INTERNATIONAL MONETARY FUND

MIDDLE EAST AND CENTRAL ASIA DEPARTMENT

Assessing Banking Sector Vulnerabilities in the Gulf Cooperation Council in the Wake of COVID-19

Prepared by an IMF staff team led by Abdullah AlHassan, and comprising Imen Benmohamed, Aidyn Bibolov, Giovanni Ugazio, and Tian Zhang

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The Gulf Cooperation Council region faced a significant economic toll from the COVID-19 pandemic and oil price shocks in 2020. Policymakers responded to the pandemic with decisive and broad measures to support households and businesses and mitigate the long-term impact on the economy. Financial vulnerabilities have been generally contained, reflecting ongoing policy support and the rebound in economic activity and oil prices, as well as banks entering the COVID-19 crisis with strong capital, liquidity, and profitability. The banking systems remained well-capitalized, but profitability and asset quality were adversely affected. Ongoing COVID-19 policy support could also obscure deterioration in asset quality. Policymakers need to continue to strike a balance between supporting recovery and mitigating risks to financial stability, including ensuring that banks' buffers are adequate to withstand prolonged pandemic and withdrawal of COVID-related policy support measures. Addressing data gaps would help policymakers to further assess vulnerabilities and mitigate sectoral risks.

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1. Introduction

The Gulf Cooperation Council (GCC) region faced a significant economic toll from the pandemic and oil price shocks (twin shocks) in 2020. Besides the direct impact of COVID-19 on economic activity, the sharp decline in oil prices and the cut to oil production under the OPEC+ agreement weighed on the oil sector. Overall GDP is estimated to have contracted by 4.8 percent in 2020, with a decline in hydrocarbon GDP of 5.9 percent and a contraction of real non-hydrocarbon GDP of 3.9 percent. Contact-intensive sector such as construction, hospitality, transportation, and wholesale and retail trade sectors were particularly hard-hit.

While banks entered the COVID-19 crisis with ample capital and liquidity buffers, ongoing COVID-19 policy support could obscure financial vulnerabilities. Fiscal, monetary, and financial measures were deployed to ease the burden on households, firms, and banks. With signs of recovery, policy support measures have been increasingly targeted to hard-hit sectors, especially small and medium enterprises (SMEs). Though the banking system entered the crisis with substantial capital buffers and liquidity, banks have faced a difficult operating environment stemming from a prolonged health crisis and its impact on economic activity especially in hard-hit sectors, a challenging operating environment from fiscal consolidation, low profitability, and provision charges. Further, given uncertainty about the strength of the recovery, credit risk remains a concern going forward. The role of banks in providing credit to support the recovery and economic diversification could be hindered by deterioration in asset quality.

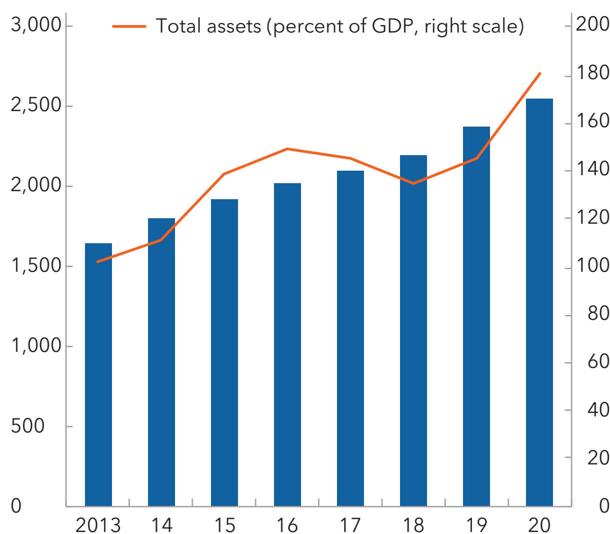
The twin-shocks have strengthened the links between sovereigns, banks, and real economy. While policy support measures have helped to ease the adverse impact of the crisis on the economy, they have intensified the existing sovereign-bank-real economy nexus and potential vulnerabilities through higher exposure to sovereign debt, increased potential contingent liabilities, and higher credit concentration. Prior to the shocks, GCC countries experienced two decades of significant financial deepening and increasing intersectoral linkages. During this period, bank credit and capital inflows financed the expansion in nonhydrocarbon sectors and helped governments smooth the business cycle during oil price downturns. Nevertheless, financial deepening also came with increased sectoral interconnectedness, which during a crisis could transform into pockets of vulnerabilities and facilitate intersectoral contagion. Among these, balance sheet linkages between the government sector, the banking system, and the real economy act as a transmission and amplification mechanism of real and nominal shocks.

Against this backdrop, this paper is structured as follows: Chapter 2 examines sectoral balance sheet linkages and vulnerabilities by analyzing sectoral interconnectedness and identifying the sovereign-bank-real economy interlinkages (including the extent to which the COVID-19 crisis has affected their potency and potential implications on the stability of the banking system); Chapter 3 analyzes the financial vulnerabilities and risks faced by the GCC banking systems and explores the relationship between macroeconomic variables and bank asset quality; and Chapter 4 provides policy priorities to ensure a resilient banking system that supports a sustainable and inclusive recovery.

2. Balance Sheet Interlinkages and Vulnerabilities Buildup

The GCC financial system is dominated by banks, which have grown significantly over the last two decades. Banks' total assets reached $2.6 trillion, equivalent to about 180 percent of GCC GDP, at the end of 2020, up from $1.6 trillion or 102 percent of GDP in 2013 (Figure 1). In all six countries, the banking sector is dominated by large banks with the top 5 banks accounting for about 65 to 95 percent of total assets. The nonbank financial institutions (NBFIs)—pension funds, asset management and finance companies, and insurance—remain small and are generally not involved in credit intermediation. Debt market development has remained limited, although there are differences in the region with few countries making strides in deepening their sovereign debt markets.[1] Nonetheless, stock market capitalization has grown strongly over the last decade, from $771 billion (65 percent of GDP) in 2010 to $3 trillion (219 percent of GDP) in 2020, propelled by the Saudi Aramco IPO in 2019 and inclusion of GCC countries in major emerging market indices.

Figure 1. Commercial Bank Assets
(Billions of US dollars)



Sources: Country authorities; and IMF staff calculations.

Balance sheet linkages and vulnerabilities have intensified over the last decade. Experiences during past crises and particularly the global financial crisis (GFC) have shown that financial vulnerabilities related to leverage and interconnectedness could build in countries despite banks holding sufficient buffers, (IMF 2014) and (IMF 2018). This section uses two complementary approaches– the IMF's balance sheet approach (BSA) and the sovereign-bank-real economy nexus (the nexus)—to shed light on financial vulnerabilities in GCC countries. Banks remain at the core of financial intermediation, including for foreign exchange (FX) borrowing of firms. Intersectoral lending and borrowing has increased substantially over the past decade, amplifying a powerful transmission channel for shocks such as potential deterioration in asset quality and increases in nonperforming loans (NPLs) once regulatory forbearance and other exceptional support measures expire. Furthermore, the COVID-related measures have intensified the nexus and increased the sensitivity of public finances to future corporate and financial sector developments.

A. Sectoral Interconnectedness

Sectoral interlinkages are analyzed using the IMF's BSA approach. The BSA of the six GCC economies is constructed following the methodology of (IMF 2015) that brings together the balance sheets of an economy's main sectors: (1) central government, (2) central bank, (3) commercial banks, (4) nonbank financial institutions, (5) firms, (6) households, and (7) rest of the world.[2] Balance sheet exposures are mapped in the form of a matrix.

[1] See IMF (2018) and Al-Hassan, Khamis, and Oulidi (2010).

[2] Rest of the world includes intra-GCC positions given no separate information is available to identify these.

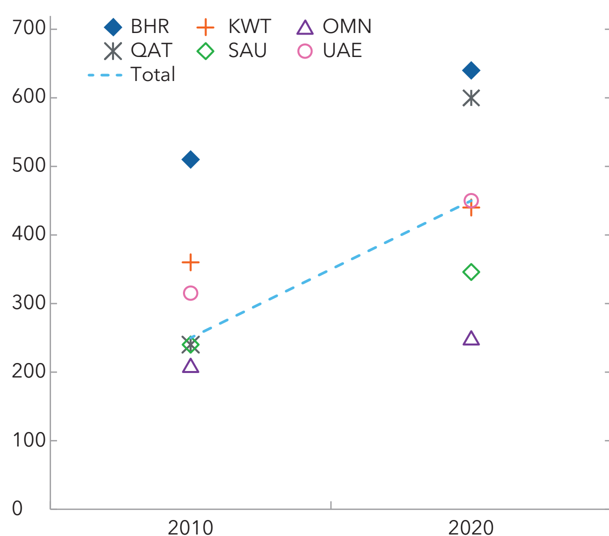
Balance sheet linkages are mapped using aggregated national statistics (Annex 1). The matrix identifies for each pair of sectors reciprocal assets and liabilities when information is available. Financial assets and liabilities in the GCC economies are estimated at end-2010 and end-2020 using aggregated balance sheets of depository corporations (central bank and commercial banks), balance sheets of NBFIs, the international investment position (IIP) covering domestic sectors' financial position vis-à-vis nonresidents, and governments' assets and liabilities. Country balance sheet data are converted into US dollars and aggregated into GCC totals for the analysis. The statistics are sourced from the IMF International Financial Statistics (IFS) and Balance of Payments (BOP) databases or, in case of unavailability, directly from the websites of national authorities. Given no direct balance sheet data are available for the private sector, estimates for firms and households' financial assets and liabilities are constructed using the counterparty detail available through the balance sheet of financial institutions and in the IIP.

Significant data gaps restrict the coverage of intersectoral balance sheet exposures. Although gaps vary by GCC countries, a few common issues constitute the key gaps in the analysis of intersectoral linkages. First, the lack of sectoral financial accounts requires the approximation of balance sheet exposures starting from statistical sources lacking harmonization of definitions and timeliness of reporting. Given no statistical source is directly available to cover private sector balance sheets, a non-trivial amount of private sector assets and liabilities might have been missed in the analysis. Second, looking at the financial sector specifically, the source data for countries other than UAE do not cover NBFIs. While domestic exposures of NBFIs might still be small, their growing importance in the economies could eventually be a potential source of shock transmissions. Finally, assets and liabilities of government-related entities (for example, sovereign wealth funds—SWFs and state-owned enterprises—SOEs) are uncertain, given no structured time series available. While missing data on SWFs leads to an underestimation of financial buffers, missing financial information for SOEs may hide contingent fiscal liabilities.

