Inflationary trends in Saudi Arabia

Impact on price and businesses

KPMG in Saudi Arabia

August 2019
Foreword

Welcome to the first-ever edition of KPMG Saudi Arabia’s analysis of inflation in the Kingdom of Saudi Arabia. It gives me great pleasure to present this report, which showcases the impact of the introduction of value-added tax (VAT) and energy price reforms on inflation and business. This paper briefly analyzes the inflationary trends in Saudi Arabia from 1964 to 2019. The objectives are to assess the primary causes of inflation and deflation and to shed light on global events that have impacted the Saudi economy.

Saudi Arabia overhauled its tax system in order to increase revenue from its non-oil sectors. It successfully introduced VAT in January 2018, which led to higher tax revenue, with VAT revenue estimated at SAR 45.6 billion in 2018. However, one of the consequences of VAT implementation was an increase in the annual average inflation rate from -0.9 percent in 2017 to 2.5 percent in 2018. This increase was also due to other policies, such as energy price reform, expat levy, and excise tax. Moreover, as expected from the empirical data, the temporary impact of VAT gradually eased, and the economy underwent a period of deflation, with inflation expected to decline to -1.1 percent in 2019.

Saudi households reacted as expected to the introduction of VAT, as demonstrated by the value of point of sale (PoS) transactions, which spiked in December 2017, one month before VAT implementation, but fell in January 2018, as consumers sought to mitigate the negative effects on their disposable income. This is in line with the theory showing the rational movement of aggregate consumption previously witnessed by other economies. Business was also impacted with concerns over loss of VAT neutrality, and the reasons could be both government- (legal provisions or administrative practices) and business-related (problems with VAT implementation and current processes). However, the government introduced measures (such as the Citizen’s Account Program and the Private Sector Stimulus Package) to mitigate the negative impact of the new policies and reforms on people and business.

Although the introduction of VAT was essential to achieve some of the country’s Vision 2030 goals, such as increasing non-oil revenue, other economic indicators need to be looked at such as GDP growth, especially considering total real GDP had slowed by 0.9 percent in 2017. It is worth noting that the economy experienced a deflationary period at the beginning of 2019, where it is expected to remain for the rest of the year, before normalizing in 2020.

Recent price-level fluctuations in the Saudi economy might have an impact on consumer outlook, business and foreign investment. The government has taken some steps to mitigate the side effects of such policies.

All the topics mentioned above are clearly explained in the report, and I hope that it is an insightful read for you. Should you have any points to discuss from the paper, I look forward to hearing from you.
Overview of inflation in Saudi Arabia

Analyzing long-term inflation in Saudi Arabia
Analyzing short-term inflation in Saudi Arabia
Impact of VAT introduction on inflation
Impact of VAT on business profitability
VAT and the informal economy
Impact of energy price reforms on inflation
Taxes increased non-oil revenue

As part of Vision 2030, the government of Saudi Arabia successfully introduced VAT of five percent in January 2018 in an effort to stabilize revenue and mitigate global oil price fluctuations. The share of taxes on goods and services as part of total non-oil revenue increased from 15 percent in 2017 to 39 percent in 2018. Revenue from VAT is estimated to reach SAR 47 billion in 2019 as compared to SAR 45.6 billion in 2018.

Inflation spiked due to VAT

Inflation in Saudi Arabia was significantly impacted by the introduction of VAT, reaching 2.5 percent in 2018. However, as the effects of VAT gradually eased, deflation ensued. The IMF projects a fall in consumer prices to -1.1 percent in 2019, before stabilizing at 2.2 percent in 2020.
Consumers adjusted their consumption

Studies have found that the introduction of VAT has had a short-term impact, with people increasing their consumption immediately before its implementation. This was evident as PoS transactions in Saudi Arabia spiked in December 2017, reaching SAR 20.2 billion, then declining to SAR 16.4 billion in January 2018, as consumers sought to mitigate the negative effects of VAT implementation on their disposable income.

Impact of VAT on business

Small and medium-sized enterprises (SMEs) experienced a moderate impact from VAT due to high compliance costs. There were also concerns regarding VAT neutrality. In response, the government introduced the Private Sector Stimulus Plan to stimulate growth and boost private sector confidence.

Sustainable economic growth

The introduction of VAT has been a landmark event for Saudi Arabia. Although VAT and other fiscal adjustments were successfully implemented, in the long run, these measures could impact GDP growth aspirations.
Oil-rich countries and other nations endowed with natural resources are exposed to significant short- and long-term economic challenges because of these primary resources’ price fluctuations. For example, at the end of 2014, oil-exporting countries entered a distressed period due to sharp declines in oil revenues resulting from variations in market value. This instability was primarily due to decreased demand and higher supply, along with other factors such as geopolitical dynamics.

Experts have also found that, historically, resource-rich nations have recorded lower economic growth rates than other countries. This tendency has become known as the “resource curse,” which has been confirmed for oil-rich nations such as Angola, Nigeria, and Venezuela. Frankel (2010) conducted an econometric study of how natural resources slow resource-wealthy countries’ growth. The cited author argues that a number of reasons lead to this counterintuitive relationship, including the direct impact of these resources’ international price fluctuations on fiscal policy and economic activities. These reactions, in turn, affect resource-rich nations’ economic and social welfare.

Nabli and Arezki (2012) also discuss this pattern as part of their explanation of resource-wealthy countries’ economic performance in the Middle East and North Africa (MENA) over time. The cited researchers show that nations with the above symptoms may hang on to their core sources of income despite volatile global commodity prices, especially countries with smaller and less varied economies. Consequently, these nations’ governments need to seek to diversify their income sources to get away from natural resource price fluctuations. Vulnerable countries should apply various tools within fiscal policies and procedures to maintain stable revenues leading to long-term, sustainable economic growth.

Taxation is one fiscal tool that governments can implement to eliminate revenue instability. Ebrill, Keen, Bodin, and Summers’s (2001) work sheds light on the current uses of value-added tax (VAT) and other relevant aspects of taxation policy. The cited authors identify two main types of tax: direct tax, which is directly imposed on taxpayers and paid to the government (e.g., income tax), and indirect tax (e.g., VAT), which taxpayers pay to intermediaries such as retail stores.

VAT was first applied in France in 1954. In recent decades, this tax has become one of the most efficient tools in terms of policies and administration. VAT has been widely adopted by more than 150 countries around the world, and this revenue’s share of gross domestic products (GDPs) is globally averaged at 75 percent. VAT, also known as “consumption tax,” is imposed as an added value to goods or services at each stage of the supply chain, starting with producers and ending with final consumers. According to the International Monetary Fund (IMF), standard VAT rates range between 3 and 25 percent. Some products are exempt from VAT or zero-rated. When sales are zero-rated, the VAT rate is zero percent.

This paper discusses Saudi Arabia’s inflation trends since the 1960s, focusing upon recently implemented VAT and energy price policies’ impacts on inflation. The next section gives an overview of VAT in the Gulf Cooperation Council (GCC) and Saudi Arabia, followed by an analysis of this nation’s long- and short-term inflation trends. Then, the major events that have affected Saudi Arabia’s economy are detailed, and, finally, the effects of the VAT’s introduction are assessed.
An economic term that defines the division of the tax burden between buyers and sellers is known as the “tax incidence.” Two types of tax incidence exist: economic and statutory. A working paper prepared by Fullerton and Metcalf (2002) defines statutory incidence as the tax burden as determined by legal obligations. Economic incidence, in turn, measures the changes in economic welfare that are caused by taxes. Analyzing the tax incidence helps determine taxes’ impact on households, firms, and entire economies.

The literature shows that the amount each party is obligated to pay depends on various factors. These factors include, among others, the direction of tax rate changes and elasticities of supply and demand. For example, if a more inelastic supply curve exists, the supply bears the greatest share of an increased VAT, and vice versa.

