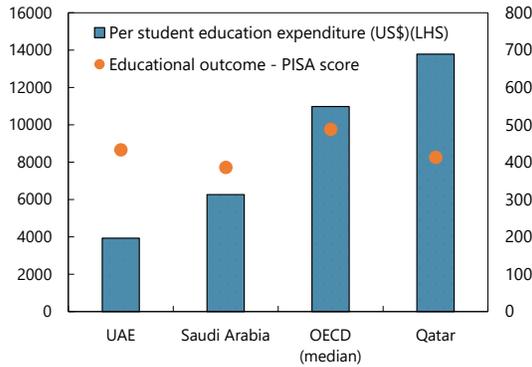
<sup>13</sup> As of 2023, Qatar is a signatory to 63 bilateral investment treaties (BITs), 29 of which are in force, according to the United Nations Conference on Trade and Development (UNCTAD). Additionally, as part of the GCC, Qatar has signed 12 treaties with investment provisions (TIPs)

**Figure 4. Qatar: Areas for Further Improvement**

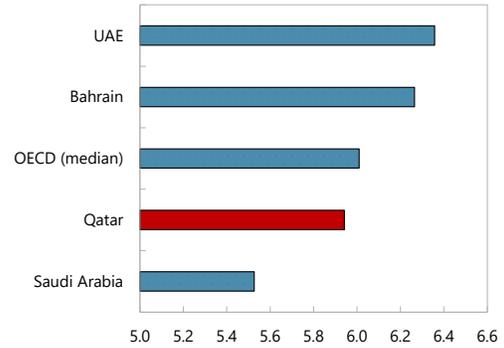
*Significant spending on education with limited impact on outcome compared to the UAE and OECD.*

*Upgrading skill level of the labor force can enhance competitiveness.*

**Public Education Expenditure and Outcome**  
(Per-student expenditure and PISA score, 2018-19)



**Availability of Skilled Professionals, 2021**  
(Higher the index, higher the skill level)

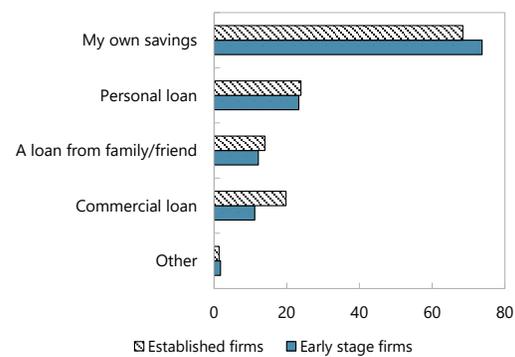
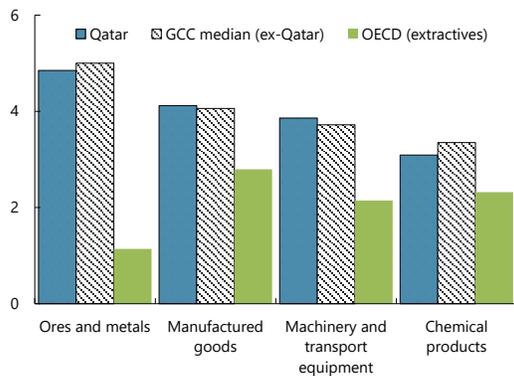


*Tariffs are relatively high,*

*Access to finance remains limited for SEMs,*

**Trade-Weighted Import Tariff Rates**  
(In percent, 2021 or latest)

**Survey of Financing Sources**  
(In percent of total response, 2021)

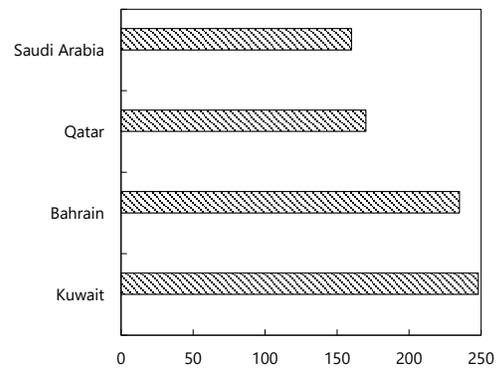
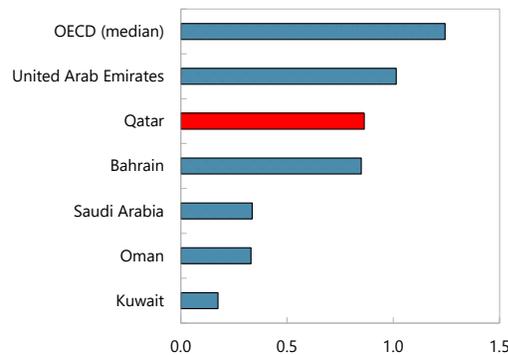


