

Saudi Arabia government bonds – an investible asset class with modest valuations

December 2020

AUTHOR

Robin Marshall

Director, Fixed Income Research
07504 797 961

robin.marshall@lseg.com

Overview

The Kingdom of Saudi Arabia embarked upon a significant economic reform program in 2016 (Vision 2030). It sought to diversify away from oil dependence, and high economic cyclicality, and to increase the size of the non-oil and private sectors. Financial market reforms and improved foreign investor access to Saudi markets are part of this process, and the development of a full, and liquid, market in local currency sukuk bond issues.

- Bond issuance is increasingly skewed towards local currency riyal issuance, as a result. Saudi's favorable credit record, and robust exchange rate peg to the US dollar since 1986, is reflected in high credit ratings.
- Saudi bonds show quite high correlation to US dollar bonds, reflecting the exchange rate peg, and provided this remains in place, local currency bond returns are not at risk from exchange rate weakness for foreign investors during global market shocks.
- COVID-19 represents a risk to the Saudi economy via lower oil prices, although risks to the global economy are diminished by substantial central bank QE, and IMF/World Bank support.

Contents

Introduction	3
Structure of the economy and economic policy	4
Development of the local currency government bond market	5
Saudi Arabia's monetary regime and exchange rate peg	5
Valuation of Saudi sovereign debt and indexes in local currencies and US dollars	6
Performance returns of Saudi government bonds versus other asset classes	7
Correlation of Saudi government bond index returns with other asset classes	8

Introduction

The Kingdom of Saudi Arabia raised syndicated loans in US dollars twice in the 1990s¹ helped by the stability of the riyal's peg to the US dollar, the country's enormous oil reserves, strong net creditor status, and the low external debt/GDP ratio, and has performed as a stable credit since that period. More recently, however, Saudi has been issuing more bonds in local currency to finance infrastructure build for the economy and reduce its economic dependence on oil, as part of the Vision 2030 program.

¹ The development of debt markets in emerging economies: the Saudi Arabian experience, M.Al-Jasser and Ahmed Banafe, BIS Papers No 11. June 2002.

Structure of the economy and economic policy

Traditionally, given the high oil dependency of its economy, Saudi's external and budgetary positions have oscillated with oil prices and the global economic cycle. Fiscal policy has been deployed as a counter-cyclical stabilizer, with the Saudi riyal pegged to the US dollar at the same exchange rate since 1986. The Saudi authorities have allowed external and government budget deficits to widen during downswings, and to move into surplus during upswings, adjusting bond issuance accordingly. Thus, Saudi did not issue any sovereign bonds between 2007 and 2015, and redeemed debt for much of the period, benefiting from relatively strong oil prices. After oil prices collapsed in 2014/15, and the adoption of the Vision 2030 program in 2016, the Kingdom sharply increased sovereign bond issuance.

Oil accounts for about 40% of Saudi GDP directly, 70% of fiscal revenues, and 80% of exports². Non-oil activity is also dependent on government outlays, which in turn depend on oil revenues. Competitive renewable energy sources and relatively low employment, and labor intensity in the energy sector, create a substantial economic challenge to sustainable development.

To address this, the Saudi authorities have sought to reduce the economy's dependence on oil (and oil revenues) by announcing a plan to diversify the economy in the Vision 2030 program in April 2016. Saudi was commended for its reform program in the 2019 IMF Article 4 Consultation³. The Vision 2030 program is based on (1) significant investment in the non-oil sector of the economy, and (2) a large expansion of the external investments of the country's sovereign wealth fund, the Public Investment Fund (PIF). The government is also aiming to expand the private sector's contribution to GDP from 40% in 2018, to 65% by 2030⁴. Expanding domestic investment in the non-oil sector, through programs like the National Industrial Development and Logistics Program (NIDLP), will require significant financing. The overall cost of Vision 2030 has been estimated at SAR 268 billion⁵ (\$71.5 billion).

Furthermore, to help the development of financial markets, and financing of the Vision 2030 program, the country has accelerated market reforms. These reforms improve access for foreign investors to both equities and government bonds, and the IPO of Saudi Aramco is evidence of the Kingdom leveraging oil wealth to finance diversification⁶.