Identifying the macroeconomic implications of the introduction of a VAT is one method used to assess this tax’s success, especially since predicting precisely the VAT’s social and economic impacts on a country is usually difficult. This tax has an observable effect on prices, income distribution, individual consumption, and saving habits. In addition, many economists have shown that implementing a VAT influences economic indicators such as inflation. Different studies have examined the relationship between taxes and inflation and concluded that the VAT’s introduction or rate revisions have major implications for inflation.

Figure 1 illustrates how the VAT process moves through the supply chain. The amount received by sellers as a percentage of their products’ selling price is the VAT output. The VAT input, in contrast, is the amount paid by buyers as a percentage of the products’ selling price. As mentioned previously, VAT is charged at each stage of the supply chain, and the government eventually receives the VAT output. Businesses collect VAT from consumers and pay it to the central state after they reclaim the VAT input they have already paid to suppliers. Thus, the government receives the net tax, which represents only the VAT.
In the Gulf Cooperation Council (GCC) region, countries rely on oil as a primary source of income. As stated by the IMF, between 2011 and 2014, oil revenue in GCC countries accounted for 70–95 percent of the total government income. Accordingly, any shock in oil prices will have significant impact on government revenues. For example, one of the major oil price shocks was in 2014–15, when Brent Oil nominal spot prices dropped from USD 98.9 per barrel (pb) in 2014 to USD 52.4 pb in 2015. As per the Ministry of Finance (MoF), this significant downward movement led to a sharp decrease in the total revenue in Saudi Arabia by 41 percent. Nevertheless, in order to mitigate for the negative impact of oil price fluctuations and to strengthen public finance, the GCC region decided to introduce new tax policies such as VAT.

Implementing VAT in GCC countries has always been a recurring idea and recently re-emerged with insistence. The budgetary difficulties faced by GCC countries in the aftermath of the oil price shock in this decade convinced them to reform their existing tax systems. As recommended by the IMF, they agreed to introduce new tax instruments to compensate for reductions in government revenues resulting from falling oil prices, and to strengthen their financial systems. As recommended by the IMF, they agreed to introduce new tax instruments to compensate for reductions in government revenues resulting from falling oil prices, and to strengthen their financial systems. Each member state would have its own national VAT legislation, based on agreed-upon common principles. In June 2016, all the GCC member states signed the Common VAT Agreement, according to which each country shall introduce a VAT system at a rate of 5 percent. Saudi Arabia and UAE introduced it in January 2018 while Bahrain introduced it in January 2019. Oman would follow in September 2019, while Kuwait is planning implementation in 2021.

VAT in GCC

VAT in Saudi Arabia

Since the 1950s, Saudi Arabia adopted tax systems including income tax, capital gain and corporate tax. Later in 1975, the Saudi government gained high oil revenue and decided to stop taxes on national and non-national residents, as per Bannaga (2017). However, as part of the recent policy mandate designed to diversify revenue streams away from oil, Saudi Arabia implemented VAT to boost non-oil revenues and mitigate any oil price shock. The VAT rate, at 5 percent, for most goods and services, such as food and beverages, domestic transportation, hotels, private education, and private healthcare, put upward pressures on prices. This new policy led to cost-push inflation by 2.5 percent in 2018. In the short run, VAT is expected to cause minimal one-off price rise. In the long run, however, it is not expected to cause a significant or sustainable increase in underlying inflation and its impact is currently easing out in 2019. This is consistent with a simulation finding for Kuwait in 2011 as it estimated the impact of the introduction of 5 percent VAT not to increase inflation by more than 4 percent. Moreover, zero-rated and exempted products play an essential role in reducing the inflationary impact of VAT, according to the IMF. As stipulated by the General Authority of Zakat and Tax (GAZT), several sub-sectors such as residential rent, student housing rent, life insurance and life reinsurance were exempted. VAT has also increased compliance costs for businesses, which have generally been passed on to consumers. GAZT played an important role and overcame challenges to introduce VAT in Saudi Arabia.

Furthermore, lower oil revenues during 2015–17 were at the center of the sharp deterioration in fiscal accounts. However, non-oil revenue initiatives led to higher tax revenue estimates (SAR 166 billion) in 2018, increasing by 89.4 percent compared to 2017, as stated by the Saudi MoF (Table 1). Taxes on goods and services, in particular, were expected to increase in 2018 by 187.9 percent compared to 2017, and 32.9 percent compared to the budget estimate.

VAT in GCC and Saudi Arabia

GCC implementation timeline of VAT
Main features of Saudi Arabia’s VAT

**VAT rate**

5 percent

**Threshold**

SAR 1 million (2018); SAR 375,000 (2019)

**Exemptions and zero rating**

Lease of residential real estate; financial services on margin base; qualifying medicines and medical goods, as defined by the Ministry of Health; and exported goods and services

### Table 1: Fiscal development

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenues</td>
<td>692</td>
<td>783</td>
<td>895</td>
<td>975</td>
<td>1,005</td>
<td>1,042</td>
</tr>
<tr>
<td>Taxes</td>
<td>87</td>
<td>142</td>
<td>166</td>
<td>183</td>
<td>194</td>
<td>201</td>
</tr>
<tr>
<td>Taxes on income, profits and capital gains</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>15.8</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td>Taxes on goods and services (including VAT)</td>
<td>39</td>
<td>85</td>
<td>113</td>
<td>&gt;100%</td>
<td>132</td>
<td>141</td>
</tr>
<tr>
<td>Taxes on international trade and transactions</td>
<td>19</td>
<td>25</td>
<td>16</td>
<td>-14.80%</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Other taxes</td>
<td>15</td>
<td>17</td>
<td>20</td>
<td>31.10%</td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Other revenues</td>
<td>604</td>
<td>641</td>
<td>729</td>
<td>791</td>
<td>810</td>
<td>840</td>
</tr>
</tbody>
</table>

Note: SAR billions, unless otherwise stated
Source: Budget Statement Fiscal Year 2019, MoF

The role of the General Authority of Zakat and Tax (GAZT)

In Saudi Arabia, GAZT manages the implementation, administration and enforcement of VAT. The authority performs its duties by closely coordinating with other relevant authorities. Introduction of VAT presented both opportunities and challenges, including internal tax administration, intra-government coordination (especially with Customs), business communication and readiness, and consumer awareness, for GAZT. However, the authority successfully overcame these challenges and launched the VAT in the country.
Overview of inflation in Saudi Arabia

Inflation in Saudi Arabia is measured based on the growth rate of the Consumer Price Indexes (CPIs), released by the General Authority for Statistics (GaStat) on a monthly basis. GaStat is responsible for preparing and implementing surveys, research, and studies on all indicators of statistical data and information within Saudi Arabia. The CPI basket is composed of 12 segments and 470 items. Each segment’s importance is shown through its weight, which equals the percentage spent of the total consumption expenditure (Table 2). In 2018, GaStat revised the base year from 2007 to 2013 to reflect new consumers’ preferences. Housing, Water, Electricity, Gas and Other Fuels segment and Food and Beverages segment occupy the highest proportion from the expenditures representing 44.1 percent in total of the CPI (Table 2). This indicates that private consumption is mostly spent on these two segments.

In the early 1980s (1981 onwards), the Saudi Riyal was pegged with the IMF’s Special Drawing Right (SDR) basket of currencies. However, the government initiated the tight currency peg in mid-1986 and pegged the Riyal’s value to that of the USD at an exchange rate of SAR 3.75 per USD. This brought control over inflation in Saudi Arabia (Alkhareif 2017). One of the benefits of such a peg policy is that it enables importers and exporters to create a stable trading environment, i.e. policy makers can know exactly what exchange rate to expect, limiting uncertainties, such as inflation or interest rates that can inhibit dealings between two countries.

