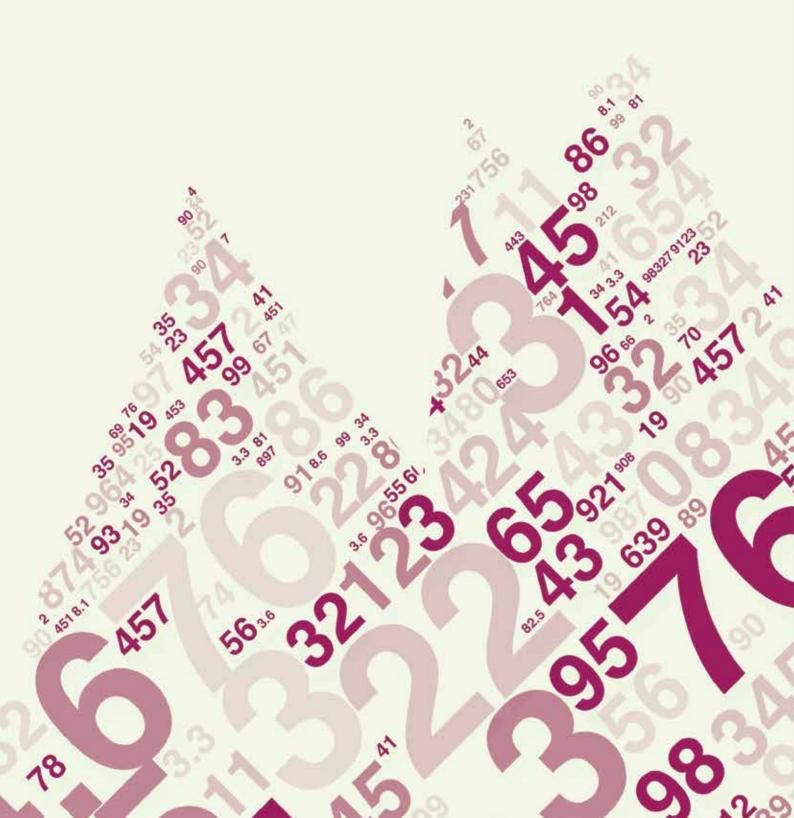
Qatar Economic Outlook

2021-2023



Issue Number 13





Qatar Economic Outlook

2021 - 2023

January 2022

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<u>For more information:</u> please contact us on Tel: 44958888 or email: QEO@psa.gov.qa, or PO Box: 1855, Doha Tower, Doha, Qatar. Reports are published at www.psa.gov.qa.

Preparation team:

Under the supervision of Noora Nasser Almerekhi, Director of Strategic Planning Department (SPD), the report, was authored and edited by Dr. Mohammed Alsabbry in both Arabic and English. Dr. Mohammed Alafendi and Dr. Hasan Omari reviewed the Arabic version, while Dr. Lenard Milich reviewed the English version. Martin Poveda also reviewed the interpretation of economic statistics data and methodology. Hissa Alassiry took over the logistical follow-up of the report preparation; Mohamed Elsharqawy & Ziad Naasani provided translation support, while Osama Almanasir helped in preparing the report for publication.

Introduction

A decade has passed since the publication of the first issue in 2011 of the State of Qatar's Economic Outlook Report. The QEO is concerned with monitoring economic and social developments in Qatar, and the nation's future prospects in response to developments all over the world and at all levels. It is surely evident, then, that this current issue (13) is published under economic and social conditions that are markedly different from the first issue, underscored by the developments, events, and facts that the world has gone through during the past decade, some of which had a significant impact on changing the business environment in the State of Qatar both directly and indirectly. The most important indirect effects can be summarized as follows:

- 1. The selection of Qatar in 2011 to host the 2022 FIFA World Cup led to the influx of expatriate workers, amounting to at least one million workers, in order to work for the implementation of investment projects in the field of infrastructure, including the requisite sports facilities.
- Worldwide developments in information technology have led to change in many modern means of production, which have had a large impact on the structure of the economies of the world, including Qatar's economy, which witnessed a change in the contributions of its sectors.
- 3. Global developments in the management of planning and development of human, economic, and environmental resources have led Qatar to align its economic, social, and environmental policies to keep pace with the requirements of achieving the SDGs for 2030 (Agenda for Sustainable Development) as well as alignment with the 2015 Paris Climate Accords (the "Paris Agreement").

4. The composition of the global as well as Qatar trade's has been buffeted by the negative consequences of heightened protectionist trade policies and barriers, along with various international trade disputes, since the Brexit referendum of June 2016, and the later price war between China and the United States starting in March 2018, as well as the replacement of the renegotiated North American Free Trade Agreement with the United States – Mexico – Canada in September 2018.

As for the direct impacts, they can be broadly categorized as follows:

- The change in the international commodity price-setting mechanism, which is now largely subject to global supply and demand forces, including food, oil, and gas prices - especially during the period (2014-2020) - led to a decline in Qatari export revenues, but at the same time, Qatar benefited from the decline in the value of food imports, which led to a decrease in the inflation index.
- 2. The positive results of the measures taken to confront the negative effects of the 2017-2020 blockade helped the Qatari economy to increase the local production of many food commodities, and even succeeded in pushing the Qatari economy to become more independent in air and sea transport, finding new shipping lanes, and expanding export and import ports.
- 3. The Covid-19 crisis and the accompanying containment measures had an impact that still reverberates globally, in the decline in the productivity of many economic activities, especially among non-oil activities.

Contrary to the usual practice in the preparation of previous reports that covered

a period of only one year, this current report is concerned with monitoring and analyzing economic developments during a longer duration, i.e., the period (2017 to September 2021). It also initiated a quantitative and qualitative assessment of the impact of the (Covid-19) pandemic and its repercussions on the economic and public financial conditions, the banking sector and the foreign trade of the State of Qatar. It also provided a of brief description international developments towards issues of climate change policies and how the State of Qatar dealt with these developments from the institutional and planning standpoints.

The report's interest in those issues and period is driven by the remarkable progress achieved in the area of economic, social, and statistical planning.

Therefore. have concluded from we preliminary analyses that the average annual rate of change of GDP at constant prices during the period (2017-2019) amounted to about 0.13%, with a maximum of 1.2% and a minimum of negative 1.5%. Most of the growth came from non-oil activities at 1.1%. while the data of oil sector activities showed a decline of negative 1.4%, as a result of the fact that some oil and gas fields have hit the peak of their production capacity, and therefore their productivity declines when periodic maintenance is performed.

Furthermore, the preliminary data of GDP at constant prices for 2020 also showed an economic contraction of about negative 3.56%, most of it came from the decline in the oil sector's activities by negative 2.1%, but it was exacerbated by the repercussions of containment measures (Covid-19) on non-oil activities, which decreased by negative 4.1%.

On the other hand, the consensus forecasts by a number of international institutions, organizations, and banks showed that the Qatari economy will undergo recovery during 2021 and 2022, with a predicted average growth rate of about 2.8% and 3.7%, respectively. Such forecasts are based on the assumption that hydrocarbon exports will recover significantly in a business-as-usual scenario, which thereby would increase the flow of financial revenues and achieve surpluses in the fiscal balance and the current account of the balance of payments, allowing the government to finance the largest possible number of development projects. The consensus forecasts also showed that the Qatari economy continues to be subject to imported inflationary pressures due to dependence on international trade, which its cost is currently witnessing an increase on a large scale.

It should be noted that the Planning and Statistics Authority (PSA), through regular performance monitoring of the of macroeconomic indicators, both in terms of quantity and quality, prepared three possible scenarios for Qatar's economic outlook during 2021 - 2023 based on two assumptions:(1) how far the economy will recover by easing Covid-19 containment measures, and (2) how far the economic activities will respond to measures to improve business environment. raise efficiency of resource use, and increase productivity.

Here, it can be said that the preliminary results of the PSA's forecasts for non-oil activities (non-hydrocarbon Gross Value Added) for the three scenarios indicate that it is likely to grow between 3% and 3.9% in 2021, and between 2.8% and 4.7% in 2022, driven by the expectations of booming

activities related to hosting the 2022 FIFA World Cup. Then, it recedes slightly in 2023, between 1.3% and 2.9%.

Based on the assumption that the performance level of the value-added sector of the hydrocarbons sector during the period 2021-2023 will decrease in a range between negative 0.7% and negative 0.2% in 2021 for the three scenarios, then it will stabilize at either negative 0.3% or 0% during 2022 and 2023 for the same scenarios.

These assumptions are therefore expected to drive GDP growth between 1.5% and 2.3% in 2021, with a middle scenario of around 1.9%. But it is expected to rise to a range of between 1.6% and 2.9% in 2022 for all three scenarios, before stabilizing in 2023 between 0.7% and 1.8%.

As a result of the optimistic forecasts for the stability of oil and gas prices during the period (2021-2023) for the three scenarios, it is likely that the public finances will achieve a surplus ranging between 1.9% and 3.6% of GDP, as well as it is expected that the current account of the balance of payments will achieve a

surplus ranging between 5.8% and 11.5% of GDP during the same period and for the same scenarios.

With regard to the inflation rate of consumer prices, it is expected to witness imported and domestic inflationary pressures ranging from between 2% to 3.5% during the period (2021-2023), due to the rise in prices of basic commodities in global markets caused by the bottlenecks in commodity supply chains that have been so visible since the onset of the Covid-19 pandemic, as well as the negative repercussions of expansionary financial and monetary policies.

We, at the Planning and Statistics Authority, would like to thank everyone who contributed to the preparation of this report, and we extend our sincere thanks to all state agencies, as well as to those international organizations and institutions that have provided us with economic and social data.

Dr. Saleh Al Nabit
President
Planning and Statistics Authority
January 2022

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PART 1: ECONOMIC OUTLOOK 2021 -2023

Global and Regional Economic Outlooks

Since the first case was reported with coronavirus infection in China on November 2019. and its subsequent outbreak as a global pandemic, more than 306 million infections and nearly 5.6 million have been officially recorded worldwide as caused by the virus until the early January 2022.1

Many people's daily activities including working, studying, and even home chores have undergone dramatic changes, as travel remains disrupted, prices of basic commodities continue their oscillations. As an example of these changes, many people are now accustomed to cooking at homes as a result of the frequent closures of restaurants. More broadly, when faced with income uncertainty, millions of households globally reduced their expenditure on services in favor of increasing their savings.

Such developments led to a decline in the global economy in 2020 by 3.1%, according to the estimates of the International Monetary Fund issued at the end of October 2021, which means that the global economy lost about \$22 trillion compared to its preepidemic estimates in January 2020. Although the IMF has projected the global economy to recover by about 6% in 2021 and by a further 4.9% in 2022, there is, however, a marked divergence in the level of recovery among the countries of the world, as the growth forecasts for developed countries will exceed what it was before the pandemic by

0.9% in 2024, while for emerging and developing economies (excluding China) it is estimated to be lower than it was before the pandemic, by 5.5% in 2024. This difference is attributed to the disparity in the size of financial support policies and the gap in the vaccination rate (Box 1-1).

The support policies taken by many countries around the world, such as the postponing of loan repayments, the reduction of interest rates, and the provision of financial support for the continuation of economic and social activities, has amounted to about \$16 trillion² according to an informed source from the International Monetary Fund's blog. additional impact has been the global increase among central banks of their balance sheets by about \$7.5 trillion. These have successfully limited policies deterioration of the world's economies, which might have been as much as three times larger had it not been for such bold policies. On the other hand, the same policies have contributed to the deterioration of the fiscal balances of many countries, raising the level of global debt by \$28 trillion³, and even reducing their financial capabilities to further provide support.

Also, the spread of new waves of the pandemic (new mutations and variants of the virus, like Delta and Omicron) have exposed many countries of the world to the risks of not recovering quickly due to the need of imposing new precautionary and preventive measures, as has happened in European countries, others countries among them, South Africa, India, Malaysia, etc.

¹ https://www.worldometers.info/coronavirus/

 $^{{}^2}https://blogs.imf.org/2021/07/20/seizing-the-opportunity-for-a-progrowth-post-pandemic-world/\\$

³ https://blogs.imf.org/2021/12/15/global-debt-reaches-a-record-226-trillion/

Box 1-1: Towards Economic Policies Conducive to Rapid Recovery

The impact of COVID-19 containment measures on health and economies in 2020 has been uneven, due to differences in the economic structures of countries and the speed of imposing containment measures and obliging the population to implement these. The same scene was repeated during 2021, when the economies of the world's countries witnessed varying degrees of recovery, which reflected the discrepancy in efforts to combat the repercussions of measures to contain the spread of the virus, including the availability of financial capabilities to adopt expansionary policies that lead to a rapid recovery. The advanced economies, led by the United States and the European Union, have accomplished a greater recovery than have the economies of emerging and developing countries (excluding China) largely because of their financing capacity, which led to a widening gap in per-capita incomes between developed and emerging countries compared with developing countries, especially as regards the incomes of youth and women - and particularly the less educated among them - as well as the informal sector's workers.

The economic publication issued by international organizations and institutions, led by the IMF, highlights the importance of concerted efforts by all, especially developed countries, in spearheading effective policies to counter the various negative implications of the pandemic's continuation, especially those that hinder the growth of investments, which led to the stalling of job growth. Combined, these impede hopes for achieving the SDGs; in parallel, they may make more difficult the reshaping of economic structures among low-income countries in making them more digitally capable and less emitting of the Greenhouse Gas (GHG) that are driving the climate crisis. It is recommended by the IMF that current and future policies should revolve around the following:

- Seek to deliver vaccines to all countries of the world, especially to middle and low income by intensifying funding through the COVAX mechanism and addressing obstacles to providing diagnostics, testing tools, and therapeutics for viruses, including oxygen, and then exchanging information to increase vaccine production, and facilitating their supply, storage, and distribution. The IMF expects that the benefits of putting a stop to the pandemic will reach \$9 trillion during the period (2020-2025), of which \$4 trillion would be for the benefit of developed countries.
- According to the IMF website, the economic and financial measures to confront the pandemic, represented in providing government financial support to their populations, underwriting of bank financing facilities, and the lowering of interest rates, led to an increase in average overall fiscal deficits as a share of GDP by 9.9% for advanced economies, 7.1% for emerging market economies, and 5.2% for low-income developing countries. Moreover, global government debt is projected to approach 99% of GDP by the end of 2021. Thus, there is a risk of increasing bad debts when support and facilities are withdrawn, which will affect the solvency of banks. Therefore, the IMF is recommending that policymakers should establish special frameworks to deal with the anticipated problem of a high rate of non-performing loans, as well as determine how to contend with the high debt burden.
- The IMF recommends that financial support must be continued towards maintaining a decent livelihood for poor families, that measures must be taken for preventing corporate bankruptcies, while simultaneously working towards a gradual reduction of subsidies by countries experiencing financial hardship. As for countries that have financial savings, they must spend more on education to compensate for the attainments drop during the pandemic period and increase investment in digital production methods to enhance productivity, especially in the field of green investments to create job opportunities, and accelerate the transition to a sustainable, green and eco-friendly economy)the "build back better" goal(.
- Easing of monetary policies, including grants and concessional aid, debt relief, and complete debt restructuring in some cases, has led to more prosperous, sustainable, and inclusive development.

Apart from the sudden developments of the mutated Omicron worldwide - and by assuming current vaccines would limit its danger, the gap between developed and developing countries in terms of obtaining vaccines is wide: while the gap to secure vaccines to cover 70% of the population of each country, it is only 7% for high-income countries, while it is 89% for low-income countries, 47% for low-middle-income countries, and 38% for upper-middle-income countries⁴.

Many of the disruptions caused by the epidemic's containment measures remain until the end of December 2021, when this report was written, whether in terms of labor market conditions, financial and monetary conditions, or supply chain disruptions .The apparent recovery in global aggregate demand in the face of the slowdown in the recovery in aggregate supply, coincided with bottlenecks due to labor shortages (especially in ports and the transport sector) due to: (1) sickness and social distancing measures (2) the pressure

on parents to take care of children at home instead of in nurseries and schools⁵. In addition, the occurrence of the repercussions of climate change-driven disasters including the massive floods and the huge outbreaks of wildfires in several countries, have in general led to economic losses and an increase in the prices of basic commodities, which in turn have led to high inflation rates globally, and pushed countries around the world to think about adopting the fiscal and monetary policies necessary to meet such challenges.

Consequently, these developments have prompted many research centers, institutions, and international banks to reduce their optimism concerning a return to normal life as it was before the pandemic, when setting their forecasts for global economic growth for 2021 and 2022, including the forecasts of the International Monetary Fund (IMF) and the World Bank.

IMF forecasts

The approval of the new vaccines against the coronavirus starting at the end of December

Tab	le 1-1:	The	Worl	d I	Economi	ic (Out	loo	kΙ	by	IMF	
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	Forecas	Forecasts & estimates (percentage change %) according to IMF WEO issue									Difference between current and base forecast of October 2020 (points), main assumptions				
	Oct. 20	-	Jan-21		Oct. 2021					Beginning of easing lockdown (Oct. 2021 to Oct 2020)		Great strides in vaccination launch (Oct. 2021 to April 2021)			
	2021	2022	2021	2022	2020	2021	2022	2023	2024	2021	2022	2021	2022		
World	5.2	4.2	6.0	4.4	-3.1	5.9	4.9	3.6	3.4	0.7	0.7	-0.1	0.5		
Advanced economies	3.9	2.9	5.1	3.6	-4.5	5.2	4.5	2.2	1.7	1.3	1.6	0.1	0.9		
United States	1.3	2.2	6.4	3.5	-3.4	6.0	5.2	2.2	1.7	4.6	3.0	-0.4	1.7		
Emerging market economies	6.0	5.1	6.7	5.0	-2.1	6.4	5.1	4.6	4.5	0.3	0.1	-0.3	0.2		
China	8.2	5.8	8.4	5.6	2.3	8.0	5.6	5.3	5.2	-0.2	-0.2	-0.4	0.0		
Middle East and Central Asia	3.0	4.0	3.7	3.8	-2.8	4.1	4.1	3.8	3.6	1.1	0.1	0.4	0.3		
GCC countries	4.0	2.6	2.3	4.0	-5.1	2.1	3.7	3.1	3.1	-1.9	1.1	-0.2	-0.3		
Bahrain	2.3	2.8	3.3	3.1	-5.1	2.4	3.1	3.1	3.1	0.2	0.3	-0.9	-0.1		
Kuwait	0.6	3.2	0.7	3.2	-8.9	0.9	4.3	2.7	2.7	0.3	1.1	0.3	1.1		
Oman	-0.5	11.0	1.8	7.4	-2.8	2.5	2.9	4.2	2.9	3.0	-8.1	0.7	-4.5		
Qatar	2.5	3.9	2.4	3.6	-3.6	1.9	4.0	2.6	3.9	-0.6	0.1	-0.4	0.4		
Saudi Arabia	3.1	3.4	2.9	4.0	-4.1	2.8	4.8	2.8	2.8	-0.3	1.4	-0.1	8.0		
United Arab Emirates	1.3	2.2	3.1	2.6	-6.1	2.2	3.0	3.0	3.1	0.9	0.8	-0.9	0.5		

⁴ https://www.imf.org/en/Topics/imf-and-covid19/COVID-19-Global-Targets-and-Progress-Tracker

 $^{^{5}\}$ https://www.nytimes.com/2021/10/30/business/paid-family-leaveworking-parents.html

2020, and the subsequent robust and government-supported vaccination campaigns around the world, gave great hope to return to normal life as it was before the pandemic within a period of one year. This made IMF not only to raise its optimistic forecast for global economic growth from minus 3.1% in 2020 to a positive 5.2% in 2021 according to its October 2020 release, further raising it by 0.7 percentage points according to its April 2021 issue, in combination raising the global growth rate for 2021 to be around 6% (Table 1-1).

However, during the same period, the new waves of virus mutations emerged including the highly-contagious Delta variant, the slowdown in the recovery of some economic activities including disruption of supply chains and the continued uncertainties in the labor market, the spread of high inflation rates, the fear of adopting contractionary economic policies, and the widening gap in vaccination levels between developed, emerging, and developing countries, gave the IMF pause, where, according to its October 2021 issue, it maintains the growth rate of the global economy for years: 2021 and 2022 at the same level as it was in April 2021, but it modified many of its expectations at the level of countries and economic regions, as shown in Table (1-1) for selected countries.

It is worth noting that the IMF confirmed in several of its publications that such optimistic expectations are still surrounded by a great deal of uncertainty, foremost among which are: (1) The extent to which advanced and emerging economies continue to withstand their expansionary policies, and the extent to which commodity-exporting take advantage of higher prices to build safety margins in

their public finances, (2) The extent of the spread of mutated viruses including Omicron and Delta, the availability of vaccines and its effectiveness on the new variants, and crosscountry cooperation to vaccinate at least 40% of all people in every country during 2021, with the target of 70% by the end of 2022. (3) Although the IMF and the central banks of advanced economies including the USA, EU and the UK used to consider the current wave of inflation to be temporary (transitory), as it is caused by the unlocking of pent-up demand in the areas of consumer goods, transportation, and tourism, in light of the continuing bottlenecks in supply chains, therefore it warns against coming to false conclusions when comparing the price hikes at present with those of last year, which might then lead to higher wages and subsequently trigger the rapid tightening of economic, especially monetary, policies.

Moreover, the IMF sees the importance of striking a balance in controlling public spending as much as possible while curbing the expansion of public debt by adopting more austere economic policies, so as not to lead to a negative impact on the world's Nevertheless. economies. the central bankers of the United States, the United Kingdom and a number of developed countries began in early November 2021 to consider tightening monetary policy, and in fact Janet Yellen, the US Treasury Secretary, signaled to stop describing inflation as "temporary"⁶.

Among the risks that may make these forecasts more subject to uncertainty are those challenges facing developing countries, such as the gap between them and developed countries regarding the availability

 $^{^6}$ https://www.nytimes.com/2021/12/02/business/yellen-inflation-omicron.htm

of enough financial resources to face the negative repercussions of measures to contain the spread of the virus, especially the high unemployment rates. An additional, and crucial, consideration is the gap in the levels of rates of decline in per capita GDP, which has decreased by 6.3% for emerging and developing economies compared to about 2.8% for advanced economies, which in turn has thrust at least 95 million people around the world into extreme poverty.

Therefore, the international community, as indicated in (Box 1-1), is studying ways to adopt sustainable economic policies that lead to recovery from the fallout, building economies that are more developed and inclusive, and greener - that is, taking into account the negative environmental aspects of returning to "business as usual" (See climate change section at the end of this part)

World Bank Forecast for the Middle East

The World Bank published its forecasts for 2021-2022 in the "Global Economic Prospects" report issued at the beginning of June 2021. As usual, WB forecasts are close to those of the IMF, but the World Bank report contains more detailed data for countries in the Middle East and North Africa, including the categorization of the region's GDP forecasts according to whether the countries are oil exporters or importers, as well as according to the components of the expenditure approach (refer to Table (1-2)). The Bank projected that the MENA region would grow by a subdued 2.4% in 2021, then rise to 3.5% in 2022. Most of this growth comes from oil-importing countries, followed by oil-exporting countries by 2.3%. This includes the GCC countries, which are modeled to achieve growth of 2.2% in 2021

Table 1-2: The World Economic Prospects by the World Bank															
	Foreca										Difference between current and base forecast of Jan 2020 (points), main assumptions				
	Jan		Jun-	21		lockdo 202	inning of asing own (Jun. 1 to Jan. 2020)	Launching vaccination (Jun. 2021 to Jan 2021)							
	2021	2022	2021	2022	2020	2021	2022	2023	2021	2022	2021	2022			
World	2.6	2.7	4.0	3.8	-3.5	5.6	4.3	3.1	3.0	1.6	1.6	0.5			
Advanced economies	1.5	1.5	3.3	3.5	-4.7	5.4	4.0	2.2	3.9	2.5	3.9	2.5			
United States	1.7	1.7	3.5	3.3	-3.5	6.8	4.2	2.3	5.1	2.5	5.1	2.5			
Emerging market economies	4.3	4.4	5.0	4.2	-1.7	6.0	4.7	4.4	1.7	0.3	1.7	0.3			
China	5.8	5.7	7.9	5.2	2.3	8.5	5.4	5.3	2.7	-0.3	2.7	-0.3			
Middle East and North Africa	2.7	2.8	2.1	3.1	-3.9	2.4	3.5	3.2	-0.3	0.7	-0.3	0.7			
Oil exporters	2.3	2.3	1.8	2.8	-4.2	2.3	3.5	3.0	0.0	1.2	0.0	1.2			
Oil importers	4.6	4.6	3.2	4.3	-2.4	2.8	3.8	4.2	-1.8	-0.8	-1.8	-0.8			
Private consumption	2.2	2.2	1.6	2.5	-3.4	2.4	2.6	2.7	0.2	0.4	0.2	0.4			
Public consumption	2.3	2.4	1.0	1.7	0.6	1.9	1.3	1.4	-0.4	-1.1	-0.4	-1.1			
Fixed investment	5.7	6.1	6.1	3.6	-9.6	3.5	5.4	5.3	-2.2	-0.7	-2.2	-0.7			
Exports, GNFS	3.6	3.7	3.2	4.5	-10.3	4.6	5.3	5.2	1.0	1.6	1.0	1.6			
Imports, GNFS	4.0	4.0	2.6	4.0	-13.8	4.2	5.0	5.1	0.2	1.0	0.2	1.0			
GCC countries	2.6	2.7	1.6	2.7	-4.8	2.2	3.4	3.2	-0.4	0.7	-0.4	0.7			
Saudi Arabia	2.2	2.4	2.0	2.2	-4.1	2.4	3.3	3.2	0.2	0.9	0.2	0.9			
Kuwait	2.0	2.0	0.5	3.1	-5.4	2.4	3.6	2.8	0.4	1.6	0.4	1.6			
Qatar	3.2	3.2	3.0	3.0	-3.7	3.0	4.1	4.5	-0.2	0.9	-0.2	0.9			
UAE	3.0	3.0	1.0	2.4	-6.1	1.2	2.5	2.5	-1.8	-0.5	-1.8	-0.5			
Source: World Bank, Global Econo	mic Pros	pects d	atabase	, variou	s issues	s, down	oaded	in June	2021						

compared to January forecasts of 1.6%, where most of the change derives from revising the forecasts of the economic recovery of Kuwait from 0.5% in January 2021 to 2.4% in June 2021. There was also a slight improvement in the economic recovery expectations of Saudi Arabia and the UAE by 2.4% and 1.2%, respectively. As for the State of Qatar, the growth rate of its economy remained unchanged at 3%.

In regard to the projections of growth rates for MENA countries by expenditure components for 2021 and 2022, Table (1-2) shows that the prospects for the recovery of total capital formation have been reduced from 6.1% in January 2021 to 3.5% in June 2021. Thus, the growth will be driven by the improvement in private and public consumption, as well as exports and imports.

The Covid-19 Crisis and Qatar's Economic Outlook

It is well-known comprehended that the Covid-19 pandemic has not yet come to an end worldwide, as some countries are still facing contending with large outbreaks of the pandemic infection and its mutants (Omicron) until December 2021, and even those countries that have been able to control its spread are still exposed to any coming wave, a concern especially prevalent in the Northern Hemisphere countries now living winter, when people cluster indoors.

Just like other regional and global economies, Qatar's economy was exposed to two waves of the Covid-19 pandemic: the first wave started in mid-March 2020 and the number of infections continued to rise dramatically until mid-May 2020. During this wave, strict social distancing measures were imposed to contain the spread of the virus. In

turn, this had negative impacts on overall economic activities, especially for those sectors whose activities involve large gatherings, such as educational and health services, shopping centers, tourism, and sports activities, as well as the activities of places of worship.

Once the number of infected cases started to decline in May 2020, a gradual plan was adopted to lift restrictions in four stages, which began in June 2020 and ended in September 2020, during which all closure measures were gradually lifted, except for the normal precautionary measures, such as the wearing of masks, and the mandatory use of the EHTERAZ application up until December 2021. This led to the start of a recovery across all economic activities, some of which have bounced back to their pre-pandemic levels.

Although Covid infections continued during the last quarter of 2020, these remained at a relatively low level until the end of January 2021 when infections once again began to increase; although they did not outpace the first wave, the Covid-positive numbers were a warning of the advent of a second wave. However, as the number of infections reached an alarmingly high-level during February and March 2021, the government forced gradually was to re-impose containment measures for a second time, though not to the same extent and degree as during the first wave. The stringent measures continued until a gradual easing containment measures started in early October 2021, including the return 100% of employees to their workplace (Box 1-3). For more details, see Covid Development Analysis at the end of this report.

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The presentation of the developments for the economic outlook of the Qatari economy will depend on the consensus forecasts of a number of regional and international research centers and banks, which took into account the implications of Covid-19 containment measures on all economic

indicators. Besides these, the Planning and Statistics Authority team itself incorporated Covid-related assumptions during its analysis of the level of economic performance for the period (2017 to September 2021), as discussed in Part two.

Box 1-2: The Economic and Social Implications of Covid-19 Containment Measures in Qatar

Like other countries, Qatar was hit by two waves of Covid-19 during 2020 and 2021. As is well known, the measures taken by many countries to contain the spread of the virus led to disruption of the work of ministries and government agencies, as well as the closure of many activities of the public and private sectors. This has made people around the world change the way they usually do their daily work. Both government institutions and the private sector were forced to resort to remote work (online), which directly and indirectly affected people's economic and social lives (for more information about government measures check COVID analysis at end of this report). The implications of this can be summarized as follows:

First: Economic Impacts:

- Decreased demand for goods and services, which affected the pace of economic and social activities that led to decrease the supply of goods and services.
- Disruption of supply chains around the globe, and disruption of local transportation, leading to a slowdown in business.
- Closure of many economic activities and businesses, including allocating all medical services in the private and public
 sectors to treating Covid-19 patients, halting the ability of patients to attend routine medical appointments, the
 exception being for emergencies and therefore
- Greater use of local and international communication technologies for the purposes of carrying out public and private works, and social communication.
- Staff layoffs and increased percentage of the unemployed and furloughed for better alternative or medical, or family issues.
- Decreasing revenues for countries due to increasing government expenditures to assist both the public and private sectors, which pushed the deficit up.

Second: Social Effects: Initially, the closure of educational and religious institutions, including schools, mosques, institutes and universities, and resorting to distance education, social distancing, and specifying study materials and specific days for students to attend schools, have negatively affected the lives of many families - especially families reliant on income from mothers working outside the home, who now had to juggle both childcare and work.

Hence, the profound economic and social implications of lockdowns have created a new lifestyle and working approach, which appear to be enduring in the short and medium term as cases of infection continue to occur around the globe, despite the experiences gained by public health professionals in the treatment of infected cases, working in conjunction with governments in limiting its spread as well as the gradual rollout of vaccines. It is worth noting that the number of infections around the world as of early January 2022 was about 306 million cases, of whom more than 85% had recovered. However, more than 5.6 million people have died from the repercussions of the epidemic – and the number of directly attributable fatalities would unquestionably have been much higher but for the imposition of lockdowns. In Qatar, as Table (1) below- indicates, thanks to the great determination of government and service providers to deliver high-quality health care, more than 113.3% of the population were tested, and the infections were treated, especially for those cases that need intensive care, with the highest standards of efficiency and quality, both in terms of capabilities and medical devices and at the level of human cadres. This led to a decline in the number of deaths, which totaled **618 cases** out of a total of 266,962 Covid-positive patients. Thanks to the dedicated efforts of medical staff, and the available capabilities in providing vaccines, the total number of doses administered surpassed the number of the population by 185.4% which led to an increase in the number of mild and recovered cases to about 92.7% of the total infections. The number of those who received two doses totaled 86.4%. With such vaccination achievement rates, Qatar become one of the pioneers worldwide.

Table 1 of Box (1-3) - Qatar's related-Covid-19 information									
	Total numbers	As % of total number of							
		Population	Tested Infected						
Population	2,846,118	100.0%							
People tested for COVID-19	3,223,877	113.3%	100.0%						
Number of doses of COVID-19 vaccine given	5,275,659	185.4%	163.6%						
Number of positive COVID-19	266,962	9.38%	8.28%	100.00%					
Number of recovered patients	247,553	8.70%	7.68%	92.73%					
Number of current active cases	18,791	0.66%	0.58%	7.04%					
Currently under acute hospital care	532	0.02%	0.02%	0.20%					
People currently in ICU	48	0.00%	0.00%	0.02%					
Number of deaths	618	0.02%	0.02%	0.23%					
Source: Qatar MOPH at https://covid19.mop	h.gov.qa/AR/Page	es/default.asp	x as of Janua	ry 9th, 2022					

An International Consensus Forecast for Qatar Economy

There are many regional and international research centers and banks that prepare forecasts for the performance of the world's economies, of course including the economy of the State of Qatar, where such forecasts are issued and published on a large scale by international mega-companies, such as: Bloomberg, Refinitiv, and Focus Economics labeled as the so-called Consensus Forecasts. Such forecasts have become an informational reference standard researchers, academics, investors, policy makers, economic planners, and workers staff in local and international economic institutions

The latest forecasts, as shown in Table (1-3), indicate that the Qatari economy is likely to witness an average growth rate of 2.8% in 2021, where the consensus expectations ranged between a maximum of 3.7% and a minimum of 1.6%, with a standard deviation of 0.6 percentage points. It is possible that some of these predictions are based on the assumptions that: (1) hydrocarbon exports will recover significantly, which will increase the flow of financial returns that will allow the government to finance many economic activities for the public, private and mixed corporation in Qatar, (2) the improvement of the state's public budget balance and the payments will balance of boost the confidence of the public and private sectors, stimulating aggregate demand investment, public and private consumption, and thereby promoting economic growth.

As for the GDP for 2022, consensus forecasts anticipate it to achieve an average growth of 3.7%, with these forecasts ranging between a maximum of 4.5% and a minimum of 2.5%, with a standard deviation of 0.6 percentage points. Mostly, this growth is

based on assumptions that many economic activities will increase as a result of hosting the FIFA World Cup towards the end of 2022.

With regard to the consensus forecasts of the CPI, as shown in Table (1-3), the average inflation rate in 2021 will be 1.6%, with a maximum of 3.9%, and a minimum of 0.5%, while having a standard deviation of 0.8 percentage points. The set of CPI figures is relatively consistent with the publications of the Planning and Statistics Authority during the period (January-November 2021), where it has been averaged at 1.97% with a minimum of negative 1.4% and a maximum of 6.1%, while having a standard deviation rate of 2.2 percentage points.

On the other hand, the International Monetary Fund forecasted that the CPI will rise by about 2.5% in 2021, and by 3.2% in 2022, while the Economist Intelligence Unit (EIU) projected that it will rise only by about 1.2% in 2021, but by about 3% in 2022.

Despite the recent and projected continued rise in the average global oil and gas prices, two of the nine consensus forecasts, specifically the World Bank's and Moody's, suggest that the public budget (fiscal) balance for 2021 will register a deficit and minimal surplus respectively. Therefore, the average rate of the public budget (fiscal) balance for 2021 will be 2.2% of GDP, with a maximum of 5.4%, and a minimum of negative 2.3%, while having a standard deviation of 2.1 percentage points.

However, through utilizing the available of public finance data up to the end of Q3 of 2021 published by the Ministry of Finance, the PSA forecasts the public finance balance to achieve a surplus of around 2% in 2021 for the three scenarios, followed by a larger surplus during 2022 and 2023, with a rate ranging between 2.3% and 3.6% for the

same scenarios. (See the Fiscal Balance and Current Account section later).

With regard to the consensual forecasts of the current account of the balance of payments, there is near-unanimity that Qatar will achieve a surplus during 2021 and 2022, at a rate of 5.8% and 5.6% of GDP, respectively. Highest estimate for 2021 is about 9.8% of GDP according to Oxford Economics, whereas the lowest estimate is

1.7% as forecast by the World Bank. However, the Planning and Statistics Authority, through utilizing the available data of balance of payment up to the end of Q3 of 2021, published by Qatar central Bank, projects that the current account of the base scenario in 2021 will witness a surplus of more than 10.8%, then it will be followed by a surplus in 2022 and 2023 of more than 5.8% of GDP.

		Growt	h Rate			As % c	of GDP				
	GI	OP	Infla	ation		dget ance	Current account				
	2021 2022		2021	2022	2021	2022	2021	2022			
EIU	2.9	4.5	1.2	3	1.9	5.6	6.5	8.4			
International Monetary Fund	1.9	4	2.5	3.2	2.8	5.7	8.2	11.6			
Standard Chartered	3	3.3	0.5	1.5			4.1	0.5			
Fitch Ratings	1.6	2.5	1.3	1.8			3.5	1.3			
Citigroup Global	3	4.2	1.8	2.2	2.6	4.5	5	5.4			
HSBC	2.4	4.1	1.3	2.6	2.9	3.5	5.8	6.4			
BNP Paribas	3.2	3.6					7	5.9			
National Bank of Kuwait	3.3	2.7	3.9	1.2							
Fitch Solutions	3.8	4.1	1.4	2.8	4	6.1	3.3	4.1			
World Bank	3	4.1	1	3	-2.3	2.7	1.7	2.7			
Oxford Economics	2.5	3.7	1.8	2.5	5.4	5.6	9.8	8.9			
Moody's Analytics	2.3	3.5	1.7	2.5	0.4	-0.9	8.9	9.5			
JPMorgan	2.9	4.4	1.6	2.2			6.5	5.9			
International IIF	3.1	3.8	1.1	2.1	2.1	2.4	5.6	1.8			
Consensus (Mean)	2.8	3.7	1.6	2.4	2.2	3.9	5.8	5.6			
Median	3	3.9	1.4	2.5	2.6	4.5	5.8	5.9			
High	3.8	4.5	3.9	3.2	5.4	6.1	9.8	11.6			
Low	1.6	2.5	0.5	1.2	-2.3	-0.9	1.7	0.5			
Standard Deviation	0.6	0.6	0.8	0.6	2.1	2.1	2.2	3.3			
CV (points)	0.2	0.2	0.5	0.2	0.9	0.5	0.4	0.6			

Source: Latest report of Focus Economic, Institute of International Finance, IMF, World Bank up to October 2021

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Macroeconomic Indicators Forecasts for the State of Qatar

Based on the foregoing and in light of the information obtained from the analysis of Part Two of this report, several assumptions have been made to predict the trends in the levels of macroeconomic indicators for the Qatari economy. Among the key assumptions are: (1) the extent to which the production and service sectors will recover as a result of the gradual lifting of Covid-19 containment measures, (2) the extent to which the activities the hydrocarbon of manufacturing sectors will recover due to rising global demand for their products, (3) the extent of the impact of the improvement in global prices of hydrocarbon products and the manufacturing industry on achieving surpluses in the State's public budget balances and its balance of payments account, (4) the effectiveness of reforms related to improving the business environment in attracting local and foreign (5) the stability investments, in availability of the imports designated to meet development requirements as well as their transport costs, and (6) the extent of the impact of the Al-Ula agreement, especially with regard to opening the skies and borders to the movement of goods and people, on the activities of transport, tourism, and the wholesale and retail trades.

