

Gulf Cooperation Council



Trade and Foreign Investment—Keys to Diversification and Growth in the GCC

Prepared by Staff of the International Monetary Fund

I N T E R N A T I O N A L M O N E T A R Y F U N D

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EXECUTIVE SUMMARY¹

Diversification of the GCC economies, supported by greater openness to trade and higher foreign investment, can have a large impact on growth. Such measures can support higher, sustained, and more inclusive growth by improving the allocation of resources across sectors and producers, creating jobs, triggering technology spillovers, promoting knowledge, creating a more competitive business environment, and enhancing productivity.

The GCC countries are open to trade, but much less so to foreign direct investment (FDI).

GCC foreign trade has been expanding robustly, but FDI inflows have stalled in recent years despite policy efforts taken to reduce administrative barriers and provide incentives to attract FDI. Tariffs are relatively low; however, a number of non-tariff barriers to trade persist and there are substantial restrictions on foreign ownership of businesses and real estate.

The growth impact of closing export and FDI gaps could be significant. In most countries, the biggest boost to growth would come from closing the FDI gap—up to one percentage point increase in real non-oil per capita GDP growth. Closing export gaps could provide an additional growth dividend in the range of 0.2-0.5 percentage point.

Boosting non-oil exports and attracting more FDI requires a supportive policy environment. Policy priorities are to upgrade human capital, increase productivity and competitiveness, improve the business climate, and reduce remaining barriers to foreign trade and investment. Specifically, continued reforms in the following areas will be important:

- *Human capital development:* continue with investments made to raise educational quality to provide knowledge and skills upgrade.
- *Labor market reforms:* aim to improve productivity and boost competitiveness of the non-oil economy.
- *Legal frameworks:* ensure predictability and protection; efforts should include enhancing minority investor protection and dispute resolution; implementing anti-bribery and integrity measures.
- *Business climate reforms:* focus on further liberalizing foreign ownership regulations and strengthening corporate governance; and on further reducing non-tariff trade barriers by streamlining and automating border procedures and streamlining administrative processes for issuing permits.

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A. Introduction

1. Most countries in the Gulf Cooperation Council (GCC) have made limited progress in diversifying their economies away from hydrocarbons.² On average for the region during 2000-2017, oil revenues were close to 80 percent of government revenues, oil exports amounted to 65 percent of total exports, and oil GDP represented 42 percent of total GDP.³ This picture was broadly unchanged during 2011–17. There is a need to diversify the economies of the GCC to reduce exposure to volatility and uncertainty in the global oil market, help create private sector jobs, and increase productivity and sustainable growth (Callen et al., 2014).

2. Higher foreign trade and investment can play a large role in boosting diversification and growth. Several studies link greater trade openness to higher per capita income (Frankel and Romer, 1999; Feyrer, 2009; Cerdeiro and Komaromi, 2017), while FDI can boost growth by triggering technology spillovers, promoting knowledge, creating a more competitive business environment, and enhancing productivity (OECD, 2002; WEF, 2013). Further reducing barriers to foreign trade and investment to broaden and upgrade their export bases can help GCC countries better integrate into global value chains and make their economies more productive (IMF, 2017b).

3. This paper helps identify policy reform priorities to support diversification and growth in the GCC through exports and foreign investment. The paper is organized as follows: Section B outlines recent trends in foreign trade and foreign direct investment (FDI) in the GCC; Section C discusses the evolution of policy frameworks and business environment for foreign trade and FDI; Section D analyses export and FDI determinants and provides estimates of the GCC economies' potential exports and FDI inflows as well as growth impact from boost to exports and FDI; Section E concludes with policy priorities.

B. Recent Trends in Foreign Trade and Investment

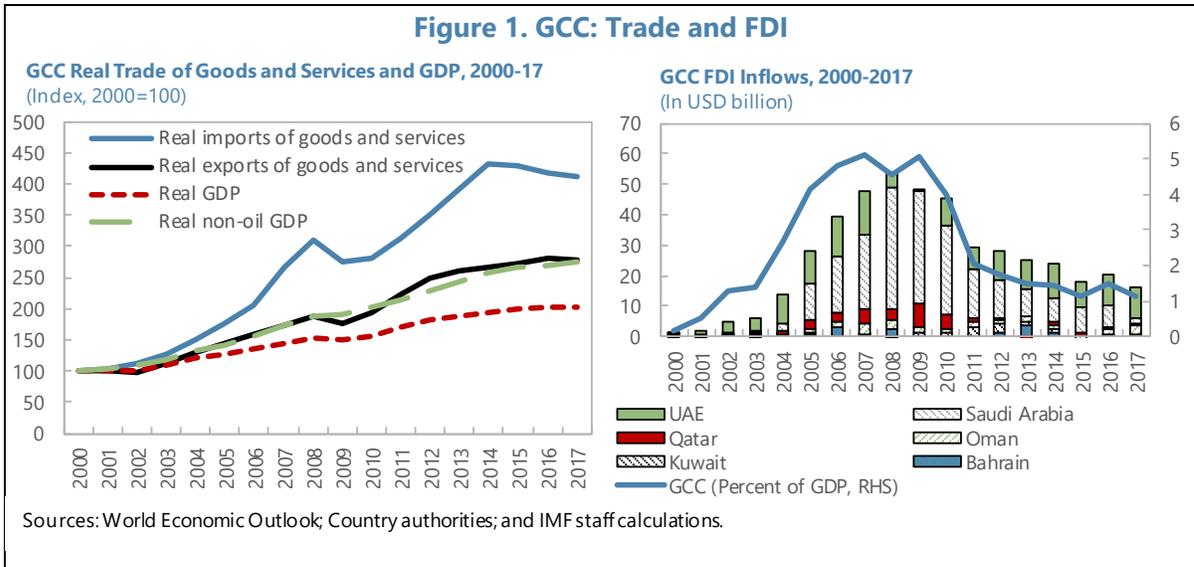
The GCC economies' foreign trade has expanded robustly, but export quality and diversification remain relatively low. Meanwhile, FDI inflows into the GCC have been concentrated in a limited number of countries and sectors and have weakened in recent years.

4. While trade between the GCC and the rest of the world has expanded robustly, FDI inflows into the region have stalled in recent years. Since 2000, the GCC's trade in goods and services grew at an average real rate of 7.5 percent, almost twice that of real GDP growth, compared with the global averages of 4.8 percent and 3.8 percent, respectively. The oil price boom during 2003-2008 led to a sharp increase in oil export receipts which in turn led to a significant expansion in imports of goods and services during that period. This growth in trade was interrupted during the global financial crisis, but has rebounded strongly since then, largely

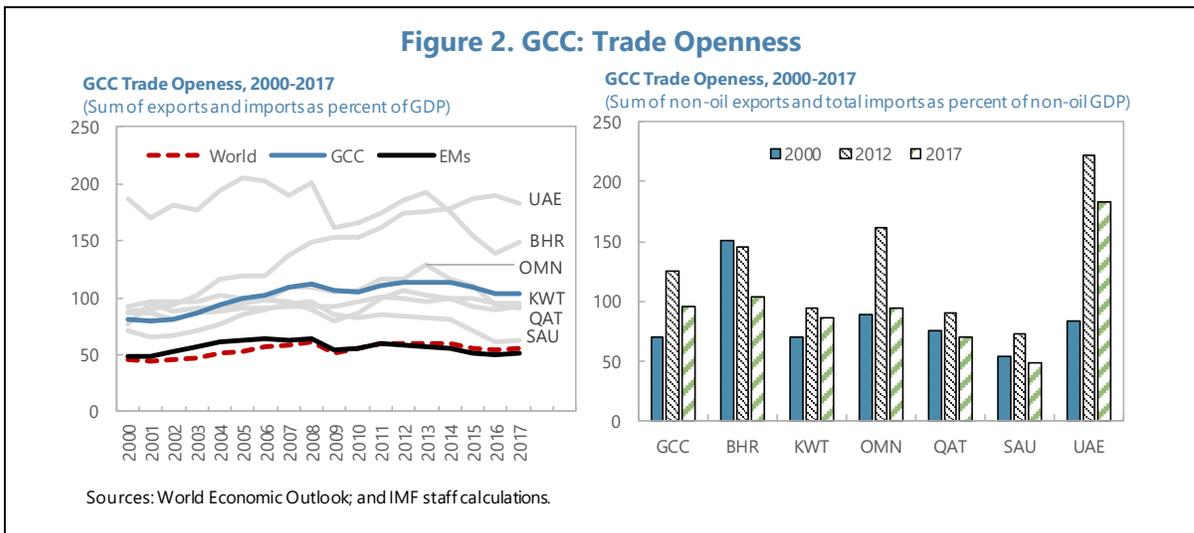
² In this paper "hydrocarbon" is used interchangeably with "oil".

³ Recently, countries have been implementing policies to increase non-oil fiscal revenues. In particular, Saudi Arabia and UAE introduced a value-added tax in 2018.

driven by solid domestic demand and improvements in global conditions. On the other hand, after surging in the early 2000s, FDI inflows into GCC countries have stalled, remaining on average below 2 percent of regional GDP (Figure 1).



5. The GCC countries are highly engaged in trade. The ratio of exports and imports of goods and services to GDP exceeded 100 percent in 2017, well above the average of 50 percent for emerging economies (Figure 2). This largely stems from the region’s large hydrocarbon resources, mostly exported, and a lack of diversification in domestic production, necessitating imports.



Trade in goods

6. The GCC countries are predominantly exporters of hydrocarbons. With some of the world's largest hydrocarbon reserves, most GCC countries (except the UAE and Bahrain) have the bulk of their total exports concentrated in oil and gas, with the share of the latter ranging between 70 to 80 percent in Kuwait, Qatar, and Saudi Arabia (Figure 3).

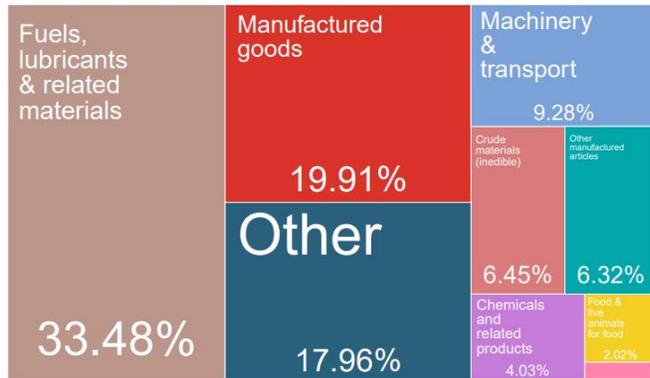
7. Non-hydrocarbon exports have increased, with some transition from raw materials to intermediate goods. Non-oil exports (including re-exports) have increased, from 16 percent of non-oil GDP in 2000 to 32 percent in 2017, though they remain a small share of global non-oil trade. This robust growth has been concentrated in capital-intensive downstream industries—petrochemicals, refined hydrocarbons, aluminum—that directly capitalize on the region's competitive advantage in abundant hydrocarbons and subsidized energy. The share of exported raw materials accordingly has been declining in favor of intermediate and consumer goods. Re-exports of goods make a non-negligible share in total GCC exports of goods and services (about a fifth), primarily explained by their very high share in the UAE exports; however, this paper does not focus on this aspect of foreign trade as it strives to assess the export potential from the perspective of creating substantial value added for the GCC economies.

8. The GCC is establishing itself as a significant supplier of petrochemicals, aluminum, and some minerals. SABIC of Saudi Arabia, for example, is one of the world's largest petrochemicals manufacturers while ALBA of Bahrain is among the largest aluminum smelters in the world. Oman has become the world's largest exporter of gypsum in 2017. The region continues to maintain a revealed comparative advantage (RCA) (for definition, see Appendix I) in primary commodities, including fuel, metals and minerals. In 2016, the number of products with RCA ranged between 31 in Qatar and 172 in the UAE. The sectoral distribution of exports also shows that Saudi Arabia has RCA in plastic and rubber exports, Bahrain, Oman and UAE in metals and minerals, and UAE in stone and glass. Other non-oil exports are small and scattered among various categories. Meanwhile, GCC countries have achieved less success in exporting other manufactured goods, reflecting relatively small direct involvement in the global value chains.

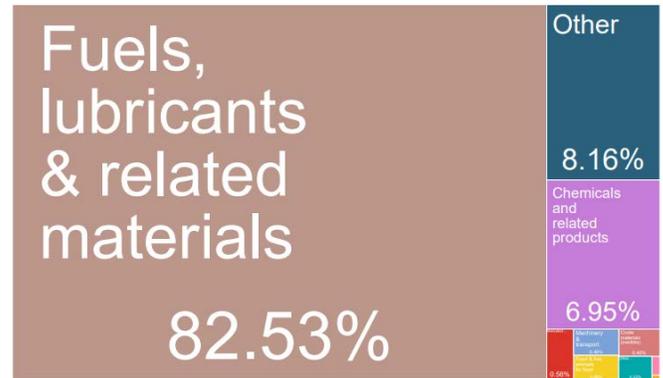
9. The value-added and diversification of non-oil exports remain relatively low. Export quality, a proxy for value-added, (for definition, see Appendix I) has increased in all GCC countries over the last 15 years, though at varying degrees, but generally remains low compared to emerging market averages (Figure 4). During the same period, most GCC economies saw limited reduction in export concentration indices (with the exception of the UAE and Oman) and when compared to other emerging markets, GCC's overall non-oil exports appear more concentrated.

