GCC SUKUK: A PRIMER

Investment Characteristics of US-dollar Denominated Sukuk Originating from the Gulf Cooperation Council

June 2020

SATURNA CAPITAL

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This primer provides an overview of the investment landscape and characteristics of *sharia*-compliant investment certificates, referred to as *sukuk*, as a market niche that continues to evolve. We cover the risk and return attributes of *sukuk* and explore their relationship to changes in the price of oil; an important point to consider since hydrocarbons largely drive *sukuk* issuers' economies.

Our scope is limited to US-dollar denominated *sukuk*, primarily originating from members of the Gulf Cooperation Council (GCC), a collective coalition comprised of six member states in the Middle East.

Our rationale for focusing attention on the US-dollar denominated GCC *sukuk* market rather than the global *sukuk* market is that there is little research in this area, yet the region continues to lead other regions in issuance of US-dollar denominated *sukuk*. At year-end 2019, the GCC region represented 69% of the total $28.6 billion of *sukuk* issued. Supranational banks, such as the Islamic Development Bank or the International Islamic Liquidity Management Corporation (IILM), represent 13% of issuance, and Turkey follows at 8%.

Over the past five years, the GCC's market share for US-dollar *sukuk* issuance has averaged 60%. While Malaysia remains the largest *sukuk* issuer, commanding 60% of 2018's global *sukuk* issuance, the country issued only 2% of the US-dollar *sukuk*.[1] At year-end 2018, US-dollar denominated *sukuk* represented 25.4%[2] of total *sukuk* issuance, estimated to be valued at $490.7 billion.[3] 2018's US-dollar denominated *sukuk* issuance exceeded the average US-dollar issuance from 2001 through 2018, which was 21.8%.[4]

US Dollar Denominated *Sukuk* Issuance Trends (2015-2019)

Region of Issuance	2015	2016	2017	2018	2019
GCC	54%	43%	67%	69%	69%
Malaysia	19%	16%	0%	4%	2%
Indonesia	4%	11%	11%	12%	7%
Turkey	2%	8%	5%	1%	8%
Supranational	5%	15%	11%	12%	13%
Other	16%	7%	7%	1%	1%
Total USD Issued (In $ Billion)	$12,033	$22,890	$28,158	$25,119	$28,627

Source: Bloomberg, Saturna Capital research

What is the GCC?

The GCC is an acronym for the Gulf Cooperation Council, a political and economic alliance of six countries in the Arabian Peninsula. Its members include Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates (UAE). The GCC was established in 1981 to promote security and stability for its members[5] and has an estimated population of 54 million.[6] At year-end 2019, the estimated total GDP of GCC nations was $1.63 trillion, about 7.6% of the United States' GDP by comparison.[7]

Access to the Markets

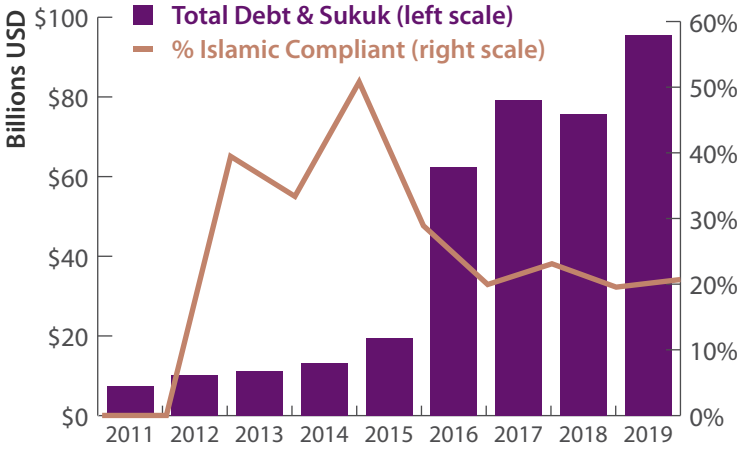
Broadly speaking, GCC members were not active issuers of either debt or *sukuk* until 2016. Following the collapse of oil prices from 2014 to 2016, GCC members turned to capital markets as a means to supplement government funding gaps. During that time, the price of oil dropped 75.6% from a high of $107.26 per barrel on June 20, 2014, to a low of $26.21 on February 11, 2015. For the next 15 months until October 6, 2016, the GCC members would not see the price of oil rise above $50.00 per barrel.

Oil's rapid and pronounced decline placed each of the GCC members in a difficult fiscal position. To offset the decline in hydrocarbon revenues, they began drawing down their regional pools of savings, such as sovereign wealth funds, to offset fiscal shortfalls. Government leaders soon realized they needed an alternative solution as it became clear that solely drawing upon their sovereign wealth funds wasn't going to offer them a long-term solution. For example, in 2015 Saudi Arabia consumed an estimated $115 billion of its sovereign wealth fund's reserves, leaving them with a projected balance of $600 billion in early 2016.[8] At that time, analysts' forecasts could see the Kingdom drawing down another $150 to $200 billion in reserves if oil remained below $40 a barrel in 2017.[9] It was entirely plausible that Saudi Arabia would burn through its entire sovereign wealth fund in a matter of years.

In April of 2016, Abu Dhabi issued a $5 billion bond to help offset a projected $10 billion deficit. It was the emirate's first bond sale in seven years since selling $1.5 billion in April 2009.[10,11] Strong demand for Abu Dhabi's high investment-grade bond (AA) bond caused it to be oversubscribed. Investors placed over 600 orders in excess of $17 billion.[12] GCC members took notice of Abu Dhabi's success. This marked the onset of a new era as the region looked to external investors to help offset budgetary shortfalls. Later, GCC members looked to these investors as a primary source to fund other capital development and infrastructure projects. Not long thereafter, regional banks and nonfinancial corporate issuers came to the market for funding.