Table 1 – Timetable of key financial market reforms and related developments

2015	Stock market opened to foreign investors
2016	Sukuk bonds become primary issuance vehicle for Saudi government
2017	Monthly local currency sukuk-issues were introduced
2018	Stock exchange began listing domestic government bonds to help trading and encourage issuance in riyals
2019	MoF implemented a primary dealer network—five primary dealers to quote Sukuk bonds only. Market moved from OTC to exchange only
2019	Completion of IPO for Saudi Aramco

² "Saudi Arabia", IMF Country Report, September 9, 2019.

³ IMF Article 4 Consultation, July 2019.

⁴ Saudi Vision 2030.

⁵ Vision 2030 - National Transformation Program, 2020, Kingdom of Saudi Arabia.

⁶ Saudi Arabia Economic Update, World Bank, April 2020.

Development of the local currency government bond market

The Vision 2030 infrastructure programs require substantial expenditure over the next decade, and increased issuance of local currency government bonds, to develop a full yield curve in riyal government bonds. The impact of the COVID-19 pandemic in driving oil prices lower and reducing global demand for oil via economic lockdowns has reinforced the need for a fully liquid local currency government bond market, with a full range of issuance options and yield curve. This has meant the relative size of issuance in riyal and US dollars has been skewed towards riyal issuance in recent years, and trading activity has grown rapidly in the (Sukuk⁷) riyal market, relative to the traditional dollar issues, which tend to be bought and held to maturity, as Table 2 shows.

Table 2. Recent trends in Saudi debt market

	2015	2016	2017	2018	2019	H1 2020
No. of trades	7	4	8	44	185	509
Trade in riyal issues	453	450	28	564	5056	15,212
Trade in USD issues	121	120	7	150	1,348	4,057
New issues	1	0	0	57	7	3
Total issuance - riyals	3.90bn	0	0	253.15bn	69.84bn	26.78bn
Total issuance - USD	1.04bn	-	-	67.51bn	18.62bn	7.14bn

Source: The Saudi Stock Exchange – Tadawul, September 2020.

Saudi Arabia's monetary regime and exchange rate peg

In theory, the Kingdom of Saudi's bond issuance in Saudi riyal exposes investors to currency risk, but the Saudi riyal is pegged to the US dollar, in an effective currency board, since currency issued cannot exceed foreign exchange assets (Article 6 of Saudi's currency law). As a result, the peg to the US dollar has proved extremely robust and durable⁸ since June 1986, when it was pegged at an exchange rate of 3.75 riyal = \$1.00, and has never been adjusted downwards.

The Saudi Arabian Monetary Agency (SAMA) has rarely needed to intervene to defend the peg, though bouts of speculative pressure have normally coincided with severe oil price weakness, and SAMA did intervene to support the riyal in 1998. Since oil is denominated in US dollars, adjusting the riyal exchange rate versus the US dollar would have no impact on the competitiveness of the country's main export. Therefore, the exchange rate peg to the US dollar has been the nominal anchor for the economy since 1986, and interest rates and inflation have broadly tracked US interest rates and inflation rates over the period. Thus, SAMA reduced the repo rate, by 125bp, to 1% in March 2020, following the Fed's aggressive monetary easing, and also provided a 50 billion riyal package of support for small and medium-sized enterprises (SMEs), and a further 50 billion riyal package for the banking sector. The Saudi inflation rate has accelerated to 5.8% in Q3 2020, but this is largely due to the increase in VAT from 5% to 15%, and base effects⁹. Consumer prices increased just 1% y/y in Q2 2020.

⁷ Sukuk issues are Sharia compliant, and allow Islamic investors to invest, since they do not pay interest like a conventional bond.

⁸ Foreign Exchange Intervention in Saudi Arabia, A.Al Hamidy, A.Banafe, BIS Paper No. 73.

⁹ Inflation Report, Q2 2020, Economic Research Dept, Saudi Arabian Monetary Authority.