*and regulatory barriers remain,*

*with significant public-sector wage gap.*

**Regulatory Quality**  
(Index, 2021)

**Public Sector Wage Premium**  
(In percent of private sector wage, latest)



Sources: IMD World Competitiveness Center, National labor surveys, ILO 2016, Qatar Adult Population Survey 2021; and IMF staff calculations.

- **Gaps in legal and regulatory processes.** The World Bank's [Global Indicators of Regulatory Governance](#) suggest room to enhance public consultation and transparency of legislative and regulatory processes. In particular, the legal and regulatory framework for the application of technology to strengthen intellectual property laws (to reduce piracy) lags that in some other GCC countries, which could hinder the development of a knowledge-based economy.<sup>14</sup> Also, there tends to be lags between the issuance of Qatari laws in Arabic and the eventual translation to English.
- **Climate change.** The hydrocarbon sector contributes to significant GHG emissions per capita in Qatar, which, while declining, is the highest globally. Qatar is also highly vulnerable to climate stressors. Climate adaptation, emission reduction and transition toward renewable energies are critical objectives.

## II. Key Reforms for Economic Transformation<sup>15</sup>

### Labor Market Reforms

**6. Enhance labor market dynamics and attract high-skilled expats** by: (i) fully implementing recent expatriate labor market reforms and removing remaining restrictions;<sup>16</sup> (ii) modernizing visa and work permit issuance process for expatriate workers; (iii) easing the process for granting residency status for high-skilled workers and entrepreneurs with significant investments in Qatar;<sup>17</sup> (iii) retraining expatriates to upgrade skill levels; and (iv) strengthening the social safety net for expatriate workers.

**7. Improve educational attainment and skills** by: (i) aligning education quality and outcome to international standards, particularly in STEM subjects, (ii) linking teacher compensation to performance (education outcomes), and (iii) supporting early childhood development and education. To orient skills amongst Qatari nationals towards the needs of the private sector, coordinated efforts among relevant stakeholders, such as the public sector, the private sector, and university student bodies are critical—for example, the private sector could be involved in the design of curricula for vocational and tertiary education.<sup>18</sup>

**8. Incentivize private sector employment among Qatari nationals,** including to: (i) conduct a civil service review to rationalize public sector employment and allow for natural attrition of nonessential positions; (ii) align promotions and pay with performance (NDS2 recommendation); and (iii) create options for public employees to undertake temporary employment in the private sector or transition to the private sector prior to retirement without loss in public pension. Expanding the Social Insurance Law (2022) to include unemployment insurance, educational and medical benefits for Qatari nationals employed in the private sector could help.<sup>19</sup>

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<sup>14</sup> According to the [IMD World Digital Competitiveness 2022](#), Qatar ranks 27/63 countries while the United Arab Emirates ranks 3/63 countries.

<sup>15</sup> Annex II summarizes key possible reform areas and recommendations.

<sup>16</sup> Some categories of workers still have to apply for an exit permit. Also, expatriate workers still need a NOC from their current employer if the current and prospective employers are in the same industry.

<sup>17</sup> Immigration through a point system to obtain skilled labor could be considered, similar to that in Australia and Canada.

<sup>18</sup> [IFC 2013: Jobs study](#).

<sup>19</sup> The Social Insurance Law (2022) which was promulgated in January 2023 applies to Qatari and GCC nationals. It establishes pension and housing allowance for Qataris in the private sector.