Two primary sources of inflation are cost-push and demand-pull inflation. When the aggregate supply of goods and services produced within a country decreases as a result of increasing production costs, cost-push inflation occurs. On the other hand, when the aggregate demand of goods and services exceeds the aggregate supply, demand-pull inflation arises. Nevertheless, causes of inflation differ from one country to another according to various factors such as economic diversification, economic openness and business activities. According to the Saudi Arabian Monetary Authority (SAMA) inflation report, international factors, such as developments in international financial markets and the activity of the global economy, along with domestic factors, such as money supply and change in the prices of imported goods, are primary determinants of inflation across countries around the world. In Saudi Arabia, external factors are the main sources of inflation, which is consistent with the fact that the Saudi economy is highly open, wherein the majority of goods are imported. The recent economic history of Saudi Arabia experienced several high inflationary periods. In some periods, increase in world oil prices and the fall in the USD against major currencies triggered high inflation rates in both the short and the long run. Also, shifts in domestic demand — as a result of the upsurge of oil prices — have raised the inflation rate. However, it appears that money supply had limited effect on the rate of inflation in Saudi Arabia, which could be explained by the fact that the Saudi Riyal is pegged to the USD. This also causes the Saudi interest rate to follow the US Federal Reserve rate, although they could be at different levels of economic stages and might have intended economic consequences.

In the next section, we shall cover the five major events starting with the oil crisis and very high inflation in the 1970s followed by deflation in mid 1980s, Gulf War in 1990, global financial crisis in 2007 and macroeconomic stability from 2010 till 2013. Then, we shall focus on the short-term inflation from 2014 till 2019.
Table 2: Expenditure divisions

<table>
<thead>
<tr>
<th>Expenditure categories</th>
<th>Weight (Base year 2013)</th>
<th>Weight (Base year 2007)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing, water, electricity, gas, and other fuels</td>
<td>25.38</td>
<td>20.5</td>
<td>4.88</td>
</tr>
<tr>
<td>Food and beverages</td>
<td>18.87</td>
<td>21.7</td>
<td>-2.83</td>
</tr>
<tr>
<td>Transport</td>
<td>9.95</td>
<td>10.4</td>
<td>-0.45</td>
</tr>
<tr>
<td>Furnishings, household, equipment &amp; routine household</td>
<td>8.56</td>
<td>9.1</td>
<td>-0.54</td>
</tr>
<tr>
<td>Communication</td>
<td>8.49</td>
<td>8.1</td>
<td>0.39</td>
</tr>
<tr>
<td>Restaurants and hotels</td>
<td>6.07</td>
<td>5.7</td>
<td>0.37</td>
</tr>
<tr>
<td>Clothing and footwear</td>
<td>6.23</td>
<td>8.4</td>
<td>-2.17</td>
</tr>
<tr>
<td>Miscellaneous goods and services</td>
<td>5.73</td>
<td>6.8</td>
<td>-1.07</td>
</tr>
<tr>
<td>Education</td>
<td>4.23</td>
<td>2.7</td>
<td>1.53</td>
</tr>
<tr>
<td>Recreation and culture</td>
<td>3.43</td>
<td>3.5</td>
<td>-0.07</td>
</tr>
<tr>
<td>Health</td>
<td>2.35</td>
<td>2.6</td>
<td>-0.25</td>
</tr>
<tr>
<td>Tobacco</td>
<td>0.68</td>
<td>0.5</td>
<td>0.18</td>
</tr>
<tr>
<td>General Index</td>
<td>100</td>
<td>100</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Source: GaStat
Note: Double decimal figures not available for base year 2007
Analyzing long-term inflation in Saudi Arabia

The inflation rate in Saudi Arabia witnessed significant movement during the long run due to major economic events. In this section, we shall discuss the five main inflation events in Saudi Arabia since the 1960s (Figure 2). Oil prices increased in the 1970s, which led to a substantial increase in inflation, while in the 1980s, inflation declined and reached -3.2 percent due to decline in oil production. Furthermore, the Gulf War put the Saudi economy under pressure in the 1990s as the government expenditure increased by approximately 30 percent. The global financial crisis in 2007 also led to a rapid increase in inflation rate to reach 9.9 percent.

1964–1979 (Oil crisis in 1973):
According to the World Bank, inflation fluctuated between 0.4 and 3.5 percent from 1964 to 1969. However, in the 1970s, major economic events took place, including the 1973 oil crisis. Oil prices increased by 273 percent, affected by political events, leading to 16.5 percent inflation. Furthermore, in 1975, inflation reached a record high of 35 percent (Figure 2) caused by several factors such as rising salaries and increase in government expenditure, which led to a monetary expansion. To mitigate such inflationary pressures, the government took forward steps. For example, some taxes including domestic petroleum products tax and road tax were eliminated. A number of programs were launched to promote bulk imports to reduce pressure on price increases as well.

The Saudi economy experienced a very low rate of inflation during this period, following the oil boom in the seventies. The inflation in Saudi Arabia during this period fluctuated between inflation and deflation, averaging 0.1 percent. As oil prices peaked between 1980 and 1981, Saudi oil production increased in terms of millions of barrels of oil per day (mbopd). In 1985, however, Saudi oil production declined to around 2 million barrels per day. In 1986, the inflation in Saudi Arabia witnessed the lowest rate of -3.2 percent (Figure 2).

1990–1999 (Gulf war in 1990):
Although Saudi Arabia was involved in the Gulf War during the early 1990s, the inflation rate only reached 2.1 percent. However, except for inflation, the Saudi economy faced enormous financial challenges posed by the outbreak of the Gulf War. Due to the Gulf crisis, the government expenditure on weapons and other military equipment increased, in both 1990 and 1991, by more than 30 percent as compared to the previous years.

Inflation stayed between -1.1 and 0.6 percent from 2000 until 2005 and then increased in 2007 (from 2.2 percent in 2006), marking a hike of 4.2 percent. Many researchers argued that this coincided with the Saudi Riyal’s peg to the USD, in which it experienced a drop in the exchange rates for other currencies relative to the USD by nearly 10 percent between 2007 and 2008. The USD fall between 2002 and 2008 was not uniform against individual global currencies. Different countries showed their willingness to fluctuate while the Riyal was fixed against the USD. For instance, the dollar fell 45 percent against the Euro, 24 percent against the Yen and 16 percent against the Yuan.

2010–2013 (Macroeconomic stability):

The inflation rate gradually decreased from 5.3 percent in 2010 to 3.5 percent in 2013 (Figure 2). Prior to 2014, fiscal and external surpluses enabled Saudi Arabia to reinforce its macroeconomic stability and also to build policy buffers. Fiscal spending witnessed a constant increase primarily due to high oil prices and oil revenues. Furthermore, mindful of the fiscal vulnerabilities driven by oil price fluctuations, the government paid off a significant portion of its debt and built up large financial assets.
Falling oil prices (2014–2016):

After remaining quite stable from 2012 till 2014, inflation started to ease and reached 1.3 percent in 2015. There was a large drop in oil prices in 2014 primarily resulting from a glut in oil supplies coincident with producing relentless energy from the US shale, and low oil demand and slower economic growth in a few countries such as China, Russia, India and Brazil. During that period, the fiscal deficit was very large in Saudi Arabia recording SAR 54 billion, prompting the government to take a number of fiscal adjustment measures.

It began with a substantial spending cut in late 2015, followed with a preliminary set of reforms and a tighter budget for 2016. This was followed by energy and water price reforms implemented in early 2016, which saw the CPI rise. Considering the impact of higher energy, water, and tobacco prices, inflation reached 2 percent in 2016.

On 25 April 2016, the ambitious Vision 2030 was announced in Saudi Arabia to build a strong future for the country. To ensure the vision’s success, the Council of Economic and Development Affairs (CEDA) established 13 Vision Realization Programs (VRPs). Some of these programs were launched in 2016, including the Fiscal Balance Program (FBP), which aims to achieve fiscal and economic sustainability through the implementation of non-oil revenue initiatives such as VAT, excise tax and expat levy.

The following section analyzes the inflation rate over two periods — one experiencing a fall in global oil prices (2014–2016) and another experiencing fiscal adjustments in Saudi Arabia (2017–2019). It also shows the impact of introduction of VAT and energy price reform on inflation.