Figure 3. Composition of GCC Export of Goods, 2016 1/

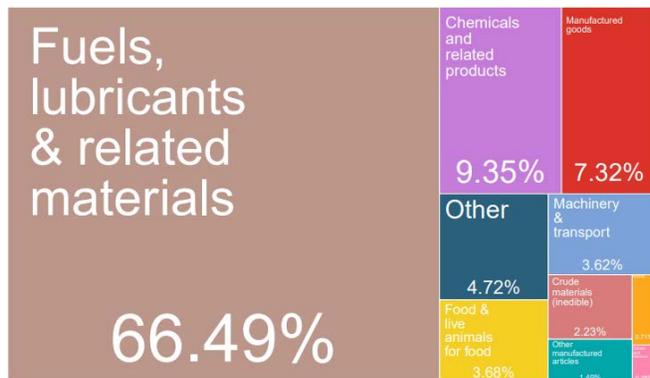
- Food and live animals for food
- Fuels, lubricants, and related materials
- Manufactured goods
- Other
- Drinks and tobacco
- Animal and vegetable oils, fats and waxes
- Machinery and transport
- Crude materials (inedible)
- Chemicals and related products
- Other manufactured articles



Bahrain



Kuwait



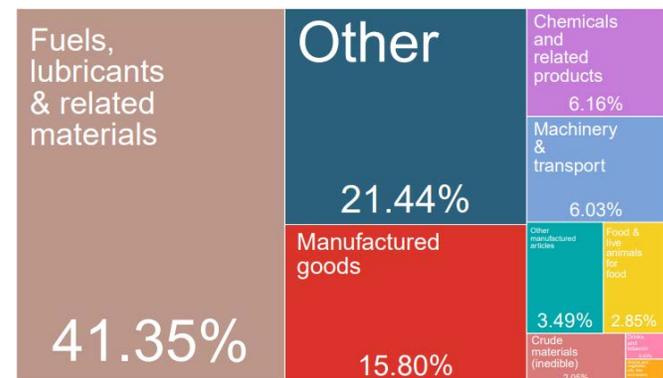
Oman



Qatar

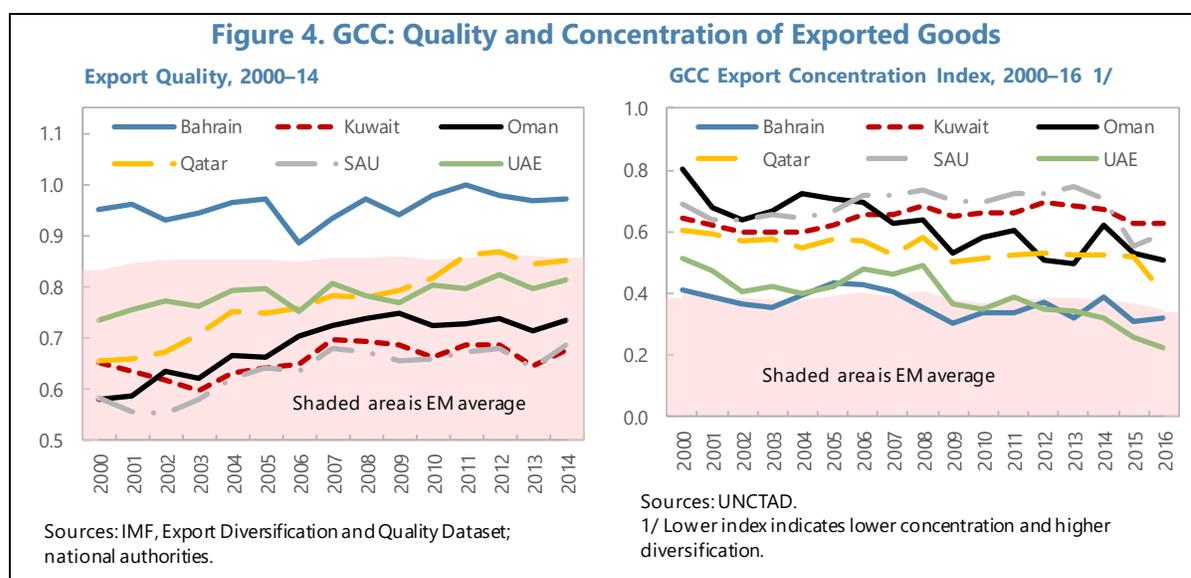


Saudi Arabia



United Arab Emirates

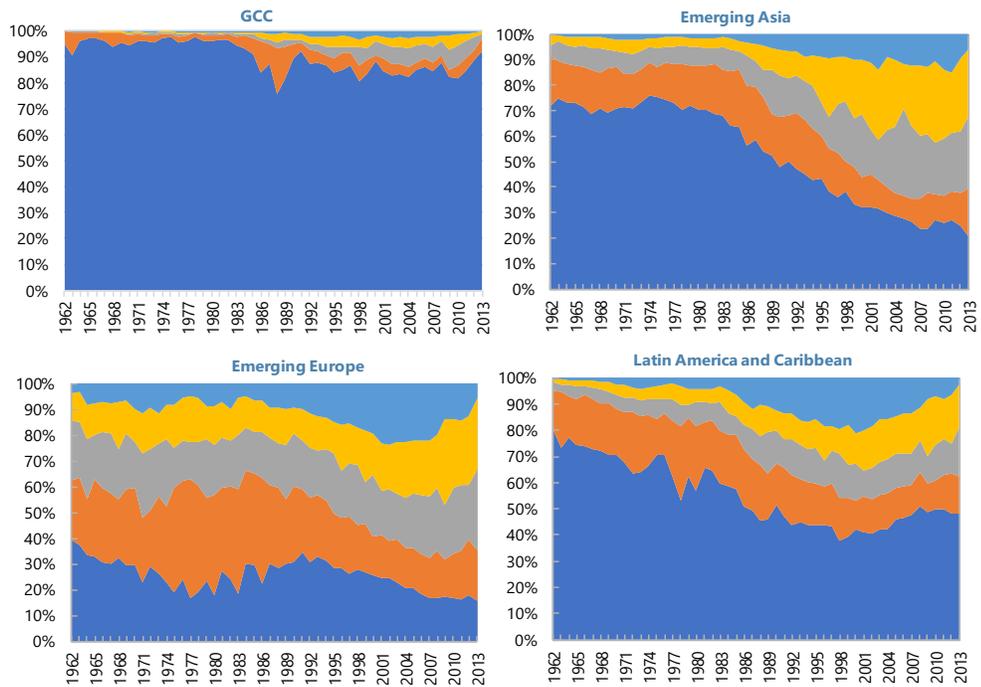
Sources: Atlas of Economic Complexity; and UN COMTRADE.
1/ Data according to Standard International Trade Classification (SITC1).



10. The GCC lags other regions in export sophistication. The export product complexity index (for definition, see Appendix I), which looks at the share of knowledge-intensive products in the export basket, shows the level of sophistication of a country's goods exports which is found to be associated with higher income levels (Henn et al., 2013). The least complex products (lowest quintile) accounted for more than 90 percent of the value of exports in 2013, the latest year for which data is available, in contrast to emerging economies in Latin America and Asia, and the share of the most complex products (top quintile) in the GCC was close to zero (Figure 5).

11. The large hydrocarbon endowments as well as low diversification and sophistication of exports could partly explain the limited integration of the GCC into global value chains (GVCs). While the UAE has made more headway than others in diversifying its economy, evidence shows that in most GCC economies indicators of economic complexity, diversity, and export quality are lower when compared to many emerging market economies, including other oil producers and countries in the region. Like in many other emerging market commodity-exporters, the GCC exports, dominated by hydrocarbons, largely participate in the early stages of GVCs while a limited participation in the final stages of GVCs means a relatively small share of foreign value added in the GCC exports. Other impediments to greater integration into global value chains are discussed in Section III.

Figure 5. GCC: Product Complexity of Exports 1/



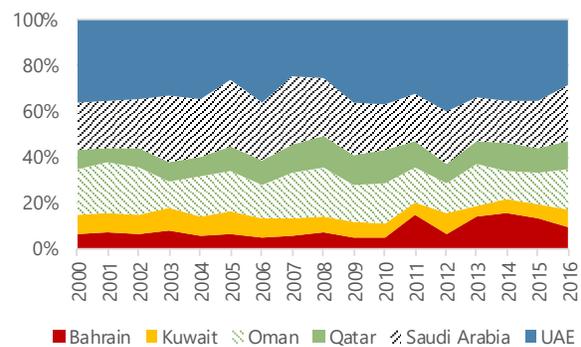
Source: Ding, Xiaodan and Metodij Hadzi-Vaskov, 2017, "Composition of Trade in Latin America and the Caribbean," IMF Working Paper No. 17/42 (Washington: International Monetary Fund).

1/ This chart shows the distribution of exports for different regions according to the level of product complexity; top area corresponds to the share of exports that belong to the top (fifth) quintile in terms of product complexity index (PCI), and the bottom area corresponds to the share of products in the bottom quintile of the distribution of the product complexity index (PCI).

12. The GCC economies’ imports far exceed their non-oil exports. The GCC countries remain heavily dependent on imports to meet their consumption and investment needs. Machinery and transport equipment (34 percent of total) comprise GCC’s main imports followed by manufactured goods and articles (24 percent) and food (9 percent). With imports consistently exceeding non-oil exports, GCC countries’ non-oil trade balance has been in constant deficit (about 11 percent of non-oil GDP in 2017).

13. Intra-GCC trade in goods remains modest. Notwithstanding the low trade barriers under the GCC common market agreement since 2008, intra-GCC non-oil trade remains low, at only 10 percent of total non-oil trade in 2016. This suggests that complementarities within the region are weak, most probably due to similar economic structures and levels of economic development. Out of the \$85 billion intra GCC trade in 2016, the UAE accounts for the largest share, highlighting its role as a major re-exporting hub, followed by Saudi Arabia and Oman (Figure 6).

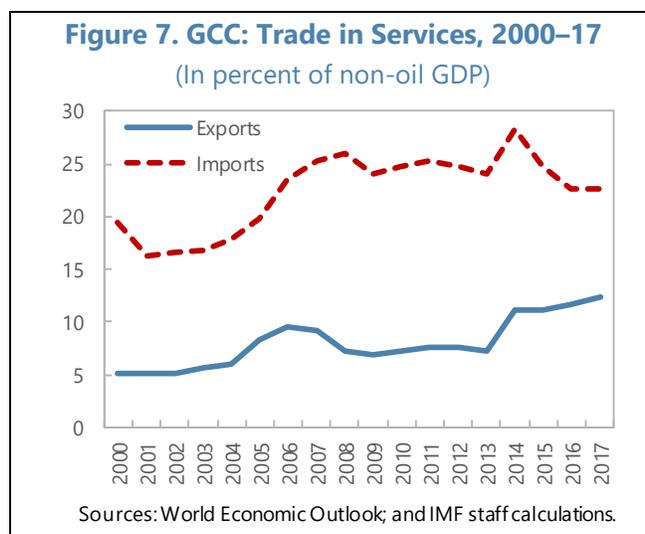
Figure 6. Intra-GCC Trade in Goods, 2000–16
(Country share, percent)



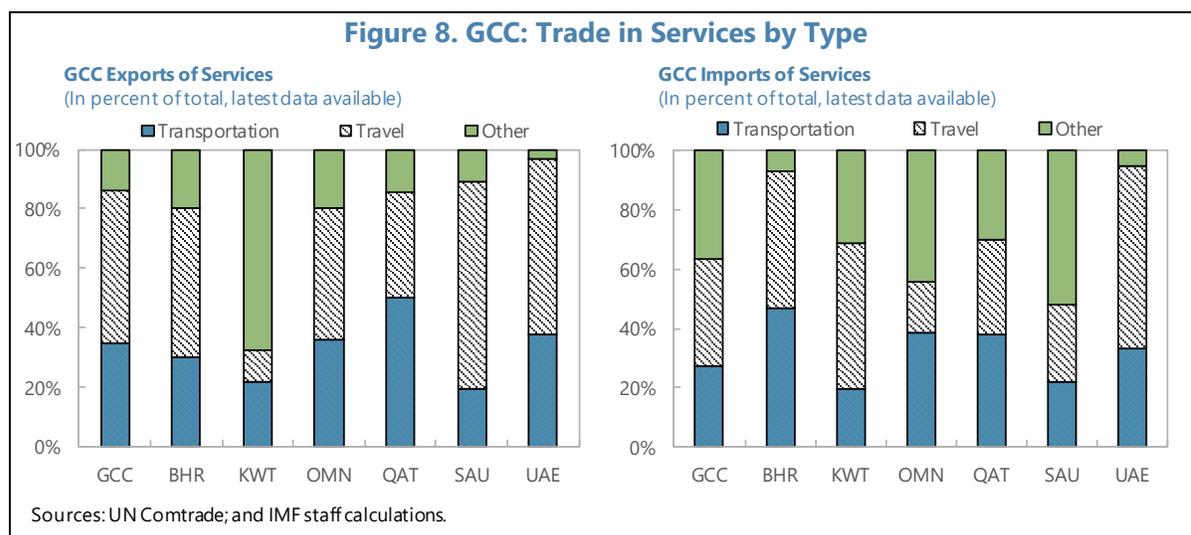
Sources: UN Comtrade; and IMF staff calculations.

Trade in services

14. Services play an increasingly important role in the GCC’s trade. The share of service exports has increased from around 5 percent of non-oil GDP in 2000 to 12 percent in 2017, while the share of service imports has increased at a slower pace, from 20 to 23 percent of non-oil GDP, during the same period (Figure 7).