**9. *Increase Qatari female's labor force participation*** by prohibiting discrimination in employment based on gender, enhancing workplace protection of women, and reducing barriers for Qatar's women to participate in the labor force. Firms could be encouraged to adopt female-friendly practices, such as allowing shifts/teams with only female members, providing flexible work arrangements including remote work. Access to affordable and quality childcare facilities and early childhood education could help women with young children to join the labor force. Technology platforms can be leveraged to strengthen job search programs for women, allow women to work from home, and for female entrepreneurs to market and sell their products. Strengthening and diversifying leadership roles to include more women could have profound impact.

## **Business Environment Reforms**

**10. *Further trade openness*** by: (i) reducing trade-weighted tariff rates on non-agriculture and non-fuel products; (ii) enhancing services trade through lower non-tariff barriers, such as streamlining customs clearance procedures and simplifying documentation needs for trade transactions, and further liberalizing trade in banking, insurance, and commercial agencies; (iii) promoting free trade agreements; (iv) facilitating regional trade integration by aligning trade regulations and tax on goods and services within the GCC.

**11. *Further promote foreign and private investment*** by: (i) opening up more sectors for foreign investment and allowing for majority foreign ownership, especially outside of the economic zones; and (ii) further expanding freehold ownership of real estates from the current designated zones. Additionally, to support foreign investment in building a knowledge economy, enhancing digital infrastructure (e.g., improving [internet speed](#)) to effectively communicate, disseminate and process knowledge is crucial.

**12. *Reduce the role of SOEs*** by increasing competition and enhancing procurement bidding processes to boost private sector development. Revisiting preferential treatment given to large enterprises (including SOEs) in government procurement could help create a level playing field.

**13. *Ease SMEs' access to finance*** by: (i) enhancing the insolvency framework and the efficiency of the court system; (ii) increasing coverage of the credit bureau and credit registry; (iii) further protecting the legal rights of borrowers and lenders by enhancing property rights (which lags OECD extractive economies); (iv) increasing the recovery rate by improving foreclosure/receivership proceedings and the efficiency of proceedings to reduce cost; and (v) encouraging the use of a robust fintech ecosystem. While protecting personal data, simplifying procedures for banks to obtain information needed to grant credit would also facilitate access to finance.<sup>20</sup>

**14. *Further improve legislative and regulatory frameworks*** to reduce bureaucracy and streamline business regulations, as well as to enhance transparency and accountability, would improve governance. Judiciary reforms to improve contract enforcement could also enhance the business environment and foster risk taking ([OECD, 2013](#)). For instance, strengthening intellectual property rights would encourage private sector investment in research and development.

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<sup>20</sup> The [Data Protection Law](#) grants a right to the individual to demand deletion of their personal information once the Know Your Client' (KYC) process that the banks undertake is completed.

## Climate Mitigation

**15. A gradual removal of energy subsidies** would promote more efficient energy use and encourage a shift in demand toward renewable energy, helping achieve Qatar’s emission reduction target. Additional efforts to accelerate emission reduction and energy transition could include to:

- **Expand solar power** on the back of the successful 800 MW tender in 2020 to develop a long-term strategy for solar power competitive auctions, and integrate it into broader electricity market plans such as energy buy-back schemes from solar powered homes to develop an electricity trading market.
- **Expand carbon capture and storage (CSS)** by requiring carbon sequestration units be installed in hard-to-abate sectors such as cement. Pilot projects could be deployed at scale with selective use of CCS to test the technology and make it commercially available.
- **Further develop blue hydrogen value chains.** Qatar is already poised to produce blue ammonia, which can be converted to hydrogen. The upstream value chain can be further developed including methanol and cryogenic H<sub>2</sub> using CSS technology.
- **Develop green hydrogen.** A green hydrogen pilot project could be installed at the 800 MW solar park in partnership with international companies.
- **Decarbonize and diversify the transport sector.** The use of public transport and ride share could be broadened by changing the cost of parking and congestion pricing of roads.
- **Promote climate finance.** Improving the investment environment and institutional capacity sets the foundation for climate finance. In addition to deploying public resources for climate financing, measures should be undertaken to crowd in and scale up private climate finance include developing the appropriate platform and promoting innovative structured finance such as green bonds.

