INTERNATIONAL MONETARY FUND

Gulf Cooperation Council Diversification: The Role of Foreign Investments and Sovereign Wealth Funds

Yevgeniya Korniyenko and Weining Xin

WORKING PAPER

2025
SEP

WP/25/174

IMF Working Paper
Middle East and Central Asia Department

Gulf Cooperation Council Diversification: The Role of Foreign Investments and Sovereign Wealth Funds
Prepared by Yevgeniya Korniyenko and Weining Xin*

Authorized for distribution by Amine Mati
September 2025

ABSTRACT: This paper investigates the role of cross-border investments, including by Sovereign Wealth Funds (SWFs), in driving economic growth and diversification of Gulf Cooperation Council (GCC) countries. Utilizing novel deal-level datasets, we analyze GCC cross-border investment portfolios across various dimensions such as time, geography, and industry. We show that recent years have witnessed an increase in GCC cross-border investments. While the geographic distribution of these investments remains diverse and balanced across different regions, both inward and outward investments are increasingly directed towards the services sector. The empirical results demonstrate a significant positive relationship between both cross-border inward and domestic investments on GCC real non-hydrocarbon GDP. Notably, the medium-term increase in real non-hydrocarbon GDP resulting from inward investments is three times larger than that from domestic investments. This amplification could be explained by increased inward investments in high-growth services sectors. Although domestic investments, including by SWFs, are contributing to the GCC economic transformation, their efficiency could be further enhanced by focusing on strategic partnerships with international investors and fostering a more transparent and competitive business environment. Recent shift in GCC investments in renewable and clean energy projects will further support diversification efforts.

WORKING PAPERS

Gulf Cooperation Council Diversification: The Role of Foreign Investments and Sovereign Wealth Funds

Prepared by Yevgeniya Korniyenko and Weining Xin

Contents

I Introduction

Gulf Cooperation Council (GCC) countries are actively diversifying their economies across output, export, and revenue dimensions, in line with their national development strategies and global decarbonization objectives. Despite this momentum, challenges remain in achieving deeper diversification and in attracting foreign direct investment (FDI) to non-hydrocarbon sectors with strong growth potential.

In this context, the region's substantial Sovereign Wealth Funds (SWFs) can play a transformative role. The GCC region boasts some of the world's largest SWFs, with 13 GCC SWFs[1] collectively managing over $4 trillion in assets. These funds were initially established to safeguard long-term economic sustainability, promote intergenerational equity, and mitigate risks from hydrocarbon price volatility. More recently, they have adopted a more proactive investment stance, targeting strategic sectors and projects both domestically and abroad. This shift reflects a broader effort to align SWFs with national industrial strategies. SWFs are increasingly fostering joint ventures, strategic alliances, and initiatives that promote technology transfer, knowledge spillovers, and industrial complementarities.[2][3]

GCC SWFs have been investing significantly in high-value-added, green, and technology-driven sectors, often in collaboration with advanced economies (AEs). For example, Saudi Arabia's Public Investment Fund (PIF) has committed to Soft-Bank's Vision Fund, which focuses on emerging technologies like artificial intelligence (AI) and robotics. Similarly, the UAE has established the G42 group to drive AI research and deployment and signed a deal with Microsoft, while Mubadala Investment Company is investing in the semiconductor industry. Moreover, in their ef-

---

[1]Namely Mumtalakat Holding (Bahrain), Kuwait Investment Authority (Kuwait), Oman Investment Authority (Oman), Qatar Investment Authority (Qatar), Public Investment Fund (Saudi Arabia), Abu Dhabi Investment Authority (United Arab Emirates (UAE)), Investment Corporation of Dubai (UAE), Mubadala Investment Company (UAE), Abu Dhabi Developmental Holding Company (UAE), Emirates Investment Authority (UAE), Dubai Investment Fund (UAE), Sharjah Asset Management (UAE), Fujairah Holding (UAE), and Mubadala Development Company (UAE).

[2]For example, since the launch of Saudi Arabia's Vision 2030 in 2016, the PIF has transitioned from a passive holder of listed assets to an active investor with a domestic development focus, aligning with country's diversification objectives and serving as a catalyst for Vision 2030.

[3]This perspective is also supported by recent studies such as Avendaño and Santiso (2009) on the development role of SWFs and Megginson and Fotak (2016) which analyzes the economic impacts of SWF investment on host countries.

forts to facilitate the transition to green and sustainable economies, PIF has launched NEOM, a $500 billion smart city project in Saudi Arabia with a focus on renewable energy, including solar and wind, featuring innovative energy-efficient infrastructure and technologies. PIF also owns major stake in three solar projects being built by ACWA Power. Likewise, Mubadala established Masdar to advance clean energy projects both domestically and globally, with investments spanning over 40 countries. Furthermore, the UAE has also signed a new Partnership for Accelerating Clean Energy (PACE) with the U.S. which is set to invest $100 billion in a new clean energy framework. Additionally, several SWFs from the region (from Oman, Saudi Arabia, the UAE, and others) are also taking a leading role in providing climate finance in other countries of the region through individual projects mostly in mitigation, for example, in Egypt and Morocco.[4]

Against this backdrop, this paper assesses the role of cross-border and SWFs' investments in fostering economic growth and diversification in the GCC. We utilize novel and granular deal-level data on mergers and acquisitions (M&A) from the BvD Zephyr database and data on SWF investment from the Sovereign Wealth Funds Institute (SWFI) database. Leveraging these data, the paper first provides an overview of the investment landscape across GCC economies during the 2000-23 period. The analysis spans domestic, inward, and outward investments across time, geography, and sectoral dimensions. The international dimension of the data also aids in identifying potential common risk exposures, such as the concentration of SWF investment in specific countries/regions or industries, and the strategic nature of these investments. Next, the paper investigates whether these investments have spurred growth in the GCC non-hydrocarbon sectors, thus facilitating economic diversification.

Although GCC countries have attracted a higher share of foreign investment (in percent of GDP) since the pandemic, which positions them more centrally within the global FDI network (International Monetary Fund, 2023a), the overall foreign investment to GCC remains low. Results show that GCC countries continue to attract investment from AEs, with the Western Hemisphere and Europe accounting for roughly 60 percent of the total inward investment. At the same time, the share of intra-GCC investment as a proportion of total investment into the GCC region remains stable at above 25 percent, underscoring the region's commitment to con-

---

[4]More details on GCC green initiatives can be found in International Monetary Fund (2024a)

tinued regional cooperation and integration. Similar dynamics are observed in the GCC's outward investment. GCC SWFs serve as the main channel for GCC outward investment, with a rising share in recent years. Furthermore, they play an important role in bolstering domestic investment, accounting for approximately half of the domestic investment activity within our sample.

Since the pandemic, investment activity has increasingly shifted toward services, especially in transportation, logistics, ICT, and business services. The share of inward investment in services (excluding financial services) rose from an average of 30 percent during 2000–2019 to around 70 percent in 2020–2023. This trend is mirrored in outward and SWF-led investment. Within the GCC, SWFs allocate a significant portion of their investments to manufacturing and marketable services. While this sectoral shift is positive for diversification, it also raises concerns about concentration risks. [5]

Another strategic shift gaining momentum in the GCC is the increasing focus on investment in renewable and clean energy projects. Particularly noteworthy is the surge in outward renewable greenfield investment by GCC countries during the 2022-23 period. This trend is largely fueled by the proactive efforts of SWFs in the United Arab Emirates and Saudi Arabia. For example, the ADIA announced a multi-billion dollar investment in a large-scale solar farm project in Morocco. Similarly, Saudi Arabia's PIF has partnered with a leading clean energy developer to build a wind farm project in Jordan. These outward investments by SWFs underscore their crucial role in driving the GCC's economic transformation towards a greener future. Limited data on green and renewable energy investment deals within our sample prevents econometric analysis of their impact on GCC growth. Nevertheless, the recent surge in these investment aligns with recent studies (International Monetary Fund, 2022; International Monetary Fund, 2024b) that modeled the potential benefits of green investments for GCC growth. By diversifying their portfolios into the renewable energy, GCC countries are contributing to long-term energy security and environmental

---

[5]While services cover a broad spectrum, risks can arise if GCC SWFs disproportionately invest in the same sub-sectors—especially those tied to domestic consumption or tourism—or if all SWFs globally converge on similar service investment. This could expose portfolios to correlated risks, such as a sector-specific shock. A detailed quantitative assessment of SWFs sectoral concentration risk falls outside the primary scope of this paper, which focuses on economic growth and diversification effects rather than portfolio risk analysis. Future research could benefit from developing a framework to evaluate GCC SWFs' sectoral exposure, long-term returns, and sustainability outcomes.

sustainability for the region. This shift not only benefits the GCC diversification but also fosters regional cooperation and innovation in the clean energy sector.

Our empirical analysis reaffirms the positive contribution of both inward and domestic investments to GCC non-hydrocarbon GDP growth and economic diversification. Notably, inward foreign investment demonstrates a three times larger impact on non-hydrocarbon GDP growth compared to domestic investment, while outward GCC investment does not significantly affect domestic GDP growth. Specifically, a one percent of GDP increase in inward investment is associated with more than 1 percent increase in the sectoral GDP over four years. Zooming in onto SWFs' investment, in contrast to the statistically insignificant effect of overall domestic investment, domestic investment led by SWFs is found to have a statistically significant positive impact on non-hydrocarbon GDP growth, with one percent of GDP increase in SWFs' domestic investment associated with about 0.4 percent growth in non-hydrocarbon sectors' GDP over four years. We haven't identified statistically significant differences in the impact of increased investment into high-technology industries in the GCC, which could be attributed to the low share and relatively recent uptick in such investment. These findings suggest that GCC policymakers should continue pursuing policies that attract foreign investment, including by further improving their business environment and strengthening institutions, while also encouraging domestic investment in partnerships with international private investors.

This paper offers timely insights for resource-rich countries navigating the dual challenges of economic diversification and regional cooperation amid accelerating global shifts, including climate change and digital transformation. Focusing on the GCC economies and examining the evolving landscape of cross-border investment, this paper first highlights a notable shift in the composition of GCC investment toward services sectors, reflecting ongoing diversification efforts, as well as a significant rise in investment in renewable energy—underscoring the region's growing commitment to green transition. Furthermore, examining the implications of these investments on non-hydrocarbon growth, this paper points to the importance of maintaining policies that enhance the region's attractiveness as an investment destination and strengthen linkages between foreign investment and domestic production. Finally, the paper also reveals the pivotal role of SWFs in both outward and domestic investment and the strategic and catalytic role in promoting non-hydrocarbon growth,

8

positioning them as key actors in the GCC's economic transformation and regional integration strategies.

The rest of the paper is organized as follows. Section II reviews the literature and discusses the paper's contributions. Section III describes the sample and data sources. Section IV presents the empirical methodology deployed to estimate the growth effect of investment (including SWFs' investment). Section V discusses the results, including stylized facts about GCC inward and outward investment as well as their SWF-involved investment, and empirical results of their growth effects. Section VI concludes.

II Literature review

This paper relates and contributes to three strands of literature. First, this paper contributes to the literature on the relationship between economic diversification, growth, and FDI. Inward investment can promote diversification by introducing new technologies, production methods, and export opportunities, ultimately reducing reliance on traditional industries while fueling growth (Alfaro et al., 2004; Rodrik, 2006; Chakraborty and Nunnenkamp, 2008). Furthermore, Iwamoto and Nabeshima (2012) found that FDI inflows are positively correlated with export sophistication, and FDI stocks contribute positively to export sophistication, using a dynamic panel data model. Similarly, Tadesse and Shukralla (2013) found a positive correlation between FDI stocks and horizontal diversification of exports in a cross-country sample. Investment in high-technology sectors may have a greater growth and diversification effect compared to those focused on resource extraction (Coe et al., 2009). As for country- and region-specific studies, Amighini and Sanfilippo (2014) concluded that FDI fostered diversification in low-tech industries and enhanced manufacturing exports' quality in African economies, and Lee et al. (2015) focused on the case of Kazakhstan and found a positive relationship between FDI and economic growth. However, the impact of FDI can be varying. For example, strong institutions, like property rights and rule of law, and developed financial markets are crucial for maximizing the positive effects on growth and diversification (Alfaro et al., 2004; Cieślik and Hamza, 2023).

These findings are supported by theoretical arguments in the neoclassical and endogenous growth theories. Neoclassical theory emphasizes capital accumulation and technological advancement, suggesting that FDI inflows provide fresh capital for investment in infrastructure, machinery, and technology, ultimately boosting productivity and growth (Lucas Jr, 1988). Endogenous growth theory complements this by highlighting knowledge and human capital (Romer, 1994). FDI can spur innovation through "knowledge spillovers" when foreign firms share expertise with domestic counterparts (Blomstrom and Kokko, 1996). Additionally, FDI can create new job opportunities and expose workers to new skills, fostering human capital development (Javorcik, 2004). Dunning's eclectic paradigm (Dunning, 1979) adds another layer by suggesting that FDI inflows can stimulate economic diversification. This occurs when foreign firms leverage host country-specific advantages like skilled labor, robust infrastructure, and strong institutions. By utilizing these resources, foreign firms can establish a competitive advantage and diversify the host country's economy beyond traditional sectors.

While existing literature provides strong evidence and theoretical support for a positive relationship between cross-border investment (particularly FDI inflows) and economic growth and diversification, few studies have focused on the role of cross-border investment in economic diversification in resource-rich countries, particularly the GCC. For example, Hussein (2009) found a weak relationship between FDI and GDP in the GCC countries based on country-level data, and International Monetary Fund (2014) found that FDI inflows into the GCC have not been associated with sectoral improvements using sectoral FDI data. Nevertheless, International Monetary Fund (2018) argued that the biggest boost to growth in the GCC would come from closing the FDI gap—up to one percentage point increase in real non-oil per capita GDP growth—which would require a supportive policy environment (human capital development, labor market reforms, strengthening legal frameworks, and business climate reforms). To the best of our knowledge, this is the first paper that leverages deal-level and project-level investment data to provide a comprehensive view of the GCCs' cross-border investment portfolio, including both inward and outward investments. This allows for more granular empirical analysis on the relationship between cross-border investments and economic growth and diversification at the industry level.[6]

---

[6]The majority of cross-border deals in the database likely meet the 10% ownership threshold re-

Second, this paper contributes to the literature on the relationship between economic growth, diversification, and SWFs. While the primary mandates of GCC SWFs are to efficiently and effectively manage their countries' official financial wealth for future generations, most also aim to support the diversification of their domestic economies (El-Kharouf et al., 2010; International Monetary Fund, 2013; International Monetary Fund, 2023b). Additionally, some funds aim to increase their international profiles to attract foreign investment into their home economies. Mami (2023) conducted a systematic meta-narrative review of the role of SWFs in natural resource-rich countries, concluding that they play an important role in supporting industrial development and economic growth. Alvarado (2023) and Abdel-Fattah (2023) further demonstrated that GCC SWFs are actively investing in line with their mandates and GCC reform agendas, including domestically. They also noted that the recent boom in oil and gas prices boosted GCC SWFs' assets and investments in various sectors such as infrastructure, renewable energy, high tech, tourism, transportation and telecommunication, healthcare and education, and sports and gaming. However, to the best of our knowledge, no studies have quantitatively examined the role of SWFs in facilitating economic diversification and driving economic growth in the GCC. Therefore, this paper contributes to this area of research by providing quantitative empirical evidence on the role of SWFs in the GCC's economic diversification, using granular deal-level and project-level data.