**Figure 3: Inflation rate (%), (2014–2018)**

- **2014**: 2.2%
- **2015**: 1.3%
- **2016**: 2.0%
- **2018**: 2.5%
- **1H19***: -1.8%

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*Note: Inflation rate for 2019 is the calculated average rate of first six months of this year.
Source: SAMA, GaStat

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**Analyzing short-term inflation in Saudi Arabia**

In the previous section, it has been shown that the main determinants of inflation in Saudi Arabia were external events including the oil crisis, Gulf War, trading partners and the global financial crisis. During recent years, inflation rate has been mainly affected by significant economic reforms such as energy price reform and other fiscal policies executed by the Saudi government. As part of the Vision 2030 plan, a number of programs were launched, including the Fiscal Balance Program (FBP), which aims to achieve fiscal and economic sustainability through the implementation of non-oil revenue initiatives such as VAT, excise tax and expat levy.

The following section analyzes the inflation rate over two periods — one experiencing a fall in global oil prices (2014–2016) and another experiencing fiscal adjustments in Saudi Arabia (2017–2019). It also shows the impact of introduction of VAT and energy price reform on inflation.

As per the recent Budget Statement for Fiscal Year 2019 by MoF, Saudi Arabia has been successful in reducing its fiscal deficit, with actual fiscal deficit declining between 2015 and 2018, reaching SAR 136 billion (or 4.6 percent of GDP) in 2018. The government is gradually moving toward accomplishing its goal of fiscal balance by 2023.

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*Note: Inflation rate for 2019 is the calculated average rate of first six months of this year.
Source: SAMA, GaStat

Inflation declined to reach -0.9 percent in 2017 (Figure 3), with CPI declining and recording negative monthly inflation rates. Since 2001, it was the first time that the country registered a deflation rate, anticipated to be a diminishing effect of the reforming prices of energy in January 2016. Monthly inflation rates declined from -0.4 percent in January 2017 to -0.7 percent in May 2017. However, it started to improve gradually and reached 0.1 and 0.4 percent in November and December, respectively. The most significant movement in the percentage change among CPI component was food and beverage recording a decline of 4.2 percent in January 2017. In addition, the subcomponents of food and beverage that mainly caused the negative percentage change were vegetables and meat and poultry (diminishing by 9 percent and 7.6 percent, respectively). Although food prices in Saudi Arabia follow the global trend, food and beverage prices were declining during the year regardless of the increasing global prices of food (FAO Index). This was driven by the lifting of the ban on meat and poultry from certain countries by the Saudi Food & Drug Authority (SFDA) during the previous months. In addition, this can also be due to the Saudi Riyal being strongly pegged to the USD compared with other currencies. However, an appreciation in the USD led to an impact on the import bill as it declined on a yearly basis. In May 2017, annual percentage change in deflation registered a negative high of 0.7 percent. Other important factors causing the deflation in 2017 were sluggish growth in money supply, partly the result of declining government spending.

VAT in the UAE

VAT was also implemented by the UAE in January 2018, which had similar inflationary effects on the economy. Annual inflation was 2 percent in 2017, which increased to 3.1 percent in 2018 (post VAT implementation) and is expected to decline and remain at 2.1 percent in 2019 and 2020. In June 2019, it was reported that inflation rate in the UAE fell to 2.1 percent y-o-y in April 2019, marking a four-month low with the CPI recording 108.8 points, compared to 111.2 points in April 2018. This shows the similarity of the effects on inflation due to the implementation of VAT in both Saudi Arabia and the UAE.

Source: KPMG analysis

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In 2018, several fiscal measures boosted prices, including the introduction of VAT and fuel subsidy reductions. Other main determinants of inflation in 2018 were the recovery of oil prices, rising international food prices and monetary tightening by the US Fed. From January to May 2018, tobacco registered the highest CPI percentage change ranging between 54.1 and 54.7. Transportation witnessed an increase from January till December 2018, with CPI percentage change ranging between 10.1 and 12.0. The core group that led to such an increase was the Operation of Personal Transportation, as it jumped to 25.7 percent in June 2018. Furthermore, the core class under the Operation of Personal Transportation that sharply increased (by 776 percent) was fuels and lubricants for personal transport equipment. However, the base effect resulting from the introduction of VAT and higher petrol prices at the start of 2018 has had a strong impact on y-o-y inflation in early 2019, with the CPI registering a 2.2 percent decline in February (the biggest fall for 18 years). With the deflationary trend set to continue over the coming months and also taking into account the impact of falling rents and lower global commodity prices, it is expected that CPI shall record an average decline of -1.1 percent in 2019 (Figure 5) (World Economic Outlook, IMF). Saudi Arabia’s annual CPI fell for the sixth month in a row in June 2019 (-1.4 percent). The main CPI division that sharply declined was Housing, Water, Electricity, Gas and Other Fuels with an average of -8 percent. Actual rentals paid by tenants was at the center of that negative rate as property rental prices were falling as a result of job losses in the market. In March 2019, housing and utilities fell by 8 percent y-o-y, as rentals for housing continued to witness declining prices falling by 9.3 percent y-o-y in the same month.

Deflation is expected to persist in 2019 but is expected to normalize by 2020. While the timing of the introduction of tax-based reforms such as VAT, expat levy, excise taxes and energy reforms might be unfavorable due to the prevalence of deflationary situation in 2017, the benefits of such reforms may be very good for Saudi Arabia in the long run.

**Fiscal balance and sustainability (2020–2023F):**

Further subsidy cuts are expected over the forecast period till 2023; the direction of VAT movement is unclear at the moment and it would largely depend on the economic dynamics in the future. However, such moves are unlikely to have lasting inflationary effects. As authorities attempt to achieve fiscal balance to dampen domestic demand, it might lead the government to tighten the expenditure. This will also help offset a slight rise in imported inflation resulting from a weakening of the USD. Against this backdrop, inflation is expected to remain contained, averaging 2.2 percent between 2020 and 2023.

Saudi Arabia is successful in reducing its fiscal deficit, with actual fiscal deficit declining between 2015 and 2018, reaching SAR 136 billion (or 4.6 percent of GDP) in 2018. The government is gradually moving toward accomplishing its goal of fiscal balance by 2023. Deflation in the economy is expected to persist even after a range of tax-based reforms including VAT introduced in 2018. However, the Citizen’s Account Program, increasing capital expenditure and a greater focus by the government on its fiscal policy and Vision 2030 Programs shall pull out the country from the current state of deflation and into the usual and healthy levels of inflation.
The inflationary impact of measures such as FBP, VAT, excise tax and expatriate levy was brief and partly offset by opposing trends such as declining domestic rents.

Excise tax was implemented during the second quarter of 2017 at a rate of 50 percent on soft drinks and 100 percent on energy drinks and tobacco. Excise tax seeks to reduce the consumption of superfluous and harmful commodities such as soft drinks, energy drinks, tobacco and its derivatives. This new policy has been reflected in the annual percentage change of tobacco CPI through January 2017 and 2018 which increased up to 54.5 percent (Figure 6).

In addition, in the third quarter of 2017, Saudi Arabia started levying a monthly fees on expat employees only if the number of expatriates were equal or exceeded the number of Saudi employees. If the number of expatriates are greater than the Saudi employees, the fees will be SAR 400 per head. On the other hand, if the number of expatriates are equal or less than the Saudi employees, the fees will be SAR 300. According to the FBP plan, the fee will increase annually by SAR 200. In 2019, the fee had reached SAR 600 per foreign employee or SAR 500 if the expatriates are equal or less than the Saudi employee. A monthly fee of SAR 100 was also imposed on dependents from July 2017 and shall also increase by SAR 100 every year to reach SAR 400 by July 2020.

Inflation rate of tobacco increased by 74 percent y-o-y in June 2017, and by 100 percent y-o-y in July 2017. Moreover, January 2018 saw yet another y-o-y increase of 54.5 percent.