During the past decade, gross balance sheet and intersectoral exposures have grown significantly (Table 1). The total of balance sheet exposures grew to approximately 450 percent of GDP at the end of 2020 from 250 percent in 2010, reflecting large borrowing patterns and cross-border financing flows. Similar results also hold for 2019, as exposures showed only a slight increase of 20 percent of GDP during the COVID-19 crisis in 2020 at the GCC level, partly due to the contraction in nominal GDP. Despite some cross-countries differences, the main drivers of this interconnectedness have broadly been the financial deepening in GCC countries underpinning the expansion of non-oil sectors, and their larger fiscal deficits that emerged from the 2014–15 oil price shock which in most GCC economies persisted up to the onset of the COVID-19 pandemic (Figure 2). At the individual country level, Bahrain was the most interconnected country in all periods, though about half of exposures are due to its significant offshore banking sector (accounting for 330 percent of GDP) that is mostly not linked with the domestic economy. Qatar saw the largest increase in interconnectedness that tripled over the past decade, while Oman and Saudi Arabia remain relatively less connected and below the GCC weighted average.

Figure 2. Gross Cross-sectoral Balance Sheet Exposures in GCC Countries

(Percent of period GDP)



Source: IMF staff calculations and estimates.

Table 1. Balance Sheet Exposures, 2020

(Percent of GDP)

	Government		Central Bank		Other Depository Corporations		Other Financial Corporations		Nonfinancial Corporations		Households		External		Total	
	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities	Assets	Liabilities
Government																
Total			1	24	18	25							8	1	28	51
In domestic currency			0	24	16	21							0	0	16	45
In foreign currency			1	0	2	4							8	1	12	6
Central Bank																
Total	24	1			22	3					5	0	0	47	51	52
In domestic currency	24	0			22	2					5	0	0	0	51	3
In foreign currency	0	1			0	1					0	0	0	47	1	49
Other Dep. Corporations																
Total	25	18	3	22	9	15	4	1	28	44	40	32	34	32	143	165
In domestic currency	21	16	2	22	6	12	3	1	19	31	38	32	1	1	92	115
In foreign currency	4	2	1	0	3	3	0	0	9	13	2	0	33	31	52	50
Other Financial Corporations																
Total					1	4							0	1	5	7
In domestic currency					1	3							0	0	5	5
In foreign currency					0	0							0	1	0	2

Table 1. Balance Sheet Exposures, 2020 *(continued)*

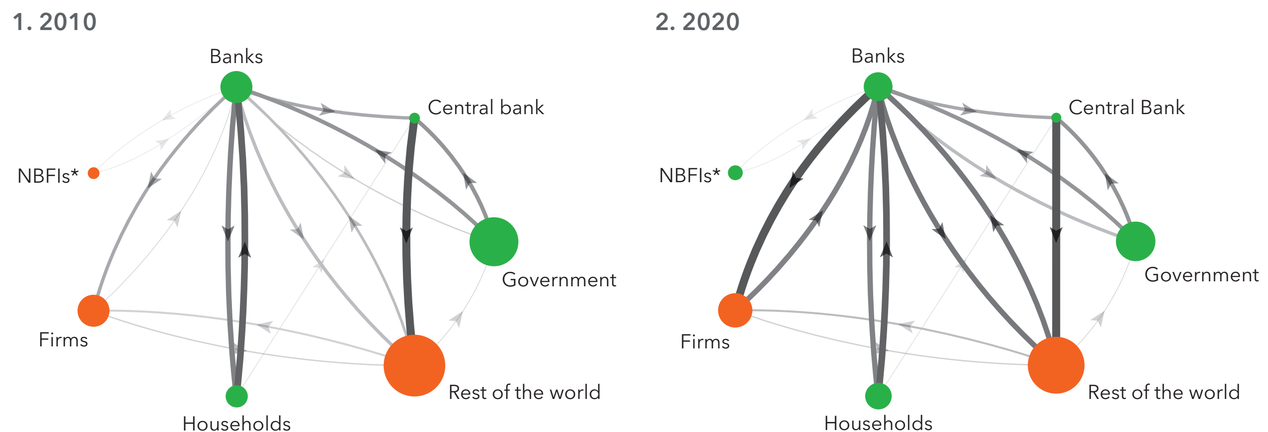
(Percent of GDP)

Nonfinancial Corporations																
Total					44	28							11	8	56	37
In domestic currency					31	19							0	0	32	20
In foreign currency					13	9							11	8	24	17
Households																
Total			0	5	32	40									33	47
In domestic currency			0	5	32	38									33	45
In foreign currency			0	0	0	2									0	2
External																
Total	1	8	47	0	32	34	1	0	8	11					89	54
In domestic currency	0	0	0	0	1	1	0	0	0	0					1	2
In foreign currency	1	8	47	0	31	33	1	0	8	11					89	53
Total	51	28	52	51	159	149	7	5	37	56	47	33	54	89	406	412
In domestic currency	45	16	3	51	109	98	6	5	20	32	45	33	2	1	229	234
In foreign currency	6	12	49	1	50	52	2	0	17	24	2	0	53	89	178	178

Source: IMF staff estimates.

Note: Assets and liabilities for each sector vis-à-vis other sectors are presented in columns, and vice versa for sectors in rows. Coverage is not comprehensive for the nonbank financial institutions, nonfinancial corporations, households, and government sectors. Color intensity in each cell denotes relative size of exposure compared to largest asset (green cells) and liability (red cells).

Figure 3. Balance Sheet Linkages



Source: IMF staff illustration and estimates based on available data.
Note: Orange nodes denote net debtors and green nodes net creditors. The diameter of nodes and thickness of arrows show the size of imbalances and exposures relative to the maximum value for each, respectively. NBIF = nonbank financial institution.

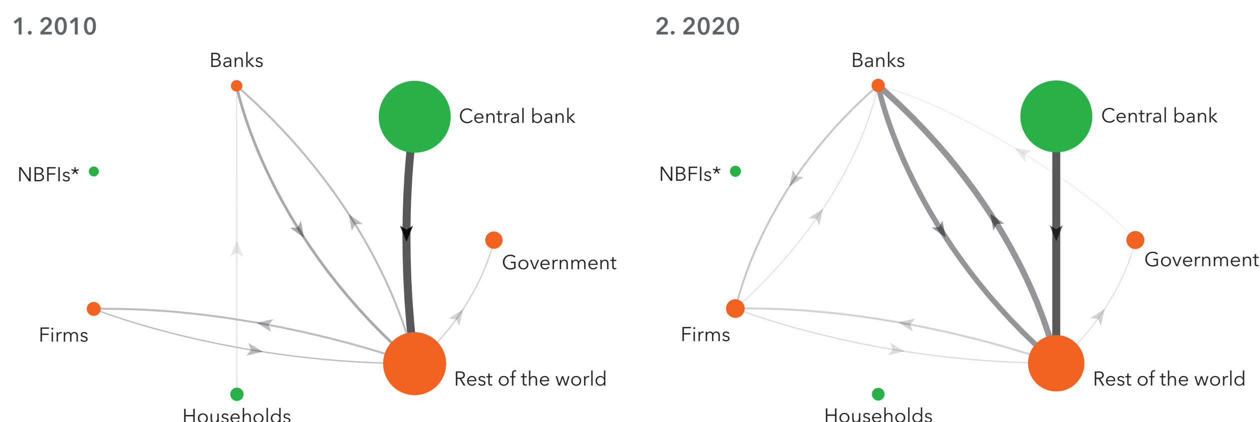
Banks have remained the key players in intermediating funds between creditors and debtors (Figure 3). Despite the rapid increase in balance sheet exposures and the changes in the net creditor/debtor relationship for some sectors, commercial banks continue to intermediate most funds in GCC countries. In 2020, bank balance sheets constituted approximately 40 percent of estimated financial assets and liabilities in the GCC, compared with 46 percent in 2010. In addition to channeling private sector savings, predominantly from the households' sector, to domestic credit, banks also play a key role as intermediary of foreign capital that enters GCC countries. In addition to regional development, country specific sectoral exposures are highlighted in Annex 2.

Governments' net financial wealth has declined, while bank credit to the private sector expanded significantly. On the borrowing side, GCC central governments have tapped their financial buffers and borrowed from both banks and the rest of the world, diminishing their net financial wealth to 14 percent of GDP in 2020 from 35 percent in 2010. These figures reflect the evolution of central government operations but, due to data unavailability, they do not consider assets in SWFs which in some GCC countries remain very large and can provide effective buffers if needed.[3] Moreover, the nonfinancial corporations sector became a large net borrower, mainly from banks, as it built leverage to expand, with estimated total liabilities increasing to 56 percent of GDP in 2020 compared with 37 percent of GDP in 2010. On the creditors' side, the household sector and external capital flows remain an important source of funds to the banking system, followed by the nonfinancial corporation and government sectors.

The increased external financing needs of several GCC countries and resulting capital inflows resulted in a large increase of FX exposures (Figure 4). Overall, financial assets and liabilities denominated in foreign currency almost doubled during the past decade, increasing to about 180 percent of GDP in 2020 from 90 percent in 2010. Capital inflows predominantly entered through the banking system and were to a large extent matched by a buildup of foreign assets by banks. However, banks' FX exposures to domestic sectors have also grown, and these may not be as liquid as their foreign assets. This development is observed in countries with large bank foreign liabilities (mainly in Bahrain, Qatar, and UAE) and could be a source of vulnerability in case of withdrawals or capital outflows caused by tightening of monetary policy in advanced economies, despite a relatively small net open position in external FX assets. Other key drivers of FX exposures include external borrowing by governments and firms, as well as firms FX borrowing from domestic banks that developed entirely in the last decade and was insignificant in 2010.

[3] Estimated total assets of GCC SWFs are 225 percent of 2020 GCC GDP, though large variations by country exist.

Figure 4. Exposures in Foreign Exchange



Source: IMF staff illustration and estimates based on available data.
Note: Orange nodes denote net debtors and green nodes net creditors. The diameter of nodes and thickness of arrows show the size of imbalances and exposures relative to the maximum value for each, respectively. NBIF = nonbank financial institution.