## III. Quantifying the Impact of Structural Reforms

**16. Macroeconomic gains from enhancing human capital development and the business environment are assessed using an IMF model.**<sup>21</sup> The quantification of specific reforms provides an illustrative example of the impact of these reforms for comparative purposes. The shocks used to quantify the reforms, such as shocks to TFP growth, and the labor participation rate are outlined in Annex IV.

**17. The results presented below assume that the government has announced the full extent of the reforms to be enacted with full transparency.** The reforms are enacted gradually over 5 years.<sup>22</sup> Because of the government’s level of commitment and transparency, households and firms consider the reform packages presented below as fully credible and begin adjusting their behavior in the first year to take advantage of reforms in later years. Because of the reforms’ credibility, growth benefits are to some degree front-loaded.

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<sup>21</sup> See Annex III for the model used: MCDMOD from the IMF’s Flexible System of Global Models (FSGM).

<sup>22</sup> A period of 5 years is modelled to coincide with the duration of the Third National Development Strategy.

However, if households and firms were to deem the reforms as only temporary in some respect, gains in growth would only be realized fitfully, and there would be greater adjustment costs incurred in the short term.

### ***Labor Market Reforms***

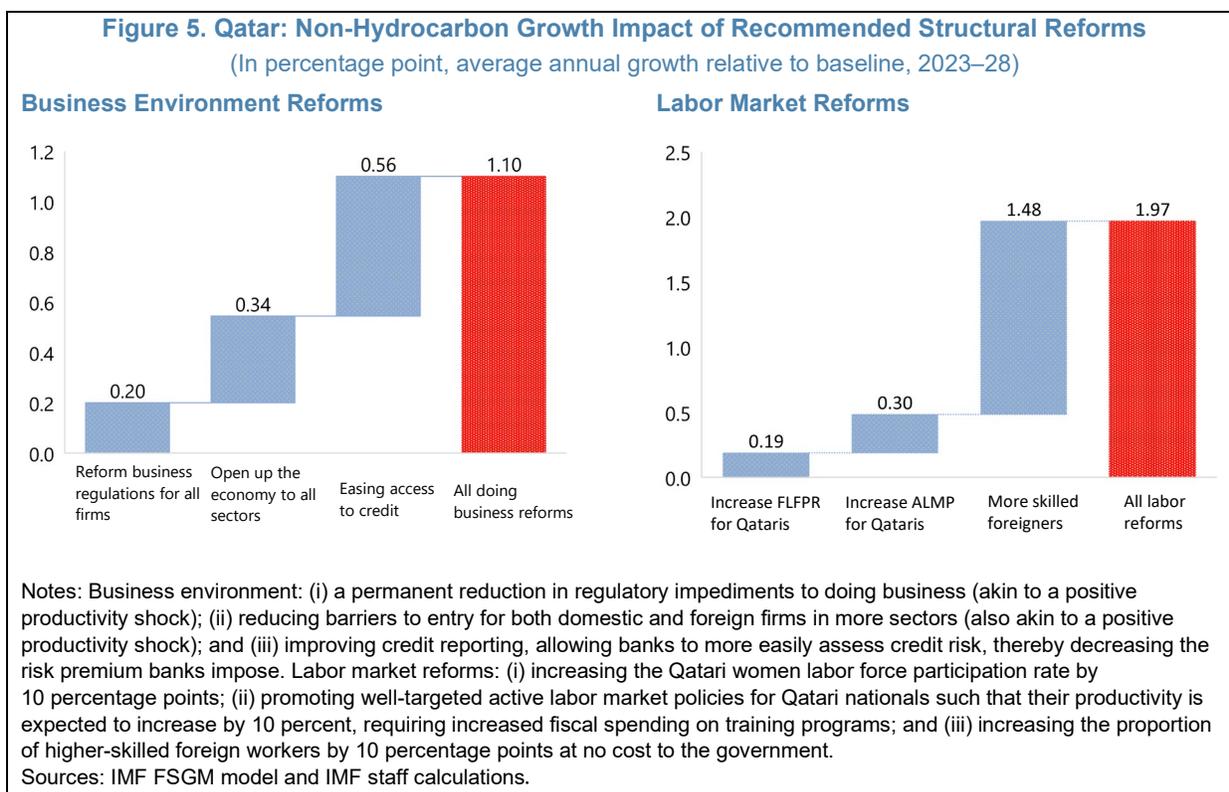
**18. Based on the findings in Section C, this exercise focuses on three labor market reforms over the next 5 years.** The reforms: (i) increase the Qatari women labor force participation rate by 10 percentage points; (ii) promote well-targeted active labor market policies for Qatari nationals (requiring increased fiscal spending) so that their productivity increases by 10 percent; and (iii) increase the share of higher skilled foreign workers by 10 percentage points through changes in employment requirements and hiring practices, at no fiscal cost.