Valuation of Saudi sovereign debt and indexes in local currencies and US dollars

Saudi riyal government bonds also carry low default risks, since any sovereign issuer in local currency has monetary sovereignty in the same way developed market borrowers do. Therefore, an issuer could print local currency to repay the debt, in just the same way as the US or UK monetary authorities can. The foreign exchange risk introduces more volatility into the performance of this debt, but also adds more portfolio diversification possibilities (also see correlation of index returns below).

Sovereign issuance in US dollars exposes the issuer to currency risk, rather than the investor, and higher default risks are generally reflected in lower credit ratings for EM sovereign dollar indexes, and higher yields, than sovereign local currency indexes, as Table 3 shows. However, Saudi's government indexes carry the same credit ratings in both local currency and US dollars. Indeed, it could be argued that Saudi's local currency riyal bonds are rated quite conservatively, and it is worth noting that both the sovereign riyal bonds, and the dollar bonds, trade on a de facto higher credit rating than A-, judged by credit spreads.

More typical Emerging Markets (EM) have proved vulnerable to currency asset/liability mismatches, notably in the 1998 Asian shock (when their currencies collapsed versus the US dollar), but Saudi Arabia was relatively unaffected by this shock and other bouts of contagion in the asset class¹⁰. Since the Saudi economy's main asset is energy, denominated in US dollars, the currency mismatch of assets/liabilities is not a major issue. Saudi's favorable credit record, and successful issuance history with no default, or near-defaults, is also reflected in lower index yields, and longer index duration in Saudi indexes than equivalent EM indexes.

Table 3: Credit rating, and valuation of Saudi Arabian (local currency) govt. bond market versus other markets

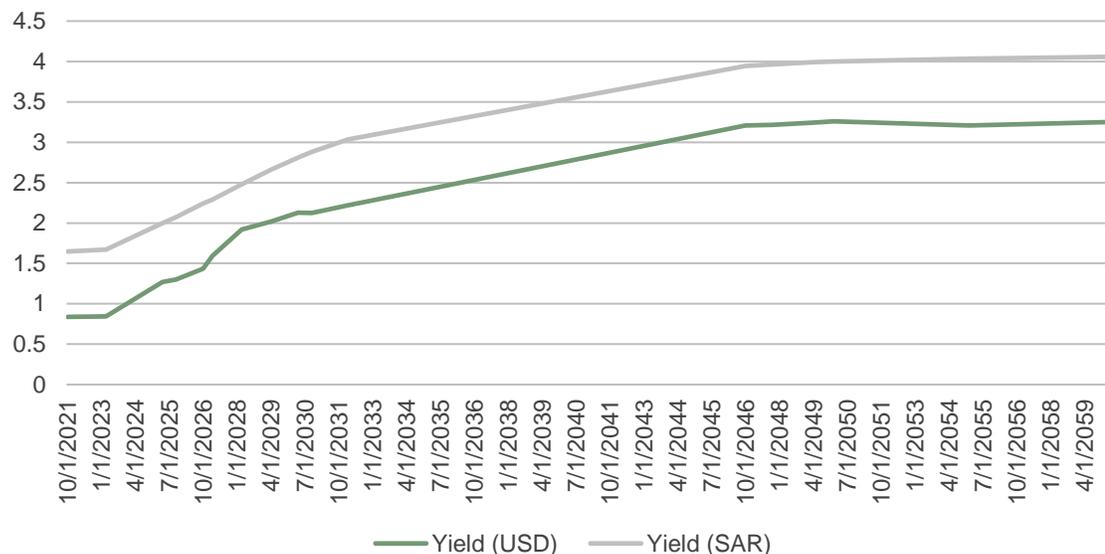
Bond market	FTSE market index capitalization (USD, billion)	FTSE market index duration (years)	Credit rating	Current index yield (%)
Saudi Govt., LC	\$82	6.93	A-	2.43
Saudi Govt, USD	\$65	11.14	A-	2.38
EM Govt., LC (EMGBI)	\$3,109	5.66	A-	3.72
EMGBI Capped, LC	\$1,497	5.65	BBB+	4.21
EM Govt., (USD)	\$884	8.66	BB+	4.36
US Treasury, USD	\$9,111	6.99	AA+	0.62
Eurozone Govt., LC	\$8,728	8.79	AA-	-0.16
Japan Govt., LC	\$4,513	11.67	A+	0.14
UK Govt., LC	\$1,387	13.82	AA	0.54
German Govt., LC	\$1,638	8.38	AAA	-0.57

Source: FTSE Russell, December 2020. Past performance is no guarantee of future results. Please see the end for important legal disclosures.