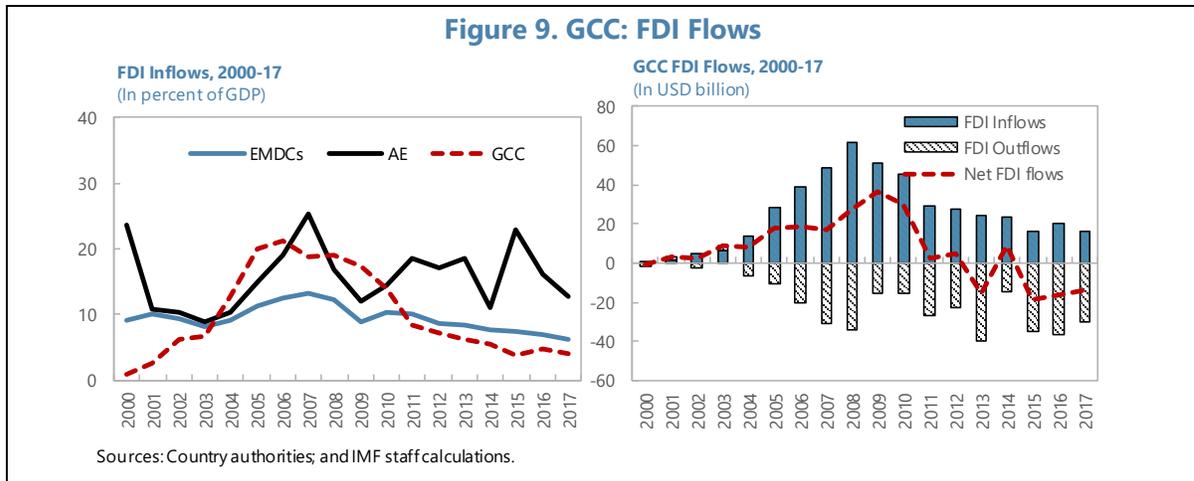


15. Tourism and transportation services make the bulk of the GCC’s trade in services. Tourism remains one of the region’s fastest-growing sectors. In 2016, the GCC’s exports of tourism were approximately half of total services exported. The UAE and Saudi Arabia account for more than 75 percent of travel receipts, given their leading positions as leisure and religious tourism destinations, respectively. Transportation is the second largest traded service in the region with a share of 35 percent. A similar pattern holds for GCC imports of services—travel dominates services imports followed by transportation (Figure 8).



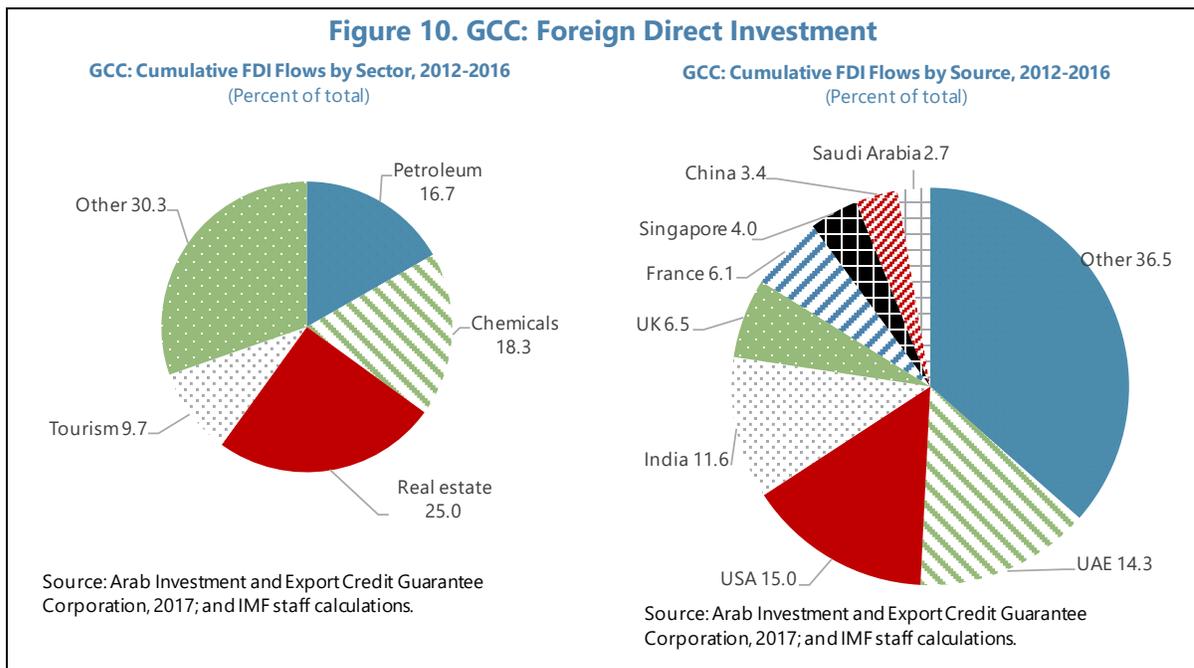
Foreign Direct Investment

16. FDI inflows have weakened in recent years (Figure 9). While reforms have been implemented to attract foreign investment, these have taken place against the backdrop of the lingering effect of the global financial crisis and rising uncertainties and geopolitical tensions in the Middle East region. Even though the GCC countries are capital-rich, attracting FDI can bring access to foreign markets, better management practices and technical know-how to the domestic economy, thus enhancing work force skills and increasing productivity (World Bank, 2013).



17. FDI inflows into the region have been skewed toward specific sectors and concentrated in two GCC countries. FDI inflows have largely financed green field investments with 60 percent of the inflows concentrated in three sectors — real estate, petroleum, and chemicals (Figure 10). Reflecting their size, Saudi Arabia and the UAE have attracted almost 80 percent of total FDI inflows.

18. While the sources of FDI are diversified in terms of geography, a few countries account for most of it. The US and India have been the origin of more than a quarter of FDI inflows in recent years, while the UAE represents a sizable portion of FDI inflows into other GCC countries (Figure 11). During 2003–16, intra-GCC FDI flows have been concentrated in the real estate, hydrocarbon and tourism sectors.



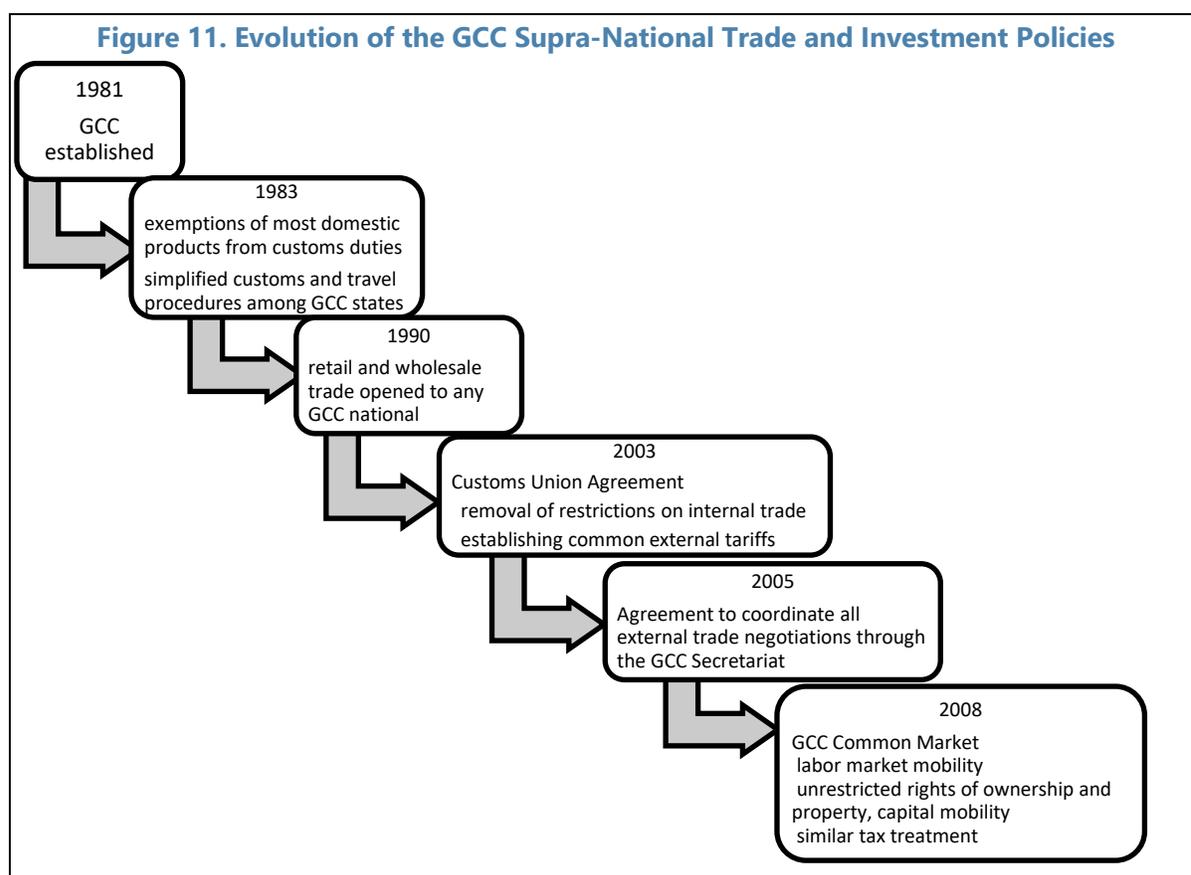
C. Foreign Trade and Investment Environment

The GCC countries have made strides in improving the foreign trade and investment environment including through regional integration and harmonization. While geopolitical tensions and global weakening of FDI flows to emerging markets are creating headwinds, further reducing non-tariff barriers and regulatory restrictions on FDI would help boost trade and foreign investment.

19. There is substantial scope to increase non-oil exports and boost FDI inflows. While trade openness is relatively high, the value-added and diversification of exports remain relatively low; likewise, FDI inflows to the region have underperformed other emerging markets and remain concentrated in a few sectors. This section examines policy and institutional frameworks that might have contributed to these outcomes.

Current State of Regional Collaborative Arrangements

20. Founded in 1981, the GCC has provided the basis to promote economic cooperation and integration within the region. Over the course of almost three decades, it has gradually evolved into an increasingly integrated economic bloc with harmonized legal and economic systems and coordinated external commercial policies and trade relations (Figure 11). The founding of the GCC Customs Union in 2003 was meant to encourage free trade, and the GCC common market in 2008 was a step further to promote cross-national labor and capital mobility.



21. All GCC countries are members of the WTO and are part of other regional agreements. Saudi Arabia was the last GCC member to join the WTO in 2005. The GCC countries are active members of Pan-Arab Free Trade Area (PAFTA), which was established in 1997 under the auspices of the Arab League. Furthermore, a number of bilateral and collective free trade agreements are in force and several more are being negotiated. In 2008, the GCC signed a free trade agreement with Singapore, which went into effect in 2013. All GCC countries have preferential trade agreements with Kazakhstan, Russia, Turkey, and Australia. In addition, Bahrain, Oman, and Saudi Arabia have bilateral agreements with a number of other countries. In 2005, the GCC countries agreed to coordinate all external trade negotiations through the GCC Secretariat. In general, collective trade agreements in the GCC have advanced very slowly, partly reflecting difficulty of adhering to common interests.

Trade and Investment Policy Indicators and Impediments

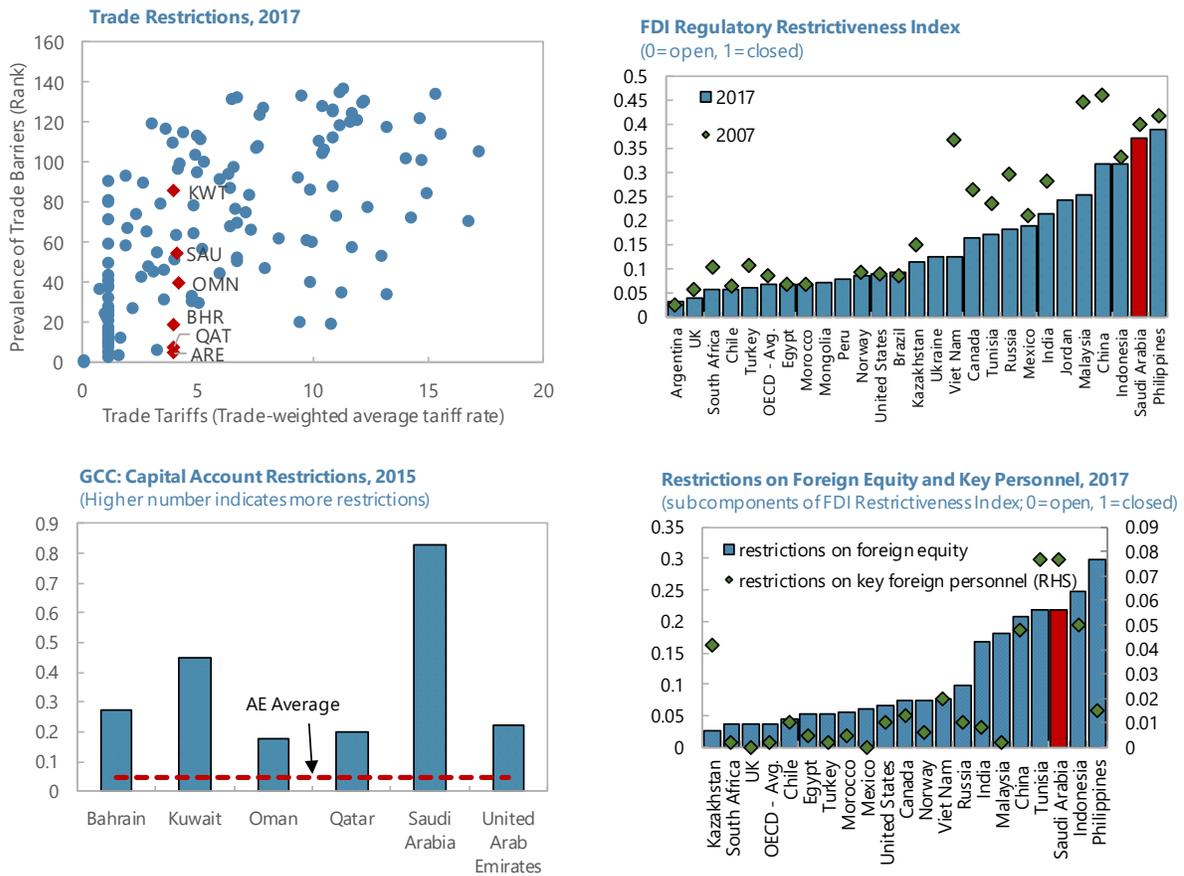
22. Intra-regional trade barriers are very low, apart from those related to the diplomatic rift last year. As of June 2017, tariff barriers were non-existent and nontariff trade barriers between GCC countries had been progressively lowered. GCC nationals could freely participate in business activities related to retail and wholesale trade, recruitment offices, car rental, and most cultural activities. Restrictions on stock ownership and property possession by GCC citizens had also been reduced. The GCC countries had adopted unified GCC technical standards, and harmonized and reduced customs administrative procedures and clearance requirements. The remaining indirect trade barriers included preferential policies and practices related to public procurement, subsidies to domestic producers, and customs border controls.