Figure 6: Tobacco CPI increase in 2017

Inflation rate of tobacco increased by 74 percent y-o-y in June 2017, and by 100 percent y-o-y in July 2017. Moreover, January 2018 saw yet another y-o-y increase of 54.5 percent.
On 1 January 2018, VAT was implemented in Saudi Arabia with a standard rate of 5 percent. The law requires a mandatory registration by all Saudi Arabian residents whose annual taxable turnover exceeds SAR 375,000. Indeed, different parts of the economy were affected. As indicated earlier (Miki 2011), the introduction or rate revisions of VAT led to major implications on inflation, with countries such as Russia and South Africa experiencing this trend before. Although there are a number of commodities and services that are exempt from VAT or zero-rated, the price of the market basket of commodities and services will increase. In the month prior to the VAT introduction, the Point of Sale (POS) transactions, which can be used as a tool to measure consumer spending in Saudi Arabia, increased by 28.1 percent y-o-y in December 2017 (Figure 7). During the following month, the POS transactions declined and only increased by 4.3 percent y-o-y in January 2018.

This had been explained by Kalaš, Mirović and Andrašić (2018) who stated that the introduction of VAT had a short-term impact on aggregate consumption and economic growth. An increase in tax leads to lower disposable income. Accordingly, as people expect an increase in the VAT rate, they tend to increase their consumption right before its implementation, majorly to mitigate the negative impact on their disposable income. Once VAT is introduced, aggregate consumption will decline. However, this decline in aggregate consumption is temporary as it increases gradually with time (Figure 8). It is important to note that the timing of the VAT announcement plays an important role in determining the impact right after the introduction of VAT on aggregate consumption and economic growth. That is, earlier the VAT is announced, the weaker will be the positive impact. Furthermore, the government can also weaken the impact of VAT right after the implementation by introducing policies that offset the effect of VAT.

Figure 7: Point of Sale Transactions (SAR billion), January 2016 till March 2019

As VAT was introduced in January 2018, POS transactions spiked in December 2017 reaching SAR 20.2 billion, as consumers try to compensate the negative effect on disposable income post VAT implementation.

Figure 8: The movement of aggregate consumption - increase of VAT rate

In Saudi Arabia, the introduction of VAT and increased domestic gasoline prices have had a definite impact as evident from inflation rate growing to 3 percent in January 2018. However, the rates gradually fell from 2.9 percent in February 2018 to 2.2 percent in December 2018. Inflation rate went into negative territory (deflation) in the first six months of this year, with SAMA reporting rates of -1.9, -2.2, -2.1, -1.9, -1.5 and -1.4 percent from January till June 2019, respectively. This is primarily due to the base effects of fuel subsidy cuts and VAT implementation gradually wearing off.
Nevertheless, as per Dijkstra (2013) studies, the extent of VAT impact on inflation depends on market competitiveness, and supply and demand elasticity. Elasticity has been defined as the degree of responsiveness to changes in the price of goods or services by the demand or supply. Dijkstra (2013) argued that in a perfectly competitive market, there is a positive relationship between the VAT rate and the consumer price index, i.e. as VAT increases, consumer prices also increase. However, it has been found that the curve with more inelasticity bears the greatest share of the VAT rise.

The impact of VAT on each category of the General Price Index depends on the elasticity of the demand and supply of the category (Figure 9). Although all segments of the CPI have been changing in response to the VAT introduction, the degree of increase or decrease partly depends on the degree of necessity of goods. For example, transportation recorded the highest percentage change from January 2017 to January 2018 by 10.5 percent caused by an increase in fuel prices by 26 percent in January 2018. This may indicate an inelastic demand of such a segment. That is, people will continue spending on transportation regardless of the increasing prices of fuel. Furthermore, as food and beverages segment comes fully under the ambit of VAT, prices of that segment increased by 6.7 percent. Other reasons could be that suppliers are affected by fuel and utility price reforms as food and beverages include a number of imported items.

**Figure 9: Annual inflation rate for January 2018**

![Annual inflation rate for January 2018](image)

Source: GaStat
To help offset the VAT introduction and the rise in fuel prices, and to help citizens cope with such inflationary pressures, a royal decree was passed ordering a monthly payment for Saudi citizens in January 2018 after the implementation of VAT. It included a monthly allowance of SAR 1,000 to state employees and military personnel for one year, SAR 500 allowance for retired people and social security beneficiaries and a 10 percent raise in stipend payments for students.

Furthermore, the Citizen’s Account Program was introduced earlier in December 2017 to eliminate the impact of various economic reforms, improve the government subsidy and promote consumption rationalization.

Figure 10: List of principals under Citizen’s Account Program

01 Providing needed protection to low-income individuals against the potential impact of reforms

02 Distributing the allowance fairly to each category and changing it according to the size of the family

03 Avoiding increasing consumption or dependency resulting from the support provided

According to the Ministry of Labor and Social Development (MLSD), the allowance will be reviewed every three months to align with any changes in energy and electricity prices. Currently, the program has compensated a small number of the CPI components, as compared with multiple policies/reforms such as energy price reform, expat levy, and excise tax on the Saudi population. To ensure that the program is targeting precisely the affected parties (low- and medium-income households), further steps and new mechanism can be executed.
Impact of VAT on business profitability

VAT is not just a replacement of a conventional sales tax regime. It impacts business models, i.e. procurement policy, suppliers’ chain, distribution policy, selling and marketing strategies and finally the bottom line, as per J. Ravikumar (2005).

In the first month of the VAT implementation, business owners were bracing themselves for a big change. Historically, Saudi has operated one of the simplest taxation systems in the world. Yet, businesses geared up to comply with a relatively quick registration process in order to meet the deadline. One of the major benefits of VAT is its relatively high economic neutrality. The principle of tax neutrality requires that businesses in similar situations carrying out similar transactions should be subject to similar levels of taxation. As a result, business decisions will be motivated by economic reasons rather than tax.

The government in Saudi Arabia has been successful in ensuring the neutrality of VAT:

— The tax is levied on a broad base with few exemptions.
— Businesses have the full right to deduct input tax through the chain of supply.
— GAZT has implemented an effective VAT refund procedure and the majority of the businesses have a positive experience so far, obtaining refund without substantial delays.
— Taxation of international trade is generally based on the destination principle, meaning that exports are zero-rated and imports are taxed in the same manner as local supplies.
— GAZT is issuing both public and individual clarifications to taxpayers on how their transactions should be treated for VAT purposes.
— Overall, VAT compliance costs are relatively low for businesses.

Concerns related to VAT neutrality

Since the implementation of VAT, legislative and operational issues have been highlighted that impact the neutrality of the tax. To its credit, the GAZT has taken steps to provide clarifications by issuing numerous detailed guides as well as private rulings to specific taxpayers. Whilst some concerns still persist, recent changes to address anomalies are most welcome.

**VAT refunds to Eligible Bodies** – Since the inception of VAT in Saudi Arabia, certain institutions defined as “Eligible Bodies” have been entitled to a refund of input VAT incurred on expenses despite not conducting any economic activity or making taxable supplies and, therefore, not being eligible for VAT registration. Without the refunds, these institutions have incurred additional costs or passed the costs onto their suppliers – again impacting VAT neutrality. The mechanism to obtain refunds has recently been clarified and the expectation is that payments to qualifying entities will be paid in the coming months.

**Registration of non-residents** – Since the inception of VAT, the number of non-resident registrations has been relatively low primarily because of the difficulty in finding Saudi residents willing to act as a tax representative. The tax representative had unlimited joint liability for the tax debts of the non-resident, placing a major financial burden on the representatives who were unwilling to accept the responsibility without adequate indemnification. Non-residents were reluctant to provide financial guarantees without clear guidelines in terms of the values concerned. The regulations have recently been amended so that non-residents may now either appoint a tax representative subject to certain conditions or, a third party who would be responsible for maintaining adequate records. If the non-resident chooses to appoint a third party, a cash security must be deposited with GAZT. The third party would not be jointly liable for the tax debts of the third party.

Nicholas Soverall
Head of Tax, Riyadh - KPMG in Saudi Arabia

“One of the major benefits of VAT is its relatively high economic neutrality. The principle of tax neutrality requires that businesses in similar situations carrying out similar transactions should be subject to similar levels of taxation. As a result, business decisions will be motivated by economic reasons rather than tax.”
Impact on SMEs and VAT violations

Small or medium-sized enterprises (SMEs) have experienced a moderate impact by VAT, largely owing to the relatively high cost of compliance. According to Ramidy (2015), tax compliance costs are defined as costs incurred by the taxpayers in meeting the tax law requirements. Beginning January 2019, SMEs with a turnover that exceeds SAR 375,000 per annum are required to provide their accounting records annually. Moreover, records such as contracts, purchase orders, delivery notes, and export and import documents are required to be documented and disclosed to GAZT upon request and expected to be aligned with supporting documentation. Additionally, these entities are required to maintain records of cash flow management, including the collection and remittance of VAT.