In recent years the GCC region has evolved to become an active issuer of both conventional debt and *sukuk*. The GCC region issued $95.4 billion in conventional debt and sharia-compliant investment securities in 2019, an increase of 25.9% from the prior year's issuance of $75.7 billion and reflecting a three-year compound annual growth rate (CAGR) of 15.2%. Over the last four years, *sharia*-compliant securities have averaged 20.8% of total issuance, with 2019's total issuance coming in at 20.7%.

GCC Issuance Trends of USD Denominated Debt and Islamic Compliant Investment Certificates



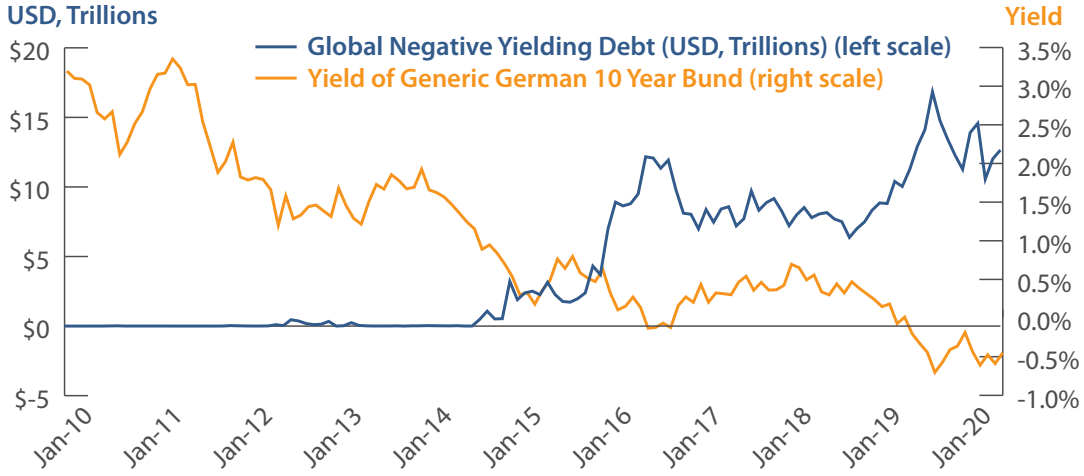
Source: Bloomberg LLP

What's the Appeal for Investors?

GCC-issued debt and *sukuk* have several important and appealing attributes that attract investors. One of the alluring characteristics of the region is the yield enhancement, or profit rate, of GCC sovereign debt and *sukuk* relative to government-guaranteed debt of developed countries. Additionally, foreign investors find a compelling investment case in GCC members' high-grade credit ratings, large pools of capital savings (sovereign wealth funds), and relatively low debt-to-GDP profiles in conjunction with their enormous hydrocarbon reserves. Essentially, during the oil crisis of 2014-2016, the GCC was facing a cash flow timing issue, not a capacity-to-pay issue.

What helped bring about the strong foreign investor interest to GCC-issued debt and *sukuk*? After the Global Financial Crisis (GFC), investors faced historically, and now unprecedented, low interest rates following extraordinary measures taken by central banks to stimulate economic growth and stabilize the worlds' economies. One of the by-products of central bank measures has been negative-yielding interest rates. At year-end 2019, negative-yielding debt exceeded $11.2 trillion, down from its apex of $17.0 trillion back in August of 2019. At year-end 2019, the 10-year German government bund yield fell to a negative yield of -0.71%.

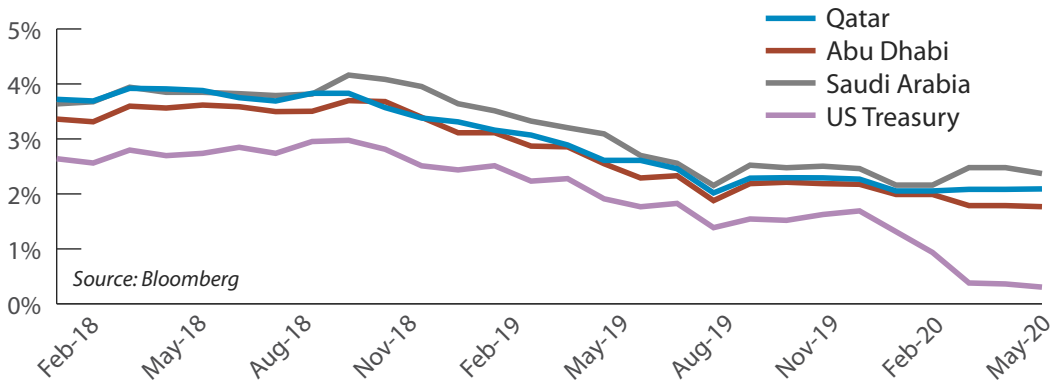
Negative Yielding Debt Increased, German 10 Year Bund Yield Went Negative



For large institutional, pension, insurance, and sovereign wealth investors, the knock-on effect of low interest rates puts them in a difficult position to find investments amid a "yield famine." However, central banks' policy actions have created other dislocations in the market that extend beyond the growing universe of negative-yielding debt. In some instances, these global yield dislocations have distorted traditional risk and returns rationales. For example, it's not uncommon to see US Treasury yields higher than those from other developed nations. At year-end 2019, Greece's 10-year debt was yielding 1.47%, 45 basis points below the 1.92% US Treasury yield. It wasn't that long ago that the Greek debt crisis threatened the very stability of the European Union. Greece's credit rating has since improved but remains in high-yield, junk bond status. S&P rates Greece's credit at BB- while the US retains a credit rating of AA+.

GCC debt and *sukuk* provide investors an appealing alternative and meaningful yield enhancement. For example, the average yield enhancement of Saudi Arabian five-year sovereign debt and *sukuk* from February 2018 until February 2020 was 103 basis points above the five-year US Treasury note. For the same maturity, Qatar's and Abu Dhabi's sovereign debt and *sukuk* provided an 85 basis point and 69 basis point yield enhancement to US Treasurys, respectively.