23. The GCC's external tariffs are relatively low (Figure 12). The Customs Union Agreement, signed in 2003, established a common GCC external tariff of 5 percent on most imported merchandise and of zero percent on essential goods (roughly a fifth of total imports). The average Most Favored Nation applied tariff rate dropped from 8.2 percent in 2000–04 to 5.9 percent in 2006–09 and to about 4 percent in 2016.

24. Prevalence of non-tariff barriers varies widely within the GCC region (Figure 12 and Table 1). According to the World Economic Forum's (WEF) 2017 Global Competitiveness Index, the UAE ranks among the least restrictive countries in terms of non-tariff trade barriers, while Kuwait ranks among the most restrictive. Likewise, the OECD's Trade Facilitation Indicators Database ranks the UAE as a top performer in trade facilitation. The WEF's Global Enabling Trade Report, which ranks 136 countries in terms of market access, border administration, infrastructure, and operating environment, points to a wide heterogeneity among GCC countries in creating an enabling environment for trade: the UAE ranks in the top 25th percentile across most dimensions and Kuwait ranks in the bottom 25th percentile (Table 1). Some constraints are common throughout the GCC—time and cost (both documentary and border compliance) to import and export.⁴ GCC countries are reviewing their regulations with a view to ease them.

⁴ These indices are based on WEF's and OECD's quantitative and qualitative assessment of the trade and investment environment and should be interpreted with caution due to a limited number of respondents, limited

Figure 12. Direct and Indirect Trade and FDI Barriers 1/



Sources: WEF Global Competitiveness Index; OECD Stat; IMF AREARER Report; and IMF staff estimates.

1/ Indices on the prevalence of trade barriers ranking and regulatory restrictions on FDI and their subcomponents are based on WEF's and OECD's quantitative and qualitative assessment of the trade environment. These indicators should be interpreted with caution due to a limited number of respondents, a limited geographical coverage, and standardized assumptions on business constraints, and information availability.

geographical coverage, and standardized assumptions on business constraints, and information availability. They may also not reflect more recent important structural transformations that are ongoing in the GCC countries.

Table 1. Enabling Trade Index and Subcomponents, 2016 1/
 (Highest performing and lowest performing 25th percentiles are marked in green and red, respectively)

	Bahrain	Kuwait	Oman	Qatar	Saudi Arabia	UAE
Overall rank (out of 136):	42	115	46	43	67	23
Domestic market access:	59	66	25	71	81	70
Tariff rate (%)	4	4	4	4	4	4
Tariff rate ranking	52	54	60	55	58	56
Share of duty free imports (%)	42	39	60	34	27	36
Foreign market access:	109	132	118	134	125	131
Tariff rate faced (%)	5	5	5	5	5	5
Tariff rate ranking	116	125	118	126	131	129
Border administration ranking:	58	90	48	46	83	25
Customs services index	56	64	77	87	63	2
Efficiency in clearance process	41	56	62	21	69	12
Time to import (documentary)	101	107	63	89	112	58
Time to import (border compliance)	72	123	81	99	126	72
Cost to import (documentary)	81	114	31	129	119	111
Cost to import (border compliance)	80	108	69	119	121	116
Time to export (documentary)	68	81	67	57	113	51
Time to export (border compliance)	99	101	83	60	96	58
Cost to export (documentary)	113	109	85	96	82	104
Cost to export (border compliance)	18	118	54	90	59	102
Irregular payments and bribes	26	77	37	12	32	6
Time predictability of import procedures	36	107	52	22	58	6
Customs transparency index	109	66	39	66	96	66
Infrastructure ranking:	34	56	41	23	36	6
Availability and quality of transport infrastructure	40	71	32	25	31	2
Availability and quality of transport services	36	65	50	24	47	13
Availability and use of ICTs	22	42	54	29	40	19
Operating environment ranking:	23	68	30	10	39	9
Protection of property	30	76	31	19	32	22
Efficiency and accountability of government	23	71	33	11	29	2
Access to finance	23	46	33	8	44	17
Openness to foreign participation	13	123	89	52	117	30
Physical security	52	47	6	10	57	2

Sources: World Economic Forum, The Global Enabling Trade Report, 2016; and IMF staff calculations.

1/ The World's Economic Forum's "Enabling Trade Index" assesses the extent to which 136 countries have in place institutions, policies, infrastructures, and services facilitating the flow of goods over border and to their destination. These indicators should be interpreted with caution due to a limited number of respondents, a limited geographical coverage, and standardized assumptions on business constraints, and information availability. They may also not reflect more recent important structural transformations.

25. Unified technical standards, harmonized customs administration procedures and reduced clearance requirements have lowered non-tariff barriers within the GCC. There are a number of special agencies in charge of creating and implementing technical standards, undertaking commercial arbitration, and registering patents: the Standardization and Metrology Organization for GCC in Saudi Arabia, the Technical Telecommunications Bureau in Bahrain, and the Regional Committee for Electrical Energy Systems in Qatar.

26. Over the past decade, GCC governments have made strides in opening their countries to FDI, but some restrictions persist. All GCC countries have implemented reforms to reduce red-tape and administrative burdens placed on domestic and foreign firms and actively promoted abroad their image as an attractive business destination. Some (e.g., the UAE) have also created special economic zones (SEZs) with independent, liberalized regulations and well-established infrastructure. However, openness to foreign entry (outside the special economic zones) varies widely among the GCC members, with the UAE and Bahrain being the most liberal and Kuwait and Saudi Arabia the most restrictive.⁵ Strict restrictions on foreign ownership of land may also act as a potential impediment to FDI: such ownership is strictly limited to zones designated by the government (Bahrain), tourist areas (Oman) or areas for housing purposes (Qatar). Non-GCC citizens may not own land in Kuwait. While external forces, such as geopolitical tensions and the slowdown in global FDI flows since the global financial crisis, create headwinds, relaxing these restrictions would help reinvigorate FDI inflows.

27. The GCC governments offer a variety of incentives to attract FDI. These include: assistance with registering and opening businesses, financial incentives, exemptions from import duties on raw materials and equipment, and duty-free access to other GCC markets. In Kuwait, the government has established a unit to streamline registration and licensing procedures for foreign investors with a goal of approving licenses in 30 days. The new FDI law in Kuwait allows for tax benefits, customs duties relief, land and real estate allocations, and permission to recruit required foreign labor. Oman's FDI incentives include a five-year renewable tax holiday, subsidized plant facilities and utilities, custom duties relief on equipment and raw materials for the first ten years.

28. While SEZs are increasingly being used in the GCC to facilitate trade and FDI, they should be considered as part of a country's long-term reform agenda. The UAE has established more than 20 SEZs, where foreigners may own up to 100 percent of the equity in an enterprise, have 100 percent import and export tax exemption and repatriate 100 percent of capital and profits. Kuwait established a free trade zone at Shuwaikh port in 1999, which allows for 100 percent foreign ownership and tax exemptions, and is in the process of creating two new zones. Khalifa bin Salman Port in Bahrain has a free transit zone to facilitate the duty-free import of equipment and machinery and has set up an international investment park that gives foreign-owned firms the same investment opportunities as Bahraini companies. Oman has also established three free-trade zones at strategically located ports. Saudi Arabia has announced plans to build new economic cities. However, it bears noting that the ultimate benefits of SEZs depend on the extent to which they are integrated with the local economy. While SEZs can attract FDI by offering better infrastructure and regulatory environment, they should not be viewed as the end goal, but rather as a second-best and temporary solution before more business-friendly regulatory framework and practices are extended throughout the country.

⁵ In 2016, Bahrain relaxed its foreign ownership restriction to allow full foreign ownership of business except for a few sectors, and the UAE recently announced major relaxation of foreign ownership restrictions.

Indirect trade and investment barriers

29. Rules and regulations on trade and FDI do not fully capture a country's trade and investment climate. Inconsistent interpretation and arbitrary application of rules may complicate business decisions, create opportunities for corruption and gate-keeping, and, along with public sector dominance, act as an impediment for trade and FDI. As shown in Section IV, countries with a better business climate and investor protection tend to perform better in realizing their export and FDI inflows potential. A conducive trade and investment climate requires certainty that investments are protected from expropriation, that all investors (foreign and domestic) will be given fair and equitable treatment, that the rule of law is enforced, and that dispute settlement mechanisms and good corporate governance practices are in place. Additionally, adequate infrastructure and a well-educated and trained workforce play a significant role (Box 1 discusses Singapore's success story of becoming a top FDI destination).

Governance and legal regime

30. The GCC region has made important progress in improving governance, but further reforms are needed. Promising reforms have been implemented and more are on the way, aimed at strengthening the rule of law, building effective safeguards against corruption, and improving transparency in government decision making. In Bahrain, a law to completely revamp government procurement procedures went into effect in 2003, and mandates criminal penalties (up to 10 years imprisonment) for official corruption. In Saudi Arabia, a high-level anti-corruption committee was established in 2017, the new public procurement law is nearing completion, and a "whistleblower" protection framework is being put in place. In Kuwait, corruption is criminalized with several investigations and trials involving current and former public officials underway and the Anti-Corruption Agency is developing a national strategy for anti-corruption efforts. Still, issues persist in the context of public administration, including in public procurement, business licensing, and revenue administration (see IMF, 2017c; d).

31. Another important aspect of the business environment is whether corporate governance standards and practices are adequate to assure potential investors. Weak corporate governance can discourage international investors from investing: this is an area where the GCC economies seem to have a substantial room for improvement. For example, potential investors in the region often face a lack of an independent board, insufficient oversight and scrutiny of key enterprise risks, and weak transparency and disclosure practices (S&P Global, 2017). Important reforms have recently been enacted in this area in Saudi Arabia.

32. The GCC countries have signed several investment treaties that ensure protection for foreign investors. These treaties provide benefits and protection to foreign investors, such as the most-favored nation treatment and national treatment, the right to make financial transfers freely and without delay, international law standards for expropriation and compensation, and access to international arbitration. However, legal ambiguity in the GCC legislation can give rise to too much regulatory discretion, thereby affecting trade and investment even if there is no explicit discrimination against foreign firms (Heuser and Mattoo, 2017).

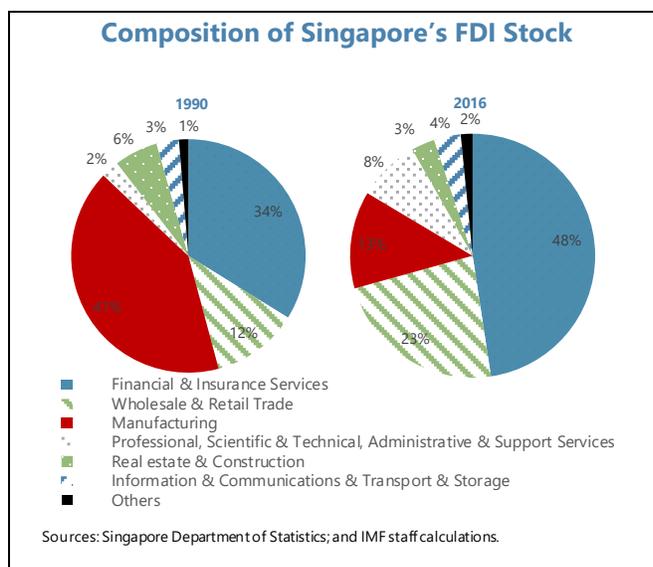
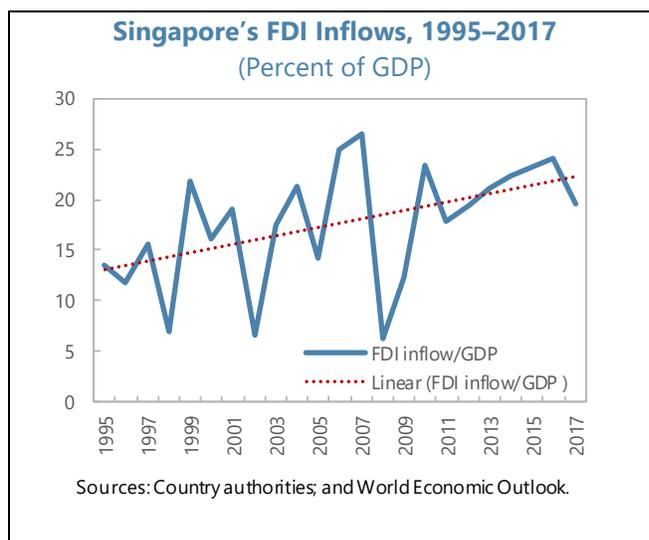
Box 1. Tapping Greater FDI Inflows: The Case of Singapore

Singapore has been one of the most attractive destinations for foreign direct investment. As of end-2016, its gross FDI stock was almost three times its GDP. Despite blips during regional and global financial crises, its already-high FDI inflows have continued to increase as a share of GDP over the last two decades.

Singapore’s success in continuing to attract FDI lies in its business-friendly environment, strong legal and political institutions, world-class infrastructure, and highly skilled labor force. It has been consistently ranked near the top by the World Bank’s “Doing Business” reports (2nd in 2018), the World Economic Forum’s “Global Competitiveness Report” (3rd in 2017-2018), and the OECD’s PISA global education survey (1st in the latest, 2015 survey).

Like the rest of the world, Singapore uses FDI incentive policies, but its strategy has switched from targeting the overall volume of FDI inflows to target FDI in specific sectors to maximize the impact on growth and development. In the 1960s, it began with tax incentives to attract FDI. By the late 1970s to 1990s, its focus shifted to promote higher-value added production activities and to further upgrade the labor force skills. And starting in 2000s, the emphasis has shifted to knowledge-based industries, including innovation, research and development, for example in pharmaceuticals and biotechnology. As a result, the FDI stock in manufacturing has declined from 41 percent of the total FDI stock in 1990 to just 13 percent in 2016.

In recent years, responsible investment has become an important policy consideration. In addition to the enactment of Environment Protection and Management Act, Singapore has also included labor rights and environmental protection terms in various bilateral agreements on trade and investment.