Therefore, data and economic information derived from the above-mentioned assumptions were applied when preparing a combination of qualitative and quantitative estimates as the foundations for making forecasts for three possible scenarios for the period (2021-2023), namely: (1) a base scenario based on more conservative assumptions for hydrocarbon (oil) and nonhydrocarbon (non-oil) activities, (2) a medium scenario based on moderately optimistic assumptions, and (3) the most optimistic scenario.

Since almost 12 months of 2021 have passed when this report was finalized, during which quarterly data for the first three quarters and monthly data until the end of November 2021 were published, it is clear that the forecasts for 2021 will be based on preliminary data rather than on assumptions - except the assumption related to the measures to contain Covid-19. which continued throughout Q2 of 2021, but was gradually lifted during Q3. As for Q4, it witnessed a benign return to all economic and social activities.

Therefore, these data and initial assumptions were taken into account when analyzing

%	Est	timate	Bas	Base scenario Medium scenari					Optimistic scenario			
	2020	Up to Q3 2021*	2021	2022	2023	2021	2022	2023	2021	2022	2023	
Real GDP (2018=100)	-3.6	1.4	1.5	1.6	0.7	1.9	2.3	1.5	2.3	2.9	1.8	
Hydrocarbon GVA	-2.0	-0.8	-0.7	-0.3	-0.3	-0.2	0.0	0.0	-0.2	0.0	0.0	
Non-hydrocarbon GVA	-4.5	2.9	2.9	2.8	1.3	3.3	3.7	2.4	3.9	4.7	2.9	
Construction	-3.9	0.6	1.1	0.7	0.1	1.5	2.4	2.1	1.8	3.0	4.3	
Manufacturing	-6.7	6.0	3.1	0.2	0.0	4.0	0.9	0.8	4.6	3.2	2.4	
Service	-2.9	3.5	3.7	4.1	2.3	4.0	4.7	3.1	4.7	5.6	3.0	

Table 1.4. October CDD by Draduction, 2021 and 2022 (Americal rate of sharpes) (0/)

other qualitative and quantitative information related to hydrocarbon (oil) and non-hydrocarbon (non-oil) activities, including the role of fiscal and monetary policies in revitalizing the economy, the preliminary predication results, as shown in Table (1-4), indicate that the annual rate of change of production-based GDP for 2021 will range between 1.5% and 2.3%, with a medium scenario of around 1.9%.

As for the forecasts for the years 2022 and 2023, they depend on assumptions that can be summarized as follows:

Assumptions and Forecast of Hydrocarbon Gross Value Added

Given the gradual decline in the production of crude oil and LNG in Qatar since 2014, as a result of a number of oil and gas fields reaching their maximum production capacity, therefore, it is reasonable to assume for basic that the performance level of hydrocarbon production in the short term will be stable or slightly decreasing, both for technical reasons during maintenance periods, as well as for reasons related to the response to global forces of supply and demand that are subject to unpredictable and uncertain factors, the most important of which depend on how quickly the precautionary and preventive restrictions of COVID-19 and mutations are lifted and thus restoring production and service activities around the world.

As for the Gross Value Added (GVA) of the products of hydrocarbon activities, of course, it depends on the stability of global oil and gas prices, which, as shown by the latest forecasts of the International Monetary Fund issued in October 2021, ranged between (\$61 - \$65.7 per barrel) during the period (2021-2023), Although it averaged higher than this at around \$68.7 per barrel during

the period January-November of 2021, with a maximum of \$82 per barrel in October 2021.

And based on the latest GDP data for the value added of the hydrocarbon sector for the first three guarters of 2021, which showed that the activities of the hydrocarbon sector improved by 51% from negative 1.6% during the first three quarters of 2020 to negative 0.8% during the same period in 2021. And since Bloomberg's data for LNG exports showed that Qatar's exports witnessed an average growth of 5.8% during the months of October and November of 2021, therefore, it is likely that the annual rate of change of the hydrocarbon sector will decline in 2021 by about negative 0.7%, or stabilize at an average of negative 0.2% for the three scenarios, as shown in Table (1-4). As for the forecast for the period (2022-2023), it was assumed that it will decrease in the base scenario to negative 0.3%, or it will stabilize in the medium and optimistic scenario.

Assumptions Related to Non-Hydrocarbon Activities

It is well understood that the Covid-19 pandemic has cast a shadow on all nonhydrocarbon economic activities, including manufacturing, building and construction, and sub-sectors of the service sector, of which transportation, the wholesale and retail trades, as well as activities related to entertainment and tourism, have all been deeply affected whether due to the partial suspension business of aiven enforcement of physical and social distancing measures, or due to the slowdown in investments caused by the uncertainty that prevailed in the consumption process for the public and private sectors and the movement of foreign trade.

One of the most important qualitative assumptions used as a basis for predicting

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the path of development of GDP of non-hydrocarbon activities is the extent to which economic activities will recover from the repercussions of the Covid-19 pandemic. It has been assumed that the recovery during the first half of 2021 would at first be slow, but then speed up during the second half of 2021.

As for predictions for 2022 and 2023, it has been broadly assumed that all economic activities will pick up, but a full return to normal may not be possible because the precautionary measures for travelling abroad or for internal movement, as well as the radical and plausibly long-term change in the lifestyle of the population, will continue to curb the level of aggregate demand for goods and services. This can be expected to continue until the population adapts to the new lifestyles.

However, before considering the quantitative assumptions to determine the forecast path for non-hydrocarbon activities for each of the three scenarios, it should be noted that contrary to the above expectations, the nonhydrocarbon GDP data for the second and quarters of 2021 witnessed third remarkable growth of 6% and 4.7%, respectively compared to a decrease of 2% during the first quarter, mainly coming from the recovery of activities that were the most affected by COIVD measures including transportation, the wholesale and retail trades, as well as activities related to entertainment, culture, and tourism.

This growth means that the Qatari economy, in terms of non-hydrocarbon activities, recovered during the first three quarters of 2021 by more than 160%, from negative 4.7% during the first three quarters of 2020 to positive 2.9% during the same period of 2021, most of this deriving from the

contribution of the recovery of wholesale and retail trade activities at 0.63 percentage points, followed by the activities of the financial and insurance sector at 8.0 then percentage points. and the manufacturing activities by 0.54 percentage points, which in total not only contributed to achieving a total GDP growth of 1.45% during the first three quarters of 2021, but also partially contributed to balancing the negative contribution of other activities including government services and building construction.

Forecast of the Main activities of the Non-Hydrocarbon Sector

On this basis, to estimate GDP for 2021, a set of performance assumptions was applied for the fourth quarter of 2021, the preliminary results of which demonstrate that nonhydrocarbon activities would grow in the base scenario case from negative 4.5% in 2020 to positive 2.9% in 2021, with a recovery rate of 165%, while recovering further to 3.3% when applying the assumptions related to the medium scenario, and when applying the assumptions related to the optimistic scenario, it will increase to 3.9%.

For the expectations of the level of performance of non-hydrocarbon activities during the years (2022 and 2023), for each of the three scenarios depended assumptions related primarily to the activities of the service sector, with the hope that the national economy would reap a number of benefits in the field of employment, increase in value added, and rises in productivity, as a benefit of hosting 2022 FIFA World Cup together with the subsequent anticipated advancements in the tourism sector, which in combination will serve to attract foreign investments, especially after the Al-Ula agreement (to be discussed later).

In the short term, it appears that the activities of the construction sector will constitute the second source of growth in non-hydrocarbon activities, given that the construction of the North Gas Field project will begin gradually in 2021, and then expand further during 2022 and 2023, which will involve multiple activities including in the areas of manufacturing and transportation.

In addition, the construction sector can be expected to continue to grow due to the necessity of completing infrastructure projects. Moreover, it can be anticipated that there will be increasing private sector investments in all fields in response to reforms in the business and investment environments, which will assuredly require construction related to various aspects of these investments.

For more detail, the forecasts of the main sectors for non-hydrocarbon activities can be summarized as follows:

The service Sector

The GDP data for the first three quarters of 2021 showed that the sub-sector activities of the service sector recovered from the contraction of 2020 by 218%, from negative 2.9% in 2020 to positive 3.5% during the first three quarters of 2021. Therefore, it is expected to maintain such a growth level during the fourth quarter of 2021, to achieve a growth rate by the end of the year between 3.7% and 4.7% for the three scenarios.

As regards the years 2022 and 2023, a combination of quantitative assumptions has been applied to its subsidiary activities, including the aspects of wholesale and retail trade, financial and real estate services, hotel and restaurant services, transportation, and arts and entertainment. The result showed a growth rate for 2022 that can be in a range

between 4.1% and 5.6%, which reflects the added value of the activities associated with hosting the 2022 World Cup, before returning to achieve a more moderate growth rate in 2023 ranging between 2.3% and 3.1%.

Building and Construction Sector

The GDP data for the first three quarters of 2021 showed that construction activities witnessed a recovery of 115%, as the annual rate of change increased from negative 3.9% in 2020 to negative 0.6% by end of September 2021. Therefore, it is reasonable to expect the sector to achieve a positive growth rate during the fourth quarter 2021 with a range between 1.1% and 1.8% for the three scenarios, to reflect the start of construction for the North Field Gas Project, as previously mentioned.

As for the years 2022 and 2023, the level of performance depends on the extent to which the population needs of infrastructure are met in Qatari cities, especially in the field of drinking water and sanitation services, utilities and roads, and to complete the many hotel and residential projects in preparation for hosting the 2022 World Cup, including the completion of airport construction.

Bearing in mind that the works at both Hamad International Airport and Hamad Port are still in progress, according to the available data, the report team believes that the level of contribution of the construction sector performance to the GDP will either grow modestly by 0.6% in 2022, and stabilize in 2023 for the base scenario, or it will grow in 2022 by 2.4% and 3% for both the medium and optimistic scenario, respectively then it will decline slightly in 2023 to positive 2.1% for the medium scenario, but will grow again in the optimistic scenario by 4.3%.

Manufacturing Sector

In regard to the recovery of manufacturing activities, GDP data for the first three quarters of 2021 showed that it recovered by 190%, with a big jump from negative 6.7% in 2020 to positive 6% during the first three quarters of 2021.

However, manufacturing activities are expected to stabilize during the fourth quarter of 2021, which is likely expected to result in a steady growth rate at the end of 2021 ranging between 3.1% and 4.6% for the base and optimistic scenarios, with the medium scenario at 2.9%.

In relation to the degree of recovery of activities for the manufacturing sector during 2022 and 2023, it will depend on the nature of the activity's inputs: it is expected that the activities that have non-hydrocarbon inputs, such as: building materials, foodstuffs, etc., will grow by the amount of the growth of local and foreign investments to meet local demand and the possibility of export. On the other hand, activities whose inputs are hydrocarbons; For example: the oil refining and petrochemical industry, since many of its activities have hit the peak of their production capacity, they are anticipated to contribute at best at stable growth rates, but with a tendency to decline during routine maintenance periods. Thus, it is estimated to either stabilize between 0.2% and 0% for the base scenario during: 2022 and 2023 respectively, or experience growth in the same two years for the middle scenario by less than 1% or grow more quickly in the optimistic scenario for the same two years by 3.2 % and 2.4%, respectively.

GDP Forecasts by the Expenditure

In regard to the forecasts of GDP by expenditure approach, it depends on assumptions related to the current and future developments of household and government's final consumption expenditure, gross capital formation, and the resource balance (net exports and imports of goods and services), and the impact of these on the level of GDP during the period (2021-2023), various combinations of these have been applied in order to ascertain the multi-variate factors that affect the course of changing expenditure components, as indicated in Box Among the most important ones, according to the equations used at the present time, are: (1) the annual rate of change for the population, (2) the current consumption expenditure for the government and household (private) sectors during the organization of the 2022 FIFA World Cup, and (3) the level of fixed capital investment directed at and related to the construction of the North Gas Field and its subsequent interactions with the level of imports.

As for the level of final consumption expenditures of households (private) in 2021, which have already improved from negative 10.5% in 2020 to negative 6.4% during the first half of 2021. It is supposed to recover further during the second half of 2021, thanks to the phasing out of the COVID-19 containment measures, which will lead to an improvement in its rate of change from negative 10.5% in 2020 to negative 2% by the endo of 2021 in the base scenario, rising to negative 1 % in the medium scenario, and achieving a full recovery of 100% in the optimistic scenario.

It is also expected to move forward towards achieving the same consumption pattern in 2022 for the base and middle scenario, and there is a possibility that it will achieve a growth of 1% for the optimistic scenario due to the expectations of the increase in consumption resulting from hosting the 2022 World Cup, before declining by 1% in 2023 (Table (1-5)).

However, it is important to caveat these projections with the fact that dissenting opinions exist. Noted American economist Paul Krugman wrote in the New York Times that "the problems that have been crimping recovery from the pandemic recession seem, by and large, to be global rather than local⁷. As yet unknown or uncertain events, whether near or remote from Qatar, but it may affect the results of the Planning and Statistics Authority's forecast.

It is worth noting that one of the most influential factors affecting private consumption expenditure, as indicated in Box (1-3), is the likely number of prospective consumers during the coming years; in PSA's modeling, the population level has been adjusted for the three scenarios, on the basis that the population in the optimistic scenario matches with the population as determined by the 2020 census.

However, according to recent population data for the first three quarters of 2021, the population within the State of Qatar amounted to about 2.64 million compared to 2.85 million per 2020 census. This requires to make an assumption that the population will be ranged between those two figures during the next two years, because it is not known seasonal whether the departure expatriate workers in the second half of 2020. was temporary, as it was before the Corona virus crisis, when the residents were traveling outside Qatar on tourist trips or visits to their home countries, or was the departure permanently due to job losses caused by the repercussions of COVID-19. Therefore, it has been assumed that the population will decrease by different proportions for the base and mid scenarios (Labor market was discussed in texted related to (Box 2-3,4,5) in Part two of this report)

When considering the annual rate of change of government consumption expenditure, it is expected to continue achieving positive growth rates for the three scenarios during the period 2021-2023, as shown in Table (1-5), resulting from the increase in government expenditure to counter the repercussions of the Covid-19 pandemic, as well as having to meet the requirements of hosting the World Cup and its accompanying financial obligations.

Public financial data for the first three quarters of 2021 showed that it increased by

Table 1-5: Qatar's	s GDP by Expenditure	(Annual rate of	change %), 2021 and	d 2023

						<u> </u>							
	Es	timate	Bas	Base scenario			um sce	nario	Optimistic scenario				
%	2020	Up to Q3 2021*	2021	2022	2023	2021	2022	2023	2021	2022	2023		
Real GDP 2018=100	-3.6	1.4	1.5	1.6	0.7	1.9	2.3	1.5	2.3	2.9	1.8		
Private	-10.5	-6.4	-2.0	-2.0	-2.0	-1.0	-1.0	-1.0	0.0	1.0	-1.0		
Government	4.4	-12.0	1.2	6.3	2.9	1.6	7.0	3.7	2.0	7.7	4.1		
Gross Capital Formation	-10.4	-5.3	5.6	6.3	-0.1	5.3	8.4	-0.3	5.8	9.2	0.6		
Exports, G & S	-1.5	9.7	-1.3	0.0	0.1	-0.9	0.3	0.4	-1.0	0.4	0.6		
Imports, G & S	-8.9	-2.7	-0.6	5.0	-1.5	-0.8	7.1	-2.5	-0.6	8.0	-1.9		
Population (million)	2.85	2.6**	2.85	2.7	2.7	2.8	2.8	2.8	2.9	2.9	2.9		

Source: PSA, *for the three quarters, otherwise, for the first half of 2021**Qatar population inside the state by the end of October 2021.

⁷ Krugman, P., 2021. A World Running on Empty. The New York Times, October 29, 2021.

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1%, and consequently, the rate of change in government final consumption for 2021 is expected to maintain its positive growth rates from 4.4% in 2020, to positive 1.2% for the base scenario, then to positive 1.6% for the middle scenario, and then to positive 2% for the optimistic scenario. Subsequently, in the World Cup year of 2022, it is expected to undergo a significant growth rate for the three scenarios, ranging between ranging between 6.3% and 7.7%, before declining somewhat in 2023 to achieve moderate growth rates in 2023, ranging between 2.9% and 4.1%.

In regard to the annual rate of change of fixed capital formation, it is expected that it will continue to achieve positive growth rates for all three scenarios during the period 2021-2022, and then stabilize in 2023, as indicated in Table (1-5), resulting from increased investments in the construction of North Field gas, and the expansions of Hamad International Airport and Hamad Port, as well as the completion of basic infrastructure.

However, it is worth noting, as was clarified in Box (1-3), that the rate of change of capital formation includes the arithmetic differences between two GDPs, one calculated by the method of production and the other by the expenditure method; this requires being careful and cautious when considering or using such indicators.

In conclusion, the initial expectations for the level of performance of the fixed capital components indicate that the rate of change will increase in 2021 from negative 10.4% in 2020 to positive growth rates for the three scenarios, ranging between 5.3% and 5.8% for the year 2021, with subsequent significant growth expected for 2022, ranging between 6.3% and 9.2%, before then declining in 2023, with a range between negative 0.1% and 0.6%.

When deliberating over imports, it is assumed that they are to witness significant growth in 2021 and 2022 before tamping down and undergoing a decline to stabilize in 2023, driven by meeting the requirements of the increase in final consumption expenditure of government and capital formation activities during the same two years. Concomitantly, exports are subject to the level of production and demand for oil derivatives in line with the growth rate of oil GVA.

Box 1-3: Factors Affecting GDP by Expenditure Approach

GDP by the expenditure approach consists of final consumption expenditures of households and government final consumption expenditures, gross capital formation, and resource balance (net exports and imports of goods and services). The estimation of the final consumption expenditure of households (private) is based on the final result of the Household Expenditure and Income Survey (HEIS), where the last survey was conducted for the State of Qatar in 2018. These data are used as a benchmark for estimating the final consumption expenditure of households. For example, consumption expenditures for the current year 2021 is estimated by extrapolating the data from 2018 using several volume and prices indices related to household components.

It should be noted that the volume index is a combination of the population growth rate and a quality factor, which essentially defines the change in the quality of the products (product mix) in the basket, as well as other specific volume indicators such as the deflated sales of fuel for private vehicles, the number of cars sold, the volume indicator of human health activities, among others. With these indicators, the estimated values are considered constant and then using the relevant components of the consumer price index to calculate current values. Thus, it should be clear from the above that the final consumption expenditure of households is a composite indicator of the population, the consumer price index, travel expenses, owner-occupied housing, and other short-term indicators.

With regard to government final consumption expenditures, it is defined as the result of subtracting any revenues derived under the classification of non-market sales from **total government production**, which in turn equals the total government costs represented by the cost of employees' compensation, intermediate consumption of goods and services, and consumption of fixed capital. In terms of estimating the constant values of government consumption expenditures, it is also calculated through a deflationary methodology that uses the components of the relevant consumer price index.

The Gross Capital Formation as one of the expenditure components of GDP, which is derived in Qatar as a residual to take into account the statistical differences between the two methods for compiling GDP, i.e., the production and the expenditure approach. On an annual basis, the calculation of gross capital formation is validated using the results of the annual economic survey, government budget data, and the financial statement of the corporations as the main sources. A record of the statistical discrepancies is kept internal for analysis of consistency. It is worth to mention that Gross Fixed Capital Formation (GFCF), comprised of the changes in public and private capital goods inventories, as well as the acquisition of fixed assets minus the disposal of valuables (such as jewellery and works of art). Thus, the GFCF, then, measures the additions to the capital stock of buildings, transport equipment, machinery, and inventories, i.e., the additions to the capacity to produce more goods and services in the future. Furthermore, changes in inventories involve (1) materials and supplies, (2) works-in-progress (for example, crops in fields or greenhouses, maturing trees, livestock husbandry, uncompleted structures, uncompleted other fixed assets, and partially completed film productions or software), (3) finished goods, (4) goods for resale.

As for the resource balance, which is the net exports and imports of goods and services, whose nominal data is obtained from the balance of payments and its constant value is estimated through the deflationary methodology using the latest import index (import unit value) to remove the effect of nominal prices, while the producer price index (PPI) is used to deflate the nominal export data, However, since work is still in progress in preparing an export index, at present, related PPIs are used to deflate exports of goods, while exports of services are deflated by a composite price index based on the CPI for services.

Fiscal Balance and the Current Account

Estimates of the state's general budget for 2022 as shown in Table (1-6), indicate that it will witness a deficit of QR 8.3 billion (equivalent to about 1.2% of GDP), compared to the deficit of the 2021 budget, which was estimated at QR 34.6 billion (equivalent to about 5.1% of GDP).

Table 1-6: Qatar's budget for 2021 and 2022

	6		
	2021	2022	Change
QR – billion	(40\$)	(55\$)	%
Oil Revenues	121.6	154	26.6
Non-Oil Revenues	38.5	42	9.1
Total Revenue	160.1	196	22.4
Salaries and Wages	57.9	58.5	1.0
Current Expenditure	60.7	67.2	10.7
Minor Capex	4	4.6	15.0
Major Projects	72.1	74	2.6
Total Expenditure	194.7	204.3	4.9
Surplus/Deficit	34.6-	8.3-	
Source: MOF			

The estimates of the expected revenues for the 2022 budget, was based on two assumptions: The first assumption is that the price of a barrel of crude oil in international markets will increase from \$40 a barrel in the 2021 budget to \$55 a barrel in the 2022 budget, and the second possible assumption is that the quantities of hydrocarbon products could be almost equal to the average of 2019 – 2021 production levels. This led to an increase of the total revenue estimate for 2022 at QR 196 billion, compared to the total revenue estimate of 2021 at (QR 160 billion).

In addition, the 2022 budget data indicates that the expenditures for 2022 were estimated to rise by 4.9%, i.e. from QR 194.7 billion in the 2021 budget to QR 204.3 billion in the 2022 budge. Most of the increase came from inflating estimates of current expenditures by 3.3 percentage points in anticipation of an increase in government expenditures in hosting the World Cup 2022,

followed by increasing investment expenditures by about 1 percentage point.

As for the development of the process of implementing the 2021 budget, and the fact that total revenue was estimated at \$40 a barrel, and in light of the significant escalation in global oil and gas prices during the period (from January to November 2021), which averaged about \$68.7 per barrel, with a maximum of \$82 per barrel in October 2021 according to the World Bank. This in turn led to an increase in total revenues during the first three quarters of 2021 by 18% compared to what was proposed in the 2021 budget for the same period and was even higher than what was actually collected for the same period in 2020.

From the above it is clear that the 2021 budget will achieve a surplus instead of a deficit, as based on the fiscal data recently issued by the Ministry of Finance, the public finance balance has already witnessed a surplus of 1% of GDP during the first three quarters of 2021.

Hence, it is expected that the public finance balance will continue to achieve fiscal surpluses for the three scenarios during the period (2021-2023), as shown in Table (1-7), ranging between 1.9% and 3.6% of GDP, with an average of 2.7%, which is based on two assumptions: (1) the growth in commodity export revenues will continue in accordance with the average IMF and WB forecasts for oil and gas prices; (2) the government will continue the process of controlling public spending, especially capital spending, as a result of the completion of most infrastructure projects.

Table 1-7: 0	Qatar's Fiscal	and Current Acco	ounts, 2021 and 2023

	Fsti	mate	Base	e scen	ario	Medium scenario			Optimistic scenario		
	202	Up-		202	202	Wicara		41.10	J	ceriari	
	0	2021	1	2	3	2021	2022	2023	2021	2022	2023
Overall fiscal balance (% of GDP)	-1.5	1.0	1.9	3.6	3.5	2.2	3.1	2.9	2.0	2.4	2.3
Current account balance (% of GDP)	-2.5	11.7	10.8	7.3	6.5	11.5	7.0	6.4	11.3	6.5	5.8
Exports of goods & services (US\$ bn)	70.9	73.8	98.7	99.0	94.9	100.3	99.9	95.6	100.2	99.8	95.7
Imports of goods & services (US\$ bn)	59.1	44.9	60.4	64.2	64.0	60.3	65.4	64.6	60.4	66.1	65.7
Crude oil export Price (\$/bbl)	48.3	64.2	64.2	64.1	60.7	65.4	64.1	60.7	65.4	64.1	60.7
Natural gas price (\$/mmbtu*) Japan	6.5	10.1	10.1	10.4	9.7	10.3	10.4	9.6	10.3	10.4	9.6

Source: PSA, *BTU=British Thermal Units.

For the aforementioned reasons, the current account of the balance of payments for 2021 is expected to improve significantly. As Table (1-7) shows that it has already increased from negative 2.5% in 2020 to positive 11.7% during the first three quarters of 2021, and therefore it can be expected that the current account balance will continue to achieve high positive growth rates for the three scenarios during the period (2021-2023), assuming a growth in commodity export continued while rationalizing imports. revenues simultaneously moving towards repaying foreign loans to ease the burden of public debt service.

As for the development path of export revenues, it is expected to undergo growth for all three scenarios during the period (2021-2023), from \$70.9 billion in 2020 to high levels ranging between \$94.9 billion and \$100.3 billion.

Risks to the Outlook

It is well understood that one of the significant risks that may affect the aforementioned projections is the extent of success in controlling the spread of the Covid-19 pandemic and its variants (e.g. omicron) around the world.

Although the statistical data related to vaccination campaigns in the State of Qatar published⁸ until the end of December 2021, indicates that the percentage of the population who received the first and second vaccination, amounted to about 86.4%, yet, it is not unlikely that new waves of mutated viruses may erupt in Qatar, as we have already seen, has been taking place in many developed countries, which have made great strides in the field of vaccination campaigns.

From this point of view, the recovery of the Qatari economy for the current year and the next year will depend on the extent of: (1) the stability of global oil and gas prices, (2) the openness of movement, travel, and tourism, which will be conducive to hosting of the FIFA World Cup, (3) the stability of the global inflation rate and the gradual tightening of monetary policy by the US Federal Reserve, i.e., the gradual lifting of Quantitative Easing (QE) policy and raising the interest rates.

⁸ https://covid19.moph.gov.qa/EN/Pages/Vaccination-Program-Data.aspx

Developments in Global Commodity Markets

Among the most important commodities traded in the global markets are non-renewable energy sources, i.e. the fossil fuels petroleum, natural gas, and coal. Such sources are measured in different physical units and standards, including barrels, gallons, cubic feet, and long and short metric tons. But the British Thermal Unit (Btu) is used to standardize the measures as the so-called Barrel of oil equivalent - beo, where each barrel of oil equals 5.8 million BTU as a measure of the thermal energy emanating from any of these sources.

There are many factors that affect the prices of liquid fuels, but the most important of these are those related to both the supply and demand sides. In most cases, any increase in the supply of liquid fuels leads to lower prices, whereas decreases in supply lead to higher prices. Moreover, any increase in demand leads to higher prices, and the opposite occurs when demand decreases. It is worth noting that higher prices tend to moderate or reduce demand and encourage production, while lower prices tend to have the opposite effects. However, due to infrastructure constraints and limitations of liquid fuel supplies, whether crude oil or LNG. prices fluctuate rapidly for any of a number of emergencies, or even to respond to seasonal weather changes. This is attributed to limited energy alternatives to date, and the inability of consumers to make a quick switch, because it requires a diverse infrastructure, which is usually not equally available to all consumers.

Thus, to avoid supply shocks, most countries have established an infrastructure to store surplus liquid fuel, which has become one of the main factors affecting fuel prices, as when the level of stockpile decreases, prices rise and vice versa.

Factors Affecting the Forecast of Liquid Fuel Consumptions

According to the data of the US Energy (EIA) Information Administration December 2021, the average consumption of liquid fuels in the world during the period (2017-November 2021) amounted to about 97.4 MMB/D, with a maximum of 101.7 MMB/D in July 2019 while sinking to a minimum of 80.5 MMB/D in April 2020 due to impacts of Covid-19 containment measures on global demand. The OPEC countries contributed to supplying the global market with about 31.6 MMB/D of liquid fuels. with a maximum of 36.8 MMB/D and a minimum of 27.4 MMB/D.

Given the importance of the level of liquid fuel stockpiles, the EIA provides inventory data in million barrels for USA and OECD, in which the number of days of oil stocks is calculated. For planning purpose that the reserve for OECD countries should be sufficient for between 60 and 90 days, i.e., an average of 70 days, equivalent to about 3 billion barrels during the same period. The United States accounts for 44.5% of this stockpile.

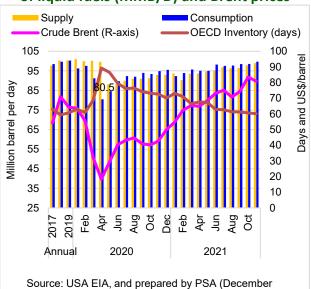
Furthermore, due to the inverse relationship between crude oil prices (Brent) and the level of OECD stockpiles (such as the number of days), which amounted to negative 84% during the period (2017- November 2021), as shown in Figure (1-1), it is expected that any increase in oil price will lead to decline in inventory size.

It is noteworthy that there have been upward and downward changes in the number of days of OECD stockpile level during the period (January 2018 – November 2021) in

response to the changes in the global oil market and the price level.

The average rate of change of liquid fuel inventory during January 2017 and November 2021 was about negative 0.8%, with a maximum of positive 9.9% in May 2020, and a minimum of negative 12.6% in August 2021 with a standard deviation of 0.07 percentage points.

Figure 1-1: Supply, consumption and stockpile of liquid fuels (MMB/D) and Brent prices



One of the major repercussions of the measures to contain the Covid-19 crisis in 2020 is the double shock caused to the oilexporting countries, by dropping prices and demands for oil derivatives, which encouraged importing countries to increase their strategic stocks from these materials.

However, as soon as the prices of oil derivatives increased in 2021, especially during the period (March-November), led many of imported countries having to withdraw their strategic stockpile. In fact, the US President Joe Biden ordered⁹ the release of the Strategic Petroleum Reserve as part of

an ongoing effort to lower prices and address supply shortages around the world.

Furthermore, the measures to contain Covid-19 led to a reduction in global supply and demand for liquid fuels during Q2 of 2020 by negative 8% and negative 15%, respectively, causing a decrease in prices by negative 56%, compared to Q2 of 2019. It should be noted that supply and demand recovered during the last three quarters of 2021 by an average of 8% and 5%, respectively.

Based upon the foregoing, one can say that the level of future development of oil prices in the global market, and the associated changes in the volume of global crude oil and natural gas reserves, are largely related to the gap, whether wide or narrow, between global supply and demand.

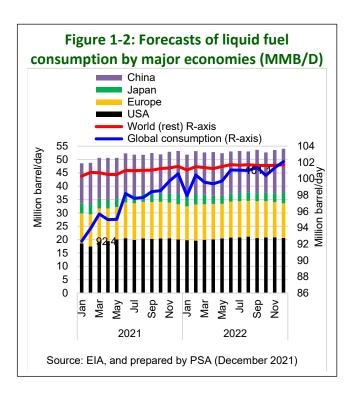
Data from the US EIA indicate that the level of global inventory will continue to decrease until mid-2022, by an average of negative 4.6%, with a maximum of negative 1% and a minimum of negative 8.4%.

Therefore, it is expected that the level of global consumption of liquid fuels will fluctuate during 2022, between a minimum of 97.5 MMB/D and an upper limit of 102.1 MMB/D, but on average, an increase of about 3.56 million barrels compared to the average consumption of 2021, most of which will come from the increase of consumption in the United States of America by about 0.7 MMB/D, China by about 0.6 MMB/D, European countries by about 0.4MMB/D, and Japan will be stabilized, while demand from the rest of the world is expected to grow by about 1.9 MMB/D (Figure 1-2).

as-part-of-ongoing-efforts-to-lower-prices-and-address-lack-of-supply-around-the-world/

⁹ https://www.whitehouse.gov/briefingroom/statements-releases/2021/11/23/president-bidenannounces-release-from-the-strategic-petroleum-reserve-

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COVID-19 Implications for the LNG Markets

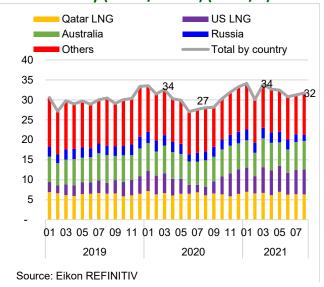
In general, global oil and gas trading, like other international economic activities, was affected by the repercussions of Covid-19 containment measures. However, given the particular importance of LNG markets to the State of Qatar, since its exports of LNG products amount to 76% of its total hydrocarbon exports, this section will focus on the repercussions of COVID-19 on the monthly LNG trading markets.

Globally, Rystad Energy expected, before the outbreak of Covid-19, that global gas exports would grow by 8% in 2020, but due to

measures to contain the virus, they only grew by 1.4%, rising from 354.7 million tons in 2019 to 356.1 million tons in 2020. This is ascribed to a decline in demand for LNG in a number of Asian countries such as Japan, China, and South Korea, caused by the closure of many economic activities, as well as the availability of leftover stocks from 2019 since the winter was relatively warm.

However, the monthly export data in Figure (1-3) showed a decrease from 34 million tons in December 2019 to 27 million tons in June 2020, before stabilizing at this level throughout the months of Q3 of 2020 prior to gradually rising during Q4 to reach prepandemic levels. Consequently, the monthly data shows the resilience of natural gas trade and the speed of its response to recovery.

Figure 1-3: LNG export by major producer country (MMT /month) (MMB/D)



Technological Development of Gas as Clean Energy

Natural gas is the cleanest burning fossil fuel due to its relatively low carbon emissions, and assuming very little in the way of fugitive emissions. Studies by the US Environmental Protection Agency (US EPA) found that energy production using LNG generates 45% to 55% of the carbon dioxide emissions of burning low-quality lignite coal.

Since the gas industry has gone through several stages, as described in Box (1-4), a number of studies were conducted to estimate the quantity of carbon emission from LNG process in each stage, and it has been determined that CO2 emissions remain lower than coal emissions by 20% to 53%. This is why important LNG buyers consider LNG to be the most appropriate transition fuel¹⁰.

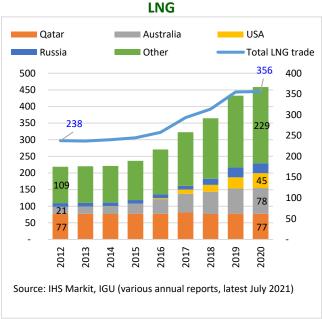
However, monitoring of fugitive methane emissions must be taken into account, as methane is much more powerful greenhouse gas than carbon dioxide; Methane is warming the planet by about 80 times more than carbon dioxide, according to the United Nations' Intergovernmental Panel on Climate Change¹¹.

The economic importance of natural gas industry stems from the fact that it is not only used to generate electric power but also is one of the most important intermediate materials for many manufacturing industries such as: plastics, fertilizers, and household uses in kitchen stoves and for space heating.

Thanks to the invention of the gas-to-liquid (GTL) technology used during the past two

decades, which reduced gas mass by 1/600 compared to its original gaseous state, this has facilitated storing and the transportation of the gas safely and in large quantities, until it has today become a vital global commodity traded across the oceans to various parts of the world. The volume of international trade in LNG has increased from 238 million tons in 2012 to 356 tons in 2020, demonstrating a growth rate of 50%, as shown in Figure (1-4).

Figure 1-4: The evolution of the international



It is worth noting that methane emissions are not limited to what leaks from the natural gas process, which, for example, constitute 30% of the total emissions in the United States¹² of America, as the rest comes from agricultural activities such as raising livestock at 27%, and land uses as waste centers at 17%, or natural fertilizer processes (animal manure) at 9%, coal uses at 7%, and others at 9%. Methane emissions can be reduced by changing manure preparation including capturing it, or modifying animal feeding by

 $^{^{10}}$ https://www.qatarenergy.qa/en/MediaCenter/Pages/newsdetails.asp x?ItemId=3683

¹¹ https://www.unep.org/news-and-stories/story/methane-emissions-are-driving-climate-change-heres-how-reduce-them

¹² https://www.epa.gov/ghgemissions/overview-greenhouse-gases#methane

including substances¹³ that reduce intestinal fermentation, especially in cows.

Box 1-4: LNG as a Clean Energy Source

Natural gas is composed of a hydrocarbon mixture usually consisting of methane (CH4), which makes up about 90% of gas, ethane (C2H6), propane (C3H8), butane (C4H10), as well as minor amounts of nitrogen, carbon dioxide, and water vapor. After extraction from the gas fields, it is transported to treatment plants through low-pressure pipelines of small diameter to be refined until it is ready for final consumption in the form of 100% methane (plus, for domestic use, an odorizer for safety reasons so that people can smell leaks, as pure methane is odorless), and then transported through large and high-pressure tubes to (1) export centers, where it is shipped via vessels or transferred via pipelines outside the borders of the exporting country, (2) and for domestic consumption, it is distributed through internal networks.

Thus, the natural gas industry goes through a series of added values to the economy, starting with production, conversion from gas-to-liquid to reduce its mass, followed by transportation and storage through specially designed tankers and containers consisting of a concrete wall covered with an inner lining of iron. Then, before final consumption, it is converted from liquid to gas by raising its temperature (heating), and then transferring it into pipelines in order to distribute it for industrial and domestic consumption.

Thanks to the remarkable technological advancement in transportation from production sites to consumption areas within many countries of the world, the infrastructure for the production and export of natural gas has witnessed great developments, whether those related to conversion capabilities from gas to liquid or from liquid to gas, that can be processed either on land and at sea, or in land and sea modes of transportation (Table 1).