Selected 5 Year Yields Compared to US Treasury



Further, many of the GCC members hold credit ratings that typically are found only among developed countries. For example, S&P rates Abu Dhabi sovereign debt and *sukuk* credit at AA, followed by Qatar at AA-, and Saudi Arabia at A-. By comparison, S&P rates the US and the United Kingdom AA+, with China earning an A+.[13]

In the wake of the recent COVID-19 pandemic, central banks from around the world have engaged in further extraordinary accommodative measures in an effort to stabilize financial markets. The long-term impacts of these policies are far from being understood; however, it is clear that global interest rates will be lower for a lot longer. This will likely only further promote continued investor interest in the GCC region.

We note that the GCC community is characterized as a US dollar-based economy even though each of the GCC members retain their own local currency. Since hydrocarbon exports and imports are primarily paid in US dollars, the GCC members have pegged their local currency to the US dollar. Retaining a US-dollar pegged currency requires the governments of the region to adjust their interest rate policies in tandem with the Federal Reserve's interest rate policies. As such, GCC liabilities, fiscal budgets, government receipts, and assets become a US-dollar denominated proxies, which helps them avoid currency mismatches – a situation where a country's assets are denominated in their local currency, such as the Saudi riyal, while having their liabilities and obligations payable in another currency, such as the US dollar. Foreign investors find this attractive as it helps them to potentially side-step adverse currency devaluations on their investments.

Plenty in the Bank and Plenty in the Tank

The GCC region's high investment-grade credit ratings, in part, reflect the collective members' large capital and hydrocarbon reserves. "Plenty in the bank" reflects the region's large financial buffers, and "plenty in the tank" broadly characterizes the region's vast, untapped hydrocarbon reserves.

Ranking of Sovereign Wealth Funds			
Rank	**Sovereign Wealth Fund**	**($ billions)**	**Country**
1	Norway Government Pension Fund Global	$1,058.05	Norway
2	China Investment Corporation	$941.40	China
3	Abu Dhabi Investment Authority	$683.00	UAE
4	Kuwait Investment Authority	$592.00	Kuwait
5	Hong Kong Monetary Authority Investment Portfolio	$522.60	Hong Kong
6	SAMA Foreign Holdings	$515.60	Saudi Arabia
7	SAFE Investment Company	$441.00	China
8	Gov't of Singapore Investment Corporation	$390.00	Singapore
9	Temasek Holdings	$375.00	Singapore
10	Public Investment Fund	$360.00	Saudi Arabia
11	Qatar Investment Authority	$320.00	Qatar
12	National Social Security Fund	$295.00	China
13	Investment Corporation of Dubai	$339.80	UAE
14	Mubadala Investment Company	$226.00	UAE
15	Korea Investment Corporation	$134.10	South Korea
	Total	**$7,193.55**	
	Middle East Representation	**$3,036.40**	**42.2%**

Source: Bloomberg

Plenty in the Bank

In 1938, Saudi Arabia commenced commercial production from its first oil well, Damman No. 7, aptly nicknamed the "Prosperity Well."[14] Over the subsequent eight decades, Saudi Arabia and its GCC members became a major supplier of the world's insatiable energy needs. By 2018, GCC members satisfied 23.8% of the world's market share of oil.[15] The byproduct of this multidecade endeavor was enormous wealth in the GCC region, giving uncanny credence to the first oil well's nickname.

In August of 2018, the GCC had amassed such collective wealth that seven of its sovereign wealth funds control 42%, $3.0 trillion, of the total $7.19 trillion of assets held among the top 15 sovereign wealth funds.[16] If expressed on a *per capita* basis, the size of the GCC region's concentrated wealth is unmatched when compared to most developed nations.

	Ratio ($ / person)
Norway	$194,437.62
Kuwait	$139,406.89
Qatar	$132,474.07
UAE	$128,903.77
Singapore	$128,767.83
Saudi Arabia	$25,875.60
South Korea	$2,625.36
China	$1,199.36

Source: Bloomberg

Not all of the GCC's sovereign wealth is allocated for immediate use; some is dedicated for future use. For example, Kuwait's Future Generations Fund (FGF), an

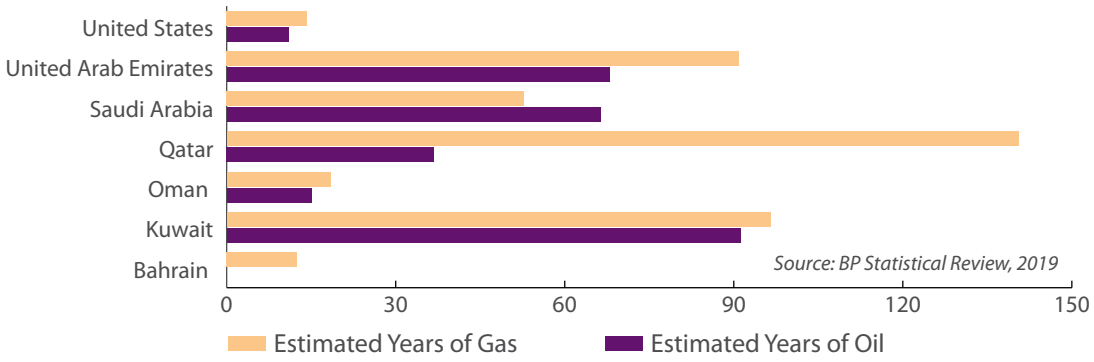
intergenerational savings fund, permits no asset withdrawals unless sanctioned by law.[17] The only time that proceeds were withdrawn from the FGF was in conjunction with the 1990-91 Iraqi invasion and occupation. From 1990 through 1994, nearly $85 billion in assets were withdrawn to pay for the cost of liberation and subsequent reconstruction and were later fully repaid.[18]

Despite these self-imposed internal regulations on the allocation and use of their respective sovereign wealth funds, the GCC region has the capacity, if elected, to tap these tremendous capital resources.