33. The GCC states have used international and regional conventions to enhance their commercial arbitration legal frameworks, though the legal systems lag in operational efficiency. The courts are perceived as slow and inefficient. Entrenched local business interests with government influence can cause potential problems for foreign companies (see the 2017 EU-Gulf Cooperation Council Investment Report). The full potential of arbitration and mediation mechanisms, which could have reduced the case load of the courts, is not utilized. Despite having a regional GCC Commercial Arbitration Center, which is empowered to implement rules and

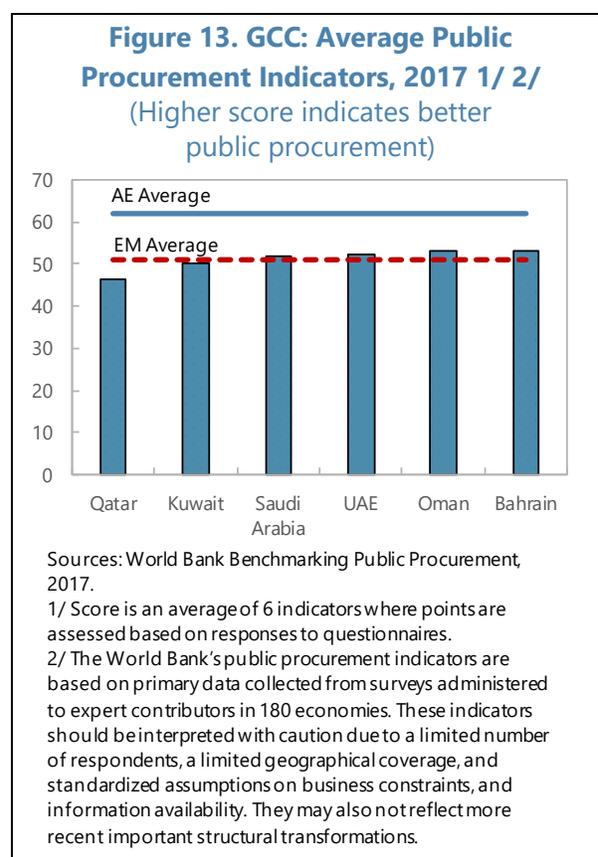
regulations in line with accepted international practice, very few cases have been brought to arbitration so far. Furthermore, in Kuwait, nationals and foreigners who are involved in unresolved financial disputes with local business partners can be subject to travel bans. As a positive development, Saudi Arabia introduced specialized commercial courts in three major cities in 2017, with the aim of expediting dispute resolution and boosting investor confidence.

34. The GCC countries lack comprehensive competition protection mechanisms.⁶ While all GCC countries have passed specific competition laws, these often do not apply to the government or entities controlled by the government, and the enforcement mechanism is weak (Daudpota, 2015). The Saudi Competition Protection Council is the most advanced in terms of monitoring anti-competitive conduct; however, the law exempts public corporations and wholly-owned state companies, and even commercial operators dealing with state-owned companies, from the competition rules. Qatar's law also grants exemptions to sovereign ventures and to all entities subject to State direction and supervision. Bahrain has neither a formal competition law nor a specialized agency to monitor competition-related issues. Kuwait has established a Competition Protection Bureau intended to safeguard free commerce, bar monopolies, and supervise mergers and acquisitions, but it is not yet fully operational. Oman has passed the Competition and Anti-Monopoly Law, but only recently established a competition protection agency (Casoria, 2017).

Public sector dominance

35. The size of the public sector in the GCC economies constitutes an important impediment to private domestic and foreign investment. The most important economic sectors like oil and gas production, electricity, transport and, to some extent, telecoms are still dominated by state-owned companies and are protected from foreign competition. Due to the size of the public sector, preferential treatment given to domestic enterprises engaged in government procurement creates an uneven playing field and acts as a disincentive for FDI.⁷

Furthermore, public procurement practices, which substantially lag those in advanced economies (Figure 13), may encourage low-



⁶ Casoria (2017) finds that notwithstanding the wide arsenal of legal tools to curb possible anticompetitive practices, in all GCC countries, the application of competition laws and role and powers of the competition authorities (if they exist) is still at a rudimentary stage of development.

⁷ The GCC states are not signatories to the WTO Government Procurement Code.

efficiency investment in non-tradable sectors and their expansion, thus potentially crowding out tradeable sector development.

36. Recent reforms aim at reducing the share of SOEs in the economy through privatization and PPPs. The privatization momentum is picking up in the GCC, with a number of SOEs earmarked for privatization.⁸ However, this process remains particularly complicated, due to the long history of strong state intervention in many industries and the implicitly assumed responsibility of the state as the employer of first resort for nationals. Furthermore, business interests in industries that are slated for privatization may likewise try to slow down the privatization process and opening of certain sectors to FDI.

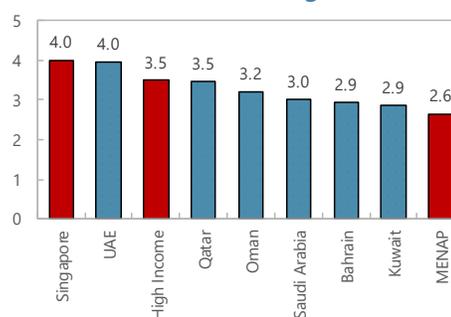
Infrastructure and labor market

37. Most GCC countries do relatively well in logistics performance. The World Bank's Logistics Performance Index (LPI)—the weighted average of a country's scores on six dimensions: customs, infrastructure, international shipments, logistics competence, tracking and tracing, and timeliness—suggests that Qatar and the UAE perform at or above high-income countries' average, while Kuwait lags behind other GCC countries (Figure 14). As shown in Section IV, the level of infrastructure development matters for export diversification and sophistication.

38. The availability of a well-educated and skilled workforce matters for trade

diversification and FDI. As the empirical analysis in Section IV shows, human capital is a key determinant of export performance and FDI. Faced with pressures to accommodate new entrants into the workforce amid restricted public-sector employment, many GCC governments have tightened regulations for hiring of foreign nationals. The regulations are especially binding for higher-skilled jobs. This may impose constraints on potential FDI, dampen efficiency and competitiveness, and slow down economic diversification efforts.

Figure 14. GCC: Logistics Performance Index, 2018 1/
(1=low to 5=high)



Sources: World Bank, World Development Indicators; and IMF staff calculations.

1/ The World Bank's logistics performance index is based on a worldwide survey of stakeholders on the ground providing feedback on the logistics "friendliness of the countries in which they operate and those with which they trade. These indicators should be interpreted with caution due to a limited number of respondents, a limited geographical coverage, and standardized assumptions on business constraints, and information availability. They may also not reflect more recent important structural transformations.

⁸ In 2016, Kuwait announced that nearly 60 percent of public sector companies are earmarked for privatization and allowed the private sector to acquire shares of up to \$9 billion in public sector firms, such as Kuwait Petroleum Corporation. The UAE announced plans for privatization of much of the UAE services and Oman declared that many state-owned energy companies are slated for privatization. Saudi Arabia published a privatization program in 2018 and has issued a draft private sector participation law for public comment.

D. Growth Impact of Enhanced Foreign Trade and investment

There is substantial potential to boost non-oil exports and FDI in several GCC countries. Analysis suggests large benefits from raising labor productivity, improving the quality of human capital, enhancing the business climate, and reducing non-tariff barriers.

Expanding non-oil exports

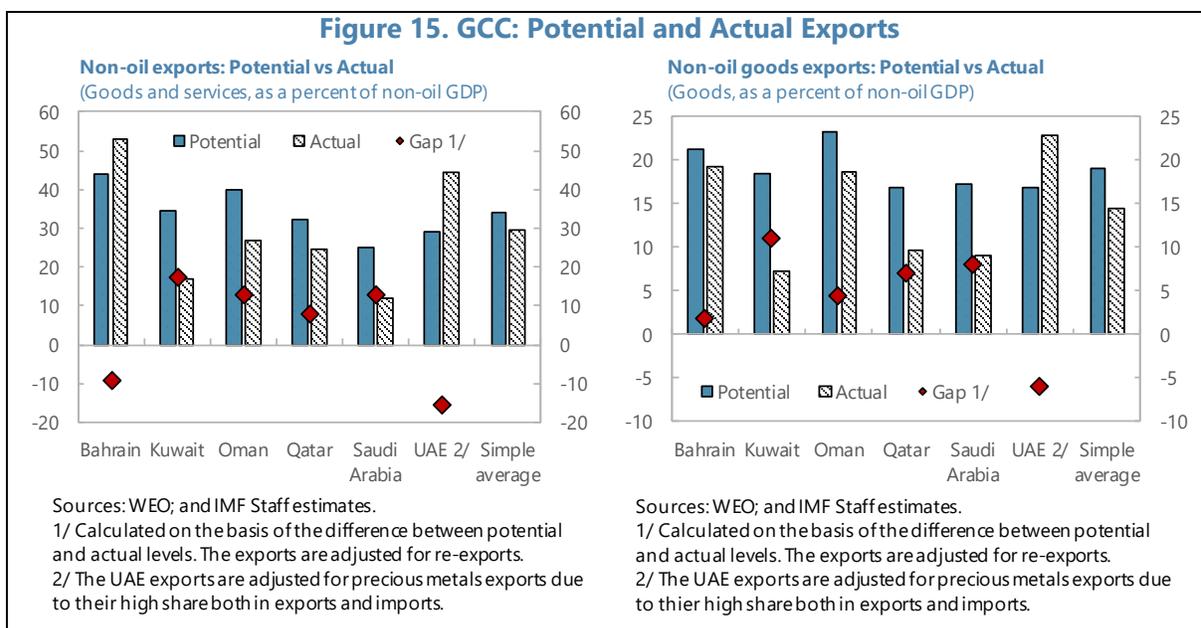
39. The empirical approach focuses first on identifying export determinants in a sample of non-commodity exporters.⁹ Results of this analysis are then used to estimate a “benchmark” level of non-oil exports for the GCC countries based on the assumption that the sample of non-commodity exporters provides a reasonable benchmark for what GCC economies could achieve.¹⁰ A non-oil export gap is then derived. The empirical analysis suggests that country size, income level, human capital, macroeconomic stability and the real effective exchange rate (REER) are important determinants of non-oil exports. Trade openness (proxied by average tariffs) is not found to be a significant determinant of non-oil exports. Similar determinants are found for export diversification and sophistication; additionally, the level of infrastructure development becomes a significant determinant.

40. Analysis shows substantial potential to boost exports in several GCC countries. The estimated coefficients (Appendix II, Table A1) are used to predict the potential non-oil exports in the GCC countries given their current fundamentals such as education, non-oil income, and other factors that affect non-oil exports. Then actual non-oil exports are subtracted from their estimated potentials to arrive at export gap estimates for each country. Kuwait, Oman and Saudi Arabia are estimated to have the largest total export gaps, followed by Qatar (Figure 15). Bahrain, and the UAE, on the other hand, seem to export more non-oil goods and services than implied by the model, resulting in negative total export gaps. A similar picture emerges when looking at intra-GCC trade (Box 2). When services exports are excluded, the same four GCC countries continue to exhibit notable export gaps, while only the UAE still shows a negative export gap. The emergence of a positive gap for Bahrain in non-oil goods exports suggests that its overperformance in total non-oil exports can be attributed to services given its relatively large financial sector with substantial international linkages.

⁹ Given the policy aim is to boost non-oil exports, the analysis is based on non-commodity exporters. The details of the estimations and the empirical model are discussed in Appendix II.

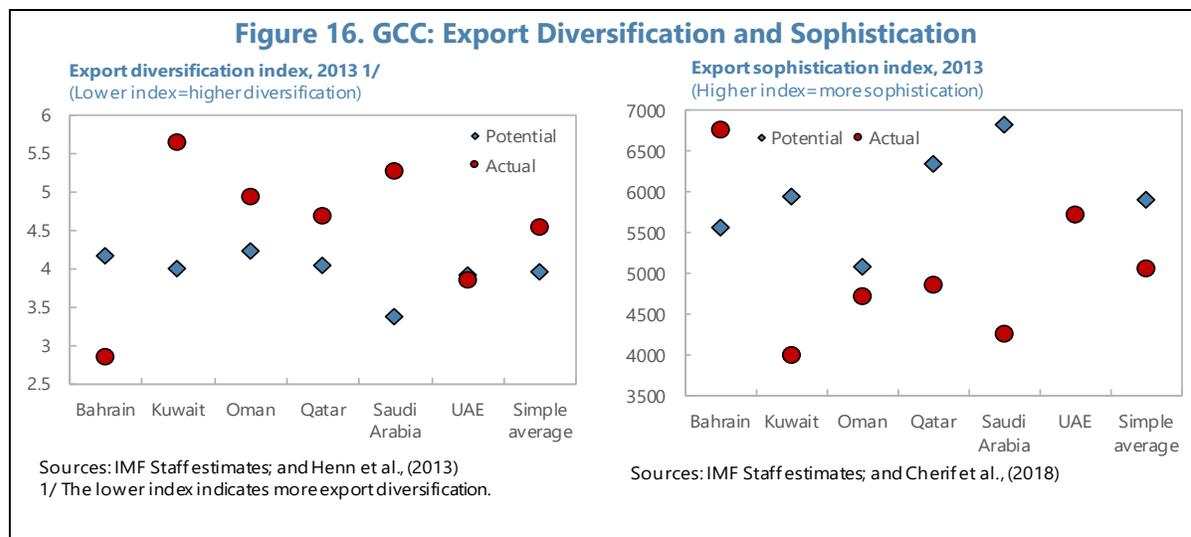
¹⁰ A regression of non-oil exports on a sample of all countries (commodity and non-commodity exporters) that includes oil as a determinant suggests that oil exports do have a negative impact on non-oil exports. However, the re-estimated non-oil export gaps based on this specification are not materially different from those in the baseline.