Third, this paper contributes to the literature on the impact of knowledge-intensive, high-value added, and green investments on economic growth in GCC countries. International Monetary Fund (2023b) highlights a significant multiplier effect, with ICT investments showing a multiplier of 1.8 on non-oil GDP growth (roughly doubling the impact of non-ICT investments). This underscores the potential for ICT investments to significantly support economic diversification in the GCC. In contrast to the oil sector, where investment multipliers are negligible, recent analysis suggests that green and sustainable infrastructure investments have output multipliers ranging from 1.1 to 1.5, exceeding traditional infrastructure investments with multipliers between 0.5 and 0.6. Additionally, green energy investments appear to be more labor-

quired to qualify as FDI according to the Balance of Payments Guide. However, we refrain from using the FDI definition formally in this analysis because we haven't conducted a comprehensive FDI classification analysis.

intensive compared to brown energy investments, suggesting the potential for green investments to create more jobs. Garrett-Peltier (2017) found that shifting $1 million from brown to green energy creates a net increase of 5 jobs, contrary to the expectation of jobs' displacement. Office (2018) found that green investments create 18 jobs per $1 million compared to 6 for fossil fuels. Similar conclusions are drawn by other studies (Kammen and Engel, 2009; Hepburn et al., 2020). International Monetary Fund, 2023b and International Monetary Fund (2024b) further suggest that combining green investments with the full implementation of reforms under the UAE's 2050 strategies could nearly double the UAE's potential long-term non-oil GDP growth. Similar results and magnitudes were found for Saudi Arabia (International Monetary Fund, 2022). Bannour and Abdelkawy (2024) found that strong Sovereign Environmental, Social, and Governance (SESG) frameworks are positively correlated with higher FDI inflows, with trade openness amplifying the positive impact of SESG. Leveraging granular deal-level data, this paper provides a overview of the shifting industry focus in GCC cross-border investment, highlighting the increasing share of investment in service sectors and renewable energy.

III   Data

The main data sources for this paper are the BvD Zephyr and Sovereign Wealth Fund Institute (SWFI) databases. The BvD Zephyr database consists of deal-level data on M&A, joint ventures, investment holdings, and corporate financing transactions for most countries in the world during the two-decade period from 1997 until now. It contains detailed information on the deals, such as, the information on the parties involved, including targets, acquirers and vendors, deal values, types of deals, status, etc. For example, the database includes information on the types, shareholder structures (including public versus private), and industries of the targeted firms, acquirers, and vendors, which enables us to construct a comprehensive view of the GCC's country-wide and SWFs' investments and conduct granular empirical analysis with sufficient variation at the disaggregated level.

In the data cleaning process of the BvD Zephyr data, we retain only deals with a status of either completed, announced, or pending. For the announced and pending

statuses, we further require that the last data update is no more than 10 years old. Therefore, deals are dropped if they have been pending or announced (not yet completed) for more than 10 years. As a rule, deal values are available for most deals. However, for deals lacking a value, we estimate the deal value using information on the share acquired and the total equity of the company being acquired. Overall, after cleaning, our sample consists of 10,336 transactions (domestic and cross-border) for the GCC countries, including 1419 deals with SWFs involved, for the period of 2000-2023.

SWFI platform offers data on a variety of institutional investors including SWFs, pension funds, asset owners, and more. We limit our selection to deals that directly mention GCC SWFs as acquirers or have government specified as a buyer type. In total, after cleaning, the sample of deals consists of 3,656 unique transactions for GCC countries for the 2000-2023 period.[7]

Next, within the universe of the deals, there are some deals that are wholly domestic, for example, a Saudi Arabian company acquiring or investing in another Saudi Arabian company. Some are wholly cross-border, such as a German company acquiring or investing in a Qatari company. And some are a mix of both, such as a UAE company and a British company jointly acquiring another UAE company. Therefore, we separately identify purely domestic, cross-border and domestic-plus-cross-border deals. Furthermore, we identify SWFs' participants using the unique company identifier (in the BvD database, *BvD ID*) of each SWF, as provided by the BvD Zephyr database or by their name in SWFI's database. Additionally, we classify the industry type of the entities using the European Community Nomenclature of Economic Activities (NACE) Rev.2 industry classification system at the 1-digit level. This categorization includes Agriculture, Manufacturing, Construction, Trade, Transportation and Communication, Financial, Restaurants and Accommodation, Real Estate and Business services, Hydrocarbon industries, and Others.

We standardize the deal values by converting all currency denominations to US Dollar for the analysis. Additionally, the data on industry-specific nominal and real GDP is obtained from the IMF World Economic Outlook (IMF WEO) Database. We

---

[7]The initial download contained 4,379 deals, but some deals were excluded due to duplication in the BvD Zephyr database or missing information.

also use the global growth and oil price data from the IMF WEO as controls. To group the countries into different regions we use the IMF WEO classification. To identify investments in information and communication (ICT) industries, medium-high and high-technology manufacturing, and knowledge intensive services (KIS) we use the OECD definition and classification based on the statistical classification of economic activities in the NACE Rev.2 classification codes.[8] We identify investments in green and renewable energy projects using a combination of SIC codes and a textual analysis of deal descriptions for keywords associated with green industries and technology (such as solar, wind, geothermal, biofuels, energy efficiency, etc).

After undertaking the data cleaning steps mentioned above, we have identified over 13,992 unique deals with an approximate value of USD 3 trillion cumulative over the 2000-2023 period.[9] Furthermore, above 70 percent of the total number of deals stem from cross-border investments (including both inward and outward investments). Additionally, deals involving SWFs account for about 36 percent of the total number of deals, with the values of these investments amounting to around 50 percent of the total investment value (encompassing both cross-border and domestic investments). The data indicates that the majority of investments are conducted by Saudi Arabia and the UAE (both in terms of number of deals and their value). Further details are provided in the Appendix A. We benchmarked our deal-level data against official BoP statistics on FDI and other investments. While our dataset does not capture the full universe of transactions, the overarching trends and key turning points, such as the notable increase in FDI inflows in recent years, are broadly aligned with BoP data.

IV   Empirical Methodology

To empirically investigate the relationship between real GDP growth and investment, we use the local projection method developed by Jordà (2005).[10] Specifically, the equa-

---

[8]NACE Rev.2 and Standard Industrial Classification (SIC) codes are available in the original databases.

[9]The data coverage is generally poor prior to 2004.

[10]Local projection method offers several advantages over traditional VAR techniques—particularly in the context of our dataset. Unlike standard VARs, local projections allow for direct estimation of impulse responses without imposing strong assumptions about the underlying data-generating pro-

tion is:

(1)
$$y_{is,t+h} - y_{is,t-1} = \beta_k R_{is,t} + \theta X_{is,t} + \alpha_{is} + \gamma_t + \epsilon_{is,t}$$

where $y_{is,t}$ is the log of real GDP in country i, industry s, and year t; $R_{is,t}$ is the investment (inward, outward, or domestic) for country i, industry s, and year t, divided by corresponding nominal GDP or country i, industry s, and year t. $X_{is,t}$ is a set of control variables, including lags of the dependent variable and the investment, percentage change in oil prices, and global growth; α_{is} denotes country-industry fixed effects, included to control for unobserved cross-country-industry heterogeneity. β_h, therefore, measures the effect of investment on real GDP over the horizon of h = 0, 1, 2, ..., H.

Subsequently, we expand the analysis to investigate the role of SWFs' investment in fostering GCC economic growth and diversification by focusing on SWFs' investment only (both outward and domestic) in the right-hand side of equation 1.

Furthermore, we also estimate the effect of cross-border and SWFs' investment on the economic diversification and complexity of GCC countries. We use data on Economic Complexity Index (ECI), as compiled by Harvard Growth Lab. The Economic Complexity Index ranks countries based on the diversity and sophistication of their export portfolios, with high complexity indicating a wide range of specialized capabilities that enable the production of complex products. Note that the lower the index, the more complex the economy is. Therefore, any technological change driven by investments should have a negative effect on the ECI of the country. For GCC overall and trade diversification we use data from Prasad et al. (2023).

V Results

Leveraging our novel deal-level dataset of GCC investment, we present two sets of results. Subsection V.A explores stylized facts for GCC aggregate and country-specific investment from 2000 to 2023. Subsection V.B then presents empirical evidence of

---

cess or the dynamic structure of the system. This flexibility is especially valuable given the unbalanced panel structure and limited time dimension of our deal-level dataset.

GCC investment impact on real non-hydrocarbon GDP derived from the local projections method detailed in Section IV.

V.A Stylized Facts

Since 2000, GCC countries have experienced relatively modest levels of inward cross-border investment, averaging around 2 percent of total GDP (Figure I). A shift in dynamics occurred after the global financial crisis (GFC), when inward investment declined to below 1 percent of GDP. The oil price plunge of 2014-2016 further exacerbated the decline in investment inflows. Since 2018, inward cross-border investment to the GCC have increased, driven by both global push factors (seeking higher returns, flight to safety, supply chains diversification, growing focus on sustainability) and GCC-idiosyncratic pull factors (Figure II). GCC countries have exhibited a relatively quick rebound from the pandemic, and direct spillovers from global and regional geopolitical developments have been muted so far (with the exception of increased oil price volatility). Mega-events such as Expo 2020 in the UAE and the World Cup in Qatar further fueled the region's recovery and investment activity.

Additionally, since 2016, the GCC countries have begun amending their laws, simplifying regulations, and establishing dedicated agencies to further attract foreign capital and create a more favorable investment environment. Bahrain enacted an amendment to the Commercial Companies Law in 2016 to permit 100% foreign ownership in various sectors including residency, food, administrative services, arts, health and social work, information and communications, mining and quarrying, water supply, real estate, technical activities, and manufacturing, among others, as well as focused on developing the Bahrain Investment Wharf (BIW) as a hub for foreign investors. Kuwait introduced a new foreign investment policy in 2018 to liberalize foreign investment in its banking sector, streamline procedures, and simplify regulations. Saudi Arabia has implemented a series of major initiatives to improve its investment climate, including the establishment of the Ministry of Investment in 2020, the launch of the National Investment Strategy in 2021, the adoption of internationally aligned FDI calculation methodologies in 2023, and the enactment of a new Investment Law in 2024. These efforts have been complemented by measures to attract regional headquarters, develop special economic zones, and support high-potential

sectors through targeted empowerment and investment programs. The UAE increased foreign ownership limits in specific sectors like retail trade, agriculture, and healthcare in 2018. In 2021, the UAE further liberalized by allowing 100% ownership in most onshore economic sectors. Additionally, the UAE established a dedicated Ministry of Investment for attracting foreign direct investment; implemented "golden visas" offering long-term residency for investors and entrepreneurs; and conducted regulatory overhaul to improve the business environment under the "UAE Legislation" platform. Qatar also amended its investment law in 2018 and established free zones such as the Qatar Free Zone Authority with specific benefits for foreign investors. Oman revised its foreign investment law in 2019, with the aim of simplifying procedures, strengthening investor protection, and offering greater clarity on regulations. The GCC countries also continue to develop and promote their special economic zones (SEZs) and review and enhance free trade agreements (FTAs), regional and such as the UAE's Comprehensive Economic Partnership Agreements (CEPAs), to boost trade and further attract FDI. All GCC countries have identified specific sectors (such as tourism, manufacturing, logistics, and knowledge-based economic sectors) for targeted investment promotion, while also offering incentives and support for foreign investors interested in these areas. As a result, Saudi Arabia and the UAE have seen the fastest year-over-year (YoY) increase in M&A activity between 2021 and 2023, with volumes rising by almost 10 percent.

Similar dynamics are observed in the GCC's outward cross-border investment, driven largely by SWF investments abroad, though with significant heterogeneity across countries (Figures IV and V). While Saudi Arabia and the UAE have been increasing their cross-border investment abroad since 2018, following the 2014-2016 decline, other GCC countries' investments abroad remained muted. This highlights the varying approaches of GCC countries to foreign investment strategies.

Traditionally, cross-border investment inflows in the GCC were skewed towards the hydrocarbon sector. However, the past two decades have seen increasing investment in financial sector, real estate, and manufacturing. Recent trends reveal a significant further shift towards investments in service sectors, encompassing industries like transportation and logistics, information technology, hospitality, health, and professional and business services (Figure III). Data for 2023 suggests that GCC countries continued to attract investment despite global headwinds and geoeconomic and

geopolitical tensions. Mirroring their inward investment focus on non-oil sectors, GCC countries' outward investment have recently targeted manufacturing and the vibrant marketable services sector, which could act as a vital conduit for technology transfer and innovation (Figure VI).

As discussed earlier, the GCC SWFs have potentially different mandates and allocation mechanisms, nevertheless, all take into consideration several factors while making allocation decisions: government priorities based on its economic diversification and development objectives, long-term returns to benefit future generations, and risk management. As shown in Figures VII, VIII, and XI, SWFs are emerging as central players in the GCC's economic narrative. SWFs account for over 80 percent of the GCC's total outward investment and around 50 percent of its domestic investment in our sample, highlighting their important role in both economic diversification and global/regional integration.

GCC SWFs, such as the Abu Dhabi Investment Authority (ADIA) and Mubadala from the UAE, as well as the Public Investment Fund (PIF) from Saudi Arabia, led deal activity in the GCC region during the 2022 and 2023. The PIF has invested in transportation and logistics, hospitality, entertainment, and electric vehicles (creating Ceer, Saudi Arabia's first electric car brand), while continuing with five giga-projects (Neom, ROSHN, Qiddiya, Diriyah, and the Red Sea Global project) and investing strategically abroad (these include Lucid Motors, Uber, BlackStone US Infrastructure Investment Programe, and SoftBank Vision Fund). The UAE's Mubadala recent investment activity has focused on emerging sectors, such as clean energy, Artificial intelligence, communications, and advanced manufacturing. Some notable investments included stakes in Tata Power Renewables, Envirotainer, GlobalConnect, and Skyborn Renewables.