Plenty in the Tank

The transition toward a clean energy economy will likely take decades. Until then, the GCC region is extremely well-endowed with hydrocarbon reserves according to British Petroleum's 2019 Statistical Review,[19] which compiled data on existing reserves and production levels for year-end 2018. For example, based on 2018 production rates, Qatar's gas reserves are projected to last 140.5 years, Kuwait's to last 96.5 years, and the UAE's 90.9 years. Kuwait's oil reserves are estimated to last 91.2 years, followed by UAE with 67.9 years, and Saudi Arabia with 66.3 years.

Estimated Remaining Years of Proven Hydrocarbon Reserves (2018 Production Levels)



Adding to these enormous hydrocarbon reserves, the region is still discovering vast energy deposits, potentially extending the timeline for many of the GCC members. For example, on March 20, 2018, Oman announced the discovery of a four trillion cubic foot gas reservoir.[20] Oil Minister Sheikh Mohammed bin Khalifa Al Khalifa announced in 2018 Bahrain's discovery of hydrocarbon deposits estimated at 80 billion barrels of oil and between 10 and 20 trillion cubic feet of deep natural gas.[21] If Bahrain's announcement proves accurate, the smallest GCC member as measured by land size, will have a hydrocarbon reservoir that matches Russia's entire oil reserves.[22] On February 3, 2020, the UAE announced the discovery of a natural gas field containing 80 trillion standard cubic feet of gas between Abu Dhabi and Dubai.[23]

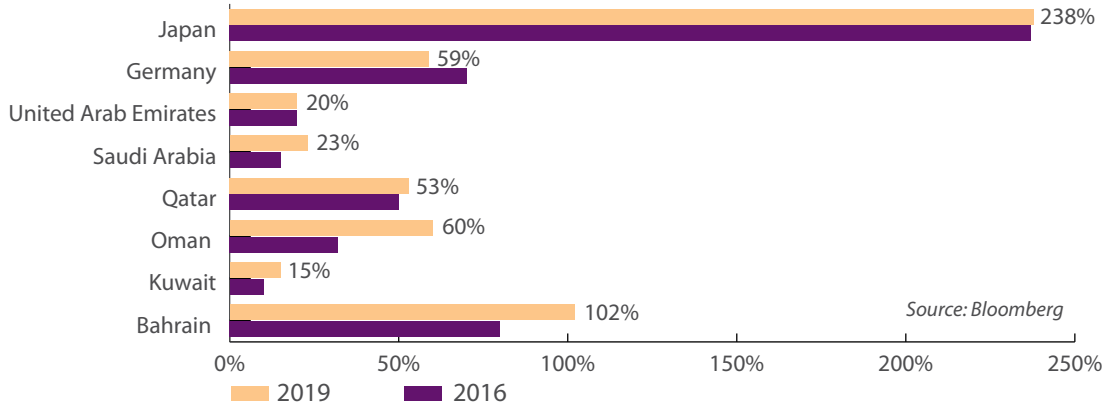
While production on these new hydrocarbon reserves will take some time, particularly in light of oil's dramatic price decline during the first half of 2020, these new discoveries will help the GCC region retain its role as the world's energy supply epicenter. This, in turn, will help the GCC to meet its ongoing fiscal needs.

GCC's Indebtedness versus the Developed World

When Abu Dhabi issued its debt back in April 2016, it wasn't just the attractive yields and favorable AA credit ratings that tantalized investors; it was also the emirate's low outstanding debt. With the exception of Bahrain and Oman, which retain a below-investment-grade credit status, the GCC members' debt-to-GDP ratio is extremely low. Low debt affords a country greater financial flexibility than a highly leveraged country to meet its ongoing financial debt and *sukuk* obligations. Some of the GCC members retain high credit ratings in addition to extremely low levels of debt as compared to substantially leveraged developed countries, such as Japan whose year-end debt-to-GDP was 236% in 2016 and 238% in 2019.[24] S&P rates Japan's credit A+.[25]

The GCC members' lower indebtedness, in conjunction with favorable yield enhancements and strong credit ratings, are among some of the many attributes that are attracting investors to the region.

Government Debt to GDP at Year 2016 & 2019



The Price of Oil and the Sukuk Market: Understanding the Relationship

Often, there are questions and misconceptions about the risk and return relationships of *sukuk* originating from hydrocarbon-dependent economies. While the performance of *sukuk* issued by hydrocarbon-dependent economies does not have a strong relationship to hydrocarbon commodity prices, it nevertheless is not entirely insulated from oil price movements.

There are several characteristics of *sukuk* that help insulate investors from short-term oil price shocks. These include the type of *sukuk* structure, the behavior of *sukuk* relative to other asset classes, the issuer's underlying credit quality, and the *sukuk's* industry exposures. Over the intermediate term to longer-term period, the price of oil can adversely affect an issuer's credit profile, particularly with those issues directly tied to the energy sector.

The Importance of Structure

To be considered halal, *sukuk* must conform to Islamic investing principles. The Accounting and Auditing Organization for Islamic Financial Institutions (AAOIFI) defines this as the investment certificate itself must represent "undivided shares in ownership of tangible assets, usufruct and services or (in the ownership of) the assets of [a] particular project or special investment activity."[26] This requires the certificate's structure to reflect a legal transfer of ownership of the underlying assets from the issuer to the investor, or in some cases a beneficial ownership is transferred.[27] Payments to the certificate holders are based on the net profits of the underlying assets. The issuer cannot guarantee the security's investment return, such as a coupon rate (often referred to as the sharia-compliant profit rate), or establish a predetermined price, such as a principal value, at the end of the investment certificate's tenure; hence establishing a true risk-return relationship.