Figure 15. GCC: Potential and Actual Exports



41. A similar methodology points to lower-than-predicted export diversification and sophistication in some GCC countries. Countries can close their non-oil goods export gaps by increasing the diversity of export products and destinations and/or climbing up the export quality ladder by selling goods with higher value-added. In particular, Kuwait, Saudi Arabia, Qatar, and Oman can benefit from reducing export diversification gaps (Figure 16). These four countries also have gaps in export sophistication, albeit the gap appears smaller for Oman. Bahrain’s actual levels of goods export diversification and sophistication are significantly better than what the fundamentals would suggest. Actual indices for the UAE are at levels predicted by the model.

Figure 16. GCC: Export Diversification and Sophistication



Box 2. Boosting Intra-GCC Non-Oil Trade

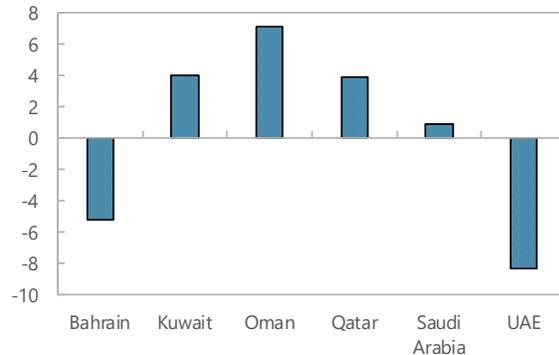
There is room to enhance intra-GCC trade.

A gravity model-based analysis suggests several GCC countries exports to other GCC members are below their potential.¹ The largest gap is estimated for Oman, at around 7 percent of non-oil GDP, followed by Kuwait and Qatar with a gap of around 4 percent each. Saudi Arabia has a smaller positive gap, while both Bahrain and the UAE have large negative gaps. Although Oman’s goods exports to GCC are non-negligible, a substantial portion reflects re-exports, particularly to the UAE, and adjusting for the re-exports yields a relatively large gap. Closing the gaps for the four countries can generate additional exports of about 4 percent of non-oil GDP on average. Greater regional trade will also help to close total export gaps to other parts of the world.

Reducing non-tariff barriers and enhancing integration into regional and global value chains are needed to increase the tradable non-oil sector. Given that low intra-GCC trade is mostly due to similar economic structures of the member countries, greater regional trade can be boosted by diversifying the economy toward tradables. Eliminating the non-tariff trade barriers will also help in this regard. Finally, higher levels of backward integration to global value chains, characterized by greater shares of imported foreign value added and used in the production of exports, can bring more regional trade into the GCC (IMF, 2017b). Smaller GCC economies can become integrated into the supply chains of larger ones, e.g. those of Saudi Arabia and the UAE.

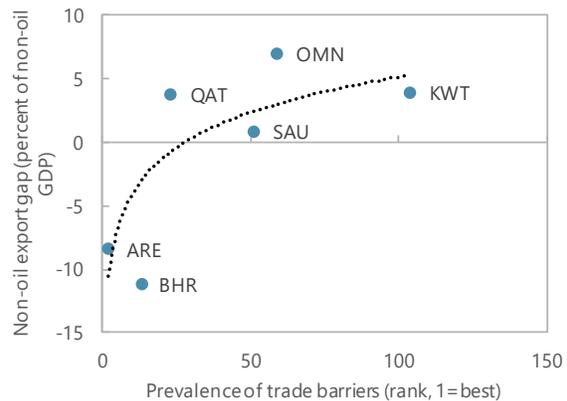
¹ See Appendix II Table A3, sub-model (4) for the details of estimation.

GCC. Intra GCC Non-Oil Goods Exports Gaps, 2015 1/
(Percent of non-oil GDP)



Source: IMF staff calculations
1/Difference between model predicted and actual values. Adjusted for re-exports

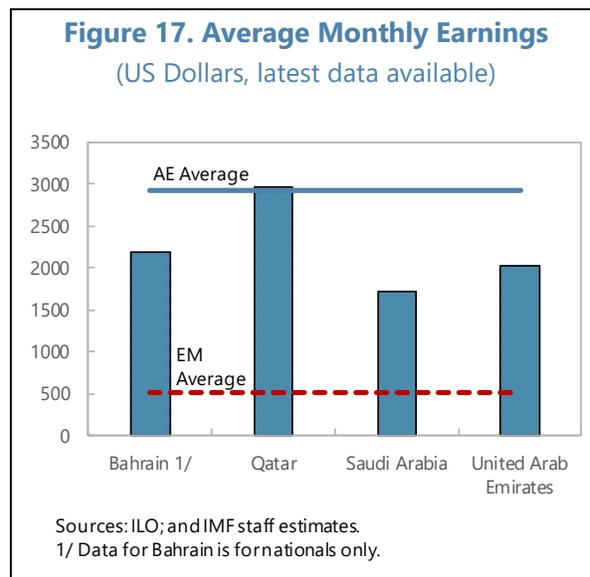
GCC. Trade Barriers and Intra-GCC Export Gaps, 2015 1/

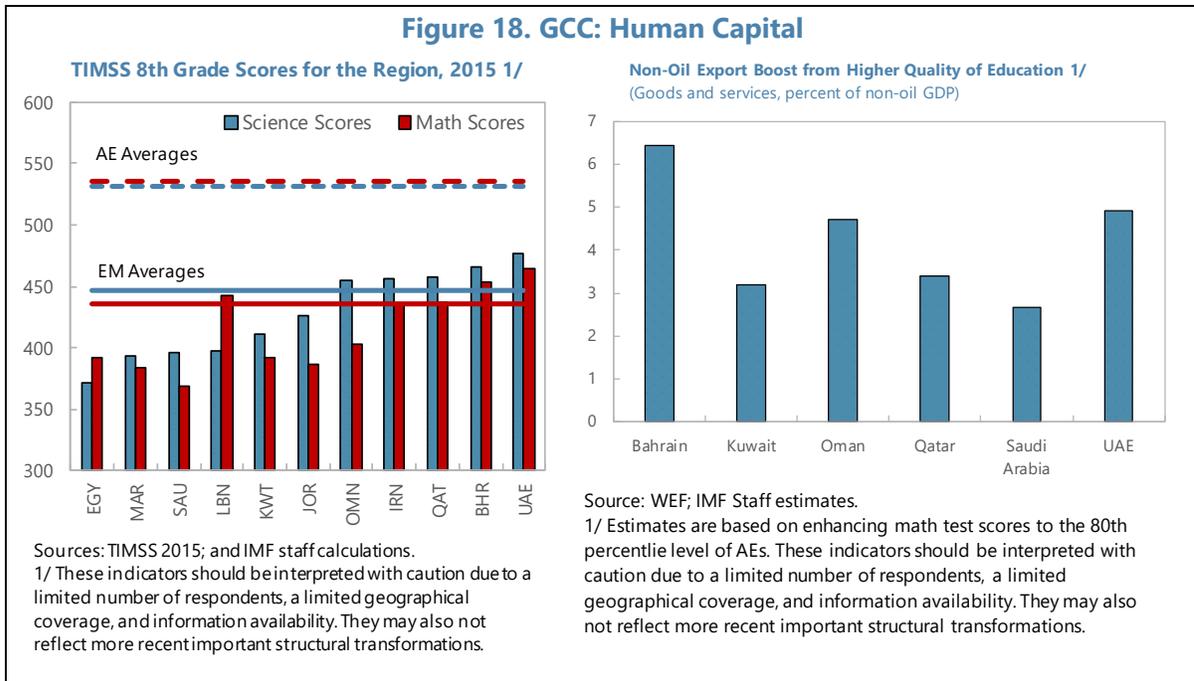


Sources: World Economic Forum; and IMF Staff estimates.
1/ These indicators should be interpreted with caution due to a limited number of respondents, a limited geographical coverage, and standardized assumptions on business constraints, and information availability. They may also not reflect more recent important structural transformations.

42. Beyond closing existing exports gaps, GCC countries have significant scope for boosting non-oil export potential by improving economic fundamentals. The analysis suggests that the REER and human capital could be particularly important.

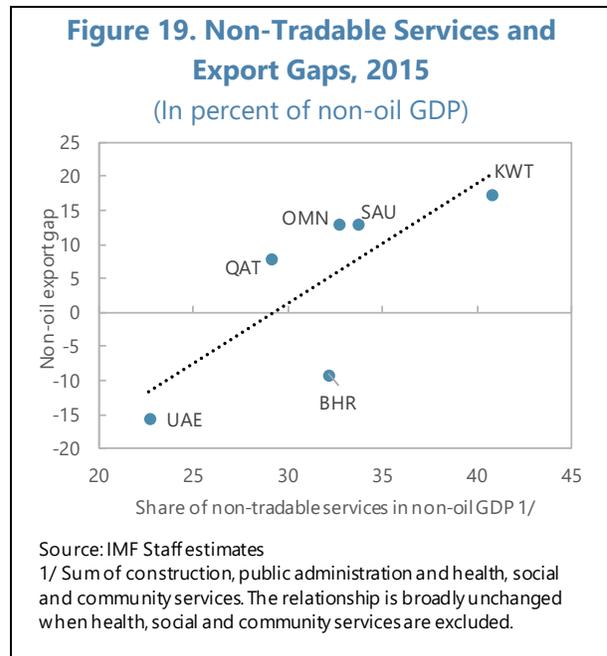
- Based on the traditional relationship between REER and export performance (whereby exports rise in response to REER depreciation), one can argue for more depreciated REERs in the GCC economies, especially where the REERs are assessed to be overvalued. However, given the still-low degree of economic diversification and the fact that fixed exchange rate regimes have delivered monetary policy credibility as well as low and stable inflation, costs of a change in the nominal values of GCC currencies will most likely outweigh the benefits. Competitiveness gains can instead be achieved by lowering unit labor costs by increasing productivity and containing relatively high average wages (Figure 17) which are partly driven by generous public sector compensation (IMF, 2017e).
- The GCC countries, despite having similar or even higher levels of income and spending on education, appear to lag behind the advanced economies in terms of the education outcomes, especially in science and mathematics (IMF, 2017e). Improving education quality in these areas and upgrading workers' skills could be helpful in transitioning to production and export of more complex and sophisticated goods and services as well as for raising the overall productivity of the GCC economies. As an example, GCC's non-oil exports can be boosted substantially by raising the quality of education to that of the top 20th percentile of advanced economies: the potential gains would be the largest for Bahrain, at around 6 percent of non-oil GDP, followed by the UAE and Oman (Figure 18). Higher quality human capital will also work toward expanding job opportunities and making economic growth more inclusive (IMF, 2018).



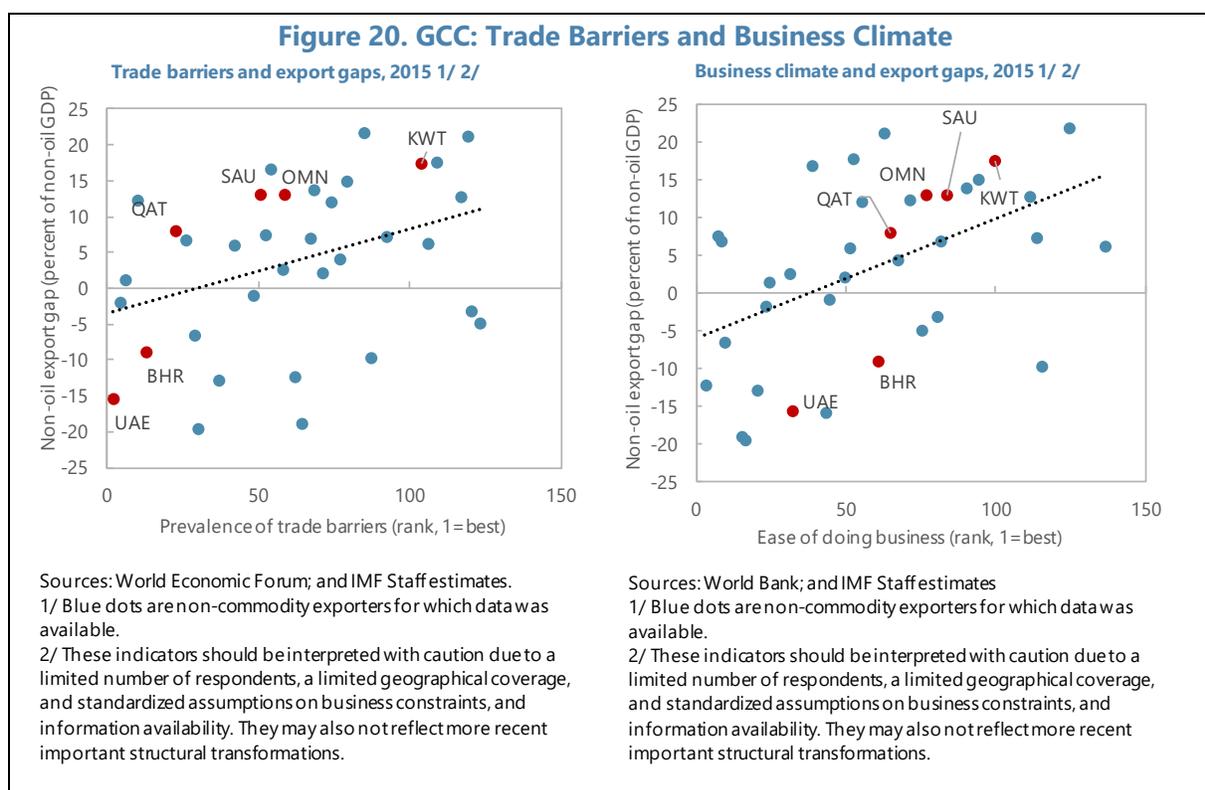


43. The estimated export gaps in the GCC appear to be related to several factors identified in Section III. These include public sector dominance, business climate, and non-tariff barriers.

- Lower-than-predicted non-oil exports seem to prevail in a non-tradable, domestically oriented non-oil economy. One possible cause for underperformance for a given size of the non-oil sector could be the high share of non-tradables in non-oil GDP, a by-product of public sector dominance. To this end, construction, public administration and health services were defined as non-tradable (non-exportable) sectors in the GCC and the results indicate that a relatively large share of non-tradables in the non-oil economy is associated with identified export gaps (Figure 19).