Since the 2000s, the GCC has attracted inward investment from more diversified destinations. The Western Hemisphere has emerged as the main source of GCC inward investment and destination for GCC outward investment since the pandemic (Figures III and VI). As a result, investors from the Western Hemisphere and European countries have recently equalized their shares in GCC inward and outward investment. Additionally, investments and commitments within the GCC (and with broader Middle East region) continue to play an important role reflecting strong re-

gional ties and integration.

V.B Empirical Results

The empirical results, estimated using the Local Projections econometric technique developed by Jordà (2005) (see Section IV for model specification), underscore the positive relationship between cross-border inward investment and non-hydrocarbon real GDP in GCC countries (at country-industry level). Panel (A) of Figure XIII shows that a one percentage point increase in inward investment-to-GDP ratio is associated with about 1 percent increase in a (non-hydrocarbon) sector's real GDP after three years, and as high as 1.2 percent increase after four years. This finding reinforces the economic benefits of attracting foreign investment in non-hydrocarbon non-financial sectors, underlining its role in stimulating economic growth and productivity. The results align with the global consensus on the crucial role of foreign investment (in particular FDI) as a catalyst for economic development and growth. As we only focus on non-hydrocarbon sectors in the empirical analysis, the positive growth effect also highlights the role of inward investment in promoting non-hydrocarbon growth and thus economic diversification.

We exclude the financial sector from our econometric analysis due to its distinct role within the economy. Unlike traditional sectors that directly produce goods and services, the financial sector primarily facilitates transactions and provides financial instruments for other sectors to function effectively (Beck and Levine, 2004). Including the financial sector might therefore give a misleading impression of the diversity of the underlying non-hydrocarbon economy. However, we fully recognize the importance of this modeling decision. To ensure robustness, we conducted a separate analysis incorporating the financial sector, motivated by the significant foreign investment inflows into the sector attracted during the 2000s in our sample. The results reveal that including the financial sector reduces the overall impact of inward cross-border investment on real non-hydrocarbon GDP growth in the GCC by more than half, from approximately 1 percent to 0.45 percent. This reinforces the notion that while a robust and well-developed financial sector plays a crucial role in supporting other sectors through credit and investment opportunities, relying solely on the financial sector for economic diversification might be a less effective strategy compared to

fostering growth across a broader range of high-value added and high-technology productive sectors. This outcome underscores the importance of exercising caution when interpreting headline FDI figures, as they may be disproportionately influenced by financial sector flows. It highlights the necessity for disaggregated sectoral analysis to accurately assess the true impact of investment on economic diversification.

Similarly, Panel (C) of Figure XIII shows the positive link between GCC domestic investment and real non-hydrocarbon GDP (at the country-industry level). Our analysis finds that a one percentage point increase in domestic investment-to-GDP ratio is associated with an estimated 0.3-0.4 percent increase in a (non-hydrocarbon) sector's real GDP after five years. The lower elasticity could be linked to the different nature of GCC domestic investment (these could include projects with longer time horizons, such as building a nuclear power plant in the UAE or NEOM project in Saudi Arabia) or their lower efficiency. For example, infrastructure investment is accelerating throughout the GCC countries, creating a favorable environment for international investment and partnerships. GCC domestic investment in enabling and cluster infrastructure could act as a catalyst, attracting complementary investment from private investors by reducing investment risks and increasing efficiency and productivity. For example, a well-developed logistics hub might attract private investment in manufacturing and transportation companies. This can create a multiplier effect, boosting overall domestic investment activity. However, inefficient resource allocation for infrastructure investment can also result in "white elephant" projects that fail to attract significant private investment. In such cases, government spending on infrastructure might not translate into a higher elasticity of domestic investment. Additionally, overemphasis on large-scale infrastructure projects might neglect smaller, more targeted investments that could be more effective in stimulating a broader range of private investments across non-hydrocarbon industries (Dutta and Meierrieks, 2021).

Furthermore, our analysis confirms that domestic investment by GCC SWFs plays an important role in stimulating non-hydrocarbon growth and development in the GCC (Panel (B) of Figure XIV). The estimated impact of these SWF investments is higher in magnitude than the impact of overall domestic investment on GCC non-hydrocarbon growth (at the country-industry level), and it is also increasing over time. This effect may be attributed to the strategic mandates of some SWFs, for example, Saudi Arabia's Public Investment Fund (PIF), which focus on high-productivity

sectors and projects that often involve higher risk profiles to help de-risk sectors and ecosystems, thereby crowding in private investors and delivering higher growth dividends.[11]

Our analysis does not reveal a significant relationship between GCC outward investment, including those by GCC SWFs, and GCC non-hydrocarbon GDP growth (Panel (B) of Figure XIII and Panel (A) of Figure XIV).

To further investigate the impact of GCC investment on economic growth and diversification, we leverage the OECD's classifications for medium-high and high-technology manufacturing, and KIS. We conduct a modified Local Projections analysis focusing on medium-high and high-technology manufacturing, and KIS investment as right-hand side variables in equation 1 from Section IV.[12] While the literature suggests larger multiplier effects for investments in these sectors on growth, our results show no statistically significant difference between the impact of high- versus low-technology inward investments (in percent of GDP) on GCC non-hydrocarbon GDP growth (at the country-industry level) within our sample. Based on a closer examination of the data, this could be attributed to several factors: (1) low share of medium-high and high-technology manufacturing, and KIS investments in the GCC inward investment and their relatively recent increase, and (2) potentially insufficient breakdown of the non-hydrocarbon GDP, for example, breakdown of overall GDP of the transportation, information and communication sector into the GDP of those subsectors that are high-technology and low-technology. A notable example of high-tech foreign direct investment (FDI) is the Saudi Public Investment Fund's (PIF) investment in Lucid Motors, an American electric vehicle manufacturer. Since its initial $1 billion investment in 2018, PIF has increased its stake to approximately 60 percent by 2024, totaling around $8 billion. This strategic investment facilitated the establishment of Lucid's first international manufacturing facility in King Abdullah Economic City, Saudi Arabia, which began operations in September 2023. The facility, the Kingdom's first-ever car manufacturing plant, is expected to ramp up produc-

---

[11]The primary constraint in our analysis stems from the limited availability of detailed industry-level data at the 4-digit classification level, which restricts our ability to assess the differential impacts of various investment types (for example, strategic versus real estate projects) on specific sectors. While data on SWF project types is also limited, the granularity of industry data poses a more significant challenge for our empirical evaluation for GCC.

[12]We also tried separate models for the manufacturing and the services sectors.

tion to 155,000 electric vehicles annually once fully operational. This development aligns with Saudi Arabia's Vision 2030 objectives to diversify the economy, enhance the industrial sector's contribution to GDP, and create sustainable job opportunities. However, given the facility's recent commencement, its full impact on the manufacturing sector's productivity and GDP contribution may not yet be fully reflected in current data.

Our analysis further reveals that outward medium-high and high-technology manufacturing, and KIS investment have a modest positive impact on non-hydrocarbon growth in the GCC (at the country-industry level). A deeper analysis suggests that this impact is primarily driven by outward high-technology investments involving SWFs, compared to all other outward investments (measured as a percentage of GDP). The estimated coefficient indicates that a one percentage point increase in SWF-involved outward high-technology investment as a share of GDP is associated with an estimated 0.2 percent increase in GCC non-hydrocarbon GDP growth. While this effect is not statistically significant, the positive coefficient suggests potential benefits, including technology transfer, facilitated by outward investment. Additionally, we find some evidence indicating that inward investment in the GCC might be influenced by the region's outward investment activity in previous years.[13]

We further extend our analysis to directly examining the impact of cross-border investment on GCC economic complexity and diversification. A simple correlation analysis reveals positive correlations between both GCC inward investment and SWF outward investment with measures of economic complexity, overall diversification, and trade diversification (Figure XV and XVI). However, these correlations are not statistically significant, and the results lack robustness when tested with different model specifications and data samples. Several factors could explain these findings. Potential endogeneity and reverse causality are concerns, as our analysis is limited by data availability on GCC economic complexity and diversification, which is currently only accessible at the country level. This limitation makes it difficult to isolate the true causal effect of investment on diversification. Additionally, the positive impact of investment on diversification might have a long-term horizon, potentially exceeding the timeframe of the data employed in our analysis. Our analysis also suggests a

---

[13]The correlation between inward and outward investments is positive and significant in some specifications.

positive relationship between GCC outward investment and measures of economic diversification and complexity, driven largely by Saudi Arabia and the UAE SWFs investments. As discussed earlier, this positive association could be attributed to the strategic focus of GCC SWF investments, their role in facilitating market access and technology transfer, and their ability to secure positive returns.

VI Conclusion

Recent years have witnessed a surge in investment activity across the GCC, encompassing both domestic and cross-border investments (International Monetary Fund, 2023a). This can be attributed to the GCC's ambitious development strategies, which prioritize the development of strategic sectors such as advanced manufacturing, digital technology, and the green economy, to achieve higher sustainable growth and economic diversification. We leverage novel deal-level investment databases to examine the evloving cross-border investment portfolio of GCC and the impact of investments (inward, outward, and domestic) on growth and economic diversification in the GCC region. Our study contributes to the literature on the economic benefits of foreign investment for GCC economic transformation and elaborates on the role of GCC SWFs' investments in the region's growth model.

Since the pandemic, GCC countries have attracted a higher share of foreign investment inflows (as a percent of GDP), increasing their centrality in the global FDI network (International Monetary Fund, 2023a). However, the overall foreign investment into GCC remains relatively low. Inward investment continues to originate mainly from advanced economies, with Europe and the Western Hemisphere accounting for around 60 percent of total inflows. At the same time, the share of intra-GCC investment as a proportion of total investment into the GCC region remains stable at above 25 percent, underscoring the region's commitment to continued regional cooperation and integration. These same regions are targeted by the GCC for their outward investments. SWFs serve as the main channel for GCC outward investment, and their share in the total outward investment has been steadily high in recent years. Furthermore, SWFs play an important role in bolstering domestic investment, accounting for approximately 50 percent of the investment activity within our sample.

A key post-pandemic shift is the sharp increase in both inward and outward investments in the services sector, encompassing transportation and logistics, information and telecommunication technology (ICT), business and professional services, and other marketable services. The share of inward FDI in services (excluding financial services) rose from an average of 30 percent (2000–2019) to 70 percent in 2020–2023. This trend is mirrored by the GCC outward investment, with a significant portion of SWFs' investments going towards services. SWF investments also increasingly target marketable services both abroad and within the region, alongside manufacturing. While this supports diversification, growing concentration in specific service segments could pose portfolio risks if not managed carefully.

Another emerging trend is the surge in green and renewable energy investments, particularly greenfield projects led by SWFs in Saudi Arabia and the UAE during 2022–2023. Although limited data precluded econometric analysis, these developments align with recent findings in the literature on the growth potential of green investments.

Our empirical analysis confirms that both inward and domestic investments contribute positively to GCC non-hydrocarbon GDP growth and diversification, with inward FDI has nearly three times the growth impact of domestic investment. In contrast, outward investment shows no significant effect on domestic growth, and investment in high-tech sectors has yet to demonstrate measurable gains—likely due to its still-limited scale and very recent pick. These results highlight the importance of continuing to pursue policies that attract foreign investment, improve business climate, strengthen institutions, and leverage international partnerships to accelerate diversification and promote growth.

Our study offers valuable insights for resource-rich countries grappling with economic diversification and regional cooperation amid global challenges, including climate change and digital transformation. While our current analysis provides a macro-level perspective, the integration of longer time series and firm-level productivity data in future research could unveil delayed benefits of FDI, including knowledge transfer and technological spillovers. Such granular data would enable a more nuanced understanding of the country- and sector-specific impacts of FDI and SWFs

investments, particularly in emerging industries, and could inform more targeted policy interventions to foster sustainable economic growth. This paper serves as a foundation that future country-specific studies, utilizing more granular and richer data in collaboration with relevant authorities, can build upon to deepen the analysis.

References

Abdel-Fattah, P. (2023). Rise of gcc sovereign wealth funds: Magic wand? [Accessed: 2025-06-01].

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., & Sayek, S. (2004). Fdi and economic growth: The role of local financial markets. *Journal of international economics*, *64*(1), 89–112.

Alvarado, A. (2023). The gulf sovereign wealth funds: Accumulating wealth and investing actively to support their economic goals.

Amighini, A., & Sanfilippo, M. (2014). Impact of south–south fdi and trade on the export upgrading of african economies. *World Development*, *64*, 1–17.

Avendaño, R., & Santiso, J. (2009). Are sovereign wealth funds' investments politically biased? a comparison with mutual funds. *A Comparison with Mutual Funds (December 18, 2009)*.

Bannour, S., & Abdelkawy, N. A. (2024). Sovereign esg and foreign direct investment in the gcc: The amplifying role of trade openness in economic diversification. *Sustainability*, *16*(21), 9326.

Beck, T., & Levine, R. (2004). Stock markets, banks, and growth: Panel evidence. *Journal of Banking & Finance*, *28*(3), 423–442.

Blomstrom, M., & Kokko, A. (1996). How foreign investment affects host countries. *Available at SSRN 620572*.

Chakraborty, C., & Nunnenkamp, P. (2008). Economic reforms, fdi, and economic growth in india: A sector level analysis. *World development*, *36*(7), 1192–1212.

Cieślik, A., & Hamza, S. (2023). Institutional quality and inward fdi: Empirical evidence from gcc economies. *Middle East Development Journal*, *15*(2), 261–290.

Coe, D. T., Helpman, E., & Hoffmaister, A. W. (2009). International r&d spillovers and institutions. *European Economic Review*, *53*(7), 723–741.

Dunning, J. H. (1979). Explaining changing patterns of international production: In defense of the eclectic theory. *Oxford Bulletin of Economics & Statistics*, *41*(4).

Dutta, N., & Meierrieks, D. (2021). Financial development and entrepreneurship. *International Review of Economics & Finance*, *73*, 114–126.

El-Kharouf, F., Al-Qudsi, S., & Obeid, S. (2010). The gulf corporation council sovereign wealth funds: Are they instruments for economic diversification or political tools? *Asian Economic Papers*, *9*(1), 124–151.