Islamic investment certificates' underlying tangible assets — and the expectation of steady income from them — can help reduce short-term price volatility relative to energy commodities and other asset classes, such as the broader equity and bond markets. Some Islamic scholars are comfortable with a face value threshold of at least 33% physical assets underlying *sukuk* structures; other scholars require between 51% and 70%.[28] The result is that Islamic-compliant investment certificates typically have a significant asset-backed component as part of their underlying investment structure. The assets could be equipment, real estate, infrastructure, or other operating assets, such as a dock. *Sukuk al-ijara*, for example, are typically structured as an asset-backed lease.

In contrast, conventional bondholders receive cash flows that are independent of the amount of profit or loss earned from the funds raised through issuing bonds. Unlike shareholders, bondholders receive income that has been determined and agreed upon in advance. As a result, creditors avoid direct exposure to the uncertainties, or risks, of the underlying assets or business enterprise. Rather, their risk is tied to the creditworthiness of the issuer. In other words, creditors do not directly share the risks faced by the enterprise they finance. It is for this reason that interest-based bonds are "risk-transferring" rather than "risk-sharing" contracts.[29] Furthermore, *sukuk* investors may obtain a higher value at the end of the investment certificate's tenure if the market value of the security's underlying asset or business enterprise appreciates. Bondholders receive only the return of their original principal, or par value, upon the security's maturity.

Correlation

As a result of their structure, *sukuk* form a separate and distinct asset class while retaining many of the same attributes observed in conventional fixed income. For example, *sukuk* typically offer a stated profit rate akin to a coupon rate, a maturity, and typically obtain a credit rating from the major credit rating agencies. *Sukuk* retain attributes similar to conventional fixed income to promote liquidity and to encourage their adoption among the global investment community, particularly among the non-faith-based community.

How *sukuk* correlate with other asset classes contributes to understanding of their risk and return characteristics. The FTSE Sukuk Index's five-year price correlation to crude oil prices as represented by the WTI is 0.367. Stated differently, 36.7% of the price movement of the FTSE Sukuk Index can be explained by crude oil prices. Conventional fixed income benchmarks offer a more meaningful description of the risk and return characteristics of the FTSE Sukuk Index. For example, the J.P. Morgan Emerging Market Bond Index (J.P. Morgan EMBI) provides the highest correlation at 0.856, followed by the Bloomberg Barclays US Aggregate Total Return Unhedged USD (BB-USAGG) benchmark at 0.704.

5 Year Correlation Matrix *(March 31, 2015 - March 31, 2020; Weekly Data)*

Asset Class	Crude Oil (WTI)	FTSE Sukuk	Bloomberg Barclays US Aggregate	J.P. Morgan EMBI Global Core	MSCI ACWI	S&P 500
Crude Oil (WTI)	1.000	0.367	0.048	0.468	0.529	0.486
FTSE Sukuk	0.367	1.000	0.704	0.856	0.503	0.448
Bloomberg Barclays US Aggregate	0.048	0.704	1.000	0.621	0.156	0.107
J.P. Morgan EMBI Global Core	0.468	0.856	0.621	1.000	0.711	0.632
MSCI ACWI Index	0.529	0.503	0.156	0.711	1.000	0.959
S&P 500	0.486	0.448	0.107	0.632	0.959	1.000

Source: Bloomberg

This relationship makes sense as *sukuk* are structured similar to conventional debt. Furthermore, FTSE Sukuk Index is entirely composed of US-dollar issued *sukuk*, as is the J.P. Morgan EMBI benchmark[30] and the BB-USAGG benchmark.[31] Correlation between the FTSE Sukuk Index, the J.P. Morgan EMBI, and BB-USAGG has drifted higher over the past two years. Essentially, this means that the FTSE Sukuk's performance characteristics can be explained, or characterized, by the movements of either the J.P. Morgan EMBI or BB-USAGG benchmarks.

In June of 2018, J.P. Morgan began to consult with GCC members about potential plans to include GCC bonds and *sukuk* in its emerging market indices.[32] The inclusion of GCC members presented J.P. Morgan some challenges that required a workaround solution. Typically, benchmarks employ various formulaic criteria to create a basket of similar securities to generate a desired exposure. Gross income per capita for GCC members, with the exception of Oman, is well above the $20,000 limit of J.P. Morgan's emerging market indices income criterion. For comparison, in 2018 per capita income was about $40,000 in the UAE, $10,000 in Brazil, and $50,000 in the US.[33,34]

In September of 2018, J.P. Morgan formally announced its plans to include GCC bonds and *sukuk* in its EMBI benchmark as well as a few other emerging market indices, to be implemented in phases between January and September 2019.[35,36] As of October 2018, GCC debt and *sukuk* represented 11.2% of J.P. Morgan's EMBI Index.[37] At the time of J.P. Morgan's announcement, market analysts anticipated that upwards of $60 billion in new investor flows could arrive to the region causing spreads to tighten by 10-15 basis points.[38] This meant that increased demand would most likely bid up the price of the securities causing the yield (profit) spread to narrow.

The byproduct of such a large increase in demand for GCC debt and *sukuk* means that *sukuk* benchmarks, such as the FTSE Sukuk Index, will begin to exhibit greater correlation with that of broadly held emerging market benchmarks that are denominated in US dollars. Prior to GCC inclusion, from the end of the first quarter of 2013 through the first quarter of 2018, the correlations of the FTSE Sukuk Index to the J.P. Morgan EMBI benchmark and the BB-USAGG benchmark were 0.413 and 0.561, respectively.