¹⁰ See "Emerging Market fixed income; Characteristics and Evolution," FTSE Russell, July 2020.

Table 3 also illustrates the Saudi government bond market in local currency terms offers a notable yield pick-up over the Saudi government market in US dollars. This is shown by the higher yield in the aggregate FTSE local currency market index for a much shorter duration than the Saudi dollar government index, and this yield pick-up can be seen in Chart 1 for different maturities.

Chart 1. Relative yield curves on Saudi govt. bonds in riyals and US dollars.



Source: FTSE Russell, data, end-November 30, 2020. Past performance is no guarantee of future results. Please see the end for important legal disclosures.

Performance returns of Saudi government bonds versus other asset classes

The relative performance of Saudi government bonds, and correlations with other assets, are shown in Tables 4 and 5. Please note that the short data history since March 2020 for the FTSE Saudi Government Bond Local Currency Index reduces the statistical significance of the results, and likely understates relative performance—it only captures the COVID-19 pandemic period, and not the decline in yields, which occurred globally in government bonds between Q4 2018 and March 2020. The key conclusions are:

- (1) Saudi government dollar bonds outperformed the EM dollar government bond index comfortably in the period 2016-2020. This likely reflects the lower credit quality of the EM dollar bond index, and defaults during the period (notably Argentina).
- (2) In risk-adjusted terms, Saudi government dollar bonds performed strongly over this period versus most asset classes. This is broadly in line with US Treasuries and consistent with the nominal anchor to the US monetary regime and interest rates.
- (3) The higher standard deviation of returns in the Saudi Index relative to US Treasuries reduces risk-adjusted returns, but this reflects the longer duration of the Saudi Index (USD) (10.24 years vs 6.98 years). This relatively strong performance occurred despite bouts of severe oil price weakness, notably in 2020.

- (4) G7 central bank QE programs have likely dampened the volatility of government bond markets during this period, like German Bunds and US Treasuries, enhancing risk-adjusted returns relative to other asset classes, like Saudi government bonds.
- (5) EM local currency bond returns would also be lower if converted back into US dollar terms¹¹. In this regard, provided the existing Saudi riyal peg to the US dollar continues, returns in local currency Saudi government bonds will not be reduced by currency weakness in the way EM local currency index returns have been during bouts of financial market turbulence and US dollar strength.

Table 4. Risk-adjusted returns of Saudi government bonds vs other asset classes

% Asset class index	Annual			Monthly		
	Index Return	Standard Deviation	Risk-Adjusted	Index Return	Standard Deviation	Risk-Adjusted
Saudi Govt. (LC)*	(2.44)	(2.75)	(0.89)	(0.20)	(0.79)	(0.25)
Saudi Govt. (USD)	7.59	7.44	1.02	0.61	2.15	0.28
EMGBI (LC) Capped	7.56	3.53	2.14	0.61	1.02	0.60
EMGBI (Govt) (LC)	6.38	2.65	2.41	0.52	0.77	0.68
EM USD GBI (USD)	4.76	9.68	0.49	0.39	2.80	0.14
US Treas. (USD)	3.70	4.03	0.92	0.30	1.16	0.26
US BIG Credit (USD)	6.09	6.24	0.98	0.49	1.80	0.27
US High Yield (USD)	5.05	8.19	0.73	0.48	2.36	0.20
Eurozone Govt. (LC)	2.83	3.89	0.73	0.23	1.12	0.21
FTSE USA (Equity) (USD)	16.76	16.46	1.02	1.30	4.75	0.27

Source: FTSE Russell estimates December 2020, data November 2016 – November 30, 2020, monthly data. *Saudi Government Bond Index data (Local Currency) – March 2020 to end November 2020 only. Past performance is no guarantee of future results. Please see the end for important legal disclosures.