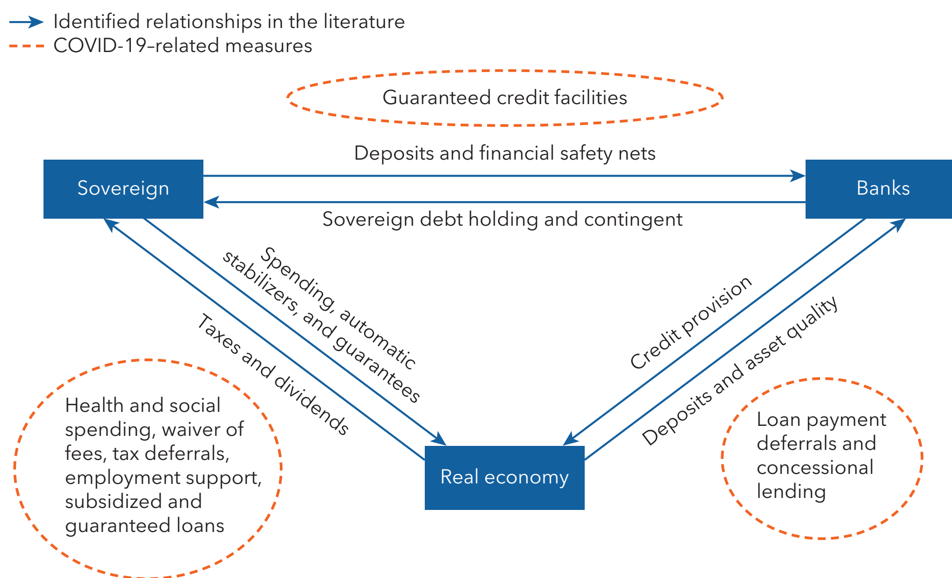
Overall, the interaction between balance sheets may magnify the impact of vulnerabilities. The BSA analysis highlights how cross-sectoral exposures have grown over time. In a context where banks remain the dominant players in intermediating funds, the BSA identifies as key vulnerabilities the growing fiscal imbalances and the large external financing of banks that led—among others—to a growing domestic FX credit to firms. In this context, a slower recovery or a substantial decline in oil prices would lead to a deterioration in fiscal positions and corporate earnings, with adverse effects on the banking sector hindering banks' ability to support credit growth for the recovery. The next subsection examines in more detail vulnerabilities related to the evolution of the sovereign-bank-real economy nexus, while Chapter 3 assesses asset quality in the banking sector.

B. Sovereign-Bank-Real Economy Nexus

The twin shocks have exposed the existing links between sovereign, banking sector, and real economy. Known as the nexus; it covers balance sheet linkages between the sovereign, banks, and the real economy, while identifying the mechanisms of shocks propagation and amplification (Figure 5). This includes, among others, government deposits and its impact on liquidity, credit provision and its impact on consumption and investment, asset quality of households and corporates as well as related financial stability concerns, tax revenue, contingent liabilities and automatic stabilizers, and banks' exposures to sovereign debt. Previous literatures have identified three main potential channels of contagion on both the asset and liability sides: the sovereign-exposure channel; the safety net channel; and the macro-financial spillovers channel (Dell'Ariccia and others 2018), while others, (IMF 2013) and (Schnabel 2021), broadened the analysis to the sovereign-bank-corporate nexus.

The sharp decline in oil prices in 2020, the COVID-related measures, and rising sovereign debt in the wake of the pandemic have intensified the nexus. While policy support measures by governments and central banks have helped to ease the adverse impact of the crisis on households and firms, they have strengthened the existing nexus. On one hand, some support measures such as loan guarantees by the government, direct transfers to SOEs and job retention schemes increased the sensitivity of public finances to future corporate and financial sector developments, beyond the traditional fiscal impact during recessions, such as lower tax revenues and higher social spending. On the other hand, along with asset

Figure 5. A Stylized Illustration of the Sovereign-Bank-Real Economy Nexus



Source: IMF staff based on the literature.

drawdowns, the increase in the budget deficit led to higher sovereign debt, and in turn higher exposure between governments and banks. In addition, corporates and households have become more dependent on government and banks support, especially with the extension of some measures such as loan deferrals and guaranteed credit facility programs.

The sovereign-exposure channel is one channel as banks are dominant holders of government securities and sovereign deposits remain main source of banks funding in some countries (Figure 6).

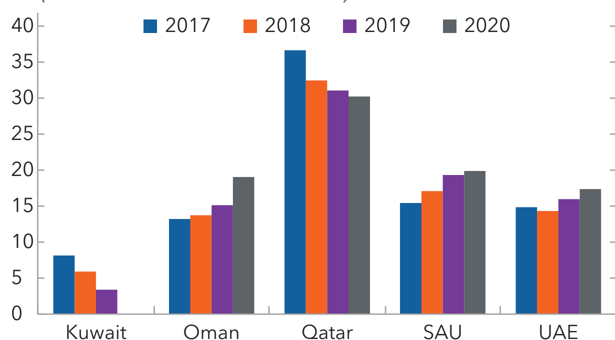
- Banks' holding of government securities as a share of their total assets increased in 2020 in some countries. It ranges from 5 to14 percent in Bahrain, Kuwait, Oman, Saudi Arabia, and UAE, and more than 20 percent in Qatar on average during 2015–9. As of end-2020, banks' claims on government increased from a five-year average of 6 percent and 8.5 percent to 10 percent of total bank assets for Oman and UAE, and from 12 percent and 15 percent to about 17 percent in Saudi Arabia and Bahrain, respectively. However, they declined from 5 percent to 2 percent in Kuwait and from 20 percent to 17 percent in Qatar. Moreover, the share of banks' holding of government securities in total government debt has declined from an average of 50 percent during 2014–19 to 30 percent in 2020 as GCC countries increased their reliance on external financing, benefiting from the retreat in spreads and investors' search for yield (Figure 7).

- Banks' holdings of government securities in the GCC countries remain higher than their peers (Figure 8). Higher domestic government borrowing and banks' continued appetite for government securities (through buy-and-hold strategies given the limited activities in the secondary market, as banks have excess liquidity) have resulted in a significant strengthening of the sovereign-exposure channel. Banks' claim on governments increased since the oil shock in 2014 and remained above the emerging market and developing economies (EMDEs) average for many countries in the region (10 percent for GCC on average against 7.8 percent for EMDEs). Although government securities are generally considered a safe asset, banks are still exposed to mark-to-market price fluctuations that are often linked to fiscal performance through ratings actions and sovereign risk premiums.

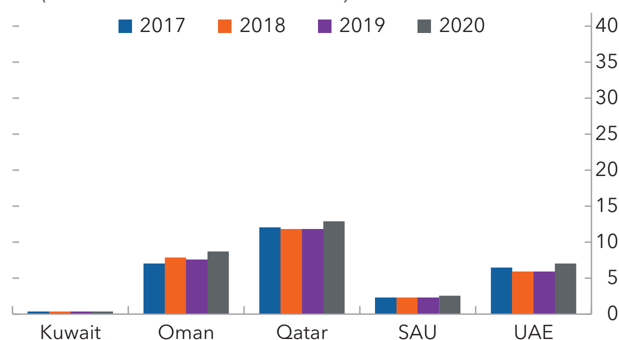
- Public sector deposits remain an important funding source for banks in the GCC (Figure 6). They help maintain banking liquidity at comfortable levels and extend credit to the private sector. Government and SOE deposits account for more than one-third of total deposits for Oman, Qatar, and UAE (Figure 6).

Figure 6. Sovereign Exposure Channel

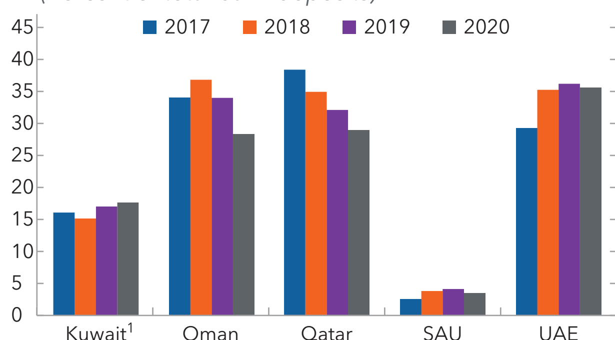
1. Claims on Government and SOEs
(*Percent of total bank assets*)



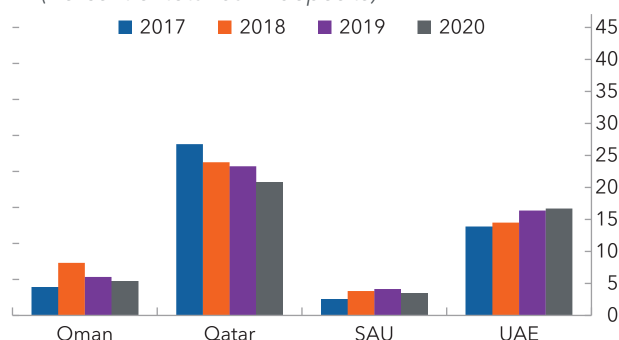
2. Claims on and SOEs
(*Percent of total bank assets*)



3. Deposits from Government and SOEs
(*Percent of total bank deposits*)



4. Deposits from SOEs
(*Percent of total bank deposits*)

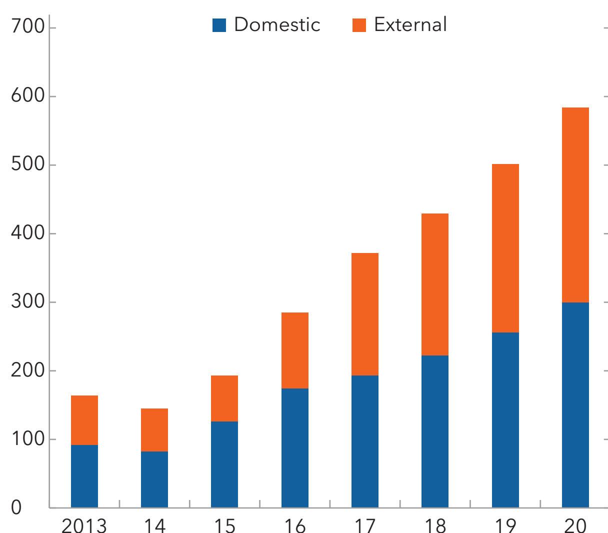


Sources: Countries authorities; and IMF staff calculations.
Note: This covers the gross figures of claims on government and SOEs.
[1]Including ministries, governmental departments, and public institutions with attached budgets and Kuwait Credit Bank.

The share of SOE deposits to total deposits have been stable, where they were relatively small only in Oman and Saudi Arabia (3.5 to 5.5 percent) and amounted to 15 percent in UAE and 23 percent in Qatar, respectively.

- Banks' exposure to SOEs remained relatively stable since 2014, albeit it varied across the region. Banks' claims on SOEs are 2 to 4 percent of total credit in Kuwait and Saudi Arabia, 11 to 13 percent in Oman and UAE, and up to 20 percent in Qatar.

Figure 7. GCC Government Debt
(*Billions of US dollars*)

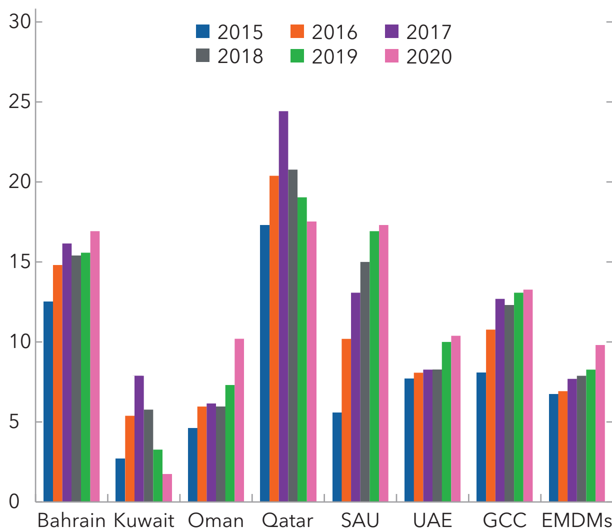


Sources: Country authorities; and IMF staff calculations.