Table 1 for Box (1-4): Global Infrastructure for LNG Production and Export

Table 1 for Box (1-4): Global Infrastructure for LNG Production and Export							
		2020					
		and					
	2019	Feb2021					
Global LNG Trade (MT)	354.7	356.1					
Global liquefaction capacity (MTPA)	432.9	452.9					
Global nominal regasification capacity (MTPA)	831.1	850.1					
Global Floating and Offshore Regasification Capacity (MTPA)	109.9	115.5					
Proposed aspirational liquefaction capacity in pre-FID stage							
(MTPA)	826	892.4					
LNG fleet (Vessels)	541	572					
Source: IGU World LNG report - 2021							

¹³One farmer's seaweed discovery could help slow methane

Qatar and International Trade in LNG

According to the 2021 BP Statistical Review of World Energy, the State of Qatar's natural gas reserves are (about 24.7 trillion cubic meters or 18.4 billion metric tonnes LNG equivalent), which represents about 12.5% of the world's proven gas reserves at the end of 2020. Qatar's LNG production during 2020 amounted to around 171.3 billion cubic meters or 126 million metric tonnes LNG equivalent, which is equivalent to 4.4% of the world's total natural gas production, making it the fifth-largest natural gas producer in the world (after the United States, Russia, Iran, and China).

According to the annual World LNG Report 2021 issued by the International Gas Union (IGU), Qatar ranked second in LNG exports in 2020, with a quantity of 105 billion cubic meters LNG or 77.1 million metric tonnes LNG equivalent, i.e. 21.65% of the total global exports of about 356.1 million metric tonnes LNG.

Qatar's LNG exports competed with Australia's for first place in 2020, although it ranked second, but it is expected that the State of Qatar will gain a position as the preeminent and largest exporter by 2026, when the production of the North Gas Field project begins to gradually raise annual exports of LNG from the current 77 million metric tonnes to 110 million metric tonnes, then attaining 126 million metric tonnes by the end of 2027.

Qatar Energy¹⁴ has completed a number of steps towards the implementation of the North Field Gas Project, which, as Box (1-6) indicates, which of the most important are:

- Announcing the final investment decision in February 2021 to finance 30% of the total cost of the first phase of the project, which amounts to about \$28.75 billion.
- Multi-tranche bonds were launched in July 2021, to cover part of the total cost, in the amount of \$12.5 billion.
- The tender for all engineering and construction works was awarded to the Spanish company "Teknicas Reunidas" at the end of August 2021.

Qatar Energy also expanded its business scope in the field of supplying LNG, as it signed during the period (January 2020 - September 2021) a number of contracts to supply several energy companies in China, Pakistan, Bangladesh, Singapore, Korea, and Taiwan with a total amount of about 12.3 million tons.

Further, it also signed investment contracts in the field of oil and gas offshore exploration, operations and construction of infrastructure in the field of docks, and gas liquefaction in South Africa, China, Suriname, Namibia, the United Kingdom, Cote d'Ivoire, and Mexico. Currently, Qatar Energy owns an LNG shipping fleet consisting of 45 Q-Flex and Q-Max ships.

Moreover, QE has signed agreements with a number of major Korean and Chinese shipyards to reserve LNG ship construction capacity for building as many as 100 new LNG carriers at an estimated cost of about QR 70 billion, equivalent to about US \$19 billion.

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¹⁴ Changed its name in October 2021 from Qatar Petroleum

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Box 1-5: Progress in the construction of the North Field gas project in Qatar

On 24 August 2021, Qatar Energy announced that it had awarded an engineering, procurement, and construction (EPC) contract pertaining to the North Field Expansion Project in Qatar to the Spanish company, Técnicas Reunidas. Under the terms of the contract, Técnicas Reunidas will be responsible for the expansion of existing storage and loading facilities for liquid products, including condensate, propane, and butane. It will also expand its mono-ethylene glycol processing unit within Ras Laffan Industrial City (North). The purpose of these facilities is to handle liquid products from the six new production trains, four in North Field East ((NFE) with a capacity of 32 million tons, and two in North Field South (NFS) with a capacity of 16 million tons. The production is scheduled to start-up before the end of 2025 from NFE, while the production from NFS will start at the end of 2027.

It is estimated that the cost of constructing production trains in NFE is about US \$28.75 billion. In February 2021, Qatar Energy announced the Final Investment Decision (FID) for international companies wishing to contribute about 30% of the total cost. In June 2021, TotalEnergies, ExxonMobil, and Royal Dutch Shell confirmed their desire to bid for a stake in the project, whereas Eni, Chevron and ConocoPhillips began to study the matter.

Aiming to cover part of the project's costs by self-financing, Qatar Petroleum issued multi-tranche bonds amounting to US \$12.5 billion, as shown in Table (1), as per US RegS/144A bond offering for sales to investors outside the United States in offshore transactions, that consists of 5-, 10- and 20-year conventional tranches, and a dual-listed 30-year Formosa tranche.

Moreover, Qatar Energy held a virtual roadshow at the end of June 2021 and met with over 130 international investors, including global insurers, asset managers, pension funds, and bank treasuries, which resulted in a high quality orderbook above \$40 billion.

This is considered as the largest US dollar fixed rate oil and gas offering, the largest corporate issuance in the MENA region, and the largest corporate Formosa tranche raised globally.

Table (1) for Box (1-5) Offering Multi-Tranche Bonds (US\$ Billion)							
Bond value (US\$ billion)	bond duration (years)	Yield (%)	Interest (%)				
1.5	5	UST+50bps	%1.38				
3.5	10	UST+90bps	%2.25				
3.5	20	Yield of 3.15%	%3.125				
4.0	30	Yield of 3.30%	%3.3				
Source: Qatar Energy's website							

Global Policy Related to Commodity Markets

As mentioned earlier at the beginning of the report, administrative measures to contain Covid-19 during 2020, including preventive and precautionary measures, mustering the health system's capabilities to treat patients with the virus, contributed to: (1) the closure of many economic and social business activities, which reduced the supply and demand for goods and services, (2) the disruption of supply chains at the global level, disruption and the of internal transportation, which led to a slowdown in business. On the other hand, the requirement to work-from-home increased the use of local and international telecommunication Thus, one of the most technologies. prominent results of these repercussions was the global layoff of millions of mostly bluecollar or casual workers, which increased the unemployment rate around the world, and also contributed to the creation of a collective reluctance to engage in activities that required significant face-to-face interactions and connection, especially service sector jobs, transport, as well as wholesale and retail trade activities.

In order to confront such challenges, many governments around the world have implemented an integrated package of expansionary economic policies (financial and monetary), the most important among which are: increasing government spending, including providing financial incentives to individuals and companies, reducing taxes, reducing the bank interest rate, expanding the use of the monetary tool to quantitative easing (QE) by central banks (in particular, in advanced and emerging economies). The central banks allow themselves to use QE tool to buy securities (such as stocks, bonds, and treasury assets) from the government or commercial banks with the aim of increasing

the money supply, which leads to lower interest rates because it provides easy money, which then reduces the returns of investors and savers in money market accounts, certificates of deposit, treasury bonds, and corporate bonds, forcing the owners of such funds to search for rewarding investments, even if they have high-risk outcome - which, in principle, will increase production and create new jobs, thus helping the economy move forward.

While the new Omicron variant is pushing a number of countries to close borders, and introduces further uncertainties, necessary to focus on what has been achieved so far from the accumulated experience in treating infected patients, administering measures necessary to limit the spread of the virus, and implementing expansionary economic policies to sustain economic activities, which all contributed to expediting the global economic recovery: (1) driven by growth in aggregate demand for both consumption and investment resulting from a gradual return to normalcy, and (2) supported by the availability of domestic liquidity and the continuation of expansionary economic policies.

However, the continued slowdown in the production and supply of goods and services to meet aggregate demand due to ongoing disruptions caused by measures to contain mutations of COVID-19, continues to be evidenced by rising unemployment rates and the strangulation of supply chains and bottlenecks in ports, because social distancing measures compelled a reduction workforce. to which added companies used ports as free warehouse space due to logistics uncertainties that

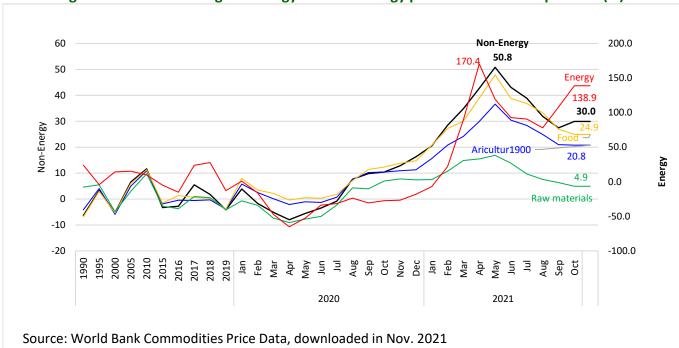


Figure 1-5: Rate of change of energy and non-energy prices and their components (%)

prompted them to import much more than they immediately required.

Those cases combined with quarantine measures as well as labors' perception change regarding low-paying, no-benefits jobs led to labor shortages resulting in higher transportation and shipping fees, which in turn have greatly (but not exclusively) contributed to a rise in the prices of goods and services globally compared to the past three decades, as shown in Figure (1-5) for non-oil commodity groups. It is very important to note that employers in the USA and UK have raised the level of wages in order to attract workers but the response remains weak.

When looking at the evolution of prices during the period (January 2019 - October 2021), shown in Figure (1-5), it can be seen that the CPI fell during 2019 by negative 4%, with a minimum of negative 9.5% and a maximum of negative 3.5%, before entering a steady decline during the period of intensified Covid-19 containment measures

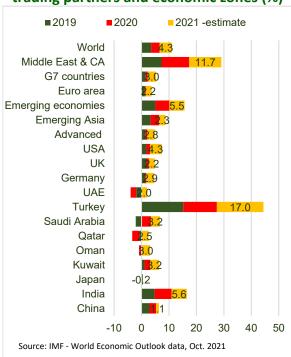
until the end of May of 2020, but then picking up until the end of 2020 to result in an annual average of 3%, with a maximum of 6.3%, and a minimum of negative 8%.

During the first ten months of 2021, prices have moved up sharply, amounting to an average increase of around 35.4%, with a maximum of 50.8% and a minimum of 20.5%. This is ascribed to the repercussions of Covid-19 containment measures imposed in 2020 on the lifestyles of the population (including, for instance, increased demand for consumer goods because people were not permitted to spend their discretionary income on travel, entertainment, and eating out), structural and technical adjustments in business, economic, and social activities, and disruptions in food and non-food commodities' supply chains. The indirect effects of expansionary economic policies fiscal and monetary - also played a significant role.

Inflation of Key Regions and Countries

Given the globalization of trade and production and the liberalization of markets, it is not sufficient to analyze the drivers of inflation at the domestic level, including the nature of the effects of the economic policies pursued. It is also necessary to consider the inflation rates of external partners in foreign trade and investment, as for example shown in Figure (1-6) for the key trade partners of

Figure 1-6: Inflation rate for Qatar's main trading partners and economic zones (%)



Qatar during 2019 and 2020 with the preliminary estimates for 2021. This shows that there is a great variation in inflation rates between regions and countries, which indicates that each economy has its own inflationary sources that are subject to the nature of its domestic economic structure and foreign trade relations.

This discrepancy in inflation rates perhaps underlies the multiplicity of opinions among macroeconomic policy experts, observers, and practitioners concerning whether the current phenomenon of price growth is temporary, i.e., it will dissipate after dealing with supply chain disruptions unemployment, or whether it is a trajectory that will continue into the medium and long term, because it is linked to the expansionary economic policies that have been used and are still used by many countries of the world, the most important of which are: (1) low interest rates, (2) the extensive use of quantitative easing by developed emerging countries, including the United States of America, the U.K., and Australia, both of which - in theory - can lead to a high rate of inflation.

In general, it has become accepted by a number of economic thinkers, led by former US Treasury Secretary Lawrence Summers and Nobel Prize winner in economics Professor Paul Krugman, that the current phenomenon of inflation is not only caused by the lack of supply of goods and services to meet the large increase in aggregate demand, but are also caused by the repercussions of expansionary economic policies.

Thus, the difference in ideas at present is not whether the expansionary economic policy is behind inflation, rather instead, the difference exists in views on when to start tightening economic policy in order to contribute to lowering the rate of inflation - such as canceling quantitative easing and, raising interest rates, in addition to those other noted economists, such as the former governor of the Bank of England, Mervyn King, and Dr. Mohamed A. El-Erian, President of Queens Cambridge College. University. both advocate a return to traditional monetary policy to manage inflation.

It is worth noting that the institutional opinion of central bank officials of advanced economies until early November 2021, in

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particular the US Federal Reserve, the European Central Bank, and the Bank of England, maintained that the phenomenon of price increases is temporary and is mainly caused by: (1) unemployment problems, (2) changing qualifications of potential employees and unwillingness to return to their previous low-paid jobs¹⁵, or pressure on parents to take care of children at home instead of in nurseries and schools¹⁶, (3) disruption of marine and land supply chains, (4) increased aggregate demand. This opinion was also echoed by the International Monetary Fund in its recent WEO report for the month of October 2021.

However, the rise in the inflation rate for all countries during the month of October 2021, including the United States of America by 6.2%, made monetary policy officials in developed countries think seriously about how to tighten economic policies. For instance, Secretary of the Treasury Janet Yellen, in an online Reuter's webinar on 2 December 2021, noted that the word "temporary" should perhaps no longer be applied. In other words, inflation has become a non-temporary phenomenon.

Therefore, economists and policymakers are discussing what is the appropriate approach and when to apply it, given that the speed of returning to the practice of traditional monetary policies is fraught with many risks, it requires preparing the markets, especially the labor and financial markets, gradually and according to the circumstances of each country, because every economy has different sources of inflation; for example, the United Kingdom's inflationary pressures are driven. amond other factors. consequences of Brexit creating a shortage of critical workers (including truck drivers), as well as increased customs bottlenecks, requiring high costs and bureaucratic delays to resolve, while the European Union is least affected by the consequences of inflation, since the influence of Germany as the largest economy in Europe on eurozone inflation is minimal, thus inflation in the eurozone remains limited, as Figure 1-6 indicates.

However, no nation, or group of nations, can thrive in isolation, and therefore it may become the case that the European Union will have to closely coordinate its monetary policy with the expert opinions of the International Monetary Fund, as well as the economic policies of the United States of America, which is in a difficult position having to choose in trading off between growth and inflation.

From the minutes of the Federal Open Market Committee (Federal Reserve) meeting held November 2-3, 2021, published on November 24, 2021, followed by the press release of December's 2021 meeting, it is likely that the United States will begin to move gradually towards a tighter monetary policy while being careful to ensure that the financial market is not affected, because a rapid move towards a conventional monetary policy can cause significant damage to financial markets, in particular, any abrupt halt to the quantitative easing policy will probably affect the prices of bonds and stocks.

Therefore, the committee decided to seek to implement a monetary policy to maintain the inflation rate at 2%, and to maintain interest rate stability during the next six months at a rate ranging between (0 - 0.25%). The Committee also agreed to quickly reduce purchases of quantitative easing, starting respectively in November and December 2021, by reducing \$15 billion and \$30 billion

¹⁵https://www.washingtonpost.com/business/2021/12/08/october-employees-quitting-jolts/

¹⁶ https://www.nytimes.com/2021/10/30/business/paid-family-leave-working-parents.html

of bonds and mortgage-backed securities. That equals 37.5% of the total QE of \$120 billion, which probably will reduce the full amount by early 2022.

It was also mentioned in various reports and the Minutes that a number of developed countries have begun to tighten their policy, e.g., Norway raised the interest rate to 0.25% at the beginning of November 2021, and New Zealand raised it to 0.7% at the end of November 2021. Conversely, the Bank of England's¹⁷ MPC kept interest unchanged at 0.1% at its meeting in early November 2021, it also kept the total size of QE-related bond-buying program unchanged at £895 billion. The Reserve Bank of Australia also decided that quantitative easing will continue until mid-February 2022 and that the interest rate will be raised only in April 2022 from its current level of 0.1%.

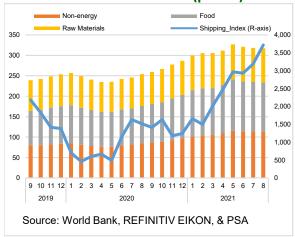
As for the European Central Bank, it has indicated up to early december 2021 that it is unlikely to raise interest rates next year, as the inflation rate is low, and this means that the interest rate on major refinancing operations, interest rates on the marginal lending facility, and deposit facilities are unchanged at 0.00%, 0.25%, and -0.50%, respectively.

Inflation and the Disruption of Supply Chains

It is certain that the disruptions in supply chains through sea freight were one of the most important factors that led to a decrease in the supply of goods and services at the right time and place, as the activities of shipping and unloading witnessed a stagnation at the beginning of the Covid-19 crisis (March - April 202). and then was perturbed by the shortage of empty shipping

containers in the places where they were required, Although globally containers are plentiful and available, they are often marooned in ports far away from where they are needed, which has precipitated an increase in sea freight costs, as the well-known Baltic Exchange Dry Index (BEDI) suggests in Figure (1-7). Freighting has increased by 144.6% during the past 12 months, with a maximum of 506%..

Figure 1-7: Non-oil Commodity Price Indices and the Baltic Index (points)



While there has been a continuous recovery in the shipping industry during the months (October-November 2021) which helps in reducing the shipping cost according to the daily and monthly BEDI as shown in Figure (1-8), a number of disruptions are still going on until the end of the year 2021 which will continue to affect commodity prices, including as an example, the shortage of truck drivers in the road transport industry and the repercussions of social distancing measures in workplaces, there has been an increase in prices of production inputs, including the costs of processing, packaging, and marketing of food and non-food items, as well as the costs of distribution and internal transport.

¹⁷ https://www.bankofengland.co.uk/monetary-policy/quantitative-easing

Furthermore, there was significant shift in the lifestyle of population, the most important of which includes, for example, preparing and eating meals at home instead of at restaurants, which led to the expansion of food purchases from supermarkets and shops, although their supply was limited, which led to the inevitable increase in prices.

Figure 1-8: Daily and Monthly Baltic Index of 2021 (points)



Global Commodity Price Forecasts

From the foregoing, it is clear that the factors of high inflation rates around the world did not come only from: (1) a shortage in the supply of goods and services to meet the high aggregate demand, (2) or from the high costs of transportation, shipping and storage, but there are other factors that contributed to raising prices, although they differ from one country to another, for example::

- Oil and gas importing countries suffered from inflation due to the high costs of production for goods and services, as well as the high costs of utilities such as electricity and water resulting from the rise in fuel prices.
- Also, thanks to the availability of financial liquidity for individuals and families resulting from the increase in family

- savings, government incentives, and lowinterest rates, it led to increase expenditure consumption - at least in the United States of America - the purchase of used and new cars, driven by the fear of infection with the virus while using public transportation, which in turn increased car prices and thus led to increasing inflation.
- The policy of reducing interest rates has also contributed to raising the value of fixed assets by increasing the demand for them, which may have enhanced the feeling of financial abundance among the owners of fixed assets, which may also result in an increase in consumer and investment spending.

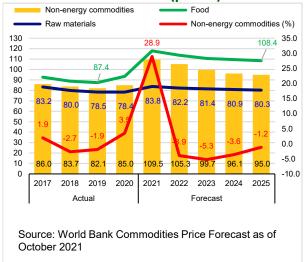
On the other hand, it should be noted that despite the positive aspects of changing lifestyles created by the Covid-19 scale, such as increasing the habit of eating fewer meals at home that are less expensive than eating in restaurants, which may benefit increased savings for the consumer, but in the US, for instance, the reduced attention expenditures services (such on as restaurants) transformed into the large-scale purchase of durbale goods made worldwide, which has led to disruptions in the shipping trade due to the aforementioned shortage of truck drivers and the slower unloading rates caused by the requirement for port workers to socially distance, thus stranding unloaded ships in West Coast ports contributing manv days, phenomenon of containers being plentiful but in the wrong locations.

Therefore, many observers believe that most countries will continue to see a rise in consumer prices until the first half of 2022, albeit to varying degrees. Emerging markets and developing economies, many of which remain largely unvaccinated and are still suffering from the impacts of the Covid-19

pandemic, will be affected to a greater extent than the markets of developed countries.

According to the expectations of the World Bank in its October 2021 issue, the prices of non-energy commodities using dollar prices for the year 2010 will rise by 28.9% in 2021, then decline by negative 3.9% in 2022, and then decline during 2023 and 2024 by 5.3% and 3.6%, respectively, before witnessing a modest decline of 1.2% in 2025, as Figure)1-9) indicates.

Figure 1-9: Forecasts of Non-Oil Commodity
Price Indices (points)



Impact of Global Inflation on Qatar

From the foregoing, it is clear that despite the similarity of the measures taken globally to confront Covid-19, whether they are administrative or economic measures, their implementation differs from one country to another to reflect the different structures of foreign trade and the economy in general. Thus, its effect on economic indicators, including inflation, may vary worldwide.

In light of the high degree of openness of the Qatari economy to foreign economies, which averages more than 90% using the total foreign trade (exports + imports) as a percentage of GDP. Therefore, there is a high possibility that external factors such as

local factors have affected the level of inflation in Qatar during (October 2020-October 2021), as shown in Figure (1-10), by making a comparison between the household consumer price index (CPI) and the unit value index of imports.

The external factors that may contribute to increase the costs of Qatari imports are: (1) the changes in prices of imported goods and services, and (2) the changes of transportation, shipping and unloading's costs, (3) the changes in the exchange rate of the Qatari riyal against the currencies of Qatar's trading partners.

While the change in the prices of imported goods and services can be tracked by following the press releases of trade partners' s statistical agencies, it is very important to monitor the risk of increasing the costs of transporting and shipping imported goods. Therefore, it requires continuous studies and taking all necessary measures to mitigate the damages of high costs possible through the so-called economy of scale, meaning coordination between the concerned authorities and the private sector in how to use large transport fleets to import the largest quantity of goods from one or close geographical location.

Imports (%) 4.0 Import Unit Value ■ CPI 3.0 2.0 1.0 0.0 -1.0 -2.0 -3.0 -4.0 K UpToQ3 22 33 8 8 8 7 2020 2021 Source: Planning and Statistics Authority

Figure 1-10: CPI and Unit Value Index of

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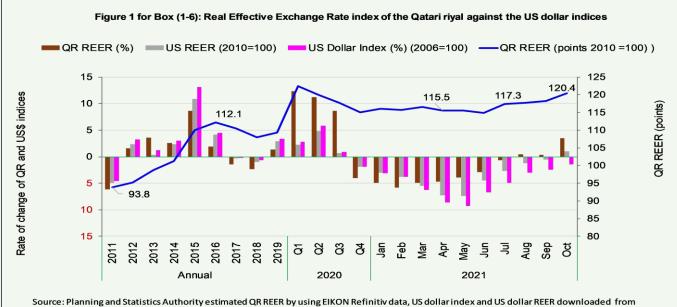
The above and other reasons often lead to a change in the costs of importing goods for final consumption, raw and semi-finished materials as inputs to domestic production activities. However, thanks to the Qatari riyal's peg to the US dollar, which is relatively stable and its purchasing power fluctuates against the currencies of many of Qatar's trading partners, it helps mitigate the damages of imported inflation during sudden changes, Box (1-6).

But it must be taken into account the risks of a decrease in the purchasing power of the dollar, as well as the risks of monetary policy in the United States of America, which at the present time and since the beginning of November 2021 are moving towards a transition from (unconventional) monetary policy to a contractionary (ordinary) monetary policy, which will have repercussions on the course of monetary policies in Qatar as well as on the course of the inflation levels of

Qatar's trading partners, which will have an impact on the Qatari economy. The most important of them are: financial activities and asset prices, including the stock exchange and insurance, foreign trade, the balance of payments, and levels of consumer spending on groups of goods for consumer and producer prices.

Box 1-6: The Qatar Riyal's Real Effective Exchange Rate

The real effective exchange rate of the Qatari riyal was calculated on the basis of the exchange rates and inflation rates of its trading partners, as clarified in the (Appendix of economic and financial terms) at the end of this report. It is clear from the figure (below) that the Qatari riyal moves in a direction and changes its value at the same pace as the dollar indices, because it reflects the difference in prices and inflation of the trading partners of both the riyal and the dollar. They have gained purchasing power which may reduce the inflationary effects of Qatar's trading partners.



Lessons From COVID-19 for Moving Towards a Green and Climate Economy

Despite the cost in lives, as well as social and economic losses deriving from Covid-19 containment measures, the pandemic has taught humanity to embrace an alternative lifestyle as far as consumption production processes are concerned, the results of which have turned out to be ecofriendly, including (1) illuminating how a agricultural decline in and industrial production and services, including road and air transport, can lead to a marked reduction in air pollution, (2) underscoring how the change of lifestyles, such as rationed household consumption, lower consumer spending which increased household savings worldwide (with the exception of the US, where the inability to travel and eat out turned discretionary spending purchase of durable goods)¹⁸, (3) increased the use of information technology to communicate, complete educational tasks, and work from home, which are able to reflect positively on the environment by reducing commuting to work places, (4) demonstrating how economic systems and health infrastructures were insufficiently prepared to cope with a global pandemic, bolstering the concept that humanity must hasten to prepare for the inevitable next one – because even if the anthropogenic causes of global heating are reduced, completely avoiding the multiple negative effects of the climate crisis will be difficult to achieve since unsustainable economic structures, particularly ambitions of achieving unlimited economic growth, leads governments to search for adaptation solutions instead of reaching for and (5) highlighting how zero emissions,

environmental and health disasters do not have political or geographical borders, which therefore mandates international cooperation and a unified behavior of countries and individuals in dealing with environmental issues as guided by scientific studies.

This silver lining of the Covid-19 containment measures provided the world with robust evidence through the means of a natural what advocates experiment of environmental protection have been calling for over the past three or more decades, within the framework of United Nations Framework Convention on Climate Change (UNFCCC), its conferences and agreements, the most recent of which was the Glasgow Climate Conference (COP26) held November 2021, see Box (1-7).

The scientific consensus¹⁹ that human practices in consumption and production are behind climate change the world is endorsed by nearly all governments; the climate crisis is now being viewed as urgent and current, rather than hypothesized and distant, as the world is witnessing today that anthropogenic climate change has led to an increase in global warming, triggering in many countries extreme heat and drought, immense wildfires, and increasing catastrophic floods, all of which both kill people and endanger food production.

 $^{^{18}\} https://www.brookings.edu/blog/future-development/2020/12/14/the-decline-and-recovery-of-consumer-spending-in-the-us$

¹⁹ Le Quéré, C., Jackson, R.B., Jones, M.W. et al. Temporary reduction in daily global CO2 emissions during the COVID-19 forced confinement. Nat. Clim. Chang. 10, 647–653 (2020). https://doi.org/10.1038/s41558-020-0797-x

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Box 1-7: Glasgow Climate Charter

In the August 2021 report by the United Nations (UN) Intergovernmental Panel on Climate Change (IPCC) authored by Jeff Tolfson, it cautioned that the Earth's global surface temperature has already increased by around 1.1 °C compared with the average from 1850–1900—a level that hasn't been witnessed since before the last ice age, some 125,000 years ago. And given that the temperature at this level has led to the occurrence of unprecedented droughts, wildfires and floods devastating communities worldwide, what would the planet be like if temperatures rise by the predicted 2.7 degrees Celsius under business-as-usual scenarios? Therefore, the report suggests that the future of the planet depends heavily on choices decided by mankind at the present time, and this rise in temperature is fully attributable to the emission of greenhouse gases due to humanity's dependence on economic models that are not environmentally friendly.

According to International Energy Agency IEA (2020), World Energy Outlook 2020, Paris https://www.iea.org/reports/world-energy-outlook-2020, the positive aspects of the measures to contain Covid-19 are the reduction of global energy demand by 5%, energy-related CO2 emissions by 7%, energy investment by 18%, oil consumption by 8%, and coal use by 7%, which created a general consensus that human activities are indeed behind global warming, and which contributed to pushing the delegates of the world's countries participating in the Climate Conference No. (26) held during the first half of November 2021, to propose bigger reductions pledges: advanced economies commit to cut emissions from 21% by 2030 under the Paris Agreement to 43% in Glasgow, emerging economies from 3% to 12%, and low-income countries from 4% to 6%. The agreement also reinforced the Paris Agreement with a dynamic approach of continuing the pledge to reduce emissions to net zero by mid-century. But while it should take into account that such a charter is not legally binding, the Glasgow COP has set the global agenda on climate change for the next decade, among which actions are:

- 1. Countries will meet again (COP2) in 2022 in Egypt to pledge further cuts to emissions of carbon dioxide (CO2) a greenhouse gas which causes climate change because current pledges will only limit global warming to about 2.4C while it remains critical to reduce it to 1.5C.
- 2. This is the first time at the COP that one of the goals has been to reduce coal use which causes 40% of annual carbon dioxide emissions but the agreed commitment is to seek only a "phasing down" rather than the necessary "phasing out".
- 3. Similarly, more than 100 countries agreed upon a plan to cut 30% of methane emissions by 2030 given that it is responsible for a third of human-caused warming. However, major gas emitters such as China, Russia, and India have not joined but it is hoped that they will later.
- 4. It agreed to increase the allocation of funds to help poor countries cope with the effects of climate change and switch to clean energy from \$100 billion to \$1 trillion, but this is still subject to further discussion.
- 5. It also agreed to eliminate subsidies that make coal, oil or natural gas cheap, but no specific date has been set when the subsidies will be discontinued.
- 6. One of the highlights of the conference is the agreement between the United States and China to cooperate more closely over the next decade in areas including methane emissions and the transition to clean energy.
- 7. Leaders from more than 100 countries with about 85% of the world's forests have promised to halt deforestation by 2030, and this is vital, as trees can absorb huge amounts of carbon dioxide, but notably such previous initiatives have not worked, However, it is germane that the new initiative will be better funded, although it is not clear how fund pledge will be implemented.
- 8. Financial organizations that control \$130 trillion have agreed to support "clean" technology, such as renewable energy, and direct funding away from fossil-fuel-burning industries.

Economic Development and the Causes of Climate Change

The prevailing assumption now among those studying the environment is that there is a direct relationship between the increase in economic growth and the growth in greenhouse gas emission (GHG), which is the driving cause of climate change. They understand that when an economy expands, its demand for energy-consuming commodities increases.

Therefore, they envision that one of the solutions is to restructure the economies of the world's countries to become more attuned to the real costs of environmental externalities (negative impacts) instead of ignoring them, to become increasingly ecofriendly over time to reach, globally, "green" and climate-resilient economies that are deeply invested in, and adapted to, new patterns of behavior for both consumption and production that are associated with low GHG emissions.

Technological Development and Reduction of Greenhouse Emissions

To reach the Paris Agreement goal of a global limiting warming to 1.5 degrees may be not feasible given the structure of global consumption and production processes, but the technologies now available, if rolled out at-scale today, would set the world on the right path. This includes using available lowemission sources energy and green technology, for example, a gradual transition to a cleaner energy source initially, such as natural replace the world's gas, to dependence on high-carbon fossil fuel energy (coal and crude oil)20, then move as rapidly as possible transitioning to renewable energy including tidal, solar, and wind, as

well as planting trees which absorb CO₂ such as mangrove species²¹ and Prosopis that can be irrigated with brackish and/or recycled wastewater, and scaling-up carbon capture and storage (CCS) beyond its current stage of infancy.

As the uses of renewable energy in the State of Qatar, it almost goes without saying that Qatar, like other Gulf states, is in an exceptionally good position for solar energy options, and Qatar has even started building projects towards producing reasonable amount of solar energy. But it should be taken into account that due to the sand and dust blown by the north wind, it makes the maintenance of solar panels expensive in the GCC - especially given the scarcity of fresh water, which is required to clean the solar panels because the use of salt water corrodes the electronics of the panels.

One of the technical options that can be implemented in Qatar is recycling the waste into useful products (including composts from household and restaurant waste) instead of sending them to methane-emitting landfills, finding viable alternatives to the use of pesticides, herbicides, and chemical fertilizers in agriculture – the last of which when nitrogen-based emits the powerful greenhouse gas of nitrous oxide (N₂O). Therefore, it is better for several reasons to produce organic fertilizers from treated agricultural and animal waste.

Among the measures that can contribute significantly to rationalizing the use of energy are: (1) rationalizing the consumption of natural resources, including water and energy, especially since the State of Qatar depends on desalination of seawater that requires energy to produce it, (2) building housing in a way that provides them with

 $^{^{20}} Https://www.qatarenergy.qa/en/MediaCenter/Pages/newsdetails.asp x?ltemId=3682$

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natural ventilation and lighting instead of today's reliance on electric-powered cooling, and finally (3) encouraging the use of public transportation (mass transit) replacing today's reliance on private vehicles.

International Consensus Towards Rational Climate Policy

In view of the economic and political have dimensions that thwarted implementation of UN agreements related to reducing GHG emissions since the Rio de Janeiro climate conference in 1992 that established the UNFCCC. the irrefutable evidence of global heating that many countries have endured during the past five years, such as melting glaciers, wildfires, withering long-term droughts, and increasing flood magnitudes and frequency, has finally prompted developed countries to move towards carbon neutrality by adopting new agreements such as the European Green Deal, which includes regulations to move away from fossil fuels, and to move towards carbon pricing with the goal of ensuring that the EU countries achieve net-zero GHG emissions by 2050.

Russia and China have announced that they are adopting programs that will lead to carbon neutrality by 2050 and 2060, respectively. The United States of America has made strides towards achieving its environmental goals by starting to reduce emissions by halting the laying of new fossil fuel pipelines and even stopping drilling plans, working to expand the protected area of federal land, returning to the Paris climate agreement and actively participating in the Glasgow conference. It renewed its commitment to partnership with countries, specifically with China, in finding measures in how to find solutions to reduce emissions, and even obligating countries to

comply with the agreements, including imposing financial penalties on persons and legal entities who commit any of the grave violations of the agreements.

At the level of international organizations and institutions, the United Nations Development Program has modified the methodology for calculating the human development index (HDI). The International Monetary Fund has also adopted four measures to include climate issues in all its activities, including the process of preparing Article IV²²: (1) From now on, Article IV consultations will be including climate assessment and assistance for member states on how to adapt to climate change and address its causes, including conducting studies on countries to take into account carbon pricing in assessments for countries with large emissions, (2) Including climate related financial stability risks in financial sector surveillance – through standardized disclosure of these risks, enhanced stress tests and assessments of supervisory frameworks, (3) Scaling up climate in capacity development to help equip finance ministries and central banks with the skills needed to assess the impact of climate change on the economies of countries, and (4) Mainstreaming of climate indicators in macroeconomic data. To concretize its aims, the IMF launched23, a "Climate Change Dashboard" in mid-2021. IMF also issued many reports" studies and notes on how to address climate change and adapt to it economically and administratively.

It is worth to note that many other development banks around the world have already begun to favor financing green investments over considering reducing investments in financing fossil fuel projects.

²² https://www.imf.org/en/Publications/SPROLLs/Article-iv-staff-reports

²³ https://www.imf.org/en/Topics/climate-change

The Expected Overall Impact of the Climate Crisis on Qatar

The State of Qatar - as a coastal state - will be exposed to any changes that will lead to a rise in sea level, which in turn leads often to permanent erosion of shorelines, flooding of shoreline communities, as well as endangering groundwater resources. In addition, any climate changes that will raise the temperature of sea and ocean waters will promote acidification and deoxygenation and will bleach coral reefs and generally negatively affect marine ecosystems.

As it is economically costly if not ecologically impossible to adapt to these changes. For this reason, the State of Qatar is working toward finding a remedy now, and not later, through measures and investments to achieve environmentally sustainable development, as it has begun to take several institutional and planning measures to participate in the international effort towards reducing GHG emissions, as shown in Box)1-8).

To implement Qatar's commitment to reduce GHG emissions by 25% by 2030, a new Ministry of Environment and Climate Change was established by Emiri Resolution No. (57) of 2021, whose most important functions are the implementation of the programs and procedures of the Qatar National Environment and Climate Change Strategy 2030, which was approved by the Cabinet on September 1, 2021, which aims to protect and enhance the Qatari environment to preserve the quality of life of the Qatari people and ensure long-term economic resilience, and whose procedures were launched by His Excellency the Prime Minister and Minister of Interior on October 27, 2021, which include programs and procedures as follows:

- GHG and air quality: Qatar seeks to reduce GHG emissions by 25% versus the norm by 2030, enhance ambient air quality standards and modernize the cap by 2024, for the purpose of reducing GHG emissions with the aim of reducing global warming and improving ambient and indoor air quality in order to protect public health and the environment in general.
- Biodiversity: Qatar seeks to effectively protect and manage more than 25% of its land area by 2030, and protect and restore threatened species, for the purpose of enhancing efforts to conserve, restore and protect biodiversity in order to create healthy and resilient natural ecosystems.
- Water: Qatar seeks reduce to groundwater extraction by 60%, reduce daily water consumption by a third and double desalination using reverse osmosis or more sustainable technologies, for the purpose of the periodic and effective monitoring of all water sources.
- Circular Economy and Waste Management: Qatar seeks to close and rehabilitate 100% of unsanitary landfills and re-recycle materials of 15% from local waste, for the purpose to strengthening the infrastructure for sustainable waste management and encouraging increased circular use of materials.
- Land use: Qatar gives priority to raising productivity in a sustainable manner by improving the productivity of agricultural land by more than 50%, in addition to launching sustainable urban planning initiatives such as establishing and implementing green building requirements.

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Box 1-8: Qatar's Environment and Climate Change Policies

The issue of climate change has received special attention from the United Nations since the 1992 Climate Conference Agreement in Rio de Janeiro, Brazil, known as the United Nations Framework Convention on Climate Change (UNFCCC), which the State of Qatar ratified on April 18, 1996, and on January 11, 2005, it approved its amendments, the most important of which is the Kyoto protocol of December 1997. The State of Qatar also participated in all the 25 subsequent conferences (known as the Conference of the Parties), and even hosted Conference No. (18) in Doha in 2012, participated in Paris Conference No. (21), and signed the Paris Agreement on April 22, 2016, and approved it on June 23, 2017. It also participated in the Glasgow Conference No. (26), which was held in November 2021. It is planned to hold No. (27) in Egypt in November 2022.

Despite the development of knowledge of the causes of the climate crisis, their sources and proposals to treat and adapt to them remained as stipulated in the Convention in 1992. With regard to treatment, the main goal is to stabilize greenhouse gas concentrations in the atmosphere at levels that would prevent catastrophic damage to the climate system, both by industrialized countries, designated Annex I Parties, and developing countries, designated Annex II Parties.