The government, however, devoted considerable effort and focused on operational expenditure to help offset the impact of VAT introduction and the rise in fuel prices, and help businesses cope with such inflationary pressures. The government introduced the Private Sector Stimulus Plan to stimulate economic growth, remove any potential obstacles and enhance private sector confidence, and to improve the private sector’s contribution to the economic growth as part of the Vision 2030 plan. SMEs are also supported by the Small and Medium Enterprises Authority (SMEA) by establishing several initiatives such as returning government fees collected from SMEs, indirect lending to SMEs and raising the capital of some existing programs (Kafalah).

The Consumer Protection Association (CPA) in Saudi Arabia warned against violations such as price manipulation or fake advertisements to attract customers. Violations could result in fines, naming in the media and may even result in the closure of the store. In April 2018, GAZT confirmed that it issued 4,794 violations in various regions of Saudi Arabia in the first 100 days since VAT was implemented.

Moreover, sellers may not issue an invoice as they would not receive any credit. Another form of fraud is credit claimed for VAT on purchases that are exempt or zero-rated. This may occur due to two reasons. Firstly, when the output is too large and some are VAT-able and some are not, the sellers have the incentive to produce taxable sales rather than those that are not. Secondly, items purchased for personal consumption may be misrepresented as business inputs, which allow the trader to recover VAT.

To act against violations, the Ministry of Commerce and Investment (MCI) along with GAZT announced that they would conduct field inspections on commercial establishments to check any violations. Moreover, as to enable consumers to check if the supplier is registered for VAT or not, GAZT launched the "VAT Taxpayer Lookup" function on the VAT website (VAT.GOV.SA).
VAT and the informal economy

According to the International Labour Organization (ILO), the informal economy comprises more than 50 percent of the global labor force and more than 90 percent of global micro and small enterprises (MSEs). In Saudi Arabia, there is no official definition of ‘informal economy’ but majorly considered to be (i) informal workers not registered as employees but still working and producing goods and services and (ii) informal entities not registered or which do not maintain official financial or legal records. According to Takamol’s report ‘Defining the Informal Economy of Saudi Arabia’, the size of the informal economy in Saudi Arabia was 21.4 percent of the GDP in 2016 and is expected to grow and reach 22.9 percent by 2021.

Studies have suggested that informality is mainly undertaken to avoid tax payments and social security contributions or to avoid other legal regulations. After VAT implementation, the informal economy is likely to be impacted, as the new taxation system that can help regulate the informal economy as cash-based businesses shall need to adhere to book keeping and businesses shall need to operate ‘above the radar’ than below it.

It is also noteworthy that informal businesses shall be expected to newly register themselves with the government, post VAT implementation, and switch toward being a formal business. This is because of a cost-benefit approach to tax compliance, wherein businesses foresee benefits of formalization outweigh the associated costs. Costs of formalization include cost of registration or getting licenses, cost of tax compliance and cost of following labor laws and other regulations. Benefits are usually access to credit and capital markets, government procurement contracts, other external markets, and state-provided services and facilities.
Impact of energy price reform on inflation

According to a 2017 IMF working paper about oil prices and inflation dynamics, it was found that a 10 percent increase in global oil prices typically increases domestic inflation by about 0.4 percentage point in the short term (i.e. the year of oil price shock). As oil price shocks are generally around 50 percent or more, it is an economically significant effect. However, the effect usually eases out after two years and is similar between advanced and developing economies. As oil prices increase or decrease, inflation follows in a similar direction, primarily due to oil being a major input in a country’s economy and oil being used in critical activities such as transportation and heating.

In oil-dependent countries such as Saudi Arabia, where oil is the primary source of income, global oil price shocks have a comparatively lesser impact on inflation compared to changes in domestic energy prices. However, the inflationary impact of higher domestic energy prices is likely to be considerable. For a given increase or adjustment in energy prices, the higher the share of energy products in the consumption basket (typically captured by their weight in the CPI), higher are the first-round effects on headline inflation. However, this relationship between oil prices and inflation rate started to retreat after the 1990s. In Saudi Arabia, this was apparent during the oil price run-up from 1999 to 2005 (Appendix), when annual price of oil increased to USD 54.4 in 2005 from USD 17.7 in 1999. During this same period, inflation rate increased to 0.5 percent from -1.3 percent.

From 2010 to 2014, government revenues from oil and gas increased relatively faster than revenues from other (non-hydrocarbon) sources, alongside an increase in government expenditure. This exposed the Saudi economy further to oil price volatility. The fiscal pressures were also not uniform, which limited the fiscal adjustment options available. Saudi Arabia has been providing energy subsidies since the 1970s. However, during 2015–2016 (first phase) and 2017–2018 (second phase), there was a remarkable change in subsidies with the introduction of the energy price reform, as global oil prices started falling substantially from June 2014. Energy subsidies enabled the government to provide cheap domestic energy prices to protect household income, increase competitiveness of energy-intensive industries (such as petrochemicals) and attract foreign and domestic investments. However, the low domestic energy prices resulted in an increase in budget deficit and caused the government to spend SAR 300 billion on subsidies in 2015. Accordingly, in late 2015, the government initiated its plan to reform energy prices with an aim to reduce budget deficit as well as diversify the country’s non-energy sectors.

First phase (2015–2016)

The first phase of the reform was easier as compared to the second phase. This was primarily because the government was able to increase energy prices up to 80 percent and still continue to offer very low prices compared to regional and global standards. Retail diesel prices were raised from USD 0.067 per liter to USD 0.12 per liter, representing a near 80 percent increase. Furthermore, industry diesel prices increased from about USD 9 pb to approximately USD 14 pb.

The government also raised electricity prices. While households with consumption levels below 4,000 kWh remained unaffected, electricity price for consumption levels between 4,000 kWh and 6000 kWh increased by almost 70 percent, from SAR 0.12 per kWh to SAR 0.20 per kWh. Furthermore, price for consumption levels above 6,000 kWh was fixed at SAR 0.30 kWh. Additionally, prices of high-grade and low-grade gasoline were raised from SAR 0.60 per liter to SAR 0.90 per liter and SAR 0.45 per liter to SAR 0.75 per liter, respectively. Consequently, the price increases had their desired impact on energy demand growth, which decreased from 3.5 percent in 2015 to 1.7 percent in 2016. However, it is difficult to solely attribute this to the price hikes given that GDP growth (one of the main demand drivers) fell to 1.4 percent in 2016 compared with 4.1 percent in 2015.

Despite a substantial rise, consumers found methods to address the higher prices and the hikes were generally accepted by the public. For instance, households consuming high-grade gasoline switched to low-grade gasoline in order to offset the increase in gasoline prices. As a result, the first phase of energy reform was estimated to have minimal impact on inflation.

“

In oil-dependent countries such as Saudi Arabia, where oil is the primary source of income, global oil price shocks have a comparatively lesser impact on inflation compared to changes in domestic energy prices. However, the inflationary impact of higher domestic energy prices is likely to be considerable.