Correlation of Saudi government bond index returns with other asset classes

Turning to the correlation of asset returns, most of the results shown in Table 5 reflect the risk-on and risk-off features and duration of different asset classes. But there are some counterintuitive results, as well. The main observations would appear to be as follows.

- (1) Given the exchange rate peg to the US dollar, and US interest rates, it is unsurprising relative index returns in Saudi are strongly correlated to US fixed income assets.
- (2) But it is notable Saudi government bonds show similar correlations to both US Treasuries and US equities, suggesting they are neither strongly risk-on, nor strongly risk-off assets.
- (3) Given Saudi's favorable credit performance, the correlation of Saudi government dollar bonds with US high yield is surprisingly high at 0.70. But this may reflect quite high energy weighting in the US high yield index. (In contrast, the local currency Saudi government bond market shows a negative correlation, but this is not yet based on a statistically significant data set).

¹¹ See FTSE Market Maps Fixed Income Monthly, October 2020.

- (4) The correlation with FTSE EM indexes is also a little higher than might be expected, bearing in mind that Saudi is not a typical EM sovereign. However, the commodity dependency of many EM economies may explain this, notably other energy producers, which have relatively high weights in the FTSE EM Government Capped Index.
- (5) China's high weight in the aggregate FTSE EM local currency (at around 50%) also dampens the correlation of returns with Saudi bonds for that index, relative to the Capped EM Govt Bond Index.
- (6) Index correlations may be affected by G7 central bank QE, which has now broadened to sub-investment grade US corporates and has likely reduced the normal negative correlation between the performance of US Treasuries and US equities.

Table 5. Correlation of Saudi government bond index returns with other asset classes

Asset class index	Saudi Govt. (LC)	Saudi Govt. (USD)	EMGBI (LC) Capped	EMGBI (LC)	EMUSDGBI (USD)	US Treasury (USD)	US BIG (Credit) (USD)	US High Yield (USD)	Euro Govt Bond (LC)	FTSE USA (Equity) (USD)
Saudi Govt. (LC)*	1.00									
Saudi Govt. (USD)	(-0.21)	1.00								
EMGBI (LC) Capped	(-0.60)	0.62	1.00							
EMGBI (LC)	(-0.72)	0.38	0.86	1.00						
EMUSDGBI (USD)	(-0.32)	0.79	0.75	0.46	1.00					
US Treasury (USD)	(0.34)	0.31	0.19	0.36	-0.08	1.00				
US BIG (Credit) (USD)	(-0.45)	0.87	0.71	0.52	0.79	0.35	1.00			
US High Yield (USD)	(-0.48)	0.70	0.55	0.24	0.87	-0.31	0.71	1.00		
Eurozone Govt Bond (LC)	(-0.20)	0.59	0.51	0.40	0.46	0.41	0.62	0.29	1.00	
FTSE USA (Equity) (USD)	(-0.63)	0.42	0.36	0.08	0.59	-0.40	0.47	0.80	0.02	1.00

Source: FTSE Russell estimates December 2020, data November 2016 – November 30, 2020, monthly data. *Saudi Government Bond Index data (Local Currency) from March 2020 to end November 2020 only. Past performance is no guarantee of future results. Please see the end for important legal disclosures.

About FTSE Russell

FTSE Russell is a leading global provider of benchmarks, analytics and data solutions with multi-asset capabilities, offering a precise view of the markets relevant to any investment process. For over 30 years, leading asset owners, asset managers, ETF providers and investment banks have chosen FTSE Russell indexes to benchmark their investment performance and create investment funds, ETFs, structured products and index-based derivatives. FTSE Russell indexes also provide clients with tools for performance benchmarking, asset allocation, investment strategy analysis and risk management.