5 Year Correlation Matrix *(March 29, 2013 - March 31, 2018; Weekly Data)*

Asset Class	Crude Oil (WTI)	FTSE Sukuk	Bloomberg Barclays US Aggregate	J.P. Morgan EMBI Global Core	MSCI ACWI	S&P 500
Crude Oil (WTI)	1.000	0.100	-0.161	0.237	0.350	0.275
FTSE Sukuk	0.100	1.000	0.413	0.561	0.304	0.208
Bloomberg Barclays US Aggregate	-0.161	0.413	1.000	0.480	-0.062	-0.152
J.P. Morgan EMBI Global Core	0.237	0.561	0.480	1.000	0.544	0.408
MSCI ACWI Index	0.350	0.304	-0.062	0.544	1.000	0.937
S&P 500	0.275	0.208	-0.152	0.408	0.937	1.000

Source: Bloomberg

Changes in Correlation *(2018 - 2020)*

Asset Class	Crude Oil (WTI)	FTSE Sukuk	Bloomberg Barclays US Aggregate	J.P. Morgan EMBI Global Core	MSCI ACWI	S&P 500
Crude Oil (WTI)	0.000	0.267	0.209	0.231	0.179	0.211
FTSE Sukuk	0.267	0.000	0.291	0.295	0.199	0.240
Bloomberg Barclays US Aggregate	0.209	0.291	0.000	0.141	0.218	0.259
J.P. Morgan EMBI Global Core	0.231	0.295	0.141	0.000	0.167	0.224
MSCI ACWI Index	0.179	0.199	0.218	0.167	0.000	0.022
S&P 500	0.211	0.240	0.259	0.224	0.022	0.000

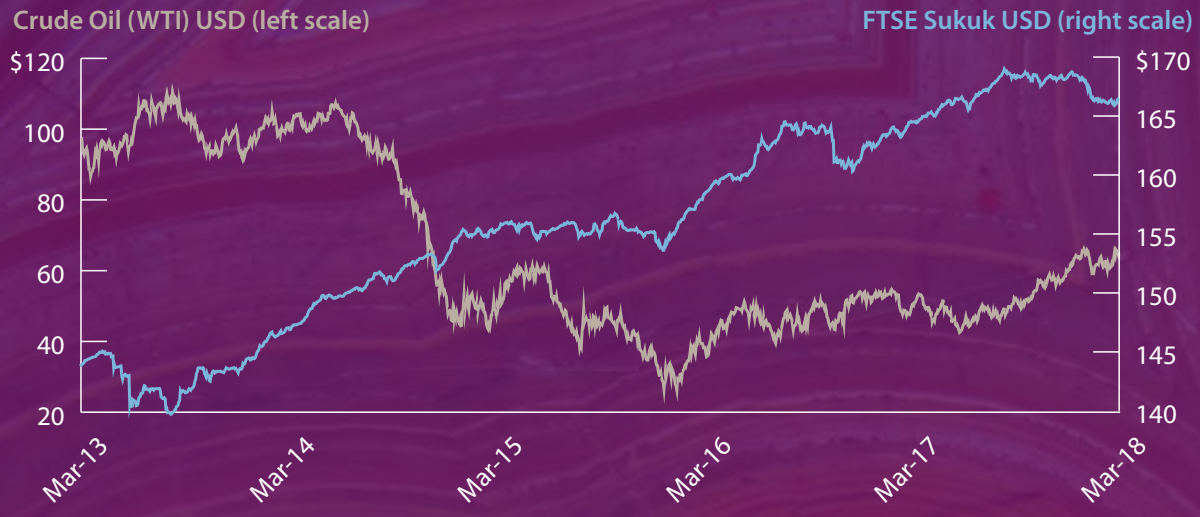
Source: Bloomberg, Saturna Capital research

It is worthy to note that the correlation between the FTSE Sukuk Index and the WTI also rose from 0.10 for the five-year period ended March 29, 2018, to 0.367 for the five-year period ended March 31, 2020. Some of this correlation drift can be explained, in part, by the price of oil increasing from $64.94 at the end of the first quarter of 2018 to $73.25 at the end of the third quarter. Despite falling back in the mid-$50 to $60 range throughout 2019, financial assets remained supportive to help improve the correlation characteristics of FTSE Sukuk with the WTI.

A Look Back in History: Oil's Previous Price Decline and the FTSE Sukuk Index

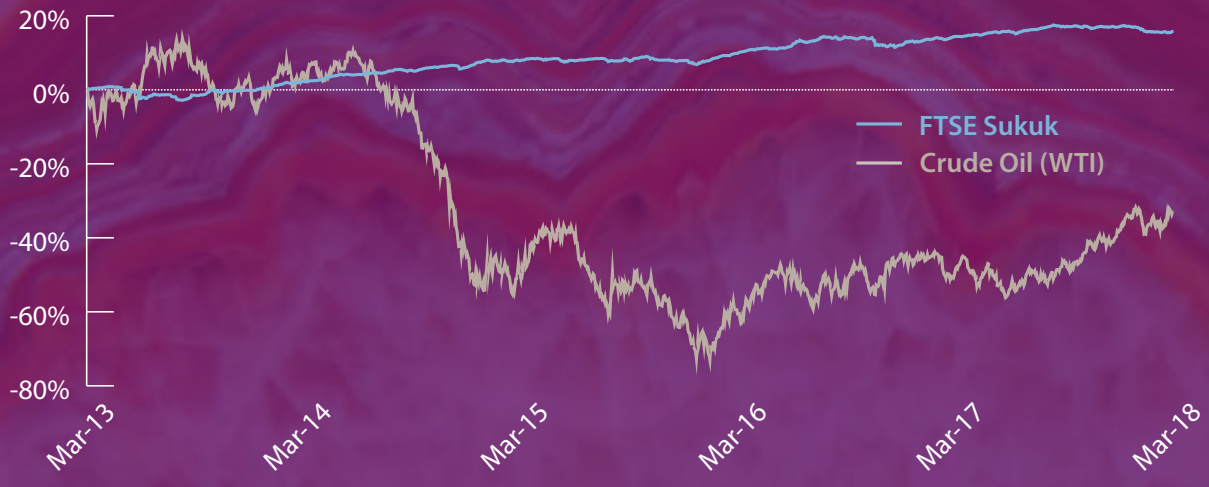
We have observed periods when the price of oil declined while the FTSE Sukuk Index increased. For example, when oil plunged from a high of $107.26 a barrel on June 20, 2014, to $26.21 on February 11, 2015, the FTSE Sukuk Index continued to demonstrate favorable appreciation. From March 30, 2013, through March 30, 2018, the FTSE Sukuk Index rose while oil prices dropped and subsequently climbed back up.