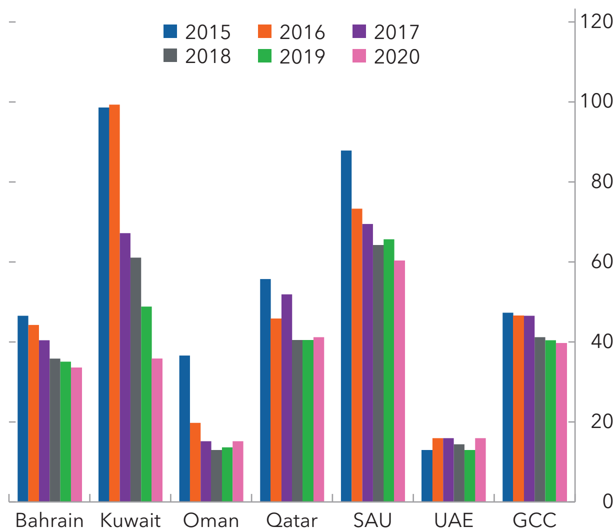
Banks' holding of government securities slightly increased during periods of sovereign distress (Figure 9). Episodes of sharp decline in oil prices usually coincide with a sharp increase in sovereign credit default swaps (CDSs) for the GCC economies, reflecting market concerns about fiscal sustainability, leading to high-risk perception of government debt by some investors. However, this does not seem applying to banks in the GCC. During the last episodes of sharp decline in oil prices (2015, 2020), banks slightly increased their holding of government

Figure 8. Banks' Holding of Government Securities

1. Percent of Total Bank Assets

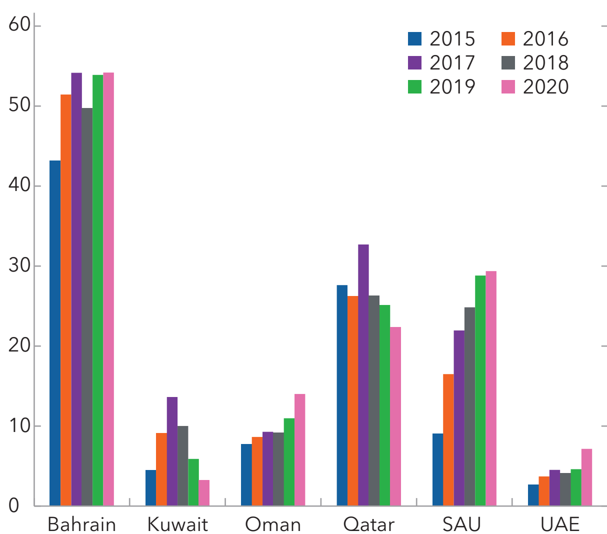


2. Percent of Total Government Debt



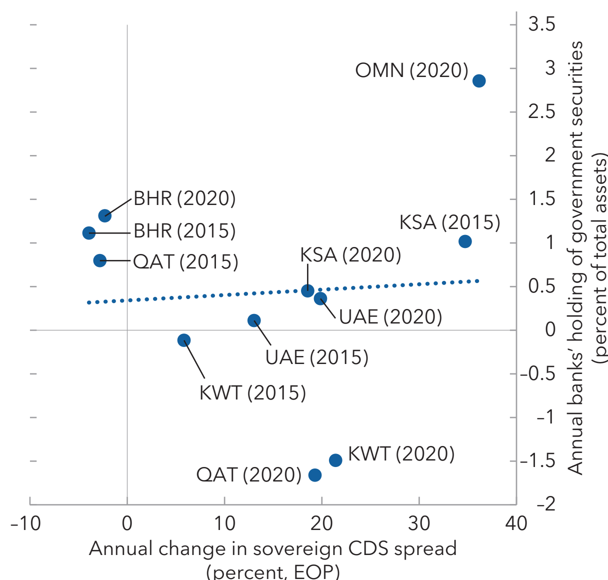
Sources: Country authorities; IMF, International Financial Statistics database; and IMF staff calculations.

Figure 9. Ratio of Banks' Holding of Government Securities to Credit to the Private Sector
(Percent)



Sources: Country authorities; IMF, International Financial Statistics database; and IMF staff.

Figure 10. Banks' Holding of Government Securities around Periods of Sharp Decline in Oil Prices (2015, 2020)



Sources: Country authorities; Bloomberg Finance L.P.; and IMF staff calculations.

securities (by 0.6 percent in 2015 and 0.3 percent in 2020 of their total assets, on average) (Figure 10). This could be consistent with government securities being perceived as safe assets during periods of economic crisis.

Despite the heightened sovereign exposure, banks continued to play a crucial role in supporting the flow of credit to the economy during the pandemic. The strengthening of the sovereign-bank nexus in 2020 did not crowd out lending to the private sector. The ratio of banks holding of government securities to credit to the private sector declined in Kuwait and Qatar, while remaining stable in Bahrain, Oman, and Saudi Arabia, with a slight increase in the UAE. However, this can increase if the recovery stalls and an outbreak of new COVID-19 variants materializes—leading to further stringency measures and higher government support.

The macro-financial spillovers constitute another channel as it reflects risk and distress dependence through bank-corporate interlinkages. With a procyclical fiscal policy, a decline in oil prices has contractionary effects on economic activity, which will in turn have a negative impact on the banking system's stability, due to the likely deterioration of the banks' loan portfolio resulting from the economic slowdown.

The pandemic has widened this channel through intensifying existing vulnerabilities in the corporate sector. Even before the COVID-19 pandemic hit, nonfinancial corporations in the GCC region were exhibiting a trend of increasing vulnerabilities (Figure 11). The COVID-19 crisis has exacerbated these vulnerabilities, including potentially intensifying bank-corporate interlinkages through (1) the loan guarantees and employment protection, (2) loan payment deferrals, (3) concessional credit facilities to businesses, and (4) subsidized

Figure 11. Corporate Sector Performance

Sources: S&P Global Market Intelligence; and IMF staff calculations.
Note: Emerging market economy sample refers to firms from Brazil, Russia, India, and South Africa included in S&P Global Broad Market Index. Corporate sector covers all companies for which financial data are available, including government owned or related companies.

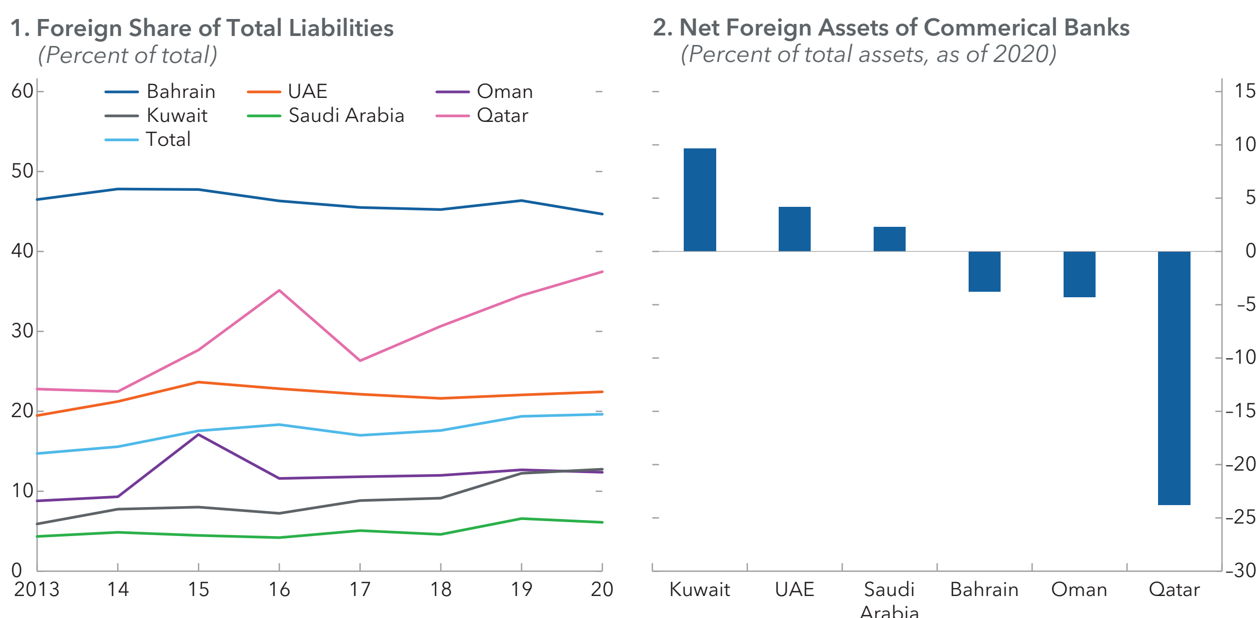
loans by government-sponsored funds. Corporate performance measured by profitability, leverage, and debt service has deteriorated over time. The return on equity (ROE) has been declining in the region in the past 15 years, falling more rapidly in the GCC region compared to emerging market economies (EMs). On average, data show that ROEs fell from 15 percent in 2005 to 4 percent in 2020. Despite some observed de-leveraging in the aftermath of the GFC, corporate debt continued to rise, though remained below EMs except for Kuwait and Oman. The rise in leverage was widespread across sectors. Higher leverage manifested in higher debt costs, as measured by the interest coverage ratio where it has diminished sharply since 2007. This could potentially result in a deterioration in banks' asset quality and materialization of contingent liabilities once the measures are withdrawn.

Overall, the nexus intensification could increase risks to the financial stability—particularly stemming from the corporate sector. As the recovery consolidates and the withdrawal of support measures ends, potential deterioration in asset quality could surface in financially non-viable firms, requiring facilitating an orderly debt restructuring to safeguard financial stability. However, higher exposure to sovereign debt by banks—due to higher fiscal deficit during the pandemic—does not constitute an immediate concern given the rebounding oil prices and ample financial buffers that could be strengthened further through additional fiscal adjustment in the medium-term.

3. Risk and Vulnerability Assessment of Banks

Loans account for the bulk of banking assets and are funded largely by deposits. Loans amounted to more than half of assets, with average annual loan growth of about 7 percent during 2014–20. Loans to the private sector are concentrated in personal, real estate, services, and trade loans. The bulk of GCC bank funding—between 58 and 80 percent of total liabilities—comes from deposits mainly from retail, corporate, and government (Figure 12). The rapid loan growth contributed to the system-wide loan-to-deposit (LTD) ratio reaching over 100 percent in Oman and Qatar signaling potential liquidity vulnerability through increased reliance on foreign funding markets. Dependence on foreign liabilities grew from 15 percent in 2013 to 20 percent of total liabilities in 2020 (or 36 percent of the GCC GDP). Foreign liabilities are about 45 percent of total liabilities in Bahrain, mainly from the GCC and around 40 percent in Qatar.

Figure 12. Foreign Funding Exposure of GCC Banks



Sources: Country authorities; and IMF staff calculations.