Wadih AbouNasr
Head of Tax for Saudi - Levant region, KPMG in Saudi Arabia

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**Second phase (2017–2019)**

The second phase of reforms consists of steady changes in energy prices from 2017 to 2019. Domestic prices of products were linked as a percentage to the reference export price of the respective product, and expected to change according to fluctuations in the international market. The prices of those products would be revised periodically, based on increasing the percentage linkage with the international market prices of these products. In January 2018, the government introduced another increase in gasoline and electricity prices. High-grade and low-grade gasoline prices increased by 127 percent and 83 percent, respectively. Electricity prices for residential consumption levels below 4,000 kWh increased from SAR 0.05 per kWh in 2017 to SAR 0.18 per kWh in 2018, representing an increase of 260 percent. However, for consumption levels between 4,000 kWh and 6,000 kWh, prices decreased from SAR 0.2 per kWh in 2017 to SAR 0.18 per kWh in 2018, representing a decline of 10 percent. Furthermore, for consumption levels above 6,000 kWh, electricity prices remained unaffected. Additionally, while transport diesel prices remained unchanged, industry diesel prices increased from USD 14.1 pb to USD 16.2 pb, representing an increase of 15 percent. Moreover, retail diesel prices increased from SAR 0.25 per liter in 2015 to SAR 0.47 per liter in 2018, representing an increase of near 88 percent.

Although prices for energy products increased from a very low base and were still significantly below international levels, they represented a major policy change. It highlighted the government’s determination to address its fiscal deficit and achieve economic transformation. In 2018, higher energy and electricity prices, alongside the introduction of VAT are estimated to have fed into the costs of goods and services, which rely on fuel for production and transportation, exerting a strong upward pressure on inflation. As a result, CPI inflation increased in 2018 to reach 2.5 percent. However, according to IMF, it is projected to decrease to -1.1 percent in 2019, before it stabilizes at around 2.1 percent over the medium term (2020–2021).

Moreover, fiscal deficit narrowed to 4.9 percent of the GDP in 2018. Going forward, despite a budget surplus in the first quarter of 2019, fiscal deficit is projected to rise to 7 percent of the GDP in 2019, according to the IMF. As stated by the government, energy prices are likely to be increased gradually to reach benchmark levels by 2025. The authorities indicated that they are considering periodic adjustments to prices that are at benchmark levels, however, declined to provide any additional details regarding future price increases beyond what is set out in the 2018 Budget. This is because the timing of energy price increases is likely to depend on economic conditions among other things. Furthermore, the authorities indicated that a process to introduce cross-subsidies in the energy sector that stimulates consumption is also underway.

### Table 3: Energy subsidy reform: increases in energy commodity and service prices

<table>
<thead>
<tr>
<th>Subsidized Saudi Energy Product</th>
<th>2015</th>
<th>2018</th>
<th>% change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude oil for power generation (USD pb)</td>
<td>4.23</td>
<td>5.87</td>
<td>39</td>
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<tr>
<td>Natural gas (methane) (USD/mmbtu)</td>
<td>0.75</td>
<td>1.25</td>
<td>67</td>
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<tr>
<td>Gasoline 91 octane (USD/gallon)</td>
<td>0.46</td>
<td>1.40</td>
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<tr>
<td>Gasoline 95 octane (USD/gallon)</td>
<td>0.61</td>
<td>2.09</td>
<td>240</td>
</tr>
<tr>
<td>Diesel (USD/gallon)</td>
<td>0.26</td>
<td>0.48</td>
<td>88</td>
</tr>
<tr>
<td>Water (residential) (USD/cubic meter)*</td>
<td>0.03</td>
<td>0.04</td>
<td>50</td>
</tr>
<tr>
<td>Electricity (residential, low consumption) (USD/kWh)</td>
<td>0.01</td>
<td>0.05</td>
<td>260</td>
</tr>
</tbody>
</table>

Note: * Saudi 2016 price covers first 15 cubic meter / month only (all prices in USD)
Source: Baker Institute of Public Policy; U.S. Energy Information Administration (EIA) 2018

### Table 4: Inflation rate change in 2018

<table>
<thead>
<tr>
<th>Division</th>
<th>Group</th>
<th>Classes</th>
<th>Inflation rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing, water, electricity, gas and other fuels</td>
<td>Electricity, gas and other fuels</td>
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<td></td>
<td></td>
<td>Gas</td>
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<tr>
<td></td>
<td></td>
<td>Liquid fuels</td>
<td>7.9</td>
</tr>
<tr>
<td>Transport</td>
<td>Operation of personal transport equipment</td>
<td>Fuels and lubricants for person transport equipment</td>
<td>776</td>
</tr>
</tbody>
</table>

Inflationary trends in Saudi Arabia

Inflationary trends in Saudi Arabia
Recommendations

Although falling prices can appear to be a positive trend, they could result in deflation, in which product and service values persistently decrease and lead to damaging economic consequences. Studies have also found that deflation leads to limited positive results as it decreases consumption. This is because people expect prices to fall further and delay purchases until they think prices are at their lowest. Park, Katada, Chiozza, and Kojo (2018) examined monetary policies and ways that banks and governments respond to negative inflation rates. The cited authors found that deflation can increase countries’ real debt burden. Thus, governments and central banks must implement different policies to prevent and mitigate this trend’s negative impacts.

Many economists and policymakers have conducted research on which macro-stimulus policies should be used in response to deflation. As mentioned previously, monetary policies can be an effective tool to promote price stability in national economies, but Saudi Arabia’s monetary policy is constrained by a pegged currency, which limits this policy’s effectiveness. The government potentially pays a price by implementing a pegged exchange rate as Saudi Arabia’s Federal Bank needs to maintain the fixed exchange rate. This limits the number of policies available for the government to control deflation.

In addition, because the US Federal Reserve changes its interest rates, the Saudi government has to stimulate parallel changes and ensure the same interest rates even though the US and Saudi economies are at different economic stages. Another consequence of a pegged currency policy is that, as the USD is strong, the imported inflation’s pass-through will be weak, which will further decrease Saudi Arabia’s domestic inflation. However, as stated earlier, the exchange rate peg is associated with many positive economic factors. Alkhareif and Qualls (2016) argue that the USD peg has served Saudi Arabia well and it is likely to do so until Saudi Arabia becomes a meaningfully diversified economy with exports denominated in a mix of currencies.

Furthermore, even though the Saudi economy experienced deflation in 2017, the government was still able to introduce tax-based reforms such as implementing a value added tax (VAT) with a low reduction in the VAT threshold to increase the VAT base, as well as energy prices, expatriate levies, and dependent fees reforms. Not unexpectedly, inflation picked up during 2018 but returned to negative territory in the first quarter of 2019 due to regressive VAT incidence. Along with its tax-based reforms, the Saudi government also increased its expenditure in 2018, and is planning a 20 percent yearly increase in capital expenditure of 1.1 trillion Saudi Riyals.

These measures are a step in the right direction, addressing deflation’s challenges and the economy’s slowdown even though the Saudi government’s policies have not taken deflation into consideration. The government has a clear vision of expansion in the longer run, with diversification of the country’s revenue sources and development of local resources at the core of its economic reform strategy. This expansionary fiscal policy could lead to an increase in aggregate demand and boost the economy. Government programs and incentives that encourage an increase in consumption and overall demand could help as well. In addition, new policies could include the implementation of higher taxes on savings, which in turn might lead to an increase in consumption and overall demand.

The Saudi Arabian government has clearly used tax-based reforms and spending strategies to put more weight behind a fiscal policy-led approach. These policies are expected to pull Saudi Arabia out of its current predicament of deflation.
Resource-rich countries are exposed to the risk of price fluctuations in their natural resources, which influence economic growth. Saudi Arabia has historically been ranked first worldwide in terms of oil production, exports and reserves. Because oil was this country’s core income, Saudi Arabia experienced fiscal deficit pressures in 2014. The government thus started to take steps toward diversification and ways to sustain economic growth over the long run. For example, the Fiscal Balance Program was launched, followed by a number of initiatives to achieve the objective of bolstering spending efficiency. VAT and energy price reforms, for instance, were implemented as part of the Vision 2030 plan. The inflation rate, which is one of the country’s main macroeconomic indicators, was affected by these new reforms. VAT and energy price reforms also affected business operations and households.

The VAT’s impact on consumption in Saudi Arabia has been understood based on the economic theory that this tax’s introduction has a short-term impact on aggregate consumption and economic growth. Over the long term, the impacts have, however, decreased. This was confirmed by the value of point of sales transactions in Saudi Arabia, which rose sharply before the VAT’s introduction and started to decline right after the tax was implemented. Subsequently, the value started to increase gradually again.