Price of Oil is Not Correlated to Sukuk



During that period, the WTI's total return was -33.21% compared to the FSTE *Sukuk* Index's 15.80% total return, representing annualized returns of -7.75% and 2.97%, respectively. We note that past performance does not indicate any assurance of future performance. However, the objective is to show that *sukuk* performance has not followed the return characteristics of oil in a lockstep manner, but rather a more complex interrelationship exists.

Normalized Price Changes Suggest Complex Interrelationship



Exposure and Portfolio Management

Unlike the FTSE Sukuk Index, which embodies the broad characteristics of the US-dollar denominated global *sukuk* market, active portfolio management can permit greater flexibility than passive investing in static benchmarks. For example, active portfolio management can further insulate investors from direct exposure to the hydrocarbon industry. This can be done by either outright avoiding or reducing exposures to *sukuk* issuers whose primary business activities are tied to hydrocarbon sectors. Portfolio managers can take further steps to reduce volatility by limiting exposures to procyclical sectors that can be expected to experience greater financial strain in an economic downturn, including real estate development, real estate operating companies, luxury industries, and tourism. These periods of financial stress call for a greater emphasis on countercyclical industries that can help protect investors through allocations to industries better positioned to weather the storm, including utilities, telecommunications, and consumer staples, such as the food industry.

Putting a Pin in Relative Risk and Return

While the GCC *sukuk* market has grown rapidly in recent years, it remains a nascent market subject to multiple externalities, such as oil price shocks, regional tensions, fickle foreign institutional flows, and a host of other factors. Despite some of these characteristics, the GCC debt and *sukuk* market has been demonstrating favorable enough risk and return attributes to warrant long-term investors' consideration. For example, when comparing various regional and broad-based fixed-income benchmarks, the Bloomberg Barclays GCC Credit Total Index Unhedged USD and the FTSE Sukuk Index demonstrate competitive performance over five-year, three-year, and one-year trailing periods, as well as for the first quarter of 2020.

Benchmarks	**5-year Trailing Return** (3/31/15 -3/31/20)		**3-year Trailing Return** (3/31/17 -3/31/20)	
	Total Return	**Annualized**	**Total Return**	**Annualized**
Bloomberg Barclays GCC Credit Total Return Index Value Unhedged USD	18.09%	3.38%	11.60%	3.72%
Bloomberg Barclay's EM Asia USD Total Return Index Value Unhedged	19.48%	3.62%	9.88%	3.19%
Bloomberg Barclay's EM Hard Currency Agg. TR Index Value Unhedged USD	16.28%	3.06%	4.46%	1.46%
J.P. Morgan EMBI Global Core	14.17%	2.68%	0.95%	0.32%
FTSE Sukuk	16.45%	3.09%	9.89%	3.10%
Bloomberg Barclays US Treasury Index measures	19.60%	3.64%	18.51%	5.82%
Bloomberg Barclays Global Agg Treasuries Total Return Index	15.07%	2.84%	12.08%	3.87%
Bloomberg Barclays US Agg Total Return	17.96%	3.35%	15.10%	4.82%
S&P 500	38.41%	6.71%	16.08%	5.09%
MSCI Emerging Markets Index	0.10%	0.02%	-3.81%	-1.29%
Crude Oil (WTI)	-56.97%	-15.51%	-59.53%	-26.01%

Benchmarks	**1-year Trailing Return** *(3/29/19 -3/31/20)*	**1st Q 2020** *(12/31/19 -3/31/220)*
	Total Return	**Period Return**
Bloomberg Barclays GCC Credit Total Return Index Value Unhedged USD	4.46%	-4.72%
Bloomberg Barclay's EM Asia USD Total Return Index Value Unhedged	2.30%	-3.64%
Bloomberg Barclay's EM Hard Currency Agg. TR Index Value Unhedged USD	-3.32%	-9.53%
J.P. Morgan EMBI Global Core	-6.72%	-13.69%
FTSE Sukuk	3.30%	-3.32%
Bloomberg Barclays US Treasury Index measures	13.23%	8.20%
Bloomberg Barclays Global Agg Treasuries Total Return Index	5.36%	1.38%
Bloomberg Barclays US Agg Total Return	8.93%	3.15%
S&P 500	-6.99%	-19.60%
MSCI Emerging Markets Index	-17.42%	-23.59%
Crude Oil (WTI)	-65.95%	-66.46%

Source: Bloomberg

While returns can be an important part of an investor's equation, risk should also be considered. Equities can demonstrate favorable return characteristics over the long term, yet this asset class can experience pronounced volatility to realize its return potential. We recall the old adage that it's time in the market that is important, rather than timing the market. If an investor missed the best five days of being fully invested in the S&P 500 from 1980 through 2018, their overall return would be reduced by 35%. The results only get worse the more "good" market days that are missed. Missing the best 10 days would have cut the investor's long-term results by more than half.[39]

Standard deviation measures the amount of variation or dispersion of a set of values and is commonly used to measure investment risk. In this case, the set of values comprises investment returns over a period of time, such as over five and three years. The higher the standard the deviation, the greater the dispersion of returns – both positive and negative. Greater return dispersion implies greater risk while, conversely, the lower the dispersion, the lower the risk. It is worth adding that standard deviation is best used in a relative framework to compare returns to other asset classes and therefore gain a sense of return variability.