**19. With some 90 percent of the workforce being foreigners, increasing the share of skilled foreign workers has the greatest impact on growth and labor productivity in the non-hydrocarbon sector.** For instance, if there was a 10 percentage point increase in the proportion of skilled foreign workers, average annual non-hydrocarbon real GDP growth would be 1.5 percentage points higher per year than the baseline for the next five years, and the level of labor productivity 7.5 percent above the baseline level by 2028. If Qatari workers' skill level is also increased through active labor market policies, these estimates would be 1.8 percentage points, and 9 percent, respectively. With all three labor market reforms, average annual non-hydrocarbon real GDP growth would be about 2 percentage points per year above the baseline.

### ***Doing Business Reforms***

**20. The impact of three reforms to promote business environment in the non-hydrocarbon sector over the next 5 years is assessed** (Figure 5). These reforms are: (i) a permanent reduction in regulatory impediments to doing business; (ii) lower barriers to entry for both domestic and foreign firms in more sectors; and (iii) enhanced access for banks to corporate credit risk information, thereby decreasing the risk premium on lending rates. The first two reforms are akin to a positive productivity shock. The third reform regarding credit risk information is represented by an illustrative 1 percentage point reduction in the corporate risk premium, absent numerical evidence on the extent of the relationship between credit reporting and corporate risk in Qatar.

**21. Easing access to credit generates significant gains.** Non-hydrocarbon real GDP growth would increase by 0.6 percentage points per year on average relative to the baseline over the next 5 years, slightly higher than the combined impact of deregulation and lower barriers to entry. All three reforms combined, non-hydrocarbon real GDP growth would rise by 1 percentage point per year relative to the baseline, while labor productivity level would be 5 percent above the baseline in 2028.



## IV. Prioritization and Sequencing for Reforms

**22. Reforms should be prioritized and sequenced based on the following key factors.**<sup>23</sup> How to prioritize (sets of) reforms depends on the impact of each reform and the complementarity of particular (sets of) reforms. Reforms that are easier to implement or with the best cost-benefit balance (larger gains at lower costs) should be prioritized. Reforms that are complementary to one another, such that they magnify each other's total impacts, should be implemented together. One example for Qatar is policies related to female participation and ALMP, as the latter can provide the appropriate training to women entering the work force and would amplify the growth impact of both reforms. The sequencing of reforms should be determined by considering (i) which reforms are necessary before subsequent reforms are implemented; (ii) the capacity of the economy or the government to implement the reforms; and (iii) the political feasibility of reforms.

**23. Our model results suggest both labor market and doing business reforms generate significant growth gains, with the former producing even greater effects.** Among the labor market reforms, increasing the share of skilled foreign workers will have the greatest growth impact, as close to 90 percent of the Qatari population is comprised of foreign workers. Among the doing business reforms, increasing access to finance by providing banks with better credit information could potentially have the greatest impact. Therefore, the authorities are particularly encouraged to implement these reforms.

<sup>23</sup> This section draws on the [October 2023 Middle East and Central Asia Regional Economic Outlook](#), Chapter II: From Setbacks to Comebacks: Reforms to Build Resilience and Prosperity. October.

## V. Conclusion

**24. Qatar is at an important juncture, presently formulating its Third National Development Strategy toward achieving the National Vision 2030.** The country has already made consequential progress in implementing reforms outlined in the First and Second National Development Strategies in line with National Vision 2030. The latter aims to shift Qatar's growth model from a traditional state-led, hydrocarbon-intensive toward a more dynamic, diversified, knowledge-based, sustainable, private sector-led growth model. Qatar's development of its third and final National Development Strategy toward Vision 2030 provides a critical opportunity to recalibrate the reform agenda to boost productivity, foster private sector development, reduce reliance on hydrocarbon, enhance climate resilience, and create new, technology-based, sources of growth.