- Non-tariff trade barriers could be preventing some GCC countries from reaching their potential. Furthermore, countries with better business climates tend to have smaller total export gaps. These factors are associated with the estimated export gaps in the GCC countries (Figure 20).



44. Further empirical analysis confirms that additional determinants of non-oil exports appear to be important for commodity exporters. While non-tariffs barriers and the business climate were not found to be statistically significant when included in the baseline, a re-estimation of the baseline regression for commodity exporters found the quality of legal system (a proxy for business climate) and non-tariff trade barriers to be statistically significant (Appendix II, Table A2). Additionally, trade openness (proxied by average tariffs) became a statistically significant determinant of non-oil exports. Thus, in addition to enhancing competitiveness and human capital, the GCC economies could boost their non-oil exports by improving the quality of their legal systems and reducing non-tariff barriers to trade.

Attracting more FDI

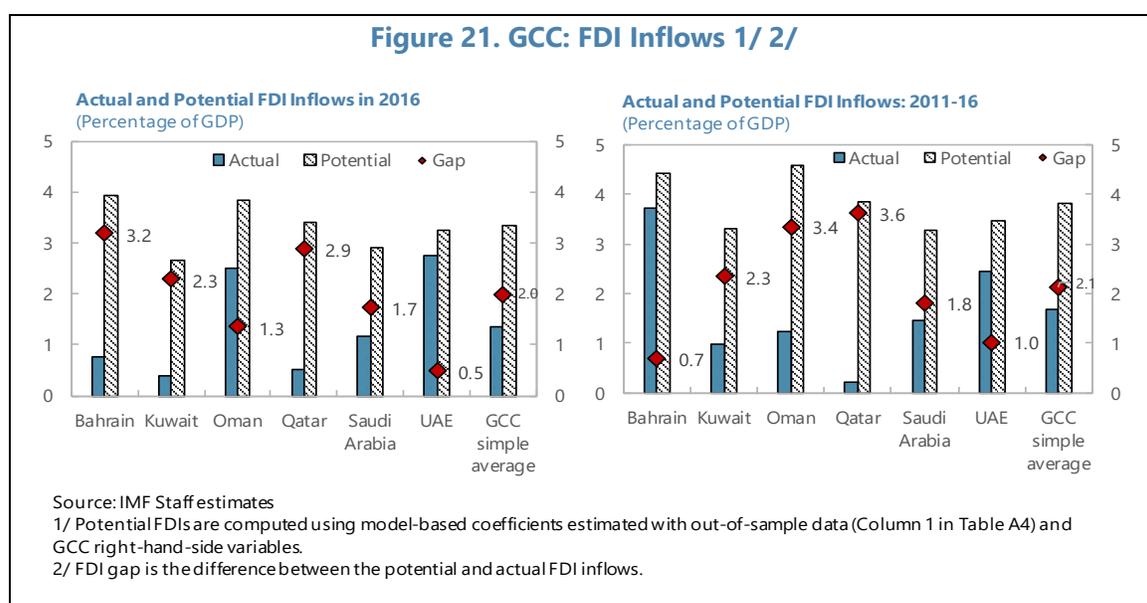
45. A similar empirical approach is employed to identify FDI inflow potential of the GCC countries.¹¹ Trade openness (measured as the share of total exports and imports in GDP), economic growth, quality of legal systems, and human capital are found to have positive and significant impact on FDI inflows in the non-commodity exporters group; while capital account restrictions have the opposite impact. Moreover, having a fixed exchange rate is also found to have some positive impact on FDI inflows. These estimated coefficients are used to calculate

¹¹ The details of the estimations as well as the empirical model are discussed in Appendix II.

potential FDI among the out-of-sample GCC countries. The estimated FDI potential is then compared to the actual level to derive FDI gaps.

46. Results suggest the GCC countries could attract more FDI relative to current levels.

On average, the GCC countries are estimated to have the potential to attract additional of around 2 percent of GDP (Figure 21). Given the high volatility of FDI inflows, the results of the gap analysis for individual countries are sensitive to the period under examination. For 2016, the biggest gaps are observed in Bahrain and Qatar, at around 3 percent of their GDP, while the UAE estimate shows the smallest gap at 0.4 percent. To smooth out the volatility in FDI inflows, the averages for 2011–16 are also considered: in this case, Bahrain’s gap narrows to be the smallest among the GCC, while gaps widen in all the other GCC countries with Oman and Qatar’s gap becoming the largest.¹²



47. Recent reform initiatives to strengthen minority investor protection could help close some of the FDI gaps. While minority investor protection is not a significant explanatory variable of FDI for the non-commodity exporters group, it is highly correlated with FDI in the case of commodity exporters (Appendix Table A.4). Recent reform initiatives to improve minority investor protection in the region, such as those implemented in Saudi Arabia (where measures, among other things, relate to disclosure, accountability and dispute resolution), are expected to help close the gaps.

48. Reforms in the GCC countries could increase potential FDI inflows. For example, continued reforms to the legal environment and the education system with a focus on improving education quality, as well as further liberalization of restrictions on FDI, could help increase FDI

¹² These gaps were also estimated with coefficients based on alternative regression methods and samples. The results are broadly in line with those in the baseline estimation. Due to lack of data granularity, we do not differentiate between oil and non-oil FDI potentials in the GCC.

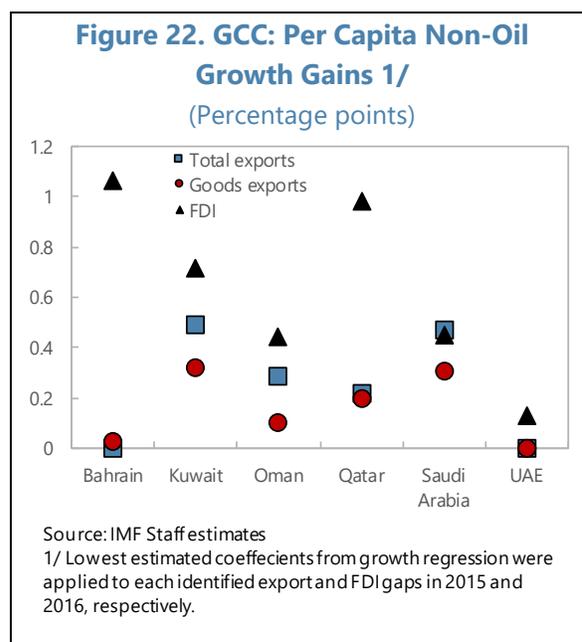
potential by an average of ½ percentage point of GDP across the GCC, if these areas are improved to levels in line with advanced economy averages.

Boosting growth

49. The growth impact of closing export and FDI gaps could be significant (Figure 22).

FDI and trade openness contribute positively to real per capita GDP growth (Appendix II, Table A6). To estimate the growth potential, the smallest coefficient estimates on FDI (0.35 from sub-model (6) result) and trade openness (2.48 from sub-model (4) result) in the growth regression were applied to the identified export and FDI gaps. Since the regression coefficient is on trade openness, it was assumed that increases in trade openness would only be driven by reductions in the identified export gaps. In most countries, the biggest boost to growth would come from closing the FDI gap, with Qatar, Bahrain and Kuwait gaining around one percentage point in non-oil real per capita GDP growth. Growth gains in the rest of the GCC vary from 0.1 to 0.5 percentage point.

Closing export gaps could provide an additional growth dividend of between 0.2 and 0.5 percentage point for Kuwait, Oman, Qatar, and Saudi Arabia.



E. Concluding Remarks

50. The GCC economies are rightly pursuing further diversification to support higher, sustained and more inclusive growth. A more open and diversified economy would reduce exposure to volatile hydrocarbon revenues, help create private sector jobs, and increase productivity.

51. Enhancing foreign trade and investment is an integral part of such diversification efforts. Broadening and upgrading their export bases can help GCC countries better integrate into global value chains and make their economies more productive. Boosting intra-GCC trade and investment would also contribute to raising income levels in the GCC economies. FDI can bring access to foreign markets, better management practices and technical know-how to the domestic economy, enhancing work force skills and increasing productivity. Estimates in the paper suggest that reducing export and FDI gaps could be associated with a substantial increase in growth. The biggest boost would come from closing the FDI gaps—up to one percentage point increase in real non-oil per capita GDP growth. Closing export gaps would provide an additional increase in the range of 0.2-0.5 percentage point.

52. The analysis in this paper points to several priorities for the GCC policy makers to realize non-oil export and FDI potential. In particular:

- *Continue to invest in human capital* by strengthening education systems to provide the knowledge and skills needed to prepare workers for the demands of the modern economy;
- *Implement labor market reforms* to improve productivity in order to reduce unit labor costs and boost the competitiveness of the non-oil economy;
- *Put in place legal frameworks* that ensure adequate predictability and protection, including for minority investors, and provides for dispute prevention and resolution mechanisms; implement anti-bribery and integrity measures in public governance, including by addressing conflicts of interest;
- *Improve the business climate*, including by further liberalizing foreign ownership regulations; strengthening corporate governance standards and practices; lowering restrictions on mobility of foreign workers to enhance competition and promote trade and investment; reducing trade costs by streamlining and automating border procedures;
- *Further reduce non-tariff barriers to trade* and strengthen regulatory co-operation with the main trading partners while striving to contribute to multilateral reduction of such barriers; engage in trade negotiations with countries with which trade complementarity is high and no free trade agreement exists.

53. Additionally, a reduced role of the public sector in the economy could help boost FDI and develop tradable sectors. Raising the efficiency of public investment and focusing it on further upgrading key infrastructure that facilitates trade and investment will be important. Improving public procurement based on transparency, accountability, and equitable treatment for potential suppliers could also help.

Appendix I. Export Indices

Concentration index:

1. Concentration index, also named Herfindahl-Hirschmann Index (Product HHI), is a measure of the degree of product concentration. The following normalized HHI is used in order to obtain values between 0 and 1: where

H_j = country or country group index

x_{ij} = value of export for country j and product i

$$H_j = \frac{\sqrt{\sum_{i=1}^n \left(\frac{x_{ij}}{X_j} \right)^2} - \sqrt{1/n}}{1 - \sqrt{1/n}}$$

$i=1$ and

n = number of products (SITC Revision 3 at 3-digit group level).

2. An index value closer to 1 indicates a country's exports or imports are highly concentrated on a few products. On the contrary, values closer to 0 reflect exports or imports are more homogeneously distributed among a series of products.

Diversification index:

3. The diversification index is computed by measuring the absolute deviation of the trade structure of a country from world structure:

$$S_j = \frac{\sum_i |h_{ij} - h_i|}{2}$$

where

h_{ij} = share of product i in total exports or imports of country or country group j

h_i = share of product i in total world exports or imports.

The diversification index takes values between 0 and 1. A value closer to 1 indicates greater divergence from the world pattern.

4. This index is a modified Finger-Kreinin measure of similarity in trade. For more information, please see Finger, J. M. and M. E. Kreinin (1979), "A measure of 'export similarity' and its possible uses" in the *Economic Journal*, 89: 905-12.

Product complexity of Exports

5. Following Hausmann, Hwang, and Rodrik (2007), product sophistication is measured by computing the productivity level $PRODY_{it}$ associated with product i at time t as the weighted average of per capita GDP levels of countries exporting that product, with the weights corresponding to the revealed comparative advantage of each country in that product:

$$PRODY_{it} = \sum_j \left[\frac{\left(\frac{x_{ijt}}{\sum_i x_{ijt}} \right)}{\sum_j \left(\frac{x_{ijt}}{\sum_i x_{ijt}} \right)} GDPpc_{jt} \right]$$

Export sophistication of country j at time t is the weighted average of productivity levels ($PRODY$ s) for all products this country exports, with the weights corresponding to the shares of these products in total exports of country j :

$$EXPY_{jt} = \sum_i \left(\frac{x_{ijt}}{\sum_i x_{ijt}} \right) PRODY_{it}$$

Export quality

6. The index is estimated based on unit values of exports, adjusted for the impact of production costs and pricing strategies. To enable cross-product comparisons, all quality estimates are first normalized by their 90th percentile in the relevant product-year combination. The quality estimates are then aggregated, using current trade values as weights. The resulting quality values typically range 0 and 1.2. A value closer to 0 indicates lower quality.

Revealed comparative advantage (RCA)

$$RCA_i^j = \frac{\frac{x_i^j}{\sum_i x_i^j}}{\frac{\sum_j x_i^j}{\sum_i \sum_j x_i^j}}$$

Where x_i^j stands for gross exports of product i for country j , so the numerator $x_i^j / \sum_i x_i^j$ refers to the share of product i in the overall exports of country j , and the denominator captures the global share of product i exports in total world exports. An RCA between 0 and 1 indicates a comparative disadvantage, while above 1 it indicates comparative advantage.

Appendix II. Regression Analysis

Regression analysis of export potential

1. Based on the existing literature on the determinants of exports (e.g., Rahman et al., 2015), the following model is used for estimation on a sample of 152 non-commodity exporters, covering the period 1989-2015:

$$exp_{i,t} = \alpha + \beta X_{i,t} + u_i + v_{i,t} \quad (1)$$

where $exp_{i,t}$ denotes exports; the subscript i denotes country and the subscript t denotes year. α_i indicates the country fixed effect. $X_{i,t}$ is a vector of country-specific factors including the size of the population as a proxy for the country size; per capita income as a proxy for the level of economic development; real effective exchange rate (REER) as a measure of competitiveness; average tariffs as a measure for trade openness; gross tertiary enrollment as a proxy for human capital; inflation as a measure of macroeconomic stability; and fixed telephone lines as a proxy for infrastructure. Detailed definition and sources of data will be available in Baltabaev (forthcoming). Equation (1) is estimated using panel random effects estimator under the baseline specification. Further robustness tests with other estimators were also conducted.