As for the implementation procedures, they were limited to the following commitments: (1) preparing periodic reports called "national communication" containing information on GHG emissions, and to implement national programs and measures to control GHG emissions, (2 providing an overview of an adaptation plan to cope with the effects of climate change in the short-run, and to work toward developing and using the latest technologies as long as it does not cause climate harm, (3) establish a public education program for educating the public and increase their awareness on climate change and its impacts, (4) The commitment of Annex I countries (States Parties) to take policies and measures with a specific objective of restoring GHG emissions to 1990 levels, as well as encouraging and facilitating the transfer of climate-friendly technologies to developing countries (Annex II), and finally (5) provide financial resources to assist developing countries in implementing their commitments through the Global Environment Facility, which is the financial mechanism of the Convention, through bilateral or other multilateral channels.

Believing in the importance of commitment to institutional frameworks towards mobilizing international efforts to limit the exacerbation of weather phenomena, climate changes and natural disasters, the State of Qatar has committed in its second Intended Nationally Determined Contribution (INDC) report in August 2021 to reducing its GHG emissions by 25% in 2030.

It worth to note that Qatar submitted its first report of INDC on 19 November 2015. In addition, as part of its commitment to international climate-related agreements and actions as set out in the 1992 UNFCCC, it submitted a National Communications document (NC) in 2011. Before that, in 2008, it made achieving environmentally sustainable development as one of the pillars of its National Vision 2030.

Recent Legislative, Institutional and Planning Developments in Qatar

The State of Qatar has witnessed legislative, institutional, and planning developments during 2021, the most important of which are:

- The year 2021 began with the holding of the Gulf Summit No. (41) which was held on January 5, 2021 in Al-Ula Governorate in the Kingdom of Saudi Arabia, in which it was agreed to end the diplomatic crisis between the State of Qatar and a number of Gulf Cooperation Council countries.
- 2. Completion of the institutions stipulated in the constitution by establishing the elected legislative authority along with the executive and judicial authorities. The first legislative elections were held in the country on October 2, 2021, to elect 30 members through direct voting, and for the Emir to appoint the remaining 15 members to make up the 45-member assembly. The participation rate was 63.5% of the total voters.
- A structural adjustment was also made to four sectoral ministries with the aim of decentralizing, including:
 - a. Separating the Ministry of Transport and Communications into two ministries: one for transportation and the other for communications and information technology.
 - Separating the Ministry of Municipality and Environment into two ministries: one for the municipality, the other for environment and climate change,
 - c. The Ministry of Administrative Development, Labor and Social Affairs has been separated into three institutions: tow ministries: one for labor and the other for social development and the family,
 - a. With the aim of raising the efficiency and effectiveness of

providing government services, Civil Service and Government Development Bureau was established.

- Separating the Ministry of Culture and Sports into two ministries: one for culture, and the other for sports and youth.
- 4. With the aim of attracting investments and overcoming obstacles, the Investment and Trade Court and its first instance and appellate circuits were established, which will handle dispute resolution relating to:
 - commercial contracts and lawsuits arising between merchants related to their commercial business,
 - the investment of non-Qatari capital in Qatar's economic activities,
 - the operations of banks, insurance companies, finance and investment companies,
 - Bankruptcy cases and trying to reach a settlement that guarantees the rights of consensual litigants.
- 5. The completion of the process of General Population, Housing and Establishments 2020, the results of which were announced on October 12, 2021. The process of executing this census was characterized by the use of administrative records in the official authorities in the country. In addition, the latest technological tools, as tablets, the Internet and phone-call center were used to collecting, entering and reviewing the data, which contributed to improving the quality of population, housing and establishments data, and analysing them statistically, graphically and geographically

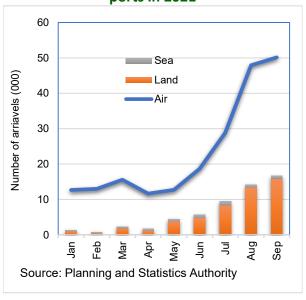
AI-Ula Summit Agreement

The year 2021 began with the holding of the 41st Gulf Summit or the Summit of the Cooperation Council for the Arab States of the Gulf (2021) also called (Sultan Qaboos and Sheikh Sabah Summit), which was held on January 5, 2021 in Al-Ula Governorate in the Kingdom of Saudi Arabia. The Kuwaiti Foreign Minister announced the Al-Ula statement, according to which it was agreed to end the diplomatic crisis with Qatar. An agreement called Al-Ula was signed by the leaders of the delegations of the Gulf Cooperation Council, whose direct impact was the opening of airspace and land and sea ports, as Figure (1-11) indicates.

Therefore, it is expected that this reconciliation will prepare the process of completing the elements of economic unity among the GCC states, as well as seeking to implement a number of joint projects among the GCC states, the most important of which are:

- Encouraging joint projects among the citizens of the GCC countries.
- 2. Facilitating the movement of family, students, health care, employment and investment.
- News of the resumption of regional projects for electricity distribution networks, railways and gas distribution networks
- 4. Enhancing cooperation in economic management, including the customs union and common markets.
- 5. Consultation on achieving food and water security system
- Unifying visions regarding international issues regarding the environment, international trade, and geo-political issues

Figure 1-11: Number of Arrivals to Qatar by ports in 2021



Evolution of Qatar's Population Censuses

During the past four decades, the State of Qatar has witnessed an economic and social development renaissance, accompanied by a massive increase in the population, which increased by more than 650% during the period 1986 - 2020 (see box (1-9)).

The data of general census for population, housing and establishments 2020 the State of Qatar revealed that the total population amounted to some 2.846 million people; the proportion of males constituted 71%, while the percentage of females was 29% - a gender imbalance indicative of the large number of foreign low-skilled laborers resident in the country. Compared to the 2010 census, the total population increased by 67.5%, wherein the number of males increased by 58.4% and females by 95.7%; Of the total growth rate (67.5%) of total population, the increase in males contributed by 44.1 percentage points, while the increase of females contributed by 23.4 percentage points. The increase is also reflected in population growth in the municipalities of Al Rayyan and Doha by 25.5 and 22.9 percentage points, respectively.

The number of the economically active population (15 years and above) reached about 2.05 million; the percentage of Qataris constituted 5.6%, while the percentage of non-Qataris was 94.4%. Compared to the 2010 census. the total number of economically active individuals increased by 61.3%: the number of Qataris increased by 59.2% and non-Qataris by 61.4%. Here, the increase of Qataris contributed by 3.3 percentage points, while the increase of non-Qataris contributed by 57.9 percentage points of the total growth rate (61.3%)²⁴. The increase also came from

Box 1-9: Evolution of Qatar's Population Censuses

The traveler J. G. Lorimer estimated the population of Qatar in 1904 at about a mere 27 thousand people, while the population of the State of Qatar was estimated in 1970 at about 111 thousand people in the first population census, conducted by a foreign company. However, a comprehensive census of population, housing and establishments was not conducted by the State's statistical agencies until 1986, by which time the population reached about 369,000. After that, comprehensive population censuses were fielded regularly in 1997, 2004, 2010 and most recent 2020.

The vast majority of the rapid population increases that the State of Qatar has witnessed since 1986 are attributed to waves of expatriate workers to meet the local demand for labor from all disciplines to work in various development activities. At an annual growth rate of 3.4% according to the 1997 census, these laborers continued to flow into the country during the period (1997-2003) to reach a total of 744 thousand people, i.e., an annual growth rate of 4.8% according to the 2004 census. The development renaissance witnessed by the State of Qatar at all levels during the period (2005 -2010) emerging as a result of the development of the oil and gas industry, and the returns of its large financial exports, saw the population of the State of Qatar doubling due to the influx of expatriate workers coming from all over the world, with all specialties and qualifications during the same period, bringing the population to 1.7 million according to the 2010 census, with a growth rate of 128.4%.

And most recently, the General Census of Population, Housing, and Establishments for the year 2020 was conducted by the Planning and Statistics Authority, whose preliminary results showed that the population of the State of Qatar amounted to about 2.846 million, an increase of 67.5% compared to the 2010 census, but when compared to 1986, the growth is about 650%.

the growth of unskilled and semi-skilled non-Qatari workers by 16.9 percentage points

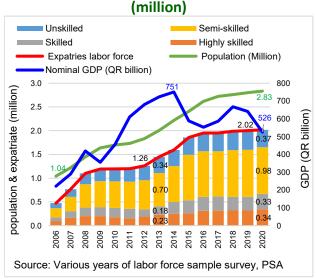
²⁴For more information Box (2-5) in Part2

and 8.1 percentage points, respectively, which resulted in their total increase from 435.7 thousand workers in the 2010 census to 612.4 thousand workers in the 2020 census, which constitutes 31.6% of the total of non-Qatari employment for the year 2020.

Economic Development and Population Growth

From the perspective of benefits derived from the technical developments in the field of liquefying and exporting natural gas during the two decades of the eighties and the nineties of the last century, the State of Qatar, since the beginning of the nineties, has started to work on the principles of economic openness and liberalization of trade and foreign investment by expanding its trade and economic relations in the field of industrialized liquefied natural gas, which has led to the flow of financial returns that was pivotal in providing sufficient financial resources to expand economic activities in all fields.

Figure 1-12: Expatriate labor by occupation



In summary, this has led to the expansion of the base of economic activities horizontally and vertically, as the nominal GDP rose from QR 222 billion in 2006, equivalent to \$61 billion dollars, to QR 751 billion in 2014, equivalent to \$183 billion, before declining to QR 526 billion in 2020, equivalent to \$144.4 billion, due to the drop in oil and gas prices caused by the repercussions of Covid-19.

The significant development in the nominal GDP has led to the expansion of the scope of domestic and foreign investments and the accompanying provision of job opportunities in various disciplines available to all international labor markets (Box 1-10). The partners of the State of Qatar have played a pivotal role in the process of economic and social development, whether in providing financing and expertise, or in the provision of skilled and unskilled labor, which has led to an increase in the number of expatriate workers, as shown in Figure (1-12).

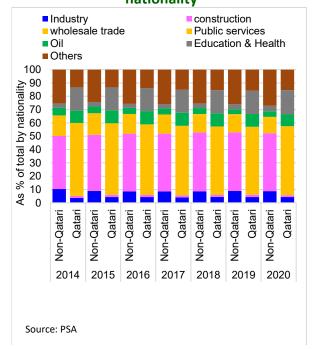
It is worth noting that the rapid increase in the population largely derives from the influx of expatriate laborers to work in the field of infrastructure construction that the State of Qatar has undertaken since 2011, when it was chosen to be the host country for the World Cup 2022, which led to the horizontal and vertical expansion of urban and construction activities throughout country, thus required more labor, which led to a cumulative increase in the population by 67.5% during the period (2011 - 2020).

When looking at the path of development of the proportion of workers by economic activities and by nationality, as shown in Figure (1-13), the rise in the level of nominal GDP and the total incoming labor force led to

the increase in the total population previously noted, from 1.04 million in 2006 to almost 2.85 million in 2020. The labor force (Qatari and non-Qatari) represents about 75% of the total population in 2020, equivalent to 2.13 million workers, and expatriate workers, in turn, constitute about 94.4% of the total, which underscores the fact that the ratio of the Qatari to non-Qatari workforce is 1:19.

The distribution of the workforce according to economic and nationality indicates that while the public sector provides job opportunities for the Qatari workforce, the private sector activities provide job opportunities for the expatriate workforce, especially in the building and construction sector, followed by industry, wholesale and retail trade, and other activities.

Figure 1-13: Qatar labor force by activity and nationality



Box 1-10: The idea of population and development

The close connection between a capable population and economic development is a well-known axiom among economists. The number of the population, the level of its quality, the nature of its structure, and the nature of the economic and social activities that population exercises affect the course of economic development and the welfare of the community, either in a positive or negative way.

Thus, knowledge of the characteristics of the population has become one of the most important elements of planning for economic and social development, because people are the goal and means of development, due to their role as providers of one of the most important elements of production, which are labors, and at the same time they are the final consumers of goods and services.

In order to achieve a balance between the rate of production and the rate of consumption, which in turn leads to achieving a high level of productivity in the use of economic resources, integrated economic and social development policies should be adopted that takes into account determining the level of the population in a way that ensures the possibility of securing their health, educational and practical needs within a framework that does not prejudice the cultural and social heritage.

Part 2 - Economic Performance 2017 - 2020

PART 2: ECONOMIC PERFORMANCE 2017-2020

Summary

Traditionally, the performance section of QEO Report analyzes the economic developments for the previous year, but what the Qatari economy experienced in 2020 - as did other economies around the world - was exceptional due to the rapid spread of the Covid-19 pandemic, which precipitated wideranging and multi-dimensional economic and social repercussions.

In addition, 2020 and the first three quarters of 2021 witnessed statistical developments represented by (1) the General Census of Population, Housing and Establishments 2020 being completed, (2) the analysis of economic survey data for the period (2017-2019) was completed, and (3) the change in the base year from 2013 to 2018.

Therefore, this part of the report presents the economic developments during a much longer period than is usual in the QEO, i.e., (2017 to Sept 2021), and includes a brief quantitative and qualitative analysis on the developments of the Covid-19 pandemic and its repercussions on economic conditions,

public finances, the banking sector, foreign trade, etc.

As Table (2-1) indicates, the average annual rate of change of GDP (at constant prices) for the period (2017-2019) was about 0.13%, with a maximum of 1.2% and a minimum of negative 1.5%. Most of the growth has non-oil activities, derived from which achieved an average growth of slightly more than 1.1%, while the activities of the oil sector declined by an average of 1.4%, as a result of the fact that some oil and gas fields have hit the peak of their production capacity, and therefore their productivity declines when routine periodic maintenance is performed.

The preliminary data of GDP at constant prices for 2020 also showed an economic contraction of about negative 3.56%, which resulted from the decline in non-oil activities by about negative 4.5%, together with the activities of the oil sector by about negative 2% as a result of the global economic slowdown due to the imposition of Covid-19 containment measures.

As for the performance of the nominal GDP (at current prices), during the period (2017-2019) it amounted to an average of about 5.4%, with a maximum of 13.8% and a

Tab	le 2-1	L: (Qatar'	s l	Macroeconomi	c Inc	licators	20	15 –	20	21	Ĺ
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	Actual					Ave.	Preliminary	
	2015	2016	2017	2018	2019	2017 - 2019	2020	Up-To-Q3 -2021
Real GDP (2018=100) (rate of change %)	4.8	3.1	-1.5	1.2	0.7	0.1	3.6-	1.45
Real Hydrocarbon GVA (%)	-0.8	-0.8	-2.3	-0.3	-1.7	-1.4	2.0-	0.8-
Real Non-Hydrocarbon GVA (%)*	9.1	5.9	-1	2.2	2.2	1.1	4.5-	2.9
Nominal GDP (rate of change %)	-21.6	-6.2	6.2	13.8	-3.8	5.4	18.1-	23.0
Nominal Hydrocarbon GVA (%)	-43.9	-25.8	21.6	30.5	-11.9	13.4	33.6-	56.2
Nominal Non-Hydrocarbon GVA (%)	3.1	5.6	-0.3	5.2	1.4	2.1	9.5-	9.4
Consumer price inflation (%) (Nov. 2021)	1.7	2.3	0.3	0.1	-0.9	-0.2	2.6-	2.0
Producer price inflation (%) (Oct. 2021)		-22.8	19.8	25.9	-9.5	12.1	28.7-	59.4
Fiscal balance (% of nominal GDP)	2.6	-6.5	-4.7	2.8	1.6	-0.1	1.5-	1.0
Current account surplus (% of nominal GDP)	8.5	-5.4	4	9.1	2.4	5.2	2.5-	11.7
Weighted Crude oil export Price (\$/barrel)	49.3	42.2	53.4	65	60.8	59.7	48.3	64.2
Weighted LNG Prices (\$/British thermal unit)	9.7	6.3	6.6	8.5	8.7	7.9	6.5	10.1
Source: PSA, QCB, & MOF * include FISM a	and duty,		•					·

Part 2 - Economic Performance 2017 - 2020

minimum of negative 3.8%. Most of the growth came from oil-sector activities that achieved an average growth of 13.4 %, while non-oil activities achieved a much lower average growth of about 2.07%, as a result of the increase in the average prices of crude oil on international markets.

As for 2020, preliminary data showed that nominal GDP declined by negative 18%, due to the sharp downturn in oil-sector activities by negative 33.6%, coincident with a significant drop in oil and gas prices. This was compounded by the decline in non-oil activities by a negative 9.5% as a result of the ripple effect across the economy of Covid-19 containment measures.

In reference to the performance of real GDP (at constant prices) during the first three quarters of 2021, it amounted to about 1.45%. Most of the growth came from non-oil activities, which achieved an average growth of 2.9%, while oil activities declined by negative 0.8%, noting that the Q2 and Q3 of 2021 witnessed a remarkable positive growth in a number of activities compared to what was achieved in Q1.

As for the performance of nominal GDP (at current prices) during the first half of 2021, it amounted to about 23%. Most of the growth came from oil-sector activities, the most important of which are the manufacturing, transport, and wholesale and retail trade, which achieved an average growth of 56.2% as a result of the increase in the average crude oil prices in international markets. Non-oil activities grew by 9.4% during the same period.

Regarding the rate of change of the Consumer Price Index (CPI)²⁵ during the period (2017-2019), it amounted to about

negative 0.2%, with a maximum of 0.3%, and a minimum of negative 0.9%, as a result of the continued decline in the cost of housing rents, arts and entertainment venue entry, and communications costs. This is despite the increased costs of transportation, education, health, furniture, and clothing.

The CPI subsequently witnessed a greater decline in 2020 by an order of magnitude, ending the year at negative 2.6% as a result of the decrease in demand for transportation, arts and entertainment, restaurants, hotels, furniture and clothing, all of which were the result of the precautionary administrative measures to confront the social distancing requirements following the outbreak of Covid-19, together with the economic and financial decisions reduce the pandemic's economic implications, in conjunction with a significant decline in prices and the global demand for oil and gas products during the same year.

As in the economies of many other countries, consumer price inflation rates in Qatar have undergone significant increases during the past eleven months, rising from an average of negative 2.6% at the end of 2020 to an average of positive 1.97% at the end of November 2021, which indicates that price recovery is higher than in 2020, which serves to allay any concern that a deflationary spiral will set in. This indicates that inflation in Qatar is relatively affected, as discussed by developments previously, in commodity prices, whether due to the recovery of global demand or the disruption of supply chains.

As for the producer price index in Qatar, it is almost equal to the international energy price index, and therefore it is affected by a number of factors, the most important of which are fluctuations of: (1) the level of supply of global

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²⁵ Note the base year change, from 2013 to 2018

production, (2) and the level of demand by the major industrialized countries, which was clear during the economic downturn resulting from the Covid-19 crisis in the middle of 2020, and is currently going through a third phase resulting from the recovery of demand and supply, as the average index during the period January-October 2021 amounted to about 59.4%.

Attributable to fluctuations in oil and gas prices, the fiscal balance declined in 2017 by 4.7% of GDP, but it grew during 2018 and 2019, with an average of 2.2% of the GDP, before declining in 2020 by 1.5%. With the improvement in oil and gas prices

during the first three quarters of 2021, the fiscal data for the same period showed that the budget balance achieved a surplus of 1.02% of GDP.

Similarly, the current account of the balance of payments during the period (2017-2019) witnessed an average growth of about 5.2% of GDP, i.e., at a maximum of 9.1% of GDP and a minimum of 2.4% of GDP, before declining in 2020 by 2.5% of GDP. With the improvement in oil and gas prices during the first three quarters of 2021, the most recent data for the Balance of Payment during the same period shows that the current account balance achieved a surplus of 11.7% of GDP.

COVID-19 Impacts on Global Economy

During the period March 2020 - November 2021 (and continuing), the global economy has undergone drastic changes due to the ramifications of Covid-19 containment measures, which have been taken by all countries without exception in order to save societies from the pandemic, and to enhance the capacity of health facilities to receive all infected cases. Given that there is no tradeoff between protecting lives and protecting economies, many governments around the world adopted economic stimulus policies to deal with the repercussions of the pandemic on both health and the economy.

Based developments on in the implementation of economic policies at the global level, particularly by the superpowers, several research centres, institutions and international banks routinely amend their assumptions when making their periodic forecasts. It is clear from Table (2-3) that the International Monetary Fund according to the various editions of its World Economic Outlook report (WEO) during the same period, amended its estimates of the Yo-Y rate of change of economic growth for the year 2020 several times. Initially, in October

2019, the WEO estimated that the global economy can be expected to grow by about 3.4%. Then, with the beginning of the emergence of the Sars-CoV-2 (Covid-19) virus in China and its subsequent spread to all countries of the world, the IMF estimated in the April 2020 WEO that the global economy would decline by about 3%. Yet, as the global crisis intensified, it was estimated in the October 2020 WEO to decline to negative 4.4%. with However. improvement of the economies of the United States and China during Quarter Four (Q4) of 2020, and according to estimates for January 2021, the decline rose slightly to become negative 3.5%.

Furthermore, considering the progress that the world achieved in confronting the consequences of Covid-19 during Q1 of 2021, much enhanced by the production of Covid-19 vaccines and the roll-out of vaccination campaigns in all countries, the IMF again modified some of its estimates for the global economic performance for 2020 in the April 2021 WEO, to arrive at a measure of the global economic decline at negative 3.3%, before stabilizing in its July 2021 edition at negative 3.2% and then in its October 2021 edition at negative 3.1%

Table 2-2: Economic performance of emerging and the Middle East countries in 2020

	Before Covid	Covid-20)20	WOE issuance date 2021				
	Oct-19	Apr-	Oct-	Jan	Apr	Jul	Oct	
World	3.4	-3.0	-4.4	-3.5	-3.3	-3.2	-3.1	
Advanced economies	1.7	-6.1	-5.8	-4.9	-4.7	-4.6	-4.5	
United States	2.5	-3.5	-6.6	-3.4	-3.5	-3.5	-3.4	
Emerging Market	4.6	-1.1	-3.3	-2.4	-2.2	-2.1	-2.1	
China	2.1	1.2	1.9	2.3	2.3	2.3	2.3	
Middle East & North Africa	2.9	-2.8	-4.1	-3.2	-2.9	-2.6	-2.8	
GCC	2.7	-2.9	-6.6	0.0	-5.4	0.0	-5.1	
Qatar	2.8	-4.3	-4.5	0.0	-2.6	0.0	-3.6	
Saudi Arabia	2.2	-2.3	-5.4	-3.9	-4.1	-4.1	-4.1	

Source: IMF, "World Economic Outlook", labeled by the date of the report's issuance, the latest of which October 2021

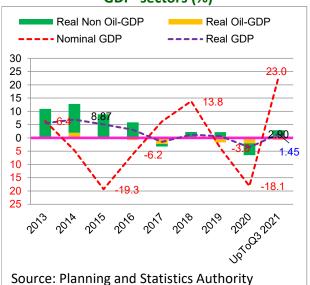
Similarly, the IMF has several times revised its estimates of the economies of the Middle East countries and the Gulf Cooperation Council countries for 2020, including the

economy of the State of Qatar, for which the IMF has marked down the severity of the decline from negative 4.3% in the April 2020 WEO to negative 2.6% in the April 2021 WEO. Nonetheless, the Planning and Statistics Authority, as per its press release in April 2021, concluded that the Qatari economy contracted in 2020 by negative 3.56%, later IMF revising the contraction to negative 3.56% in the October 2021 WEO.

COVID-19 Impact on Qatar Economy in 2020

Like other world economies, the economy of the State of Qatar in 2020 was affected by the health repercussions of the COVID-19 pandemic and the measures taken to contain it, which led to a dual shock to the Qatari economy - that is, both externally and internally. The impact of the external shock was greater due to the structure of the Qatari economy as it is exposed to external economies at a level of 91%. Thus, the measures to contain Covid-19 directly and indirectly affected the overall economic activities, whether oil or non-oil. Figure (2-1) indicates a decrease in the annual rate of change for the nominal GDP in 2020 by about negative 18%, and for the real GDP by about negative 3.6%. The decline derives from the

Figure 2-1: Annual rate of change of the main GDP' sectors (%)

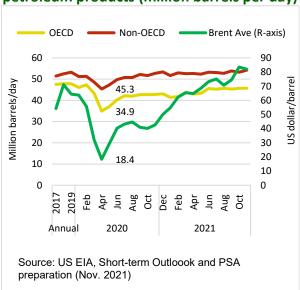


weakening of oil activities by negative 2%, and non-oil activities by negative 4.5%, the most important of which are: the subsidiary activities of the services sector, specifically those related to tourism activities such as transportation, hotels, catering, arts and culture, and sports activities. But as it is noticed from Figure (2-1) that GDP has improved during the first three quarters of 2021.

Impacts of fluctuations in global oil markets

The COVID-19 containment measures around the globe have resulted in the collapse of the international oil and gas market and reduced demand for

Figure 2-2: Global consumption of liquid petroleum products (million barrels per day)



consumption quantities and prices, as shown in Figure 2-2, according to estimates by the US Energy Information Administration (EIA), which will directly affect the oil export revenues of the State of Qatar, then the nominal domestic product, the state's public revenues, and the balance of payments, as will be discussed in the various topics of the report.

Global oil markets and Qatar mining and manufacturing

From the foregoing, it is clear that the repercussions of the measures to contain Covid-19 have particularly affected Qatar's mining and quarrying industries collectively termed as hydrocarbons (the oil and gas sector and its derivatives), which constitute on average 34% and 39% of the nominal and real GDP, respectively, and at the level of its non-mining (non-oil) activities, the most important of which are: construction. transportation, wholesale/retail trade, and other service activities related to tourism, which depend heavily on foreign markets, as well as the activities of the manufacturing sector that rely on the mining industry because 57% of its inputs derive from it, such as: the refining industry, petrochemicals, and fertilizers. This results in manufacturing being exposed to the

Therefore, this has had detrimental effects on the performance of the mining (hydrocarbon) and manufacturing sectors in Qatar at current prices as of March 2020, as shown in Figure (2-3). The GDP of the hydrocarbon industry for Q2 of 2020 fell by about negative 50%, while the GDP of the manufacturing industry decreased by negative 35% for the same quarter.

Once the global oil and gas markets improved during Q3 and Q4 of that same year, the GDP decline in the mining and manufacturing sectors has scaled down, but the rate of decline remained negative at the end of 2020. However, they achieved positive growth rates during the first three quarters of 2021 by 56.2% and 38.7%, respectively, as indicated in Figure (2-3).

However, it should be noted that both sectors: mining (hydrocarbons/oil) and manufacturing sector, they suffer from low rates of change in the value of their

production at current prices since before the implementation of the anti-Covid-19 measures. This was due to the nature of the infrastructure aspect of these two sectors, which are dominated by fixed capital (oil and gas fields, machinery, equipment and buildings); these are subject to gradual depreciation during the operating period, requiring regular maintenance. Since their production capacity has reached its peak for the past several years, any decrease in demand and prices of the products of these two sectors will negatively impact the Y-o-Y rates of change, because production quantities have become, at best, just about constant.

same factors of fluctuations in oil and gas markets just like the activities of the mining industry, since they both export 86% of their products to international markets, the rest are used domestically. It is noteworthy that the manufacturing sector constitutes 8% of

Figure 2-3: Mining and manufacturing sectors at current prices)%(

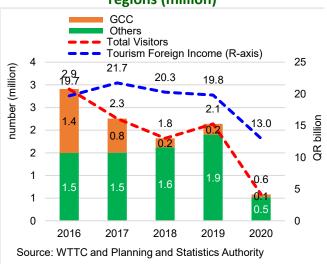
the real GDP, and 13% of the non-oil GDP.

As can be seen from Figure (2-3), both sectors achieved significant growth at current prices during the first three quarters of 2021.

Impacts on Tourism-Related Activities

Travel and tourism activities are among the most important economic pursuits in most countries. Their direct impact is not limited to activities that are directly related to tourism and travel, but in addition their indirect impact on economic activities affects several other sectors and acts as a motivating factor for others. According to the annual reports of the World Travel and Tourism Council (WTTC) in London, probably by using the Tourism Satellite Account (TSA, the service activities related to tourism, namely, transport, hotels and catering, arts and culture, and sports activities, were estimated for the State of Qatar at 9.1% of GDP in 2019 (WTTC, 2020).

Figure 2-4: Number of visitors to Qatar by regions (million)



Since the transport and warehousing sector in Qatar is one of the sectors affected by geopolitical changes and international economic fluctuations, its activities declined in 2020 by negative 27.1%, in which most of the decline came from air transport activities by negative 49%, but which was relatively offset by an increase in maritime transport activities by about 11.6%. It is worth noting that maritime and air transport represent, on average, 75% of the GVA of the transport and warehousing sector during the period (2015-

2020), and they employ 45% of the workforce in the same sector (71.000 employees).

In order to ascertain the impact of measures taken to contain Covid-19 on the inbound tourism activities coming to Qatar, available data on the number of arrivals to Qatar through its land, sea, and air ports was used as an approximate criterion. Figure (2-4) suggests that the number of arrivals decreased by 73% from 2.1 million visitors in 2019 to 0.6 million visitors in 2020, in addition to a 35% decrease in the spending of foreign tourists in Qatar.

Impacts on Fiscal and Trade Balances

The exports of the mining and manufacturing sectors constitute, on average, about 81.4% of the total merchandise exports during the period (2015-2020), with a maximum of 86.8%, and а minimum of 75.8%. Importantly, they also form the main source of public revenues for the state budget at a rate of 80.9%, with a maximum of 94.6% and a minimum of 69.4%. Therefore, anv fluctuations in the value of sales of the products of these two sectors negatively or positively affects the state's public budget balances and the trade balance of the balance of payments, as shown in Figure (2-5).

Global oil prices have decreased; for example, average Brent prices declined from \$64.4 per barrel in 2019 to \$41.3 per barrel in 2020. Yet the weighted average of oil and gas prices in Qatar decreased by about 20% and 25%, respectively, which led to a decline in public revenues of the State of Qatar by about 21% in 2020 compared to what was actually collected in 2019.

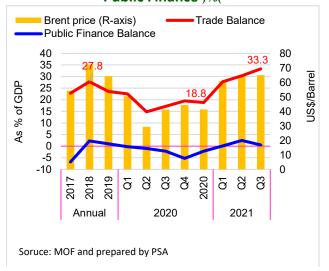
Therefore, the Ministry of Finance issued a circular to all ministries, institutions, and government bodies directing them to control expenditures, which led to a reduction in total

Part 2 - Economic Performance 2017 - 2020

expenditures by about 12.5% in 2020 compared to what was actually spent in 2019. Most of the decrease came from reducing capital expenditures by 21% for several noncrucial capital projects, those that have nothing to do with completing the infrastructure necessary to host the 2022 FIFA World Cup. Likewise, non-essential current expenditures, including allowances related to salaries and wages, were reduced by about 7%.

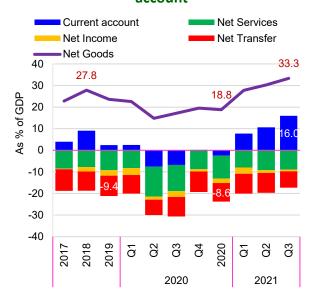
In light of the relative stability of the volume and value of merchandise imports, merchandise exports play a pivotal role in determining the level of the net trade balance, and therefore the current account, whether as a surplus or as a deficit, as shown in Figure (2-6). For example, when the share of merchandise trade balance which is driven by hydrocarbon exports as a percentage of GDP declined from 27.8% in 2018 to 18.8% in 2020, the current account posted a deficit of about negative 2.5% of GDP. It is striking

Figure 2-5: Balance of Current Account and Public Finance)%(



that one of Covid-19 repercussions is the decline in the percentage of current transfers abroad from 9.4% in 2019 to 8.6% in 2020, most of which represent the returns of expatriate workers. This is attributed to the decrease in the incomes of some segments of non-Qatari employees.

Figure 2-6: Components of BOP's current account



Source: QCB and prepared by PSA

With the rise in oil and gas prices during the first three quarters of 2021, merchandise trade balance as a percentage of GDP increased from 18.8% in 2020 to 33.3% in September 2021, causing the current account to achieve a significant surplus during the same period, for example reached 16% of GDP in Q3.

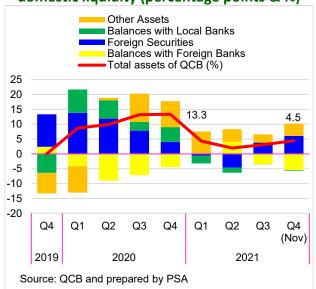
Impacts on Banking Sector

The Ministry of Finance and the Qatar Central Bank (QCB) coordinated the necessary measures taken to control the monetary situation and the balance of payments. In April 2020, the Ministry of Finance issued international sovereign bonds, which were sold in US financial markets for about US\$10 billion, in order to finance the general budget deficit.

In addition, foreign asset swaps and transfers to the QCB were carried out throughout 2020, as shown in Figure (2-7), since part of the QCB balances with foreign banks were withdrawn in favour of increasing its balances with local banks. Although QCB kept increasing investments abroad, either in the form of foreign bonds or treasury bills, its contribution to the growth rate of QCB's foreign assets gradually decreased, in favour of increasing other assets.

For the first three quarters of 2021, the operations of the Qatar Central Bank changed as needed as follows: (1) In Q1, its assets with local banks is reduced in order to increase its other assets, (2) In Q2, it reduced its investments in bonds and foreign treasury bills and its assets with local banks in favour

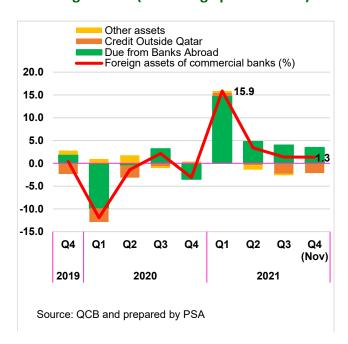
Figure 2-7: QCB measures to stabilize domestic liquidity (percentage points & %)



of increasing its with foreign banks and other assets, (3) In Q3, it reduced its assets with foreign banks in favour of increasing its investments in foreign bonds and treasury bills. (4) preliminary data for Q4 of 2021 indicate a recurrence of the course of banking transactions as they were in Q3.

As for the implications of the crisis on the monetary situation of the foreign assets of commercial banks, it is clear from Figure (2-8) that commercial banks withdrew part of their balances with foreign banks in Q1 of 2020 in order to meet the growing domestic demand for credit by public institutions throughout 2020. As soon as such monetary situations improved since Q3 of 2020, commercial banks increased their foreign deposits with commercial banks abroad, especially during Q1 of 2021 stabilizing during the last three quarters of 2021. In addition, credit outside Qatar contributed negatively during last three quarters of 2021 after a positive contribution during Q1 of 2021.

Figure 2-8: Development of commercial banks foreign assets (Percentage points and %)



Part 2 - Economic Performance 2017 - 2020

Based on the foregoing, it is clear that as a result of the uncertainty caused by the measures taken to contain Covid-19, the contribution of non-resident deposits in the growth of deposits of the banking system markedly scaled down during Q2 of 2020. Then its contribution recovered significantly since the beginning of Q4 of 2020 until it became the main driver of growth in total deposits during the first three quarters of 2021, but it is noted from Figure (2-9), that its contribution decreased during Q4 of 2021, perhaps, reflecting a policy implemented by commercial banks for the purpose to rationalize the process of accepting the inflow of Non-resident deposits in order to avoid their future risks - for example - if they outflow suddenly.

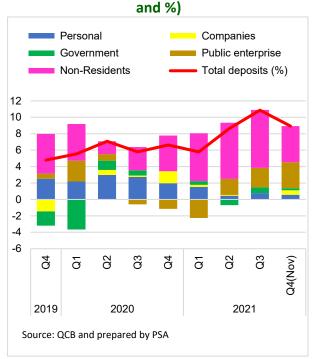
As for the contribution of individual deposits, it increased during Q2 and Q3 of 2020 due to uncertainty and a preference for saving rather than consumption. Nevertheless, it also witnessed a decline since the beginning of Q4 2020 after the lifting of precautionary restrictions, and its contribution became smaller still during all quarters of 2021.

As for private companies and institutions, their contribution to deposit growth remained modest during the first three quarters of 2020, before rising relatively in Q4. Thereafter, their contribution stabilized during the quarters of 2021.

Public institutions' deposits, albeit at a small percentage, continued to contribute positively to the growth of total deposits from Q2 of 2021 until November 2021.

Government deposits have contributed positively during the periods of implementing the virus containment measures, whether during 2020 and until the first quarter of 2021, but their contribution declined during the last three quarters of 2021.

Figure 2-9: Development of deposit components by ownership (percentage points



Impacts on Financial Market (QSE)

After the monthly data of the overall index of the Qatar Stock Exchange (QSE) for 2019 showed a positive change rate, which averaged about 9.2%, with a maximum of 17.9% and a minimum of negative 2.1%, the same data for 2020 witnessed a significant decline, amounting to an average of negative 7.7%, with a maximum of 1.1% and a minimum negative 18.8%, due to the impact of global financial markets given the decline in oil and gas prices and the repercussions of Covid-19 containment measures at the local, regional, and international levels. Likewise, the average market value (market capitalization) of shares traded in 2020 went down by 5.4% from QR 576 billion in 2019 to QR 545 billion in 2020.

As shown in Figure (2-10), all major sectors witnessed declines during the quarters of 2020, albeit to varying degrees, except for the transportation and real estate sectors, which witnessed stability and positive growth. The main QSE Index expressing all sectors is the QSE All-Share Index, whose monthly data showed a decline by an average of negative 4.7%, with a maximum of 5% and a minimum of negative 19.7%. developments during the months (January to November of 2021) will be discussed later (section of stability of financial market)

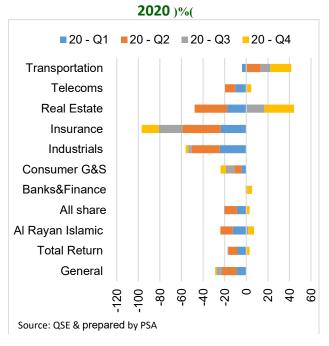
With regard to sectoral development, the quarterly data showed an increase in the two indices: the financial and transport sectors by 1.4% and 10.4%, respectively. As for the rest of the indices, they all moved down but the greatest decline was experienced by the industry and insurance indices by 15.4% and 25.1%, respectively.

The total trading value of QSE in 2020 amounted to about QR 105.8 billion, compared to QR 67.7 billion for 2019. As for

the number of traded shares recorded by QSE during 2020, it reached 55 billion shares, compared to 11.4 billion shares for 2019, which executed through 2.29 million transactions.

It is interesting, according to the annual report of QSE for the year 2020, that despite the Covid pandemic, the daily average of the value of trade/shares and their number during the year 2020, amounted to about QR 424.8 million, compared to QR 270.8 million for the year 2019, an increase of 56.9%.