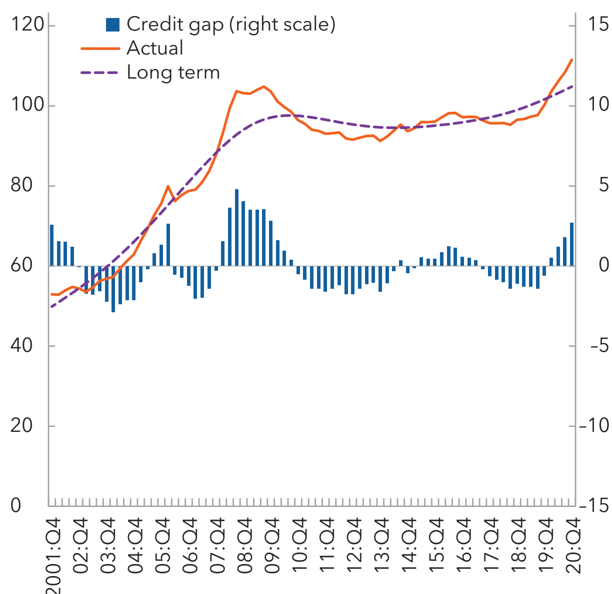
The twin shocks will have an effect on banks' loan portfolios. Significant slowdown in the economic activity in 2020 impacted affect borrower's ability to pay. This section will look at developments in the bank credit and asset quality in the GCC. We use two approaches—credit cycle and macro model—to project the effect of the shocks on the loan portfolios and asset quality.[4] We also look at the measures taken to mitigate shocks by the authorities.

A. Credit Cycle Analysis

The credit cycle analysis is constructed using bank credit to the private sector. Given the dominant role played by banks in the provision of credit to private sector and the unavailability of sufficient data on NBFI assets, the credit cycle is analyzed using a relatively narrow credit definition: (1) bank loans to corporates

[4] This section discusses onshore banks only. There are also offshore financial centers in the region mainly intermediating financial transactions with institutional investors and international markets.

Figure 13. Financial Cycle in GCC Countries[1]
(Credit to private sector, percent of non-oil GDP)



Source: IMF staff calculations.
Note: The long-term is estimated using the HP filter on a time series starting in 2001:Q4 and a lambda parameter of 1600 for quarterly data.
[1]Calculated using the ratio of credit to private sector and GDP.

and households and (2) holdings by banks of domestic corporate debt securities. The statistics are sourced from the IMF IFS and IMF World Economic Outlook (WEO) databases, covering the fourth quarter of 2001 through the fourth quarter of 2020.

GCC countries have gone through two decades of sustained financial deepening. A main driver of increased sectoral interconnectedness, credit-to-GDP ratio increased from 30 percent at the end of 2001 to approximately 80 percent at the end of 2020, compared to 113 and 63 percent in advanced economies (AEs) and EMs, respectively. Using non-oil GDP, the ratio increased from 50 percent to 100 percent in the GCC over the same period. The credit gap is derived as the log-deviation between the actual credit-to-non-oil GDP ratio and a simplified long-term trend.[5] Over the length of this period, credit completed two full cycles, highlighting persistent credit gaps and forming a projection for the cycle outlook (Figure 13). In the first cycle, credit peaked during the GFC after which a period of sharp deleveraging and persistent negative gaps began. The peak-to-trough decline was about 8 percent of non-oil GDP. Post-GFC, the credit trend settled at a lower level for a few years before resuming its long-term growth. The second peak occurred during the oil price shock of 2014–15 and, while the cycle was far less pronounced compared to the GFC, the deleveraging process that ensued lasted for approximately two years stalling the long-term trend until 2019. During 2020, the estimated credit gap shows a rapid increase as the COVID-19 crisis unfolded, driven by positive credit growth, the impact of loan repayments moratoria, and the sharp decline in non-oil GDP.

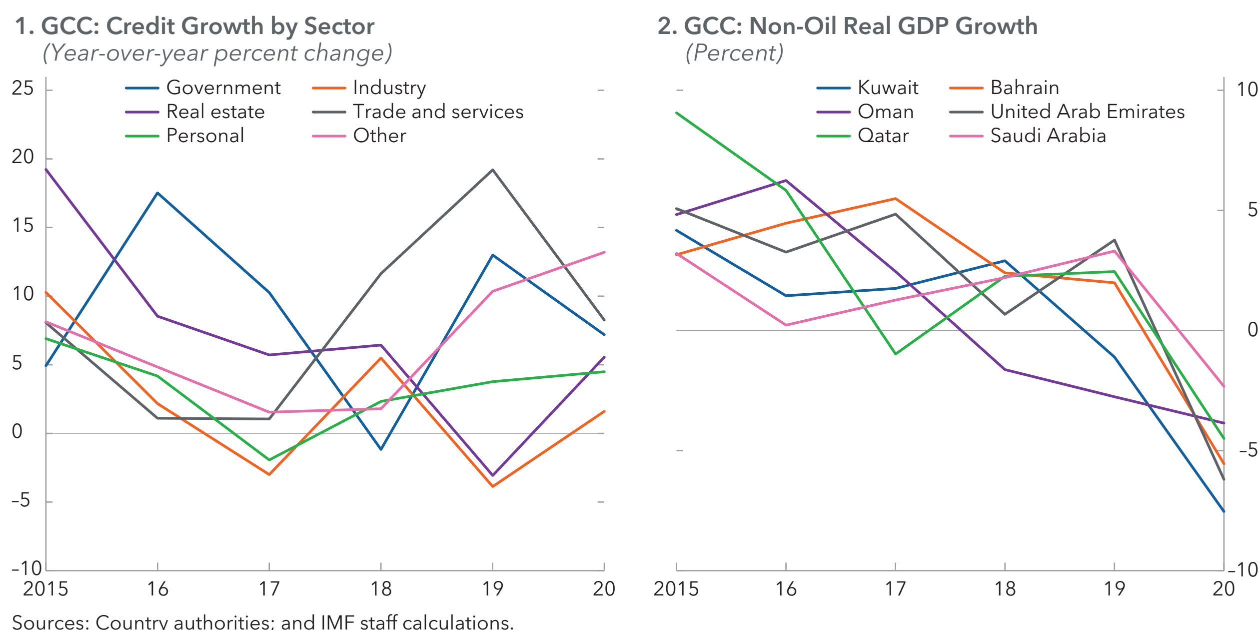
Based on previous credit cycles, should the COVID-19 crisis trigger a deleveraging, bank credit could take time before returning to its long-term trend. Although banks entered the COVID-19 crisis with solid balance sheets and buffers, the deleveraging size and persistence following the COVID-19 crisis will depend on which sectors borrowed and the speed of their post crisis recovery, fiscal space and to what extent fiscal support can prevent increases in default rates, and the efficiency of any postcrisis sectoral reallocation. Furthermore, the sharp increase in balance sheet exposures over the past few years, including in FX, could yet provide a shock transmission channel should corporate vulnerabilities further intensify in the postcrisis period including capital reallocation and possibly extending the deleveraging process.

B. Impact of COVID-19 on the Banking Sector

The pandemic and collapse in oil prices in 2020 created a twin shock for the GCC economies. To combat and contain the pandemic, countries imposed public health measures including closure of nonessential businesses, social distancing requirements, and border restrictions, which were eased later in 2020. These measures helped to contain the health crisis, but they negatively affected economic activity, resulting in recessions, with non-oil real GDP contracting by about 4 percent in 2020. Annual credit growth in

[5] Long-term trend is estimated using the Hodrick-Prescott filter on quarterly data with the lambda parameter set to 1600.

Figure 14. Credit and Non-Oil Growth



Sources: Country authorities; and IMF staff calculations.

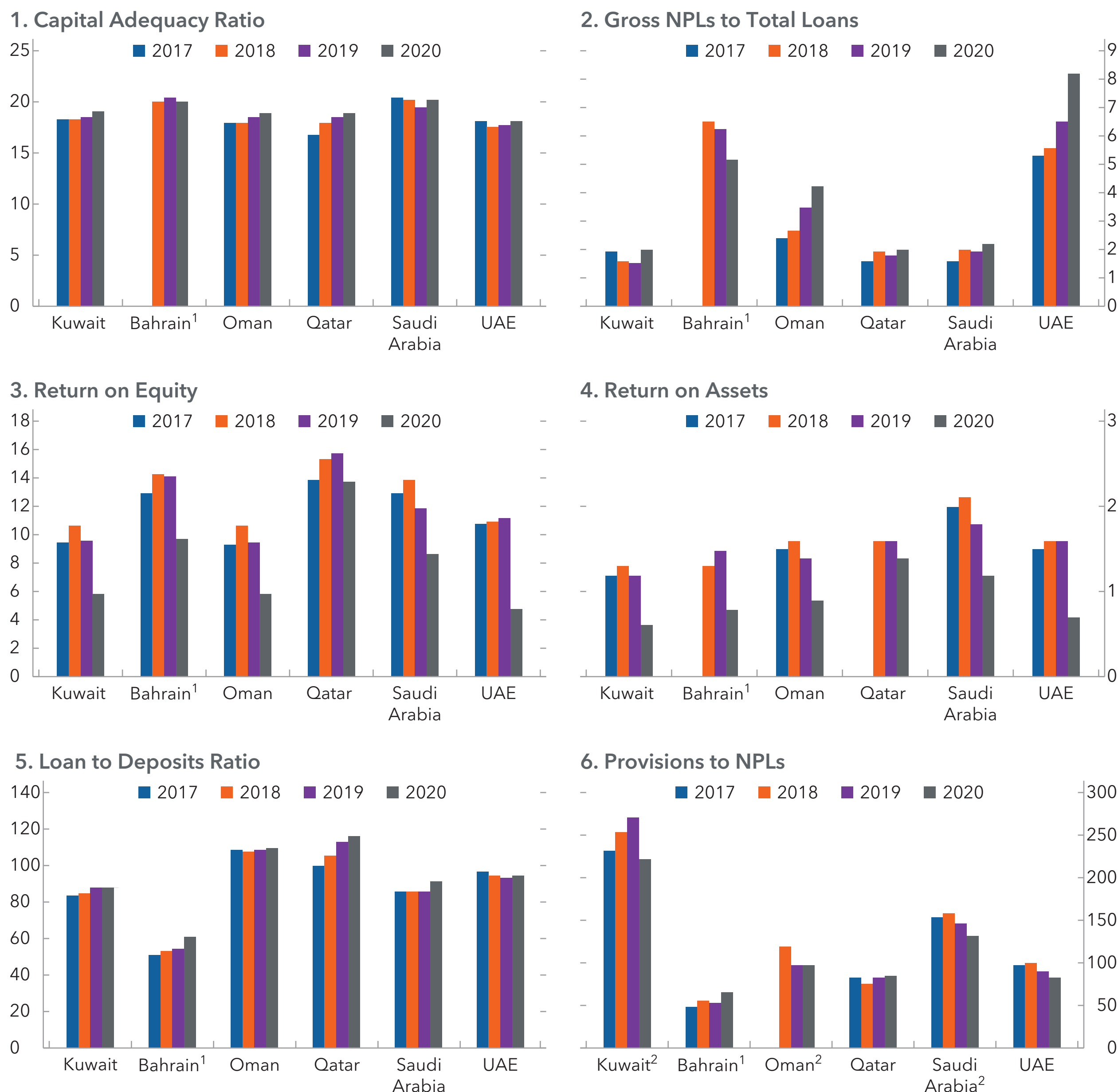
contact-intensive trade and services sectors also decelerated from an average of 15 percent in 2018–19 to 8 percent in 2020 (Figure 14). Overall credit growth in the GCC was about 6 percent in 2020 which was in line with the credit growth in EMs.