**25. Building on the many progresses made, further reforms should focus on key areas, prioritized and sequenced appropriately.** Key areas include boosting productivity and inclusiveness; fostering a more conducive business environment; and leveraging progress on climate actions for further diversification and growth. Prioritization of reforms should be guided by the impact of each reform and their complementarity. For instance, results from our modelling exercise suggested that reforms to increase skilled foreign workers will have the greatest growth impact as a large fraction of the population is represented by expatriates. When undertaking the various labor, business and climate-related reforms, a comprehensive, well-integrated and properly sequenced reform package, which exploits complementarities across reforms, would have the most success in boosting Qatar's potential growth significantly.

## Annex I. Key Reforms Completed to Strengthen Labor Market Dynamics and Business Environment in Qatar (2018–23)

Laws/Regulations	Objective
Labor law (19/2020)	Enables employees to switch employers without requiring the employer's permission.
Labor law (13/2018)	Allows workers to leave the country without requiring exit permits.
Established Qatar Visa Centers (QVCs)	To simplify residency procedures for expatriate workers and facilitate necessary paperwork prior to contracted workers entering Qatar.
Amendment to regulations on labor disputes (February 2023)	The Cabinet approved draft amendments to Qatar Financial Center (QFC) Regulation to improve the processes of the labor dispute settlement committees
Minimum wage law (17/2020)	Upward revision of the minimum wage.
Regulating the Investment of Non-Qatari Capital in Economic Activity Law (1/2019)	Permits foreign investors the ability to invest in Qatar as majority shareholder with up to 100 percent foreign ownership.
Property rights Law (16/2018)	Legislates foreign real estate investment and ownership and allows for real estate developers freehold ownership of real estate.
Expropriation Law (8/2022)	Covers the rules of expropriation of property for public benefit.
Private-public Partnerships Law (12/2020)	Legislates public-private partnerships.
Investment Promotion Agency (2019)	The Ministry of Commerce and Industry (MOCI) set up the Investment Promotion Agency-Qatar to further attract inward FDI.
Investment Commerce Court Law (21/2021)	Establishes the Investment and Commerce Court to oversee all commercial lawsuits and disputes.
Mediation in the Settlement of Civil and Commercial Disputes Law (20/2021)	Sets out the framework for the mediation and settle commercial disputes.
Combating Money Laundering and Terrorism Financing Law (20/2019)	Establishes the regulatory framework to ensure due diligence by financial institutions (monitored by the Qatar Central Bank) to prevent money laundering and terrorism financing.

## Annex II. Possible Reforms

Reform Areas	Recommendations
<b>Enhance human capital development</b>	<ul style="list-style-type: none"> <li>➤ Improve education quality (particularly STEM and English)</li> <li>➤ Reduce skills mismatch and attract more high-skilled foreign workers</li> </ul>
<b>Strengthen labor market dynamics</b>	<ul style="list-style-type: none"> <li>➤ Improve female labor force participation</li> <li>➤ Incentivize Qatari nationals to take up private sector jobs</li> </ul>
<b>Trade liberalization</b>	<ul style="list-style-type: none"> <li>➤ Reduce non-tariff barriers</li> <li>➤ Liberalize trade in services</li> <li>➤ Promote intra-regional trade</li> <li>➤ Timely publication of trade and investment legislation in English</li> </ul>
<b>Promote competition</b>	<ul style="list-style-type: none"> <li>➤ Open up the economy to promote healthy competition</li> <li>➤ Expand the current real estate ownership program to foreigners</li> </ul>
<b>Ease access to finance</b>	<ul style="list-style-type: none"> <li>➤ Enforce loan contracts and accelerate insolvency resolution (to improve the recovery rate)</li> <li>➤ Improve creditor assessment tools, infrastructure and rights</li> <li>➤ Enhance property rights</li> <li>➤ Encourage digitalization/fintech for access to finance</li> </ul>
<b>Regulatory effectiveness and efficiency</b>	<ul style="list-style-type: none"> <li>➤ Legal and judiciary reforms to improve contract enforcement and business registration</li> <li>➤ Enhance transparency and accountability</li> <li>➤ Streamline bureaucratic procedures and promote e-government further</li> </ul>