Figure 2-10: Annual rate of change of the general and sectoral stock market indices for



As regards the sectoral contribution to the trading value growth rate in 2020, the real estate sector ranked first as it contributed to about 19 percentage points of the total annual growth rate of 56.2%, and the financial sector came in second place by 15 percentage points, followed by the services sector and consumer goods by 9 percentage points, then the transport sector by 7 percentage points, and the industrial sector by 5 percentage points. It should be noted that the total trading value of the financial sector accounted for 36% of the total trading

value of QR 105.8 billion, followed by the real estate sector by 18.8%.

When comparing the closing share prices of the QSE Listed 47 Firms traded during 2020 with their previous closings, it was found that 31 companies showed an increase in their share prices, while the shares of 16 other companies were down.

The five top companies according to the value of the shares traded are: Qatar National Bank with 11.8%, followed by Ezdan Holding Group with 6.7%, followed Qatar Gas Transport Company Limited and United Development Company with 5.2% each, then Masraf Al Rayan by 5%.

The five companies with the highest increase in their share prices are: Qatari German Company for Medical Devices, whose share price rose by 284%, followed by Dlala Brokerage and Investment Holding by 194%, Ezdan Holding Group by 189%, Inma by 169%, and Qatar First Bank by 110 %. With regard to the five companies with the largest decline in their share prices, they are: Qatar National Cement Industry, as its share price fell by 26%, Qatar Fuel by 18%, and Qatar National Bank by 13%.

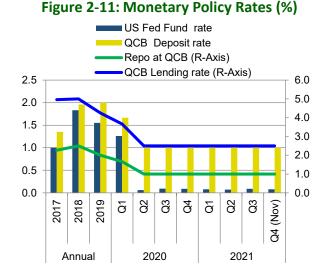
Impacts on Interest Rates

Most countries have used monetary policy tools, foremost of which are the interest rates, to mitigate the consequences of imposing measures to contain Covid-19 on their economies. In March 2020, QCB adjusted the QMR tool, which is the overnight lending and deposit interest rate, to 2.5% and 1%, respectively, and they remained so until the writing of this report in December 2021, as Figure (2-11) indicates. Their stability at such low levels reflected the stability of the monetary policies of the US Federal Reserve due to the pegging of the Qatari riyal

exchange rate to the dollar, where the average Fed rate during the period March 2020 – November 2021 was about 0.11%. This is done in order to be vigilant against any negative repercussions at the local level, namely, the outflows and inflows to and from the Qatari banking system.

Similarly, the QCB has adjusted repurchase rate (Repo) to 1% since March 2020, which encouraged borrowing from QCB during Q1 of 2020 by about QR 29.9 billion, compared to about QR 14.5 billion net borrowed in 2019. However, banking data indicate that Repo loans have been paid since April 2020, and that holders were not resorting to the QCB for further borrowing, as the net repayment during the period (April -December 2020) amounted to about QR 28.8 billion; thereafter a robust repayment process continued during the period (January -November 2021), as the net repayment amounted to about QR 20.5 billion.

Since the activities of Qatari commercial banks overlap with the activities of

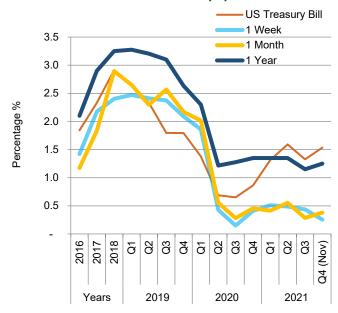


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Source: QCB and US Federal Reserve website (https://fred.stlouisfed.org/series/FEDFUNDS), Jan 2022

commercial banks worldwide, the Interbank interest rates and other interest rates were directly as well as indirectly affected by the monetary policy tools discussed above, in addition to being affected by the levels of interest rates in various banks around the that also have commercial а relationship with the State of Qatar. It is noted from Figure (2-12) that the daily yield rates of the US treasury and the interbank transaction interest rates of Qatari banks for weekly, monthly, and annual periods have fallen to their lowest levels during Q3 of 2020, but they gradually began to recover until the end of Q2 of 2021, before again declining in Q3 and then increase in Q4 (November) of 2021.

Figure 2-12: Weighted interbank transaction interest rates (%)



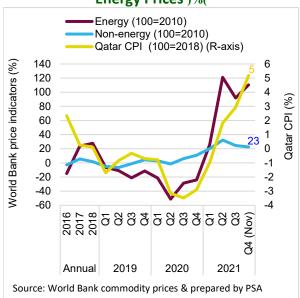
Source: QCB and prepared by PSA

Impacts on CPI and PPI

The household Consumer Price Index (CPI) is affected by several dynamic factors related to the supply and demand levels for goods and services, and whether they are produced locally or imported. Moreover, it is also affected by the nature of economic policies, whether expansionary or contractionary, Box (2-1).

Given the fact that the State of Qatar imports more than 90% of its needs from international markets, then one of the biggest factors affecting its price indices is international energy and non-energy prices, as shown in Figure (2-13), which reveals the strength of the correlation between the Qatari CPI, and global energy and non-energy price indices according to the World Bank database.

Figure 2-13: Qatar CPI, Energy and Non-Energy Prices)%(



Like the economies of most countries of the world, consumer price inflation rates in Qatar witnessed significant increases during the past twelve months, rising from negative 2.95% in November of 2020 to positive 6.1% November of 2021, which indicates that price recovery is higher than in 2020 by more than 300%.

From the above, it is clear that there is an almost total correlation between domestic price indicators and international prices for energy and non-energy sectors, especially during the period 2020-2021, which were affected by the economic repercussions of imposing Covid-19 containment measures and then gradually lifting them in all countries.

To identify the most important factors that led to the price recovery during this same period, the main groups of the components of the consumer price basket were clustered as shown in Figure (2-14). It is clear that activities related to transportation and tourism that were affected by the repercussions of Covid-19 during 2020, including hospitality, accommodation, arts and entertainment, were also behind the price hike during the last three guarters of 2021, in particular after the gradual lifting of restrictions imposed on those activities, especially transportation, restaurants, and parks.

However, it should not be underestimated that local economic and social policies and regional and international geopolitical variables play an important role in shaping

Others IT and transportation Education & Health IIIIIII Clothing & Furniture Housing Food and Tobacco • • • • CPI (%) • • • Core CPI (%) 10.0 8.0 6.0 **%** 4.0 ∞≾ Points & 0.0 -2.0 -4.0 -6.0 2016 Ø2 Q3 8 (NoV) 2017 δ 8 8 2020

Figure 2-14: Evolution of the CPI basket

Source: Planning and Statistics Authority (points depict the magnitude of the impact in absolute terms)

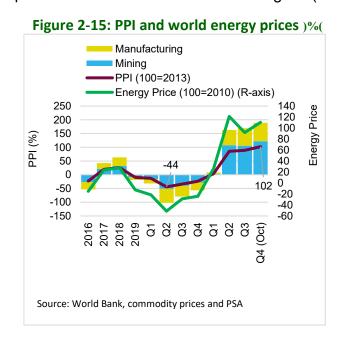
the inflation rate in Qatar (as occurred in 2017 as a consequence of the blockade measures taken against the country). Also, changes in domestic and international demand and the state of monetary and fiscal policies would contribute to inflation positively and negatively by increasing and decreasing the quantity and prices of imports. This is highlighted by what took place in 2020 when interest rates were cut, and generous financial support was provided to many economic sectors, but the subsequent impact on prices turned out to be negative instead of postulated by conventional positive as economic theory.

When examining the housing inflation (rent, utilities costs), which also appears in Figure (2-14), it needs to be considered not in isolation but in its historical context, as the increase in the supply of real estate and the lack of demand have been pushing the housing price inflation downward since 2016. As well, it can be understood when regarding the food group, which remains stable while witnessing a positive impact on the general inflation rate a fact that is caused by the impact of the government's subsidy policy for national agricultural food products, in particular dairy products and white meat. as well as the policy of operating Qatari ports at full capacity combined with finding new shipping routes to international markets, which in total has led to a lowering of food prices and a reduction in the costs of transporting imports.

When looking at the same scenario for 2019, it can be seen that it was a mixture of the impacts of foreign inflation, and the effects of domestic policies, most notably the temporary reduction in fuel prices that coincided with the imposition of selective taxes on tobacco and harmful soft drinks, which together led to an increased

contribution by the food group and a decreased contribution by the transport and communications sector in shaping the inflation rate, which in turn reduced the contribution of the groups of entertainment and other services.

As regards the Producer Price Index (PPI) in Qatar, it is almost equal to the global energy price index, because it consists of the prices of three industrial groups that depend on global oil and gas prices, namely: Mining (72.7%), Manufacturing (26.8%), and Utilities (0.5%). They played a pivotal role in shaping the index as indicated by Figure (2-15), which shows that it went through three phases during (2016 – October 2021) that reflected a number of factors, foremost of which are: (1) the fluctuation of the global production supply. (2) the fluctuation of the demand by the major industrial countries, which was evident during the economic downturn during the Covid-19 crisis in the middle of 2020, and currently it is going through a third phase resulting from the recovery of demand and supply, which of course coincides with the recovery of the economies of many countries after lifting a large part of the precautionary restrictions to contain the spread of the pandemic. As can be seen from Figure (2-



15), producer prices decreased in the second quarter of 2020 by a negative 44%, but it

continued to rise with the rise in energy prices until it reached 102% in October 2021.

Box 2-1: Concepts and terms for the theoretical framework for prices and indices
Consumer and product price statistics and their indicators are among the most important
means of diagnosing economic conditions for policy-making and planning, but the most
important of them is the consumer price index due to its relationship to family expenses and
cost of living, through which the monthly inflation rate is monitored. Inflation is a compound
phenomenon that results from several factors (seasonal changes (social, weather and
climate), economic policy changes, and geopolitical variables), and it may occur in a
creeping manner, that is, it takes a gradual, upward and hidden form in the short, medium
and long term, or comes in a form Hyper Inflation, meaning that prices increase at very high
rates within a short period of time.

Therefore, when analysing it, it is necessary to monitor the dynamic variables, not only prices, but the change in people's tastes and the availability of options to purchase goods of various prices and quality. In terms of potential sources of inflation, they may be (1) Imported Inflation resulting from the rise in the prices of imported goods, which is reflected in the rise in the prices of final domestic products in the event that they are input goods, or an increase in the prices of final consumer goods, (2) Demand Pull Inflation, which results from an increase in effective aggregate demand in light of a stagnation of aggregate supply, (3) Cost Push Inflation, which results from an increase in the cost of production factors by a greater percentage than marginal production, which requires policies that reduce production costs.

According to international standards, there are a number of mathematical equations that are used in the synthesis of index numbers, the most important of which are Laspeyres, Paasche, and Fisher in between, all of which use prices, quantities and weights for quantities in the base year, and the equations vary according to the different assumptions. For example, the Laspere equation, which is used by all countries of the world, assumes the stability of consumers' tastes and their continuity in consuming the same quantities of goods even if their prices change in subsequent time periods, but the weights of the value of the expenditures, include the quantity. This is because what the consumer spends, is the result of his purchase of a certain amount at a certain price. Consumption patterns are also identified and the weights for each of the main and sub-expenditure groups are determined through the Household Income and Expenditure Survey, which was the last survey for the State of Qatar in 2018.

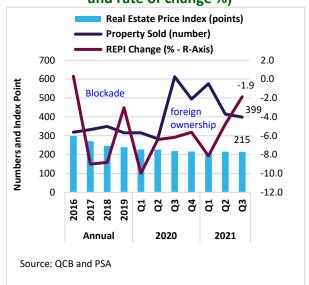
In the light of its results, a basket of goods was determined, the prices of which are collected periodically. Hence, the base year for the State of Qatar is 2018, which is called the constant base, and it is the period in which the change is measured in relation to it. The index is calculated by dividing the prices of the comparison year by the price year of the base year and weighting it with the quantities of the base year. The PSA is looking forward to utilizing the most updated method such as "Chain Link Index".

Impacts on Real Estate Market

The real estate market in Qatar has witnessed a decline in prices since the market become saturated with residential buildings, offices, and shops in mid-2016, as shown Figure (2-16). Although it declined by an average of 7.4% during (2016 – 2020), it experienced a marginal growth by about 1% during Q1 and Q2 of 2019, perhaps due to the recovery of investors' confidence in the real estate market prompted by the escalation of oil and gas prices during 2018 – 2019.

In addition, the impact of the Covid-19 containment measures on the economy in general and the real estate sector in particular led the real estate prices to fell further during Q1 and Q2 of 2020, before it saw a recovery since Q3 of 2020 until the end of the end of Q3 of 2021, due to: (1) the continuation of the expansionary monetary policy represented by lowering interest rates on deposits, (2) the gradual lifting of restrictions related to Covid-19, (3) allowing Non-Qataris to own and use real estate in defined areas of the State of Qatar as per Cabinet Resolution No. (28) issued in August 2020, as indicated in (Box 2-2)

Figure 2-16: Real Estate Price Index (points and rate of change %)



Box 2-2: Allowing non-Qataris to own and usufruct right

Within the framework of achieving the development goal of economic diversification, a package of economic legislation was issued during the period (2018-2019), aiming to attract foreign investments in non-oil economic activities by improving the business environment and facilitating business creation.

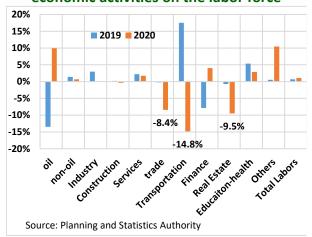
Among the most important of these legislations are: (1) Law No. 16 of 2018 regulating non-Qatari ownership and use of real estate, which aims to allow the non-Qatari investor to have "freehold" ownership as well as the "usufruct right" for a period of 99 years in certain designated areas with certain privileges. (2) Law No. 1 of 2019 Regulating Non-Qatari Capital Investment in the economic activity, which aims to allow the non-Qatari investor to own 100% of the capital of local companies in all economic sectors, (3) Law No. 12 of 2020 on the Regulation of Public Private Partnerships, which aims to provide a legislative framework for regulating the private sector's contribution to the implementation of major development projects, which will lead to an increase in the efficiency of government services provision, and an increase in the effectiveness of the use of infrastructure. This law is intended to reduce the expenditures of the state's general budget and improve the use of financial resources while enhancing the competitiveness of private sector companies in Qatar.

The above-mentioned laws were supplemented by Cabinet Resolution No. (28) issued on 30 August 2020, i.e., the executive regulation of Law No. 16 of 2018, which designated 9 "freehold" areas and 16 "usufruct" areas for a term of 99 years for non-Qataris. This regulation clarified the terms, privileges, and procedures for freehold ownership and usufruct.

Impacts on Labor Market

As discussed previously in the first part of this report (section of "Census Development"), the State of Qatar has been attracting expatriate workers since 1971 from all over the world in all disciplines to meet the growing domestic demand for labor to work in all economic, production and service activities, making the market for Labor in Qatar is subject to the forces of economic supply and demand as shown briefly in boxes (2-3, 2-4).

Figure 2-17: The impact of the decline in economic activities on the labor force



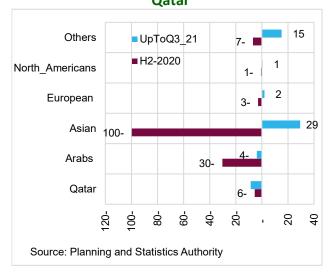
Evidence of this is that when the Covid-19's containment measures the impacted economic and social activities during 2020. the demand for labor for number of economic activities have experienced a major decline as shown in Figure (2-17)²⁶. The level of the workforce in transport and warehousing activities decreased by 14.8%, followed by a decrease in employment in wholesale and retail trade by 9.5%, and then in real estate by 8.4%, and the reason is because they were among the activities most affected by the measures to contain Covid-19.

However, despite the decline in the labor force in some government services activities (public administration, education and health), nonetheless, the number of recruited workers was greater than the number of laid-off surplus workers and retirees in this sector.

For more information about population and employment developments, the data of the quarterly bulletin of population statistics issued by the PSA related to the number of departures and arrivals to and from the State of Qatar during the period (July 2020 -September 2021), as shown in Figure (2-18) has been used to make a preliminary estimate of the number of decreases in the level of the workforce. It was found that the number of returnees to the country is lower than those who left by about 146,000 people during the second half of 2020, while the number of returnees to the country is higher than those who left by about 35,000 during the first three guarters of 2021.

Thus, there is a possibility that the population fluctuation during 2020 and 2021 (from 2.81 million in April 2020 to 2.38 million in July 2021, before rising again to 2.69 million in November 2021) is due to the probability that those who have left during the second half of 2020 was not intended to spend the usual annual leave outside Qatar either for tourism or family visits, but perhaps due to layoffs of

Figure 2-18: Net arrivals and departures for Qatar



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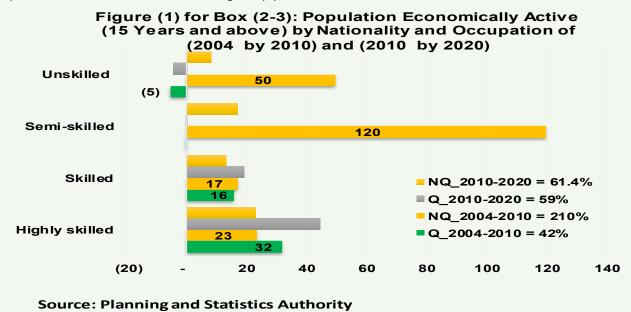
 $^{^{26}}$ To find out the nature of the data, check box (2-5)

unskilled and semi-skilled workers, as some economic activities were halted because of the measures to combat covid-19, and economic activities that require such

categories of employment have also been completed.

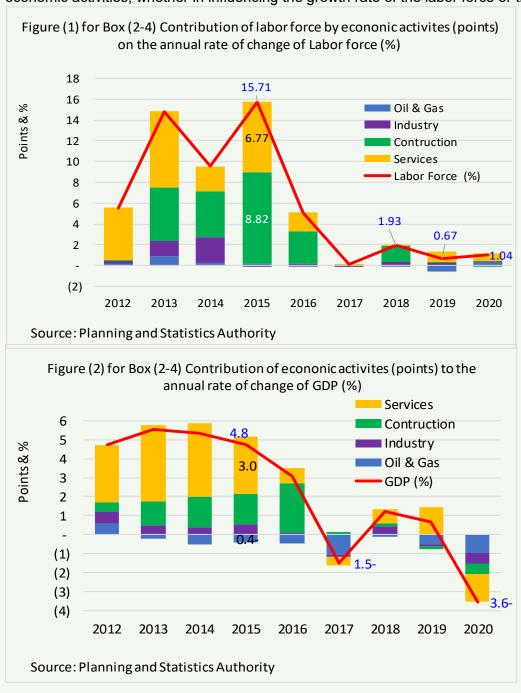
Box 2-3: Historical turning points in the structure of the economy and the workforce The State of Qatar witnessed during (2006 – 2020) five economic development events that had a very significant impact on the country's economic and social structures: (1) increasing the production and export of liquefied natural gas, which rose from 27 million tons in 2006 to 82 million tons in 2011, and the subsequent export of an average of about 77 million tons since then, compounded by the development of manufacturing industries utilizing gas inputs, (2) the adoption of the comprehensive development vision "Qatar National Vision 2030" by Emiri Resolution No. (44) of 2008, which was followed by a wide range of strategies that have been and are being prepared at the national level, many of which are directed at economic activities, (3) Qatar won the bid to host the 2022 World Cup in accordance with the FIFA decision on December 2, 2010, which was followed by the formation of the Supreme Committee for Delivery and Legacy having the aim of implementing the necessary infrastructure projects for hosting the tournament, such as sports facilities, hotels, tourist resorts, and transport infrastructure from airports and ports, and including plans for roads, metros, and others, (4) the positive consequences of the measures undertaken to counter the negative effects of the 2017-2020 blockade, which helped the Qatari economy positively in terms of increasing local production of many food commodities and pushing the Qatari economy to become more independent in air and sea transport, new shipping lines, and export and import ports, (5) the repercussions of containment measures of COVID-19 on people's livelihood during the period 2020-2021.

One of the most important results of these developments is the significant increase in the nation's population, rising as it did from 0.74 million people in the 2004 census to 2.846 million people in the 2020 census, a cumulative growth rate of about 283%. Most of the population increase came from the increase in the expatriate workforce, which rose from 0.39 million workers in the 2004 census to 1.2 million workers in the 2010 census, then rose again to 1.94 million in the 2020 census, at a cumulative growth rate of 210% and 61%, respectively. These increases in the expatriate workforce are twofold: first, the contribution of low-skilled and unskilled labor rose by 170 percentage points, while skilled and high-skilled labor rose by 40 percentage points during the period 2004-2010 and then by 25 percentage points for unskilled and by 36 percentage points for skilled labor during the period 2010-2020, as shown in Figure (1).



Box 2-4: The Labor Force Contribution by Economic Activity

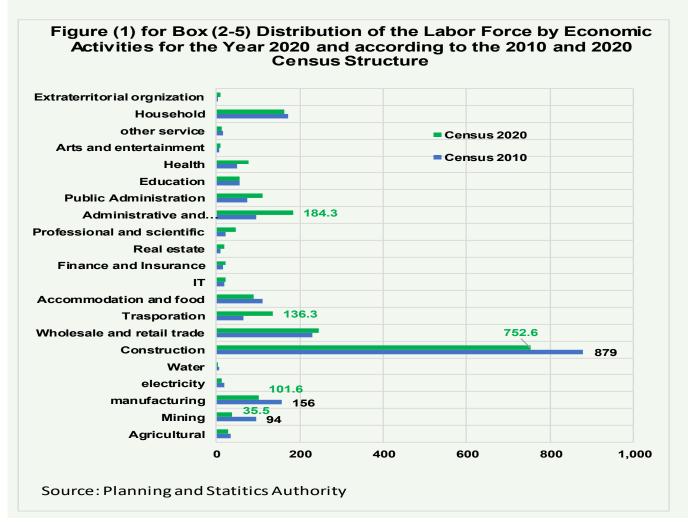
The influx of expatriate workers has caused successive changes in the composition of the workforce according to economic activities and their contribution to the annual rate of change of the total workforce, as also shown in Figure (1) The corresponding change in the contribution of the components of oil and non-oil activities to the annual rates of change in real GDP are shown in Figure (2), where it is noticeable how the contribution of the building and construction sector grew during the years when the State of Qatar witnessed wide-ranging urban development across all economic activities, whether in influencing the growth rate of the labor force or the GDP.



Box 2-5: The structure of the economically active population between the 2010 and 2020 censuses. The number of the economically active population witnessed a growth of 61.3% during the decade 2010-2020 as shown in Table (1), and at similar rates for the Qatari and non-Qatari labour force, but the relative distribution by economic activities changed significantly as shown in Figure (1) However, It should be noted that the data of the economically active population for the year 2020 in Figure (2-17) was based on the relative distribution of economic activities in the 2010 census, not the distributions of economic activities in the 2020 census, due to the increase in the number of the labor force in some sectors at the expense of its decrease in other sectors, for example, but not limited to, the number of the labor force in the construction sector decreased in favor of an increase in the workforce in the administrative services (logistics) and public administration services, as shown in Figure (1).

Table (1) for Box (2-5) of the economically active population (15 years and over) by nationality in the 2010, 2020 censuses

	Male (000)		Female (000)		Total (000)		As % of Total			Contribution	
	2010	2020	2010	2010 2020	2010	2020	2010	2020	Rate of	to Growth	
	2010	2020	2010	2020	2010	2020	2010	2020	change	(points)	
Qatari	46.3	67.5	25.2	46.4	71.6	114.0	6%	6%	59.2%	3.33	
Non- Qatari	1071.1	1646.1	128.8	290.2	1199.9	1936.3	94%	94%	61.4%	57.92	
Total	1117.4	1713.7	154.0	336.6	1271.5	2050.3	100%	100%	61.3%	61.25	



Administrative and economic measures to minimize the Covid-19 pandemic's impacts

When the first case of Coronavirus infection appeared, the State of Qatar quickly took all measures recommended by its public health authorities to limit the virus' spread, including a decision made to suspend public and private schools and universities for all students as early as 9 March 2020. Once the number exceeded 200 cases on 11 March 2020, the government issued three packages of measures, including: restrictions on economic and social activities to protect the population against infection; administrative measures and financial investments to support the health care sector; and stimulus fiscal and monetary policies for the recovery and stability of the economy.

The nature of the restrictive measures for economic and service activities will be reviewed later, but they can be summarized in: all forms of gatherings by way of closing economic, service, and social activities with heavy contact and mingling such as commercial and touristic facilities, places of worship, and social activities, while halting public transit, and preventing travel and the organizing of inward flights, simultaneously imposing online work by reducing the percentage of staff permitted in workplaces.

In regard to the administrative measures to support health care, these focused on stopping all health care services for the population except for emergency cases, with the aim of allocating the public and private health system to conduct Covid-19 tests, providing medical care to patients infected with the virus, and imposing home quarantine for suspected cases. In order to raise the treatment capacity, two temporary medical facilities with a capacity of more than 4,640 beds were established for the purpose of

providing health care for light cases. Other field medical facilities for light and medium cases having a capacity of 18,000 beds were also prepared, with commercial deals being conducted to purchase all supplies for disease prevention, as well as supplies needed for patients' treatment, such as medical devices and therapeutic drugs.

As for the economic policy package, it was a combination of fiscal and monetary policies to stimulate domestic aggregate demand and address supply and demand shocks at the same time, as follows:

Financial Policies

One of the most important financial policy measures taken by the government has been to provide a financial incentive of QR 75 billion to enable the QCB to implement accommodative monetary policies to support the private sector through four axes:

- A repurchase window (Repo) with an amount of QR 50 billion, at a 1% interest rate, has been allocated for providing liquidity to commercial banks at low cost in order to facilitate procedures for postponing loan and interest instalments for affected companies. This is in addition to allocating guarantees to local banks to grant new loans to private sector companies at low interest rates.
- QR 10 billion were injected into the Qatar Stock Exchange by directing state funds to increase their investment in the local bourse in order to shore up investor confidence in the financial market (the stock exchange).
- The Qatar Development Bank (QDB) was authorized to implement the National Response Guarantee Program in order to respond to the repercussions of Covid-19 with about (QR 5 billion), through local banks registered in the Wage Protection System so that banks would be able to

finance staff payroll and rental fees for small and medium-sized enterprises (SMEs) with high labor intensity, such as sectors related to tourism, wholesale and retail trade, and logistics.

 Logistics areas, industrial cities, and Al Furjan markets were exempted from customs duties, water and electricity utilities fees, as well as rents.

The fiscal policy was not limited to providing financial support and customs exemptions, but also included increasing health care controlling expenditures, unnecessary current expenditures, reallocating capital expenditures, providing aid and to institutions, individuals, and consumers, which made economic activities in general continue without a broad cut in jobs. As well, this fiscal policy extended to coordination with the Ministry of Commerce and Industry for working with private sector companies to import food and medical commodities to raise the strategic stockpile.

National Response Guarantee Program for SMEs

economic activities Many have been impacted by the measures taken to contain the outbreak of the Covid-19 pandemic. However, the most affected activities are those of SMEs with high labor intensity. Thus, the government established a National Response Guarantee Program (NRGP) of QR 5 billion that aims to pay staff payroll as per the Wage Protection System (WPS) as well as subsidizing rental fees for privately owned companies (factories, business outlets, warehouses, and labor accommodations) even if the Qatari partner owns only 10% of them.

As shown in Table (2-3), the tenure of Covid-19 NRGP is four years, of which two years are a grace period with zero interest on the beneficiary companies. The government will bear the cost of interests and profits during the grace period. As for the remaining period; i.e. 2022 and 2023, it will be a repayment period with interest rate that does not exceed QCB's rate plus 2%. This indicates that the holder of the guarantee will benefit from a zero-interest loan for two years, and a low interest for another two years, which it will be 2% plus Qatari Money Market interest rate (QMR), which is 2.5%, as shown in Figure (2-12, above).

The program is implemented by local banks registered in the WPS under the supervision of QDB with zero bank fees during the application period (March 2020 - September 2021), for a maximum of QR 15 million, where the financing for closed sectors does not exceed QR 2.5 million per month, provided that the guarantee is disbursed as wages and salaries or as rents that should be deposited to the property owner's banking account.

According to the statement of QDB as of April 2021, more than four thousand private sector companies and establishments, employing more than 320,000 employees, have benefited from the program.

Table 2-3: Interest Rates of the COVID-19
Guarantee Program

	Total Interest	QDB Contribution	Interest to be paid by customer				
0-6 months	1.5%	1.5%	0				
7-12	1.5%	1.5%	U				
–			_				
months	QMR + 1%	QMR + 1%	0				
Year 2	QMR + 2%	QMR + 2%	0				
Year 3	QMR + 2%	0	QMR + 2%				
Year 4	QMR + 2%	0	QMR + 2%				
Source: QC	Source: QCB						

Monetary Policies to Contend with Covid-19's Consequences

As previously discussed in the texts associated with Figures (2-12 / 13), the Qatar Central Bank was not limited to its management of the crisis when adjusting official interest rates to contain repercussions of Covid-19 on the Qatari economy. Rather, it coordinated with the Ministry of Finance to maintain domestic liquidity through the sale and purchase of treasury bills and government bonds and the issuance of international bonds. The QCB also taken several administrative measures²⁷ to achieve stability in the banking business, including the following:

- All banks and exchange houses operating in Qatar were directed to review and activate business continuity plans and evaluate them according to the emerging scenarios emanating from the stages of the pandemic and the potential business risks.
- QCB has cancelled fees imposed on Point of Sale (POS) and ATM withdrawal fees.
- QCB has cancelled all fees and commissions charged for using payment systems between banks and exchange houses operating in Qatar.
- QCB has issued circulars to banks operating in the State of Qatar; especially during the peak of the pandemic, to enhance online banking services to customers in order to avoid customers visiting branches, while ensuring business continuity.
- QCB has formed a committee to follow up on measures to limit the spread of Covid-19, to communicate with financial institutions operating in the country, to follow up and evaluate all

- recommendations and measures issued by the bank, and to address the obstacles that prevent their implementation.
- QCB reduced the costs of workers' transfers transactions, as the maximum interbank commission in Qatar was reduced from QR 10 to 60 dirhams (QR 0.6) for transactions less than QR 100, and then to QR 4 for transactions whose value is between QR 100 and QR one million, followed by charging just QR 6 for transactions worth more than one million riyals. It is worth noting that transaction costs in Qatar are low compared to other countries in general.
- Swaps and transfers of foreign assets to the QCB were carried out throughout 2020, since part of QCB balances with foreign banks were withdrawn in favor of increasing its balances with local banks.
- Commercial banks withdrew part of their balances with foreign banks in the beginning in order to meet the rising domestic demand for credit by public institutions throughout 2020.

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²⁷http://www.qcb.gov.qa/english/supervisionandcontrol/pages/covid19_circulars.aspx

Features of Recovery and Stability of Macroeconomic Indicators

In the light of the foregoing, it is evident that the spread of the virus and the measures to contain it had direct impacts on public health together with indirect impacts on both the supply and demand sides of the economy, mainly caused by the reduction in the work of ministries and government agencies, and the decline in many activities of the public and private sectors, as indicated in the Box (2-6).

However, harnessing the State's financial, health, and media capabilities during the first and second waves, and in conjunction with citizens' and residents' adherence to

preventive measures so as to limit the spread of the virus, when all is considered led to:

- (1) Recovery of at least 92.7% of the infected cases and reducing deaths by about 618 cases in a country that had endured more than 266,962 cases of infection by early January 2022.
- (2) Stability in many economic activities at a minimum and limiting the negative effects of sudden shocks of lower prices, demand, and purchasing power caused by uncertainty among consumers and investors.
- (3) The administrative measures, i.e., many government institutions and the private sector resorted to working online and remotely, thereby contributing to accelerating the efforts of the public and private sectors in

Containment measures	Objective and Economic Sectors	Most Significant Economic & Social Outcomes
Suspending and restricting prayers in mosques and places of worship Banning social gatherings Banning sports activities and camps Regulating weddings attendances	Aims to limit gatherings in arts and entertainment activities, wholesale and retail trade, hotels and restaurants, and other places of social gatherings	A decline in aggregate demand and the introduction of a new lifestyle dominated by distancing and isolation with unknown repercussions. Some indications exist that the rate of depression and the use of sedatives among adolescents soared in many countries, and small companies that depended on providing trade and entertainment services may have lost so much income and savings that some of them may not recover again.
Regulating internal land and sea transportation	Aims to minimize gatherings in the transportation sector	A supply chain disruption and the contraction of the activities of the transport sector and wholesale and retail trades, which led to a reduction in service and production activities, and even layoffs.
Regulating external transport		*
Regulating attendances of schools, universities, training centers and health care services	Aims to minimize gatherings in education and health activities	The productivity of many service and production activities, including education and health, have declined, which is said to have led to an increase in
Minimizing the number of staff in the workplace	Aims to reduce mingling in public administration, financial, real estate, construction and building activities, as well various private sector activities.	the time children sit in front of TVs, computers, and mobile phones. However, this contributed to the automation of some work, including education and health services - which has increased the use of loca and international communication technologies for the purposes of conducting public and private works as well as economic and social communications.
Provision of financial, in-kind and administrative facilities and fee reductions	In order to bring down the fluctuations in oil and gas prices, and the decrease in demand for and consumption of national products, the government has provided financial support	State revenues shrank, whereas government expenditures increased to help the public and private sectors, which has led to a deficit in the public budget and a high public debt.
Raising official interest rates, granting loans at low interest rates, providing a bank guarantee, granting customs, rent and fees exemptions	To limit any negative repercussions on domestic liquidity and exchange rates, and achieve stability in inflow and outflow, a package of monetary policy measures was adopted to support local banks and small and medium-sized enterprises.	Bank profits decreased due to low interest, at the same time customers turned to the use of modern technologies in banking, and small and medium enterprises and individuals benefited from cash facilities

digitization of many service the production activities, which may lead in the near future to raising efficient use of resources, expanding the use of financial and banking services, and increasing productivity of SMEs, which will in turn SMEs' in increase competitiveness international markets, as well as increasing transparency in the business environment. However, in order for such ambitions to materialize, the private sector must work hand-in-hand with the government continue investing in information technology and data infrastructure in order to facilitate the use of digital tools in education, health, commerce, supply chains, and production.

Impacts of Improved Oil and Gas Markets

As mentioned previously, the decrease in annual average global oil and gas prices in 2020 contributed to: (1) a decline in the nominal GDP by 18%, and (2) a decline in the value of merchandise exports by 29%, which led to: (a) a decrease in the state's public revenues from oil and gas by 21.5%, and (b) the decline of the current account of the balance of payments by 2.5% of GDP. This, in turn, affected the course of non-oil activities, especially those depending on public and mixed sector financing. However, the rate of decline varied at the quarterly level, as many economic activities have recovered since the beginning of Q4 of 2020, as follows:

Recovery of Qatar's Value of Exports

The nominal value of Qatari exports is affected by the change in global prices and quantities of demand for hydrocarbon products. Any adjustment in energy prices, negatively or positively, leads to a direct change on the export curve with a direct relationship of 97%, as shown in Figure (2-

19), as the decrease in the rate of change in energy prices by 39.4% in 2015 led to a decrease in the rate of change in the value of exports by 39.2%.

Likewise, due to the average rate of change in energy prices in 2020 declining by about 31.3% due to the decrease in global demand as a result of the social and business closures and the accompanying uncertainty. together with the price war that broke out between energy producing and exporting countries, these factors combining led to a decrease in the rate of change in the nominal about value of exports by 29.4%. Nonetheless, when calculating the value of exports at constant prices using the World Bank's monthly energy index based on 2010 dollars as a deflation index, the calculated exports data showed that they relatively increased. Notably, once prices improved during the first three quarter of 2021, the nominal value of exports improved significantly by 57% compared with the same period in 2020.

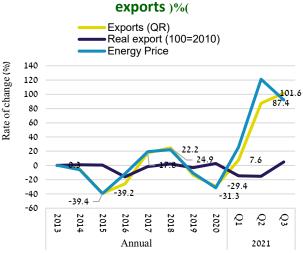


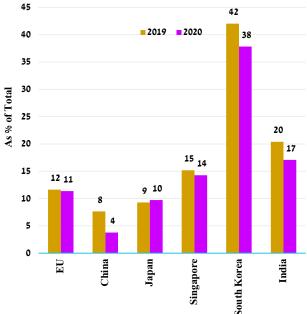
Figure 2-19: Real and current values of

Source: Planning and Statistics Authority and World Bank Oct-2021

As for the level of change in Qatar's exports value according to the countries of destination in 2020 compared to 2019, it is evident from Figure (2-20) that more than 75% of such exports were heading towards countries that were significantly affected by Covid-19 pandemic shutdowns. This led to a decline in financial returns from the European Union, Japan, Singapore, and South Korea, but financial returns rose from the rest of the other countries, including China and India.

With regard to the total value of imports, these declined from QR 106 billion in 2019 to QR 94 billion in 2020, where most of the decline came from the decline in the import value of machinery and equipment, followed by hydrocarbon derivatives, manufactured goods and others. This is attributed to the slowdown in aggregate demand consumption and investment caused by a change in the behavior of consumers and investors, such as the change in their consumption patterns, or the decrease in purchasing power due to a decline - or merely the fear of such a decline - in the incomes of individuals and institutions, or because of the uncertainty that prevailed in all countries. The decline in domestic aggregate demand further led to the decline in the inflation rate from negative 0.9% in 2019 to negative 2.6% in 2020 (see prices section).

Figure 2-20: Exports by country of destination

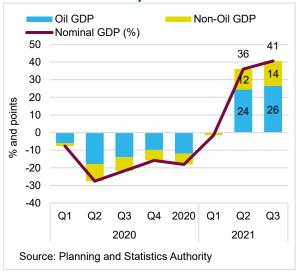


Source: Planning and Statistical Authority

Recovery of Major GDP's Components

The decline in oil and gas prices had the greatest impact on the annual (Y-o-Y) rate of change of the quarterly nominal GDP during 2020 and 2021. At the beginning of the pandemic, the oil sector contributed to a GDP decline in Q2 of 2020 by about negative 17.8 points. compared percentage contribution of about negative 9.8 percentage points for non-oil activities, as shown in **Figure** (2-21).However, with improvement in oil and gas prices since the beginning of Q3 of 2020, the negative contribution percentage decreased once more during Q4 of 2020 before stabilizing in the first quarter of 2021 and subsequently growing in Q2 and Q3 of 2021.