Garrett-Peltier, H. (2017). Green versus brown: Comparing the employment impacts of energy efficiency, renewable energy, and fossil fuels using an input-output model. *Economic modelling*, *61*, 439–447.

Hepburn, C., O'Callaghan, B., Stern, N., Stiglitz, J., & Zenghelis, D. (2020). Will covid-19 fiscal recovery packages accelerate or retard progress on climate change? *Oxford review of economic policy*, *36*(Supplement_1), S359–S381.

Hussein, M. A. (2009). Impacts of foreign direct investment on economic growth in the gulf cooperation council (gcc) countries. *International Review of Business Research Papers*, *5*(3), 362–376.

International Monetary Fund. (2013). Gulf cooperation council: Economic prospects and policy challenges for the gcc countries.

International Monetary Fund. (2014). *Economic diversification in the gcc: Past, present, and future*. IMF Staff Discussion Note.

International Monetary Fund. (2018). Gulf cooperation council: Trade and foreign investment - keys to diversification and growth in the gcc.

International Monetary Fund. (2022). Assessing the national investment strategy using the dignar-19 model.

International Monetary Fund. (2023a). Gulf cooperation council: Economic prospects and policy challenges for the gcc countries.

International Monetary Fund. (2023b). Uae reforms for more sustainable and greener growth.

International Monetary Fund. (2024a). Preparing financial sectors for a green future: Managing risks and securing sustainable finance.

International Monetary Fund. (2024b). United arab emirate: Selected issues.

Iwamoto, M., & Nabeshima, K. (2012). Can fdi promote export diversification and sophistication of host countries?: Dynamic panel system gmm analysis. *IDE Discussion Paper*, *347*.

Javorcik, B. S. (2004). Does foreign direct investment increase the productivity of domestic firms? in search of spillovers through backward linkages. *American economic review*, *94*(3), 605–627.

Jordà, Ò. (2005). Estimation and inference of impulse responses by local projections. *American economic review*, *95*(1), 161–182.

Kammen, D. M., & Engel, D. (2009). *Green jobs and the clean energy economy* (Vol. 4). Copenhagen Climate Council Thought Leadership Series.

Lee, K. J., Fariza, B., & Sharipova, Z. (2015). The relationship between fdi, diversification and economic growth in natural resource oriented countries: Case of kazakhstan. *Journal of International Business and Economics*, *3*(2), 51–62.

Lucas Jr, R. E. (1988). On the mechanics of economic development. *Journal of monetary economics*, *22*(1), 3–42.

Mami, E. (2023). The role of sovereign wealth funds in natural resource-rich countries: A systematic meta-narrative review. *Journal of International Business Policy*, *6*(3), 356–371.

Megginson, W. L., & Fotak, V. (2016). Rise of the fiduciary state: A survey of sovereign wealth fund research. *A collection of reviews on savings and wealth accumulation*, 163–212.

Office, I. L. (2018). *World employment and social outlook 2018: Greening with jobs*. International Labour Organisation (ILO).

Prasad, A., Refass, S., Saidi, N., Salem, F., & Shepherd, B. (2023). Global economic diversification index 2023. *Global Economic Diversification Index Series*.

Rodrik, D. (2006). Industrial development: Stylized facts and policies. *Harvard University*, *380*.

Romer, P. M. (1994). The origins of endogenous growth. *Journal of Economic perspectives*, *8*(1), 3–22.

Tadesse, B., & Shukralla, E. K. (2013). The impact of foreign direct investment on horizontal export diversification: Empirical evidence. *Applied Economics*, *45*(2), 141–159.

Appendices

## Appendix A   Summary Statistics

Jurisdiction	Total Number of Deals	Total Deal Value	Cross Border Deals	Cross Border Deal Value	SWF Involved Deals	SWF Involved Deal Values	SWF Involved Cross Border Deals	SWF Involved Cross Border Deal Value
BHR	720	73.4	594	57	60	3.4	43	2.7
KSA	2348	1152.5	1698	656	697	478.1	517	263.8
KWT	1858	176.6	1543	161	859	83.3	841	81.2
OMN	816	57.2	629	47.6	189	11.9	120	6.3
QAT	1059	341	936	307.9	625	248	574	221.8
UAE	7192	1236	6259	988.8	2660	655.2	2432	534
GCC	13992	3036.7	11659	2218	5090	1479.9	4527	1109.8

Note: This table provides summary information for the database for the period 2000-2023. The first six rows provide country-specific deals' information, while the last row provides the cumulative information for the whole GCC region. All of the deal values are in nominal USD billion.

Appendix B   Figures

Figure I: **GCC Aggregate: Evolution of Inward Investment, in Percent of GDP**
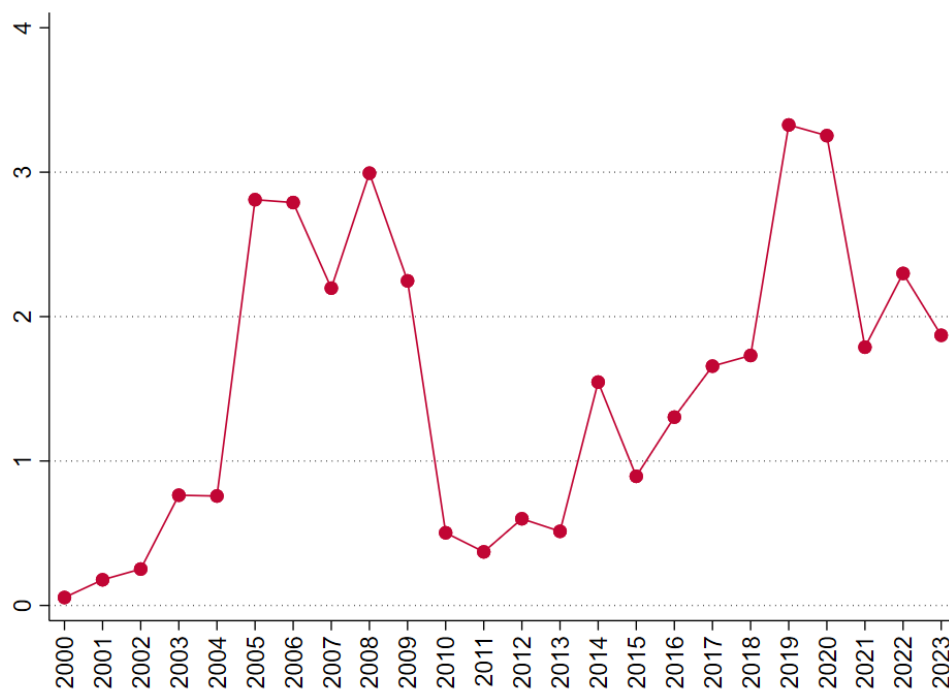
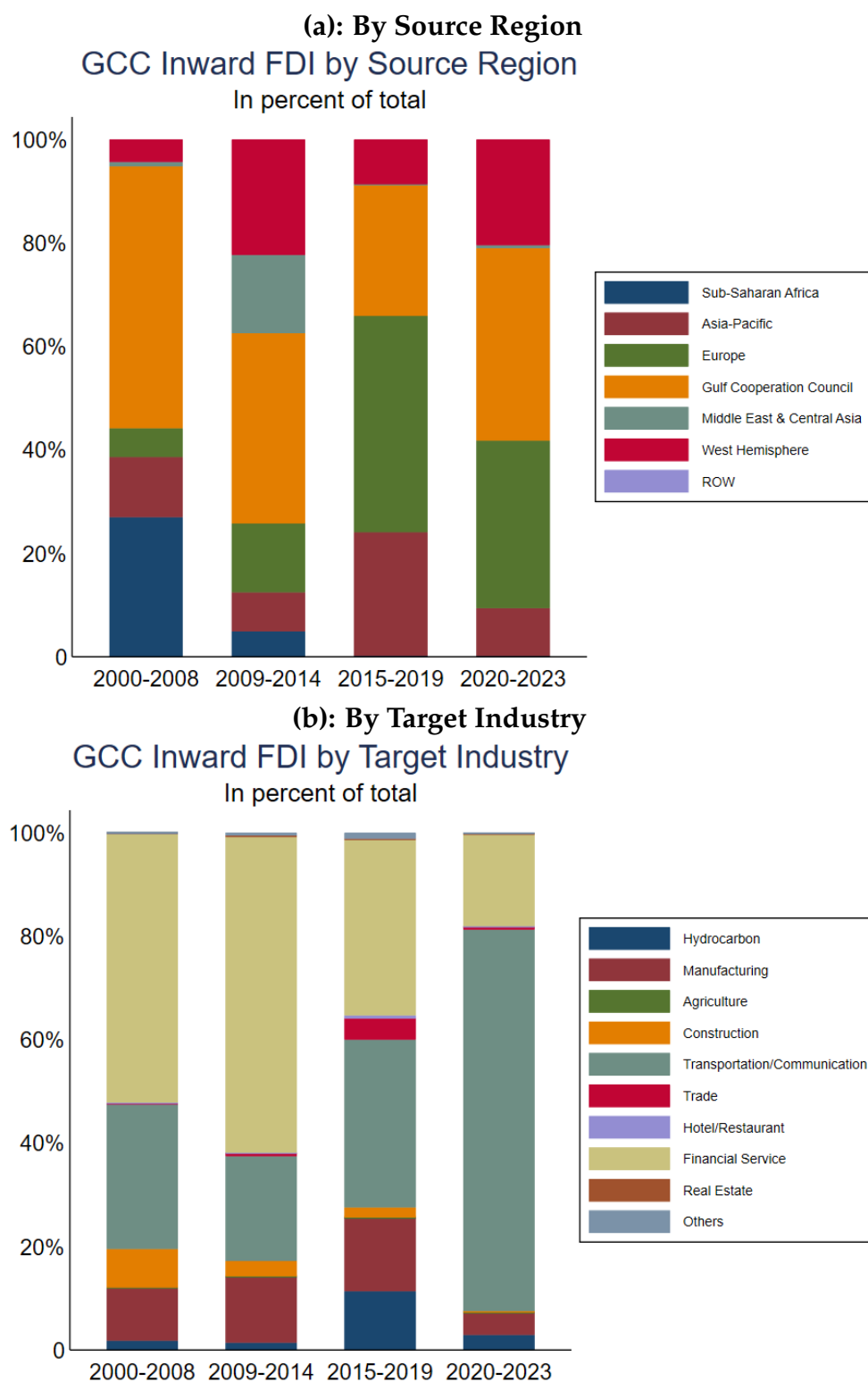**Note**: The figure plots the GCC total inward investment, in percent of GCC total GDP in each year during 2000-2023.

Note: The figure plots each GCC country's inward investment, in percent of the country's GDP, in each year during 2000-2023.

(a): By Source Region

(b): By Target Industry

Note: The figure (a) plots the share of inward investment from each source region, i.e., the region where the inward investment originates. The figure (b) plots the share of inward investment for each target industry, i.e., the industry in which the inward investment is received.

FIGURE IV: **GCC AGGREGATE: EVOLUTION OF OUTWARD INVESTMENT, IN PERCENT OF GDP**

Note: The figure plots the GCC total outward investment, in percent of GCC total GDP in each year during 2000-2023.

Note: The figure plots each GCC country's outward investment, in percent of the country's GDP, in each year during 2000-2023.

(a): By Source Region

(b): By Target Industry

Note: The figure (a) plots the share of outward investment from each target region, i.e., the region where the outward investment is sent. The figure (b) plots the share of outward investment for each target industry, i.e., the industry to which the outward investment is sent.