GCC banking systems remain well-capitalized, but profitability and asset quality have declined (Figure 15). Systemwide capital levels remained strong in 2020, above 17 percent in all GCC countries and increasing in all countries except Bahrain as several banks issued additional capital bonds. However, the economic recession led to a decline in asset quality and profitability in the majority of GCC banking systems. NPLs increased in all GCC countries, with varying degrees, except Bahrain. Return on assets declined, falling the least in Qatar by 0.2 percentage points and the most in the UAE by 0.9 percentage points. Net income of the largest five banks in each country declined by 30 percent from a year ago, reflecting higher provisions for loan losses which increased by about 70 percent in 2020 as banks building their buffers against potential deterioration in asset quality and withdrawal of policy support measures (Figure 16). The systemwide provisions coverage changes in the GCC countries are heterogeneous as in a selection of EMs (Table 2).

In response to the twin shocks, the authorities introduced wide-ranging fiscal, monetary, and financial sector support measures to limit the impact on the economy (Annex 4). The fiscal COVID-19 response in the GCC was relatively low, when compared to other EMs and AEs, mainly reflecting the large size of government spending as a share of GDP and that the majority of GCC nationals work in public sectors with little-to-no layoffs.[6] Central banks eased financial conditions through lower interest rates and liquidity injections, loan payment deferral, and relaxed prudential requirements on capital buffers and liquidity ratios (Figure 17; Table 3). Most GCC central banks provided zero interest liquidity lines for banks to extend financing to affected borrowers. Most countries introduced systemwide moratoriums on loan repayments for selected borrowers, while some introduced loan guarantees and concessional financing for SMEs. Several countries relaxed prudential requirements, including reducing risk weights on SME loans. Most of these measures were initially planned to expire in 2020.

[6] See IMF GCC Surveillance Note, 2021.

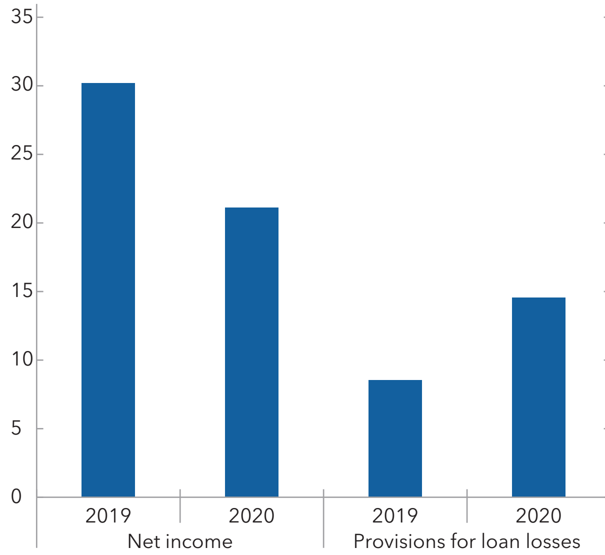
Figure 15. Selected Financial Soundness Indicators
(Percent)



Sources: Country authorities; and IMF staff calculations.
[1]For retail banks only.
[2]Total (general + specific) provisions as a percentage of nonperforming loans is used due to data availability.

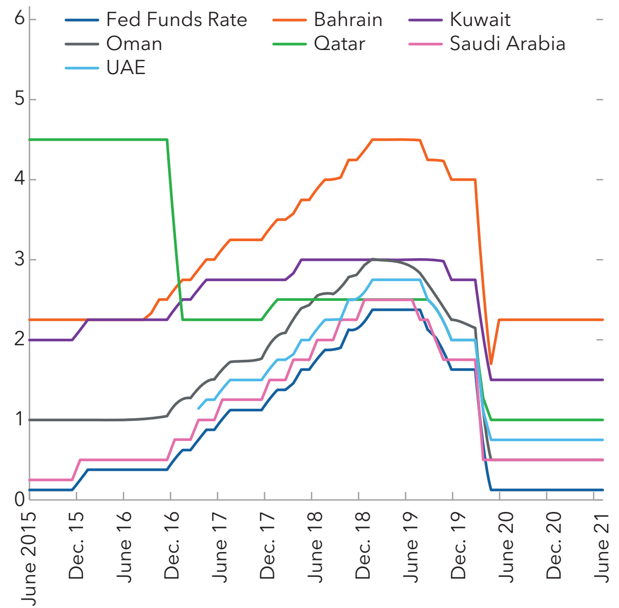
With a prolonged COVID-19 crisis, some policy support measures have been extended to 2021. The support measures helped to mitigate consequences of the twin shocks to the GCC economies, avoid distress among temporarily affected borrowers, and ensure liquidity in the banking system. As new infections have increased in 2021 and some public health measures have been re-introduced, GCC countries have extended many support measures into 2021, including moratoriums on loan repayments (Figure 18). Though these monetary and financial measures have helped to offset negative balance sheet effects from virus containment measures, relaxed regulatory and prudential measures could have obscured deterioration in asset quality and led to higher risk-taking by banks on loans where risk classification was deferred or reduced.

Figure 16. Net Income and Provisions
(Billions of US dollars)



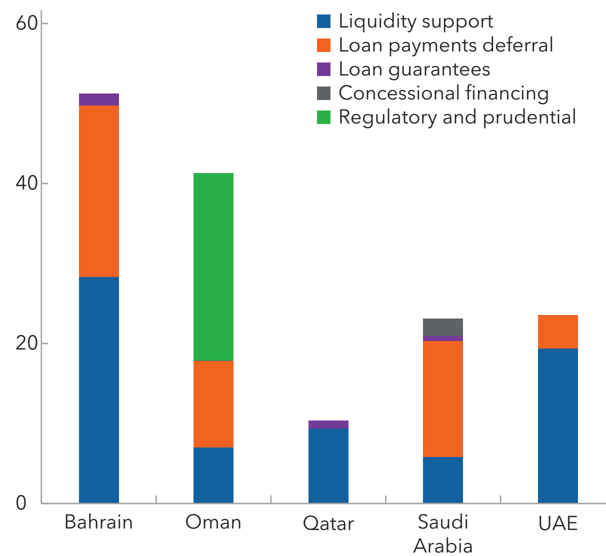
Sources: S&P Capital IQ; and IMF staff calculations.

Figure 17. GCC Policy Rates and Federal Fund Rate
(Percent)



Source: Country authorities.

Figure 18. Monetary and Financial COVID-19 Policy Measures
(Percent of GDP)



Sources: Country authorities; and IMF staff calculations.
Note: The data are collected through public information and country desks and may not be comprehensive.

Table 2. Provisions as a Percent of Nonperforming Loans (%)

	2019	2020	Year-over-year change
GCC			
Kuwait[1]	270.6	222.1	–17.9
Bahrain	54.0	64.2	18.7
Oman[1]	97.5	98.0	0.6
Qatar	81.9	83.8	2.3
Saudi Arabia[1]	146.1	131.1	–10.3
UAE	62.5	58.7	–6.1
G20 Emerging Market Economies			
Russia	93.5	93.8	0.2
South Africa	45.2	43.4	–4.1
China	234.3	215.0	–8.2
Mexico	146.0	165.0	13.0
Brazil[2]	178.9	231.9	29.6
Indonesia	53.3	66.3	24.4
Turkey	65.0	75.0	15.4

Source: Country authorities.
[1]Total (General +Specific) Provisions.
[2]Data are from 2020:Q3.

Table 3. Monetary and Financial Policy Measures in Response to the COVID-19

Country	Reduced policy rates	Liquidity support	Loan payments deferral	Concessional financing	Loan guarantees	Regulatory and prudential
Bahrain	✓	✓	✓	✓	✓	✓
Kuwait	✓		✓	✓	✓	✓
Oman	✓	✓	✓	✓		✓
Qatar	✓	✓	✓	✓	✓	
Saudi Arabia	✓	✓	✓	✓	✓	
UAE	✓	✓	✓			✓

Sources: Country authorities; publicly available information; and IMF staff estimates.

C. Bank Assets Quality and Macroeconomic Environment

Weaker economic activity and lower oil prices can lead to a deterioration in asset quality and lower capital buffers in GCC banks. With about 16 percent of loan portfolios in trade and services sectors, asset quality in the banking systems is particularly sensitive to the pandemic (Figure 19). Also, once policy support policies are withdrawn, a delayed rise in NPLs could be observed especially in high contact-intensive sectors susceptible to the pandemic. Increased provisions mitigate deterioration in asset quality deterioration and reinforce banks' capital levels.

Figure 19. Sectoral Distribution of Bank Credit to Private Sector
(Percent)

Sources: Country authorities; and IMF staff calculations.

A macro-credit risk model is estimated to identify the key determinants of asset quality in the GCC. Macroeconomic and financial indicators are considered as explanatory variables for banks' NPL ratios based on GCC's economic characteristics and guided by previous literatures, (Espinoza and Prasad 2010) and (Khandelwal, Miyajima, and Santos 2016). The sample includes 51 banks, which account for an average of 90 percent of total banking system assets in each country. The analysis is based on publicly available data, rather than more granular regulatory data available to supervisors. A system generalized method of moments dynamic panel approach was used on data spanning 2005–20, utilizing (Arellano and Bover 1995) and (Blundell and Bond 1998) estimation method. Results show that NPL ratio exhibits strong autocorrelation. Real non-oil GDP growth, the US federal funds rate, and VIX index are statistically significant (Table 4) across different econometric model specifications.

A prolonged and severe pandemic could lead to further deterioration in asset quality. The empirical model shows that average GCC NPLs are projected to increase to 5.4 percent in 2021 from 4 percent of total loans in 2020. For 2022, under a baseline scenario based on IMF WEO, NPLs are projected to decrease to 4.5 percent of total loans. Under a shock scenario, where explanatory variables are negatively shocked by one standard deviation over the whole sample, NPLs are projected to grow to 6.1 percent of total loans in 2022. These results, however, need to be interpreted with some caution and are subject to some caveats: (1) given lack of data, the empirical model does not take in consideration the scale of deferred loans, which might contribute to NPLs at a higher proportion than the overall loan portfolios and (2) the VIX index, a key explanatory variable for the projections, is volatile and difficult to predict, thus its actual values may vary substantially from assumptions.