Figure 2-21: Quarterly nominal GDP and its components



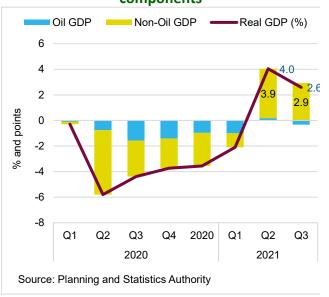
As for the annual rate of change of real GDP at constant prices, it also witnessed a decline during the last three quarters of 2020, which lasted until Q1 of 2021, before witnessing growth during Q2 and Q3 of 2021, mainly caused by the gradual lifting of restrictions imposed to contain Covid-19, as Figure (2-22) indicates.

It is worth noting that non-oil activities were the largest contributor to the reduction of GDP growth rate during the second quarter of 2020 by negative 5 percentage points compared to just negative 0.8 percentage points for oil activities. Non-oil activities continued to contribute negatively to the annual rate of change of GDP until the end of Q1 of 2021, before becoming the actual engine of growth during the Q2 and Q3 of the same year.

When examining the contribution to real GDP of oil activities, it noticeable that it continues with its usual influence; since its contribution stabilized in 2013, it negatively contributes to the annual rate of change in the GDP, resulting from the sector reaching maximum production capacity. Therefore. stoppage of production due any fluctuations in demand or even during the implementation of any periodic maintenance causes, obviously, a reduction in production.

As Figure (2-22) demonstrates, the oil sector's contribution stabilized in Q2 and Q3 of 2021, which reflects the full recovery from

Figure 2-22: Quarterly real GDP and its components



the downturn that occurred during the same period in 2020.

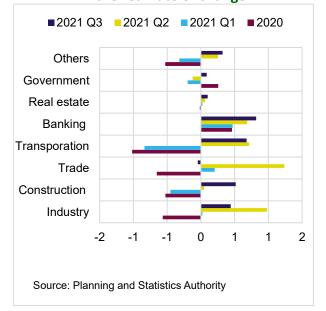
As for the contribution of non-oil sector subactivities, it is evident from Figure (2-23) that all activities - except for those related to government services - witnessed a gradual recovery during Q1 and Q2 of 2021, but in varying proportions that reflect the extent to which activities benefited from: (1) raising Covid-related restrictions, and (2) supportive financial incentives provided by government in the amount of an estimated QR 75 billion, together with tax exemptions, reductions in fees, and other administrative measures.

In regard to government services, these witnessed good growth in 2020, which reflected the effects of coordinated policies supporting government actions to meet the challenges of the Covid pandemic, but once the health situation stabilized and most restrictions were eased, government support of the economy was also eased, especially in the field of employment.

The effect of government support can be inferred by looking at the development of activities of the financial and insurance sector, whose growth rate was not affected during the year 2020 due to the support it received, both financial and administrative. Concomitantly, the wholesale and retail trade sectors, as well as the industrial sector, which consists of manufacturing, electricity, and water, achieved a positive growth rate since the beginning of the first quarter of 2021, due to the support measures provided, in the form of financial support as well as exemptions from customs and rents in the industrial and logistical areas and Al Furjan markets.

Similarly, in the sub-activities of the services sector, the most important of which are transport and storage activities, and those activities related to tourism, such as restaurants and hotels, together with arts and culture, their contribution showed recovery during the Q2 and Q3 of 2021, having been among the activities most affected by the Covid-19 containment measures.

Figure 2-23: Contribution of non-oil activities to the real rate of change



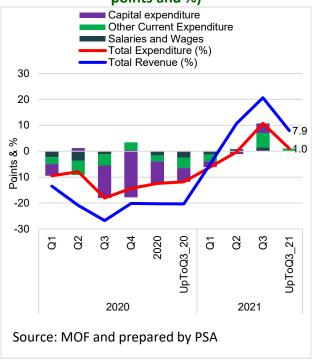
Stability of the Public Finance

Due to the fact that most of the world's governments had to contend with the burdens of facing the repercussions from pandemic containment measures, among the most prominent features of the impact of the Covid-19 pandemic on the economies of countries were (1) the decrease in public revenues resulting from the decline in economic activities and thus led to the decline of national financial revenues from taxes and property income; (2) on public expenditures, both current and capital, which witnessed either a rise in public spending via the provision of financial incentives, or by or rationalizing controlling government expenditures for some of the government services, while covering any deficits accrued increasing domestic and external borrowing. According to the estimates²⁸ of the International Monetary Fund, the financial incentives and support for the affected sectors amounted to about US\$ 16 trillion.

The State of Qatar, in common with other countries, had its public revenues affected by the decline in oil and gas compounded by the postponement of tax payments. It also provided an incentive financial support of QR 75 billion, which was distributed to back a lending mechanism for commercial banks, as mentioned previously, by about QR 50 billion, while also directing funds government to increase their investments in the stock market with QR 10 billion, and authorizing the QDB to implement the Covid-19 National Response Guarantees Program at a level of about QR 5 billion. The total support was financed through controlling expenditures as shown in Figure (2-24). The process of expenditure control was gradually implemented according to the revenue

stream in Q1 of 2020, through (1) reducing capital expenditures and then stabilizing them during the remainder of the year, (2) continuing to reduce current expenditures, of which salary and wages expenses constitute (a) reducing some one of its items by financial privileges and allowances for Qatari employees, and (b) reducing salaries by a percentage and canceling travel allowances for non-Qatari nationals. However, it is remarkable that as soon as global oil and gas prices rose since the beginning of Q4 of 2020, public revenues witnessed a tangible improvement that enabled the Ministry of Finance to pay the dues of employees who were laid off when reaching retirement age or for being surplus workers, which therefore led to an increase in the expenditures on wages and salaries in 2020. As for the budget implementation data for the first three quarters of 2021, it shows a growth in public revenues by 8% and public expenditure by 1.0%.

Figure 2-24: Public expenditures (percentage points and %)



²⁸https://blogs.imf.org/2021/07/20/seizing-the-opportunity-for-a-pro-growth-post-pandemic-world/

Stability of the QCB Assets

Dealing with Covid-19 repercussions in 2020 was not only limited to the increase in government support by all according to the IMF experts' estimates but also the central banks around the world increased their balance sheets (financial assets), by about US\$ 7.5 trillion, to integrate with the expansionary financial policies adopted by governments to provide the necessary liquidity to continue economic activities.

The measures taken by the QCB to confront the financial challenges faced the Qatari economy during the period (2016 through November 2021), including the repercussions of fluctuations in oil and gas prices, the blockade of 2017 - 2020, and measures to contain Covid-19, led to an increase in its balance sheet by about QR 82 billion during the same period, equivalent to US\$ 22.5 billion, including \$11.8 billion since the onset of COVID-19 (January 2020).

To meet the challenges has faced the Qatari economy since the collapse of oil prices in 2015, the procedures of the Qatar Central Bank have focused on maintaining financial stability and the exchange rates against the riyal, as well as taking measures to manage domestic liquidity. As can be discerned from Figure (2-25), during the blockade crisis that started in mid-2017, which caused immense pressure on liquidity, the QCB was forced to withdraw part of its external official reserves, i.e., its balances with foreign banks and its liquid investments in foreign bonds and treasury bills, and deposit them into local banks. As soon as financial stability had been restored, the QCB reversed these measures in the following two years, 2018 and 2019, together with the first quarter of 2020, as it reduced its deposits with local banks in favor of increasing its balances with

foreign banks and its investments in foreign bonds and treasury bills.

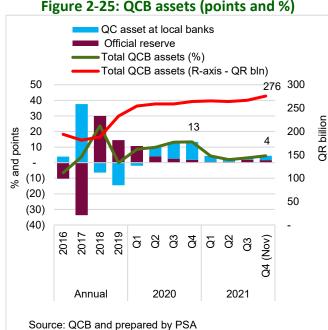


Figure 2-25: QCB assets (points and %)

In regard to the measures taken by the QCB to contend with the repercussions of Covid-19 during the period (April 2020 - November 2021), they are relatively different from the measures that were taken during the blockade in terms of both size and rate of change, as it is the case that that QCB increased its deposits with local banks during the first quarter of 2020 as a precautionary measure to counteract any pressure in local liquidity. However, at the same time, it increased its investments in foreign bonds and treasury bills at the expense of reducing its balances with foreign banks for the purpose of maintaining official reserves in good standing.

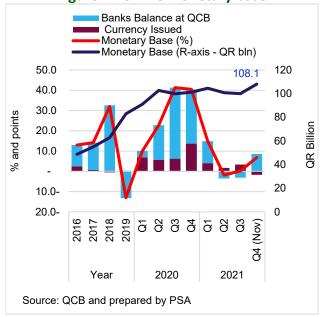
And QCB continued to use these procedures as required; for example, during the first eleven months of 2021, QCB raised its investments in foreign bonds and treasury bills from QCB QR 85.9 billion in January of 2021 to QR 105.7 billion in November 2021, in return for reducing its balances with foreign banks from QR 48.5 billion in January of 2021

to QR 29.8 billion in November 2021. As is often the case, it may be more profitable to invest in bonds and treasury bills rather than keep investments as deposits at low interest rates

It is clear from the monetary base data, as shown in Figure (2-26), that the management of domestic liquidity during the year 2020 was formulated on an increase in the monetary base by 28.6%, through (1) an increase in the currency issued by 8.1 percentage points, and (2) an increase in commercial bank deposits in the central bank by 20.5 percentage points.

As for the increase in the currency issued, it may in turn reflect the increase in the value of gold reserves resulting from the increase in the revaluation account, a consequence of the increase in international gold prices. As

Figure 2-26: The monetary base



regards the increase in the deposits of commercial banks, these consist of "excess reserves" and "other reserves" that are usually deposited at the QCB to benefit from its interest payment while at the same time having them available to use to pay their dues when required.

The QCB also uses these reserves as a measure of Primary Liquidity, as its increase indicates an abundance of liquidity, while conversely, its decrease indicates a scarcity of liquidity.

The same measures were also repeated during the period November 2020 to November 2021, when the monetary base increased by an average of 14%, as this increase derived from an average increase of 4.4 percentage points in the issued currency, as well as from an increase in commercial bank deposits (others) with the Central Bank by 2.4 percentage points (not including required reserve or excess reserve).

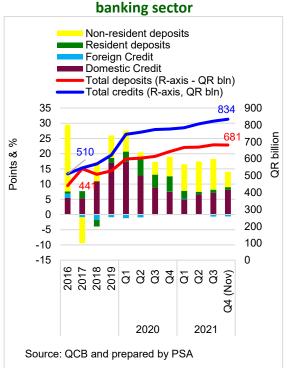
In general, QCB creditworthiness can be measured using the international reserves adequacy criterion as a percentage of the currency issued, which amounted to about 624% at the end of November 2021, while it is required by law to be only 100%. It is noteworthy that the level of total international reserves and foreign currency liquidity amounted to about QR 209.6 billion in November 2021, equivalent to US\$ 57.6 billion, of which about 72.9% are official reserves.

Domestic Liquidity Pressures

Credit facilities provided to the private sector during 2019 grew by about 16.1%, as shown in Figure (2-27), which led to attracting nonresident deposits that grew at a rate of 23%, while residents' deposits grew by about 2.4%. Most of the growth in credit facilities came from domestic credit, especially for those activities related to wholesale or retail trade, and service activities such as oil well maintenance services, gas distribution, handicrafts, legal advice, real estate sales and brokerage services, and so on. However, in light of the light growth of domestic deposits, which constitute about 64% of total deposits, the gap between the private sector's total deposits and total credit has widened from QR 62 billion in 2017 to QR 93 billion in 2018, i.e., an increase of 51% compared to 2017.

With the continued rise of domestic credit and non-resident deposits, against the stability of domestic deposits during 2019, led to an increase in the gap widening from QR 93

Figure 2-27: Private sector account with then



billion in 2018 to QR 145.5 billion in 2019, with a growth rate of 56%.

Given the decline in economic activities during 2020 as a result of Covid-19 containment measures, the gap on average amounted to about QR 148 billion during 2020, with a maximum of QR 165 billion in August 2020, and a minimum of QR 134 billion in December 2020, and therefore the average gap increased by about 2.2% compared to December 2019.

As for the period (January – November of 2021), the gap on average amounted to about QR 132 billion, with a maximum of QR 153 billion in November 2021, and a minimum of QR 104 billion in April 2021, and therefore the average gap decreased by about 11.7% compared to the average of the same period of 2020, as a result of the growth of non-resident deposits by an average of 25.8%, coupled with a decrease in the pace of domestic credit growth from double digits to single digits, which averaged just 6.3% instead of the level it was at in 2020, i.e., about 13%.

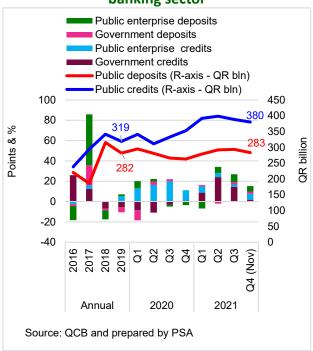
Regarding the credit facilities provided to the public sector (both government and public enterprises) in 2019, the governmental and semi-governmental enterprises paid part of their indebtedness to the banking system, but public enterprises have significantly increased their borrowing, growing it by 14.6% compared to 2018. Owing to the government's use of part of its deposits in the banking sector - perhaps to repay loans - the total of the public sector's deposits declined at a higher rate than the decline in the public sector's credit, which led to a further gap between them, advancing from QR 26 billion in 2018 to reach QR 37 billion in 2019, i.e., a growth rate of 40%.

In 2020, the government continued the process of paying back its borrowing dues to

the banking sector during the year's first three quarters, while public enterprises, as in 2018 and 2019, again increased their borrowing during the same period, as Figure (2-28) indicates. On the other hand, the government continued to use its deposits with the banking system during Q1 of 2020, but it rapidly increased its deposits during Q2 of 2020 with a view to supporting the banking sector to contend with the economic repercussions of Covid-19. However, public enterprises concomitantly withdrew part of their deposits with the banking sector. The final outcome for 2020 was a decline in the total public sector deposits at a rate higher than the decline in public sector credit, which led to a further gap between the two, widening from QR 44 billion in December 2019 to an average of QR 61 billion in 2020, i.e., a growth rate of 37%.

As for the period (January – November 2021), the gap increased to an average of QR 114 billion, with a maximum of QR 135 billion in April 2021, and a minimum of QR 95 billion in September 2021, with a gap

Figure 2-28: Public sector accounts with the banking sector



widening of 87% compared to the average of the same period of 2020, given that the government and public enterprises resumed borrowing from the banking system with an average of 18.4%, while the growth of deposits remained only modest at around 2%.

Stability of the Public Debt

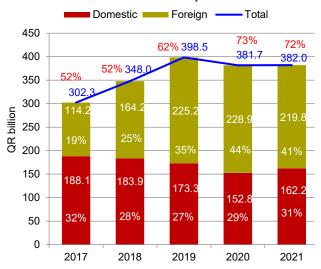
The public debt (government's net debt) decreased from QR 398 billion in 2019 to QR 382 billion at the end of 2020, as shown in Figure (2-29). Most of this decline was due to the payment of local (domestic/internal) debt installments, together with the non-issuance of any domestic public debt instruments, leading the domestic debt to decrease from QR 173.3 billion in 2019 to QR 152.8 billion at the end of 2020. With regard to the net foreign debt level in December 2020, it rose from QR 225 billion in 2019 to QR 229 billion at the end of 2020, due to the issuance of international sovereign bonds in 2020 as well as borrowing from international financial institutions at the LIBOR rate (LIBOR will be eliminated see Box 2-7). However, a large part of Qatar's foreign debt installments was paid during 2020, which resulted in a net increase of external debt, as enumerated above, of about QR 4 billion.

And based on the statement of the general budget for the second and third quarters of 2021, issued by the Ministry of Finance, it indicates that the total foreign debt installments that paid and will be repaid during 2021 are about QR 15.3 billion. Regarding the net flow of domestic debt in 2021 will amount to about QR 10.2 billion, and therefore the total public debt will reach about QR 382 billion by end of 2021, as Figure (2-29) indicates.

As for the domestic debt flows from public debt instruments - bonds, sukuk, and (to some extent treasury bills) during 2020 and 2021, they are as follows: in 2020, QR 7.2 billion were issued as treasury bills to replace what was repaid, and no treasury bonds were issued. Instead, regular bonds amounting to QR 18.7 billion and sukuk amounting to QR 2.5 billion were paid, which means that about QR 21.3 billion in liquidity was pumped into the Qatari money market in 2020.

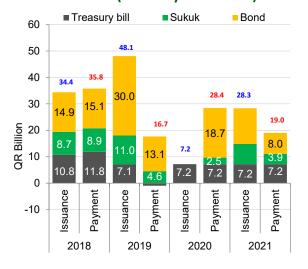
calculating the net debt for 2021, preliminary estimates until the middle of December 2021 indicate that QR 7.2 billion of treasury bills were issued to replace what was repaid, i.e., about QR 7.2 billion. Moreover, ordinary and sukuk treasury bonds were issued at an amount of QR 13.45 billion, and QR 7.65 billion, respectively. anticipated that by the end of 2021, the treasury bond payment will be QR 19 billion as indicated in Figure (2-30): ordinary bonds amounting to QR 7.98 billion and sukuk amounting to QR 3.85 billion and TB of QR 7.2 billion, which will have the outcome that about QR 9.28 billion will be absorbed as liquidity from the Qatari money market.

Figure 2-29: Government debt (as a value and as % of GDP)



Source: MOF and prepared by PSA (Dec 2021)

Figure 2-30: Issuances of Treasury Bills and Bonds (Ordinary and Sukuk)



Source: QCB and prepared by PSA (Dec 2021)

Box 2-7: Towards Replacing the LIBOR Benchmark for Interest Rates

The London Interbank Offered Rate - known as LIBOR – has been used over the past four decades as a major benchmark for setting interest rates charged on adjustable-rate loans and a variety of mortgages. It is calculated in five currencies: UK Pound Sterling, the Swiss Franc, the Euro, Japanese Yen, and the U.S. Dollar. While it was first established in the late 1960s, it has been in official use since 1986. It is widely used as a benchmark and it is estimated that residential mortgage and consumer loans based on LIBOR reached US\$ 1.2 trillion in 2018 and US\$1.3 trillion in 2019, respectively. However, LIBOR will be discontinued by December 31, 2021.

The idea is that 18 international banks submit their assumptions about the rates they think they would pay if they had to borrow money from another bank in the London interbank lending market. To help protect against extreme highs or lows that could trigger a LIBOR price skew, the Intercontinental Exchange (ICE) Benchmark Administration removes the four highest submissions and the four lowest submissions before averaging the remaining ten.

Since 2008, a number of relevant agencies around the world have been calling for the dismantling of LIBOR, including ICE, arguing that this standard was misused causing the 2008 financial crisis, in particular the abuse of credit default swaps (CDS).

Additionally, in 2012, extensive investigations into the way LIBOR was structured revealed a large-scale and long-running scheme among several banks including Barclays, Deutsche Bank, Rabobank, UBS and the Royal Bank of Scotland, to manipulate LIBOR rates for profit.

But the most important argument behind invalidating LIBOR is what ICE points out in its assessment about the issue, which is that banks do not do business the same way, and as a result, LIBOR rates are becoming a less reliable standard due to the new banking techniques. This is why ICE is not interested to continue to guarantee LIBOR after the end of 2021.

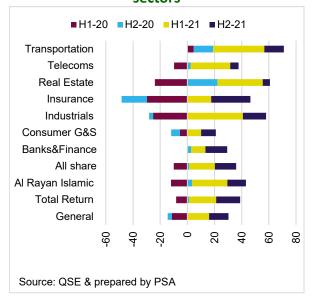
The world's major economies are now moving away from using LIBOR, using a so-called LIBOR transition, with two interest rate alternatives to replace LIBOR, called "risk-free references" ("RFRs"), as Table 1 indicates. These alternatives are focused on the following: "In the UK, the Sterling Risk-Free Reference Rate Working Group (the "Working Group") has recommended the use of the Sterling Overnight Indexed Average (SONIA) and in the US the Alternative Reference Rate Committee (ARRC) has recommended the use of the Secured Overnight Financing Rate (SOFR) as RFRs to replace sterling and US dollar LIBOR respectively. Swiss Average Overnight (SARON) for Swiss Francs, Tokyo Overnight Average Rate (TONAR) for Yen and the Euro short term rate (€STR) for Euros. In this briefing, we will focus on SONIA and SOFR."

Table (1) for Box (2-7): Two interest rate alternatives to replace LIBOR, called "Risk-Free References" ("RFR")							
	SONIA	SOFR	LIBOR				
	Overnight	Overnight	7 tenors from overnight to 12 months				
Tenor	Backward-looking and historic	Backward-looking and historic	Forward-looking				
Currencies	Currencies GBP USD GBP, USD, YEN, SFR and E		GBP, USD, YEN, SFR and EURO				
Publication Time	09.00 (London) on the following London business day (T+1)	08.00 (EST) on the following New York business day (T+1)	11.55 (London) on the London business day (T) for GBP and two London business days before (T-2) for the other currencies				
ConceptUnsecured overnightSecured overnightUnsecured borrowing for the periodMeasuringborrowingborrowingin question							
Source: All information in this box was obtained from https://www.forbes.com/advisor/investing/what-is-libor/, and https://www.wfw.com/articles/libor-transition-what-why-when-how							

Stability of the Financial Market (QSE)

After the quarterly data of the 2020 QSE General Index showed a decline of negative 7.7%, with a maximum of negative 1.3% and a minimum of negative 13.5%, the data for four quarters²⁹ of 2021 turned around to show an average growth of 15.1%, with a maximum of 21.7% and a minimum of 10.2%. This is due to the improvement across all sectors of the economy, but that varies from one sector to another, as indicated in Figure (2-31).



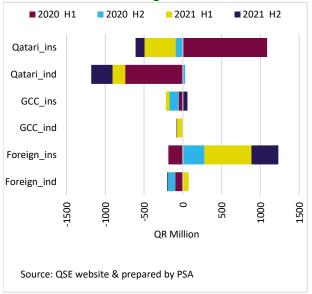


lt is broadly understood that the consequences of the preventive measures and restrictions imposed by many leading economies to contain the spread of the Covid-19 during most of 2020 until the end of 2021, and the subsequent measures to lift the majority of the restrictions, led to fluctuation in the behavior of investors towards investing or refraining from investing in global stock exchanges, including the Qatar Stock Exchange (QSE). The net trading value (purchasing shares minus

selling shares) of the QSE showed a significant discrepancy in the response of QSE investors by nationality and type of shareholders, as well as whether they were individuals or enterprises (institutions), as shown in Figure (2-32).

It is noted that the response of investors of all nationalities in terms of net trading in QSE was negative during the year 2020, while the investment enterprises response of (institutions) from Qatar was positive and their net deals were not affected. This can be attributed to the Government's financial support package granted to the financial market by directing government funds (enterprises) to increase their investments in the stock exchange by an amount of QR 10 billion. On the other hand, the response from foreign investment enterprises (institutions) during the first half of 2020 was negative; however, institutions' net trading turned around to become positive by the end of 2020 and continued to achieve net positive purchases until the end of November 2021. the return of investor This indicates confidence in benefiting from the profits and

Figure 2-32: Developments in QSE trading value during 2020-2021



84

²⁹ Up to mid-December 2021

economic and financial benefits offered by the Qatar Stock Exchange.

As for the net trading deals for GCC investors, they were negative, whether they were individuals or institutions, during the year 2020 until the first quarter of 2021. However, during (April – November 2021), the data showed that while the net institutional investment of the GCC investors returned to a positive level, the net individual investment portfolio remained negative until the end of November 2021.

GCC Stock Markets

For measuring the performance of GCC stock markets indices, as well as the S&P Index (Standard & Poor's), the All-Share Index is used in this report. During 2020, the GCC stock market indices (excluding Oman), as depicted in Figure (2-33), showed that they declined by about negative 8.4%, ranging between negative 15.9% as a maximum, and negative 2.5% as a minimum, against a 9.5% growth in the S&P Index. Most of the decline came from the Dubai Stock Exchange (16.9%), followed by Abu Dhabi, Saudi Arabia, Kuwait, Qatar (4.64%), and then Bahrain (4.2%).

However, all markets recovered during the four quarters of 2021 with an average growth of about 28.8%, ranging between a maximum

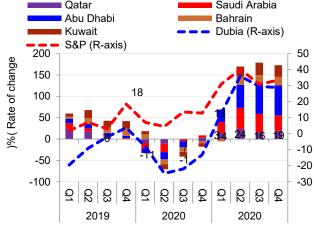
of 55.4% and a minimum of 12.44%, compared to 33.8% growth in the S&P index, and most of the growth came from the Abu Dhabi Stock Exchange (55.4%), followed by Saudi Arabia, Kuwait, Dubai, Qatar (18.5%), and Bahrain (13.6%).

In relation to the average cost and earnings of shares in GCC stock markets, Table (2-4) indicates that the demand for buying shares in Saudi Arabia has been the highest, as the Price-to-Earning (PE) ratio reached about 23.2 points, which suggest high expectations on the part of investors regarding earnings growth in Saudi Arabia, followed by Abu Dhabi, Kuwait, Qatar, Dubai, and Bahrain. With regard to share Price-to-Book (P/B) ratio

Figure 2-33: Rate of change of the All-Share
Index for GCC and S&P indices

Qatar

Saudi Arabia



Sources: Refinitiv Eikon (Dec. 2021) & prepared by PSA

Table 2	2-4: Perfo	rmance of C	GCC's Stock	Markets	Indices

	.QEAS	.QSI	.ADI	.DFMGI	.TASI	.BAX	.KWSE
	Qatar -		UAE				
	All-	Qatar	ABU	UAE	Saudi		
	Share	General	DHABI	DUBAI	Arabia	Bahrain	Kuwait
Index Points	3,519	11,082	7,652	2,901	11,180	1,666	6,813
Price to earnings ratio	16.1	16.1	21.1	14.7	23.2	12.9	20.8
Price to Book ratio	1.4	1.5	2.2	0.9	2.7	1.0	1.4
Dividend Yield (%)	2.7	2.8	3.0	2.7	2.4	2.0	2.4
Volatility - 200 days	9.1	9.9	11.4	13.5	10.2	6.3	7.5
Year to date performance (%)	10.0	6.2	51.7	16.4	28.1	11.8	22.8
Year on year performance (%)	14.7	12.1	68.7	27.8	39.9	20.6	28.8

Sources: Refinitiv Eikon, downloaded on December 2021 and prepared by PSA

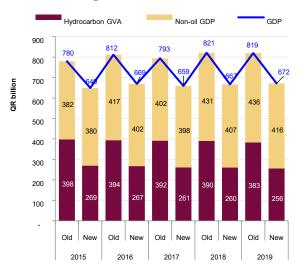
in Qatar, it reached 1.45, which is lower than Saudi Arabia and Abu Dhabi, but almost equal to Kuwait, and higher than Dubai, and Bahrain. In terms of Dividend Yield, the Qatar Stock Exchange reached an average of 2.75%, which is equal to Dubai, and lower than Abu Dhabi, but higher than the rest of the other Gulf markets.

Economic Development (2017 – 2019)

Updating the base year from 2013 to 2018 and updating the GDP calculation with economic survey data for the years: 2017, 2018 and 2019, led to a significant change in annual values and rates of change in GDP, both at constant and current prices as shown in (Box 2-8 and Box 2-9). Figure (2-34) indicates that the real value of GDP at constant prices during the period (2015-2019) has been adjusted downward with an annual average of about 17.5%, reflecting the alteration affecting the GDP deflator due to the change in the base year, as indicated in Table (2-5). Thus, given the sharp price fluctuations in global goods and services markets during the period (2013 - 2019), the GDP deflator moved upward by an annual average of about 19.5%. Most of such increases are attributed downward to

fluctuations in oil and gas prices that led to a rising hydrocarbon GDP deflator, at an average of 49.5%, which reduced the value of real GDP.

Figure 2-34: Real GDP



Source: Planning and Statistics Authority

Table 2-5: GDF	Pipel Deflators f	for the N	/lain GDP	Sectors
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	2013	2014	2015	2016	2017	2018	2019
GDP deflator (2013=100) (Points)	100	100	76	69	75	85	81
Hydrocarbon GVA deflator	100	98	56	42	50	66	59
Non-hydrocarbon GVA deflator	100	101	96	97	99	102	101
GDP deflator (2018=100) (Points)	123	121	91	83	89	100	96
Hydrocarbon GVA deflator	147	145	82	61	76	100	90
Non-hydrocarbon GVA deflator	102	102	97	97	97	100	99
GDP deflator (%)	23%	21%	20%	19%	18%	18%	17%
Hydrocarbon GVA deflator (%)	47%	48%	48%	48%	53%	52%	51%
Non-hydrocarbon GDP deflator (%)	2%	1%	0%	0%	-1%	-2%	-2%
Average oil price per barrel (US \$)	102	95	49	42	53	65	61
Average gas prices per million per million BTUs (\$)	14	13	10	6	7	8	9

Source: PSA

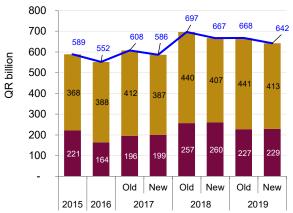
The nominal value of GDP at current prices has been adjusted downward at an average of 3.9% during the period (2017-2019), as Figure (2-35) indicates, due to the use of annual economic survey data to update GDP data during the same period. This led to: (1) correcting the estimates of the Gross Value added (GVA) of Liquefied Natural Gas (LNG) and the building and construction activities, (2) narrowing the gap between the nominal and real GDP values, and (3) a decrease in per capita GDP by 2% due to a rising deflator and a stable population growth rate of 2.2%.

As for the adjustments that occurred to the annual rate of change of GDP at current and constant prices during the period (2013 - 2019) as formulated against the base year, it becomes clear that the nominal GDP fluctuated as a result of changes in prices, whereas the real GDP gradually declined, as shown in Figure (2 -36)

Figure 2-35: Nominal GDP

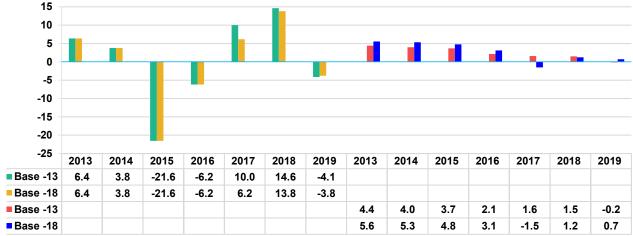
Hydrocarbon GVA
Non-oil GDP

0
0
697
667
668



Source: Planning and Statistics Authority





Source: Planning and Statistics Authority

Box 2-8: Re-estimating national accounts based on new base year 2018 prices International guidelines for national accounts, including the 2008 System of National Accounts (SNA), recommend updating the base year at least every five years to take into account relative changes in prices. Given that the Qatari economy has gone through significant economic and social developments and adjustments during the period 2013-2020, including both the positive and negative aspects of the repercussions of the 2017-2020 blockade on several economic activities, It became necessary to change the base year of 2013 because calculating the gross domestic product on the basis of 2013 prices has become unrepresentative of, and inadequately expresses, the market value of the products and services of the Qatari economy. In addition to the relative changes in the weights of the state's economic activities, the weights of consumer and service goods have also changed.

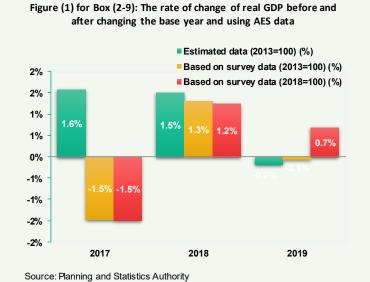
Taking these factors into consideration, the Statistics Department in PSA recalculated the GDP of 2011 and 2019 using:

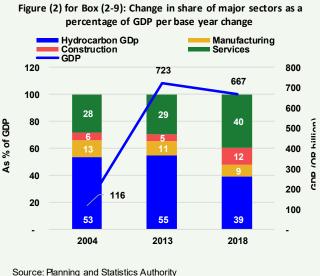
- 1. Data of the Household Expenditure and Income Survey 2018, to calculate GDP by the expenditure approach, and to recalculate new weights for the CPI (2018 instead of 2013).
- 2. Changing the base year for calculating GDP from 2013 prices to 2018 prices.
- 3. Using annual economic survey data (AES) (2017, 2018, 2019) and updated supplementary data from other sources such as the Ministry of Finance, QE, QSE, and public and private institutions (enterprises), which has led to:
 - The economy's composition (as a percentage of GDP) has been changed due to the changing of weights, as shown in Figure 1 below.
 - The percentage of the hydrocarbon sector decreasing from about 55% of GDP in 2013 to 39% in 2018.
 - The percentage of the industry sector, including electricity and water utilities, declining from 11% to 9% during the same period.
 - The percentage of the services sector increasing from 29% to 40%, and the percentage of the building and construction sector rising from 5% to 12%.

Box 2-9: Updating GDP estimate of 2017, 2018, 2019 using annual economic survey data. One of the most important factors that emphasized the importance of making an adjustment to the base year is what the final results of the Household Expenditure and Income Survey (HEIS) for the year 2018 showed of slight changes to the household consumption basket, in addition to the fact that the survey was implemented during the period when global oil and gas prices were high but relatively low compared to the prices of 2013 as the old base year, as shown in Table (2-5 above).

The calculation of the GDP for the years: (2019, 2018, 2017), using annual economic survey data, led to a change in the annual growth rates for the same years, compared to what was previously published in press releases and reports of the Planning and Statistics Authority, including the Qatar Economic Outlook No (12) for the period (2020-2022) using annual data collected from the quarterly GDP, as indicated in Figure (2) below.

However, despite the importance of changing the base year every five years to calculate the real GDP, there remain many shortcomings in this method since it does not keep pace with the rapid changes that the world is witnessing today, whether in production technology, consumption and investment patterns, or foreign trade. Therefore, most developed countries use the chain link index method instead.

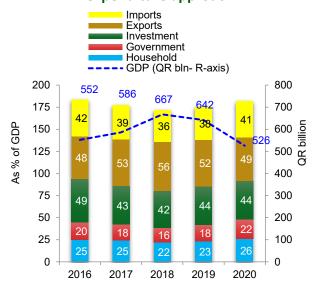




GDP as Determined by the Expenditure Approach

From the foregoing, it was found that updating the nominal GDP data with the data of annual economic surveys for 2017, 2018, and 2019, led to an adjustment of its annual rate of change, and, thus, to a change in the proportion of its components when utilizing the expenditure approach for the same

Figure 2-37: Share of GDP components by expenditure approach



Source: Planning and Statistics Authority

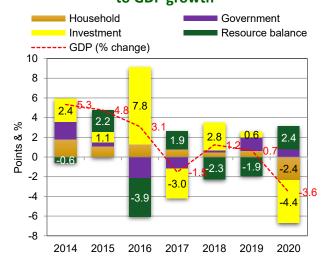
period, as Figure (2-37) indicates. Compared to 2016, the proportion of capital formations decreased in favor of an increase in the proportion of the rest of the components, but to varying degrees. Perhaps the reason is that the data of the economic surveys corrected the estimates of the component of capital formations in which the inventory component is used as a "residual" - that is, absorb statistical computational to differences when calculating GDP by the expenditure approach, so that it is equal to the GDP by the production approach.

As for the contribution of expenditure components to the formation of the average

annual rate of change of real GDP during the period (2014-2019), it has been oscillated between positive and negative. Yet, exports continued to lead the changes; when its contribution increases, the rate of change moves upwards, and when it decreases, it moves downwards, as shown in Figure (2-38).

It is noted that net foreign trade (exports of goods and services minus imports of goods and services) contributes to the occurrence of successive economic cycles of the Qatari economy with its different stages between growth and contraction. It is noted that when net foreign trade achieves a surplus, aggregate demand perhaps increases. because such a surplus is used to increase consumption together with boosting private and government investment, and vice versa, that is, a deficit subsequently affects consumption and investment rates. However, the year 2020 was an exceptional year due to the repercussions of measures to contain Covid-19 on aggregate demand (consumption and investment).

Figure 2-38: Contribution of expenditure items to GDP growth



Source: Planning and Statistics Authority

The Diversification of Sectoral Activities

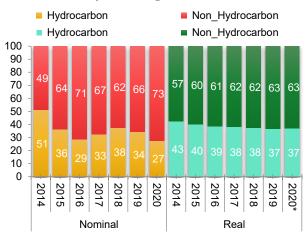
The Qatari economy faced several major challenges during the period (2014-2020). which contributed to bringing about relative changes in the structure of the economy, the foremost of which were (1) fluctuations in international prices and demand for oil and gas products and their derivatives, (2) the availability of the necessary financing to establish the infrastructure related diversifying the economy and for hosting the 2022 World Cup, (3) the blockade imposed on the State of Qatar, i.e., the closure of air and sea routes together with the closure of the only land border with Saudi Arabia, which led to economic and social shocks, and (4) the repercussions of Covid-19 containment measures on all aspects of economic and social life.

Using the data of the annual economic surveys for the period (2014-2019), and the estimated data for 2020, it was found that the share of the hydrocarbon sector decreased by about 3.86 percentage points at current (nominal) prices, and by 1.6 percentage points at constant (real) prices, in favor of an increase in the percentage of non-oil activities, as indicated in Figure (2-39). This may be attributed to the impact of economic policies and administrative measures implemented by the government to achieve economic diversification through (1) limiting the negative effects of the blockade, (2) seeking to acquire greater flexibility in the face of fluctuations in oil and gas markets while reducing dependence on these markets as the sole source of financing the state's imports and revenues, and (3) raising the efficiency of resource use to increase productivity, simultaneously maximizing benefits from public and private investments.

Using real data corresponding to economic activities during the same period, it is evident

from Figure (2-40) that the Qatari economy went through successive economic cycles, oscillating between contraction and growth.

Figure 2-39: Main economic sectors as a percentage of GDP

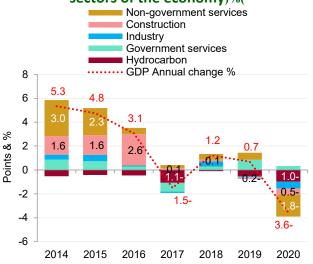


Source: Planning and Statistics Authority

The sectors of services and building and construction played the most prominent role in shaping economic cycles before 2017, as a result of public and private investments in the fields of infrastructure and urban activity and the accompanying activation of governmental and non-governmental services. In addition, the activities of the manufacturing sector witnessed a growth in the fields of refineries and petrochemicals.