In examining the five-year standard deviation among a broad range of asset class benchmarks we are in a better position to gain a sense of risk. The WTI has the highest standard deviation, at 37.1%, among all the asset classes, followed by the MSCI Emerging Market equity index at 18.1%, and the S&P 500 equity index at 16.4%. The standard deviation of the FTSE Sukuk Index over the five and three-year period is the lowest among all the benchmarks, coming in at 2.9% and 3.3%, respectively.

Benchmarks	**5-year Time Period** (3/31/15 -3/31/20)		**3-year Time Period** (3/31/17 -3/31/20)	
	Standard Deviation	**Risk Factor Relative to FTSE Sukuk**	**Standard Deviation**	**Risk Factor Relative to FTSE Sukuk**
Bloomberg Barclays GCC Credit Total Return Index Value Unhedged USD	5.2%	1.8	6.3%	1.9
Bloomberg Barclay's EM Asia USD Total Return Index Value Unhedged	4.0%	1.4	4.5%	1.4
Bloomberg Barclay's EM Hard Currency Agg. TR Index Value Unhedged USD	6.3%	2.2	7.2%	2.2
J.P. Morgan EMBI Global Core	8.8%	3.0	10.2%	3.1
FTSE Sukuk	2.9%	1.0	3.3%	1.0
Bloomberg Barclays US Treasury Index measures	4.2%	1.5	4.3%	1.3
Bloomberg Barclays Global Agg Treasuries Total Return Index	6.7%	2.3	6.0%	1.8
Bloomberg Barclays US Agg Total Return	3.9%	1.4	4.2%	1.3
S&P 500	16.4%	5.7	18.7%	5.7
MSCI Emerging Markets Index	18.1%	6.3	17.7%	5.4
Crude Oil (WTI)	37.1%	12.9	37.0%	11.2

Source: Bloomberg, Saturna Capital research

Further expanding the context of risk, we may be in a better position to ascertain variability of one benchmark relative to another. If we express the FTSE Sukuk Index as a single unit of risk relative to each of the accompanying benchmarks, we begin to see their variability relative to the *sukuk* index. Using five-year data as a more conservative proxy, the J.P. Morgan EMBI Index has a standard deviation of 8.8%, or three-times as much variability as the FTSE Sukuk. The Bloomberg Barclays US Aggregate Total Return Unhedged USD five-year standard deviation is 3.9%, or 1.4 times more variable than the FTSE Sukuk. The S&P 500 Index is 5.7 times more volatile than the FTSE Sukuk Index, oil is 12.9 times more volatile, and the Bloomberg Barclays US Treasury Index is 1.5 times more volatile over the same five-year period.

The data is relatively consistent over the five and three-year periods. We do not mean to imply that sukuk are not risky investments, as this market is still relatively nascent and has unique risks that may not be entirely captured through standard deviation metrics. However, the data provide context of how this asset class has performed over an intermediate and short-term period relative to other asset classes during favorable as well as adverse financial conditions, including the first quarter of 2020. The importance of this exercise is to provide valued context for investors to help them think about the potential benefits that *sukuk* can offer as part of a diversified portfolio.

Conclusion

As central banks and world governments pursue extraordinary measures in response to COVID-19, the expected "lower for longer" interest rate climate will help position the GCC not only as the world's supplier of energy but also as a possible primary source of yield for institutional investors. Backed by large hydrocarbon and financial reserves and relatively low debt-to-GDP profiles compared to the developed world economies, it is reasonable to expect investors will continue to have considerable interest in the region for some time. Over recent years, US-dollar denominated *sukuk* have offered a favorable risk and return profile while remaining relatively insulated from extreme oil price swings. The merits for these trends continue remain favorable but **not** assured.

The *sukuk* market has experienced substantial growth in a short period of time, with GCC members becoming the dominate issuers. Unique exogenous risk factors found in these markets do not exist in other emerging markets: GCC members are kingdom states that integrate *sharia* law. And, as with most emerging markets, these regions are susceptible to volatility associated with capricious foreign capital flows.

On balance, GCC US-dollar denominated *sukuk* provide investors a valuable means of diversification in a distinct asset class with unique and favorable risk and return attributes.

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Patrick T. Drum, Senior Investment Analyst and Portfolio Manager, joined Saturna Capital in October 2014. He is a former adjunct professor of finance for the Sustainable MBA Program at the Bainbridge Graduate Institute (BGI), currently known as Presidio Graduate School. Mr. Drum holds a BA in economics from Western Washington University and an MBA from Seattle University Albers School of Business. He is a Chartered Financial Analyst (CFA) charterholder and a Certified Financial Planner®.

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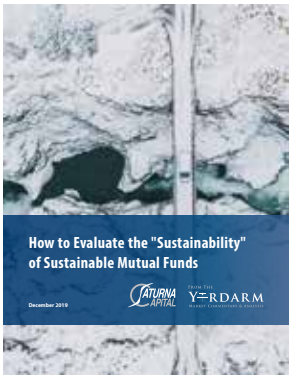
More by Patrick Drum

Green Sukuk: A New Legacy for Green Sprouts?

As the green bond market grows, green *sukuk* are starting to find their place in the market. Green *sukuk* expand the dual investment mandate of green bonds by including a third element: faith-based alignment. Based on our research, we believe investors can proceed with confidence that green *sukuk* successfully achieve their dual mandate to align investors' faith-based objectives with climate mitigation objectives.

From The Yardarm: How to Evaluate the "Sustainability" of Sustainable Mutual Funds



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