35

Note: The figure plots the GCC SWFs total outward investment, in percent of GCC total GDP in each year during 2000-2023.
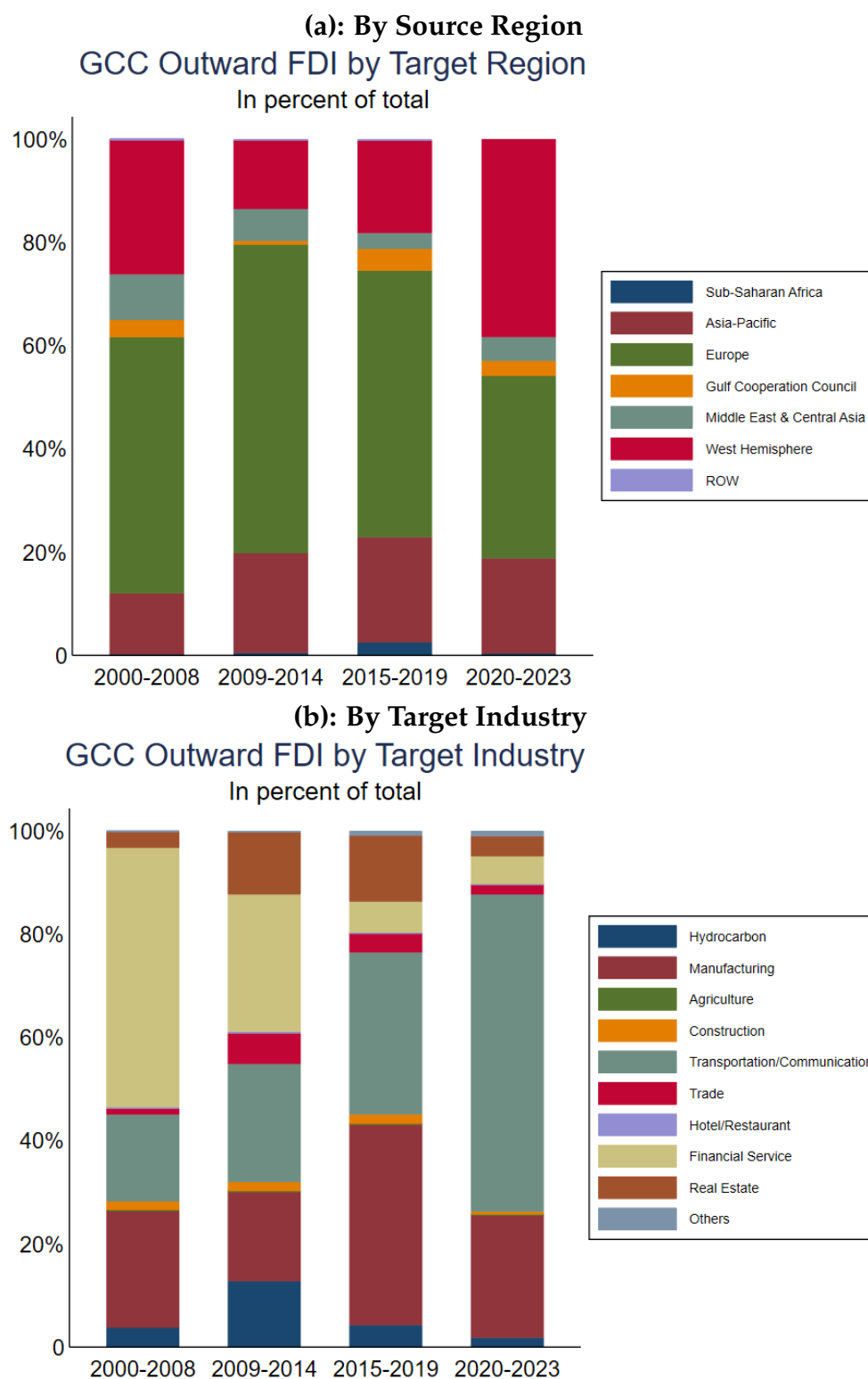
FIGURE VIII: **GCC INDIVIDUAL COUNTRIES: EVOLUTION OF SWFS OUTWARD INVESTMENT, IN PERCENT OF GDP**
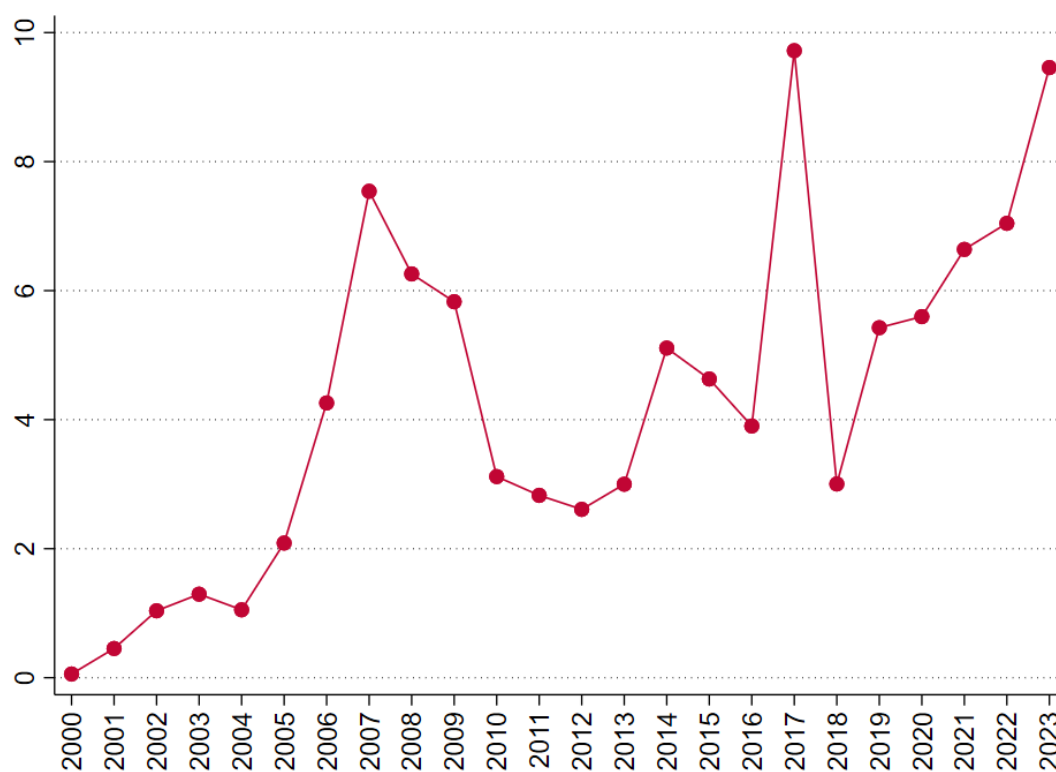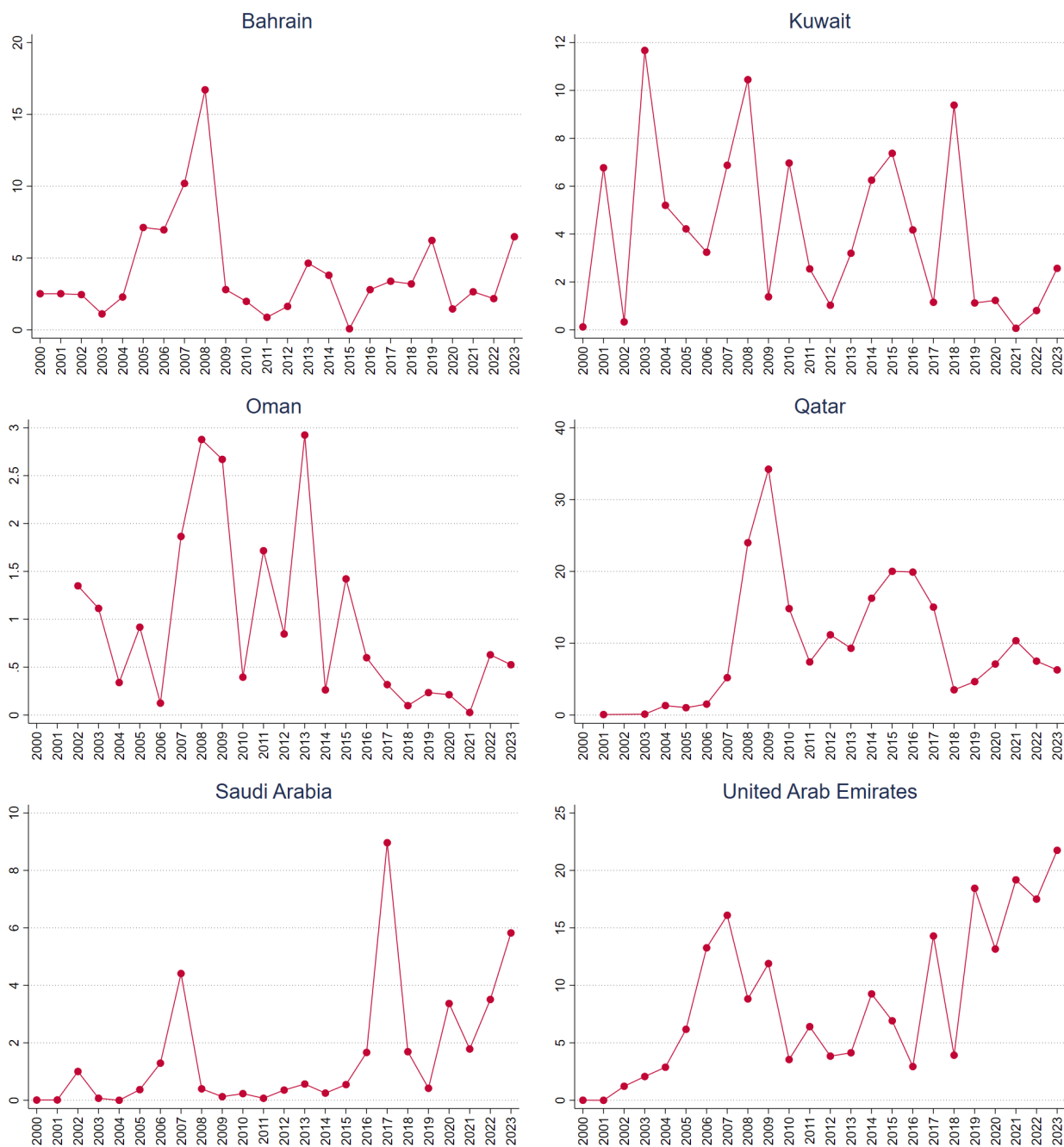

Note: The figure plots each GCC country's SWFs outward investment, in percent of the country's GDP, in each year during 2000-2023.
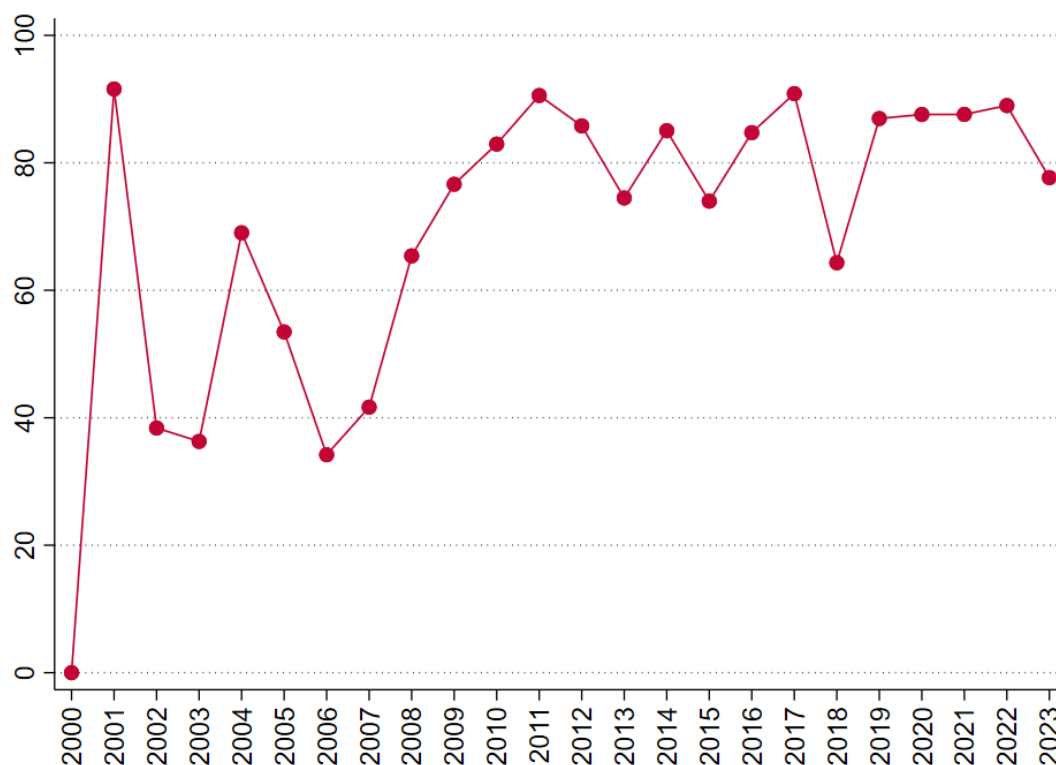
Note: The figure plots the GCC SWFs total outward investment, in percent of GCC total outward investment in each year during 2000-2023.

38
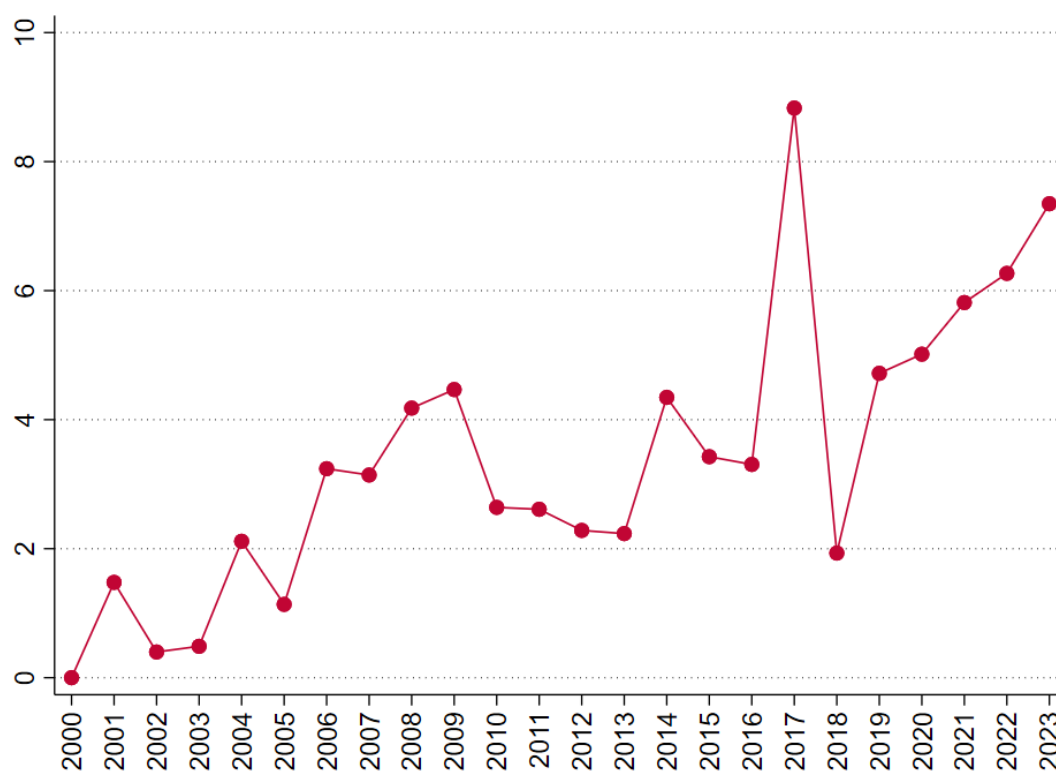
Note: The figure plots each GCC country's SWFs outward investment, in percent of the country's GDP, in each year during 2000-2023.