## Annex III. The Behavior and Calibration of MCDMOD

- 1. MCDMOD is part of the IMF's Flexible System of Global Models (FSGM).** MCDMOD, a semi-structural, general equilibrium model, comprising primarily countries in the Middle East and Central Asia, one of which is Qatar. It is maintained by the IMF's Research Department. For greater details on the model beyond the following description, please refer to Andrieu and others (2015) and Snudden (2017).
- 2. Key sectors are undergirded by microeconomic foundations.** Household consumption is driven by non-Ricardian, forward-looking overlapping generations households as found in Blanchard (1985) and elsewhere, along with hand-to-mouth households that consume all their income each period. Investment is based on the Bernanke, Gertler, and Gilchrist (1999) financial accelerator model.
- 3. Other sectors rely on reduced form relationships.** Aggregate exports and imports are a function of relative prices and foreign or domestic demand, respectively. Supply is determined by an aggregate Cobb-Douglas production function of capital and labor along with oil production. Equilibrium labor supply is determined by the equilibrium rate of unemployment, given the labor force. Overall labor is supplied domestically and, for select countries such as Qatar, by foreign workers who remit abroad a large share of their income. Foreign labor is specified exogenously, and there is no unemployment among foreign workers. Foreign workers are assumed to fall under hand-to-mouth households in their domestic spending. Consumer price and wage inflation are modeled by forward-looking but sluggish Phillips' curves.
- 4. Fiscal policy maintains a debt-to-GDP target through a variety of fiscal channels.** These include through spending – government consumption, public investment, and lumpsum social spending and transfers – and taxation – which for Qatar is limited to tariffs, royalties and dividends from the hydrocarbon sector, lumpsum taxes (proxying excise taxes), and corporate income tax (although consumption, and labor income taxes are available). Qatar's government also subsidizes the price of hydrocarbons in its economy.
- 5. Qatar pegs its currency to the US dollar.** Monetary policy is determined by an interest rate reaction function that defends the currency peg.
- 6. The calibration of Qatar in MCDMOD relies on a variety of Qatar-specific resources.** The calibration focuses on a steady-state calibration, which for Qatar is heavily dependent on hydrocarbon production. The main data source is the IMF's World Economic Outlook database. Given the level of detail in the model, it is complemented by fiscal data from the IMF's Government Fiscal Statistics, the OECD's economic database and IMF databases for government debt and net foreign asset holdings. Special attention is paid to the labor sector, calibrated using data from Qatar's Planning and Statistics Authority (PSA).

## Annex IV. Potential Reforms Quantified in MCDMOD

### Labor Market Policies

Potential Reform	Short term effect on demand	Shock to supply side components		Source
Strengthening of job search assistance, training and wage subsidy programs	Increase	Multifactor productivity (percent)	10.0	Bouis (2011, 2012), Égert and Gal (2016), Sanchez (2016)
	Increase	Employment rate – employment / working age population (percentage points)	5.2	
Investment in human capital, decreasing a share of low-skilled workers non-Qatari workers.	Increase	Multifactor productivity (percent)	10.0	Lutz (2008), Martins (2019), Rovo (2020), Varga (2013)
Increase in the Qatari female participation rate	Increase	Qatari female participation rate (percentage points)	10.0	IMF staff assumption for MCDMOD

### Doing Business Policies

Potential Reform	Short term effect on demand	Shock to supply side components		Source
Reduction in regulatory barriers by enhancing regulatory efficiency and effectiveness	Increase	Multifactor productivity (percent)	0.70	Égert and Gal (2016)
	Increase	Employment rate – employment / working age population (percentage points)	0.14	
Opening the economy to competition	Increase	Multifactor productivity (percent)	1.2	Égert and Gal (2016)
Credit bureau to widely disseminate information on domestic firms' credit worthiness	Increase	Corporate risk premium (percentage points)	-1.0	IMF staff assumption for MCDMOD

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