2. The results indicate that the size of the country, per capita income, REER and human capital are key determinants of total exports in non-commodity exporting countries (Table A1, sub-model (1)). The magnitude of the estimated coefficients is close to findings in other trade literature (see, Santos and Tenreyro, 2006; Baxter and Kouparitsas, 2006; Head *et al.*, 2010) Inflation (proxy for macroeconomic instability) is found to reduce total exports only marginally. While the signs for tariffs and telephone lines are as expected, they are not statistically significant. Comparable results are obtained when the dependent variable is replaced with goods exports, instead of total exports in sub-model (2).¹ The same variables can help explain export diversification and sophistication. Given that both diversification and sophistication indices already include oil exports as a component, regressions in sub-models (3) and (4) have been run on a sample of both commodity and non-commodity exporter countries by including dummies for the former.

3. A separate regression was carried out with a shorter time period data, by including the quality of legal system to proxy for business climate, non-tariff barriers and quality of education system (and dropping gross tertiary enrollment due to the inclusion of another measure of human capital). These additional variables were not statistically significant in a sample of non-commodity exports. However, in a sample of commodity exporters, the results in Table A2 indicate non-oil exports are indeed influenced by these variables in a statistically significant way. All three have the expected positive signs when separately included.

¹ Specification with FDI inflows over GDP was also considered, but no significant effect was found.

4. Gravity model regressions were used to estimate potential intra GCC trade. To deal with the problem of potential 0 values in bilateral trade, the Poisson Pseudo Maximum Likelihood (PPML) technique (Santos and Tenreyro, 2006; Head *et al.*, 2010) was employed to estimate equation (2) on a sample of non-commodity exporters, covering 1989-2014:

$$exp_{ijt} = \alpha + \beta \ln X_{ijt} + v_{i,t} \quad (2)$$

where exp_{ijt} denotes exports from country i to j ; and the subscript t denotes year. X_{ijt} is a vector of gravity model pair variables including population, per capita income, distance and other geographic variables. The bilateral trade and gravity data were obtained from CEPII (Mayer and Zignago, 2011). These results are reported in Table A3, sub-model (4).

Regression analysis of FDI potential

5. Following the literature, the determinants of FDI were estimated with equation (3), using a sample of 64 non-commodity exporters, including 41 EMDEs, from 1995-2016 (e.g. Bengoa and Sanchez-Robles, 2003, Walsh and Yu, 2010):

$$fdi_{i,t} = \alpha + \beta X_{i,t} + u_i + v_{i,t} \quad (3)$$

where $fdi_{i,t}$ denotes FDI inflow as a share of GDP, the subscript i denotes country i and the subscript t denotes year. α_i denotes the country fixed effect. $X_{i,t}$ denotes a vector of country-specific factors including education, trade openness, institutional qualities, capital account openness, real GDP growth, and exchange rate regime. All explanatory variables are lagged by one period to alleviate potential endogeneity problem. u_i captures time-invariant country characteristics and $v_{i,t}$ denotes error term. The sample was restricted to non-commodity exporters due to the intention to estimate the FDI potentials for the GCC countries if they were more diversified. The results of FDI regression are in Table A4.

Regression analysis of growth

6. System-GMM estimator was used for the determinants of per capita income growth (IMF, 2017, Beaton et al., 2017), The econometric model is given in equation (4), which is estimated on a sample of non-commodity exporters on five-year averaged data, covering the period 1960-2013:

$$gr_{i,t} = \alpha + \beta X_{i,t} + u_i + v_{i,t} \quad (4)$$

where $gr_{i,t}$ denotes real per capita GDP growth; the subscript i denotes country and the subscript t denotes year. α_i indicates the country fixed effect. $X_{i,t}$ is a vector of country-specific regressors including initial GDP per capita, human capital, fixed telephone lines (proxy for infrastructure), trade openness, export diversification index, export sophistication index, and the share of FDI inflows in GDP. The results of this regression are reported in Table A5.

Table A1. Determinants of Exports in Non-Commodity Exporters: Random Effects Regression

	Total exports	Goods exports	Diversification ¹	Sophistication
	(1)	(2)	(3)	(4)
Population	0.812*** (0.000)	0.921*** (0.000)	-0.063*** (0.000)	0.058*** (0.001)
GDP per capita	0.933*** (0.000)	0.943*** (0.000)	-0.039 (0.204)	0.124*** (0.000)
REER	-0.376*** (0.002)	-0.343** (0.010)	0.135** (0.012)	-0.102* (0.067)
Tariffs	-0.040 (0.194)	-0.031 (0.544)	-0.000 (0.992)	-0.007 (0.754)
Human capital	0.127** (0.031)	0.124 (0.104)	-0.046** (0.041)	0.053** (0.049)
Inflation	-0.020* (0.053)	-0.042*** (0.002)	0.005 (0.250)	0.004 (0.505)
Infrastructure	0.017 (0.671)	0.015 (0.706)	-0.037** (0.038)	0.062*** (0.004)
Commodity exporter dummy			0.368*** (0.000)	-0.617*** (0.000)
Constant	-16.717*** (0.000)	-19.182*** (0.000)	2.014*** (0.000)	7.298*** (0.000)
Time dummies	Yes	Yes	Yes	Yes
Number of countries	112	112	152	151
Observations	1510	1512	1775	1783
Country Sample	Non-commodity	Non-commodity	All countries	All countries
Sample period	1989-2015	1989-2015	1989-2013	1989-2013

p-values in parentheses with significance levels of * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All variables are in natural logs. Population is used for country size, while per capita income for the level of development, REER for competitiveness, tariffs for trade openness, gross tertiary enrolment for human capital, inflation for macroeconomic stability, fixed telephone subscriptions for infrastructure. Since logistic performance index discussion in Section III is not widely available and captures more than just the infrastructure variable, fixed telephone lines are used for infrastructure instead.

¹The lower index indicates more export diversification.

Table A2. Determinants of Non-oil Exports in Commodity Exporters: Random Effects Regression.

	Total exports	Total exports	Total exports	Total exports
	(1)	(2)	(3)	(4)
Population	0.722*** (0.000)	0.734*** (0.000)	0.687*** (0.000)	0.638*** (0.000)
GDP per capita	0.605*** (0.000)	0.329*** (0.005)	0.663*** (0.000)	0.534*** (0.000)
REER	-0.543** (0.015)	0.418 (0.134)	-0.292*** (0.000)	-0.238*** (0.000)
Tariffs	-0.146** (0.043)	-0.126** (0.019)	-0.126* (0.084)	-0.083 (0.229)
Human capital	0.050 (0.588)	0.232** (0.034)		
Inflation	-0.017 (0.586)	-0.046 (0.119)	-0.031 (0.156)	-0.046*** (0.008)
Infrastructure	0.099 (0.222)	0.222** (0.010)	-0.032 (0.555)	-0.048 (0.297)
Quality of legal system	0.330** (0.016)			0.536** (0.014)
Non-tariff barriers		0.446* (0.079)		0.138 (0.554)
Education quality			0.456** (0.019)	0.467** (0.028)
Constant	-12.817*** (0.000)	-15.971*** (0.000)	-13.535*** (0.000)	-12.639*** (0.000)
Time dummies	Yes	Yes	Yes	Yes
Number of countries	37	29	35	32
Observations	279	126	246	224
Country Sample	Commodity	Commodity	Commodity	Commodity
Sample period	1991-2015	2007-2015	2007-2015	2007-2015

p-values in parentheses with significance levels of * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All variables are in natural logs and are defined as in Table A1. Quality of legal system is a proxy for business environment, while non-tariff barriers is measured by the prevalence of trade restrictions from GCI. Education quality is also based on the sub-component of GCI on the quality of higher education. All three indices are higher the better the quality of legal system, the lower the prevalence of non-tariff barriers and the higher the better of higher education.

Table A3. Bilateral Trade Regressions in Non-Commodity Exporters, 1989–2014.				
	OLS	OLS	PPML	PPML
	$\ln(T_{ij})$	$\ln(T_{ij}+1)$	$T_{ij}>0$	T_{ij}
	(1)	(2)	(3)	(4)
Log of exporter's population	1.140*** (0.000)	1.749*** (0.000)	0.841*** (0.000)	0.845*** (0.000)
Log of importer's population	0.857*** (0.000)	1.278*** (0.000)	0.787*** (0.000)	0.790*** (0.000)
Log of exporter's GDP per capita	1.118*** (0.000)	1.783*** (0.000)	0.683*** (0.000)	0.688*** (0.000)
Log of importer's GDP per capita	0.794*** (0.000)	1.293*** (0.000)	0.779*** (0.000)	0.782*** (0.000)
Log of distance	-1.236*** (0.000)	-2.056*** (0.000)	-0.519*** (0.000)	-0.519*** (0.000)
Contiguity dummy	0.871*** (0.000)	0.067 (0.192)	0.554*** (0.000)	0.549*** (0.000)
Common-language dummy	0.908*** (0.000)	1.548*** (0.000)	0.324*** (0.000)	0.323*** (0.000)
Colonial relationship dummy	0.856*** (0.000)	0.871*** (0.000)	-0.025 (0.379)	-0.023 (0.431)
Landlocked-exporter dummy	-0.561*** (0.000)	-0.775*** (0.000)	-0.122*** (0.000)	-0.120*** (0.000)
Landlocked-importer dummy	-0.712*** (0.000)	-0.947*** (0.000)	-0.302*** (0.000)	-0.301*** (0.000)
Free-trade agreement dummy	0.410*** (0.000)	0.431*** (0.000)	0.314*** (0.000)	0.321*** (0.000)
Constant	4.527*** (0.000)	-2.283*** (0.000)	-15.620*** (0.000)	-15.726*** (0.000)
Observations	388939	521237	388939	521237

p-values based on robust standard errors in parentheses. Star significance levels indicate * *p* < 0.10, ** *p* < 0.05, *** *p* < 0.01.

Table A4. Determinants of FDI Inflows/GDP: 1995–2016

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Openness</i>	0.014* (0.008)	0.012 (0.009)	-0.006 (0.010)	0.005 (0.010)	0.032*** (0.003)	0.027*** (0.004)	0.018*** (0.005)	0.020*** (0.007)
<i>Quality of legal system</i>	0.098 (0.155)	0.629*** (0.178)	0.401* (0.211)	0.696*** (0.216)	-0.084 (0.086)	0.272*** (0.091)	-0.167 (0.118)	-0.164 (0.184)
<i>Capital account restriction</i>	-0.576 (0.718)	-1.271 (1.105)	-1.012 (1.009)	-0.789 (1.446)	-0.989*** (0.281)	-2.104*** (0.329)	-0.438 (0.506)	-0.568 (0.831)
<i>Real GDP growth rate</i>	0.118*** (0.042)	0.094** (0.045)	0.104** (0.040)	0.095** (0.046)	0.150*** (0.029)	0.106*** (0.029)	0.127*** (0.047)	0.044 (0.029)
<i>Fixed exchange rate dummy</i>	0.755** (0.308)	0.415 (0.448)	0.466 (0.374)	0.362 (0.446)	0.327 (0.257)	0.570 (0.435)	-0.590 (0.419)	-0.259 (0.458)
<i>Human capital</i>	0.021** (0.010)	0.030*** (0.011)	0.049*** (0.015)	0.038** (0.018)	0.008** (0.004)	0.016*** (0.004)	0.008 (0.009)	0.010 (0.014)
<i>Minority investor protection (logged)</i>							7.920*** (1.975)	7.598** (3.277)
<i>Minority investor protection * non-commodity exporter</i>							-10.448*** (2.056)	-11.061*** (3.314)
<i>Non-commodity exporter dummy</i>							43.005*** (8.327)	45.429*** (13.470)
<i>Constant</i>	-2.111** (0.963)	-2.779** (1.174)	-4.059** (1.927)	-3.323** (1.454)	-0.821 (0.732)	-0.971 (0.819)	-30.463*** (7.679)	-27.170** (12.575)
Observations	1,110	652	1,110	652	1,110	652	326	326
Regression	Panel w/ RE		Panel w/ FE		OLS		OLS	Panel-RE
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country sample	Excluding CE	EMDEs w/o CE	Excluding CE	EMDEs w/o CE	Excluding CE	EMDEs w/o CE	Full	Full
Number of countries	64	41	64	41	64	41	81	81

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Regressions (1)-(6) exclude commodity exporters (CE). Human capital is proxied by secondary school enrollment.

Table A5. Real Per Capita GDP Growth Regression in Non-Commodity Exporters: System GMM.

VARIABLES	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Initial GDP per capita	-4.217*** (0.869)	-3.909*** (0.728)	-3.912*** (0.804)	-4.139*** (0.858)	-3.478*** (0.840)	-3.403*** (0.757)	-3.652*** (0.860)
Labor force education	-0.451 (0.452)	-1.041 (0.698)	-0.239 (0.504)	-0.806 (0.500)	-0.730 (0.602)	-0.488 (0.446)	-0.963 (0.594)
Infrastructure	1.958*** (0.547)	1.429** (0.618)	0.196 (0.628)	2.417*** (0.806)	2.598*** (0.650)	0.731 (0.609)	0.200 (0.592)
(EX+IM)/GDP	3.191*** (0.960)	2.761*** (0.736)	2.478*** (0.843)	2.477*** (0.773)			2.482** (1.052)
Export diversification		-5.232** (2.071)			-2.623 (2.142)		-4.435* (2.696)
Export sophistication			5.419*** (1.132)			5.515*** (0.985)	3.960*** (1.288)
Inflows of FDI/GDP				0.370*** (0.104)	0.412*** (0.065)	0.350*** (0.105)	
Constant	29.56*** (6.051)	36.98*** (5.689)	-11.59 (9.136)	28.95*** (7.328)	33.22*** (8.771)	-16.67* (9.048)	5.722 (11.32)
Number of observations	800	734	760	760	726	727	745
Number of countries	96	89	94	96	92	94	90
Number of instruments	97	99	99	89	97	113	109
Period dummies	yes						
Full Hansen test	0.287	0.623	0.399	0.507	0.484	0.821	0.918
p-value of AR(1) statistic	0.0436	0.0509	0.0527	0.089	0.095	0.103	0.0512
p-value of AR(2) statistic	0.431	0.388	0.293	0.381	0.0312	0.263	0.290

Robust standard errors in parentheses. Significance levels indicate * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. All variables are in natural logs except for FDI. All regressors are treated as endogenous and the second and third lags are used as instruments in most cases.

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