(a): By Source Region
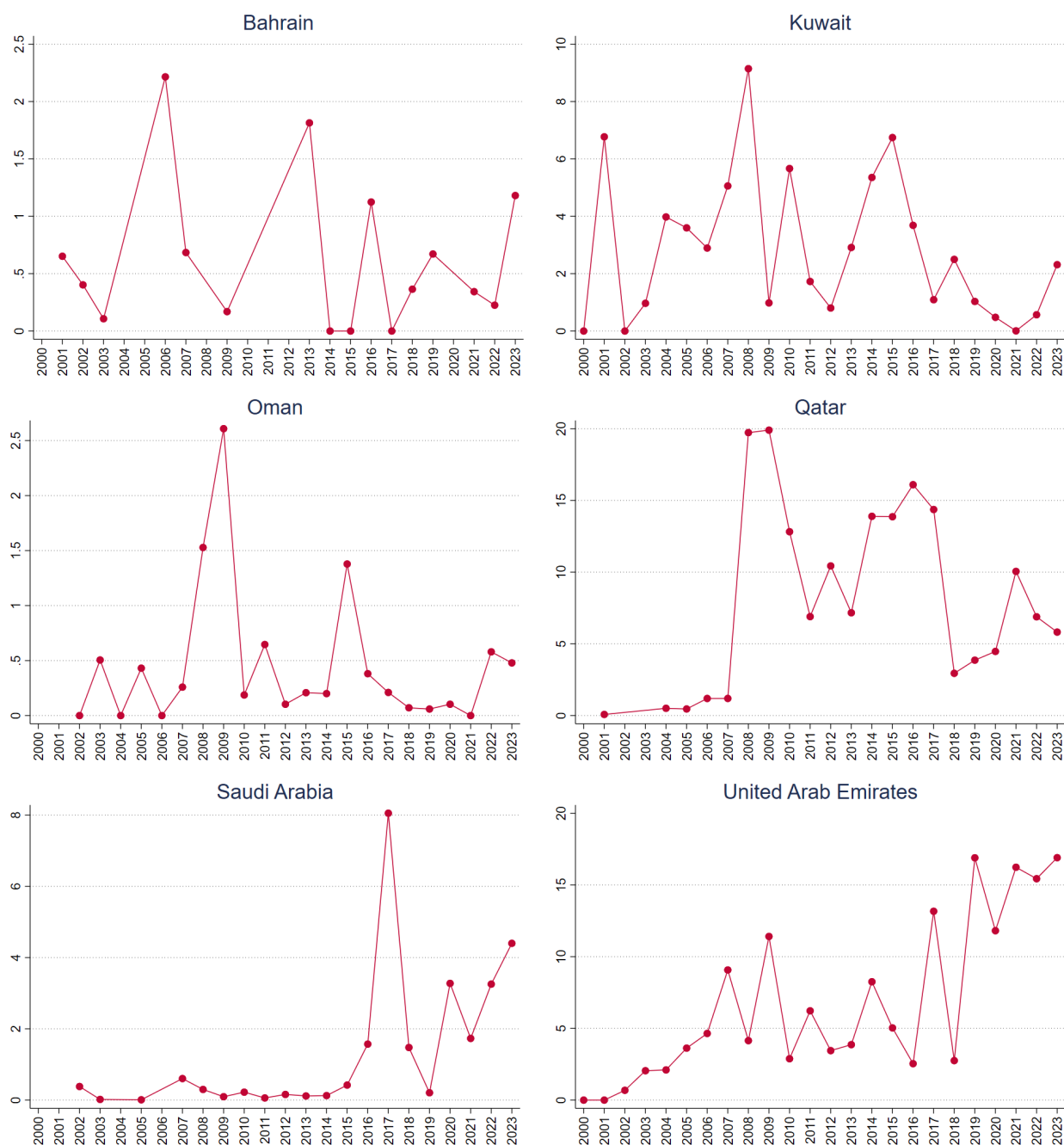

(b): By Target Industry
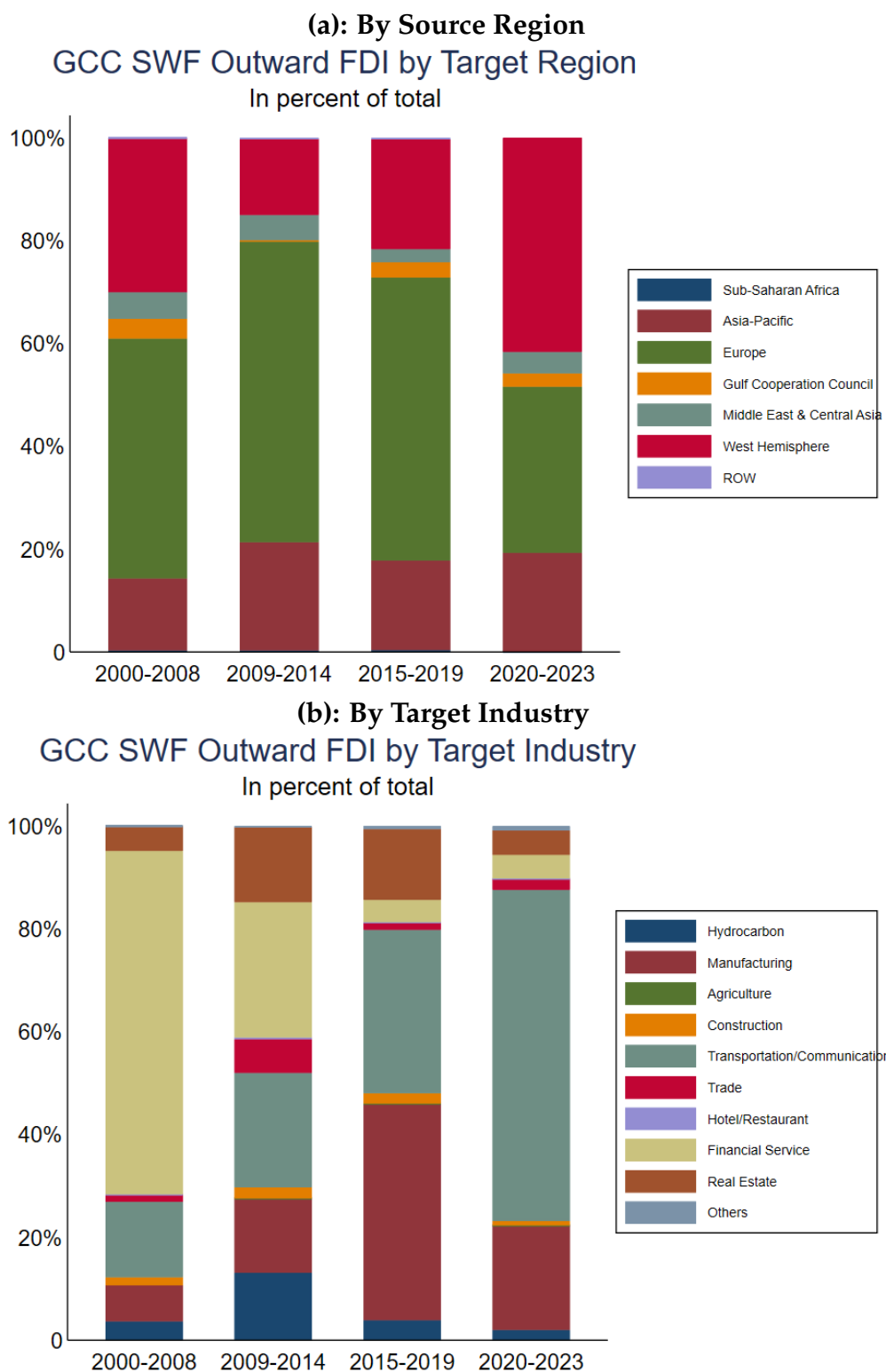
Note: The figure (a) plots the share of SWF outward investment from each target region, i.e., the region where the outward investment is sent. The figure (b) plots the share of SWFs outward investment for each target industry, i.e., the industry to which the outward investment is sent.

(A): Inward investment, number of deals

GCC Inward Greenfield Investment
(Number of Deals)
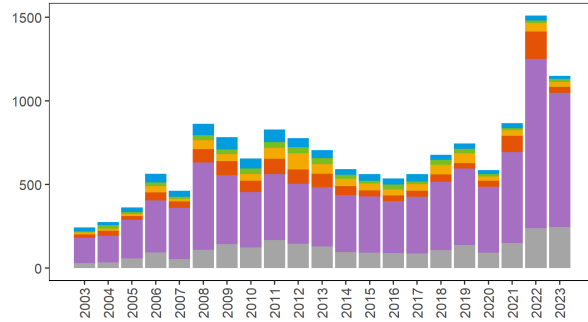
(B): Outward investment, number of deals

GCC Outward Greenfield Investment
(Number of Deals)
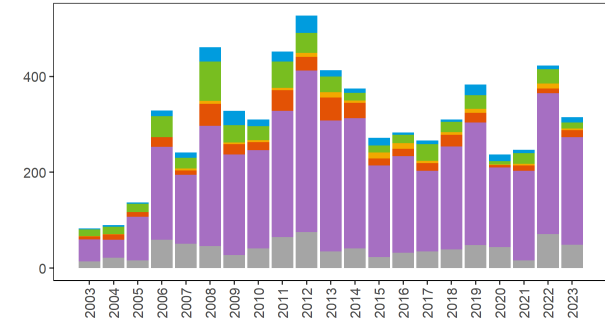
(C): Inward investment, sectors

GCC Inward Greenfield Investment
(Millions of US$)
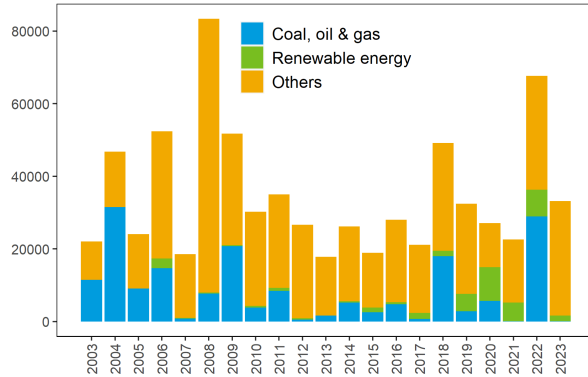
(D): Outward investment, sectors

GCC Outward Greenfield Investment
(Millions of US$)
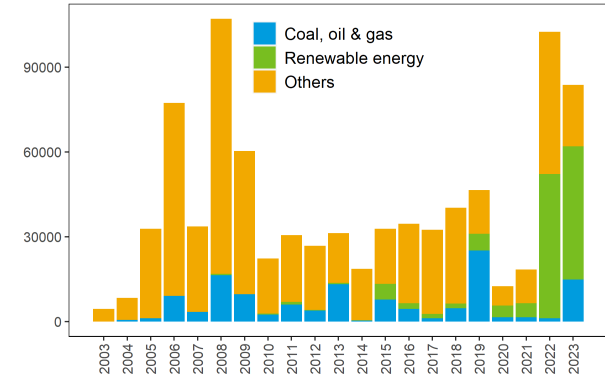
Note: Figures (A) and (B) plot the number of inward and outward greenfield investment deals for GCC, by country. Figures (C) and (D) plot the deal values of inward and outward greenfield investment for GCC, separated by the target sector, namely, coal, oil, and gas, renewable energy, and others.

(A): Inward investment

(B): Outward investment

(C): Domestic investment
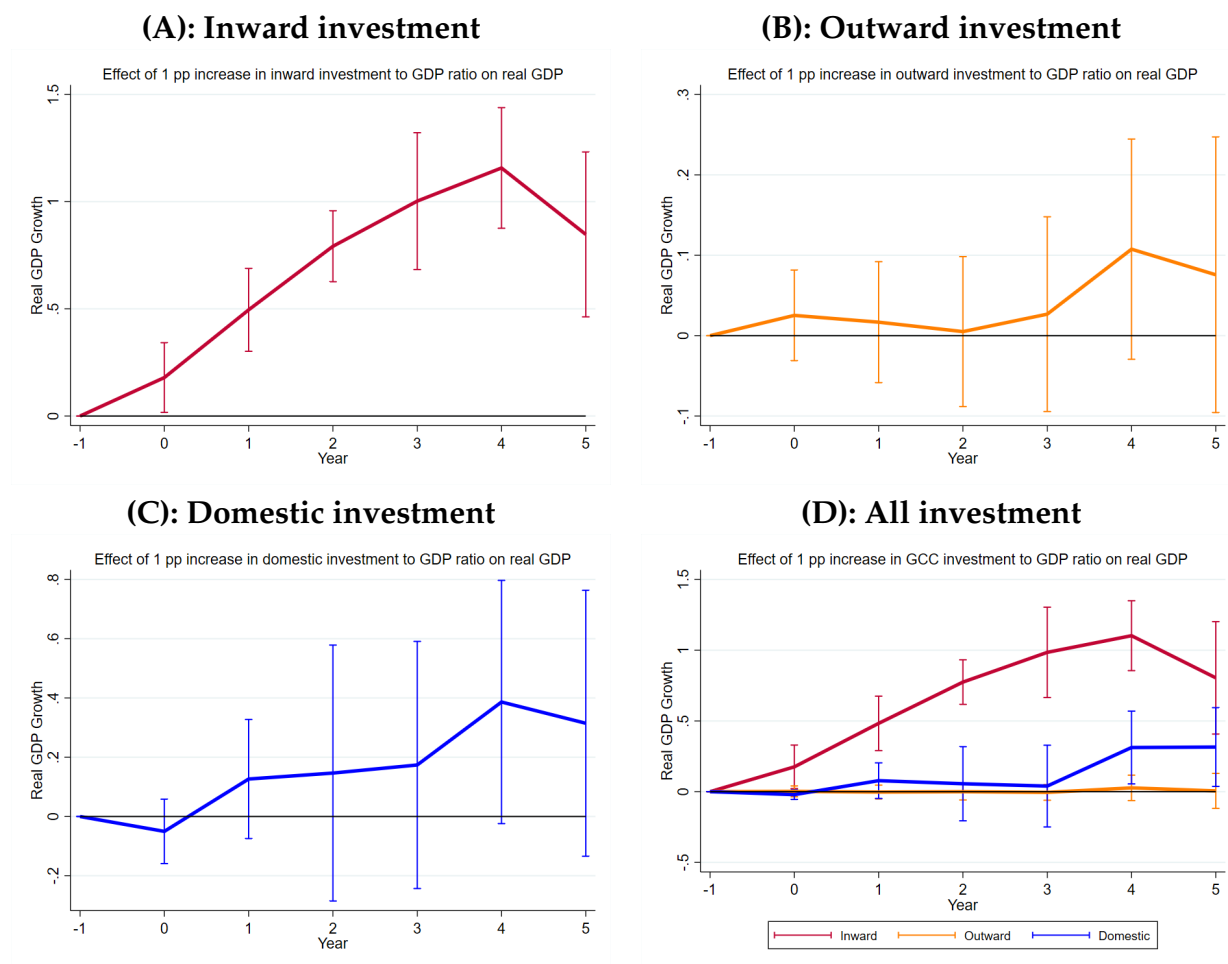
(D): All investment

Note: Figures (A)-(C) plot the coefficients estimated using Local Projections by Jorda (2005) as in equation (1) Section 3. Each figure shows the effect of 1 percentage point increase in the respective investment-to-GDP ratio on real GDP, in percent. Figure (D) plots the coefficients estimated using Local Projectons by Jorda (2005) with all three kinds of investment included in the same equation, as robustness check. All the standard errors are clustered at the country-industry level.