(2017-2019),During the period the contribution of building and construction sector underwent a decline as a result of the completion of a large part of the infrastructure projects and the leveling out of manufacturing activities. However, non-governmental services continued to contribute positively to economic growth rates. As for the effects of the measures to contain Covid-19 in 2020. they have clearly impacted the overall economic and social activities during 2020.

Figure 2-40: Annual rate of change of the main sectors of the economy)%(

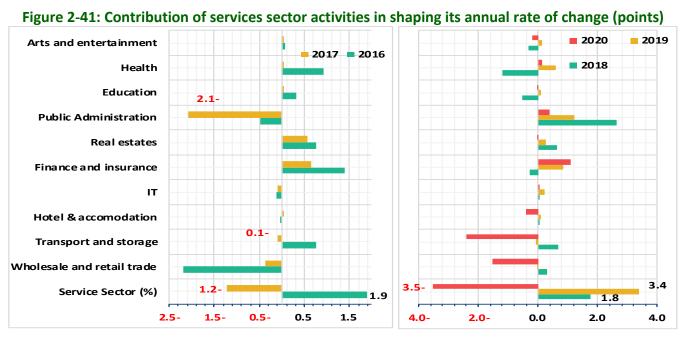


Source: Planning and Statistics Authority

On the other hand, the negative contribution of the hydrocarbons (oil) sector to the real GDP growth rate continued during the period (2014-2019), due to the relative stability of the quantities produced together with limited variations that reflect the periodic maintenance and modernization needs of many oil and gas fields.

Service Sector

On average, the services sector accounted for 42.1% of the real GDP and 68% of non-oil activities during the period (2015-2020). Since it is one of the sectors most affected by any geopolitical and security conditions, as well as health-related repercussions such as Covid-19 counter-measures, GDP data updated with the base year of 2018 and with data from the annual economic surveys indicate that the annual rate of change of the services sector declined in 2017, largely due to the consequences of geopolitical actions. This amounted to negative 1.2% compared to 1.8% in 2016. However, when compared to the rates of change in the following two years of 2018 and 2019, it is clear that the rates of change had become positive, reaching even



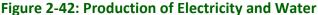
Source: PSA (financial services and customs distributed)

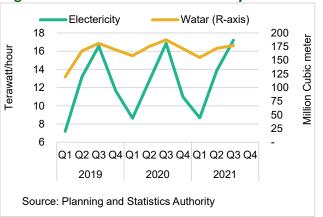
higher than they were before the onset of the political crisis, reaching about 3.4% in 2019 due to the recovery of the services provided by the wholesale and retail trade, transportation, hotel and catering sectors, and the stability of the sectors of real estate and government public administration.

However, the repercussions of the Covid-19 counter-measures led to a decline in the performance of most service sector activities in 2020, mainly due to the reduction in the contribution of aggregate demand to the real GDP growth rate, the contribution of private and government consumption decreased by 2.2 and 0.5 percentage points, respectively. While the contribution of capital formations increased by 7.8 percentage points, and the contribution of imports and exports decreased by 4.4 and 12 percentage points, respectively.

Electricity & Water Production

The average production of desalinated drinking water derived from sea water in the State of Qatar until the end of 2020 was about 692.4 million cubic meters, with the generated electrical energy amounted to about 49.2 terawatts per hour during the same year. Figure (2-42) shows that the electricity production process is more affected by seasonal changes than the water





production process is. This is due to the health-related necessity of usina conditioning to keep public and private spaces cool during heatwaves. Moving now to 2021, the production of desalinated drinking water from seawater until the end of September 2021 amounted to about 503.8 million cubic meters, and the production of electric power amounted to about 39.7 terawatts per hour. Assuming the fourth quarter of 2021 will be the same as the same quarter of 2020, total water will be less, but electricity will be more.

Public Finance Performance Budget Balance

The budget balance³⁰ in 2020 achieved a deficit of negative 2.1% of GDP, mostly due to the decline in oil and gas prices, which dropped from a weighted average of \$60.8 per barrel in 2019 to an average of \$48.3 per barrel in 2020. The deficit occurred despite the decrease in expenditures from QR 208.4 billion in 2019 to QR 182.4 billion in 2020. It is attributed to the fact that the deficit was due to the decrease in public revenues more than the decrease in expenditures, as it decreased from QR 214.7 billion in 2019 to QR 171.2 billion in 2020, as shown in figure (2-43).

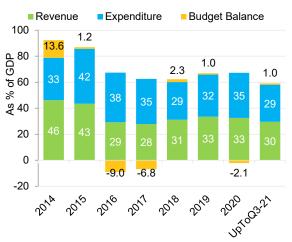


Figure 2-43: Fiscal Balance)%(

Source: MOF and prepared by PSA

³⁰ Expenditures minus Revenues

Meaning that revenues reduction was (20.3%) compared to (12.5%) reduction of expenditure. However, the improvement in oil and gas prices during the first three quarters of 2021 led to a surplus of about 1.0% of GDP.

Public Revenues

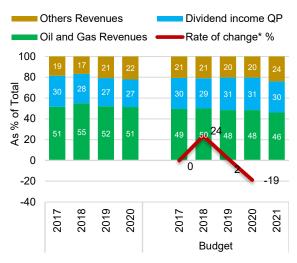
Total public revenues in 2020 amounted to about QR 171.2 billion, equivalent to \$47 billion. These revenues constitute about 32.6% of GDP and derive primarily from oil and gas incomes at 51.3% of the total public revenues, while the investment revenues of Qatar Energy (QE) constitute 26.6%, and all other revenues constitute 22.2%, as shown in Figure (2-44).

On the other hand, preliminary calculations for actual revenues in 2020 show a decrease of 18.9% compared to what was planned (or expected) in the 2020 budget, but when compared against what has been collected in 2019, these declined by about 20.3%. This is mainly due to the decrease in the contribution of oil and gas revenues by about 11.3 percentage points, followed by a drop-in investment returns from QΕ bγ percentage points, followed by the decline of the contribution of other non-oil revenues by 3.2 percentage points.

Public revenues were estimated in the 2021 budget to be about QR 160.1 billion, similar in magnitude to what was estimated in the 2020 budget. However, they are 6.5% less than what has been collected in 2020, mainly due to the adoption of cautious assumptions, including the conservative forecasts of export quantities and prices of hydrocarbon products, where the 2021 budget was prepared on the basis of oil selling at \$40 per barrel compared to \$55 per barrel during the period (2018-2020).

As for the revenues collected during the first three quarters of 2021, about QR 142.2 billion, equivalent to 89% of the total planned in the budget, but with an increase of 7.9% over what was actually collected during the same period in 2020.

Figure 2-44: Public revenues and its components

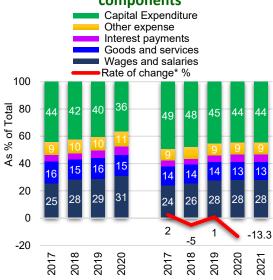


Source: MOF and analysis of PSA (*budgets compared to actual) $\label{eq:power_power}$

Public Expenditures

Preliminary total actual public expenditures in 2020 amounted to about QR 182.4 billion, equivalent to \$50 billion, which constitutes about 34.7% of GDP. Capital expenditures made up 36%, followed by wages and salaries expenditures at 31%, and expenditures of goods and services at 15%, interest expenses at 6.4%, and other expenses at 10%, as shown in Figure (2-45).

Figure 2-45: Public expenditures and its components



Source: MOF and analysis of PSA (*budgets compared to actual)

It is noteworthy that public expenditures went down by 12.5% compared to the actual expenditures of 2019, which also fell by 13.3% from what had been estimated as public expenditures in the 2020 budget. The decline in total actual expenditures in 2020 compared to the actual expenditures in 2019 is due to a decrease in the contribution of expenditures in salaries and wages by 3.9 percentage points, goods and services expenditures by 1.5 percentage points, interest payments expenditures by 2.3 percentage points, and capital expenditures by 8.5 percentage points.

On the other hand, public expenditures in the 2021 budget were estimated to be about QR 194.7 billion, a decrease of 7.5% from what

had been estimated for public expenditures in the 2020 budget. This decrease is mainly due to a decline in capital expenditures by about 18.6% because of the completion of many infrastructure projects, as well as the decline in wages and salaries expenses by 1.9% due to pandemic-related pay cuts for non-Qatari government staff.

As for the implementation of the 2021 budget in terms of public expenditures, the data published on the Ministry of Finance website showed that the total amount spent during the first three quarters of 2021 was QR 137.3 billion, equivalent to 71% of the total planned in the budget, but with an increase by 1% of what was actually spent during the same period in 2020.

Balance of Payments and Foreign Trade

Overall of BOP

In 2020, the overall balance of payments (BOP) achieved a surplus of 0.4% of GDP, as shown in Figure (2-46), with a total value of QR 1.86 billion, equivalent to \$0.5 billion, which concomitantly means that the State's foreign exchange reserves increased by the same amount and proportion. The same

Current Account Capital and Financial Account Net Errors & Omissions --- BOP 20 16.0 15 10.6 As % of GDP 10 5 0 -5 -10 -9.6 -15 -12.7 -20 8 ဗွ 83 8 8 g 201 Annual 2020 2021

Figure 2-46: Overall Balance of Payments

outcome with almost the same amount repeated in Q1 of 2021, however, it declined in Q2 by negative 0.3% of GDP, before witnessing a growth in Q3 by 2.3% of GDP, where most of the overall balance surpluses during the first three quarters of 2021, can be attributed to the current account surplus, as opposed to the financial account deficit, as will be discussed later.

Current Account

The current account consists of the trade balance, plus the balances of services, income, and current transfers. The merchandise trade balance³¹ has taken on the role of being the primary driver of a surplus or deficit in the current account. The impact of the remaining balances (services, income, and current transfers) is limited, and their balance is always negative, since Qatar's outflows are higher than its inflows, as shown in Figure (2-47).

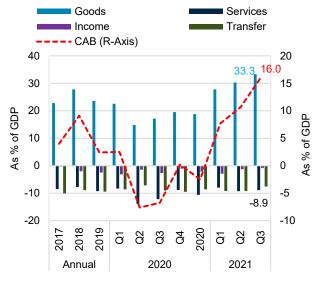
The average net merchandise trade balance in 2020 was about positive 18.8% of the GDP, compared to positive 23.6% in 2019. This is followed by the net transfers balance with about negative 8.6% compared to negative 9.4% in 2019, followed by the net balance of services by about negative 10.6% compared to about negative 9.2% in 2019, then the net income balance by about negative 2.1% compared to about negative 2.5% in 2019.

From the foregoing, it can be concluded that the decline in the trade balance by 4.8 percentage points compared to 2019 was caused by the decline in financial returns from reduced hydrocarbon exports as a result of the repercussions of Covid-19 on the world's economies and the consequent downturn in demand for energy.

It is notable that the balance of services measures the value of services related to trade balance transactions in terms of estimating the cost of services required for export and import; in addition, it records the balance of services for transactions related to transportation, insurance, tourism & travel, and communications services, all of which affected bv Covid-19's were badly repercussions. Consequently, the decline rate in the balance of services witnessed a further deterioration by 1.3 percentage points during the same period.

Conversely, the income balance was also affected positively by Covid-19 repercussions, in favor of the State of Qatar because the decline in foreign investment profits in Qatar led to a decline in outflows; nevertheless, the net balance is still negative. The same applies to the balance of current transfers, where the decline in the income of expatriate workers led to a slight relative decline in the outflows from the State of Qatar to the outside world in the form of expatriates' remittances.

Figure 2-47: BOP Current account balance & its components



³¹ Difference between goods exports and imports

Based on the performance of the net balances of (merchandise trade, services, income, and current transfers) in 2020, the current account recorded a deficit of 2.5% of GDP, with a total value of QR13.2 billion, equivalent to \$3.6 billion, but it regained surpluses during the first three quarters of 2021.

The Financial Account and its Components

The components of the financial account witnessed noticeable fluctuations during 2019 and 2020. The issuance of international sovereign bonds, or borrowing from abroad (debt bonds), or repayment of loan instalments, or banking operations related to currencies and deposits transactions between Qatari banks and foreign banks, had an overall effect on achieving a surplus in the financial account by 3.8% and 2.7% of GDP in 2019 and 2020, respectively, as shown in Figure (2-48).

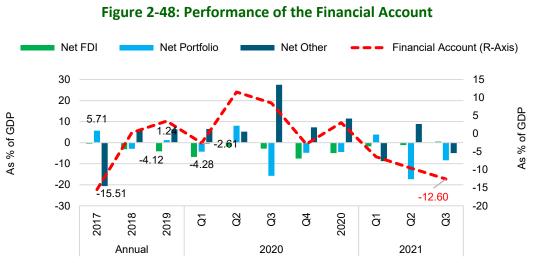
Despite the exceptional impacts of Covid-19 on the balance of payments in 2020, the fluctuations of the components of the financial accounts repeated the same scenario as in 2019, in terms of a significant

increase in Q1, to reflect the impact of issuance of international bonds to finance the state budget deficit, followed by a fluctuation in the remaining three quarters, which reflects developments in monetary and trade policies.

As for the first three quarters of 2021, the financial account continued to decline, driven by the decline in net portfolio investments and other investments, although portfolios and other investments witnessed growth in the Q1 and Q2, respectively, before declining together in Q3.

Foreign Direct Investments (FDI)

Net Foreign Direct Investments (FDI) in Qatar during the period (2017-2020) witnessed a remarkable increase in outflows by investors residing in Qatar to obtain foreign investment assets abroad; as these were significantly greater than the inflows from non-resident investors abroad wishing to acquire domestic assets in national companies in Qatar, therefore the net FDI account attained a deficit during this same period. Here, it should be noted that Q2 of 2019 and Q4 of 2020 achieved cash inflows of QR 1.4 billion and QR 1.95 billion, respectively, probably in favor of investments within the Qatar Free Zones.



Foreign Portfolio Investments (FPI)

The balance of foreign investment portfolios records transactions in the international stock markets related to the equities market or to the debt securities market. Figure (2-49) shows that the net account witnessed semiregular fluctuations during the period (2018-2020), resulting from the effects of the economic and financial policies measures taken by the government to contend with geopolitical events and their repercussions. most notably supporting domestic liquidity, financing the public budget deficit, and repaying the domestic public debt. Moreover, these fluctuations can of course also be attributed to the decline in public revenues due to the repercussions of Covid-19 on the value of exports.

It is clear that the net government actions targeting economic sectors in securities operations; including the purchase of foreign bonds for the purpose of investment, led to a drop in Qatari assets by QR 52 billion, QR 36.4 billion, and QR 25.8 billion, respectively, during each year of the (2018-2020) period.

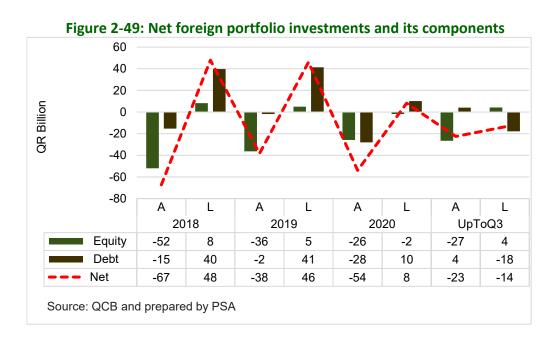
On the other hand, the increase in investment by foreign investors in the Qatar Stock

Exchange (QSE) during the same period led to an increase in Qatar's foreign liabilities by about QR 8.3 billion and QR 5 billion in 2018 and 2019, respectively, before a reverse process took place in 2020, when foreign investors in QSE were more inclined to sell rather than buy shares, which made the net liabilities account of securities reach a negative QR 1.8 billion.

In terms of the development of the net bond market, the purchase of foreign debt securities for the purpose of investment by the government and other sectors has led to a decline in Qatari assets by QR 15.3 billion, QR 2 billion, and QR 28 billion during the period (2018-2020). In contrast, the issuance of bonds for sale, for the purpose of borrowing from the United States market, has led to an increase in liabilities by about QR 40 billion, QR 41 billion, and QR 10 billion during this same period.

As for the first three quarters of 2021, the assets decreased by about QR 27 billion, the possibility of foreign bonds purchase, but the Qatari liabilities increased by about QR 4 billion, the possibility of increasing foreign investors' investment in the Qatar Stock

Exchange. As for debt securities. the assets increased by QR about billion, perhaps to repay part of the indebtedness of foreign debt securities, which led to a reduction of liabilities by about QR 18 billion.



Part 2 - Economic Performance 2017 - 2020

Other Foreign Investments

The net account of other foreign investments, which records transactions related to commercial credit facilities, short-term loans, currencies, and deposits, witnessed semiregular fluctuations during the period (2018 - 2020). This mirrored the factors of deposit attraction between local and foreign banks. Figure (2-50) shows that local assets transferred abroad amounted to about QR 41.7 billion and QR 23.5 billion in 2018 and 2019, respectively, while reverse transfers in 2020 amounted to about QR 2.8 billion. On the liabilities side, such as foreign investors' deposits in local banks, they rose by QR

46.4, QR 78.5 and QR 58.6 billion during this same period.

During the first three quarters of 2021, it appears that loans for the State of Qatar have been paid by QR 3 billion, On the other hand, the liabilities indicate that the State of Qatar has repaid loans of about QR 11 billion. As for the domestic assets of money and deposits, QR 57 billion were transferred abroad. Liabilities indicate that foreign investors' deposits in local banks rose by QR 98 billion during the same period. The other assets and liabilities decreased by QR 5 billion and QR 8 billion, respectively.

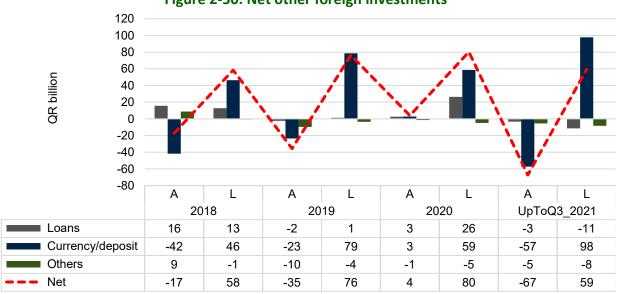


Figure 2-50: Net other foreign investments

Foreign Trade

Given the pivotal role that foreign trade plays in Qatar's economic and social development, the State of Qatar has realized since the beginning of 1990s the importance of integrating its economy with foreign economies. This entailed a comprehensive review of the trade and foreign investment policies of the State of Qatar in accordance with international standards, as shown in Box (2-9).

The average percentage of total merchandise exports of GDP during the period (2017-2020) reached about 41.2%, and the average percentage of the state's public revenues from oil and gas was about 74.1% of the total hydrocarbon exports. In

addition, import activities provide the local market with consumer, intermediate and capital goods, in order to meet the requirements of socio-economic development.

According to World Bank's statistics for 2019, Qatar ranked 42nd in terms of total exports among the world's exporting countries. to 2019 statistics According of International Trade Center, Qatar ranked 64th in terms of total imports among the world's importing countries. It is worth noting that the number of Qatar's trading partners in 2019 sums to 144 countries for import and 156 countries for export. However, due to COVID-19 measures. the numbers decreased in 2020 to 123 and 125, respectively.

Box 2-10: The Development of Foreign Trade and Investment Policies in Qatar In a bid to benefit from the positive effects of the principles of economic openness and liberalization of foreign trade and investment, the State of Qatar has embarked since the beginning of 1990s on modernizing the legal system for foreign trade and investments, whether those related to international obligations or local laws and regulations, which culminated in the State joining the General Agreement on Tariffs and Trade (GATT) on 7 April 1994.

After the GATT Agreement was replaced by the creation of the World Trade Organization (WTO) on 1 January 1995, Qatar ratified the its obligations accession of to the WTO in its national legislation under Decree-Law No. 24 of 1995, issued on 3 December 1995, under the protocol of the State of Qatar's accession to the Marrakesh Agreement Establishing the World Trade Organization, which culminated in Qatar's accession to WTO on 13 January 1996.

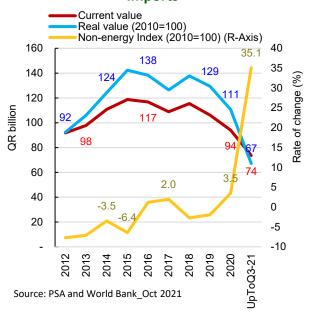
The State of Qatar hosted the WTO's Fourth Ministerial Conference in November 2001, which facilitated negotiations on regulations related to agriculture, services, and intellectual property. The participation of the State of Qatar in the establishment of the Gulf Cooperation Council in May 1981 led Qatar to ratify dozens of agreements on the Reciprocal Promotion and Protection of Investments (RPPI), and Economic, Commercial and Technical Cooperation (ECTC).

Pursuant to Annex 3 of the Marrakesh Agreement of 1995, which provides for the establishment of "The Trade Policy Review Mechanism (TPRM)" with the purpose of assisting member states to conduct a periodic review of trade policies and practices (the most recent amendment thereof stipulates that member states are required to conduct Trade Policy review every 7 years), therefore the State of Qatar conducted a review of its trade policies and practices in three periods: the first was made on 21 February 2005, the second took place on 22 April 2014, and the third was conducted on 6 -8 April 2021. In that spirit, the impact of Qatar's economic openness to foreign economies, measured by the average percentage of total trade exchange for exports and imports of goods and services, reached about 90.8% of GDP for the period 2017-2020.

Volume of Trade Exchange

The role played by energy prices in determining the level of exports previously presented, but non-energy prices also play a pivotal role in determining the level of Qatari imports. Figure (2-51) shows

Figure 2-51: Current and Real Value of Qatari imports



the relationship between prices (other than energy) and the value and size of Qatari imports, and it can be seen from the figure that there is a quasi-inverse relationship that is, in general the lower the price, the greater the quantity of imports. However, this is not necessarily true at all times, because the quantity of imports is subject to the requirements of development, consumer, capital, or intermediate goods. For example, when the State of Qatar witnessed a development renaissance during the period (2014-2015), the value and quantity of imports rose. Moreover, demand for imports needs time to adapt, for example as happened globally during 2020 and the first three quarter of 2021.

For the change in imports as quantities, the non-energy index of the World Bank was used to calculate the real value of imports; after removing the effect of prices on the

nominal value of imports; it was found that the effect of prices on the volume of imports was limited.

Regarding the trade balance for goods, which represents the difference between the value of merchandise exports at Free on Board (FOB) points and the total value merchandise imports after excluding Cost, Insurance, and Freight CIF), it continued to achieve surpluses from 2014 until the first three quarter of 2021. The reason is that the average value of imports as a percentage of GDP (17.9%) is lower than the average percentage of exports (44.7%) during the same period. However, energy prices play a crucial role in determining the level of value of exports and thus determining the level of surpluses. It is evident from Figure (2-52) that there is a direct relationship between the rate of change of exports and the level of surpluses, because the value of exports fluctuated with an average of negative 10%, oscillating between a maximum of 24.9% and a minimum of negative 39.2%.

In contrast, imports experienced rises and falls, with an average of negative 0.2%, a maximum of 13.3%, and a minimum of negative 11.5%, which reflects the impact of a number of variables, most notably: the

Figure 2-52: Components of the trade balance Trade Balance Imports Exports Export Growth (R-axis %) Import Growth (R-axis %) 130 30 110 20 90 of Change 10 As % of GDP 70 0 50 -10 30 -20 10 <mark>8</mark>30 -10 -40 -29.4 -30 oil price drop -50 -50 2018 2019 2015 2020 2017 UpToQ3-21 201

impact of geopolitical tensions on the import of goods, together with the dispensation of importing some heavy-weight goods, such as machinery and transport equipment, as well as reductions in manufactured and semimanufactured goods prompted by the local market being satisfied with building and construction materials once a large part of the planned infrastructure projects had been completed. For example, the value of merchandise imports in 2019 amounted to almost QR 106.2 billion, compared to about QR 115.4 billion in 2018, a decrease of 7.9%, before further declining in 2020 by 11.5% to become QR 94 billion. Most of the decline in 2020 came from lower import volume caused by the decrease in domestic demand, coupled with a change in the purchasing power of the QR's Real Effective Exchange Rate as a result of being pegged to the US dollar, as indicated in [Box (1-6) of part-1 of this report], where there is a possibility that the cost of imported goods in currencies other than the dollar has decreased.

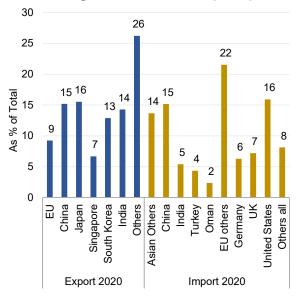
Top Trading Partners and Commodities Exchanged

The United States of America is the largest trading partner of the State of Qatar, in terms of being the source of Qatari imports with 19% of the total imports, followed by China with 12%, then Germany, Britain, India, Turkey and Oman with a total of 27%. The rest of the world's countries accounted for 42%: among them, other European countries with 17%, the Latin American countries with 13%, and other Asian countries with 12%, as shown in Figure (2-53).

As for the trading partners in terms of destination for Qatari exports, Japan and South Korea were the dominant export destinations in 2020, accounting for 29% of the total exports, which match India and China with 29%, then Singapore by 7%, and the group of European Union countries with

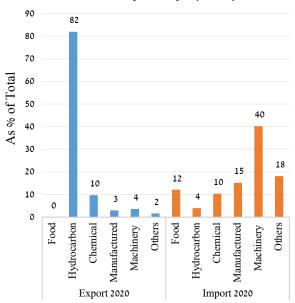
9%. The remainder of 26% was distributed among the rest of Qatar's trading partners,

Figure 2-53: Imports and exports by country of origin and destination (2020)



Source: Planning and Statistical Authority

Figure 2-54: Imports and Exports by Commodity Groups (2020)



Source: Planning and Statistical Authority

including the Gulf Cooperation Council as well as other Arab countries.

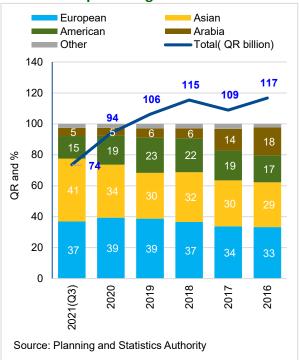
As for the distribution of exports and imports, as per Standard International Trade

Classification (SITC) and in 2020 as shown in Figure (2-54), hydrocarbon goods as expected represent the top exported good of the State of Qatar and leads with a rate of up to 82%, followed by chemicals at about 8%, and then manufactured goods and others at about 10%. In regard to the top imported goods, the grouping of machinery and equipment came in at first place with 40%, followed by the group of manufactured goods at 15%, then the cluster of food commodities at 12%, while the combined group of chemical and hydrocarbon products accounted for 14%, and the remainder representing all other goods at about 18%.

Development of Qatar's Import Values

Given the relative stability of Qatari exports, both in terms of quantity and trading partners - bearing in mind that their values are subject to large fluctuations in oil and gas prices, this section briefly reviews the evolution of the level of value of imports by economic regions during the period 2016-2021, to give an overview of how its fluctuation with the local needs of the requirements of economic and social development, and how it responds to external variables such as geopolitical crises and the development of global trade policies. It is noted from Figure (2-55) that the average value of Qatari imports during the period 2016-2020 amounted to about QR 108 billion, with a maximum of QR 117 billion, and a minimum of QR 94 billion. European countries accounted for 36.3% of the total, followed by Asian countries with 30.9%, then American countries by 20%, and then Arab countries by about 10%, with a maximum of QR 18 billion, and a minimum of QR 5 billion, to reflect geopolitical developments.

Figure 2-55: Evolution of Qatar imports by regions – total in QR billion and region as percentage of total



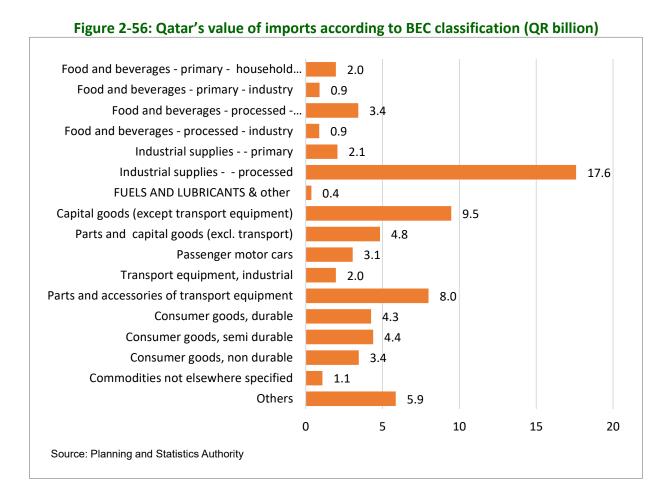
To find out whether the measures to combat Covid-19 have any impact on production, consumption and prices, the ratios of imports by source for the first three quarters of 2021 were calculated, which showed that Asian countries are now the number one source of Qatar's imports by 41% of the total, compared to previous years.

Certainly, if this is true, it indicates the possibility that businessmen in Qatar are now preferring importing from Asian countries in response to potential developments: either high inflation rates that hit the European and American markets during the same period, or there are change in the groups of import compositions to reflect changes in people's tastes or requirements of economic and social development, or perhaps just a matter of data error, and that the data for the fourth quarter of 2021 will change the ratios, which means that most of it will come from Europe.

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In order to distinguish between the quality of imported goods and their degree of importance to economic growth, imported goods that are always classified according to the Harmonized System (HS) were reclassified using the Classification of Board Economic Categories (BEC), as shown in Figure (2-56), which depicts the magnitude

of each group of the value of goods, whether for final consumption, raw materials, or capital goods. These values should be used as guiding indicators, for further analysis to track commodities essential to economic and social developments.



The Evolution of Covid-19 in Qatar

After the World Health Organization declared on January 30, 2020, that the Sars-Cov-2 virus posed a serious threat to global health, the first known case of infection appeared in Qatar a month later, on 29 February. The number of cases in Qatar gradually began to increase at low rates until 11 March 2020, when community transmission took off with a jump from 24 to 262 recorded cases, which coincided with the WHO's declaration that the novel coronavirus (COVID-19) outbreak has become a global pandemic. This prompted the Qatari government in the second half of March 2020 to gradually put in place preventive and precautionary measures. These efforts culminated in a meeting of the Supreme Committee for Crisis Management chaired by His Highness the Emir on 15 March 2020, which issued a set of preventive and precautionary measures, and a series of financial and monetary decisions in support of economic sectors affected by the proposed containment measures.

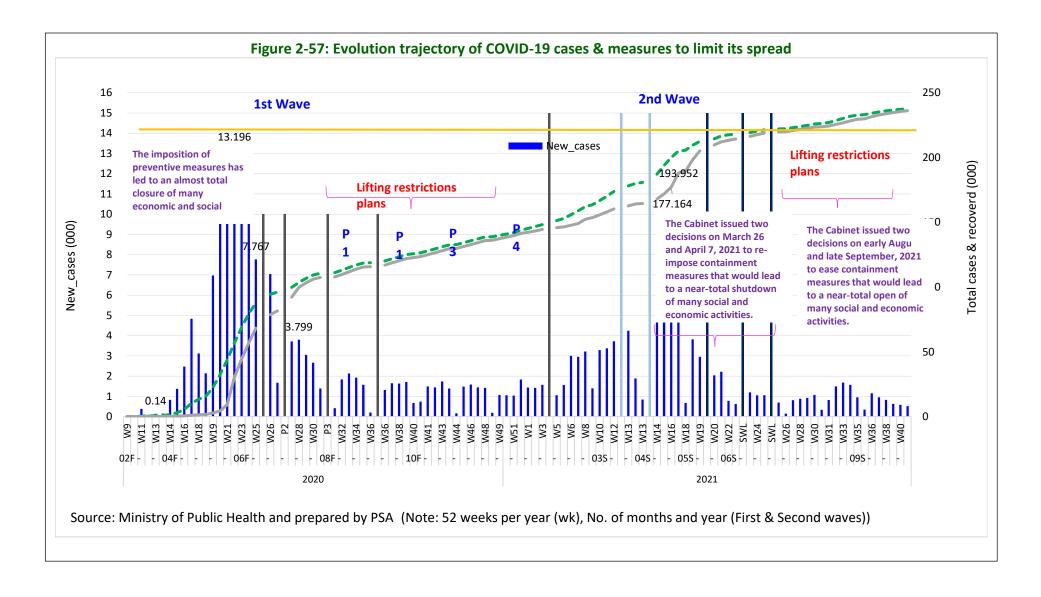
The trajectory of the spread of Covid-19 in Qatar during the first wave formed a symmetric curve during the peak period (April - July 2020), as Figure (2-57) indicates. The number of infections slowly doubled at the beginning, at a weekly rate of 156 cases in March 2020, with a maximum of 386 cases and a minimum of 14 cases. Then, it doubled further in April and May 2020, reaching its peak in May with a weekly rate of 8,700 cases, with a maximum of 13,196 cases and a minimum of 2,142 cases. Thanks to the effectiveness of containment measures and the cooperation of citizens and residents,

weekly cases fell at the same pace from June to August 2020, so that the minimum weekly rate fell in August to 412 cases, which is less than it was in April 2020 when 823 cases were recorded.

Managing COVID-19 Crisis During First Wave

This rapid rate of decline in the number of infections encouraged the Qatari government's adoption of a plan to gradually lift Covid-19 restrictions, having the aim of resuming economic and social activities, as indicated in Box (2-12). The plan included four phases: Phase 1 began in mid-June 2020 and included a limited opening of mosques, some shops, and shopping malls at a capacity of 30%, while allowing 20% of employees to be physically present in their workplaces. Thereafter, Phase 2 was implemented starting in July 2020 as the process of lifting restrictions expanded to include raising the percentage of employees able to be present in their workplaces to 50%. When Phase 3 was implemented in August 2020, many restrictions were canceled, including raising the capacity of private health centers, shopping malls, and allowing a 100% capacity for gardens and parks, while still imposing a limited capacity for health clubs but raising the percentage of workers allowed in their workplaces to 80%. During the implementation of Phase 4 starting in September 2020, all service activities were permitted to operate at 100% capacity, including raising the percentage employees in workplaces to 100%, while requiring maintaining social distancing at all times in public and private gatherings.

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Box 2-11: Phases of Gradual Lifting of COVID-19 Restrictions after the First Wave				
Phase 1 (15 Jun)	Phase 2 (1 Jul)	Phase 3 (1 Aug)	Phase 4 (1 Sep)	
Phase 1 included	In Phase 2, a limited	In Phase 3, a limited opening of	In the fourth stage, a total opening of mosques	
the restricted	opening of mosques	mosques continued, while Friday	was allowed, all public gatherings, including	
opening of	and travel for	prayers were allowed in 54	weddings, exhibitions and conferences,	
mosques while	emergencies	mosques, low-risk inbound flights	recreational trips and cinemas were permitted	
maintaining social	continued, while	were permitted for travelers	with the proviso that, precautionary measures	
distancing,	allowing public	holding residence, gatherings of	had to continue, limited services for public	
allowing travel for	gatherings for up to 10	fewer than 40 people were	transportation such as the Doha metro and	
emergencies,	people, opening parks,	allowed, playgrounds and skate	buses were provided, inbound flights were	
restricted parks for	beaches and the	parks were encouraged to open,	allowed to be expanded according to health	
outdoor sports to	Corniche, allowing	healthcare facilities were	guidelines, summer camps and clubs, cultural	
open, selected	sports training in open	permitted at 80% capacity, malls	activities and sports gatherings were permitted	
private healthcare	spaces and large halls,	and wholesale markets could	to open for local and international competitions	
facilities to be	private healthcare	operate but for limited hours	together with an organized public attendance,	
permitted at 40%	facilities were permitted	together with an increased	boat trips were allowed for leisure purposes,	
capacity, allowed	at 60% capacity, malls,	occupancy rate of mall	private health clinics were able to reopen at their	
for the partial	souks, markets,	restaurants, museums and	full 100% capacity, the new academic year	
opening of shops in	restaurants, museums	libraries were permitted to open	commenced with in-person classes, all malls,	
malls at a capacity	and libraries were	for limited hours, beauty centers,	shops and markets were to open as normal,	
of 30%, and offices	allowed to open subject	barbershops and hairdressers	restaurants to gradually reopen for indoor dining,	
could operate with	to restricted hours and	were permitted to operate at a	and museums, libraries, health clubs, gyms and	
only 20% of	capacity, and	50% capacity, training centers,	pools, beauty centers, and barbershops and	
employees at their	employers were	including drivers' education, could	hairdressers were permitted to operate at full	
workplaces.	permitted to allow 50%	resume activities, and employers	100% capacity, and finally the total opening of	
	of employees back at	were permitted to allow 80% of	training centers and cleaning services, together	
	the workplace.	their workforce to return to the	with workplaces, were allowed to return to 100%	
		workplace.	capacity.	

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Precautionary Measures During First Wave

Based on the foregoing, it is evident that there is societal acceptance in adhering to government measures, which limited the spread of the virus. As shown in figure (2-57), the curve of weekly infections stabilized from the end of July 2020 to mid-January 2021, with a weekly average of 1225 cases; with a maximum of 2133 cases, and a minimum of 164 cases.

At the end of 2020, several factors raised people's hopes that their lives would get back to normal during 2021. Among such factors are that the curve of the number of

cases flattened out and that there were high recovery rates and fewer deaths registered. The phased lifting of preventive measures was viewed by the populace to be reasonable, and the arrival of the first shipments of vaccines at the end of December 2020 was seen as the proverbial light at the end of the tunnel. Thereafter, the vaccination of the most vulnerable population was immediately started.

However, this optimism was misplaced, as it was accompanied by a profound underestimation of the importance of adhering to the precautionary measures in workplaces, social events, family visits, and gathering places in markets and parks.

Box 2-12: Vaccine Efficacy in Combating Mutated Variants

Following the US Food and Drug Administration approved the COVID-19 vaccine by Pfizer-BioNTech on 11 December 2020, its approval of the Moderna vaccine on 18 December 2020 coincided with the WHO's announcement on the same day that symptomatic infected individuals who appeared in Britain in September 2020 and in South Africa in May 2020 carried new variations or mutations of SARS-CoV-2 virus, which epidemiologists predicted would evolve over time.