Despite a challenging operating environment, GCC banking systems would remain resilient. Under a shock scenario, increase in NPLs could lead to a decrease in the aggregate GCC capital level by 0.7 percent in 2022 on average reaching 17.7 percent, still above regulatory requirements. Results of stress tests, published by several GCC central banks, assumed a more severe deterioration in NPLs and showed that the banking systems would still be resilient given the high level of capital, with a very few banks falling below the minimum

Table 4. Determinants of Bank Nonperforming Loan Ratios

Variables	(1) System-GMM	(2) Difference-GMM	(3) OLS	(4) FE
Logit of NPL ratio (L1)	0.624***	0.510***	0.791***	0.591***
Real non-oil growth (L1)	−0.0306***	−0.0113	−0.0213***	−0.0252***
Real oil price growth (L1)	0.000692	−0.00125	0.000473	0.000575
VIX index (L1)	0.0231***	0.0273**	0.0208***	0.0231***
Real stock growth (L1)	−0.000902	0.00442*	−0.00174	−0.000134
Real US fed fund rate (L)	0.0390*	0.0548***	0.0479**	0.0299**
Constant	0.0516	−0.0178	−0.112*	0.0664
Number of banks	51	51	51	51
Observations	621	562	621	621
R-squared			0.765	0.518
AR (1)	0.000	0.004		
AR (2)	0.760	0.735		
Hansen test	0.104	0.393		

Sources: Country authorities; Haver Analytics; Standard and Poor's; and IMF staff estimates.

Note: The dependent variable is bank-by-bank (logit transformed) NPL ratio for selected GCC banks spanning 2005–20 (annual frequency). relying on a system GMM approach, with the collapsing method. The coefficients represent nonlinear effect that depends on starting levels. ***, **, and * signify statistical significance at the 1%, 5% and 10% levels. L1 signifies one period lag. AR(1) and AR(2) signify p-values associated with the null hypothesis of lack of first and second order serial correlation. Hansen test signifies *p*-value associated with the null hypothesis that the instruments are exogenous. A model is considered to pass tests if *p* values of both AR(2) and Hansen tests are 10% or greater.

capital requirement.[7] In the historical perspective, the GCC banking system has proved resilient during to the global financial crisis of 2007–09, during which the capital level quickly rebounded after the initial shock and remained stable despite the rising NPLs ratio in the following few years.

[7] Bahrain, Kuwait, Oman, Qatar, and UAE.

4. Policy Priorities

GCC banking sectors have been resilient so far, entering the crisis with strength and supplemented by ongoing COVID-19 policy support, but financial vulnerabilities may emerge. GCC banking systems still appear well-capitalized and resilient against further shocks with generally low-reported NPLs, although profitability declined. However, COVID-19 policy support, especially loan moratoria and associated risk classification, could obscure deterioration in asset quality. Given the gradual and uncertain recovery, credit risk is a concern going forward, requiring close monitoring to contain financial vulnerabilities once policy support measures are withdrawn.

While monetary and financial supporting policies continue to be essential to strengthen the ongoing recovery, these policies should be calibrated to the stage of the pandemic. GCC economies are projected to grow in 2021 on the back of ongoing recovery in economic activity and rebound in oil prices, supporting borrowers and banks during the recovery phase. The emergence of virus mutations and greater uncertainty about the recovery point to the need for continued policy support measures to maintain the flow of credit to borrowers and contain financial stability risks. Substantial downside risks to the outlook remain, suggesting that the eventual removal of unprecedented policy support will have to be gradual, tailored to country-specific circumstances, and recalibrated along the way as dictated by the evolution of the recovery (Table 5).[8]

Table 5. Monetary and Financial Policy Road Map

Policy Areas	Peak of the Pandemic in 2020	Reopening	Recovery
Monetary policy	Reduced policy rates in line with the pegged exchange rate regimes	Maintain policy rates in line with the pegged exchange rate regimes	Maintain policy rates in line with the US Federal Reserve and the pegged exchange rate regimes
Liquidity support	Most countries provided zero interest liquidity lines to banks to extend loans to borrowers	Keep and target liquidity lines as needed	Withdraw liquidity lines and use existing facilities
Loan payments deferral	Most countries introduced loan payments deferrals for private sector or retail borrowers	Maintain and target loan payments deferrals	Ask banks to provide plans to address deterioration in asset quality and to facilitate debt restructuring that reduces debt overhang
Concessional financing and loan guarantees	Most countries introduced financing and guarantees for selected private sector companies	Maintain financing support if containment measures are reintroduced, but tighten eligibility criteria to better target illiquid but solvent firms	Withdraw support
Regulatory and prudential	Several countries eased liquidity requirements, relaxed LTV ratios, and reduced risk weights on SME loans	Announce timeline for resumption of the pre-pandemic requirements	Bring all requirements in line with international norms; work with affected banks to develop plans to restore buffers

Source: IMF staff based on IMF (2020), which presents a roadmap of appropriate actions for the three stages of the pandemic.

[8] This section draws on the Chapter 1 October 2020 Global Financial Stability Report and a note on Unwinding Covid-19 Policy Interventions for Banking Systems.

Central banks should analyze the use of liquidity lines provided during the pandemic gradually targeting them during the opening phase and winding down liquidity facilities once the recovery is well under way. Extending loan moratoria should be data-dependent and increasingly targeted to distressed but viable borrowers, considering the availability of other policy tools to support households and businesses.

Policymakers need to continue to strike a balance between supporting recovery and mitigating risks to financial stability. Policymakers should be vigilant of the financial stability risks stemming from high leverage in the post COVID-19 environment and potential challenges to the public finances. At the same time, coordinating COVID-19 policy support measures and structural reforms would help minimize the long-term scars on the economy. Given the still elevated uncertainty about the path of the pandemic, the scope of support measures could be amended and progressively narrowed to target those who need it most—distressed but viable corporates—such as SMEs and those in high contact-intensive sectors. Furthermore, as loan payments deferrals could have understated asset quality issues; supervisors need to enhance on and off-site monitoring to ensure that banks adequately assess credit risks and increase provisioning where needed.

Policymakers need to tighten selected prudential measures eased in response to COVID-19. The pre-pandemic asset classification needs to be restored in cases where it was relaxed to recognize the underlying quality of banking assets. Supervisors should gradually reinstate selected prudential measures that were relaxed in 2020, including loan-to-value (LTV) ratio for mortgages and risk classification and work with affected banks on restoring their buffers. For instance, banks that fall below prudential requirements should present plans on how they plan to restore their capital and liquidity buffers. It would be prudent to place constraints on dividend distribution, if needed, to ensure that banks' buffers are adequate to withstand any future materialization of credit risks. GCC authorities should continue to improve their crisis management and bank resolution frameworks to effectively deal with weak banks in the future.

Strengthening borrowers' insolvency resolution frameworks will facilitate the recovery. Managing the possible period of deleveraging would foster a speedier recovery. Similar to previous credit cycles, deleveraging could occur in some GCC countries following the COVID-19 crisis. Sectoral viable and nonviable firms are likely to become clearer as the substantial policy support will be withdrawn. Policies to ensure swift recognition of impairment and resolution of bankrupted borrowers, while targeting distressed but viable borrowers and ensuring adequate bank buffers remain in place could help reduce the length and severity of any negative credit cycle. As some firms may not be viable after the crisis, strengthening insolvency resolution frameworks to speed up loan resolutions and increase their recoveries will help banks to deal with crisis legacy loans and support their economies by providing the necessary credit provisions. Implementing out of court restructuring will help to reduce debt overhang.

Supervisors need to address the pre-existing vulnerabilities. In countries where LTD ratios are above the regulatory norms, supervisors should work with banks that exceed the set thresholds to develop plans on how to bring them within regulatory limits. Supervisors should carefully manage exposures to foreign liabilities and encourage banks to diversify their funding sources and extend their maturity. A sudden change in the monetary policy stance in advanced economies may result in a sharp tightening of financial conditions, adversely affecting capital flows.

Monitoring balance sheet linkages and related vulnerabilities could help avoid financial shocks amplification. Policymakers should enhance monitoring the evolution of balance sheet exposures over time and, where risks emerge, address underlying imbalances that may cause excessive buildup of debt. Given banks' pivotal role in credit intermediation, ensuring the soundness of the domestic banking systems will be crucial for a smooth postcrisis recovery. In this context, policies would include ensuring sufficient buffers to withstand possible losses and promptly recognizing asset impairment related to sectoral reallocations. Furthermore, ensuring fiscal and external sustainability in the medium term would contain any excessive accumulation of external debt and capital inflows, which in turn could help limiting the build-up of domestic leverage in FX.

Careful management and continuous monitoring of the sovereign-bank-real economy nexus over time would support banking system resilience. Deterioration in asset quality could further intensify corporate-bank-sovereign interlinkages through increase in NPLs through adverse feedback loops. Further intensifying interlinkages between the public sector and the banking system could potentially challenge banks' liquidity positions and crowd out private sector lending during the recovery phase. In the near-term, policies to mitigate effects from a macro-financial loop should focus on the resilience of the banking system by continuing to ensure banks hold enough capital and liquidity buffers, evaluate creditworthiness, and monitor credit concentration. In the medium term, a successful reduction of the nexus relies on a credible fiscal adjustment that reduces government debt and financing needs, while deepening domestic debt markets would avoid concentrating most domestic borrowing in the banking system.

Addressing data gaps would help policymakers to better analyze funding patterns. A more complete mapping of cross-sectoral balance sheet linkages would help the authorities assess lending exposures from a more holistic perspective, including macro-financial spillovers. To this end, continued efforts in GCC countries to build statistical capacity and address informational gaps are needed. Specific areas include balance sheet data for NBFIs and SOEs, as well as financial accounts information covering the private sector.