To learn more, visit ftserussell.com; email info@ftserussell.com; or call your regional Client Service Team office

EMEA

+44 (0) 20 7866 1810

North America

+1 877 503 6437

Asia-Pacific

Hong Kong +852 2164 3333

Tokyo +81 3 4563 6346

Sydney +61 (0) 2 8823 3521

© 2020 London Stock Exchange Group plc and its applicable group undertakings (the "LSE Group"). The LSE Group includes (1) FTSE International Limited ("FTSE"), (2) Frank Russell Company ("Russell"), (3) FTSE Global Debt Capital Markets Inc. and FTSE Global Debt Capital Markets Limited (together, "FTSE Canada"), (4) MTSNext Limited ("MTSNext"), (5) Mergent, Inc. ("Mergent"), (6) FTSE Fixed Income LLC ("FTSE FI"), (7) The Yield Book Inc ("YB") and (8) Beyond Ratings S.A.S. ("BR"). All rights reserved.

FTSE Russell® is a trading name of FTSE, Russell, FTSE Canada, MTSNext, Mergent, FTSE FI, YB and BR. "FTSE®", "Russell®", "FTSE Russell®", "MTS®", "FTSE4Good®", "ICB®", "Mergent®", "The Yield Book®", "Beyond Ratings®" and all other trademarks and service marks used herein (whether registered or unregistered) are trademarks and/or service marks owned or licensed by the applicable member of the LSE Group or their respective licensors and are owned, or used under licence, by FTSE, Russell, MTSNext, FTSE Canada, Mergent, FTSE FI, YB or BR. FTSE International Limited is authorised and regulated by the Financial Conduct Authority as a benchmark administrator.

All information is provided for information purposes only. All information and data contained in this publication is obtained by the LSE Group, from sources believed by it to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors, however, such information and data is provided "as is" without warranty of any kind. No member of the LSE Group nor their respective directors, officers, employees, partners or licensors make any claim, prediction, warranty or representation whatsoever, expressly or impliedly, either as to the accuracy, timeliness, completeness, merchantability of any information or of results to be obtained from the use of the FTSE Russell products, including but not limited to indexes, data and analytics or the fitness or suitability of the FTSE Russell products for any particular purpose to which they might be put. Any representation of historical data accessible through FTSE Russell products is provided for information purposes only and is not a reliable indicator of future performance.

No responsibility or liability can be accepted by any member of the LSE Group nor their respective directors, officers, employees, partners or licensors for (a) any loss or damage in whole or in part caused by, resulting from, or relating to any error (negligent or otherwise) or other circumstance involved in procuring, collecting, compiling, interpreting, analysing, editing, transcribing, transmitting, communicating or delivering any such information or data or from use of this document or links to this document or (b) any direct, indirect, special, consequential or incidental damages whatsoever, even if any member of the LSE Group is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, such information.

No member of the LSE Group nor their respective directors, officers, employees, partners or licensors provide investment advice and nothing contained herein or accessible through FTSE Russell products, including statistical data and industry reports, should be taken as constituting financial or investment advice or a financial promotion.

Past performance is no guarantee of future results. Charts and graphs are provided for illustrative purposes only. Index returns shown may not represent the results of the actual trading of investable assets. Certain returns shown may reflect back-tested performance. All performance presented prior to the index inception date is back-tested performance. Back-tested performance is not actual performance, but is hypothetical. The back-test calculations are based on the same methodology that was in effect when the index was officially launched. However, back-tested data may reflect the application of the index methodology with the benefit of hindsight, and the historic calculations of an index may change from month to month based on revisions to the underlying economic data used in the calculation of the index.

This document may contain forward-looking assessments. These are based upon a number of assumptions concerning future conditions that ultimately may prove to be inaccurate. Such forward-looking assessments are subject to risks and uncertainties and may be affected by various factors that may cause actual results to differ materially. No member of the LSE Group nor their licensors assume any duty to and do not undertake to update forward-looking assessments.

No part of this information may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without prior written permission of the applicable member of the LSE Group. Use and distribution of the LSE Group data requires a licence from FTSE, Russell, FTSE Canada, MTSNext, Mergent, FTSE FI, YB, BR and/or their respective licensors.