From this standpoint, WHO, in cooperation with experts, research centers and relevant institutions in Member States, has been tracking and assessing the development of SARS-CoV-2 since January 2020. Given that the emergence of new variants first observed by the end of 2020 poses a mounting threat to global health, WHO constantly provides updates on new variants under two sets of classifications: Variants of Interest (VOIs) and Variant of Concern (VOCS). Until the end of September 2021, most studies indicate the efficacy of developed vaccines against mutated variants of COVID-19, as Table (1) indicates, which it is obtained from https://www.cdc.gov/coronavirus/2019-ncov/variants/variant-info.html

Table (1) for Box (2-13): SARS-CoV-2 Variant Classifications and Definitions

Variant degree	Label	Pengo	Country and date of	Date of WHO announcement of
		Lineage	discovery	variant
WHO variants of	Alpha	B.1.1.7	UK, Sep-2020	18/12/2020
concern	Beta	B.1.351	South Africa, May-2020	18/12/2020
	Gamma	,P.1, P1.1	Brazil, Nov-2020	11/01/2021
	Gaiiiiia	P1.2		11/01/2021
	Delta	B.1.617.2	India, Oct - 2020	11/05/2021
WHO variants of	Eta	B.1.525	Multiple countries,	17/03/2021
Interest	_		Dec-2020	
	Iota	B.1.526	USA, Nov-2020	24/03/2021
	Kappa	B.1.617.1	India, Oct-2020	04/04/2020
	Lambda	C.37	Peru, Dec-2020	14/06/2021

Source: Centers for Disease Control and Prevention, https://www.cdc.gov/

Unsurprisingly, this cavalier attitude led to the number of cases dramatically doubling by the end of January 2021, which prompted the government to launch an awareness campaign asking the population to adhere to the precautionary measures after a new variant of the virus appeared, as indicated in Box (2-13).

Managing COVID-19 Crisis During Second Wave

In Qatar, the number of infections continued to pick up on a daily basis during February and March 2021, with a weekly average of 3,286 cases, for a weekly maximum of 4,065 cases and a minimum of 2,190 cases. This prompted the competent authorities to develop a plan to re-impose precautionary restrictions consisting of four levels: Level 1: restrictions on high-risk activity: Level2: for moderate to high-risk activities if the infection prevalence rate has not decreased; Level 3: further restrictions to be imposed if cases continue to rise; and Level 4: a complete lockdown shall be imposed, as in other countries. Based on this plan, the Cabinet issued a decision on 26 March 2021 for imposing Level-1 procedures and restrictions. including reducing the percentage of employees present in the

workplaces for both the public and private sectors from 100% to 80%. However, due to the increase in cases, a decision was issued on April 7th, 2021, with Level-2 and Level-3 measures and restrictions imposed, as indicated in Table (2-6), including the reduction of employees present in their workplaces in public and private companies to 50%.

Of course, these measures led to the closure of many social and economic activities, but the restrictions were subject to periodical review. The most recent of those revisions was on September 29, 2021, when the Council of Ministers issued a decision absolving people of the need to wear masks in public places outdoors, followed by a decision issued on October 13th, 2021 by the Primary Health Care Corporation (PHCC), stipulating that 27 out of 28 health centers would be open to the public by prior registration with Hamad Medical Corporation, where the centers will work at full capacity to provide all services, including face-to-face consultations, as indicated in Table (2-6).

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Table 2-6: Summary of Cabinet Decisions Regarding Covid Measures

Cabinet decisions regarding reimposing strict measures during the second wave.

On March 26, 2021, the Council of Ministers issued a decision to re-impose restrictive measures, starting with several moderate measures including capping gatherings at wedding ceremonies to a maximum number of 80 people, closing all health clubs and swimming pools, and continuing to suspend services for charter boats and tourist yachts, and pleasure boats, as well as the suspension of driving schools. This came in addition to the closing of playgrounds and exercise equipment in public parks, beaches, and the Corniche. Entry to entertainment venues was restricted to persons 12 years of age and over, with those under 12 years old absolutely prohibited. In addition, many recreational, educational and health centers, cafes and public transport services were reduced to 20% - 50% of their total capacity.

However, due to the continuous rise in infected cases, the Council of Ministers issued another decision on April 7, 2021, containing more stringent measures and stipulating an increase in the number of closures, as it included the closure of museums, beauty and barber salons, the postponement of exhibitions and events, and the prevention of gatherings in public places such as beaches and parks, with only sports to be allowed. The closure of nurseries was mandated, and distance education for all students imposed. Continuing to reduce capacity by 20%-30%. The decision also increased the number of people who were prevented from entering most recreational and other places to include all persons under 16 years old. It furthermore reduced the percentage of employees in their workplace to 50% for both the public and private sectors, with the exception of the health and military establishments. Although the total number of doses of vaccines that were used to vaccinate the population amounted to about 4 million doses by the beginning of August 2021, the Council of Ministers confirmed the continuation of the precautionary measures and other measures that were taken to combat the epidemic, while providing minor relaxations for gatherings in

Cabinet decisions regarding easing restrictions measures during the second wave.

in mid-September 2021, the Cabinet approved a draft resolution on the terms and conditions for a part-time system for employees in government agencies. The system aims, within the framework of the state's needs, to maintain a strong and stable family who feel supported and cared for, while at the same time improving government's functional efficiency in order to provide more flexible options for Qatari employees that are predicated upon their circumstances and needs. In particular, it can be claimed that these options take into special consideration family conditions, perhaps especially for Qatari women, providing them with greater opportunities to balance the needs and requirements of family and child care on the one hand, and work requirements on the other. This parttime option is a work system according to which the number of working hours per week is reduced by half, usually by cutting in half the number of working hours per day.

Towards the end of September 2021, the Council of Ministers announced a further easing of such Covid-19 restrictions. Although there are some exceptions, it has been allowed that no masks are needed in open-air public spaces.

Based on this relaxation of restrictions, the Primary Health Care Corporation (PHCC) issued a decision on October 13, 2021 to open 27 of the 28 health centers for all patients registered at Hamad Medical Corporation, where the centers will again work at full capacity

outdoor areas of homes and council gatherings = (majises) as well as parks, and allowing children over 12 years of age to enter mosques, where the capacity of mosque was also increased. All events were to be held to 50% capacity, but all additional restrictions of the third phase would continue to apply.

In early September 2021, the Cabinet affirmed the continuation of the relevant procedures and the precautionary measures that have been taken in order to combat the pandemic.

to provide a full range of services, including face-to-face consultations. The exception is for Rawdat Al Khail Health Centre, which will remain a designated Covid-19 health centre. In addition, PHCC will continue to provide virtual consultations for those patients who prefer this type of appointment

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Lifting of Preventive Measures during Second Wave

After implementing a plan to impose stricter precautionary restrictions during the month of April 2021, the number of weekly infections declined from an average of 5,002 cases, having a maximum of 6,802 cases and a minimum of 840 cases during April, to an average of weekly 2,341 cases in May 2021, still with an alarming maximum of 3,818 cases but with a minimum 676 cases. This encouraged the Qatari government to adopt a plan for the gradual lifting of Covid-19 containment measures that included 3 phases: Phase 1, which began on 28 May 2021, included allowing 30% capacity in public transport, education, health and sports activities, museums and public libraries, and playgrounds, but allowing just 20% capacity for indoor entertainment, maintaining capacity at the workplace at 50%, allowing catering employees to provide hospitality and cleaning services at 30% capacity, and finally limiting indoor gatherings to 5 people and outdoor gatherings to 10 people, but with no wedding parties are allowed.

In Phase 2, which started on 18 June 2021, the process of lifting restrictions expanded to include raising the capacity of employees in workplaces to 80%, obligating all employees in the public and private sector to carry out a Rapid Antigen Test on a weekly basis, and raising the capacity of health clubs, swimming pools, malls, and private health facilities.

As for Phase 3, which started on 9 July 2021, the percentage of employees working at workplaces was maintained at 80%, while the capacity of transportation, education, health, sports, and entertainment was increased (see Box 2-14).

Among of the most important features of the gradual lifting plan for the second wave is that patents recovering from the Covid-19 infection were treated as equivalent to the vaccinated. However, Government continued the mandatory activating "EHTERAZ" application whenever leaving the house as well as the wearing of masks in public places during all phases of the gradual lifting.

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Social, tourist,	Transportation &	Educations, Health,	Social, tourist, recreational and health activities
recreational and	Sports	Business and Markets	
health activities			
Places of worship: All	Maritime Transport:	Education and Health:	The capacity of museums, libraries, beauty centers ar
mosques to remain	Personal boats are	Blended learning (online and	barbershops were limited to 50%.
open for daily prayers,	allowed with a maximum	at school) was allowed with a	
and Friday prayers,	capacity of 15 people,	maximum capacity of 50%.	As for health clubs and Gyms, their capacity was limite
provided that toilets and	while stopping the work	As for education centers for	to 30%, but with the closure of saunas and steam room
ablution areas remain	of rental boats, pleasure	people with special needs,	Jacuzzi and massage services and Moroccan a
closed. Social Gatherings:	boats, and tourist yachts.	only individual educational sessions were allowed. As for	Turkish baths, and only allowing massage services to
imiting gatherings of	As for public transport, it	private training centers,	provided in 5-star hotels, with a capacity of 30%.
up to 5 people indoors,	operates with a capacity	nurseries and childcare, their	Closing all indoor swimming pools and indoor wat
and 15 people outdoors.	of 30%.	capacity was limited to 30%.	parks and continuing to operate outdoor swimming poo
Weddings: Postponing	01 00 70.	capacity was infinited to 50 %.	and outdoor water parks with a capacity not exceeding
or canceling all indoor	And as for sports in	Businesses: Shopping malls	30%.
weddings until further	parks, corniches, and	can open with 50% capacity,	
notice, with the	beaches, gatherings	the food court there must	Theme Parks and Leisure Centers: Closing down ther
exception of weddings	were limited to a	close and allow only	parks and all leisure centers indoor, while allowing the
neld in homes or Majlis.	maximum of 15 people,	takeaway and delivery	to work in open spaces, with a capacity not exceeding
The presence of the	with the closure of	orders. Moreover, food is	30%.
nvitees is limited to	playgrounds and gym	allowed to be served in open	
family members of the	equipment. Training for	spaces with a capacity of	Theaters and cinemas: Continuing the work of cinem
nusband and wife, in the presence of no more	professional sports teams is limited to 40	50% and allowing closed restaurants subject to the	and theaters with a capacity not exceeding 30% and r
han 10 people indoor	people in open arenas	Qatar Clean Program to	allowing entry to persons under 18 years old.
and 20 people in open	and 20 people in closed	provide their services with a	
places.	halls, with the presence	capacity of 30%, while	Exhibitions and events: Obtaining prior approval from t
	of the audience is	limiting other restaurants to	Ministry of Public Health.
	allowed at a capacity of	15% capacity.	
	30% in open arenas but		Cleaning and Catering Services: Maintaining 30
	prohibited in closed	As for the popular markets	capacity in workplaces.
	halls.	and wholesale markets, their	Back to work: Maintaining a maximum capacity of staff
		capacity has been limited to	the workplace at 80%, and 20% remotely.

Gatherings	Phase 1	Phase 2	Phase 3
Gatherings	A maximum of 10 vaccinated or 5 non-vaccinated people are allowed to gather in open spaces, while mosques to remain open for daily prayers without children, ablution areas to be closed, and weddings are prohibited.	The percentage of people allowed to gather outdoor has been raised to 20 vaccinated and 10 non-vaccinated people. Wedding parties are allowed to be attended by 40 people, provided that 75% of attendees must be vaccinated.	The number of people allowed to gather outdoor has been raised to 30 vaccinated and 15 non-vaccinated people. Wedding parties are allowed to be attended by 80 people, provided that 75% of attendees must be vaccinated.
Transport	Boats and yachts are allowed for families for 8 vaccinated or 2 non-vaccinated people, and public transportation and driving schools are allowed with a capacity of 30%, while banning smoking and providing food.	Boats and yachts are allowed for families for 12 vaccinated or 3 non-vaccinated people, and public transportation and driving schools will continue operating at 30% capacity.	The use of personal boats is allowed at a 50% capacity. The use of boats and yachts for families is allowed for 16 vaccinated or 4 not vaccinated persons. All public transport and driving schools will operate at 50% capacity, but buse will operate at 30% capacity.
Outdoor & Professional Sports	The use of beaches is allowed with a maximum capacity of 30%. Fans are allowed outdoors for vaccinated people with a capacity of 30%, while allowing professional training for 10 vaccinated people.	Private beaches to operate at up to 40% capacity. Fans allowed outdoors at 30% capacity, provided that at least 75% are vaccinated. Sports training for professionals is allowed for 10 vaccinated persons.	Private beaches are now to operate a up to 50% capacity. Fans allowed outdoors at 50% capacity, provided that at least 75% are vaccinated. Sports training for professionals is allowed for 30 vaccinated persons. The use of playgrounds will be allowed.
Educations & Health	Allow blended education, training and education centres, and nurseries at 30% capacity.	The capacity of 30% shall remain.	The capacity is raised to 50%.
Business & Leisure	Maintain capacity at the workplace at 50%. However, museums, libraries, beauty salons, barbershops, amusement parks, shopping malls and traditional markets are allowed to open at a capacity of 30%, while children under 12 will not be allowed. Cinemas are allowed for only vaccinated people.	Capacity at the workplace is increase to 80%, with the exception of the security and military sectors, and obligating all employees to carry out a rapid antigen test on a weekly basis, with the exception of those who have recovered and those who are vaccinated, and as well as those who have medical conditions that prevent them from being tested. Museums and public libraries to be allowed to operate at 50% capacity. Beauty salons, barbershops and amusement parks will continue operating at 30% capacity. Shopping malls and traditional markets are to operate at an increased capacity of 50%, while banning children. Conferences and exhibitions are allowed to be organized with a capacity of 30%, while allowing more than one vaccinated employee to provide catering and housekeeping services.	Raising the capacity of beauty salons barbershops, and amusement parks 50% and 40%, respectively, provided that 75% of customers to be vaccinated.

Enforcing the Precautionary Measures in Qatar

In order not to repeat the consequences of those people who, during the first wave refused to comply with precautionary measures in workplaces, social events, family visits and gathering places in markets and public parks, the relevant authorities during the spread of the second wave of the virus were not satisfied with merely launching awareness campaigns calling on the public to adhere to preventive and precautionary measures. Rather, it took all measures to enforce compliance with the preventive measures and referred those who violated those measures to the Public Prosecution, as

shown in Box (2-15). The number of offenders increased during peak infection days as Figure (2-58) indicates based on data collected from public media, particularly the Gulf Times.

Figure 2-58: Number of violators referred to persecution



Box 2-15: Trends in the Number of Violators of the Precautionary Measures

As it is known globally, one of the reasons for the spread and evolution of the Coronavirus is the lack of commitment to the preventive and precautionary measures imposed by countries to contain the spread of the virus, hence many countries of the world have endorsed disciplinary and punitive measures for those who violate the instructions, but the extent of the application of these has varied from one country to another according to the extent of the spread of the virus. And in the State of Qatar, as in many other countries of the world since the beginning of the crisis in March 2020, the competent authorities have utilized a media campaign that explains to the public the importance of adhering to the preventive and precautionary measures under the Law on Infectious Diseases No (17) of 1990, as well as the precautionary measures in place to ensure their safety and the safety of others in accordance with the instructions of successive Cabinet decisions.

From the beginning, the competent authorities carried out the task of monitoring people who did not adhere to the instructions and were referred to the Public Prosecutor on charges of flouting preventive measures, such as not wearing masks in places where they are mandatory, not maintaining a safe physical distance, violating quarantine requirements, and not installing the Ehteraz application. Further violations include gathering in parks and the Corniche, as well as the violation of the vehicle occupancy rule, such as the number of passengers on public and private transportation, which states that a maximum of four people - including the driver - are allowed to ride in cars.

Appendix: Economic and Financial Terms

Appendix: Economic and Financial Terms

Gross Domestic Product

Gross domestic product (GDP) is a fundamental macroeconomic aggregate that plays a central role in macroeconomic analysis, although it has several limitations, as described below.

What is GDP?

GDP is widely used as a measure of economic output, as it represents the value of final goods and services produced in a given period of time, usually one year. Another way of looking at it is as the sum of value added across all sectors in the economy over a period.

How is GDP measured?

There are three main approaches to measure GDP, which should give the same results.

- Production approach: GDP is equal to the sum of value added across all sectors i.e. the gross output minus the value of intermediate consumption of goods and services summed across all sectors.
- Expenditure approach: GDP is the sum of the final consumption of goods and services by the government and private sector; of gross investment (additions to physical stock of capital in the economy, including changes in inventories); and of net exports of goods and non-factor services (exports minus imports).
- Income approach: GDP is the sum of all income generated from the production process. This includes compensation of employees, and the gross operating surplus of enterprises such as profits, rents, and interest.

What is the difference between GDP valued at factor cost and GDP valued at market prices?

GDP at factor cost is the sum of all factorsof-production incomes generated from the production process (such as wages, profits, rents and interest), while GDP valued at market prices is GDP at factor cost plus indirect output taxes, less subsidies to businesses, which creates a wedge between the incomes earned by factors of production and the price paid for output in the market.

What is the difference between nominal and real GDP?

Nominal GDP values economic output using current prices, the prices prevailing over the period during which GDP is measured. Accordingly, changes in nominal GDP will reflect changes in prices as well as changes in the volume of output. Real GDP values output at constant prices by using the prices of a selected year called the "base year". When relative prices change, the choice of the base year can influence measured real GDP growth.

What is the GDP deflator?

This is simply the ratio of nominal and real GDP, and hence it can be considered a measure of the aggregate price level of all domestically produced goods and services in the economy.

What is GDP per capita?

This is total GDP divided by the resident population of the country. While it is commonly used as a proxy for the standard of living, GDP per capita is neither a measure of personal income nor is it usually even loosely approximating a representative well-being index of a country's population.

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What are the limitations of GDP as a measure of economic output and income? GDP measures do not normally capture the value of goods and services that are not traded in the market, such as barter, volunteer and charitable services, or goods and services produced for people's own use. Similarly, the existence of a large underground economy or black-market activities (which are not that important in Qatar) would result in a GDP measure that underestimates the true size of the economy.

What is final consumption?

This consists of goods and services used by the household and government sectors to satisfy their current needs or wants.

What is gross and net investment?

Gross investment is equivalent to the economy's acquisition of fixed assets (or gross fixed capital formation) plus the value of inventory changes. Net investment is equal to gross investment less the consumption of fixed capital (i.e., depreciation) and is equal to the addition to the physical stock of capital in the economy between two periods.

What is national savings?

National savings is the sum national disposable income less final consumption expenditure.

What is national income?

National income is equal to the GDP plus the factor of income receivable from non-residents less the factor of income payable to non-residents.

What is national disposable income?

This equals national income plus the sum of all current transfers in cash or in-kind receivable by resident institutional units from non-resident units and subtracting all current transfers in cash or in kind payable by resident institutional units to non-resident units.

Fiscal concepts

What is the fiscal year?

The State of Qatar first changed its accounting methodology to start a calendar-based (January 1st - December 31st) fiscal year only in 2016. The previous fiscal period FY2014/15, which ran from 1 April 2014 to 31 March 2015, was extended to 31 December 2015, i.e., a period of 12 months. All revenue and expenditure as budgeted for 1 April 2014 to 31 March 2015 were then prorated to 31 December 2015.

What is the overall fiscal balance?

This is the difference in a given period between total government revenues (including grants) and total government expenditures (current and capital) plus net lending.

What is the primary balance?

This is the overall fiscal balance net of all interest payments and receipts by government. The primary balance provides an indicator of the current fiscal support for aggregate demand since interest payments are linked to the stocks of liabilities and assets of the previous period.

What is the non-hydrocarbon (primary) fiscal balance?

This is the overall fiscal balance less oil and gas revenues, which in Qatar is defined in terms of direct revenues (royalties and taxes), received from hydrocarbon production. Investment income from government companies and government-linked companies, which may accrue from hydrocarbon-related activities, is not included in the definition of oil and gas revenues. The non-hydrocarbon fiscal balance provides an

indication of the fiscal stimulus to the local economy funded by oil and gas revenues.

What is cash accounting?

Cash accounts record revenue when cash is received and expenses when they are paid in cash, irrespective of when the income fell due or the expenditure commitments were made. Although they are important understanding what the government contributes to liquidity in the economy and for managing cash, cash accounts may not provide a true picture of the government's financial position.

What is accrual accounting?

Accrual accounts record transactions when the underlying event or commitment occurs, regardless of the timing of the related cash settlement. Revenues are recorded when income is earned, and expenses are recorded when liabilities are incurred, or resources consumed. In principle, the difference between cash-based balances and those calculated on an accrual basis should equal "changes in arrears".

What is "quasi-fiscal" spending?

This is expenditure executed by state-owned (financial and non-financial) enterprises. It is in character similar to expenditure normally executed by the government but is not included in the government budget (or listed under "contingent liabilities" in the budget). Central bank operations that entail implicit subsidies or taxes are also quasi-fiscal in nature.

What is the difference between the narrow and the broad definitions of the non-hydrocarbon fiscal balance?

The narrow definition is the overall fiscal balance, and interest payments, less revenue received directly from oil and gas (tax revenues and royalties on production). Under a broader definition, it includes investment

income (dividends to the government from QE) and corporate income taxes paid by hydrocarbon entities. The non-hydrocarbon primary fiscal balance is an indicator of the stimulus that government spending provides to the non-oil and gas economy. Cyclically adjusted measures can be used to gauge the fiscal stance of government. A non-hydrocarbon fiscal deficit (inclusive of interest charges) larger than the budgetary resources that oil and gas resources can yield implies future charges on fiscal resources.

Monetary Concepts

What is reserve money, or M0?

Reserve money is a liability of the central bank. It is the sum of (i) currency issued by and held outside the central bank; (ii) banks' deposits at the central bank to satisfy reserve requirements and for clearing purposes; and (iii) in the case of Qatar, other reserves including bank deposits at the central bank in excess of requirements. Reserve money can also be expressed in terms of the central bank's counterpart assets, which fall into two main categories: (i) net foreign assets, which comprise the net official international reserves plus any other net foreign assets that are less liquid and hence are not included in the net official international reserves; and (ii) net domestic assets, which include central bank net claims government (claims minus deposits) and claims on other sectors.

What is narrow money, or M1?

This is currency in circulation plus demand deposits. Narrow money is considered "liquid". Narrow money typically pays zero or relatively low rates of interest.

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What is quasi money?

Quasi money is the less liquid part of the money supply and includes savings deposits and all deposits denominated in foreign currencies.

What is broad money, or M2? This is the sum of quasi-money and M1.

What is the monetary multiplier?

The monetary multiplier is the ratio of the broad money supply to the monetary base. In practice, it is the amount of money generated by the Qatari banking system from each Qatari Riyal deposited with the banking system. It measures the ability of the economy to create money from deposits available in the banking system, reflecting the level of economic activity. However, the calculation of the multiplier depends mainly on the mandatory required reserve ratio set from time to time by the Qatar Central Bank, made in light of developments in the economy such as inflation rates and the level of aggregated demand, which reached 4.5% in August 2018. This required reserve ratio obliges the commercial banks not to lend 4.5% of their total deposits and instead to save it as reserves in their vaults or at the Qatar Central Bank. Its implication is that if the ratio increases, the ability of banks to create credit decreases, but if this ratio decreases, the ability of banks to offer credit increases. The money multiplier of Qatar has increased from 5.5 points in 2009 to about 9 points in June 2018, which means that depositing QR100 in local banks would create about QR 550 in 2009 or QR 900 in June 2018, indicating the increasing role of banking deposits to generate credits, and thus the formation of wealth.

What are official foreign reserves?

These are the central bank's liquid foreign assets that can be used to secure the

country's external payments at any moment. Reserves include gold, foreign exchange, and the reserve position at the International Monetary Fund. Reserves are usually presented in net terms by excluding the central bank's foreign liabilities from the gross official foreign reserves.

Financial market concepts

What is a secondary market?

A secondary market is one where investors can trade assets or securities with others, as opposed to simply purchasing them from the issuing entities themselves.

What are second-lien debt offerings?

Second-lien debts are subordinate to the rights of other, more senior debts issued against the same collateral, or a portion of the same collateral. In the event of a default, second-lien debts stand behind higher-lien debts in terms of rights to collect proceeds from the debt's underlying collateral. For this second-lien debt is reason. considered riskier than higher-lien debt and often comes with a higher interest rate. Issuing such securities usually points to financing difficulties, meaning the issuer is unable to obtain funds via traditionally established avenues.

What is "credit"?

Credit creation involves the provision of resources by the lender (such as banks or any other financial institution) to the borrower. In this way, the lender acquires a financial claim and the borrower incurs a liability to repay in the future. Credit to non-financial sectors (such as government, private businesses and households) is mainly used to finance production, consumption, and capital formation.

What is the trailing price-to-earnings ratio? This is calculated by taking the current stock price and dividing it by a company's trailing earnings per share for the past 12 months. This measure differs from the forward price-to-earnings ratio, which uses earnings estimates for the next four quarters.

What is the price-to-book ratio?

This ratio compares a stock's market value to its book value, calculated by dividing the current closing price of the stock by the latest quarter's book value per share.

What is the LIBOR rate?

While LIBOR is going to be eliminated by the end of December 2021, it is useful to learn that LIBOR stands for the London Inter-Bank Offered Rate. It is the interest rate that banks in London use to borrow between themselves. It was approved in 1986 as a reference rate for lending to each other.

The daily rate of LIBOR is determined for international currencies, whether those that are loaned or borrowed by a group of major banks in the London Money Market, chosen by the British Bankers Association. Each bank in the group displays the interest rate that it pays for the loans it borrows, as well as the interest rate that it can pay to borrow from other banks.

This price is calculated for fifteen types of borrowing and for periods from one day to 12 months, meaning that there are 150 LIBOR interest rates for the ten major currencies under this system, including dollars, yen, euros, pounds sterling, and the rest of the basket of currencies. However, the British LIBOR is the largest worldwide, due to the sheer size of the money market in London's financial district.

LIBOR interest rate rise when risks rise and liquidity decreases and vice versa; it has reached importance as it has become a standard for all global markets.

Balance of payment concepts

What is the trade balance?

This is the difference between a nation's imports and exports of merchandise measured over a specified period (normally a calendar year). The trade balance is part of the wider current account balance.

What is the free-on-board (f.o.b.) price?

The f.o.b. price of exports and imports of goods is the market value of the goods at the point of uniform valuation (the customs frontier of the economy from which they are exported). It is equal to the cost, insurance, freight (c.i.f.) price less the costs of transport and insurance charges, between the customs frontier of the exporting (importing) country and that of the importing (exporting) country.

What is the cost, insurance, and freight (c.i.f.) price?

The c.i.f. price is the price of a good delivered at the frontier of the importing country, including any insurance and freight charges incurred to that point, or the price of a service delivered to a resident, before the payment of any import duties or other taxes on imports or trade and transport margins within the country.

What is the income and services balance?

This is the sum of net income received from non-residents and the balance in services trade, measured over a specified period. The income account comprises flows derived from labor (wages paid to non-resident employees) and from net investment income. The services balance consists mainly of payments for travel, transport,

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communications, construction, housing rentals, and financial services.

What is the current account balance?

This is the sum of the trade, income and services balances, together with net current transfers, which include cash transfers, gifts in kind, and remittances (which are sizeable in Qatar) sent by foreign workers to families back home. It is termed the current account because goods and services are generally consumed in the current period.

How is merchandize trade balance calculated?

Due to the different methods of collecting merchandise import data and the extent of their coverage by the General Customs Authority and the Qatar Central Bank, there exists about a 6% difference between the value of imports published in balance of payments reports and the value of imports published in foreign trade reports issued by the Planning and Statistics Authority. The difference in data is due to a number of reasons, the most the most important of which are:

The value of merchandise imports recorded by the General Customs Authority includes costs, insurance, and freight (CIF-cost of freight insurance), while the value of merchandise imports, according to the scale of payments, is the value on board (FOB free on board) in the exporting country.

There are also data on some import transactions carried out by banks, which do not necessarily pass through customs outlets.

The General Customs Authority also does not record data on the activities of Qatar Airways that are classified as exports and imports, such as: sales of on-board food and drinks, and especially fuel, including fuel sales to international airlines. Further, there is no monitoring of fuel sales to ships and tankers.

What is the capital and financial account balance?

This balance records purchases or sales of financial assets or transactions related to international borrowing and lending. It also includes capital transfers.

Components of financial accounting:

It is understood that the components of financial accounts consist of foreign direct investment, portfolio investment, and other foreign investment. Foreign investments are those shares in foreign and national companies in which foreigners own more than 10% while also having an influence in their management. On the other hand, portfolio investments investments that are made either by trading in shares of national or foreign companies that amount to less than 10% of the companies' value or through stock exchange transactions, issuance, and purchase of sovereign and private bonds. As for other foreign investments, they often consist of commercial credit facilities, investment loans that are either short or long-term, as well as currency deposits in investment accounts in commercial banks.

What is an international investment position? The international investment position of a country is a financial statement presenting both the composition and value of a country's external financial assets and liabilities. The difference between these assets and liabilities is the country's net international investment position.

What is external debt?

External debt is the stock of outstanding contractual liabilities, issued by the public and private sector to non-residents that have been disbursed.

Exchange rate concepts

What is the bilateral exchange rate?

This is the price of one currency measured in units of another. The nominal US dollar exchange rate for the Qatari riyal is pegged at QR3.64 = US\$ 1.00.

What is the nominal effective exchange rate (NEER)?

Unlike the bilateral exchange rate, the NEER is not a market price but an index number that measures the weighted average of the country's bilateral exchange rate against a basket of its trading partners' currencies over a given period. The magnitude of the weights normally reflects their relative importance in the country's international trade or in its foreign transactions, overall including external financial transactions. Movement of the NEER provides an indication of changes in the value of the domestic currency against the currencies in the basket. An appreciation occurs when a domestic currency unit can buy more of the basket of currencies.

What is the real effective exchange rate (REER)?

This is the NEER adjusted for differential inflation rates between a home country (Qatar, for example) and its trading partners. An appreciation of the REER can occur either because the NEER is appreciating or because domestic inflation in the home country (in this case, Qatar) is higher than that in its trading partners. Changes in the REER provide a measure of the change in the home country currency's purchasing power and of the price competitiveness of the country's tradeable goods and services

against its trading partners' goods and services.

Characteristics of calculating the real effective exchange rate for Qatar

When estimating the nominal effective exchange rate (NEER) and the real effective (REER) exchange rate index for the Qatari riyal, the average exports and imports of the State of Qatar for the years 2018 and 2019 were used, of which the average share of the Asian group accounts for 63.6% of the total foreign trade of the State of Qatar during 2014-2019, followed by the European Community with 18% including the non-Eurozone countries, the Arab group with 10% including the GCC, and the group of the African, Oceanic, and American countries including the United States with 9.3%.

Due to the peg of QR to US dollar: (1) the dollar value of (100=2010) is used as a base year for most of trade partners, and (2) the Consumer Price Index (CPI) was used instead of the Producer Price Index (PPI) since the latter is not available in all countries in a consistent time series for all partners. When comparing between QR and US Dollar (either dollar index or dollar REER), the difference in the volume of trade exchange weights between the QR riyal's partners and the dollar's partners should be taken into consideration, as it becomes clear that the US dollar index is influenced by 57% of the European market group variables, while the QR is only be affected by about 18% of the European market variables because the Asian market is the main partner of Qatar by more than 63%. Thus, if the QR index rises, it will increase the purchasing power for imported goods, but at the same time will discourage the export situation of Qatari products. On the other hand, a decline in the QR index would

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of course increase the competitiveness of Qatari products. In terms of the impact of the contraction of the Qatar CPI during Oct 2019- July 2020 compared to its trade partners, it is clear that this results in the increase of Qatar's REER and, thus, the QR purchasing power became stronger.

Qatar Stock Exchange Concepts

What is the methodology of measuring the performance of the Qatar Stock Exchange? The QSE measures the performance of its portfolio using three benchmark indices and eight sub-indices. There are three primary indices normally used, as follows:

The General Index: This contains the top 20 largest and most liquid stocks, assigning a maximum weight for each share of 15%; hence the General Index is used to measure the performance of the price of shares comprising the index.

<u>The Index of Total Return</u> (yield) of stocks is similar to the General Index regarding its composition, but it measures the income from the earnings of shares (i.e., the dividends).

The Third index is the All-Shares Index, which as its name suggests, is comprised of all the shares listed on the stock exchange (about 44 companies) and which does not have an absolute ceiling for the weight of the shares. One caveat for this index is that its shares should have a movement of at least 1%, which is the ratio of the number of shares transferred from one person to another during the year. The All-Shares Index measures both prices and the movement of income from dividends. Note that the All-Shares Index is the average of the subindices of the leading economic sectors (banking and finance, industry, insurance, real estate, consumption, communication, and transportation). It provides a mechanism

for potential investors to analyze the performance of each economic sector concerning their prices and income from dividends. It also enables investors to compare the QSE with the performance of the S & P index.

What is the methodology of measuring the performance of the Real Estate Index?

During the past two decades, the real estate market in Qatar has witnessed sharp fluctuations because of imbalances between the forces of supply and demand, as was the case in the rest of the real estate markets at both global and GCC levels. In order to monitor the trajectory of the real estate market in terms of market value of real estate and to maintain the liquidity of the banking sector, given that real estate activities constitute about 38% of the local banks' credit, in 2011 the Qatar Central Bank (the entity supervising the financing process) in cooperation with the Ministry of Justice (responsible for the real documentation process), prepared an index of prices of real estate in Qatari cities. The Qatari real estate index is based on data of real estate sales deals (including land, residential villas, and residential real estate) that are collected by the Ministry of Justice with the exception of deals that are unusual or performed independently, such as the transfer of ownership within a family. The period April 2009 - March 2010 was selected as the baseline year for computing price changes. For more details on the index calculation methodology, kindly refer to the third financial stability report of the Qatar Central Bank (pages 85-86).

There are also two additional indices that are directly related to real estate activities. The first one relates to rents, while the second one relates to credit facilities for real estate, where the average change in the rental price

is measured through the consumer price index of housing costs (as shown in the price section, which is prepared by the Planning and Statistics Authority). The data of credit facilities for real estate activities issued by the Qatar Central Bank in its monthly Monetary Bulletin and quarterly Statistical Bulletin provide an indication of the trajectory of real estate activities.

What is the methodology for pricing natural gas and LNG?

For the State of Qatar, liquefied natural gas (LNG) prices are more important than the price of crude oil, owing to LNG's high relative importance compared against total oil exports.

The methodology for pricing natural gas and LNG is different from that of crude oil pricing. These are not priced at a global level, but instead geographically at a regional level. The price of natural gas in the United States is often lower than the prices of LNG in Northeast Asia, while prices in Europe generally range between the US and Asian prices. Gas transfer from the producing country to the consumer country is an essential determinant of prices. transported by pipelines is cheaper than LNG transported by carriers, which involves both the high costs of liquefaction as well as incurring the cost of transportation to consumption areas.

LNG prices are subject to multiple mechanisms and methods. LNG transported by pipelines is priced in different ways from one country to another. In the United States, pricing is determined by the Henry Hub Center for Gas Trading. Among the European countries importing Russian gas, the price is determined according to bilateral agreements, which is also the case between Qatar and the UAE. On the other hand, LNG is priced either at spot prices, which are subject to supply and demand factors, or by futures contracts, which are mostly linked to the expectations of oil prices in the international market. Each barrel of oil contains 5.8 million British thermal units (MBTU), so assuming that the price of a barrel of oil is \$100, then the price of one MBTU of LNG will be \$17, which is then termed the Barrel of Oil Equivalent (BOE).

Qatar's Monetary and Banking System

In view of the importance of the financial and monetary sector with its banking and insurance dimensions, which is one of the key sectors in the Qatari economy, it is managed, organized and supervised by three executive authorities, namely the Qatar Central Bank (QCB), the Qatar Financial Center Regulatory Authority (QFCRA), and the Qatar Financial Markets Authority (QFMA), all operating under laws issued by the State of Qatar.

The Qatar Central Bank

The Qatar Central Bank (QCB) operates under Law No. 13 of 2012 to formulate and implement monetary policies as reviewed in QEO Issue No. (11)/ Box (2-1), published in December 2018. QCB manages the local liquidity of the economy to achieve price stability and full deployment of human and natural resources in a manner that serves economic and social development. QCB also supervisory, monitoring, administrative role for the banking system and non-banking financial institutions, as it is authorized to issue licenses and approvals to establish banking and financial service companies operating in Qatar.

The Qatar Financial Markets Authority

The Qatar Financial Markets Authority (QFMA) was established pursuant to Law No. 8 of 2012, with the aim of preserving confidence in the system of dealing in

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financial markets, thereby protecting the owners and dealers of securities in a manner that guarantees stability for financial markets and reduces the risks that they may be exposed to. In order to achieve this in particular, the QFMA is tasked with the following:

- Regulating, supervising, and controlling financial markets.
- Organizing dealing in securities activities in a manner that is fair, competitive, and transparent.
- Making the public aware of the securities activities, encouraging investment in them, and further developing them.
- Monitoring the rules of dealing between dealers in securities trading and other activities.
- Implementing the disclosure policy in a manner that achieves justice and transparency, and which prevents conflicts of interests and the exploitation of internal information.
- Fighting the causes and instigators of crimes related to financial markets.
- Supporting linkages to and exchanging information with external financial markets as well as regional and international bodies, institutions, and organizations, to benefit from the methods of dealing in them, in a way that helps in developing financial markets within the country.
- Carrying out studies, as well as collecting information and compiling statistics on financial market activities, and thereafter publishing their reports.

The Qatar Financial Center

The Qatari government established the Qatar Financial Center (QFC) in 2005 to attract international companies specialized in banking, insurance, and other financial

services, with the aim of developing the financial services sector in Qatar and the region. The QFC provides an opportunity for local and international companies establish a wide range of banking, asset management, and insurance businesses under a legal and regulatory system based global best practices. The Authority (QFCRA) Regulatory is the independent regulatory body for the QFC and was established with the aim of authorizing individuals and companies that perform financial services at or through the QFC, and concomitantly regulating and monitoring these companies and individuals. It also has a supervisory system based on principles that are compatible with the common law generally adopted, and in its work combines transparency, proactivity, and accountability. The QFCRA's objectives also include enhancing and maintaining the effectiveness, transparency, integrity and trust in the QFC itself, as well as maintaining financial stability and mitigating systemic risks. The QFCRA also works to build awareness and financial protection among clients and investors.