The VAT also had an impact on businesses, especially small and medium-sized enterprises. In addition, while this tax was designed to be economically neutral overall, the potential exists for the VAT not to be fully neutral in a few areas. Some of these areas are outside the private sector’s control, but, on the positive side, the Saudi Arabian government is endeavoring to minimize the areas of risk. The GAZT is cooperating to this end with the professional community, so businesses’ opinions are being heard.

The MoF took an essential step to increase non-oil revenue by introducing the energy price reforms. Although the reforms were introduced at two different times to diminish any negative impact, noticeable inflation occurred in the second phase. Cost-push inflation began in 2018, which was considered to be potentially toxic, but this effect softened in 2019 and inflation shifted into deflation. According to the MoF, the government also intends to continue to increase energy prices gradually to benchmark levels by 2025. However, the timing of future increases in energy prices has not yet been announced.

In conclusion, the Saudi economy experienced some fluctuations in the annual inflation rate in the past decades, but the changes were not as sharp as the recent fluctuations. In addition, the monthly consumer price index inflation has also shown significant variation due to new fiscal policy adjustments implemented during one period. In order to avoid such fluctuations, a standard best practice would be to take appropriate measures based on a holistic conceptual framework to bolster sustainable economic growth in the future.
Appendix

The elasticity mentioned previously and the impact of VAT on CPI are shown in the following graphs. The difference between $P^*$ and $P^{**}$ is the tax burden. The flatter the supply curve, the stronger will be the consumer’s response, and the larger will be the difference between $P^*$ and $P^{**}$. For example, as can be seen by Figure a, an increase in price as a result of VAT, leads the supply curve to shift to the left producing the same amount of quantity and increasing price from $P$ to $P^{**}$. While on the other hand, the quantity demanded on goods by consumers will decrease from $Q$ to $Q^*$ and the price will drop from $P^*$ to $P^{**}$. In such a case, both consumers and producers have to bear the tax burden. While in Figure b, when the marginal cost is constant, supply curve is perfectly elastic, therefore tax burden moves to the consumers.

Two scenarios of tax burden post VAT implementation

![Graph a](image)

![Graph b](image)

Annual inflation rates by division before and after VAT (%), January 2017 to December 2018

![Inflation graph](image)

Source: GaStat
We have found three empirical themes with respect to inflation in Saudi Arabia being correlated to external factors such as oil prices, trading partners and international food prices. We have analyzed each case in the following sections.

01 Inflation and oil prices

From 1985 till 1989, oil revenues (on average) accounted for 61 percent of the government’s total revenues. From 1990 till 1994, this increased to 75 percent as Saudi Arabia increased its oil production from less than 5.5 million barrels per day at the beginning of 1990 to more than 8 million barrels per day by the end of 1990. This was due to the oil crisis and Gulf War. Such an increase in production offset the negative impact of decline in oil prices on revenue. At the start of the decade, oil prices dropped from USD 23.8 per barrel in 1990 to USD 15.9 in 1994. Inflation also recorded highs of 4.9 percent in both 1991 and 1995 potentially due to substantial increase in the government’s expenditure.

Oil prices (USD per barrel, average Brent price) vs Inflation, (1990–2018)

As oil prices move up or down, inflation generally follows in the same direction and this is primarily because oil is a major factor in Saudi Arabia’s economy. Historically, there has always been a strong correlation between oil prices and inflation.

Inflationary trends in Saudi Arabia

We have found three empirical themes with respect to inflation in Saudi Arabia being correlated to external factors such as oil prices, trading partners and international food prices. We have analyzed each case in the following sections.

02 Trading partners

In 2007, domestic purchasing power declined as there was currency devaluation, and hence, led imported inflation to surge in Saudi Arabia. This is confirmed by the definition of an economic theory known as the Relative Purchasing Power Parity (RPPP) in which countries with depreciated currency have higher inflation. Once inflation started to rise in 2007, SAMA’s monetary policy was constrained by the fixed peg as it set limits on managing interest rates and controlling credit growth. Such a constraint was distinctly shown through the expansion of commercial bank lending to the private sector, which grew at approximately 35 percent y-o-y in 2008. Furthermore, economists had shown that the primary causes of inflation in Saudi Arabia, in both the short and long term, were trading partners’ inflation and global food prices.
As mentioned previously, 21.7 percent of the CPI’s total weight was represented by food and beverages for the base year of 2007 (GaStat). In 2008, there were observable increases in a number of groups of foodstuff. For example, inflation rate of milk and dairy products reached 20.7 percent, cereals and cereal products reached 19.9 percent, cooking oil and fats reached 18.8 percent and fresh fruits reached 19.3 percent (GaStat). This was caused by an increase in global prices of food as can be indicated by the FAO Food Price Index, which increased by 26.9 percent in 2007 (GRC Report). Such an increase was mainly caused by the decline in world cereal stocks, an increase in the demand for agricultural commodities, along with a rise in oil prices, which increased food transportation costs. However, as the Saudi Riyal is pegged to the USD, an increase in the global prices of goods cannot be mitigated by an exchange rate mechanism. As a result, the food prices in Saudi Arabia marked an inflation rate of 13.6 percent driven by an increase in the global prices of food and commodity (Biberovic et al. 2008). A relatively high share of people’s income is spent on food, hence, such a significant increase affected low-income households.

Furthermore, during the second half of 2008, oil prices tumbled by 80 percent. Nevertheless, the Saudi government was able to face such crises effectively. During the high oil prices in the previous periods, the government built up a massive stock of foreign reserves at SAMA. Accordingly, this allowed to preserve its expenditure plans in the short-term despite the oil shock. Moreover, the drop in oil prices erased the high global prices of food, which was also aided by a strengthening USD during the first months of the crisis.

In 2009, inflation increased rapidly to reach a maximum of 9.9 percent (as a result of the global financial crisis) for the first time since the 1970s. Nevertheless, it again started rising from 2010.

Global food prices increase can be attributed to inflationary trends in domestic food products.
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<thead>
<tr>
<th>Term</th>
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<tbody>
<tr>
<td>VAT</td>
<td>Value-Added Tax</td>
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<tr>
<td>SAR</td>
<td>Saudi Riyal</td>
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<tr>
<td>PoS</td>
<td>Point of Sale</td>
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<td>GDP</td>
<td>Gross Domestic Product</td>
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<tr>
<td>GCC</td>
<td>Gulf Cooperation Council</td>
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<td>IMF</td>
<td>International Monetary Fund</td>
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<td>SME</td>
<td>Small and Medium-sized Enterprise</td>
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<tr>
<td>MENA</td>
<td>Middle East and North Africa</td>
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<td>USD</td>
<td>United States Dollar</td>
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<td>MoF</td>
<td>Ministry of Finance</td>
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<td>UAE</td>
<td>United Arab Emirates</td>
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<td>GAZT</td>
<td>General Authority of Zakat and Tax</td>
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<td>CPI</td>
<td>Consumer Price Index</td>
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<td>GaStat</td>
<td>General Authority for Statistics</td>
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<td>SDR</td>
<td>Special Drawing Rights</td>
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<td>SAMA</td>
<td>Saudi Arabia Monetary Agency</td>
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<tr>
<th>Term</th>
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<tbody>
<tr>
<td>EIU</td>
<td>Economist Intelligence Unit</td>
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<tr>
<td>FAO</td>
<td>Food and Agriculture Organization</td>
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<td>FBP</td>
<td>Fiscal Balance Program</td>
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<td>NTP</td>
<td>National Transformation Program</td>
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<td>CEDA</td>
<td>Council of Economic and Development Affairs</td>
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<td>SFDA</td>
<td>Saudi Food and Drug Authority</td>
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<td>NEER</td>
<td>Nominal Effective Exchange Rate</td>
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<td>MLSD</td>
<td>Ministry of Labor and Social Development</td>
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<td>SMEA</td>
<td>Small and Medium Enterprises Authority</td>
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<td>CPA</td>
<td>Consumer Protection Association</td>
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<td>Micro and Small Enterprises</td>
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