FIGURE XIV: LOCAL PROJECTIONS - GCC SWFs OUTWARD AND DOMESTIC INVESTMENT
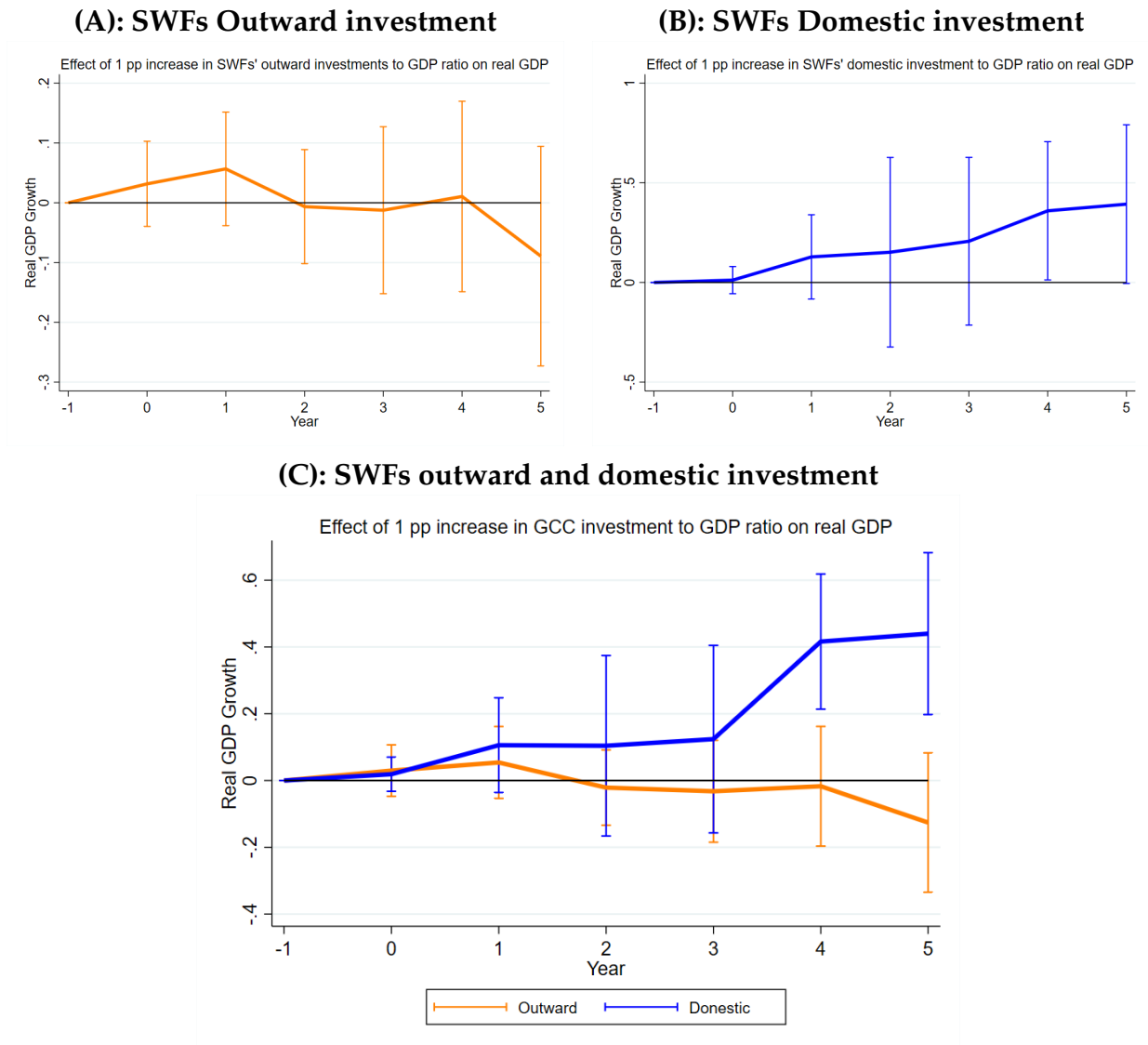
(A): SWFs Outward investment

Effect of 1 pp increase in SWFs' outward investments to GDP ratio on real GDP

(B): SWFs Domestic investment

Effect of 1 pp increase in SWFs' domestic investment to GDP ratio on real GDP

(C): SWFs outward and domestic investment

Effect of 1 pp increase in GCC investment to GDP ratio on real GDP

Note: Figures (A)-(C) plot the coefficients estimated using Local Projections by Jorda (2005) as in equation (1) Section 3. Each figure shows the effect of 1 percentage point increase in the respective SWFs investment-to-GDP ratio on real GDP, in percent. Figure (D) plots the coefficients estimated using Local Projectons by Jorda (2005) with both kinds of SWFs investment included in the same equation, as robustness check. All the standard errors are clustered at the country-industry level.

FIGURE XV: **GCC INWARD INVESTMENT AND DIVERSIFICATION**
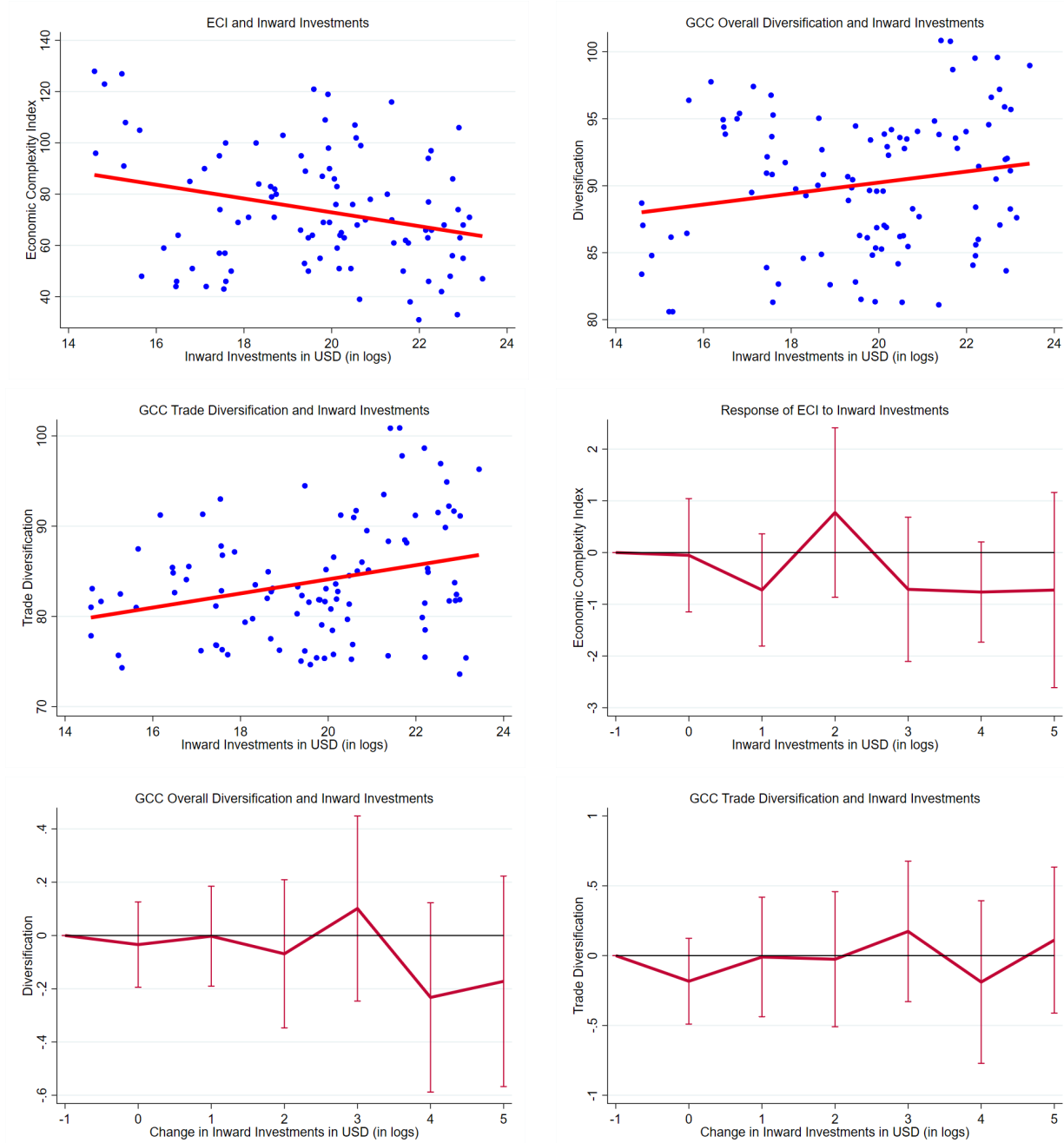
Note: Scatter plots show simple correlations between measures of GCC economic complexity, and overall and trade diversification (measured as indices) and the log of inward investments in USD. ECI measure assesses the current state of a country's productive knowledge. The ECI metric assesses a country's current level of productive knowledge. Countries improve their ECI by increasing the number and complexity of their exported products. Lower ECI scores on the chart correspond to higher rankings. The overall and trade diversification measures come from Prasad et al. (2024) in their "Global Economic Diversification Index 2024". This index provides a universal quantitative measure of a country's economic diversification. Higher diversification measures indicate more diversified countries. Line charts plot the coefficients estimated using Jorda's (2005) Local Projections method (equation (1) in Section 3), with inward investment as the dependent variable in all cases.

44

FIGURE XVI: **GCC SWFs OUTWARD INVESTMENT AND DIVERSIFICATION**
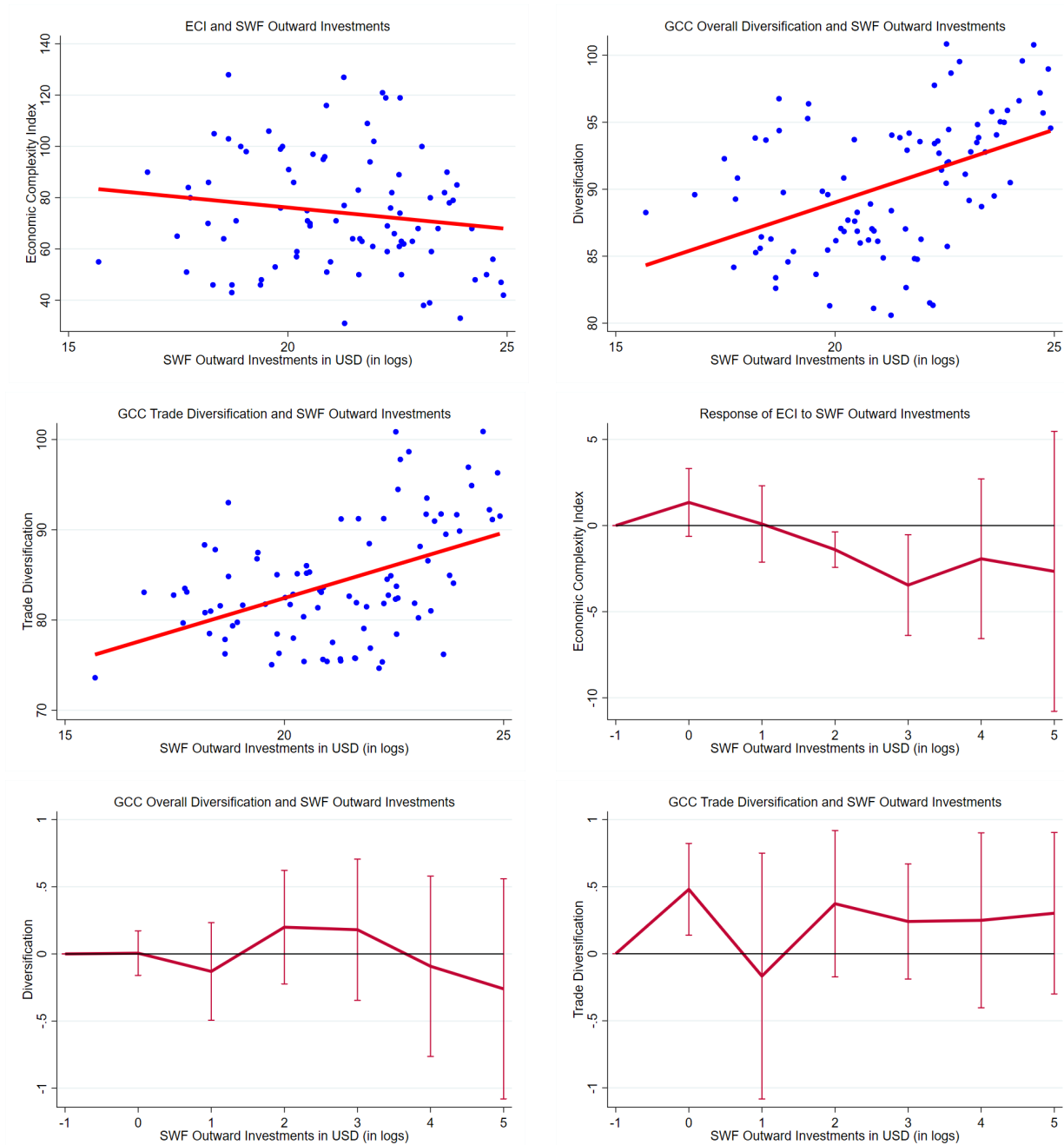
Note: Scatter plots show simple correlations between measures of GCC economic complexity, and overall and trade diversification (measured as indices) and the log of SWFs outward investments in USD. ECI measure assesses the current state of a country's productive knowledge. The ECI metric assesses a country's current level of productive knowledge. Countries improve their ECI by increasing the number and complexity of their exported products. Lower ECI scores on the chart correspond to higher rankings. The overall and trade diversification measures come from Prasad et al. (2024) in their "Global Economic Diversification Index 2024". This index provides a universal quantitative measure of a country's economic diversification. Higher diversification measures indicate more diversified countries. Line charts plot the coefficients estimated using Jorda's (2005) Local Projections method (equation (1) in Section 3), with SWFs outward investment as the dependent variable in all cases.