Annex 1. Source Data for Balance Sheet Analysis and Credit Cycle Analysis

Annex Table 1.1. Source Data for Balance Sheet Analysis and Credit Cycle Analysis

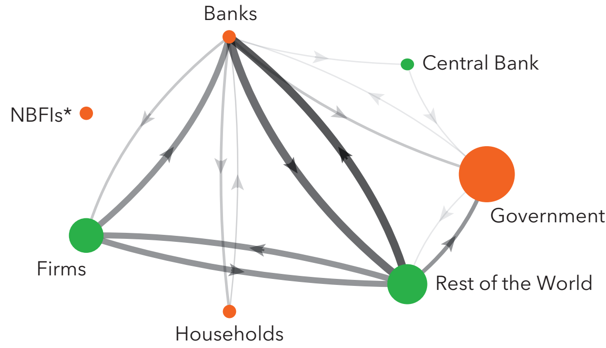
Country/Variables	Financial Sector	External Sector	Government Sector	GDP
Bahrain	Haver Analytics	Haver Analytics	IMF WEO (partial)	IMF WEO
Kuwait	IMF IFS	IMF BOP	IMF WEO (partial)	IMF WEO
Oman	IMF IFS	IMF BOP	IMF WEO (partial)	IMF WEO
Qatar	IMF IFS	IMF BOP	IMF WEO (partial)	IMF WEO
Saudi Arabia	Haver Analytics	Haver Analytics	IMF WEO (partial)	IMF WEO
UAE	IMF IFS	IMF BOP	IMF WEO (partial)	IMF WEO
List of variables for BSA	Central bank: Claims and liabilities to government, Claims and liabilities to banks, Claims and liabilities to NBFIs, Claims and liabilities to firms, Claims and liabilities to households, foreign assets and liabilities. Banks: Claims and liabilities to government, Claims and liabilities to banks, Claims and liabilities to central bank, Claims and liabilities to NBFIs, Claims and liabilities to firms, Claims and liabilities to households, foreign assets and liabilities NBFIs: Claims and liabilities to government, Claims and liabilities to banks, Claims and liabilities to central bank, Claims and liabilities to firms, Claims and liabilities to households, foreign assets and liabilities	IIP: Government assets and liabilities, central bank assets and liabilities, banks assets and liabilities, NBFIs assets and liabilities, corporate assets and liabilities.	GFS: Government external debt	GDP at current prices
List of variables for credit cycle analysis	Credit to private sector			GDP and non-oil GDP at current prices

Source: Authors.

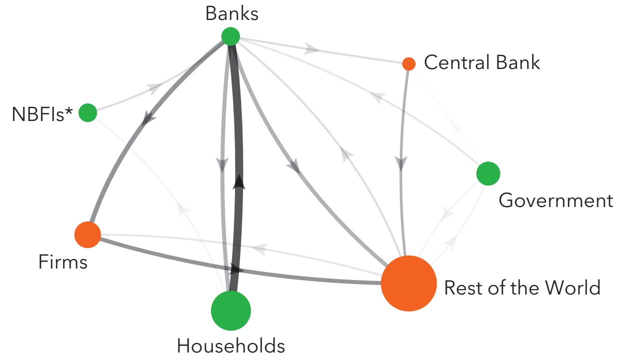
Annex 2. Balance Sheet Exposures, end-2020

Annex Figure 2.1. Balance Sheet Exposures, end-2020

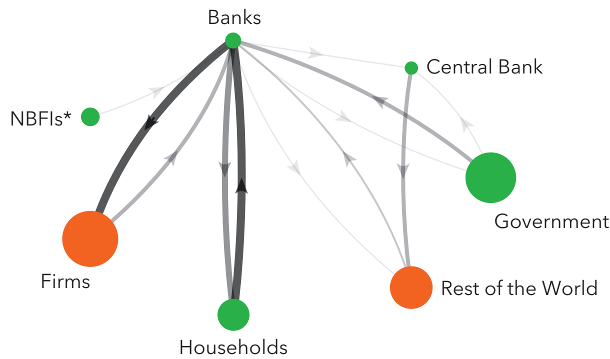
1. Bahrain



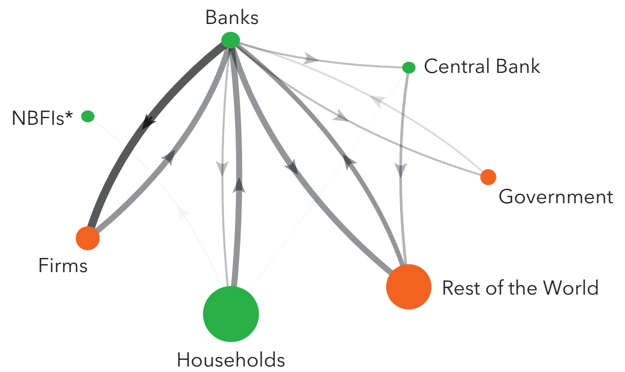
2. Kuwait



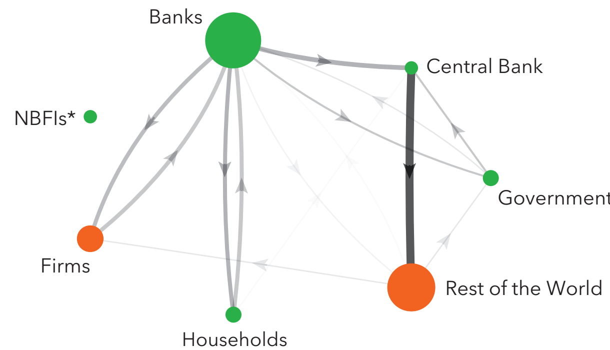
3. Oman



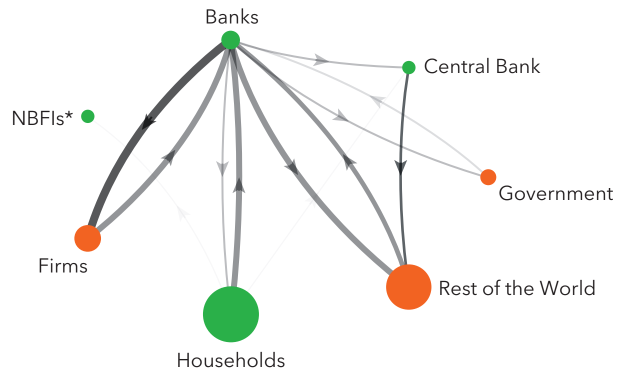
4. Qatar



5. Saudi Arabia



6. United Arab Emirates



Source: IMF staff illustration and estimates based on available data.
Note: Orange nodes denote net debtors and green nodes net creditors. The diameter of nodes and thickness of arrows show the size of imbalances and exposures relative to the maximum value for each, respectively. NBFI = nonbank financial institution.

Annex 3. Determinants of Banks' Holding of Government Securities: Econometric Analysis

A macro-financial model has been used to identify the determinants of banks' holding of government securities during the crisis. A panel regression analysis shows the variation in banks' holding of government securities as a function of: (1) macroeconomic variables (the policy rate, real non-oil GDP growth and inflation); (2) proxy for the availability of alternative lending opportunities (lending to the private sector); and (3) proxies for alternative investment opportunities (investment in the stock markets). The model is given by:

$$BHGS_{it} = \alpha_i + \beta X_{it-1} + \varepsilon_{it}$$

X'_{it} = *(Policy rate, Non-Oil GDP growth, Inflation, Private credit to GDP, Public debt to GDP, NEER growth, Number of listed companies, COVID-19 Government Response Index).*

Where $E[\varepsilon_{it}]=0$; $E[\alpha_i]=0$, $i = 1, \ldots, 6$ and $t = 1, \ldots, 15$ *(dataset= 2005–20)*

The dependent variable is the banks' holding of government securities as percent of total banking sector assets. This covers banks' holdings of securities issued by the sovereign and other foreign sovereigns due to the lack of data breakdown. Regressions are run at the system (country-year level) during 2005–20. All explanatory variables are lagged one year, except the COVID-Government Response Index. A constant term is included, but the coefficient is not shown.

Annex Table 3.1. Determinants of Banks' Holding of Government Securities

	(1)	(2)
Policy rate	1.5686*** (0.000)	1.6492*** (0.000)
Non-oil GDP growth	−0.0980 (0.256)	−0.1223 (0.156)
Inflation	−0.2384* (0.098)	−0.2667* (0.062)
Private credit to GDP	−0.0490** (0.024)	−0.0488** (0.023)
Public debt to GDP	0.1536*** (0.000)	0.1606*** (0.000)
NEER (% change)	0.3413** (0.023)	0.3564** (0.016)
Number of listed companies per million people	−0.1446*** (0.000)	−0.1469*** (0.000)
COVID-Government Response Index		−0.0564* (0.063)
Fixed Effect	Yes	Yes
Observations	90	90
Adjusted R^2	0.068	0.69

Sources: Country authorities; and IMF staff calculations.

Note: P-value of coefficients appear in parentheses, where *** indicates significance at the 1 percent level, ** at the 5 percent level, and * at the 10 percent level.

Annex 4. Monetary and Financial Measures to Mitigate Pandemic Effect

Annex Table 4.1. Monetary and Financial Measures to Mitigate Pandemic Effect

Country	Reduced policy rates	Liquidity support offered	Loan payments deferral	Concessional financing	Loan guarantees	Regulatory and prudential
Bahrain	Yes	BD 4.5 billion zero interest repo	For private sector until December 2021	Redirected Tamkeen (Labor Fund) programs to provide financing to SMEs affected by the pandemic.	Doubled the SMEs liquidity fund to BD200 million.	Reduced cash reserve ratio, LCR and NSFR; relaxed LTV for new residential mortgages; reduced the risk weight of loans to SMEs; allowed the booking of loan deferral-related losses directly to equity and not to P&L; amended IFRS9 classification for Stage 2 and Stage 3 assets.
Kuwait	Yes		For citizens' loans until September 2021	CBK issued guidelines for concessionary lending to SMEs	For clients whose businesses are affected by the coronavirus pandemic	Reduced capital requirements, LCR, and NFSR, relaxed LTV for existing homes and home construction; reduced the risk weight of loans to SMEs
Oman	Yes	Repo facility (OMR 1.7 billion) in, FX swap (OMR 1 billion)	For individuals and firms (OMR 1.7 billion), and postponed loan servicing for borrowers (SMEs) of Oman Development Bank and Al Raffd Fund.	Interest-free emergency loans (OMR 19.3 million)		Reduced capital conservation buffer (OMR 4.2 billion) Increased lending ratio from 87.5 percent to 92.5 percent (OMR 1.5 billion) Allowed banks to defer the risk classification of loans related to government project (OMR 1.3 billion) Allowed tolerance up to 25 percentage points in LCR and NSFR Relaxed LTV for first-time buyers;
Qatar	Yes	QR 50 billion zero-interest repo window	For private sector until June 2021	Capped rates for loans to private sector companies for wages and rental payments until September 2021	QR5 billion guarantees for loans to private sector companies for wages and rental payments until September 2021	
Saudi Arabia	Yes	SAR 50 billion deposits with banks	For affected MSMEs until end-December 2021	To SMEs, until March2022;National Development Fund financing to the private sector	SAR11 billion	
UAE	Yes	AED 50 billion zero-interest rate collateralized loans to banks	No blanket deferral: deferral is on individual bank basis			Reduced reserve requirements; allowed the use of banks' liquidity, stable funding, and capital buffers; introduced a prudential filter; relaxed LTV ratio for first-time home buyers; and adjusted risk weights of loans to SMEs in line with the revised Basel III Standardized Approach for Credit Risk

Sources: Country authorities; and IMF staff estimates.
Note: Based on country authorities' data and publicly available information.

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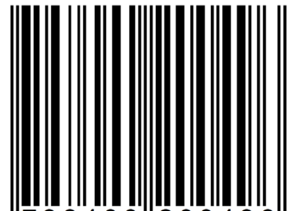

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