45

Appendix C   Regression Results

TABLE II: **LOCAL PROJECTIONS - GCC INWARD INVESTMENT**

	(1) Year 0	(2) Year 1	(3) Year 2	(4) Year 3	(5) Year 4	(6) Year 5
Overall inward investment/GDP	0.156	0.529***	0.760***	0.955***	1.103***	0.850***
	(0.098)	(0.087)	(0.098)	(0.191)	(0.162)	(0.245)
L.Overall inward investment/GDP	0.339***	0.517***	0.744***	0.751***	0.383**	0.618***
	(0.091)	(0.093)	(0.146)	(0.145)	(0.147)	(0.197)
L2.Overall inward investment/GDP	0.173*	0.451***	0.444**	0.075	0.343	0.333
	(0.090)	(0.112)	(0.165)	(0.216)	(0.303)	(0.382)
L.Real GDP growth	-0.042	-0.043	-0.002	0.160	0.172	0.050
	(0.074)	(0.104)	(0.124)	(0.158)	(0.224)	(0.250)
L2.Real GDP growth	0.018	0.032	0.079	0.056	-0.067	-0.148
	(0.059)	(0.071)	(0.146)	(0.162)	(0.170)	(0.162)
Percentage change in oil prices	-0.001***	-0.000*	-0.000	0.002***	0.002***	0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Global real GDP growth	0.018***	0.018***	0.012***	0.015***	-0.010***	-0.032***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.003)	(0.004)
Constant	-0.038***	0.009*	0.062***	0.163***	0.268***	0.409***
	(0.003)	(0.005)	(0.008)	(0.010)	(0.028)	(0.033)
Within R2	0.204	0.233	0.251	0.273	0.277	0.271
Observations	656	656	614	572	530	488

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results of estimating a parametric Local Projection models for GCC inward investment (in percent of GDP), as in equation (1) described in Section 3. The prefix L1 and L2 denote first and second lags, respectively.

TABLE III: LOCAL PROJECTIONS - GCC OUTWARD INVESTMENT

	(1) Year 0	(2) Year 1	(3) Year 2	(4) Year 3	(5) Year 4	(6) year 5
Overall outward investment/GDP	0.036 (0.040)	0.011 (0.058)	0.015 (0.086)	0.063 (0.102)	0.181 (0.121)	0.142 (0.147)
L.Overall outward investment/GDP	-0.016 (0.037)	-0.045 (0.060)	0.004 (0.079)	0.077 (0.105)	0.053 (0.146)	-0.005 (0.176)
L2.Overall outward investment/GDP	0.003 (0.058)	0.051 (0.064)	0.107 (0.091)	0.095 (0.132)	0.067 (0.171)	0.014 (0.152)
L.Real GDP growth	-0.025 (0.074)	-0.003 (0.115)	0.034 (0.131)	0.190 (0.146)	0.221 (0.215)	0.097 (0.245)
L2.Real GDP growth	0.022 (0.060)	0.042 (0.073)	0.102 (0.143)	0.079 (0.161)	-0.037 (0.176)	-0.125 (0.166)
Percentage change in oil prices	-0.000*** (0.000)	-0.000 (0.000)	0.000 (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.005*** (0.000)
Global real GSP growth	0.018*** (0.000)	0.017*** (0.000)	0.010*** (0.001)	0.013*** (0.001)	-0.012*** (0.004)	-0.036*** (0.004)
Constant	-0.031*** (0.005)	0.027*** (0.007)	0.083*** (0.012)	0.175*** (0.015)	0.280*** (0.033)	0.429*** (0.035)
Within R2	0.187	0.195	0.207	0.236	0.253	0.254
Observations	656	656	614	572	530	488

Standard errors in parentheses

$^{*}\ p < 0.10$, $^{**}\ p < 0.05$, $^{***}\ p < 0.01$

Notes: This table reports the results of estimating a parametric Local Projection models for GCC outward investment (in percent of GDP), as in equation (1) described in Section 3. The prefix L1 and L2 denote first and second lags, respectively.

TABLE IV: LOCAL PROJECTIONS - GCC DOMESTIC INVESTMENT

	(1) Year 0	(2) Year 1	(3) Year 2	(4) Year 3	(5) Year 4	(6) Year 5
Overall domestic investment/GDP	-0.081	0.156	0.168	0.149	0.449	0.426
	(0.086)	(0.126)	(0.301)	(0.289)	(0.274)	(0.345)
L.Overall domestic investment/GDP	0.203	0.249	0.245	0.446	0.500	0.673
	(0.118)	(0.294)	(0.331)	(0.343)	(0.407)	(0.419)
L2.Overall domestic investment/GDP	0.056	0.017	0.108	-0.062	0.216	0.069
	(0.207)	(0.248)	(0.283)	(0.377)	(0.365)	(0.387)
L.Real GDP growth	-0.025	-0.002	0.035	0.195	0.217	0.096
	(0.072)	(0.112)	(0.128)	(0.146)	(0.219)	(0.251)
L2.Real GDP growth	0.023	0.046	0.109	0.084	-0.022	-0.114
	(0.061)	(0.073)	(0.143)	(0.165)	(0.185)	(0.173)
Percentage change in oil prices	-0.000***	-0.000	0.000	0.002***	0.002***	0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Global real GDP growth	0.017***	0.017***	0.010***	0.013***	-0.014***	-0.038***
	(0.000)	(0.001)	(0.001)	(0.002)	(0.003)	(0.003)
Constant	-0.030***	0.023***	0.082***	0.179***	0.290***	0.434***
	(0.002)	(0.003)	(0.005)	(0.011)	(0.034)	(0.036)
Within R2	0.189	0.197	0.207	0.236	0.254	0.256
Observations	656	656	614	572	530	488

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results of estimating a parametric Local Projection models for GCC domestic investment (in percent of GDP), as in equation (1) described in Section 3. The prefix L1 and L2 denote first and second lags, respectively.

TABLE V: LOCAL PROJECTIONS - GCC INWARD, OUTWARD, AND DOMESTIC INVESTMENT

	(1) Year 0	(2) Year 1	(3) Year 2	(4) Year 3	(5) Year 4	(6) Year 5
Overall inward investment/GDP	-0.032	0.076	0.169*	0.218*	0.216	0.110
	(0.033)	(0.059)	(0.083)	(0.111)	(0.150)	(0.184)
L.Overall inward investment/GDP	0.084*	0.176**	0.274***	0.255**	0.145	0.219
	(0.048)	(0.077)	(0.093)	(0.096)	(0.153)	(0.126)
L2.Overall inward investment/GDP	0.070	0.143*	0.152*	0.035	0.152	0.246*
	(0.043)	(0.077)	(0.079)	(0.098)	(0.101)	(0.139)
Overall outward investment/GDP	-0.001	-0.002	0.008	-0.021	0.006	-0.037
	(0.021)	(0.031)	(0.044)	(0.060)	(0.086)	(0.129)
L.Overall outward investment/GDP	0.006	0.023	-0.014	-0.002	-0.026	-0.077
	(0.025)	(0.044)	(0.040)	(0.055)	(0.087)	(0.119)
L2.Overall outward investment/GDP	0.034	0.027	0.022	0.022	0.034	0.037
	(0.027)	(0.038)	(0.037)	(0.062)	(0.088)	(0.072)
Overall domestic investment/GDP	-0.038	0.073	0.116	0.082	0.307**	0.261
	(0.031)	(0.066)	(0.125)	(0.152)	(0.142)	(0.196)
L.Overall domestic investment/GDP	0.109	0.174	0.167	0.310	0.351	0.448*
	(0.095)	(0.120)	(0.142)	(0.189)	(0.203)	(0.243)
L2.Overall domestic investment/GDP	0.076*	0.044	0.125	0.015	0.100	0.132
	(0.040)	(0.074)	(0.099)	(0.143)	(0.106)	(0.149)
L.Real GDP growth	0.021	0.024	0.090	0.225	0.219	0.013
	(0.060)	(0.116)	(0.120)	(0.193)	(0.263)	(0.293)
L2.Real GDP growth	0.025	0.078	0.135	0.109	0.015	-0.019
	(0.074)	(0.077)	(0.142)	(0.148)	(0.185)	(0.207)
Percentage change in oil prices	-0.000	0.000	0.000	0.000	0.001	0.003**
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Global real GDP growth	0.015***	0.013**	0.009*	0.009*	0.008	-0.012
	(0.003)	(0.004)	(0.005)	(0.005)	(0.025)	(0.025)
Constant	-0.004	0.035	0.080**	0.122***	0.172	0.294**
	(0.012)	(0.023)	(0.032)	(0.041)	(0.100)	(0.103)
Within R2	0.121	0.073	0.049	0.039	0.038	0.080
Observations	593	586	544	502	460	418

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results of estimating a parametric Local Projection models for GCC investment (in percent of GDP), as in equation (1) described in Section 3. The prefix L1 and L2 denote first and second lags, respectively.

TABLE VI: LOCAL PROJECTIONS - GCC SWF OUTWARD INVESTMENT

	(1) Year 0	(2) Year 1	(3) Year 2	(4) year 3	(5) Year 4	(6) Year 5
SWF outward investment/GDP	0.024	0.038	-0.015	-0.000	0.034	-0.078
	(0.045)	(0.066)	(0.085)	(0.111)	(0.134)	(0.162)
L.SWF outward investment/GDP	0.006	-0.037	-0.026	-0.029	-0.117	-0.181
	(0.036)	(0.058)	(0.089)	(0.107)	(0.154)	(0.169)
L2.SWF outward investment/GDP	-0.012	-0.003	-0.012	-0.061	-0.093	-0.132
	(0.043)	(0.053)	(0.080)	(0.128)	(0.159)	(0.200)
L.Real GDP growth	-0.024	-0.002	0.033	0.191	0.223	0.088
	(0.075)	(0.114)	(0.129)	(0.149)	(0.218)	(0.247)
L2.Real GDP growth	0.023	0.042	0.106	0.083	-0.038	-0.127
	(0.061)	(0.072)	(0.148)	(0.163)	(0.177)	(0.169)
Percentage change in oil prices	-0.000***	-0.000	0.000	0.002***	0.002***	0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Global real GDP growth	0.018***	0.017***	0.010***	0.013***	-0.013***	-0.036***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.003)	(0.003)
Constant	-0.030***	0.027***	0.089***	0.183***	0.296***	0.443***
	(0.004)	(0.008)	(0.012)	(0.014)	(0.031)	(0.034)
Within R2	0.187	0.195	0.206	0.234	0.253	0.256
Observations	656	656	614	572	530	488

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results of estimating a parametric Local Projection models for GCC SWF outward investment (in percent of GDP), as in equation (1) described in Section 3. The prefix L1 and L2 denote first and second lags, respectively.

TABLE VII: **LOCAL PROJECTIONS - GCC SWF DOMESTIC INVESTMENT**

	(1) Year 0	(2) Year 1	(3) Year 2	(4) Year 3	(5) Year 4	(6) Year 5
SWF domestic investment/GDP	0.005	0.160	0.173	0.198	0.405*	0.509*
	(0.064)	(0.131)	(0.330)	(0.296)	(0.215)	(0.251)
L.SWF domestic investment/GDP	0.130	0.163	0.163	0.382	0.537*	0.710**
	(0.145)	(0.366)	(0.389)	(0.325)	(0.304)	(0.268)
L2.SWF domestic investment/GDP	0.091	0.080	0.232	0.314	0.517**	0.456*
	(0.201)	(0.251)	(0.217)	(0.229)	(0.192)	(0.254)
L.Real GDP growth	-0.026	-0.006	0.030	0.185	0.209	0.080
	(0.072)	(0.112)	(0.128)	(0.145)	(0.217)	(0.244)
L2.Real GDP growth	0.022	0.045	0.108	0.084	-0.027	-0.116
	(0.061)	(0.072)	(0.144)	(0.164)	(0.180)	(0.169)
Percentage change in oil prices	-0.000***	-0.000	0.000	0.002***	0.002***	0.005***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Global real GDP growth	0.017***	0.016***	0.010***	0.013***	-0.015***	-0.039***
	(0.000)	(0.001)	(0.001)	(0.001)	(0.003)	(0.003)
Constant	-0.030***	0.025***	0.084***	0.180***	0.294***	0.438***
	(0.002)	(0.003)	(0.005)	(0.011)	(0.030)	(0.032)
Within R2	0.188	0.196	0.207	0.237	0.257	0.260
Observations	656	656	614	572	530	488

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results of estimating a parametric Local Projection models for GCC SWF domestic investment (in percent of GDP), as in equation (1) described in Section 3. The prefix L1 and L2 denote first and second lags, respectively.

TABLE VIII: LOCAL PROJECTIONS - GCC SWF OUTWARD AND DOMESTIC INVESTMENT

	(1) Year 0	(2) Year 1	(3) Year 2	(4) Year 3	(5) Year 4	(6) Year 5
SWF outward investment/GDP	0.002	0.006	0.019	-0.010	0.010	-0.038
	(0.021)	(0.034)	(0.051)	(0.066)	(0.089)	(0.131)
L.SWF outward investment/GDP	0.009	0.031	-0.005	0.001	-0.027	-0.088
	(0.028)	(0.048)	(0.046)	(0.059)	(0.090)	(0.123)
L2.SWF outward investment/GDP	0.036	0.030	0.023	0.023	0.037	0.045
	(0.028)	(0.040)	(0.041)	(0.066)	(0.087)	(0.073)
SWF domestic investment/GDP	-0.055	0.087	0.105	0.040	0.248	0.228
	(0.037)	(0.109)	(0.146)	(0.181)	(0.164)	(0.202)
L.SWF domestic investment/GDP	0.095	0.147	0.089	0.243	0.305	0.428
	(0.107)	(0.153)	(0.194)	(0.233)	(0.227)	(0.255)
L2.SWF domestic investment/GDP	0.062	0.000	0.118	0.061	0.122	0.187
	(0.047)	(0.100)	(0.095)	(0.117)	(0.104)	(0.162)
L.Real GDP growth	0.022	0.027	0.079	0.204	0.214	-0.008
	(0.058)	(0.114)	(0.117)	(0.182)	(0.262)	(0.284)
L2.Real GDP growth	0.018	0.067	0.125	0.109	0.010	-0.031
	(0.074)	(0.075)	(0.137)	(0.151)	(0.182)	(0.200)
Percentage change in oil prices	-0.000	0.000	0.000	0.000	0.001	0.003**
	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)	(0.001)
Global real GDP growth	0.015***	0.012**	0.008	0.008	0.006	-0.014
	(0.004)	(0.005)	(0.005)	(0.005)	(0.025)	(0.025)
Constant	-0.001	0.043*	0.092**	0.133***	0.186*	0.312***
	(0.013)	(0.024)	(0.033)	(0.044)	(0.103)	(0.104)
Within R2	0.111	0.057	0.027	0.023	0.028	0.072
Observations	593	586	544	502	460	418

Standard errors in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Notes: This table reports the results of estimating a parametric Local Projection models for GCC SWF outward and domestic investment (in percent of GDP), as in equation (1) described in Section 3. The prefix L1 and L2 denote first and second lags, respectively.

![International Monetary Fund logo] PUBLICATIONS

Gulf Cooperation Council Diversification: The Role of Foreign Investments and Sovereign Wealth Funds